

# GLOBAL JOURNAL

OF SCIENCE FRONTIER RESEARCH: A

## Physics and Space Science



Theorys Epilogue (CUFT)

Computational Unified Field Theory

Highlights

Time and Abolishment of Death

An Empirical & Mathematical Program

Discovering Thoughts, Inventing Future

VOLUME 18    ISSUE 8    VERSION 1.0



GLOBAL JOURNAL OF SCIENCE FRONTIER RESEARCH: A  
PHYSICS & SPACE SCIENCE

---



GLOBAL JOURNAL OF SCIENCE FRONTIER RESEARCH: A  
PHYSICS & SPACE SCIENCE

VOLUME 18 ISSUE 8 (VER. 1.0)

---

OPEN ASSOCIATION OF RESEARCH SOCIETY

© Global Journal of Science  
Frontier Research. 2018.

All rights reserved.

This is a special issue published in version 1.0  
of "Global Journal of Science Frontier  
Research." By Global Journals Inc.

All articles are open access articles distributed  
under "Global Journal of Science Frontier  
Research"

Reading License, which permits restricted use.  
Entire contents are copyright by of "Global  
Journal of Science Frontier Research" unless  
otherwise noted on specific articles.

No part of this publication may be reproduced  
or transmitted in any form or by any means,  
electronic or mechanical, including  
photocopy, recording, or any information  
storage and retrieval system, without written  
permission.

The opinions and statements made in this  
book are those of the authors concerned.  
Ultraculture has not verified and neither  
confirms nor denies any of the foregoing and  
no warranty or fitness is implied.

Engage with the contents herein at your own  
risk.

The use of this journal, and the terms and  
conditions for our providing information, is  
governed by our Disclaimer, Terms and  
Conditions and Privacy Policy given on our  
website [http://globaljournals.us/terms-and-condition/  
menu-1463/](http://globaljournals.us/terms-and-condition/menu-1463/)

By referring / using / reading / any type of  
association / referencing this journal, this  
signifies and you acknowledge that you have  
read them and that you accept and will be  
bound by the terms thereof.

All information, journals, this journal,  
activities undertaken, materials, services and  
our website, terms and conditions, privacy  
policy, and this journal is subject to change  
anytime without any prior notice.

Incorporation No.: 0423089  
License No.: 42125/022010/1186  
Registration No.: 430374  
Import-Export Code: 1109007027  
Employer Identification Number (EIN):  
USA Tax ID: 98-0673427

## Global Journals Inc.

(A Delaware USA Incorporation with "Good Standing"; Reg. Number: 0423089)

Sponsors: Open Association of Research Society

Open Scientific Standards

### *Publisher's Headquarters office*

Global Journals® Headquarters  
945th Concord Streets,  
Framingham Massachusetts Pin: 01701,  
United States of America

USA Toll Free: +001-888-839-7392

USA Toll Free Fax: +001-888-839-7392

### *Offset Typesetting*

Global Journals Incorporated  
2nd, Lansdowne, Lansdowne Rd., Croydon-Surrey,  
Pin: CR9 2ER, United Kingdom

### *Packaging & Continental Dispatching*

Global Journals Pvt Ltd  
E-3130 Sudama Nagar, Near Gopur Square,  
Indore, M.P., Pin:452009, India

### *Find a correspondence nodal officer near you*

To find nodal officer of your country, please  
email us at [local@globaljournals.org](mailto:local@globaljournals.org)

### *eContacts*

Press Inquiries: [press@globaljournals.org](mailto:press@globaljournals.org)  
Investor Inquiries: [investors@globaljournals.org](mailto:investors@globaljournals.org)  
Technical Support: [technology@globaljournals.org](mailto:technology@globaljournals.org)  
Media & Releases: [media@globaljournals.org](mailto:media@globaljournals.org)

### *Pricing (Excluding Air Parcel Charges):*

Yearly Subscription (Personal & Institutional)  
250 USD (B/W) & 350 USD (Color)



# EDITORIAL BOARD

GLOBAL JOURNAL OF SCIENCE FRONTIER RESEARCH

## *Dr. John Korstad*

Ph.D., M.S. at California State University  
Professor of Biology  
Department of Biology Oral Roberts University

## *Dr. Mazeyar Parvinzadeh Gashti*

Ph.D, M.Sc., B.Sc. Science and Research Branch of Islamic  
Azad University, Tehran, Iran  
Department of Chemistry & Biochemistry  
University of Bern, Bern, Switzerland

## *Dr. Rafael Gutiérrez Aguilar*

Ph.D., M.Sc., B.Sc., Psychology (Physiological). National  
Autonomous University of Mexico.

## *Dr. Eugene A. Permyakov*

Institute for Biological Instrumentation  
Russian Academy of Sciences, Director, Pushchino State  
Institute of Natural Science, Department of Biomedical  
Engineering, Ph.D., in Biophysics  
Moscow Institute of Physics and Technology, Russia

## *Andreas Maletzky*

Zoologist, University of Salzburg, Department of  
Ecology and Evolution Hellbrunnerstraße, Salzburg  
Austria, Universitat Salzburg, Austria

## *Prof. Dr. Zhang Lifei*

Dean, School of Earth and Space Sciences  
Ph.D., Peking University  
Beijing, China

## *Tuncel M. Yegulalp*

Professor of Mining, Emeritus  
Earth & Environmental Engineering  
Henry Krumb School of Mines, Columbia University  
Director, New York Mining and Mineral  
Resources Research Institute, USA

## *Prof. Jordi Sort*

ICREA Researcher Professor  
Faculty, School or Institute of Sciences  
Ph.D., in Materials Science, Autonomous University  
of Barcelona, Spain

## *Nora Fung-ye TAM*

DPhil  
University of York, UK  
Department of Biology and Chemistry  
MPhil (Chinese University of Hong Kong)

## *Dr. Matheos Santamouris*

Prof. Department of Physics  
Ph.D., on Energy Physics  
Physics Department  
University of Patras, Greece

## *Prof. Philippe Dubois*

Ph.D. in Sciences  
Scientific director of NCC-L, Luxembourg  
Full professor,  
University of Mons UMONS, Belgium

## *Dr. Bingsuo Zou*

Ph.D. in Photochemistry and  
Photophysics of Condensed Matter  
Department of Chemistry, Jilin University,  
Director of Micro- and Nano- technology Center

*Dr. Gayle Calverley*

Ph.D. in Applied Physics University of Loughborough,  
UK

*Dr. Richard B Coffin*

Ph.D., in Chemical Oceanography  
Department of Physical and Environmental  
Texas A&M University, USA

*Prof. Ulrich A. Glasmacher*

Institute of Earth Sciences, University Heidelberg,  
Germany, Director of the Steinbeis Transfer Center,  
TERRA-Explore

*Dr. Fabiana Barbi*

B.Sc., M.Sc., Ph.D., Environment, and Society,  
State University of Campinas, Brazil  
Center for Environmental Studies and Research  
State University of Campinas, Brazil

*Dr. Yiping Li*

Ph.D. in Molecular Genetics,  
Shanghai Institute of Biochemistry,  
The Academy of Sciences of China, Senior Vice Director,  
UAB Center for Metabolic Bone Disease

*Dr. Maria Gullo*

Ph.D., Food Science, and Technology  
University of Catania  
Department of Agricultural and Food Sciences  
University of Modena and Reggio Emilia, Italy

*Dr. Bingyun Li*

Ph.D. Fellow, IAES  
Guest Researcher, NIOSH, CDC, Morgantown, WV  
Institute of Nano and Biotechnologies  
West Virginia University, US

*Dr. Linda Gao*

Ph.D. in Analytical Chemistry,  
Texas Tech University, Lubbock,  
Associate Professor of Chemistry,  
University of Mary Hardin-Baylor

*Dr. Indranil Sen Gupta*

Ph.D., Mathematics, Texas A & M University  
Department of Mathematics, North Dakota State  
University, North Dakota, USA

*Dr. Alicia Esther Ares*

Ph.D. in Science and Technology,  
University of General San Martin, Argentina  
State University of Misiones, US

*Dr. Lev V. Eppelbaum*

Ph.D. Institute of Geophysics,  
Georgian Academy of Sciences, Tbilisi  
Assistant Professor Dept Geophys & Planetary Science,  
Tel Aviv University Israel

*Dr. A. Heidari*

Ph.D., D.Sc  
Faculty of Chemistry  
California South University (CSU), United States

*Dr. Qiang Wu*

Ph.D. University of Technology, Sydney  
Department of Mathematics, Physics and Electrical  
Engineering  
Northumbria University

*Dr. Giuseppe A Provenzano*

Irrigation and Water Management, Soil Science, Water  
Science Hydraulic Engineering  
Dept. of Agricultural and Forest Sciences  
Universita di Palermo, Italy

### *Dr. Sahraoui Chaieb*

Ph.D. Physics and Chemical Physics  
M.S. Theoretical Physics  
B.S. Physics, École Normale Supérieure, Paris  
Associate Professor, Bioscience  
King Abdullah University of Science and Technology

### *Dr. Lucian Baia*

Ph.D. Julius-Maximilians University Würzburg, Germany  
Associate professor  
Department of Condensed Matter Physics and Advanced  
Technologies Babes-Bolyai University, Romania

### *Dr. Mauro Lenzi*

Ph.D.  
Biological Science,  
Pisa University, Italy  
Lagoon Ecology and Aquaculture Laboratory  
Orbetello Pesca Lagunare Company

### *Dr. Mihaly Mezei*

Associate Professor  
Department of Structural and Chemical Biology  
Mount Sinai School of Medical Center  
Ph.D., Etsv Lornd University, New York University,  
United State

### *Dr. Wen-Yih Sun*

Professor of Earth and Atmospheric Sciences  
Purdue University, Director, National Center for  
Typhoon and Flooding, United State

### *Dr. Shengbing Deng*

Departamento de Ingeniería Matemática,  
Universidad de Chile.  
Facultad de Ciencias Físicas y Matemáticas.  
Blanco Encalada 2120, piso 4.  
Casilla 170-3. Correo 3. - Santiago, Chile

### *Dr. Arshak Poghossian*

Ph.D. Solid-State Physics  
Leningrad Electrotechnical Institute, Russia  
Institute of Nano and Biotechnologies  
Aachen University of Applied Sciences, Germany

### *Dr. T. David A. Forbes*

Associate Professor and Range Nutritionist  
Ph.D. Edinburgh University - Animal Nutrition  
M.S. Aberdeen University - Animal Nutrition  
B.A. University of Dublin- Zoology.

### *Dr. Fotini Labropulu*

Mathematics - Luther College  
University of Regina, Ph.D., M.Sc. in Mathematics  
B.A. (Honours) in Mathematics  
University of Windsor  
Web: [luthercollege.edu/Default.aspx](http://luthercollege.edu/Default.aspx)

### *Dr. Miguel Angel Ariño*

Professor of Decision Sciences  
IESE Business School  
Barcelona, Spain (Universidad de Navarra)  
Ph.D. in Mathematics, University of Barcelona, Spain

### *Dr. Della Ata*

BS in Biological Sciences  
MA in Regional Economics, Hospital Pharmacy  
Pharmacy Technician Educator

### *Dr. Claudio Cuevas*

Department of Mathematics  
Universidade Federal de Pernambuco  
Recife PE  
Brazil

*Dr. Yap Yee Jiun*

B.Sc.(Manchester), Ph.D.(Brunel), M.Inst.P.(UK)  
Institute of Mathematical Sciences,  
University of Malaya,  
Kuala Lumpur, Malaysia

*Dr. Latifa Oubedda*

National School of Applied Sciences,  
University Ibn Zohr, Agadir, Morocco  
Lotissement Elkhier N°66, Bettana Salé Maroc

*Dr. Hai-Linh Tran*

Ph.D. in Biological Engineering  
Department of Biological Engineering  
College of Engineering, Inha University, Incheon, Korea

*Angelo Basile*

Professor  
Institute of Membrane Technology (ITM)  
Italian National Research Council (CNR), Italy

*Dr. Yaping Ren*

School of Statistics and Mathematics  
Yunnan University of Finance and Economics  
Kunming 650221, China

*Dr. Gerard G. Dumancas*

Postdoctoral Research Fellow,  
Arthritis and Clinical Immunology Research Program,  
Oklahoma Medical Research Foundation  
Oklahoma City, OK, United States

*Dr. Bondage Devanand Dhondiram*

Ph.D.  
No. 8, Alley 2, Lane 9, Hongdao station,  
Xizhi district, New Taipei city 221, Taiwan (ROC)

*Dr. Eman M. Gouda*

Biochemistry Department,  
Faculty of Veterinary Medicine,  
Cairo University,  
Giza, Egypt

*Dr. Bing-Fang Hwang*

Ph.D., in Environmental and Occupational Epidemiology,  
Professor, Department of Occupational Safety  
and Health, China Medical University, Taiwan

*Dr. Baziotis Ioannis*

Ph.D. in Petrology-Geochemistry-Mineralogy  
Lipson, Athens, Greece

*Dr. Vishnu Narayan Mishra*

B.Sc.(Gold Medalist), M.Sc. (Double Gold Medalist), Ph.D.  
(I.I.T. Roorkee)

*Dr. Xianghong Qi*

University of Tennessee  
Oak Ridge National Laboratory  
Center for Molecular Biophysics  
Oak Ridge National Laboratory  
Knoxville, TN 37922, United States

*Dr. Vladimir Burtman*

Research Scientist  
The University of Utah, Geophysics, Frederick Albert  
Sutton Building, 115 S 1460 E Room 383  
Salt Lake City, UT 84112, US

*Dr. Fedor F. Mende*

Ph.D. in Applied Physics, B. Verkin Institute for Low  
Temperature Physics and Engineering of the National  
Academy of Sciences of Ukraine.



## CONTENTS OF THE ISSUE

---

- i. Copyright Notice
  - ii. Editorial Board Members
  - iii. Chief Author and Dean
  - iv. Contents of the Issue
- 
1. Review: The 'Computational Unified Field Theory' (CUFT)' New Universe. **1-10**
  2. The Universal Consciousness Reality's "Camouflage": The Physical Universe! **11-21**
  3. Testing the Computational Unified Field Theory's (CUFT) 'Differential-Critical Prediction/s': The Higgs-Boson Particle May Not Exist Continuously! **23-29**
  4. The Computational Unified Field Theory: What is "Time"? **31-40**
  5. The "Double-Faceted Universal Consciousness Reality": A Theoretical Review. **41-47**
  6. Letter to AAOAJ: "Dark Matter" May Not Exist! **49-51**
  7. Testing the CUFT's 'Differential-Critical Prediction/s': The Higgs-Boson Particle May Not Exist Continuously. **53-60**
  8. An Empirical & Mathematical Program for Validating the 'Computational Unified Field Theory' (CUFT). **61-66**
  9. A Computational Unified Field Theory's Epilogue (CUFT): Possible Reversal of the "Arrow of Time" and Abolishment of "Death"! **67-74**
- 
- v. Fellows
  - vi. Auxiliary Memberships
  - vii. Preferred Author Guidelines
  - viii. Index

## Letter to the Editor

### An Urgent Call for Experimental Validation of the "Computational Unified Field Theory" (CUFT) New 21<sup>st</sup> Century Scientific Paradigm – the "Non-Continuous" Accelerated Expansion of the Physical Universe, Possibly Around the Jewish "Rosh Hashanna", Sep. 8<sup>th</sup>-10<sup>th</sup>, 2018

Jehonathan Bentwich, Ph.D.

Twenty-first century Physics is undergoing a "Paradigmatic Shift" from the Old "Material-Causal" Paradigm of Relativity Theory (RT) and Quantum Mechanics (QM) towards the 'Computational Unified Field Theory's' (CUFT) New 'A-Causal Computation' Scientific Paradigm of 21<sup>st</sup> century Theoretical Physics; The CUFT was shown capable of unifying resolving the basic theoretical inconsistency between RT and QM, challenged some of the most basic assumptions of Modern Physics including: challenging the "Big-Bang" ("material-causal") Model, Einstein's General Relativity's Equation's ("material-causal" assumption), discarded "dark-matter" and "dark-energy" as "superfluous" (e.g., "non-existent!"), postulated that it may be capable to "reverse time" (contrary to both RT and QM), and transfer information or even certain physical effects at a rate transcending RT's assumed "Speed of Light Barrier" etc. Two Special Issues have been published (and over 30 scientific articles read by over 20 thousand scientists worldwide) over the past six years and the CUFT is being presented as the Opening Plenary Talk in several International Physics Conferences (The International Particle Physics and Astrophysics 2018, Chicago USA; The Asia-Pacific 2018 Physics Conference, Tokyo Japan); Initial empirical validation for one of the unique "Critical Predictions" of the CUFT (as opposed to the predictions of both RT and QM) was validated through the "Proton-Radius Puzzle" findings (published previously).

An urgent direct Experimental Validation of the CUFT as a satisfactory New Paradigm for 21<sup>st</sup> Century Physics – to be tested between the 8<sup>th</sup> and 10<sup>th</sup> of September, 2018 may be given based on the CUFT's just published two new articles published today by the "Global Journal of Science Frontier Research" as part of a "Special Issue": "Empirical & Theoretical Ramifications of the Computational Field Theory's New 'A-Causal Computation' Paradigmatic Shift in 21<sup>st</sup> Century Physics" these two articles are:

"Non-Continuous Universal Consciousness Reality Hypothesis" (NCUCRH) of the Computational Unified Field Theory (CUFT): Empirical & Theoretical Validation.

The Computational Unified Field Theory (CUFT): Can Human Consciousness Affect the Cosmos?

This is because one (of three listed) unique 'Critical Predictions' of the CUFT postulates that the empirically observed accelerated expansion of the physical universe – may not be "continuous"!; Specifically, due to the CUFT's discovery of a singular (higher-ordered) "Universal Computational/Consciousness Principle" (UCP) which is hypothesized to simultaneously compute every exhaustive spatial pixel in the universe (at the incredible rate of :  $c^2/h = 1.36^{50}$  sec); Its explanation of this accelerated expansion of the universe due to the UCP's accelerated addition of the number of exhaustive spatial pixels comprising each consecutive "Universal Frames" (UF's); and its (recent) additional hypothesis that any "Collective Human Consciousness Focus" – may indeed affect this singular 'Universal Consciousness Principle' (UCP), such that it is possible that (for instance) around the New Jewish Year ("Rosh Hashanna") in which Millions of Jews focus in prayer, this may alter- and possible affect- the Universal Consciousness Principle's accelerated rate of the universe's expansion!?. Therefore, one of the possible means of testing this "Non-Continuous Universal Consciousness Reality Hypothesis" (NCUCRH) is to test the rate of the universe's accelerated expansion "before"- "during"- and "after"- 'Rosh Hashanna' which occurs (this year) on September 9<sup>th</sup> (so ideally the testing of this Non-Continuous Universe's Accelerated Expansion Rate should take place from the 8<sup>th</sup> through the 10<sup>th</sup> of September); It is predicted that to the extent that this "Collective Human Consciousness Focus" can affect the Universal Consciousness Principle's accelerated increase of the number of exhaustive spatial pixels comprising the physical universe (with each consecutive UF's frame/s it produces)- then it follows that the Physical Universe's observed accelerated rate of expansion should be found to be altered (e.g., "non-continuous") during the Rosh Hashanna particular day (9<sup>th</sup>), i.e., possibly be "decreased" around the transition from the 8<sup>th</sup> to the 9<sup>th</sup> and possibly "increased" (e.g., even relative to the 8<sup>th</sup> rate) from the 10<sup>th</sup> and onward).

To the extent that such a "Non-Continuous Universal Consciousness Reality Hypothesis" could be verified experimentally, as predicted solely by the CUFT's Critical Prediction (e.g., as outlined in both articles listed above published today) then this would offer direct empirical support for the CUFT's new 'A-Causal Computation' (ACC) Paradigm of 21<sup>st</sup> century Theoretical Physics, which explains the "origination", "dissolution" (e.g., "in-between" any two

UCP's consecutive UF's frame/s) and "evolution" of the entire physical universe (including every exhaustive spatial pixel comprising it during each minimal time-point UF's frame/s) based on the operation of the singular (higher-ordered) Universal Computational/Consciousness Principle... This new CUFT's 'ACC' Paradigm offers an entirely new (and exciting) conception and understanding of the physical universe – not as "caused" by an initial "Big-Bang" nuclear explosion, not as evolved by Einstein's (General Relativity) Equations, neither being "propelled" to expand (at an accelerated rate) by a (non-existent!) "dark-matter" or "dark energy") – but rather as being continuously "created"- "dissolved"- "re-created"- and "evolved"- solely based on the singularity of this Universal Computational/Consciousness Principle which possesses certain (intrinsic) properties and characteristics such as: its "Dynamic-Equilibrium" (Morally-based) principle, its "Supra-Spatial-Temporal Universal Consciousness Reality's Reservoir" (e.g., containing all "past"- "present" and "future/s\*" UF's frames!), its tendency towards creating ever more "expansive" forms (e.g., from "inanimate" through "animate": "plants, animals, humans – and possibly up to an "expanded" Individual Human Consciousness" which can function in a manner equivalent to the "Universal Consciousness Reality")... Indeed, this New 'ACC' Paradigm of the CUFT places Human Consciousness at a potentially central juncture in Modern Physics (as possibly indicated by the empirical verification of the Sep. 8th-10th 2018 measurement of a "non-continuous accelerated expansion rate of the physical universe)...

Finally, it may be worthy mentioning two other (recent) unique 'Critical Predictions' of the CUFT which can be tested at one of the world's leading Accelerators may also establish the CUFT's New ACC Paradigm as the satisfactory new Paradigm of 21st century Physics (e.g., outlined in the Non-Continuous Universal Consciousness Reality Hypothesis" (NCUCRH) of the Computational Unified Field Theory (CUFT): Empirical & Theoretical Validation article published today (as well as in other articles published in the Special Issue(listed above).

It may be therefore of paramount Scientific importance to try and validate experimentally this "time-sensitive" 'Critical Prediction' of the CUFT during the next few days (from the 8th through the 10th of Sep., 2018) – which if verified could bring about a complete Paradigmatic Shift in 21st century Theoretical Physics...

Dr. Jehonathan Betnwich  
Jerusalem, Israel.



GLOBAL JOURNAL OF SCIENCE FRONTIER RESEARCH: A  
PHYSICS AND SPACE SCIENCE

Volume 18 Issue 8 Version 1.0 Year 2018

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals

Online ISSN: 2249-4626 & Print ISSN: 0975-5896

## Review: The 'Computational Unified Field Theory' (CUFT)' New Universe

By Jehonathan Bentwich, Ph.D.

*Introduction-* Twenty-first century Physics is undergoing a major "Paradigmatic-Shift"-i.e., from the old "Material-Causal" Paradigm underlying both Relativity Theory (RT) and Quantum Mechanics (QM) towards the new 'ACausal Computation' (ACC) Paradigm of the 'CUFT'. This basic 'Paradigmatic Shift' alters Science's very fundamental assumptions and conception of the reality of the physical universe – i.e., its origination-sustenance- evolution- and transcendence based on the discovery of a singular (higher-ordered) 'Universal Consciousness Principle' which simultaneously computes every exhaustive spatial pixel in the universe at every minimal time-point (e.g., " $c^2/h = 1.45^{-42}$  sec!"); Hence, the scope and purpose of the current article is to delineate the basic 'Paradigmatic Shift' brought about by the CUFT's new 'ACC' outline the major breakthrough advancement in 21<sup>st</sup> century Theoretical Physics brought about by this new CUFT's 'A-Causal Computation' (ACC) Paradigm, explicate the experimental means for validating this new ACC as a satisfactory "Theory of Everything" (TOE), and describe the new (exciting) emerging picture of the entire physical universe as a "transient-phenomenal" manifestation of this singular 'Universal Consciousness Reality'.

*GJSFR-A Classification: FOR Code: 029999*



*Strictly as per the compliance and regulations of:*



# Review: The 'Computational Unified Field Theory' (CUFT)' New Universe

Jehonathan Bentwich, Ph.D.

## I. INTRODUCTION

**T**wenty-first century Physics is undergoing a major "Paradigmatic-Shift"- i.e., from the old "Material-Causal" Paradigm underlying both Relativity Theory (RT) and Quantum Mechanics (QM) towards the new 'A-Causal Computation' (ACC) Paradigm of the 'CUFT'. This basic 'Paradigmatic Shift' alters Science's very fundamental assumptions and conception of the reality of the physical universe – i.e., its origination-sustenance- evolution- and transcendence based on the discovery of a singular (higher-ordered) 'Universal Consciousness Principle' which simultaneously computes every exhaustive spatial pixel in the universe at every minimal time-point (e.g., " $c^2/h = 1.45^{-42}$  sec!"); Hence, the scope and purpose of the current article is to delineate the basic 'Paradigmatic Shift' brought about by the CUFT's new 'ACC' outline the major breakthrough advancement in 21<sup>st</sup> century Theoretical Physics brought about by this new CUFT's 'A-Causal Computation' (ACC) Paradigm, explicate the experimental means for validating this new ACC as a satisfactory "Theory of Everything" (TOE), and describe the new (exciting) emerging picture of the entire physical universe as a "transient-phenomenal" manifestation of this singular 'Universal Consciousness Reality'...

According to Kuhn's (1962) famous analysis of the "Structure of Scientific Revolutions" the evolution of Science may be characterized by an alternation between phases of "Standard Science" – in which the scientific inquiry (within a given scientific discipline) can be described in terms of its reliance upon a given "Scientific Paradigm"; and phases of a "Paradigmatic Shift", e.g., in which the given "Scientific Paradigm" doesn't suffice (any longer) to account in a satisfactory manner for a plethora of "unexplained scientific phenomena", in addition to the appearance of apparent "theoretical inconsistency" between the foundations or Models in that given 'Scientific Paradigm'; Indeed, according to Kuhn, this state of 'unexplained scientific phenomena' accompanied by a fundamental theoretical inconsistency found in the foundations of the given 'Scientific Paradigm' calls for a "Paradigmatic-Shift"- i.e., the search for an alternative broader (and more exhaustive) "New Paradigm" which will be able to

account for those 'unexplained phenomena' and resolve any apparent principle theoretical inconsistencies (found within the Old Scientific Paradigm).

Hence, the current shift from the Old "Material-Causal" Paradigm to the New 'A-Causal Computation' Paradigm signifies such a 'Paradigmatic-Shift' in 21<sup>st</sup> Century Theoretical Physics: this is because there exists a basic theoretical inconsistency between its two primary "pillars", e.g., Relativity Theory (RT) and Quantum Mechanics (QM) and there exists a series of unresolved physical conundrums (such as: "dark-matter" and "dark-energy" which account for up to 85% of all mass and energy in the universe but yet cannot be detected empirically). In contrast, the CUFT's new 'A-Causal Computation' (ACC) Paradigm was shown capable of resolving the principle theoretical inconsistency between RT and QM and was also able to resolve the physical conundrums of "dark-matter" and "dark-energy" (e.g., discarding them as "superfluous" instead pointing at the accelerated expansion of the physical universe as caused by the singular higher-ordered Universal Computational Principle, which is key in the CUFT's new 'ACC' Paradigm). Indeed, the scope and purpose of the current article is to elucidate the basic Paradigmatic Shift represented by the CUFT's new 'ACC' Paradigm, outline the critical empirical validation means for validating this new CUFT's 'ACC' Paradigm as a satisfactory new Paradigm for 21<sup>st</sup> Century Physics, and delineate the full theoretical significance of the CUFT's new ACC Paradigms depiction of a "new universe" which being continuously "produced"- "dissolved"- "re-produced" and "evolved" by the singular Universal Consciousness Principle (every " $c^2/h = 1.45^{-42}$  sec!")...

## II. THE CUFT'S 'PARADIGMATIC SHIFT' IN 21<sup>ST</sup> CENTURY PHYSICS

We first begin by outlining the basic 'Paradigmatic-Shift' signified by the CUFT's new 'ACC' Paradigm: Basically, the (old) "Material-Causal" Paradigm underlying both RT and QM is based upon a 'material-causal' assumption wherein it is assumed that any given relativistic (space-time or energy-mass) 'phenomenon' or quantum subatomic (complimentary space-energy or mass-time) 'target' value is "caused" by the direct physical interaction between that relativistic

Author: e-mail: drbentwich@gmail.com



phenomenon or subatomic target and a corresponding relativistic observer or quantum subatomic 'probe' element; More generally, the explanation of the origination- sustenance- and evolution- of the physical universe, e.g., and every constituent (relativistic or quantum) phenomenon, target' or element within it – is based on direct physical interactions between certain relativistic observers and (space-time, energy-mass) phenomena, or between particular subatomic 'probe' and 'target' elements: Thus, according to General Relativity the physical universe was created by an initial "Big-Bang" nuclear explosion which is assumed to have "caused" the creation of stars, galaxies, mass, space and energy; Subsequently, the continuous dynamical evolution of the physical cosmos is explained through RT's Einstein's Equations which describe particular "material-causal" physical interactions between "massive objects" "causing" a "curvature of space-time", and conversely the existence of a "causal" relationship between this "curved space-time" and its "causing" (or determination) of the "travelling pathways of massive objects". Likewise, the empirically observed accelerated expansion of the physical universe is explained in terms of the existence of a "material-causal" physical relationship between a purely hypothetical "dark-matter" or "dark-energy" physical entities which are assumed to "cause" this accelerated expansion of the physical universe.

In much the same manner, QM describes the determination of the 'complimentary' ('space-energy' or 'mass-time') values of any subatomic 'target' element as "caused" by its direct physical interaction with another corresponding subatomic 'probe' element, e.g., which "causes" the assumed "collapse" of the "probability wave function" into the single complimentary value); However, according to the CUFT's new 'ACC' Paradigm there cannot exist any such 'material-causal' physical interactions due to the fact that the (singular) Universal Computational/Consciousness Principle (UCP) *simultaneously* computes all exhaustive spatial pixels in the universe! Instead, the CUFT's new ACC Paradigm postulates that this singular UCP simultaneously computes all exhaustive spatial pixels comprising the entire physical universe at every minimal time-point (e.g., " $c^2/h = 1.45^{-42}$  sec!") – giving rise to the extremely rapid series of Universal Frames (UF's), which also include all exhaustive "co-occurring" pairs of subatomic 'probe' and 'target' elements. Interestingly, this new conception of the physical universe, e.g., including its subatomic "quantum" aspect completely revises QM's currently assumed "collapse of the probability wave function" assumption – instead, replacing it with a portrayal of varying degrees of computation exhaustiveness: according to this new ACC Paradigm, whenever we set to measure only a single spatial-temporal point across 'time' and 'space' we obtain a "single spatial-temporal particle" measurement; If

however we set to measure at least two (or more) simultaneous points (across 'time' and 'space') we obtain a "multi spatial-temporal wave" measurement! Indeed, one of the key theoretical breakthrough's represented by the CUFT's new ACC Paradigm is its conception of an "exhaustive computational" 'Universal Frame/s' which includes all exhaustive spatial pixels computed simultaneously by this singular UCP, e.g., comprising the entire physical cosmos at any given minimal time-point 'Universal Frame'! Viewed from this exhaustive computational perspective of the UCP's simultaneous computation of all exhaustive spatial pixels comprising the entire physical universe at every minimal time-point Universal Frame/s (UF's) – QM's currently assumed "collapse of the probability wave function" was shown to be rejected, instead being replaced by the UCP's computation of all exhaustive spatial pixels (at any given minimal time-point UF's) which include all possible (single spatial-temporal) 'particle' measurements (e.g., including any exhaustive hypothetical subatomic 'probe-target' pair/s) and '(multi spatial-temporal) 'wave' measurements, as embedded within the UCP's exhaustive UF's computation.

How does this new CUFT's ACC Paradigm alter the old 'Material-Causal' Paradigm's basic understanding of the physical universe? Well, first of all, the physical universe cannot (any longer) be viewed as being "caused" by any sort of (direct or indirect) physical interaction – e.g., at either the quantum or relativistic levels! This is (once again) due to the simultaneous computation of the UCP of each and every exhaustive spatial pixel in the universe at every consecutive minimal time-point UF's (which negates the very possibility of the existence of any such 'material-causal' physical interactions at any single or multiple UF's). Moreover, this new exhaustive computational understanding of the CUFT brought about a complete integration of 'space', 'energy', 'mass' and 'time' (as well as of RT and QM) within a singular 'Universal Computational Formula':

#### a) *Universal Computational Formula*

This complete integration of those four basic physical features not only signifies a major advancement in Physics basic understanding of the universe, i.e., as opposed to RT's only partial integration of space-time, energy-mass (e.g., " $E = Mc^2$ ") and the postulated curvature of space-time by mass, and QM's partial connections between Heisenberg's Uncertainty Principle's "complimentary paris" (mentioned above); it also represents a basic discovery of the UCP's underlying integrated computation of these four basic physical features, e.g., of 'space', 'energy', 'mass' and 'time' – as the degree of "consistency" or "inconsistency" pertaining to the entire 'frame' or to a particular 'object', e.g., based on the UCP's two 'Framework' and 'Consistency' Computational Dimensions; As previously described, the UCP computes the two physical features

of 'space' and 'energy' based on the combination of 'frame'- 'consistent' vs. 'inconsistent' computations, and 'mass' and 'time' based on its computation of an 'object' – 'consistent' or 'inconsistent' measures (e.g., pertaining to each and every exhaustive spatial pixel/s in the universe at every minimal time-point UF's)... Viewed from this new (singular higher-ordered) exhaustive computational perspective of the UCP, the complete integration of 'space', 'energy', 'mass' and 'time' portrays an entirely new conception of those four basic physical features not as existing "independently" (or as possessing "partial-interconnectivity") but rather as representing different complimentary secondary computational features of the singular Universal Consciousness Reality's computation of the degree of 'consistency' or 'inconsistency' pertaining to each exhaustive spatial pixel's 'object' vs. 'frame' computation... Indeed, this new singular integrated conception of 'space', 'energy', 'mass' and 'time' as merely representing different complimentary computational features of the singular Universal Consciousness Principle's computation of every exhaustive spatial pixel in the universe was shown to be associated with the CUFT new 'ACC' Paradigm's new conception of the physical universe – not as existing "continuously" and "independently" – but rather as representing only a "transient-phenomenal" manifestation of the singular 'Universal Consciousness Reality' (UCR).

### III. THE CUFT'S THEORETICAL POSTULATES

In order to fully appreciate (and comprehend) the CUFT's new conception of the entire merely a manifestation of the singular UCR, we need to briefly outline some of the key theoretical postulates of the CUFT:

#### a) *The 'Duality Principle'*

One of the first theoretical postulates of the CUFT is the computational 'Duality Principle' which identified a basic 'Self-Referential Ontological Computational System' (SROCS) structure underlying both RT's and QM's 'Material-Causal' basic Paradigm: essentially, this basic 'SROCS' structure assumes that it is possible to determine the value of a given relativistic ('space-time' or 'energy-mass') phenomenon or of any given subatomic 'target' element based on their direct physical interactions with a corresponding relativistic 'observer' or subatomic 'probe' element. But, according to this new computational 'Duality Principle' is it not possible to determine the value of any such relativistic 'phenomenon' or subatomic 'target' element solely based on their direct physical interactions with the corresponding relativistic 'observer' or subatomic 'probe' element – because the particular computational structure of the SROCS inevitably leads to an apparent

"logical inconsistency" and ensuing "computational indeterminacy", e.g., which are contradicted by the empirical capacity of both Relativistic and Quantum computational systems to determine the values of the particular given relativistic (space-time, energy-mass) 'phenomenon' or relativistic or quantum (complimentary 'space-energy' or 'time-mass') subatomic target value. Therefore, the 'Duality Principle' evinces that in order to determine the particular given value of any relativistic (space-time, energy-mass) 'phenomenon' or quantum (complimentary 'space-energy' or 'time-mass') subatomic 'target' element, it is necessary to have a singular higher-ordered 'Universal Computational Principle' which simultaneously computes all exhaustive hypothetical relativistic 'observer-phenomenon' or quantum 'probe-target' pairs...

#### b) *The Universal Computational/Consciousness Principle*

Hence, the 'Universal Computational/Consciousness Principle' postulates that there exists a singular (higher-ordered) 'Universal Computational/Consciousness Principle' (UCP) which simultaneously computes every exhaustive spatial pixel comprising the entire physical universe, e.g., at every consecutive "minimal time-point": " $c^2/h$ " =  $1.45^{42}$  sec' (which produces a series of "Universal Frames" (UF's) comprising the entire physical universe at every consecutive UF's frame/s). This 'Universal Computational Principle' was later shown to be equivalent to a (broader) 'Universal Consciousness Principle' due to the UCP's additional postulate that the entire physical universe "dissolves" "in-between" any two consecutive UF's frames – which implies that this Universal Computational Principle (UCP) also possesses certain 'Universal Consciousness' characteristics, i.e., such as its capacity to "produce", "dissolve", "retain", and "evolve" every exhaustive spatial pixel in the universe... It is indeed important to note that according to this new 'Universal Consciousness Principle' given the fact that every exhaustive spatial pixel in the universe "dissolves" 'in-between' any two consecutive UF's frames, there cannot be any "material-causal" physical interaction/s – not only within each single- or multiple- UF's frames but also across any two consecutive UF's! This leads to the (abovementioned) new 'A-Causal Computation' (ACC) Paradigm which negates any 'material-causal' physical relationships (or even interactions) at any single- or multiple- UF's, instead asserting that the UCP simultaneously computes all exhaustive spatial pixels in the universe at any single/multiple UF's. Finally, the discovery of the 'Universal Consciousness Principle' is also associated with the identification of its three 'Computational Dimensions', e.g., of 'Framework': ('frame' or 'object'), 'Consistency' ('consistent' or 'inconsistent') and 'Locus' ('global' or 'local'); Hence, according to the UCP, the four

basic physical features of 'space' and 'energy' or 'mass' and 'time' – are computed based on the UCP's particular combinations of 'frame' – 'consistent' or 'inconsistent' combinations, whereas 'mass' and 'time' are computed by the UCP as the specific combinations of 'object' – 'consistent' or 'inconsistent' measures:

c) *The 'Cinematic-Film Metaphor'*

To perhaps better comprehend the UCP's computation of these four basic physical features of 'space' and 'energy', or 'mass' and 'time', the 'Cinematic-Film Metaphor' was utilized, which (somewhat) likened between the "computation" of those four basic physical features found within a "standard film" and the UCP's computation of these four physical features, e.g., for each exhaustive spatial pixel/s comprising each consecutive UF's frame/s: Thus, in the same manner in which the "energy" of a fast moving "jet" found within a standard film depiction can be computed based on the degree of that jet's "displacement" across a given series of film-frames, and the spatial measure of any given object (across a given number of film-frames) can be derived from the degree of consistency of that object's comprising spatial pixels (across the given film-frames), so it is postulated that the UCP computes the "spatial" and "energy" values of any given (relativistic or quantum) object – based on the UCP's degree of that object's "frame-consistent" ("space") or "frame-inconsistent" ("energy") computation across a series of (extremely rapid) UF's. Likewise, equivalently to a standard-film's "computation" of an object's "mass" or "time" values which can be computed based on that object's "object-consistent" ("mass") or "object-inconsistent" ("time") measures, so the UCP computes any relativistic 'phenomena's' or quantum subatomic 'target's' "mass" or "time" values based on that object's – 'consistent' or 'inconsistent' comprising spatial pixels (across the series of extremely rapid UF's frames). Obviously, there exists a series of "differences" between the 'Cinematic-Film Metaphor' and the UCP's postulated production-"dissolution"- sustenance- and evolution- of the entire physical universe, such as rate at which the UCP continuously produces the physical universe (e.g., as indicated above and previously: " $c^2/h$ " =  $1.45^{-42}$  sec', as opposed to the standard film rate of 12-24 frames per second); Another (somewhat "surprising") difference found between the 'standard-film' depiction and the UCP's continuous computation- "dissolution"- and evolution- of each and every exhaustive spatial pixel in the universe is that contrary to the standard film depiction (at least "ordinarily") every physical object would appear across all of the film frames in which it is portrayed, e.g., regardless of its relative "mass" – in the case of the UCP's computation of the relative "mass" of any given (relativistic or quantum) object (or particle) is such that relatively "more-massive" objects would appear across a greater number of UF's than relatively

"less-massive" objects! (In fact this comprises one of the CUFT's "differential-critical predictions" differentiating it from the respective predictions of both RT and QM – which will be discussed later in this article.)

d) *The 'Universal Computational Formula'*

As mentioned above (and previously), the UCP's new definition of these four basic physical features of 'space' and 'energy' or 'mass' and 'time' as integrative complimentary measures of the degree of 'frame'- 'consistent'(space) or 'inconsistent' (energy), or 'object' – 'consistent' (mass) or 'inconsistent' ('time') computation has led to the discovery of a singular 'Universal Computational Formula' which completely integrates these four basic physical features as simultaneously computed by the UCP:

*Universal Computational Formula*

i. *The 'Universal Computational Formula'*

$$\frac{c^2}{h} \left[ \frac{F_{\{f,o\}}}{m}, C_{\{c,ic\}}, L_{\{g,l\}} \right] = \underline{s} * \underline{e}$$

The uniqueness of this new 'Universal Computational Formula' (UCF) arises from its complete integration of those four basic physical features – which represents a novel discovery in Natural Science: hitherto Relativity Theory unified between 'space' and 'time' as "space-time" (e.g., a four-dimensional integrated entity), between 'energy' and 'mass' – based on their famous equivalence: " $E = Mc^2$ ", and linked between 'space-time' and its dynamic curvature by mass (e.g., and conversely the determination of the travelling pathways of massive objects based on this "curved space-time", as outlined in Einstein's Equations). Likewise, QM managed to connect between the two "complimentary-pairs" of Heisenberg's Uncertainty Principle, e.g., 'space' and 'energy', or 'mass' and 'time'. In contrast, the CUFT's new 'A-Causal Computation' Paradigm manages to completely integrate and unify between those four basic physical features – of 'space' and 'energy', 'mass' and 'time' as complimentary measures of the degree of 'consistency' (e.g., 'consistent' vs. 'inconsistent') computed for any given object (or particle) pertaining to that object's (or particle's etc.) positioning relative to the entire 'frame/s' (UF's) or relating to the composition of that 'object'! In fact, the novelty (and elegance) of this new UCF is such that it depicts not only a complete integration of these four basic physical features, but also portrays basic Relativistic and Quantum features (and laws) as constituting different integrative aspects of the Universal Computational Principle's (UCP) simultaneous computation of those four basic physical features for each exhaustive spatial pixel comprising the entire physical universe (at each minimal time-point UF's

frame/s), as represented by the UCF's "Relativistic" and "Quantum" Format.

$$1) \text{ Relativistic Derivative: } \frac{e \times \underline{s}}{t} = \frac{m \times \underline{c}^2}{h}$$

$$2) \text{ Quantum Derivative: } \frac{t \times \underline{mc}^2}{h} = s \times e$$

Indeed, as will be shown later, one of the means for validating the CUFT's new 'A-Causal Computation' Paradigm as a satisfactory New Paradigm (for 21<sup>st</sup> Century Theoretical Physics) was proposed previously through testing the "special-cases" portrayed through these two Relativistic and Quantum Formats of the UCF – i.e., of which the "standard" Relativistic "E=Mc<sup>2</sup>" and QM's "Uncertainty Principle" complimentary pairs (simultaneous accuracy measurement) hold.

#### e) The CUFT's 'A-Causal Computation' (ACC) Paradigm

As outlined (above and previously) the CUFT's New 'ACC' Paradigm brings about a basic "Paradigmatic-Shift" in 21<sup>st</sup> century Theoretical Physics – e.g., from the Old 'Material-Causal' Paradigm which assumes that any relativistic ('space-time' or 'energy-mass') 'phenomenon' is "caused" by its direct physical interaction with a given relativistic 'observer', or that any quantum subatomic 'target' particle (complimentary 'space-energy' or 'mass-time') value is "caused" (or determined) based on its direct physical interaction with another corresponding subatomic 'probe' element; The significant shift represented by the CUFT's new 'ACC' Paradigm revised some of the basic assumptions of both RT and QM including:

- 1) RT's basic assumption relating to the 'Big-Bang' Model which assumes that the entire physical universe was "caused" by an initial nuclear explosion which produced all "mass", "energy", stars and galaxies; since according to the CUFT's new 'ACC' Paradigm the UCP *simultaneously* computes all exhaustive spatial pixels comprising the entire physical universe (at any minimal time-point UF's) there cannot exist any such "material-causal" physical relationships between any (hypothesized) initial 'Big-Bang' nuclear explosion and the creation of any "mass", "energy", stars or galaxies (at any given single or multiple UF's frame/s). Moreover, since the entire physical universe is hypothesized to "dissolve" "in-between" any two consecutive UF's frames, and then be re-computed (and evolved) solely based on the UCP consecutive computation of each subsequent UF's, therefore the CUFT new 'ACC' Paradigm negates the 'Big-Bang' Model as "incomplete" – i.e., wherein even if the "first" UF's frame depicted an apparent 'Big-Bang' nuclear explosion this did not "cause" the origination of the physical universe (because there cannot exist any such 'material-causal' physical relationships

between any such 'nuclear explosion' and the "creation"- or "expulsion" of any exhaustive spatial pixels existing either in the first- or indeed in any subsequent- UF's frame/s). More importantly, the new 'ACC' Paradigm conceives of the entire physical universe as being continuously computed- "dissolved" ("in-between" any two consecutive UF's) - and then "re-computed- and evolved- solely by the UCP with each consecutive UF's frame!

- 2) Negation of the existence of "dark-matter" or "dark-energy": once again, due to the ACC new Paradigm's assertion that the UCP simultaneously computes all exhaustive spatial pixels in the universe – which negates the possibility of the existence of any "material-causal" physical relationships between any two (or more) exhaustive spatial pixels in any single- or multiple- UF's frame/s; therefore the CUFT's new 'ACC' Paradigm negates the existence of "dark-matter" or "dark-energy" since they are assumed to "cause" the accelerated expansion of the physical universe. Instead, the CUFT's new 'ACC' Paradigm postulates that the accelerated expansion of the physical universe is brought about solely by the UCP's accelerated addition of the number of given spatial pixels to each consecutive UF's frame/s!
- 3) Revision of RT's Einstein's Equations' 'Material-Causal' Assumption: Next, the CUFT's new 'ACC' Paradigm asserts that precisely due to the impossibility of the existence of any such 'material-causal' physical relationships between any two (or more) exhaustive spatial pixels, e.g., at any single- or multiple- UF's frames; therefore the new 'ACC' Paradigm revises Einstein's Equations' 'material-causal' basic assumption: if indeed there cannot exist any such 'material-causal' physical relationships between any two (or more) exhaustive spatial pixels at any single or multiple UF's, then Einstein's Equations assertion wherein "massive objects" "cause" a curving of space-time, which then "causes" those "massive-objects" (and other) to move in particular travelling-pathways – is challenged by this new 'ACC' Paradigm. Instead, the new 'ACC' Paradigm postulates that the singular Universal Consciousness Principle (UCP) simultaneously computes every exhaustive spatial pixel in the physical universe – giving rise to the apparent relativistic effects of the "curved space-time" associated with "massive-objects" (and its corresponding apparent determination of the travelling-pathways of massive and non-massive objects); This apparent curvature of space-time associated with the presence of massive objects was recently explained through the distribution of "high-mass, low energy" vs. "low-mass, high-energy" objects across any given series of UF's – which



correspond to the UCP's computation of "high frame consistency" (e.g., 'high-mass, low-energy') vs. "low frame-consistency" (e.g., 'low-mass, high-energy') spatial-pixels' loci (e.g., objects); Indeed, it was previously shown that such UCP's computation of high- vs. low frame-consistency (objects) distribution across a series of consecutive UF's produces and apparent "curvature of space-time" adjacent to those loci characterized by 'high frame-consistency' (e.g., corresponding to high-mass, low energy "massive objects") as well as to the apparent determination of the travelling pathways of the converse 'low-frame consistency' (high-energy-low mass) objects [Refereces???]. We thus obtain that the evolution of the physical universe is not driven by a 'material-causal' physical interaction between "massive objects" which "cause" a "curvature of space-time" (and vice versa a 'material-causal' interaction between such "curved space-time" which "causes" massive or non-massive objects to "travel in particular travelling pathways"; But instead, the dynamical evolution of the physical universe is driven solely based on the singularity of the UCP which produces a series of UF's frames comprised of particular spatial-loci characterized as "high-frame consistency" (e.g., 'high-mass', 'low-energy') as opposed to other spatial loci characterized as "low-frame consistency" ('low-mass', 'high-energy') – which give rise to an apparent "curved space-time" which seems to be associated with "massive objects" etc.

f) *The 'Computational Invariance Principle'*

Another key theoretical postulate of the CUFT is the 'Computational Invariance Principle' which asserts that since only the 'Universal Consciousness Principle' (UCP) may be regarded as "computationally-invariant" as it remains constant both "during" its sole computation of each exhaustive spatial-pixel 's four basic physical features (of 'space' and 'energy', 'mass' and 'time') comprising the entire physical universe (for each consecutive UF's frame/s), as well as solely remains without the presence of any physical universe "in-between" any two such consecutive UF's frames; whereas those four basic physical features may only be regarded as "computationally variant", e.g., exist only temporarily "during" each consecutive UF's frame/s (solely produced by the UCP) but not "in-between" them (wherein only the UCP exists); therefore, the 'Computational Invariance Principle' asserts that only the UCP can be regarded as "constant" and "invariant" whereas the four basic physical features (of 'space' and 'energy', 'mass' and 'time') may only be regarded as "transient" and "phenomenal"("computationally variant").

g) *The 'Universal Consciousness Reality'*

A closely related additional theoretical postulate is the 'Universal Consciousness Reality' postulate which

postulates that since only the UCP can be regarded as "computationally invariant" (e.g., exists uniformly and constantly both "during" each consecutive UF's frame/s as well as solely exists "in-between" any two consecutive UF's frames) whereas the four basic physical features comprising each exhaustive spatial pixel across the entire physical universe (of 'space' and 'energy', 'mass' and 'time') may only be regarded as "computationally-variant"), therefore the 'Universal Consciousness Reality' postulate asserts that the entire physical universe, e.g., comprised of those four 'computationally-variant' basic physical features – must be regarded only as a "phenomenal-transient" manifestation of the singular 'computationally invariant' Universal Consciousness Principle!

h) *The UCR 'Supra-Spatial-Temporal Reservoir Hypothesis' (UCR-SSTRH)*

Next, this 'Universal Consciousness Reality' is characterized by a novel 'Supra-Spatial-Temporal Reservoir Hypothesis' (UCR-SSTRH) which postulates that the singularity of the 'Universal Consciousness Reality' (UCR) also comprises a "reservoir" of all "past"- "present"- and "future/s"\*- UF's of the universe! (\*as described previously the CUFT's UCR-SSTRH postulates that there exists multiple potential future/s which are enacted or chosen by the UCP based on the "moral-choice/s" of any exhaustive Individual Human Consciousness, see the "UCR Dynamic-Equilibrium Principle", below):

i) *The 'UCR Inseparability Principle' & 'Omni-present, Omniscient' Postulates*

Succinctly stated, the 'UCR- Inseparability Principle' postulates that since the Universal Consciousness Principle computes every exhaustive spatial pixel comprising the entire physical universe (at every possible 'past'- 'present'- and 'future/s'- UF's frame/s comprising the abovementioned 'UCR-SSTR'), therefore all exhaustive spatial pixels comprising the entire physical universe are "inseparable" from the singularity of the Universal Consciousness Reality (UCR)... This also implies that the three different states of 'Individual Human Consciousness' – e.g., its "waking"- "dream"- and deep-sleep"- states are "inseparable" from the singularity of the UCR! Next, the 'UCR Omnipresent, Omniscient' postulate asserts that since all exhaustive spatial pixels comprising the entire physical universe – e.g., at each exhaustive 'past'- 'present'- and 'future/s'\* UF's frame/s is "inseparable" from the singular UCR, therefore necessarily this singular UCR "knows" and "is "present" in each such exhaustive spatial pixel/s comprising each exhaustive (past, present, future/s\*) UF's!

j) *'The UCR 'Dynamic-Equilibrium Principle'*

The UCR 'Dynamic-Equilibrium Principle' postulates that since all 'Individual Human



Consciousness' comprise "inseparable" elements comprising the singular UCR (e.g., as evinced also by the above UCR-Inseparability Principle), and based on a postulated basic intrinsic property of this singular UCR which is its inherent tendency towards a "harmonious-unity"; therefore the 'UCR-Dynamic Equilibrium Principle' asserts that the UCR operates based on an inherent tendency towards maintenance of a balanced and unified consortium of Individual Human Consciousness entities: this implies that in case there exists a particular Individual Human Consciousness which chooses to inflict "pain" or "suffering" upon another given Individual Human Consciousness then the UCR "balances" this "moral-imbalance" through the 'Dynamic-Equilibrium Principle' through a delivery of the proportionate degree of 'suffering/pain' inflicted upon the "inflicting" Individual Human Consciousness. Hence, the new CUFT 'ACC' Paradigm asserts that the evolution of the physical universe is not "caused" by the initially assumed 'Big-Bang' nuclear explosion but rather propagated by intrinsic features and tendencies of the UCR – e.g., one of which is this 'Dynamic-Equilibrium' moral principle (which sets to "balance" and "harmonize" any "moral imbalance" found between its embedded Individual Human Consciousness entities).

k) *The "Individual Human Consciousness Expansive Spectrum Hypothesis" & "UCR-Evolution of Consciousness" Theoretical Postulates*

The "Individual Human Consciousness Expansive Spectrum Hypothesis" (IHCESH) postulate hypothesizes that another inherent key property of the UCR which drives the evolution of the physical universe is its intrinsic tendency to express ever more exhaustive (or "broader") manifestations of this singular Universal Consciousness Reality: Specifically, this UCR-ECH postulates that it manifests a progressive evolution from "inanimate", then "animate": "plants", "animals" and then "humans"- and within humans: a further evolution towards the "pinnacle" of the UCR evolution which is the "Universal Consciousness State"; Once again, this new CUFT ACC Paradigm differs from the old 'Material-Causal' Paradigm's associated Darwin's "Natural Selection Principle" (NSP) which assumes that the evolution of biological (plants, animals and even humans) is "caused" by their direct physical interaction with the environment which "selects" only the most compatible with an organism's particular environment; This is because where as the old 'Material-Causal' 'NSP' assumes that evolution is "arbitrary", i.e., "caused" by "chance-mutations" in the genetic composition of particular organisms, and the direct physical interaction between the environment and those ("genetic-mutated" and "non-mutated") organisms which "causes" the "selection" of those organisms that can best survive in that given environment; the new ACC Paradigm negates the very possibility of the existence of any such 'material-

causal' physical relationships between any given organism (e.g., "genetically-mutated" or "genetically non-mutated") and its environment (due to the UCP's simultaneous computation of all exhaustive spatial pixels in the universe at every minimal time-point UF's frame/s); Instead, the whole evolution of the various 'inanimate', 'animate': 'plants', 'animals' and 'humans' forms – is driven by one singular Universal Consciousness Reality which manifests ever more expansive forms of this Universal Consciousness, i.e., expressing its fullest manifestation in the expanded Individual Human Consciousness – Universal Consciousness "expanded" state: Indeed, based on the abovementioned (and previously delineated) "Ontological Relativism" and "Universal Consciousness Reality Inseparability Principle" it was shown that just at is the Individual Human Consciousness "Deep-Sleep" state in which there exists no "separation" between the Individual Consciousness and the Universal Consciousness Reality, so it is postulated that there exists such an "expanded" Individual Human Consciousness – "Universal Consciousness State" in which the Individual Human Consciousness functions in a manner equivalent (and in fact "inseparable") from the Universal Consciousness Reality, e.g., also in its "waking state"; In fact, the "Individual Human Consciousness Expansive Spectrum Hypothesis" (IHCESH) converges with the "UCR-Evolution of Consciousness Hypothesis" in their common assertion that the evolution of the entire physical universe is aimed towards the gradual increasing manifestation ever broader and more exhaustive expression of 'inanimate', 'animate': plants, animals and humans and up to the full "expanded" Individual Human Consciousness Universal Consciousness State... Viewed in this new UCR light the entire origination, sustenance, and evolution of the physical universe is driven by the singular creative UCR and its inherent tendency towards the expression of ever broader forms of this singular UCR.

l) *The UCR 'Reversed-Time Goal Hypothesis'*

A final theoretical postulate of the UCR recently discovered is the UCR-Reversed-Time Goal Hypothesis which further hypothesizes that from the higher-ordered singular perspective of the UCR's 'Supra-Spatial-Temporal Reservoir Hypothesis' (which comprises all "past-" "present"- and "future"- UF's) the UCR organizes the series of the UF's based on the fulfillment of its general Goal of the (abovementioned ) Evolution of Consciousness, i.e., based on its organization of the UF's in their "reversed-order" from that Goal (in the "future/s\*") towards the "past" including the entire evolution of all inanimate, animate: plants, animals, and humans forms and including the UCR's "accelerated expansion" of the physical universe (through its accelerated addition of the number of exhaustive spatial

pixels comprising the entire physical universe with each consecutive UF's).

#### IV. RESULTS & DISCUSSION

A comprehensive series of over thirty scientific articles delineating the CUFT's various experimental and theoretical facets, "differential-critical predictions", theoretical ramifications etc. have been published (in this "Special Issue" and previously) which substantiate and validate this CUFT's new 'ACC' Paradigm as a satisfactory new Paradigm of 21<sup>st</sup> century Physics; Thus, for instance, one of the CUFT's unique "differential-critical predictions" was given indirect empirical validation as more valid than the predictions of both RT and QM – as indicated by the empirical findings of the "Proton-Radius Puzzle": this was indicated by the CUFT's 'differential-critical prediction' wherein relatively "more massive" particles should be measured as spatially more consistent across a series of UF's frames, relative to "less-massive" particles, e.g., due to the new computation o definition of the UCP for any particle's given "mass" – as its computation of the degree of object (spatial) consistency across frames; Indeed, the 'Proton-Radius Puzzle' findings indicated precisely such findings indicating that the more massive "Muon" particle (which "sinks" into the Hydrogen Proton produces a "spatially more consistent" (smaller, more accurate) Proton radius than the Proton radius of an equivalent Hydrogen atom which is encircled by the "lighter" electron particle, thereby providing an initial empirical validation of one of the unique predictions of the CUFT as significantly different than the predictions of both RT and QM; A series of additional 'differential-critical predictions' of the CUFT were stipulated and delineated which included specific predictions pertaining to the predicted measurement of "more massive particles" across a greater number of UF's frames than "less-massive " particles, e.g., which were predicted to "not appear" in a certain percentage of the UF's frames. Likewise, contrary to the "impossibility" of "time-reversal" according to both RT and QM the CUFT's ACC Paradigm predicted that "time-reversal" may be possible: this may be accomplished via either a precise recording of the UF's frames' series of exhaustive spatial-electromagnetic pixels values constituting a given biological entity (cell, organism, etc.) and consequent application of particular electromagnetic stimulation that is necessary in order to "reverse" the (recorded) sequence of that organism's constituting exhaustive spatial-electromagnetic pixels' values (across the series of UF's frames); Or alternatively, the possibility of "time-reversal" can be affected based on an "expansion" of the Individual Human Consciousness to its "Universal-Consciousness" ('expanded-waking state) – which allows such an 'expanded' Individual Human

Consciousness to operate in a manner equivalent to the functioning of the 'Universal Consciousness Reality', thereby being capable of affecting the electromagnetic value/s of any given exhaustive spatial pixel/s comprising any given biological organism (or cell, tissue etc.), thereby allowing such an 'expanded' Individual Human Consciousness to produce a "reversed-sequence" of that biological organism (cell, tissue or organ etc.) – effectively "reversing-time" for that biological entity! As will be discussed (below) the CUFT's new conception of "time" (as well as of "space", "energy" and "mass") significantly differs from that of both RT and QM in that "time" (as well as those other three physical features) is computed solely by the 'Universal Consciousness Principle – as the degree of "change" ('inconsistency') in a given object (including: biological cell, tissue, organism) across a given number of UF's (e.g., rather than is dependent upon the direct physical interaction between a given relativistic 'observer' and (space-time, energy-mass) 'phenomenon' or between a subatomic 'probe' and 'target' element/s); therefore, one of the unique 'differential-critical predictions' of the CUFT asserted that by modulating the electromagnetic-spatial pixels' values of all exhaustive spatial pixels comprising (for instance) an 'amoeba' (across a given series of UF's) – such that the modulated exhaustive spatial-electromagnetic values comprising this 'amoeba' would produce the "reversed-sequence" of that amoeba's recorded life-development, then this would necessarily affect a "reversal of time" for that amoeba!

Indeed, the CUFT stipulated and outlined a series of particular 'differential-critical predictions' which significantly differ from the predictions of both RT and QM; those include (in addition to the predictions mentioned above): a prediction that due to the fact that the UCP computes all exhaustive spatial-pixels comprising the entirety of the physical universe with each consecutive UF's frame/s, and then "dissolves" the entire physical universe "in-between" any two such consecutive UF's frames, therefore it predicted that "in-between" any two consecutive UF's frames each given particle could not be detected (e.g., due to the "dissolution" of the physical universe 'in-between' UF's frames)! Additionally, due to the CUFT's postulated equivalence of the "expanded" Individual Human Consciousness to the Universal Consciousness Reality (UCR), and the "inseparability" of all such Individual Human Consciousness to the UCR therefore, it was predicted that Individual Human Consciousness can affect the physical universe in at least two different manners:

- a) Based on its "expanded" Individual Human Consciousness' "Universal State of Consciousness" – such an "expanded" Individual Human Consciousness can affect any exhaustive spatial-

pixel/s throughout the entire physical universe (e.g., including any "past", "present" or "future/s"\* UF's exhaustive spatial pixels), just as the Universal Consciousness Reality (UCR) computes- "dissolves"- re-creates- and evolves- all exhaustive spatial pixels in the universe (in the 'past', 'present' or future/s- due to the multiplicity of Individual Human Consciousness possible "future/s" based on the "moral-choices" that each such Individual Human Consciousness chooses, which is associated with the above mentioned UCR Dynamic Equilibrium moral balancing mechanism). This means that one of the 'differential-critical predictions' of the CUFT is that it should be possible for an "expanded" Individual Human Consciousness to affect change in a given Physical System, such as the abovementioned "time-reversal" in a biological organism like the 'amoeba'...

- b) Based on a "collective-focus" of multiple 'Individual Consciousness' – especially in their collective ability to affect a "responsive change" in the Universal Consciousness Reality (UCR), of which they are an "inseparable" part: the CUFT predicted that at such "special phases" in which a collective group of Individual Consciousness focuses on a particular "prayer" (such as the Jewish New Year: "Rosh Hashana") – it is predicted that at such 'special-times' (of concerted "collective-focus") there may be a "non-continuous" accelerated expansion of the physical universe; In other words, it was predicted that the currently observed accelerated expansion of the physical cosmos – may undergo "non-continuous" "bursts" of accelerated expansion (e.g., or a change in the continuous rate of accelerated expansion) at such 'special-times' associated with a "collective-focus of Individual Consciousness" (prayers) – i.e., such that at these 'special-times' a "non-continuous burst" in the accelerated expansion of the physical cosmos can be observed!

Another set of 'differential-critical predictions' of the CUFT is associated with the CUFT's Mathematical "Universal Computational Formula" derivations: as stated above (and previously), the CUFT's new 'A-Causal Computation' Paradigm manages to completely unify between the four basic physical features of the physical universe of 'space' and 'energy', 'mass' and 'time' – as secondary computational by-products of the UCP's singular computation (as well as completely integrates between RT & QM); This complete integration is represented by the CUFT's Universal Computational Formula, which can be represented by its two 'Relativistic' AND 'Quantum' Formats:

*Relativistic Format*

*Quantum Format*

As outlined previously, this Universal Computational Formula embeds within it the "special

cases" of both Relativistic and Quantum Laws (marked in red) – as can clearly be seen in the Relativistic and Quantum Formats (above). Hence, another 'differential-critical prediction' of the CUFT pertains to the mathematical (and empirical) validation of the "special cases" for the manifestation of these Relativistic and Quantum Laws, i.e., in which for instance Relativity's  $E = Mc^2$  manifests and QM's Uncertainty Principle "complimentary pairs" manifest. In other words, a mathematical (and empirical) validation for this Universal Computational Formula would comprise of an analysis (and empirical measurement) of those particular mathematical (and empirical) conditions which lead to the manifestation of those (abovementioned Relativistic and Quantum Laws), as opposed to the empirical validation of the "standard" Relativistic and Quantum conditions which are expressed within the (Relativistic and Quantum Formats of the) Universal Computational Formula.

As mentioned earlier, an initial empirical validation of at least one 'differential-critical prediction' of the CUFT associated with the 'Proton-Radius Puzzle' findings was given, which clearly supports the CUFT as a satisfactory new 'A-Causal Computation' Paradigm, e.g., replacing the Old 'Material-Causal' Paradigm underlying both RT and QM; Further empirical (and mathematical) validation for this new CUFT's 'A-Causal Computation' Paradigm can be given through empirical testing of each of the abovementioned (and previously mentioned) particular CUFT's 'differential-critical predictions'. What follows is a succinct description of some of the (potentially far-reaching) theoretical ramifications of this CUFT's New 'A-Causal Computation' (ACC) Paradigm of Twenty-First Century Theoretical Physics: A "New Universe" is discovered which was not "caused" (or originated) by a 'Big-Bang' nuclear explosion – but rather is continuously being computed- "dissolved"- (e.g., in between any two consecutive UF's frames), "re-computed"- and "evolved" at the incredible rate of  $c^2/h = 1.45^{-42}$  sec! This "New Universe's" empirically observed accelerated rate of expansion is not "caused" by any "dark-matter" or "dark-energy" (e.g., which were negated by the CUFT) – but rather, the accelerated expansion of the physical universe is brought about by the Universal Consciousness Reality's accelerated addition of the number of exhaustive spatial pixels comprising each consecutive UF's frame/s! This "New Universe" is not (any longer) constrained by the "Speed of Light Constraint" – simply because the UCP's simultaneous computation of each exhaustive spatial pixel in the universe allows the UCP, as well as the "expanded" Individual Human Consciousness (which was shown to function equivalently to the UCP) to transcend this apparent "Speed of Light Barrier"! This 'New Universe' is also not governed by any "material-causal" laws (or even physical relationships – at either the quantum or relativistic levels) – due to the

simultaneity of the UCP's computation of each exhaustive spatial pixel/s in the physical universe (at each consecutive UF's frame/s): Therefore, General Relativity's 'Einstein's Equations' were challenged – evincing that there cannot exist any such "material-causal" physical relationship/s between "massive objects" and their (assumed) "curvature of space-time" (or vice versa the determination of the "movement pathways" of such massive objects as "caused" by "curved space-time"); rather according to the CUFT's New 'ACC' Paradigm, the evolution of the physical universe is solely produced through the UCP's simultaneous computation of each exhaustive spatial pixel in the universe (as computed by the UCP for each consecutive UF's frame/s). Moreover, according to the abovementioned CUFT's "Computational Invariance Principle" and "Universal Consciousness Reality" theoretical postulates, the entire physical cosmos, e.g., and every exhaustive spatial pixel comprising it only represents "computationally-variant" "transient" and "phenomenal" manifestation of the only singular "computationally-invariant" Universal Consciousness Reality, which constitutes the only "solid" and "constant" reality underlying the continuous manifestation- and "dissolution" of the physical cosmos, e.g., "in-between" any two consecutive UF's frames (every " $c^2/h$ "=1.45<sup>-42</sup> sec)! Therefore, perhaps most significantly, is the realization that this singular Universal Consciousness Reality (UCR) solely determines this continuous computation- "dissolution"- and evolution- of each exhaustive spatial pixel in the universe; and that even though this singular UCR possesses a "Free-Will" (hypothesis) so that it is not bound by any of its manifested (quantum, relativistic or even UCR features), it still may be characterized through its intrinsic features (outlined above and previously), which include (among others): the 'Dynamic-Equilibrium' (moral principle), an inherent tendency towards manifesting ever more exhaustive manifestations of "inanimate", then "animate": "plants", "animals" and then "humans" – leading up to the full manifestation of the "Universal Consciousness" ("expanded" Individual Human Consciousness State). Finally, it was hypothesized that this singular Universal Consciousness Reality is driven by a "Reversed-Time Goal Hypothesis" (RTGH) which aims at the evolution of the entire universe towards a manifestation of the most exhaustive Universal Consciousness Reality (as expressed by the Universal Consciousness State in Humans).

### *Dedication*

This final article (within this Special Issue) is dedicated to my dear beloved (diseased) Mother Dr. Tirza Bentwich, my beloved wife, Michal, two beloved sons, Shoham and Nethanel, and to all of the great Seers (that beheld this singular Universal Reality) such as the great Maimonides, Alter-Rabbe Shneur Zalman;

Rabbi Shimon Ben Yochai, and the Rabbi Milubavitch; and to all of Humanity – may it grow and expand its comprehension and realization of the basic underlying singular Universal Consciousness Reality which is governed by Goodness and Giving, Morality and Unity of which we are all but "integral" and "inseparable" parts...





GLOBAL JOURNAL OF SCIENCE FRONTIER RESEARCH: A  
PHYSICS AND SPACE SCIENCE  
Volume 18 Issue 8 Version 1.0 Year 2018  
Type: Double Blind Peer Reviewed International Research Journal  
Publisher: Global Journals  
Online ISSN: 2249-4626 & Print ISSN: 0975-5896

# The Universal Consciousness Reality's "Camouflage": The Physical Universe!

By Jehonathan Bentwich, Ph.D.

**Abstract-** Twenty-First Century Physics is undergoing a major Paradigmatic Shift – from the current Relativistic and Quantum “Material-Causal” Paradigm to the Computational Unified Field Theory’s (CUFT) new ‘A-Causal Computation’ Paradigm: This new A-Causal Computation Paradigm was shown to revise our basic conception of the physical universe which was not “created” by the “Big-Bang” nuclear explosion but is rather continuously “re-created” every “ $c^2/h$ ” =  $1.45^{-42}$  second by a singular Universal Consciousness Principle computing every exhaustive spatial pixel in the universe comprising an extremely rapid series of ‘Universal Simultaneous Computational Frames’ (USCF’s)! Indeed, this new ‘A-Causal Computation’ Paradigm was shown to lead to the recognition of the existence of a singular ‘Universal Consciousness Reality’ (UCR) which exists both “during” its production of each USCF’s frame/s and also solely exists without the presence of the physical cosmos “in-between” any two consecutive USCF’s frames.

*GJSFR-A Classification: FOR Code: 029999*



THE UNIVERSAL CONSCIOUSNESS REALITY'S CAMOUFLAGE: THE PHYSICAL UNIVERSE

*Strictly as per the compliance and regulations of:*



RESEARCH | DIVERSITY | ETHICS



# The Universal Consciousness Reality's "Camouflage": The Physical Universe!

Jehonathan Bentwich, Ph.D.

**Abstract-** Twenty-First Century Physics is undergoing a major Paradigmatic Shift – from the current Relativistic and Quantum “Material-Causal” Paradigm to the Computational Unified Field Theory’s (CUFT) new ‘A-Causal Computation’ Paradigm: This new A-Causal Computation Paradigm was shown to revise our basic conception of the physical universe which was not “created” by the “Big-Bang” nuclear explosion but is rather continuously “re-created” every  $c^2/h = 1.45^{42}$  second by a singular Universal Consciousness Principle computing every exhaustive spatial pixel in the universe comprising an extremely rapid series of ‘Universal Simultaneous Computational Frames’ (USCF’s)! Indeed, this new ‘A-Causal Computation’ Paradigm was shown to lead to the recognition of the existence of a singular ‘Universal Consciousness Reality’ (UCR) which exists both “during” its production of each USCF’s frame/s and also solely exists without the presence of the physical cosmos “in-between” any two consecutive USCF’s frames. Additional discoveries associated with this UCR’s “Supra-Spatial-Temporal Reservoir Hypothesis” of all “past”, “present” and “future” USCF’s; its continuous “creation”- “dissolution”- “re-creation”- and “evolution”- of every exhaustive spatial pixel in the universe solely out of its own creative power (named: the “UCR’s Emptiness Hypothesis”); and the “UCR’s Free-Will Hypothesis” pointing at the UCR being unbound by any (past, present or future) physical constraint. Finally, this new Universal Consciousness Reality is realized as constituting the sole and singular consistent and continuous “reality” which underlies- manifests as- and indeed transcends- the apparent physical cosmos!

## 1. INTRODUCTION: THE COMPUTATIONAL UNIFIED FIELD THEORY’S NEW PARADIGM

A new Computational Field Theory (CUFT) Bentwich: 2006; 2012 a & b; 2013 a & b; 2014; 2015; 2016; 2017 a-k) was shown successful in resolving the apparent theoretical inconsistency between the two major pillars of 20<sup>th</sup> Century Physics, namely: Relativity Theory (RT) and Quantum Mechanics (QM), thereby producing a Paradigmatic Shift in 21<sup>st</sup> Century Theoretical Physics: The essential key element in this new ‘A-Causal Computation’ new Paradigm is its insistence upon the singular computation- “dissolution”- sustenance- and evolution- of every exhaustive spatial pixel/s in the entire physical universe based on the existence of a new hypothetical (higher-ordered) ‘Universal Consciousness Reality! Previous articles delineating this new CUFT’s “A-Causal Computation”

Paradigm of 21<sup>st</sup> Century Physics have highlighted the ‘Computational Invariance Principle’ and its associated “Universal Consciousness Reality” which essentially assert that since only the Universal Consciousness Principle exists both “during” each consecutive USCF’s frame/s –i.e., solely computing- “dissolving”- sustaining- and evolving- each exhaustive spatial pixel in the entire physical universe, and also solely exists “in-between” any two such consecutive USCF’s frame/s; therefore, the “Universal Consciousness Reality” postulate asserts that there truly exists only one singular Universal Consciousness Reality which exists unchanged both “during” the USCF’s frames – i.e., manifesting as the entire physical universe, and also exists singularly “in-between” two such consecutive USCF’s frames (e.g., without the presence of any physical universe)... Viewed from this higher-ordered singular perspective of this Universal Consciousness Reality the physical universe exists – only as a manifestation of this singular Universal Consciousness Reality and (in a sense) camouflages the sole and singular existence of this Universal Consciousness Reality...

Indeed one of the key essential features of the CUFT’s new ‘A-Causal Computation’ Paradigm of 21<sup>st</sup> Century Physics is its insistence that underlying all Inductive and Deductive Scientific entities- and relationships there exists a singular Universal Consciousness Reality which computes-sustains- “dissolves”- evolves- and transcends- all exhaustive spatial-pixels in the entire physical universe (e.g., including any “computing” device or organ/s such any human or animal brain or material computer etc.); As shown above (and previously), the existence and operation of this singular (Supra-Spatial-Temporal) Universal Consciousness Reality is therefore not bound or constrained by any “material-causal” physical relationships found within the physical universe – but rather solely computes all exhaustive spatial-pixels in the entire physical universe (e.g., at any minimal time-point USCF’s frame/s)! Nevertheless, this singular Universal Consciousness Reality is characterized by its inherent Orderly, Law-Driven, Intelligent and “Dynamic-Equilibrium” (e.g., moral-based) features (as shown above and previously)... So, while this singular (higher-ordered) Universal Consciousness Reality is the sole “cause” for each exhaustive spatial pixel in the entire physical universe (i.e., in the “past”, “present” and “future”), its production- sustenance- “dissolution”- and

Author: e-mail: drbentwich@gmail.com

evolution- of all these exhaustive spatial-pixels is determined (and driven) solely based on its intrinsic Orderly, Dynamic-Equilibrium, Omni-Present Omniscient, Intelligent features and inherent propensity towards exhibiting an ever more expansive manifestation of this singular Universal Consciousness Reality (i.e., through its manifestation of inanimate, then animate: plans animals and the humans – leading up to the full expression of Universal Consciousness in humans) properties...

This sole contingency of the origination- "dissolution"- sustenance- and evolution- of each and every exhaustive spatial-pixel throughout the entire physical universe upon these intrinsic Orderly, Dynamic-Equilibrium, Intelligent properties and manifestation of fuller expressions of this singular Universal Consciousness Reality was already shown to completely challenge- and revise- Darwin's (famous) evolutionary "Natural Selection Principle"! (Bentwich, 2017k?) This was due to the simple fact that since the CUFT's new "A-Causal Computation" Paradigm negates the possibility of the existence of any "material-causal" physical relationship/s between any two (or more)

Most generally this new Universal Consciousness Reality Based Science may be represented mathematically in this manner:

$$\underline{\text{UCR}}: \{(\text{UCR}: \text{s.p. } i \dots \infty)\} \text{USCF1}; \text{UCR}; (\text{UCF}: \text{s.p. } i \dots \infty)\} \text{USCF2}; \text{UCR}; ..(\text{UCF}: \text{s.p. } i \dots \infty)\} \text{USCFn}; \text{UCR}\}$$

Wherein  $(\text{s.p. } i \dots \infty)\text{USCF} \dots z$  is defined through the (previously outlined) Universal Computational Formula:  
Universal Computational Formula:

$$\cdot \{c^2/h\} \text{USCF's}^{**}[i \dots \text{infinity}] = \underline{s} * t$$

$$e * m$$

Note:  $[**]$  wherein each USCF's frame/s comprises of all exhaustive spatial pixels in the entire physical universe at any given minimal time point (e.g.,  $c^2/h$ ).

The key point to be noted is that since each and every exhaustive spatial-pixel/s throughout the entire physical universe at every minimal time-point USCF's frame/s (e.g., and its four associated physical features of "space", "time", "energy" and "mass") – is solely produced by the singular 'Universal Consciousness Reality' and exists only "during" each subsequent USCF's frame/s but not "in-between" them; and since this singular Universal Consciousness Reality also solely exists "in-between" any two such consecutive USCF's frames (e.g., without the presence of any physical universe), therefore the Universal Consciousness Reality asserted that the sole and singular Reality is this Universal Consciousness Reality whereas the entire physical universe exists only as a manifestation of this singular Universal Consciousness Reality! Moreover, the recent delineation of some of the intrinsic properties of this Universal Consciousness Reality indicated that it represents a "Supra-Spatial-Temporal" unitary whole which is governed by such Intelligent Laws such as its

exhaustive spatial-pixels (throughout the entire physical universe) –existing either in the same- or other- USCF's frame/s, therefore it was concluded that there cannot exist any "material-causal" relationship/s between any given Organism and any exhaustive hypothetical Environmental Factors, i.e., thereby negating Darwin's "material-causal" 'Natural-Selection Principle'! More generally (and fundamentally), we can apply this new 'Universal Consciousness Reality' Paradigm towards a basic revision of our understanding of all Inductive (and Deductive) Sciences: This is because due to the Universal Consciousness Reality solely produces- and sustains- and evolves- each exhaustive spatial-pixel in the entire physical universe at every minimal time-point USCF's frame/s; and because all of these exhaustive spatial-pixels necessarily "dissolve" 'in-between' any two subsequent USCF's frames – i.e., with only this Universal Consciousness Reality solely existing, therefore *there cannot exist any 'material-causal' relationship or even any theoretical 'material-causal' law between any two (or more) such exhaustive spatial-pixels existing either in the same- or other- USCF's frames!*

"Dynamic Equilibrium" moral principle, the "Expansion of Universal Consciousness Reality" Expansive"??? – which manifests both through the evolution from inanimate to animate: plants, humans, and leading up to Universal Consciousness in human-beings, as well as manifests through the Universal Consciousness Reality's accelerated increase of the number of exhaustive spatial pixels to each consecutive USCF's frames (which points at the continuous creative.

## II. THE NEW "UNIVERSAL CONSCIOUSNESS REALITY'S EMPTINESS HYPOTHESIS" (UCREH)

The new emerging picture of the entire physical cosmos as originated- produced- dissolved- and evolved- solely by the singularity of the Universal Consciousness Reality - i.e., with the physical cosmos representing only a "transient", "phenomenal" manifestation of this singular Universal Consciousness

Reality dramatically alters our basic conception of the nature and operation of the physical universe! No longer is the physical universe being hypothesized to have been created by a "Big-Bang" nuclear explosion – 13.7 Billion years ago, but rather it was- is- and will be- continuously created "anew" at every minimal time-point USCF's frame/s (e.g., every  $c^2/h = 1.45^{42}$  second)! Likewise, the empirically observed accelerated expansion rate of the entire physical universe – is not due to any *undetected* "dark-matter" and "dark-energy", but is rather the result of this singular Universal Consciousness Reality's increased number of exhaustive spatial pixels with every subsequent USCF's frame/s! So, too is the evolution of the various Biological species of plants, animals and humans – is not the "caused" through Darwin's "Natural Selection Principle" but is rather the result of this singular Universal Consciousness Reality's inherent tendency towards manifesting ever-more expansive forms expressing the basic underlying unity and singularity of this Universal Consciousness Reality!

Indeed, the discovery of the "Supra-Spatial-Temporal" characteristic of this singular Universal Consciousness Reality, alongside its other intrinsic "Dynamic-Equilibrium" moral driven balance as well as its Expansive Universal Consciousness Reality Hypothesis\*\*\* - all point at the fact that there exists a basic "Computational Asymmetry" between the "computationally invariant" Universal Consciousness Reality which exists continuously (and unchanged) both "during" its production of each consecutive USCF's frame's exhaustive set of spatial pixels (and their four associated physical features of 'space', 'time', 'energy' and 'mass') and also "in-between" every two such consecutive USCF's frames (wherein this Universal Consciousness Reality exists solely without the presence of a physical universe!); and between the only "transient-phenomenal" existence of the physical universe, e.g., which only exists "during" the Universal Consciousness Reality's production of each consecutive USCF's frame/s but ceases to exist ("dissolves") "in-between" any two frames! Previously, this basic 'Computational Asymmetry' (e.g., between the 'computationally invariant' Universal Consciousness Principle and the 'computationally-variant' four physical features of 'space', 'time', 'energy' and 'mass' comprising the entire physical universe was referred to through the "Computational Invariance Postulate"; Indeed, this 'Computational Invariance Principle' asserted that since only the Universal Computational/Consciousness Principle remains constant both "during" the USCF's frames and also solely exists "in-between" frames whereas the "computationally variant" four physical features (of space, time, 'energy' and 'mass') only exist "during" the USCF's frames (produced by this UCP) but not "in-between" USCF's frames, therefore only the Universal

Consciousness Principle may be regarded as "constant" whereas these four basic physical features of 'space', 'time', 'energy' and 'mass' may only be regarded as "transient" and "phenomenal"...

But, it is suggested that based on the further development of the CUFT through its recognition of the singular existence of the "Universal Consciousness Reality" (postulate) – as a Supra-Spatial-Temporal Ordered, Omnipresent, Omniscient & Intelligent Reality which alternates its presentation as a physical universe (during its sole production of each consecutive USCF's frame/s, and intermittently (e.g., "in-between" any two consecutive USCF's frames) presents itself singularly without the presence of any physical universe: this this basic 'Computational Asymmetry' between the Universal Consciousness Reality's singular (and permanent) existence, and between its manifestation as a "physical universe" 'during' each USCF's frame/s is now discovered to point at a new "Universal Consciousness Reality's Emptiness Hypothesis" (UCREH)! Essentially, this new 'Universal Consciousness Reality's Emptiness Hypothesis' postulates that precisely since the physical universe does not exist in and of itself as an "independent-objective" reality, but rather exists only as a manifestation of the singularity of the Universal Consciousness Reality then the whole existence of the physical universe (e.g., in and of itself) may only be regarded as "empty" – it does not exist continuously as a separate entity, but is rather entirely dependent upon the creative- sustaining- dissolving- and evolving- power of the singular Universal Consciousness Reality! Once again, it may be helpful to utilize the (previously mentioned) 'Cinematic-Film Metaphor' as a somewhat similar process to the Universal Consciousness Reality's extremely rapid ( $c^2/h=1.56^{42}$ ) production of the series of Universal Simultaneous Computational Frames (USCF's): this is because contrary to our (perceptual) impression when we sit and observe an ongoing cinematic film presentation wherein the "physical-reality" of "trees", "cars", "sky" and "Earth" seems "solid" and "real" possessing an "objective" and "independent" "reality"- upon examination we find that in truth, this apparent "physical world" doesn't exist in and of itself! Thus we find that this whole entire 'physical world' "dissolves" in-between any two subsequent film-frames (wherein only the pure beam of light exists!) In effect, we realize that the whole existence- sustenance- and evolution- of the existence, sustenance and evolution of the whole 'film-world' is entirely dependent upon the continuous re-production of it by the rapid progression of the film-frames! In that sense, (too) the "apparent reality" of the film-world (on the screen) is seen as "empty" – i.e., not existing as a solid "reality" in and of itself but only as "caused" by the film-frames... Somewhat similar is the situation with regards to the Universal Consciousness Reality's continuous re-production- dissolution- and evolution- of every

exhaustive spatial-pixel in the entire physical universe at every minimal time-point USCF's frame/s: Based on the discovery of the 'Computational Invariance Principle' and associated 'Universal Consciousness Reality' postulates and the current Universal Consciousness Reality Emptiness Hypothesis, we come to realize that the entire physical universe does not exist "in and of itself", it "dissolves" 'in-between' any two subsequent USCF's frames, and is only "sustained" and "evolved" based on the continuous creative power of the singular Universal Consciousness Reality! Hence, the 'Universal Consciousness Reality's Emptiness Hypothesis' posits that the entire physical universe must be created- and re-created every  $1.45^{42}$  of a second by this singular Universal Consciousness Reality – i.e., without there being any "physical" – "reality" "effects", or even "laws" that determine this continuous –reproduction or evolution of the physical universe (e.g., for instance based on the previous USCF's frame/s physical state etc.)! Therefore, in continuation to the (previously discovered) 'Supra-Spatial-Temporal Universal Consciousness Reality' which asserted that the entire physical universe exists only as a manifestation of this singular Universal Consciousness Reality, the new 'Universal Consciousness Reality's Emptiness Hypothesis' (UCREH) emphasizes the fact that the physical universe does not exist "in and of itself" at all, i.e., but rather that it is continuously created- dissolved-re-created- and evolved-by this singular Universal Consciousness Reality!

### III. THE UNIVERSAL CONSCIOUSNESS REALITY RESERVOIR'S TAPPING HYPOTHESIS(UCRRTH)

But, if indeed, the entire physical universe does not "exist" – in and of itself, ceases to exist "in-between" any two consecutive USCF's frames and is totally dependent upon the continuous production- dissolution-sustenance- and evolution- of the singular Universal Consciousness Reality, then the immediate emerging question is: how is this Universal Consciousness Reality capable of "remembering" and "re-producing" the same physical universe – i.e., at each exhaustive spatial-pixel comprising it, and furthermore evolving each of these exhaustive spatial-pixels with each subsequent USCF's frame/s (e.g., as is evident in the previously discovered accelerated increase of the number of spatial pixels comprising each subsequent USCF's frame/s which gives rise to the accelerated expansion of the physical universe)?! If no "physical universe" exists "in-between" any two subsequent USCF's frames, i.e., according to the above mentioned 'Universal Consciousness Reality Emptiness Hypothesis' and the entire existence-dissolution- sustenance- and evolution- of each and every exhaustive spatial pixel throughout the entire physical universe is entirely dependent upon the creative

operation of the Universal Consciousness Reality, then how is this Universal Consciousness Reality capable of "memorizing"-, "dissolving"-, "re-creating"- and "evolving"- each such exhaustive spatial-pixel at each subsequent USCF's frame/s?! The previously mentioned 'Universal Consciousness Reality's Supra-Spatial-Temporal Reservoir' (hypothesis) provides a fascinating answer to this question which is also somewhat akin to the 'Cinematic-Film Metaphor' and opens yet further exciting possibilities for our broader scientific understanding of the nature and boundaries of this Universal Consciousness Reality which manifests as the physical universe and also transcends it (e.g., for instance, "in-between" any two subsequent USCF's frames!): Perhaps the best way of getting at this new "UCR Supra-Spatial-Temporal Reservoir Hypothesis" is based on the previously utilized Cinematic-Film Metaphor: when we ask an equivalent question pertaining to the "disappearance" of the film-world scene (e.g., on the screen) "in-between" any two subsequent film-frames – we realize that the "disappeared" film-scene associated with a particular film-frame (from the screen "in-between" that particular film-frame and a subsequent film-frame) simply goes back to the "reservoir" of that film's disc (or dvd)! In other words, any particular film-frame is not "lost" – i.e., when it is not being presented any longer, but rather "goes back" or is stored once again within the complete "reservoir" of the film's entire collection of frames! Similarly, then we postulate that all "past", "present" and "future" USCF's frames (including any segment of them) exists within this Universal Consciousness Reality's 'Supra-Spatial-Temporal Reservoir'!

There are only two principle differences between the "Cinematic-Film Metaphor" and the Universal Consciousness Reality's "storage" of all "un-presented" (e.g. "past" and "future") USCF's frames: first, unlike the cinematic film-frames, which are separate from the "pure beam of light" – in the case of the CUFT's Universal Consciousness Reality (which may be likened to the 'beam of light' which exists constantly both "during" the film frames allowing their images to be projected on to the screen and also exists solely "in-between" film-frames) each of the consecutive USCF's frames is solely produced by- comprised of- and "dissolves" into- the singularity of this Universal Consciousness Reality! In other words, contrary to the Cinematic-Film Metaphor, in which the film-frames are "separate" from the "projecting-light", the Universal Consciousness Reality contains within it the Universal Consciousness Reality's Reservoir of all the "past", "present" and "future" USCF's frames! Second, dissimilar to the Cinematic-Film Metaphor, in which all "past", "present" and "future" film-frames are already contained and stored within the corpus of the film's "dvd" – and will not change as a result of the film's



"playing-out" (or presentation); in the case of the Universal Consciousness Reality as delineated previously, there exist two primary principles (theoretical postulates) namely: the Universal Consciousness Reality's "Dynamic-Equilibrium" and "Multiple-Futures" which create the potential for more than one "future" occurrence/s or USCF's frame/s – i.e., as a result of Individual Human Consciousness' (moral) choices which set in motion the Dynamic-Equilibrium's "correcting-mechanism" aimed at restoring the Universal Consciousness Reality's unitary (moral) balance!

When we take into account the previously discovered possibility of Individual Human Consciousness to "expand"- such that its functioning and operation is not "separate" (or "different") from the Universal Consciousness Reality (e.g., termed: the "Individual Human Consciousness Expanded Spectrum Hypothesis", IHCESH, associated with the 'Universal Consciousness Reality's Inseparability Principle'), then we arrive at a new surprising- and potentially quite far-reaching new theoretical postulate named: The *"Universal Consciousness Reality Reservoir's Tapping Hypothesis"* (UCRRTH)! The *'Universal Consciousness Reality Reservoir's Tapping Hypothesis'* (UCRRTH) simply hypothesizes that given the above mentioned 'Individual Human Consciousness Expanded Spectrum Hypothesis' (IHCESH) and the existence of the 'Universal Consciousness Reality's Supra-Spatial-Temporal Reservoir' which contains all "past", "present" and "future"\* USCF's it may be possible for such an 'Expanded Individual Human Consciousness' to access- (and potentially even affect!) any exhaustive spatial pixel across all past- present- (and perhaps future\*-) USCF's!! This new UCRRTH may indeed call for the scientific investigation of the possibility of human beings (with such an "expanded" Individual Human Consciousness to "predict future occurrences", "affect" or "know" "non-local" occurrences"- and even hypothetically be capable of accessing- knowing- and "travelling"- to any exhaustive spatial point in any "past" "present"- or "future"\*-USCF's frame/s in the universe, i.e., "instantaneously" for any given single USCF's frame/s (e.g., thereby "transcending the speed of light" barrier as evinced in one of the previous articles in this Special Issue)! In effect, this means that by tapping into the potential of the 'Individual Human Consciousness Expanded Spectrum' this new 'Universal Consciousness Reality Reservoir's Tapping Hypothesis' allows Humanity to access any "past"- "present" (or perhaps "future"\*) exhaustive spatial pixel in the entire physical universe "instantaneously" – thereby cancelling any "time" and "space" constraints across the entire universe, e.g., and obviously transcending the "Speed of Light" apparent barrier, as well as allowing us to access up to the farthest boundaries of the physical universe (including within "Black Holes") and as far back

into the "past" initial USCF's frames constituting the physical universe or potentially also into various potential "multiple-futures"\* (as previously explained)! Indeed, this last "unlimited" potential of the 'Expanded Individual Human Consciousness' is compatible with the previously discovered "Omnipresent", "Omniscient" characterization of the Universal Consciousness Reality, e.g., which was already noted to allow for such 'Expanded Individual Human Consciousness' to access all exhaustive spatial pixels in the entire physical universe in the "past", "present" or "future"\* USCF's frame/s – thereby indeed opening almost "unlimited" possibilities for 21<sup>st</sup> Century Physics research...It is therefore hypothesized that all "past"- "present"- and "future" USCF's exhaustive spatial pixels of the entire physical universe are accessible to such an "expanded" Individual Human Consciousness – in the same manner that they are "accessible" to the Universal Consciousness Reality which produces- "dissolves"- "sustains"- and "evolves"- every exhaustive spatial pixel in the universe in any "past", "present" or "future" USCF's frame/s, e.g., and also "stores" them within its "Supra-Spatial-Temporal Reservoir"; and hence that an "expanded" Individual Human Consciousness which functions equivalently to the singular Universal Consciousness Reality is also capable of "accessing": "producing"- "dissolving"- "sustaining"- and "evolving"- every exhaustive spatial pixel throughout the entire physical universe in the "past", "present" and "future/s"\*\* (as outlined above and previously); such that those specific USCF's frames that are not being "presented" by the Universal Consciousness Reality (e.g., at the given "current" USCF's frame) are nevertheless "stored" within the Universal "Consciousness Reality's Supra-Spatial-Temporal Reservoir"!

Indeed, the theoretical ramifications of this new Universal Consciousness Reality's Tapping Hypothesis are almost "unlimited", e.g., especially when associated with the previously mentioned Universal Consciousness Reality's Omnipresent- Omniscient- characteristics: As delineated previously, due to the Universal Consciousness Reality's sole and singular production-dissolution- sustenance- and evolution- of every exhaustive spatial-pixel in the entire physical universe this singular Universal Consciousness Reality possesses an "Infinite, Omnipresent and Omniscient" characteristics pertaining to each of those exhaustive spatial-pixels throughout the vast universe, e.g., in the "past", "present" and "future"\* (as explained above, the Universal Consciousness Reality's knowledge of any "future" occurrence is more complex as it involves the "Individual Human Consciousness" intrinsic "moral-choices" which enacts the Universal Consciousness Reality's moral based "multiple-futures" potential due to its "Dynamic-Equilibrium" moral based principle...) This means that from the perspective of this singular higher-



ordered Universal Consciousness Reality all "past", "present" and "future"\* exhaustive spatial-pixels comprising the entire physical universe are "known" or "knowable", "produced"- "dissolved"- "sustained"- and "evolved"- solely by this Universal Consciousness Reality! Now, when we take into consideration the identity of the "Individual Human Consciousness", e.g., in its "expanded" mode with this Universal Consciousness Reality (e.g., called: the "Individual Human Consciousness Expanded Spectrum Hypothesis" (IHCESH) (and its associated Universal Consciousness Reality's "Inseparability Hypothesis") we reach an at incredible (inevitable) theoretical conclusion which is that: in the same manner that the Universal Consciousness Reality possesses an "infinite", "omniscient", "omnipresent" knowledge- presence- and effect- (e.g., "production"-, "dissolution"- "sustenance" and "evolution"-) of every exhaustive spatial pixel/s in the entire physical universe so the "expanded" Individual Human Consciousness possesses too this extraordinary capacity to know- affect- "reach"- mold- "dissolve"- and evolve- every exhaustive spatial pixel in the entire physical cosmos, at every minimal time-point USCF's "simultaneously"!! Indeed, it has already been shown that such "expanded" Individual Human Consciousness transcends the speed of light and is capable of reaching every such exhaustive spatial pixel/s in the universe "instantaneously" – once again, just as the Universal Consciousness Reality does!

This means that the potential for our Individual Human Consciousness to "know"- "affect"- "mold"- and "evolve"- every exhaustive spatial pixel in the universe is unlimited by the current apparent constraints of Physics "old Paradigm", e.g., the "Material-Causal" Paradigm underlying both Relativity Theory and Quantum Mechanics, wherein it is assumed that it is not possible to transmit any signal or object at a speed greater than the Speed of Light (e.g., according to Relativity Theory), or "reverse-time", i.e., access- or affect- "past" occurrences (according to both Relativity Theory and Quantum Mechanics); Instead, the CUFT's new "A-Causal Computation" Paradigm allows the "expanded" Individual Human Consciousness to "know"- "affect"- and "transform"- any "past"- "present"- (or "future"\*-) occurrences, e.g., taking place at any exhaustive spatial-pixel/s in the physical universe, thereby transcending the Speed of Light constraint and allows Humanity and Science to "know"- "access"- and even "affect"- any point in the cosmos "instantaneously" and also investigate any occurrence/s in the "past" at any exhaustive spatial pixel in previous USCF's frames! In effect this implies that would reach an extraordinary position as to have access to the entire "corpus" of the Universal Consciousness Reality's Supra-Spatial-Temporal Reservoir of all "past"- "present"- (and potentially also a certain degree of access to the

"multiple-futures"\*), which are nevertheless affected by the moral-based Dynamic-Equilibrium Principle)...

Indeed, the far-reaching potential implications of this new discovery regarding the accessibility of Science to all past-present- (and future\*-) exhaustive spatial pixels of the cosmos are quite "staggering": Science would be able to probe Black-Holes, the edges of the cosmos (and any planet or point throughout the entire physical universe), the origins of the universe and its evolution, the evolution and history of our Planet Earth, its species and any historical event etc... Nevertheless, in order to Science (and Humanity) to be able to access this unlimited potential to "know"- "reach"- and "affect"- every exhaustive spatial pixel in the physical universe it needs to further investigate this unlimited potential associated with the "expansion" of the Individual Human Consciousness and its identity with the Universal Consciousness Reality! Moreover, it is suggested that based on the same intrinsic feature of this singular 'Universal Consciousness Reality' which is the moral-based 'Dynamic-Equilibrium' Principle stating that since the Universal Consciousness Reality constitutes a singular Supra-Spatial-Temporal reality it always strives towards a fundamental "moral-balance", i.e., it "corrects" any "moral-imbalance" produced by the infliction of (conscious) pain by one Individual Human Consciousness on another Individual Human Consciousness; So, it is hereby hypothesized that in order for any Individual Human Consciousness to "expand" into the Universal Consciousness Reality this necessitates a refinement and attainment of moral-balance, i.e., so that it would not be possible for any hypothetical "expanded" Individual Human Consciousness to "inflict-pain" on any other Individual Human Consciousness, which is hence termed: The *"Expanded Individual Human Consciousness Moral Contingency"* postulate! In a nutshell, this new 'Expanded Individual Human Consciousness Moral Contingency' postulate hypothesizes that since a basic feature of the Universal Consciousness Reality is its moral-based 'Dynamic-Equilibrium' postulate (e.g., asserting that the entirety of the Supra-Spatial-Temporal Universal Consciousness Reality constitutes a singular unity and therefore that any infliction of 'pain' by one Individual Consciousness upon another Individual Consciousness inevitably leads to a "balancing effect" of the infliction of parallel 'pain' to the inflicting Individual Consciousness); therefore necessarily the possibility of the "expansion" of Individual Human Consciousness is contingent upon an evolution of a Cosmic Morality or identification of the "expanding Individual Consciousness" with all other segments of this singular Universal Consciousness Reality (e.g., all other exhaustive spatial pixels in the universe in the "past", "present" and "future/s"\*\*)!

#### IV. THE UCR'S "FREE-WILL HYPOTHESIS"

We now come to a new subtle (yet profound) theoretical understanding associated with these recent discoveries centering on the singular production-sustenance- dissolution- and evolution- of each and every exhaustive spatial-pixel in the entire physical universe solely based on the operation of the Universal Consciousness Reality: First, we realized that the entire physical universe – does not exist “in and of itself” (“objectively”) but only as a manifestation of the Universal Consciousness Reality; Then, we understood that since the physical universe (and every exhaustive spatial-pixel within it) does not exist as an “independent-reality” but only as a manifestation of the singularity of the Universal Consciousness Reality – we were led to recognize certain “Law, Order and Intelligence” intrinsic characteristics of this singular ‘Supra-Spatial-Temporal Universal Consciousness Reality’, e.g., such as its ‘Dynamic-Equilibrium’ (moral-balance) principle, its ‘Universal Consciousness Reality’s Expansive Spectrum Hypothesis’ (pointing at its inherent tendency towards manifesting ever-broader ‘inanimate, animate, and human’ expressions of the Universal Consciousness Reality), as well as its continuous increased addition of exhaustive spatial-pixels to each subsequent USCF’s frame/s! Subsequently, we further realized the complete “Emptiness” of this singular Universal Consciousness Reality – i.e., which produces each and every exhaustive spatial pixel throughout the entire physical universe not based on any “previous” or “existing” physical “features” or “state”, e.g., of a given set of exhaustive spatial-pixels within a particular single or multiple USCF’s frames, but rather as solely ordained by this Universal Consciousness Reality! This amounts to the recognition of another (new) Universal Consciousness Reality’s “Free-Will Hypothesis” (FWH), which recognizes the complete “independence” and “Free-Will” of this Universal Consciousness Reality; which is not bound by any “physical laws”, or any “material-causal” relationships between any two or more exhaustive spatial-pixels’ features in any “existing” or “previous” USCF’s frame/s – but is only determined by this singular Universal Consciousness Reality’s “free-choice” (at any “minimal time-point” USCF’s)! We thus come to a profound new understanding of the physical universe – which represents only a manifestation of the singular Universal Consciousness Reality’s “free-choice” to create- dissolve- re-create- and evolve- each and every exhaustive spatial-pixel throughout the entire physical universe! We realize that whereas this singular Universal Consciousness Reality “chooses” to create- dissolve- re-create- and evolve- each such exhaustive spatial-pixel in the entire physical universe (at every minimal time-point USCF’s frame/s) it is not “bound” in any way by the physical universe’s “current”- or “previous” state, nor even by the Supra-Spatial-Temporal Reservoir

(hypothesis)! In that sense the Universal Consciousness Reality is completely “free” – possessing a complete freedom to “create”- and “evolve” any exhaustive spatial pixel in the universe as it ordains, albeit it seems that “ordinarily” (or “statistically”) this Universal Consciousness Reality “chooses” to follow the ‘Law, Order & Intelligent’ characteristics (mentioned above and previously) in its unfolding, sustenance and evolution of the physical cosmos... Obviously, this new UCR’s “Free-Will Hypothesis” opens the door for the recognition of new possibilities for “Universal Consciousness Reality’s Free-Will” based physical occurrences, e.g., including the possibility wherein “Individual Human Consciousness” which was shown to be “inseparable” from this Universal Consciousness (based on the ‘Universal Consciousness Reality’s Inseparability Principle’ postulate – may affect such “UCR’s Free-Will” occurrences or phenomena, as in prayer)...

#### V. A NEW UNIVERSAL CONSCIOUSNESS REALITY BASED SCIENCE: REVISITING EINSTEIN’S EQUATIONS

The emerging new picture of the physical universe – solely as a manifestation of the singular Universal Consciousness Reality which creates-dissolves- re-creates- and evolves- each and every exhaustive spatial-pixel within it (at every minimal time-point USCF’s frame/s), based on its “Emptiness” hypothesis, i.e., wherein the physical universe does not possess any “independent” reality but is rather entirely- and solely- produced by this Universal Consciousness Reality forces us to revise our basic conception of all Scientific inquiry (and disciplines): First and foremost, as demonstrated above since the only consistent (‘computationally-invariant’) element which manifests (and computes) every exhaustive spatial-pixel in the universe “during” every USCF’s frame/s, and also solely exists “in-between” any two consecutive USCF’s frames (without the presence of any physical universe) is the singular ‘Universal Consciousness Reality’, whereas the entire physical universe (comprised of the four basic physical features associated with ‘space’, ‘time’, ‘energy’ and ‘mass’ at each exhaustive spatial pixel/s) “dissolves” ‘in-between’ any two consecutive USCF’s frames (considered “computationally-variant”); therefore all Scientific Laws and Theories (e.g., in both Inductive and Deductive Science) have to be fundamentally revised based on the recognition that it is solely this singular Universal Consciousness Reality which creates-dissolves- re-creates- and evolves- every exhaustive spatial pixel in the entire physical universe – and therefore that all (Inductive and Deductive) Scientific laws, phenomena, and relationships have to be revised based on this new recognition of the sole reality of this Universal Consciousness Reality!

Indeed, a previous article (Bentwich, 2017k) demonstrated in what manner the discovery of the Computational Unified Field Theory (CUFT) 'Duality Principle', 'Computational Invariance Principle' and associated 'Universal Consciousness Reality' proved that Darwin's well-known "Natural Selection Principle" must be rejected as representing a "material-causal" relationship which is negated by these basic theoretical postulates of the CUFT! Succinctly stated, it indicated that since Darwin's 'Natural Selection Principle' is based on a 'material-causal' assumption wherein it assumed that it is the direct physical interaction between any given biological organism and an exhaustive set of 'Environmental Factors' which determine whether this particular organism will "survive" or be "extinct" – is negated by the CUFT's "A-Causal Computation" Paradigm (embodying the CUFT's abovementioned 'Duality Principle' 'Computational Invariance Principle' and 'Universal Consciousness Reality' theoretical postulates)! This is due to the fact that according to this CUFT's 'A-Causal Computation' Paradigm all exhaustive spatial pixels throughout the entire physical universe are computed *simultaneously* thereby negating the possibility of any such 'material-causal' relationships between any (two or more) exhaustive spatial-pixels existing at the same- or different- USCF's frames (e.g., given the fact that there cannot exist any "transference" or any "physical effect/s" across any two separate USCF's frames due to the "dissolution" of all exhaustive spatial pixels "in-between" any two consecutive USCF's frames). Instead, the 'A-Causal Computation' new Paradigm of 21<sup>st</sup> Century Theoretical Physics advocates that the sole "cause" for the particular series of USCF's depicting a progression from inanimate towards animate: plants, animals and humans is one of the intrinsic characteristics of this singular Universal Consciousness Reality, e.g., an innate tendency to manifest ever broader and "fuller" expressions of this Universal Consciousness!

In much the same manner, but more generally, it was already shown that the CUFT's 'A-Causal Computation' Paradigm challenges General Relativity's Einstein's Equations – and hence calls for a general fundamental revision of all Inductive and Deductive Scientific Laws: This is because it was already shown that the CUFT's A-Causal Computation Paradigm negates Einstein's Equations due to their reliance on a basic "material-causal" relationship wherein the state of "curved Space-Time" based on a certain dispersion of particular "massive objects" at a given USCF's frame/s "causes" the "movement-pathways" of those- or other- 'massive-objects', e.g., at a subsequent USCF's frame/s. This is simply based on the fact that no "physical" or "material-entity" or "physical-effect" can "pass"- or be "transferred"- from one USCF's frame/s to any subsequent USCF's (due to the complete 'dissolution' of all exhaustive spatial pixels in the

physical universe "in-between" any two subsequent USCF's)! Hence, the CUFT's 'A-Causal Computation' Paradigm asserted that instead of Einstein's Equations suggesting a dynamic 'material-causal' relationship between massive-objects' curving 'Space-Time' and 'Space-Time's' determination of the 'movement pathways' of these massive objects – there exists a singular "cause" for both the 'curvature of Space-Time' as well as of the 'movement-pathways' of those massive objects, which is the sole production- dissolution- re-creation- and evolution- of every exhaustive spatial-pixel in the entire physical universe by the Universal Consciousness Reality (at every minimal time-point USCF's frame/s)!

But, if indeed, Einstein's Equations (and the whole of General Relativity) have to be revised based on the Universal Consciousness Reality's sole production-dissolution- re-creation- and evolution- of each and every exhaustive spatial-pixel in the universe (at every minimal time-point " $c^2/h$ " = 1.45<sup>-42</sup> second!), then we must also revise all other Scientific disciplines (and Models) accordingly: if indeed there cannot exist any 'material-causal' physical relationships between any two (or more) exhaustive spatial pixels existing either in the same- or other- USCF's frame/s and the only "cause" for the production- dissolution- sustenance- and evolution- of any exhaustive spatial-pixel in the entire physical universe is only the singularity of the 'Universal Consciousness Reality', then all other Inductive and Deductive Sciences (and models) must be revised to reflect this sole dependency of all physical phenomena, laws and operations strictly based on the Universal Consciousness Reality's intrinsic characteristics! Indeed, a new Universal Consciousness Reality based Science needs to emerge based on the CUFT's basic 'A-Causal Computation' Paradigmatic Shift in Twenty-First Century Theoretical Physics...

## VI. THE PHYSICAL UNIVERSE AS A "CAMOUFLAGE" OF THE UNIVERSAL CONSCIOUSNESS REALITY!

Indeed, the "full picture" of the CUFT's new 'A-Causal Computation' Paradigm is one in which the physical universe is seen from a completely different 'computational perspective': not only the physical cosmos was not "created" by a "Big-Bang" nuclear explosion some 13.5 Billion years ago – but is rather being continuously "created"- "dissolved"- "re-created"- and "evolved"- every 1.45<sup>-42</sup> seconds anew by the singular Universal Consciousness Reality through its extremely rapid production of a series of 'Universal Simultaneous Computational Frames' (USCF's), e.g., just as this singular Universal Consciousness Reality has produced perhaps the first 'Big-Bang' nuclear explosion USCF's frame! In that sense, the cosmos is not less "created" every 1.45<sup>-42</sup> seconds (now), then it

was "created" by this singular Universal Consciousness Reality with what may have been the first USCF's frame some 13.5 Billion years ago... But, this does not reflect the full scope of the fundamental metamorphosis of CUFT's new conception of the cosmos that arises from the recent discoveries of the CUFT's 'Universal Consciousness Reality' (UCR), UCR's 'Supra-Spatial-Temporal Reservoir' and 'Free-Will Hypothesis' etc.; This is because based on the *discovery of the 'Universal Consciousness Reality' – which constitutes the sole "unchanging reality" ('computationally-invariant') which both "creates"- "dissolves"- "re-creates"- and "evolves"- each and every exhaustive spatial pixel in the universe "during" each minimal time-point USCF's frame/s and also solely exists "in-between" any two consecutive USCF's frames (e.g., without the presence of a physical universe); it is now realized that the physical universe merely "Camouflages" the singular, true (and unchanging) reality of this 'Universal Consciousness Reality'!*

Indeed, the recent (and abovementioned) unraveling of the Universal Consciousness Reality's 'Supra-Spatial-Temporal Reservoir Hypothesis' (and its other intrinsic features such as the previously mentioned 'Dynamic-Equilibrium Principle', 'Law, Order & Intelligence' etc.), alongside its 'Universal Consciousness Reality Emptiness Hypothesis' and even its UCR's 'Free-Will Hypothesis' – all point at the complete dependency of the entire physical cosmos (and every exhaustive spatial pixel within it) upon its continuous "creation"- "dissolution"- "re-creation"- and "evolution" by the singular Universal Consciousness Reality ('Emptiness Hypothesis); the negation of the existence of any 'material-causal' relationships between any two (or more) exhaustive spatial pixels existing either within the same- or other- USCF's frame/s – which points at the Universal Consciousness Reality's "creation"- dissolution"- re-creation" and "evolution" as the sole "driving force" of the entire physical universe, e.g., thereby negating Einstein's General Relativity's Equations (as explained previously and above); Indeed, this new conception of the physical universe as merely a manifestation of the Universal Consciousness Reality even point at this Universal Consciousness Reality's "Free-Will", wherein it is realized that this Universal Consciousness Reality is not bound (at all) by any physical feature (law or constraint) of the physical cosmos to create- and re-create- or evolve any exhaustive spatial pixel in the universe as well as the entire cosmos as it wills (albeit it normally functions through its above mentioned characteristics of Law Order & Intelligence, Dynamic Equilibrium, etc...

As shown above, the generalized representation of the 'Universal Consciousness Reality' portrays it as the sole unchanging reality that manifests: both as the physical universe, e.g., "creating"- dissolving"- "re-creating"- and "evolving"- this physical universe "during"

it's extremely rapid production of each consecutive USCF's frame/s, as well the sole and singular existence of this Universal Consciousness Reality "in-between" any two such consecutive USCF's frames; As such, it becomes clear that the physical universe merely "camouflages" the sole existence of this singular 'Universal Consciousness Reality' – which is nevertheless the sole originating- constituting- dissolving and evolving- reality comprising each and every exhaustive spatial pixel in the entire physical universe (as well as the whole entire physical universe)... The physical universe becomes therefore a "living" "dynamic" representation of this singular Universal Consciousness Reality! Indeed, even the various "Physical Scientific Laws" such as the Laws of Conservation, Gravity, the four basic physical features of "space", "time", "energy" and "mass" – are all seen as originating- manifesting- existing- and evolving- solely as created and sustained by this singular Universal Consciousness Reality... The physical universe does not exist in and of itself as an "independent reality" but only as a manifestation of- and indeed as a "camouflage" for- the "real" reality of the singular 'Universal Consciousness Reality' which animates- sustains- dissolves- evolves- and transcends- each and every exhaustive spatial pixel in the physical universe (as well as the entire cosmos)!

## VII. A CALL FOR EXPERIMENTAL PHYSICISTS TO TEST THE CUFT'S DIFFERENTIAL-CRITICAL PREDICTION

As in in the case of Einstein's Relativity Theory (Paradigmatic Shift) – which in the final analysis "triumphed" over Newton's Mechanics due to the empirical verification of Relativity's Mercury's perihelion measurements (due to the curvature of space-time by the Sun's mass); So it is suggested that there is an urgent need for an empirical testing of (one of) the 'Computational Unified Field Theory's' "differential-critical predictions" (Bentwich: 2006; 2012 a & b; 2013 a & b; 2014; 2015; 2016; 2017 a-k) namely: that relatively "more massive" particles would be measured at a greater number of USCF's minimal time measurements (e.g., or even through sampling of minute time measurements) than "less massive" particles! Such empirical testing – if indeed verified experimentally, wherein a 'more massive' particle (such as the Muon) would be measured at a significantly greater number of minute-temporal measurements than a 'less massive' particle (such as the electron), then this would (undoubtedly) validate the CUFT as a satisfactory "Theory of Everything" more valid than both Relativity Theory and Quantum Mechanics, e.g., based on its previous extensive body of work indicating its capacity to resolve the principle theoretical inconsistencies between RT and QM, its explanation of a series of



unresolved Physical Conundrums such as "dark-matter", "dark-energy", the "Arrow of Time" etc., and its complete revision of our basic understanding of the physical universe – not as a "materially-causally" governed but rather as manifesting (and indeed "camouflaging"! ) the singular Universal Consciousness Reality which created- dissolves- re-creates- evolves- and transcends- the entire physical cosmos...

## REFERENCES RÉFÉRENCES REFERENCIAS

1. Bentwich, J. (2012a) "Harmonizing Quantum Mechanics and Relativity Theory". Theoretical Concepts of Quantum Mechanics, Intech (ISBN 979-953-307-377-3), Chapter 22, pp. 515-550.
2. Bentwich, J. (2012b) "Theoretical Validation of the Computational Unified Field Theory". Theoretical Concepts of Quantum Mechanics, (ISBN 979-953-307-377-3), Chapter 23, pp. 551-598.
3. Bentwich, J. (2013a). "The Theoretical Ramifications of the Computational Unified Field Theory". Advances in Quantum Mechanics (ISBN 978-953-51-1089-7), Chapter 28, pp. 671-882.
4. Bentwich, J. (2013b). The Computational Unified Field Theory (CUFT): A Candidate Theory of Everything. Advances in Quantum Mechanics (ISBN 978-953-51-1089-7) Chapter 18, pp. 395-436.
5. Bentwich, J. (2014a). Critical Empirical Validation of the 'Computational Unified Field Theory' (CUFT) vs. Quantum & Relativistic Models. Selected Topics in Applications of Quantum Mechanics (ISBN 978-953-51-2126-8).
6. Bentwich, J. (2014b) What if Einstein was Right? Amazon Kindle Book Store.
7. Bentwich, J. (2015). On the Geometry of Space, Time, Energy & Mass: Empirical Validation of the Computational Unified Field Theory. Proceedings of Vigier IX – Unified Mechanics: Natural Science Beyond the Veil of Spacetime (Baltimore, Maryland).
8. Bentwich, J. (2016) The 'Computational Unified Field Theory': A Paradigmatic Shift. Research & Reviews: Journal of Pure & Applied Physics.
9. Bentwich, J. (2017a) The Computational Unified Field Theory: Could 'Dark Matter' & 'Dark Energy' be "Superfluous"? Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21<sup>st</sup> Century Physics.
10. Bentwich, J. (2017b) The Computational Unified Field Theory: Explaining the Universe from "Without". Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21<sup>st</sup> Century Physics.
11. Bentwich, J. (2017c). The Computational Unified Field Theory: A New 'A-Causal Computation' Physics. Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21<sup>st</sup> Century Physics.
12. Bentwich, J. (2017d). The 'Computational Unified Field Theory' (CUFT) May Challenge the 'Big-Bang Theory'. Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21<sup>st</sup> Century Physics.
13. Bentwich, J. (2017e). Can the 'Computational Unified Field Theory' (CUFT) Challenge the Basic Laws of Conservation? Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21<sup>st</sup> Century Physics.
14. Bentwich, J. (2017f). The Computational Unified Field Theory: Time Reversal May be Possible. Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21<sup>st</sup> Century Physics.
15. Bentwich, J. (2017g). The Computational Unified Field Theory (CUFT) Transcends Relativity's Speed of Light Constraint. Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21<sup>st</sup> Century Physics.
16. Bentwich, J. (2017h). The Computational Unified Field Theory's New Physics: Transcending Space, Time and Causality. Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21<sup>st</sup> Century Physics.
17. Bentwich, J. (2017i). A "Supra-Spatial-Temporal Universal Consciousness Reality". Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21<sup>st</sup> Century Physics.
18. Bentwich, J. (2017j). A New Science: An Infinite Omniscient Dynamic-Equilibrium Universal Consciousness Reality. Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21<sup>st</sup> Century Physics.
19. Bentwich, J. (2017k). The Computational Unified Field Theory (CUFT) Challenges Darwin's 'Natural Selection Principle'! Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21<sup>st</sup> Century Physics.

### Dedication

This last article of the Special Issue of the Journal of Pure & Applied Physics (The Computational Unified Field Theory, A Paradigmatic Shift in 21<sup>st</sup> Century Physics) is dedicated to all those "brave new Scientists"



who are willing to contemplate a new (and different) conception of the physical universe – one which is “created” a new every 1.45<sup>-42</sup> second by the singular Universal Consciousness Reality... To those “courageous” and “open-minded” scientists who are eager to find Truth, no matter how “non-common-sense” it may seem (at least initially)! May we all tread this path towards a True (unbiased) Science and ‘march-on’ to allow Humanity to discover and embrace ever higher realizations of this singular higher-ordered Universal Consciousness Reality!

*Special thanks to my dear friend-brother Motti Ben-Mordechai who shared my vision and supported my work during the past year, to my dear Beloved Mother Dr. Tirza Bentwich and to my mentor, Mr. Brian Fisher (for encouraging me to carry on my investigation of Truth); My love to Shoham and Nethanel my two dear beloved sons, dear beloved friends-family Pinchas Eliyahu (Allen) & Tamar Meitala.*

*What if* – there may have been a “Big-Bang” (nuclear explosion) but it did not “create” the universe; instead, the entire physical universe is being continuously “created”- “dissolved”- “re-created” and “evolved”- every 1.45<sup>-42</sup> seconds by the singular ‘Universal Consciousness Reality’... *What if* – the universe expands (at an accelerated rate) but it is not due to any “dark-matter”, “dark-energy” (which does not exist!?!); rather its accelerated expansion is caused by this Universal Consciousness Reality’s increased number of exhaustive spatial pixels that it produces with every consecutive USCF’s frame/s! *What if* – “past”, “present” and “future”\* already exist within this Universal Consciousness Reality’s “Supra-Spatial-Temporal Reservoir”!? What if there exist certain basic features of this Universal Consciousness Reality such as its “Dynamic-Equilibrium” (moral-based) characteristic, or its inherent tendency to manifest ever more expansive inanimate, animate: plants animals and humans forms expressing this singular Universal Consciousness?! *What if*– this entire physical cosmos is not independent of- and is in fact solely created- sustained- dissolved and evolved- by this Universal Consciousness Reality, being only a manifestation of- (and a “Camouflage” for-) this singular Universal Consciousness Reality!? *What if* – this Universal Consciousness Reality possesses a “free-choice” to create- recreate and evolve- any physical state of the universe (not constrained by any physical laws or the universe’s current- or future- states)!? *What if*– our own Human Consciousness is not “separate” from this Universal Consciousness Reality (and can possibly affect this Universal Consciousness Reality’s creation- dissolution- re-creation and evolution- of any particular spatial pixels, e.g., such as through prayer etc.)?

This page is intentionally left blank



GLOBAL JOURNAL OF SCIENCE FRONTIER RESEARCH: A  
PHYSICS AND SPACE SCIENCE  
Volume 18 Issue 8 Version 1.0 Year 2018  
Type: Double Blind Peer Reviewed International Research Journal  
Publisher: Global Journals  
Online ISSN: 2249-4626 & Print ISSN: 0975-5896

# Testing the Computational Unified Field Theory's (CUFT) 'Differential-Critical Prediction/s': The Higgs-Boson Particle May Not Exist Continuously!

By Jehonathan Bentwich, Ph.D

*Introduction-* Twenty-first century Theoretical Physics is undergoing a major 'Paradigmatic Shift' due to the discovery of the 'Computational Unified Field Theory' (CUFT) – from the current 'Material-Causal' Paradigm underlying both 'Relativity Theory' (RT) and 'Quantum Mechanics' (QM) towards the CUFT's new 'Acausal Computation' Paradigm; As shown previously, this 'Paradigmatic Shift' is warranted based on Kuhn's (1962) well-known rigorous scientific criteria for the acceptance of a 'Paradigmatic Shift' in Science, which includes:

- a) The existence of a basic "theoretical inconsistency" between the "pillars" of a given scientific discipline –i.e., the basic theoretical inconsistency that exists between RT & QM.
- b) Existence of a series of "unexplained phenomena" which cannot be accounted for by the current Paradigm: the accelerated expansion of the physical universe is currently attributed to pure hypothetical "dark-matter" and "dark-energy" concepts (e.g., accounting for up to 85% of all mass and energy in the universe) – but they can't be verified empirically?!

*GJSFR-A Classification: FOR Code: 080299*



TESTINGTHECOMPUTATIONALUNIFIEDFIELDTHEORYSCUFTDIFFERENTIALCRITICALPREDICTIONSTHEHIGGS-BOSONPARTICLEMAYNOTEXISTCONTINUOUSLY

*Strictly as per the compliance and regulations of:*



RESEARCH | DIVERSITY | ETHICS

# Testing the Computational Unified Field Theory's (CUFT) 'Differential-Critical Prediction/s': The Higgs-Boson Particle May Not Exist Continuously!

Jehonathan Bentwich, Ph.D

## I. INTRODUCTION

**T**wenty-first century Theoretical Physics is undergoing a major 'Paradigmatic Shift' due to the discovery of the 'Computational Unified Field Theory' (CUFT) – from the current 'Material-Causal' Paradigm underlying both 'Relativity Theory' (RT) and 'Quantum Mechanics' (QM) towards the CUFT's new 'A-Causal Computation' Paradigm; As shown previously, this 'Paradigmatic Shift' is warranted based on Kuhn's (1962) well-known rigorous scientific criteria for the acceptance of a 'Paradigmatic Shift' in Science, which includes:

- a) The existence of a basic "theoretical inconsistency" between the "pillars" of a given scientific discipline – i.e., the basic theoretical inconsistency that exists between RT & QM.
- b) Existence of a series of "unexplained phenomena" which cannot be accounted for by the current Paradigm: the accelerated expansion of the physical universe is currently attributed to purely hypothetical "dark-matter" and "dark-energy" concepts (e.g., accounting for up to 85% of all mass and energy in the universe) – but they can't be verified empirically?!
- c) Identification- and empirical validation- of at least one "differential-critical prediction" of the new CUFT Model which significantly differs from the predictions of the 'Material-Causal' Paradigm underlying both RT and QM; Initial empirical validation for one of the CUFT's 'differential-critical prediction' was provided by Bernaur & Pohl (2014) "Proton-Radius Puzzle" (see below). Indeed, the goal of this article is to delineate several direct experimental methods for empirical validation of the CUFT's 'differential-critical predictions'.
- d) Ideally, this new 'CUFT's' new 'A-Causal Computation' Paradigm will offer new insights, empirical predictions, and a broader theoretical framework going beyond the current strict 'Material-Causal' Paradigm of RT and QM: i.e., for instance its complete unification of 'space', 'time', 'energy' and

'space' within a single 'Universal Computational Formula' (see below), alongside its recognition of a singular ('computational invariant') 'Universal Computational/Consciousness Reality' (discussed below).

One of the intriguing new theoretical ramifications of this new '*A-Causal Computation*' Paradigm of the CUFT is that it stipulates that there cannot exist any "material-causal" relationships between any (two or more) exhaustive spatial pixels existing either in the same- or different USCF's frames (e.g., at either the relativistic or quantum levels). This is due to the CUFT's discovery of a new singular higher-ordered 'Universal Computational Principle' (UCP) which simultaneously computes every exhaustive spatial pixel in the universe –i.e., including its four basic physical features (of 'space', 'time', 'energy' and 'mass') constituting any single- or multiple- USCF's frame/s (at every minimal time-point: " $c^2/h$ " =  $1.45^{-42}$  sec). This UCP's computation of those four basic physical features is based on two (out of three) UCP's 'Computational Dimensions': "Framework" ('frame' vs. 'object'), and "Consistency" ('consistent' vs. 'inconsistent'), e.g., with 'space' and 'energy' – representing the UCP's 'frame' – 'consistent' vs. 'inconsistent' measures, and 'mass' and 'time' representing the UCP's 'object' – 'consistent' vs. 'inconsistent' measures (Figure 1). The key point to be noted is that "in-between" any two consecutive USCF's frames there doesn't exist any physical universe (but only the singular Universal Computational Principle). Furthermore, the CUFT's "Computational Invariance Principle" reasons that since this 'Universal Computational Principle' (UCP) represents a '*computationally-invariant*' principle, i.e., as it exists singularly both "during" its sole computation of each exhaustive spatial pixel of any (single or multiple) USCF's frame, and also solely exists "in-between" any two such consecutive USCF's frames; whereas those four physical features (of 'space', 'energy', 'mass' and 'time') are regarded as "*computationally-variant*" since they exist only "during" each consecutive USCF's frame (as solely computed by the UCP) but cease to exist "in-between" any two consecutive USCF's frames; therefore,

Author: e-mail: drbentwich@gmail.com

the 'Computational Invariance Principle' reasons that only this 'computationally-invariant' UCP may be regarded as 'permanent' and 'continuous' whereas the four basic physical features may only be regarded as 'phenomenal' and 'transient'...

Finally, another key accomplishment of the CUFT is its full integration – not only of Relativity Theory and Quantum Mechanics, but also of these four basic physical features of 'space', 'time', 'energy' and 'space', e.g., within a singular 'Universal Computational Formula':

*Universal Computational Formula (Ucf)*

$$\frac{c^2}{h} = \frac{s}{t} \cdot \frac{e}{m}$$

Note worthy is this UCF's (Relativistic & Quantum) Representations' replication (and transcendence) of all major RT and QM laws and relationships, e.g., including the 'Mass-Energy Equivalence' and Heisenberg's 'Uncertainty Principle' 'Complimentary Pairs' accuracy constraint:

- 1) Relativistic Representation:  $e \times s = m \times c^2$
- 2) Quantum Representation:  $t \times mc^2 = s \times \frac{e}{h}$

Several far-reaching theoretical ramifications were derived from the discovery (and initial empirical validation) of the CUFT:

- a) Based on the CUFT's 'A-Causal Computation' (ACC) Paradigm's assertion regarding the impossibility of the existence of any "material-causal" physical relationships between any two (or more) exhaustive spatial pixels (e.g., existing either in the same- or different- USCF/s frame/s) at the quantum or relativistic levels, the CUFT's negated the "Big-Bang" Model which assumes that it was an initial "nuclear explosion" which "caused" the origination of "matter", "energy", stars, galaxies etc..
- b) Similarly, the new 'ACC' Paradigm's principle negation of any 'material-causal' physical relationships between any (two or more) exhaustive spatial pixels comprising the physical universe (at any single- multiple- USCF's frames) – was shown to negate the existence of the (purely hypothetical concepts of) "dark-matter" and "dark-energy"! This is due to the ACC Paradigm's negation of any 'material-causal' relationship assumed to exist between "dark-matter" or "dark-energy" and the accelerated expansion of the physical universe; Instead, the CUFT's new 'ACC' Paradigm explains this accelerated expansion of the physical universe as arising from an accelerated increase in the number of exhaustive spatial pixels comprising any consecutive USCF's frame/s.
- c) The CUFT's new 'ACC' Paradigm was also shown to challenge both RT's and QM's current 'Material-

Causal' Paradigm manifesting in RT's "Einstein's Equations" and QM's 'Probabilistic Wave Interpretation': this is because in RT it is assumed that it is the direct physical interaction between a "massive-object" and 'space-time' which "causes" the "curvature of space-time", and conversely that it is the direct physical interaction between this "curved space-time" which "causes" those (and other) "massive-objects to travel in particular travelling pathways"; But, since the new 'A-Causal Computation' Paradigm clearly negates the possibility of the existence of any such 'material-causal' physical interactions between any (two or more) exhaustive spatial pixels in the physical universe (e.g., once again due to the UCP's simultaneous computation of all exhaustive spatial pixels at any single or multiple USCF's frames); therefore the CUFT challenges RT's 'Einstein Equations'; Similarly, the new 'ACC' Paradigm (of 21<sup>st</sup> century Physics) challenges QM's assumed "collapse" of the subatomic 'target's' probability wave-function as "caused" by its direct physical interaction with another subatomic 'probe' element; Instead, the ACC new Paradigm postulates that the singular UCP simultaneously computes every exhaustive spatial pixel in the universe giving rise to the appearance of the "curvature of space-time" associated with presence of "massive objects" – that is not due to any 'material-causal' physical relationship/s between such 'massive objects' and 'space-time', but rather arises from the UCP's intrinsic computational properties, e.g., of certain USCF's regions characterized as "high-energy, low mass" as opposed to other USCF's regions characterized as "low-energy, high-mass")...

Instead, the emerging new picture of the universe is one which is continuously being computed- "dissolved"- re-computed- and evolved- e.g., at every consecutive minimal time-point: " $c^2/h = 1.45^{-42}$  sec' USCF's frame/s... Hence, also the CUFT's new 'A-Causal Computation' Paradigm's conception of "mass" – as "caused" by the Higgs-boson particle, e.g., through its direct physical interaction with all other basic particles is challenged (and in fact negated) by this new Paradigm in 21<sup>st</sup> Century Theoretical Physics: This is because if we are to reject the basic possibility of the existence of any 'material-causal' physical relationship/s (or even interactions) between any (two or more) exhaustive spatial-pixels (existing either in the same- or different- USCF's frames), due to the simultaneous computation of the UCP of every exhaustive spatial pixel in the universe (in any single- or multiple- USCF's frame/s) – then there cannot exist any physical interaction between the 'Higgs-boson' particle and any other subatomic particle (once again at any single- or multiple- USCF's frame/s)... Also, viewed from the



CUFT's 'Universal Computational Formula' perspective, the "mass" (as well as the 'space', 'energy' and 'time') physical feature of any given 'Higgs-boson' particle or

indeed of any other particle – is computed solely based on the UCP's computation of that particle's "object-consistent" values (as shown above and previously):

$$M: \Sigma[o\{x,y,z\} \{USCF(n)\}] = o(i...j-1) \{x\}, \{y\}, \{z\} \{USCF(i...n)\} / h * n\{USCF's\}$$

such that

$$[oi\{x,y,z\}USCF(n)] - [oi\{(x+j),(y+j),(z+j)\}USCF(1...n)] \leq n * h[USCF(1...n)]$$

Where in the 'mass' value of an object is computed based on a measure of the number of times an "object" is presented "consistently" across a series of USCF's, divided by Planck's constant.

Therefore, the "mass" of any given particle is not "caused" by its direct physical interaction with the 'Higgs-boson' particle – i.e., as such subatomic physical ('material-causal') interactions are negated by the UCP's *simultaneous* computation of all exhaustive spatial pixels in the universe (at any single or multiple USCF's frame/s); Rather, it is solely and singularly being computed (at every minimal time-point consecutive USCF's frame) by the singular reality of the UCP (for each exhaustive spatial pixel/s in the universe at any such consecutive USCF's frame/s).

We therefore find ourselves in an "awkward" theoretical situation in which the conception of "mass" (e.g., of an object or of a particle) is described in almost "*antithetical*" manners by the prevailing RT's and QM's conceptions – as opposed to its computation by the CUFT's. This is because in Relativity Theory "mass" constitutes an intrinsic "continuous-constant" physical property of objects (or particles) which "causes" a curvature of 'space-time'; In Quantum Mechanics, the measurement of the "mass" of any subatomic 'target' particle is contingent upon its direct physical interaction with another subatomic 'probe' element which is assumed to "cause" the "collapse" of that 'target's' (assumed) "probability wave-function" due to its direct physical interaction with another subatomic 'probe' element; In contrast, according to the CUFT, the "mass" of any given particle is computed solely based on the UCP's computation of that particle's degree of "consistent" spatial presentations (across a series of USCF's frames); Moreover, the CUFT negates the very possibility of the existence of any such 'material-causal' quantum or relativistic physical interactions, e.g., associated with the determination of "mass". This contrast between RT's and QM's and the CUFT's conception of "mass" is particularly striking when we take into consideration a few particular "differential-critical predictions" postulated by the CUFT as clearly differentiating it from the corresponding predictions of both RT and QM:

It was previously predicted by the CUFT that if we are to compare the appearances of a 'massive' vs. a 'less-massive' subatomic particle (across a series of

USCF's frames) we expect to obtain that the 'more massive particle' would appear more spatially-consistent" across a given series of USCF's frames: This means that: a) the 'more-massive' particle was predicted to be measured at a greater number of USCF's frames than the 'less-massive' particle; b) its measurement should be spatially more "consistent", i.e., its spatial measurement should occupy a "smaller size" than the 'more-massive' particle; and c) its spatial measurement accuracy should be greater than the spatial measurement accuracy of the 'less-massive' particle; Intriguingly, an initial empirical validation for this CUFT's 'differential-critical prediction regarding the more consistent spatial presentation of the more massive Muon particle relative to the electron particle was given by Bernaur & Pohl (2016); they found that the nucleus of a Hydrogen nucleus that is encircled by a negatively charged Muon (which is approximately 100 times more massive than the electron) is found to be approximately 100 times smaller (and its measurement is 100 times more precise) than the radius of the equivalent Hydrogen nucleus which is encircled by the electron particle. This greater "spatial-consistency" of the radius of a Hydrogen nucleus into which a Muon particle sinks relative to the measurement of an equivalent Hydrogen atom that is encircled by an electron, e.g., manifesting as the Muon-Hydrogen Nucleus' (100 times) smaller radius and more accurate measurement precisely confirms the above mentioned CUFT's 'differential-critical prediction': this is because according to the CUFT, the "mass" of any given particle is computed by the 'Universal Computational Principle' (UCP) as a measure of the degree of "consistency" of that particle ('object') across a series of USCF's frames; Obviously, according to this 'computational-definition' of 'mass' (as computed by the UCP at every minimal time-point " $c^2/h$ " =  $1.45^{-42}$  sec') the more massive a particle is measured to be the greater its "spatial-consistency", e.g., its spatial size and its spatial accuracy (of measurement). Therefore, Bernaur & Pohl's (2014) "Proton-Radius Puzzle" indicating that Hydrogen-Muon Nucleus is measured as 100 times smaller (and more accurate) than its equivalent Hydrogen Nucleus encircled by an electron (which is 100 times lighter in its mass than the Muon particle) precisely confirms one of the CUFT's 'differential-critical prediction'.

It may be said that these "Proton-Radius Puzzle" findings confirm to a large degree several aspects of the abovementioned (and previous) 'differential-critical prediction' of the CUFT, as they indicate that the more massive Muon particle is measured as "spatially more consistent" than the less massive particle, i.e., both in its "proton-radius size" and its "spatial measurement accuracy" (e.g., confirming 'b' and 'c' above aspects of the CUFT's differential-critical prediction). Indeed, the purpose of this article is to test the CUFT's new conception of "mass" as representing the UCP's computation of an "object-consistent" measure" (as shown above).

Specifically, the aim of this article is to test three 'differential-critical predictions' of the CUFT associated with its UCP's (abovementioned) computation of 'mass', which differentiate it from the corresponding predictions of both RT and QM:

- a) Test the CUFT's 'differential-critical' prediction that "more-massive" particles would appear across a greater number of USCF's frames than a "less-massive" particle, i.e., above and beyond the expected increase in the quantum measurement of more massive particles relative to less massive particles.
- b) Test the CUFT's 'differential-critical prediction' that any given subatomic particle cannot be measured "in-between" any two consecutive USCF's frames (e.g., due to the complete "dissolution" of all exhaustive spatial pixels constituting any given USCF's frame "in-between" any two consecutive USCF's frames); Perhaps most significant (in this regard) is to demonstrate that the 'Higgs-boson' particle "doesn't exist", i.e., cannot be measured "in-between" any two consecutive USCF's frames as the 'Higgs' particle is currently assumed to impart "mass" to all other subatomic particles: If indeed, it will be shown empirically that the Higgs particle doesn't exist continuously "in-between" any two consecutive USCF's frames, then this would imply that all other particles do not exist "in-between" any two consecutive USCF's frames, thereby substantially validating the CUFT as the new satisfactory 'A-Causal Computation' Paradigm (of 21<sup>st</sup> century Physics)..

## II. METHOD

Therefore, the proposed method for testing these three 'differential-critical predictions' comprises of several different experiments that can verify each of these predictions:

- a) Test the CUFT's 'differential-critical' prediction whereby a "more-massive" particle would appear across a greater number of USCF's frames relative to a "less-massive" particle; at least two experimental

embodiments for verifying this 'differential-critical prediction' are hereby suggested

- 1) *Testing CUFT's "Less Temporal Measurements of Less Massive Particles" Prediction:* Contrasting between the number of "fine-temporal measurements" (e.g., see below their mathematical calculation) in which a 'more massive particle' would be detected relative to a "less-massive" particle (across the same given number of such fine-temporal measurements): It is suggested to test the CUFT's 'differential-critical prediction' regarding the appearance of the 'more massive particle' at a significantly greater number of 'fine-temporal measurements' than the 'less massive particle' (across the given number of 'fine-temporal measurements'); Specifically, in order to test this 'differential-critical prediction' of the CUFT it is necessary to contrast the number of 'fine-temporal measurements' in which the 'more-massive' 'Muon' relative to the number of 'fine-temporal measurements' in which the 'less-massive' electron particle would be detected. A key point to be note is that the temporal resolution of most accelerators is far less "sensitive" than the hypothesized rate at which the Universal Computational Principle (UCP) computes the series of USCF's frames, i.e., " $c^2/h = 1.45^{42}$  sec" – with certain accelerators reaching almost the speed of light " $c = 3.33^6$  sec" (e.g., regarded as the 'fine-temporal measurements' accuracy level in this experiment), producing a magnitude difference of  $x^{36}$  sec'; Nevertheless, it is suggested that even if we opt to sample temporal measurements at such a "decreased" temporal resolution (below) the speed of light " $c = 3.33^6$  sec", e.g., in effect sampling a significantly decreased temporal accuracy level (e.g.,  $x^{36}$  sec' decreased magnitude of accuracy relative to the rate at which the Universal Computational Principle (UCP) computes the series of USCF's frames (i.e., " $c^2/h = 1.45^{42}$  sec')) ; we can still expect that the "more massive electron"(relativistic accelerated) particle would appear at a greater percentage of these " $c = 3.33^6$  sec" samplings relative to the number of (decreased accuracy) time-samplings in which the electron would be detected. As stated above, in calculating the CUFT's 'differential-critical prediction' regarding the significantly smaller number of 'fine-temporal measurements' in which the 'electron' particle would be detected relative to the number of such 'fine-temporal points' in which the 'electron' may be measured, we need to correct for the known subatomic (quantum theory related) bias towards a slightly "easier" measurement of such 'more-massive' 'Muon' particle relative to the measurements of a 'less massive' 'electron' particle;

In other words the CUFT's 'differential-critical prediction' regarding the significantly greater 'fine-temporal measurements' (FTM) at which the 'more massive' Muon (M) would be detected relative to the number of equivalent 'fine-temporal measurements' at which the 'less-massive' electron (e) particle would be detected should subtract the "quantum measurement bias" (QMB) towards a more 'sensitive temporal measurement' of more massive particle:

$$FTM(M) - QMB > FTM(e)$$

- 2) A second (almost equivalent) experimental procedure geared towards testing this 'differential-critical prediction' regarding the detection of a 'more-massive' particle at a significantly greater 'fine-temporal-measurements' relative to the detection of a 'less-massive' particle (measured across the same number of 'fine-temporal measurements'), involves the acceleration of a beam of electrons – to two significantly different velocities (relative to the speed of light); The proposed experimental design involves utilizing a special Accelerator which can accelerate a beam of electrons at varying velocities up to 99% of the 'speed of light': given the fact that the more accelerated electrons (relative to the speed of light) are, the greater is their "mass" value, we propose to construct an experimental design wherein the beam of electrons would be accelerated to two significantly different levels: a) electrons that will be accelerated to 99% of the speed of light and hence their "mass" value would increase considerably (possessing a "high-mass value", 'HMF'; and b) a condition in which the beam of electrons would only be accelerated to roughly 10% of the speed of light, therefore possessing a relatively "lower mass value", 'LMV'). Once again, it is suggested that the number of 'fine-temporal measurements' (FTM) in which the 'high-mass value electron' (HMF-e) would be measured (across a given number of FTM) would be significantly higher than the number of FTM in which the 'low-mass value electron' (LMV-e) would be measured (e.g., excluding the above mentioned "quantum measurement bias" 'QMB'):

$$FTM(HMF-e) - QMB > FTM(LMV-e).$$

- b) *Test the CUFT's Non-Continuous Temporal Existence of the 'Higgs-boson' Prediction*

Namely, test the experimental hypothesis wherein the Higgs-boson particle cannot be detected "in-between" any two consecutive USCF's frames: As discussed above, despite the far less "time-sensitive" measurements enabled by an Accelerator (e.g., which can only conduct measurements that are below the speed of light: " $c = 3.33 \cdot 10^8$  sec"), which represent a decreased temporal measurement accuracy in the

magnitude of  $x^{-7}$ sec' relative to the Universal Computational Principle's (UCP) rate of computing the series of USCF's, " $c^2/h = 1.45 \cdot 10^{42}$  sec"; Nevertheless, it is hypothesized that it may still be possible to detect the "non-existence" of the Higgs-boson particle "in-between" any two consecutive USCF's frames; However, in order to be able to adjust the measurement of a "Mid-Point" (MP) "in-between" any two consecutive USCF's frames (which involves measurements in the magnitude of " $c^2/h = 1.45 \cdot 10^{42}$ ") by a given Accelerator that can only measure a minimal 'fine-temporal measurement' (FTM) in the magnitude of " $c = 3.33 \cdot 10^8$  sec", it is necessary to carry out several (computational and experimental) steps, which include:

- 1) *Compute the precise 'Accelerator's Temporal Sampling-Ratio' (ATSR)*

Compute the above "fine-temporal measurement" (FTM) divided by the "Universal Computation Rate" (UCR) (e.g., the Universal Computational Principle's 'UCP' rate of computing the series of USCF's frames: " $c^2/h = 1.45 \cdot 10^{42}$  sec"):

$$ATSR = FTM/UCR$$

This (Accelerator-specific) 'ATSR' value provides us with a measure of the precise sampling ratio that exists between the 'Universal Computational Rate' (UCR) (the rate at which the 'Universal Computational Principle' UCP computes every consecutive USCF's frame/s) and the (far-less sensitive) 'fine-temporal measurement' (FTM) rate at which the specific Accelerator measures:

- 2) Measure the presence of a 'Higgs-boson' particle at a given time "ti".
- 3) Calculate the "Mid-Point" between this given "ti1" USCF frame and its subsequent "ti2" USCF's frame (USCF-MP-ti{1.5})

$$USCF-MP-ti\{1.5\} = USCF-ti2 - USCF-ti1 / 2$$

- 4) Calculate the "Accelerator-Detectable Mid-Point" (ADMP)

Adjust this calculated USCF-MP-ti{1.5} based on the Accelerator-specific 'ATSR' in order to "capture" this USCF-MP-ti{1.5} by the "decreased" FTM of the given Accelerator; to accomplish this we simply need to multiply the calculated USCF-MP-ti{1.5} by the Accelerator (specific) ATSR value

$$ADMP = USCF-MP-ti\{1.5\} * ATSR$$

This ADMP (Accelerator-specific) value provides us with a calculation of the precise (measurable) time-point at which the given Accelerator can "detect" the 'Mid-Point' between any such given two consecutive (USCF-ti1 and USCF-ti2) USCF's frames (e.g., due to its "synchronization" of a precise cyclic number of USCF's frames' that elapse from an initial detection of a given

USCF's Higgs-boson particle existence – with the 'Accelerator's Temporal Sampling-Ratio' ATSR, to provide the precise Accelerator-Detectable Mid-Point, ADMP).

- 5) In fact, due to the reoccurrence of such a 'temporal mid-point' (TMP) between every two consecutive USCF's frames

$$\text{USCF-MP-ti}\{x\}\{1.5\} = \text{USCF-ti}\{n+1\} - \text{USCF-ti}\{n\} / 2$$

It is also possible to measure a "Reoccurring Detectable Mid-Point" (RDMP) thus:

$$\text{RDMB} = \text{USCF-MP-ti}\{x\}\{1.5\} * \text{ATSR}$$

- 6) We can now test the CUFT's "Non-Continuous Temporal Existence of the 'Higgs-boson' Prediction by trying to measure at any such given RDMP for the existence of the Higgs-boson particle.
- 7) Moreover, in order to fully validate this second 'differential-critical prediction' of the CUFT, e.g., regarding the "Non-Continuous Temporal Existence of the 'Higgs-boson Particle' we now focus on detecting the (same) Higgs-boson particle in the precise (Accelerator-detectable) time-points at which the UCP computes each consecutive USCF's frame/s; (This is based on the CUFT's stipulation that the UCP computes an extremely rapid rate of " $c^2/h = 1.45^{42}$  sec' of consecutive USCF's frames, including all of their exhaustive spatial pixels comprising the entire physical universe at every minimal time-point USCF's frame/s – which completely "dissolve" "in-between" any two such consecutive USCF's frames, and is then "re-produced" in the consecutive USCF's frame/s by the UCP.) Therefore, in order to "capture" this UCP's stipulated "re-production" of the Higgs-boson particle with each consecutive USCF's frame/s we construct the experimental design to aim measuring those FTM measurements occurring at precisely each "Detectable Recurring USCF's" (DR-USCFs):

$$\text{DR-USCFs} = \text{USCF-ti}\{x\} = \text{USCF-ti}\{i..n\} * \text{ATSR}$$

Indeed, according to this CUFT's second 'Non-Continuous Temporal Existence of the 'Higgs-boson' Prediction, it is predicted that if we alternate between measurements of "Detectable Recurring USCF's" (DR-USCFs) – in which the 'Higgs-boson' particle can be detected, and measurements of "Reoccurring Detectable Mid-Point/s" (RDMP) – in which the 'Higgs-boson' particle cannot be detected; we may reach the inevitable conclusion that the Higgs-boson particle may not exist "continuously"... More significantly, since the Higgs-boson particle is currently assumed to impart "mass" to all other subatomic particles, then to the extent

that it may be shown empirically to "not-exist" "in-between" any two consecutive USCF's frames, then this implies that no other subatomic particle/s can "exist" – "in between" any two consecutive USCF's frames!

- c) *Test" Non-Continuous Temporal Existence of Other Subatomic Particles" Prediction*

Indeed, to the extent that the above empirical testing of the "non-existence" of the 'Higgs-boson' particle "in-between" any two consecutive USCF's frames would be verified experimentally, this would lead to a broader testing of the "non-existence" of other subatomic particles "in-between" any two consecutive USCF's frames (e.g., based on the above mentioned 'fine temporal measurement' (FTM) which is adjusted to the Accelerator's ATSR; at least two different "embodiments" (experimental design and set-up) that can test this new intriguing 'differential-critical prediction'

- 1) Utilizing any given Accelerator to test for the "dissolution" of various subatomic particles "in-between" any two consecutive USCF's frames and their "re-production" at any consecutive USCF's frame/s (based on an equivalent experimental design as listed above – adjusted to the given Accelerator's specific ATSR value as explained above).
- 2) Utilizing the above mentioned special Accelerator capable of accelerating electrons up to the "speed of light", we can use the same (above mentioned) methodology to calculate the Accelerator's ATSR and RDMB, DR-USCFs which would allow for an empirical testing of the UCP's "production"- "dissolution"- and "re-production"- of differentially accelerated electrons (which possess different masses).

Needless to say that to the extent that these CUFT's differential-critical predictions would be validated empirically this may bear potentially far-reaching theoretical ramifications in terms of its validation of the CUFT's new 'A-Causal Computation' Paradigm, as well as impart theoretical validity to the CUFT's broader conception of the physical universe as being solely computed- "dissolved" (e.g., "in-between" any two consecutive USCF's frames)- and re-produced- by the singular 'Universal Computational Principle' (UCP) with every consecutive USCF's frame/s that it produces.

## REFERENCES RÉFÉRENCES REFERENCIAS

1. Bentwich, J. (2006a). The 'Duality Principle': Irreducibility of sub-threshold psychophysical computation to neuronal brain activation. *Synthese*, Vol. 153, No. 3, pp. (451-455).
2. Bentwich, J. *Universal Consciousness: From Materialistic Science to the Mental Projection Unified Theory*, I Universe Publication (2006b).



3. Bentwich, J. (2012a) "Harmonizing Quantum Mechanics and Relativity Theory". Theoretical Concepts of Quantum Mechanics, In tech (ISBN 979-953-307-377-3), Chapter 22, pp. 515-550.
4. Bentwich, J. (2012b) "Theoretical Validation of the Computational Unified Field Theory". Theoretical Concepts of Quantum Mechanics, (ISBN 979-953-307-3773), Chapter 23, pp. 551-598.
5. Bentwich, J. (2013a). "The Theoretical Ramifications of the Computational Unified Field Theory". Advances in Quantum Mechanics (ISBN 978-953-51-1089-7), Chapter 28, pp. 671-882.
6. Bentwich, J. (2013b). The Computational Unified Field Theory (CUFT): A Candidate Theory of Everything. Advances in Quantum Mechanics (ISBN 978-953-51-1089-7) Chapter 18, pp. 395-436.
7. Bentwich, J. (2014a) What if Einstein was Right? Amazon Kindle Book Store.
8. Bentwich, J. (2014b). On the Geometry of Space, Time, Energy, and Mass: Empirical Validation of the Computational Unified Field Theory. Proceedings of VIGIER IX Conference – Unified Mechanics: Natural Science Beyond the Veil of Spacetime, Baltimore, Maryland.
9. Bentwich, J. (2015a). On the Geometry of Space, Time, Energy & Mass: Empirical Validation of the Computational Unified Field Theory. Proceedings of Vigier IX – Unified Mechanics: Natural Science Beyond the Veil of Spacetime (Baltimore, Maryland).
10. Bentwich, J. (2015b) The Computational Unified Field Theory: Could 'Dark Matter' & 'Dark Energy' be "Superfluous"? In Press, Journal of Modern Physics.
11. Bentwich, J. (2015c) The Computational Unified Field Theory: Explaining the Universe from "Without". In Press, Journal of Modern Physics.
12. Bentwich, J. (2015d). The Computational Unified Field Theory: A New 'A-Causal Computation' Physics: In Press, Journal of Modern Physics.
13. Bernauer & Pohl (2014). The Proton Radius Puzzle. Scientific American, 310 (2), p. 20-24.
14. Born, M. (1954). The statistical interpretation of quantum mechanics, Nobel Lecture, December 11, Brumfiel, G. (2006). Our Universe: Outrageous fortune. Nature, Vol. 439, pp. (10-12).
15. Ellis, J. The Superstring: Theory of Everything, or of Nothing? Nature, Vol. 323, No.089, pp. (595–598) (1986).
16. Giacosa, Francesco (2014). "On unitary evolution and collapse in quantum mechanics". Quanta 3 (1): 156–170. doi:10.12743/quanta.v3i1.26.
17. Greene, B. The Elegant Universe, Vintage Books, New York (2003).
18. Heisenberg, W. Über den anschaulichen Inhalt der quantentheoretischen Kinematik und Mechanik. Zeitschrift für Physik, Vol. 43 No. 3–4, pp. (172–198) (1927).
19. Horodecki, R.; Horodecki, P.; Horodecki, M. & Horodecki, K. Quantum entanglement. Rev. Mod. Phys, Vol. 81, No. 2, pp. (865–942) (2007).
20. J. von Neumann (1932). Mathematische Grundlagen der Quantenmechanik (in German). Berlin: Springer.
21. J. von Neumann (1955). Mathematical Foundations of Quantum Mechanics. Princeton University Press.
22. Kuhn, Thomas S. (1962). The Structure of Scientific Revolutions (1st ed.). University of Chicago Press. p. 172. LCCN 62019621
23. "Ockham's razor". Encyclopædia Britannica. Encyclopædia Britannica Online. <http://www.britannica.com/EBchecked/topic/424706/Ockhams-razor>. Retrieved 12 June 2010.
24. Polchinski, J. All Strung Out? American Scientist, January-February 2007 Volume 95, Number 1 (2007).



This page is intentionally left blank





GLOBAL JOURNAL OF SCIENCE FRONTIER RESEARCH: A  
PHYSICS AND SPACE SCIENCE

Volume 18 Issue 8 Version 1.0 Year 2018

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals

Online ISSN: 2249-4626 & Print ISSN: 0975-5896

## The Computational Unified Field Theory: What is "Time"?

By Jehonathan Bentwich, Ph.D.

*Introduction: A Material-Causal Conception of Time-* According to the current 'Material-Causal' Paradigm underlying both Relativity Theory and Quantum Mechanics, "time" is an "observer-dependent", "uni-directional", "material-causal" entity: Its "flow" is "unidirectional", i.e., it can only move from the "present" to the "past" but not from the "future" to the "past"... This is because, according to Relativity Theory, nothing can travel faster than the speed of light so no observer can "catch" any light signal emanating from any "past" even". According to Quantum Mechanics, following the "collapse" of the subatomic target's "probability wavefunction" as "caused" by its direct physical interaction with a corresponding subatomic "probe" element – e.g., into a single (space-energy, temporal-mass) value, it is not possible to "un-collapse" this singular ("collapsed") target value back into the (preceding) multifarious "probability wave function" state... Hence, "time-reversal" is not possible according to both Relativity Theory and Quantum Mechanics, which are underlie by the Old "Material-Causal" Paradigm of 20th century Theoretical Physics;

*GJSFR-A Classification: FOR Code: 010399*



*Strictly as per the compliance and regulations of:*



# The Computational Unified Field Theory: What is "Time"?

Jehonathan Bentwich, Ph.D.

## I. INTRODUCTION: A MATERIAL-CAUSAL CONCEPTION OF TIME

According to the current 'Material-Causal' Paradigm underlying both Relativity Theory and Quantum Mechanics, "time" is an "observer-dependent", "uni-directional", "material-causal" entity: Its "flow" is "uni-directional", i.e., it can only move from the "present" to the "past" but not from the "future" to the "past"... This is because, according to Relativity Theory, nothing can travel faster than the speed of light so no observer can "catch" any light signal emanating from any "past" even". According to Quantum Mechanics, following the "collapse" of the subatomic target's "probability wave-function" as "caused" by its direct physical interaction with a corresponding subatomic "probe" element – e.g., into a single (space-energy, temporal-mass) value, it is not possible to "un-collapse" this singular ("collapsed") target value back into the (preceding) multifarious "probability wave function" state... Hence, "time-reversal" is not possible according to both Relativity Theory and Quantum Mechanics, which are underlie by the Old "Material-Causal" Paradigm of 20<sup>th</sup> century Theoretical Physics;

In contrast, the new "A-Causal Computation" Paradigm associated with the "Computational Unified Field Theory" (CUFT) asserts that "time-reversal" may be possible based on its discovery of a singular (higher-ordered) "Universal Consciousness Reality" which computes the four basic physical features of "space", "energy", "mass" and "time"; Since this singular Universal Consciousness Reality is hypothesized to compute these four basic physical features for each exhaustive spatial pixel in the physical universe simultaneously, and since the "progression of time" is produced through this (singular) Universal Consciousness Reality's computation of the "degree of change" associated with a given "object" (e.g., "object-inconsistent" computation), then it was hypothesized based on the CUFT's new 'A-Causal Computation' Paradigm that it may be possible to "reverse-time" through a precise recording- of a given object's "spatial-electromagnetic pixels" across a series of USCF's frames, and the application of a particular electromagnetic stimulation to each of that object's 'spatial-electromagnetic pixels' in such a manner as to

produce the "reversed-sequence" of 'spatial-electromagnetic' pixels values comprising that object's "history"! The key point to be emphasized is that not only does this new CUFT predicts (one of three) "differential-critical" predictions which significantly differentiate it from the predictions of both Relativity Theory and Quantum Mechanics; More broadly, the new CUFT's 'A-Causal Computation' Paradigm conceives of "time" (as well as of the other three physical features of "mass", "space" and "energy") – not as "event/observer" dependent entity, but rather as one of the secondary (integrative) computational measures derived from the singularity of the Universal Consciousness Reality's computation of the three 'Computational Dimensions' at each and every exhaustive spatial pixels across the physical universe (e.g., in any "past", "present" or "future" USCF's frame/s)...

Indeed, the purpose and aim of this article is to examine and delineate the various aspects of "time" as conceived by the new CUFT's 'A-Causal Computation' and its potentially far-reaching theoretical implications in Physics (and Science more generally).

## II. THE CUFT'S REVISION OF "MATERIAL-CAUSAL TIME"

Thus, the first step towards fully appreciating the basic revision in our understanding of "time" (as conceived of by the CUFT's new 'A-Causal Computation' Paradigm) is to analyze the basic conception of 'time' by the current 'Material-Causal' Paradigm underlying both RT and QM; in RT, time is a property derived based on the constancy of the speed of light, and based upon the implicit assumption wherein the *measurement of the passage of time depends on the direct physical interaction between a given relativistic observer and a particular (space-time, energy-mass) 'phenomenon'*; thus, for example, if we are to take a particular event of an "explosion" emitting rays of light taking place at a particular spatial location, the temporal value of "when" this event took place critically depends on the direct physical interaction between a given relativistic observer and the ray of light emitted from that 'explosion'. Obviously, since the speed of light is assumed to be constant by RT (for all relativistic observers) then the temporal value of this event critically depends on the direct physical interaction between the event and the time it take the ray of light to reach the relativistic observer. The 'time' of the event doesn't exist an

Author: e-mail: drbentwich@gmail.com

"independent" entity, but is rather dependent upon the direct physical interaction between the event and the ray of light emanating from the event and the relativistic observer measuring the temporal value of this event. In a sense, 'time' "doesn't exist" – independently of the direct physical interaction between the event and the relativistic observer, e.g., as mediated by the constant speed of the ray of light. So, time does not exist independently of its measurement by a relativistic observer interacting with a particular phenomenon (or event). Likewise, in QM, the 'temporal' value of a given subatomic 'target' entity can only be derived based on the direct physical interaction between this subatomic 'target's' 'probability wave-function' and another subatomic 'probe' element, which "causes" the 'collapse' of the 'probability wave function' into a singular temporal-mass (complimentary) value of the measured target. Therefore, in QM too 'time' only "exists" as a result of the direct physical interaction between the measuring 'probe' and 'target' elements, but does not exist "independently" of such measurement.

Likewise in QM, the temporal value of a given subatomic target entity critically depends upon the direct physical interaction between that subatomic 'target's' probability wave-function and the measuring subatomic 'probe' element; Following the direct subatomic 'probe-target' elements' interaction, the target's probability wave-function "collapses" into a singular (complimentary) space-energy, time-mass value. Hence, it is only the direct physical interaction between the subatomic 'probe' and target's (probability wave function) which produces a (singular) temporal value for the target. Moreover, once this direct physical interaction between the subatomic probe and target element has occurred "causing" the "collapse" of the target's (assumed) "probability wave function" there is no possibility of "reversing" this temporal sequence, i.e., reverting back to the target's "un-collapsed" wave-function. In other words, "time" is both dependent upon the direct physical interaction between the subatomic 'probe' and 'target' elements and it also "flows" only "un-directionally"- from "past" (e.g., "un-collapsed" probability wave function) to "future" (collapsed probability wave function), but not vice versa. Interestingly, Relativity's perspective also conforms with such a 'unidirectional', 'material-causal' assumption, due to its basic assumption wherein it is impossible to transcend the speed of light, and therefore it is impossible to "catch" any light signal emanating from any "past" event (such as the 'explosion' described above).

We thus see that both RT and QM which are underlie by the same (old) 'Material-Causal' Paradigm which conceive of "time" as strictly arising from a direct physical interaction between an observing entity (e.g., be it a relativistic observer or a subatomic 'probe' element) and a given 'phenomenon' (i.e., 'space-time', 'energy-mass' relativistic object or the subatomic

particle's 'un-collapsed' probability wave function); And both RT and QM share the same 'unidirectional' assumption regarding the passage of time. In contrast, the new 'A-Causal Computation' Paradigm associated with the Computational Unified Field Theory (CUFT) greatly expands and revises this strict 'Material-Causal' conception of "time" as contingent upon the direct physical interaction of a given observer and phenomenon and also advances the possibility that 'time' can be "reversed"! This new conception of 'time' by the CUFT's 'A-Causal Computation' Paradigm arises from its discovery of a singular higher-ordered Universal Consciousness Reality which computes the four basic physical features of 'space', 'time', 'energy' and 'mass' for each and every exhaustive spatial pixel/s in the universe at every minimal time point USCF's frame (e.g., " $c^2/h$ " =  $1.45^{42}$ ); As shown previously, the computation of 'time' (as well as of the other three physical features of 'space', 'energy' and 'mass') by this singular Universal Consciousness Reality is carried out by its three Computational Dimensions of 'Framework' (frame/object), 'Consistency' (consistent/inconsistent) and 'Locus' (global/local). Thus, from the singular (higher-ordered) perspective of this Universal Consciousness Reality, 'time' is computed simultaneously at each exhaustive spatial pixel comprising the entire physical cosmos (for each minimal time-point USCF's frame) – i.e., *irrespective of any physical interaction between a relativistic observer and (space-time, energy-mass) phenomenon, or indeed between any subatomic 'probe' and 'target' elements!*

Nevertheless, the scientific-ontological validity of "time" (space energy or mass) is seen not as existing "independently" of the singularity of the Universal Consciousness Reality, e.g., as "time" ('energy', 'mass' and 'space') "dissolves" 'in-between' any two consecutive USCF's frames! Indeed, according to the CUFT's 'Computational Invariance Principle' and 'Universal Consciousness Reality', the only constant and "invariant" reality is the Universal Consciousness Reality – which exists both "during" each of the USCF's frames (e.g., solely computing 'time', 'space', 'energy' and 'mass' for each exhaustive spatial pixel in the universe), and also solely exists 'in-between' every two consecutive USCF's (without the presence of the entire physical universe); Thus, according to this 'Computational Invariance Principle' only the singularity of the Universal Consciousness Reality may be regarded as 'constant' and 'invariant', whereas those four basic physical features of 'space', 'time', 'energy' and 'mass' only exist "transiently" and "dependently" upon the singularity of the Universal Consciousness Reality's computation of them ('during' its sole production of each consecutive USCF's frame). In fact, according to the CUFT's Universal Consciousness Reality postulate, those four basic physical features (of 'space', 'time', 'energy' and 'mass') only exist as mere *manifestations* of the singular

Universal Consciousness Reality, but do not exist "independently" of it – e.g., as they are solely produced by this Universal Consciousness Reality and they cease to exist and "dissolve" back into this Universal Consciousness Reality 'in-between' any two consecutive USCF's.

Hence, the CUFT's new 'A-Causal Computation' Paradigm's conception of 'time' revises RT's and QM's old 'Material-Causal' Paradigm's strict dependency of 'time' upon a direct physical interaction between an observing relativistic observer and a given (space-time, energy-mass) phenomenon, or between a measuring subatomic 'probe' element and a corresponding subatomic 'target' element; Instead, 'time' (alike 'energy', 'space', 'mass') is computed solely by the singularity of the Universal Consciousness Reality (for each exhaustive spatial pixel in the universe at every minimal time-point USCF's frame/s) – independently of any relativistic or quantum measurement.

### III. "TIME-REVERSAL" IS POSSIBLE!

Perhaps, the most poignant instance demonstrating the basic revision of the CUFT's new 'A-Causal Computation' Paradigm (of RT's and QM's) old 'Material-Causal' Paradigm's conception of time is given through the CUFT's assertion that "time-reversal" may be possible; As shown previously, the CUFT asserts the possibility of 'time-reversal' based on its analysis of 'time' as arising from the Universal Consciousness Principle's computation of the degree of change in the electromagnetic spatial-pixels comprising any given object across a series of USCF's frames (e.g., 'object-inconsistent' computation); If indeed, the computation of 'time' is derived from the Universal Consciousness Reality's computation of the degree of change in a given object's (electromagnetic-spatial-pixel) composition across a series of USCF's frames, then it should be possible to "reverse-time" based on an accurate recording of a given object's spatial-electromagnetic pixels' composition across a series of USCF's frames, compute and apply specific electromagnetic stimulation to each exhaustive spatial-pixel comprising that object across an equivalent number of USCF's frames such that the object's sequence of spatial-electromagnetic pixels' values comprising the series of USCF's frames would be reversed! The key point to understand is that unlike both RT and QM, "time" does not exist contingent upon the direct physical interaction between an observer and a phenomenon (e.g., relativistic observer and space-time, energy-mass phenomenon, or subatomic 'probe' and 'target' elements); Such 'Material-Causal' assumption shared by both RT and QM implies that once that particular 'observer-phenomenon' direct physical interaction has taken place, it is not possible to "re-create" it: as indicated above, in QM following the direct physical interaction between the subatomic

'probe' and 'target' elements the subatomic target's multifarious probability wave-function "collapses" into a singular (complimentary) 'space-energy', or 'mass-time' value, thereby negating the possibility of "un-collapsing" this target's singular complimentary value back into the probability wave function's multifarious values... Likewise, Relativity Theory asserts that once a certain event has occurred, e.g., such as the abovementioned light-emitting explosion event, it is not possible to travel at a velocity greater than the 'speed of light' in order to "catch" that explosion's past ray of light.

Indeed, this "differential-critical prediction" of the CUFT which significantly differs from the predictions of both RT and QM is one of three 'differential-critical predictions' which contrast between specific instances in which the CUFT significantly differs from both RT and QM; It is perhaps important to remember (once more) Einstein's famous response to the question: "what may be the (desired) 'fate' of his Relativity Theory" to which he responded: "I wish for my Theory to become a 'special-case' within a broader theoretical understanding!" This quote is relevant here since it portrays the new CUFT's embedding- integrating- and ultimately transcending- the assumptions of contemporary Relativity Theory and Quantum Mechanics. How does this new CUFT challenge and revise the basic assumptions of both theories? Essentially, the conception of "time" shared by both RT and QM is based on their underlying 'Material-Causal' Old Paradigm which assumes that 'time' (as well as 'space', 'energy' and 'mass') is "caused" by a direct physical interaction between a given (relativistic or quantum) 'observer' and 'phenomenon', and that once this direct physical interaction has taken place, it is not possible to "reverse" it.

Moreover, the CUFT's new 'A-Causal Paradigm' (of 21<sup>st</sup> Century Physics) depiction of 'time' ('space', 'energy' and 'mass') – not as "caused" by any direct physical interaction between a given relativistic 'observer' or subatomic 'probe' and a corresponding relativistic or quantum 'phenomenon', but rather as representing a secondary computational feature being continuously computed through the singularity of the Universal Consciousness Reality completely revises our basic understanding of what "time" is (e.g., as well as of the three other physical features of 'space', 'energy' and 'mass'); 'Time' ('space', 'energy' and 'mass') is not contingent upon any physical measurement but is computed by the Universal Consciousness Reality for any exhaustive spatial pixel in the universe – e.g., as the degree of "change" (inconsistency) that pertains for that spatial pixel across a series of USCF's frames. So, 'time' ('space', 'energy' or 'mass') – are not contingent upon their measurement by any relativistic observer or subatomic probe element, i.e., because they are computed independently by the singular Universal Consciousness Reality (simultaneously) at every



exhaustive spatial pixel in the physical universe (at every minimal time-point " $c^2/h = 1.45^{-42}$ ") So, by extension, the whole physical universe – comprised of this Universal Consciousness Reality's simultaneous computation of all exhaustive spatial pixels at any such minimal time-point USCF's frame/s exists "independently" of any relativistic observer or quantum probe measurement/s! In fact, the Computational Unified Field Theory's (CUFT) new 'A-Causal Computation' Paradigm of 21<sup>st</sup> Century Physics goes further on to postulate that each consecutive USCF's frame (comprising all exhaustive spatial pixels in the physical universe at any minimal time-point USCF's frame/s) – "dissolves" back into the singularity of this Universal Consciousness Reality and is retained as a frame "present" or "stored" within this Universal Consciousness Reality's Supra-Spatial-Temporal Reservoir...

#### IV. TRANSCENDING TIME, SPACE & CAUSALITY

Indeed, this new conception of "time" (as well as "space", "energy", and "mass") – which exists independently of our (quantum or relativistic) measurements of it, e.g., as solely computed by the singular (higher-ordered) Universal Consciousness Reality, significantly alters our basic conception of "time" (as well as of the three other basic physical features of 'space', 'mass', and 'energy'); As elaborated previously, the CUFT's theoretical postulates of the 'Computational Invariance Principle' and associated 'Universal Consciousness Reality' indicate that since only the Universal Consciousness Principle is "computationally-invariant" (that is exists uniformly and consistently both "during" its simultaneous computation of each consecutive USCF's frame/s as well as solely exists "in-between" any two consecutive USCF's frame/s), whereas the four basic features of 'space', 'time', 'energy' and 'mass' only exist "during" each consecutive USCF's frame/s (as solely computed by this singular Universal Consciousness Principle) and are therefore deemed "computationally-variant"; This leads to the Universal 'Consciousness Reality' postulate which asserts that there exists only one singular 'Universal Consciousness Reality' which exists consistently and constantly both "during" each consecutive USCF's frame/s and also solely exists 'in-between' any two consecutive frames, whereas those four basic physical features of 'space' 'time', 'energy' and 'mass' merely represent "transient-phenomenal" manifestations of the singularity of the Universal Consciousness Reality...

Hence, "time" (as well as 'space', 'energy' and 'mass') cease to exist as "independent-objective" physical features associated with a consistent physical universe; Instead, 'time' ('space', 'energy' and 'mass') exist only transiently, and phenomenally – in truth, only existing as a manifestation of this singular Universal

Consciousness Reality! To re-state Einstein's "radical" metamorphosis of Relativity's basic conception of 'time': "time" according to Relativity Theory does not exist as an "objective-universal" physical property (e.g., "as a universal ticking objective-clock") but rather critically depends on the measurement of a particular relativistic observer's velocity relative to the constancy of the speed of light; Or, according to Quantum Mechanics, 'time' (and its complementary 'mass' pair) can only be measured based on a particular subatomic measurement wherein a specific subatomic 'probe' element directly interacts with the subatomic target's 'probability wave function', thereby "causing" the "collapse" of this 'probability wave function' into a singular complimentary temporal-mass value). In contrast, the CUFT's new 'A-Causal Computation' Paradigm asserts that 'time' (as well as 'space', 'energy' and 'mass') is computed independently of any quantum or relativistic measurements by the singular Universal Consciousness Reality at each minimal time-point USCF's frame (e.g., at the incredible rate of  $c^2/h = 1.45^{-42}$ ). Nevertheless, the existence of 'time' (as well as of the three other basic physical features) is merely 'transient' and 'phenomenal', i.e., it exists only "during" each such consecutive USCF's frame/s but not "in-between" any two frames and it is only a manifestation of the singular Universal Consciousness Reality (which exists 'invariantly' and consistently both 'during' each USCF's frame/s and 'in-between' any two frames wherein only this Universal Consciousness Reality exists).

In that sense, the singular Universal Consciousness Reality transcends the strict limitations of 'time', 'space' and 'causality'; It was thus shown (previously) that the CUFT's new 'A-Causal Computation' Paradigm transcends the strict "causal" boundaries set by Relativity's postulated 'speed of light barrier' set upon the transmission of any light-signal across space and time. This is because based on the CUFT's asserted simultaneous computation by the Universal Consciousness Reality of all exhaustive spatial-pixels in the universe at any minimal time-point USCF frame (e.g.,  $c^2/h = 1.45^{-42}$  seconds), it is possible for the Universal Consciousness Reality – and by extension also for an "expanded" Individual Human Consciousness (e.g., based on another CUFT's theoretical postulate of the 'Individual Human Consciousness Expanded Spectrum Hypothesis, IHCESH') to similarly compute-and affect- any exhaustive spatial pixel/s across the physical universe "instantaneously" for any single USCF frame, or at the incredible rate of  $c^2/h = 1.45^{-42}$  second for a series of USCF's frames (which transcends the speed of light barrier)! Likewise, "causality" was negated by the CUFT's new 'A-Causal Computation' Paradigm – again due to the *simultaneity* of the Universal Consciousness Reality's computation of all exhaustive spatial-pixels in the universe (at any minimal time-point USCF's frame/s,

$c^2/h = 1.45^{42}$  seconds), which precludes the possibility of the existence of any "material-causal" physical relationship/s between any two (or more) exhaustive-spatial pixels at any single- or multiple- USCF's frame/s. So, what we're left with is an entirely new conception of "time" (as well as the other three basic physical features and also of "causality"): 'time' is a secondary computational property computed at each exhaustive spatial-pixel in the universe by the singular Universal Consciousness Reality, but its existence is "transient-phenomenal", that is it exists only transiently "during" each consecutive USCF's frame (but not "in-between" any two consecutive frames) and its existence is 'phenomenal', e.g., merely as a manifestation of this singular Universal Consciousness Reality (and not as an "independent" reality from it).

Indeed, this new 'transient-phenomenal' conception of 'time' led to the (somewhat "surprising") realization that time can be "reversed", and more broadly challenged the "Second Law of Thermodynamics" and the "Arrow of Time" hypothesis: It was shown that based on the CUFT's (above- and previous- mentioned) 'Individual Human Consciousness Expansive Spectrum Hypothesis' (IHCESH) postulated capacity to compute every exhaustive spatial pixel in the physical universe (e.g., equivalently to the capacity of the Universal Consciousness Principle – of which the "expanded" Individual Human Consciousness is not "separate", as also stipulated by the CUFT's additional "Universal Consciousness Reality's Inseparability Principle"), it should be possible for such 'expanded' Individual Human Consciousness to reproduce in a "reversed spatial-electromagnetic-pixels' order" any given physical object's- or system's sequence of spatial-electromagnetic pixels (comprising that object's or system's) series of USCF's frames, thereby effectively "reversing-time"! Succinctly states, it was argued that since the flow of "time" merely represents (according to the CUFT) the Universal Consciousness Reality's computation of the degree of change (in a given 'object') across a series of USCF's frames, then the reproduction of that object's spatial-electromagnetic values across a parallel series of USCF's frames essentially "reverses-time" for that object! Indeed, another technological application of the same principle was previously also stated in which a device that would allow for the precise recording of any given object's spatial-electromagnetic pixels values (across a series of USCF's frames) and also compute- and apply- specific electromagnetic stimulation to all exhaustive spatial pixels comprising that particular object such that it reproduces that object's reversed-spatial-electromagnetic sequence would effectively "reverse-time" for that object (or phenomenon)...

## V. THE "SUPRA-SPATIAL-TEMPORAL RESERVOIR": "COMPUTED-TIME" VS. "POTENTIAL-TIME"

A further development and understanding of the CUFT's new conception of "time" (as well as of 'space', 'energy' and 'mass') comes from its (previously mentioned) postulate of the 'Universal Consciousness Reality's Supra-Spatial-Temporal Reservoir'; According to this 'Universal Consciousness Supra-Spatial-Temporal Reservoir' theoretical postulate, since the Universal Consciousness Reality "dissolves" all exhaustive spatial-pixels of any given USCF's frame/s ("in-between" any two given USCF's frames) and then re-creates- sustains- and evolves- all of those exhaustive spatial pixels in every subsequent USCF's frame/s then it was postulated that all past- present- and future-\* USCF's frames are "stored" within the Universal Consciousness Reality's Supra-Spatial-Temporal Reservoir... (\*It was also postulated that based on the capacity of Individual Human Consciousness to choose various "moral-decisions" which in turn is hypothesized to affect the Universal Consciousness Reality's "Dynamic-Equilibrium", e.g., innate tendency to balance any "immoral-offence" of one Individual Consciousness against another Individual Human Consciousness, then there must exist "multiple potential future/s" as part of this Universal Consciousness Reality's Supra-Spatial-Temporal Reservoir). Thus, it is asserted by the CUFT that the Universal Consciousness Reality contains within it all past-present- and future/s\* USCF's frame/s (including all exhaustive spatial pixels comprising each individual USCF's frame/s).

Two integral facets associated with the discovery of this 'Universal Consciousness Reality's 'Supra-Spatial-Temporal Reservoir' necessitate further exploration:

- Understanding of the Universal Consciousness Reality's "computation-mechanism", i.e., especially as it relates to "Computed-Time" (e.g., pertaining to a particular given object existing within a given series of USCF's frames) vs. the Universal Consciousness Reality's own production of the series of USCF's frames (e.g., at the incredible rate of  $c^2/h = 1.45^{42}$ ) hereby termed: "Universal-Rate";
- Understanding what may be the relationship between this Universal Consciousness Reality's Supra-Spatial-Temporal Reservoir's "Potential-Time", i.e., "past"- and "future/s\*" USCF's and the "present" "Computed Time"?

First, we begin with an analysis of the Universal Consciousness Reality's 'computation-mechanism' – i.e., particularly as it relates to the appearance of the 'Computed-Time's' extremely rapid series of USCF's at the rate of  $c^2/h = 1.45^{42}$  seconds; Based on the

CUFT's (previously presented) 'Universal Computational Formula':

*Universal Computational Formula*

$$c^2 = \frac{s}{h} \cdot \frac{e}{t \cdot m}$$

which postulated that the Universal Computational/Consciousness Principle computes each exhaustive spatial pixel in the universe, e.g., pertaining to its four basic physical features of 'space', 'time', 'energy' and 'mass' at the (incredible) rate of " $c^2/h$ " =  $1.45^{-42}$  seconds; we now address the important question relating to this "Universal Rate": " $c^2/h$ " =  $1.45^{-42}$  seconds and its relationship to its computation of "Computed-Time" (e.g., which is one of the above mentioned four physical features that are computed through the Universal Consciousness Principle for each exhaustive spatial pixel in the universe as delineated in the Universal Consciousness Formula); Perhaps an elegant manner for depicting the relationship between this 'Universal-Rate' of " $c^2/h$ " =  $1.45^{-42}$  seconds at which the Universal Consciousness Principle computes each exhaustive spatial pixel in the universe (e.g., simultaneously) and its specific computation of the "temporal-value" of any given particular exhaustive spatial-pixel is (once again) through the "Cinematic-Film Metaphor": Imagine a film depicting a fast jet-plane zooming through the screen and alongside it there is a slow pedestrian walking (watching this supersonic jet plane zooming by); we can see that when we compare the "temporal-value" associated with the 'jet-plane' relative to the 'temporal-value' associated with the 'pedestrian' (walking) we obtain that since the 'temporal-value' is computed relative to the "Projected-Rate" of the Cinema-Projector: i.e., as the degree of "inconsistency" (or change) in any given object relative to the 'Projected-Rate' (e.g., the Rate at which the frames are projected); then measurements of 'change' (inconsistency) performed at the 'jet-plane' would yield 'less change' relative to this Cinema-Projector's 'Projected-Rate' (of change), then for the "slower-changing" pedestrian. This is simply because the rate of "object-change" in the jet-plane is lower relative to the 'object-change' for the pedestrian – since this 'object-change' is computed relative to the much higher 'Projected-Change' rate (of the Cinema-Projector). Thus, we obtain that the 'temporal-value' of any given object (in the film) is given based on a comparison of that object's 'object-change' relative to the (higher) 'Projected-Rate', e.g., with the temporal-time "slowing-down" for "higher-velocity" objects (less object-change) than for "slower-velocity" objects...

This 'Cinematic-Film Metaphor' is equivalent to the CUFT's depiction of the Universal Computational/

Consciousness Principle's "Universal-Rate" at which it computes the extremely rapid series of USCF's frame (" $c^2/h$ " =  $1.45^{-42}$  seconds) and its relationship to its specific computation of each exhaustive spatial-pixel's 'temporal-value'; That is, it is postulated that the specific 'computed-time' for each exhaustive spatial pixel in the universe is computed by the Universal Consciousness Principle based on the CUFT's Universal Computational Formula's ratio between the Universal Consciousness 'Universal-Rate' (" $c^2/h$ " =  $1.45^{-42}$  seconds) and any given object's 'temporal-value' given through the CUFT's computational definition of "time":

Interestingly, this new realization of the subtle relationship between the Universal Consciousness Principle's 'Universal-Rate' and its specifically computed 'temporal-value' for each exhaustive spatial pixel lends itself to three immediate (important) theoretical ramifications: first, it replicates (elegantly) Relativity's "time-dilation" for fast relativistic objects (as well as for 'massive objects', as described previously). This is because the temporal value of any given event is computed based on that event's (or object's) degree of spatial change relative to the maximal degree of change of the speed of light (across consecutive USCF's frames). This implies that the closer an object (or event) travels relative to the speed of light the smaller is the ensuing "temporal-value" of that object or event (e.g., equivalent to "time-dilation"). Secondly, it (once again) points at the "dissolution" of "time" 'in-between' any two consecutive USCF's frames and the broader (above mentioned) 'Computational Invariance Principle' and associated 'Universal Consciousness Reality's' realization that "time" (as well as 'space', 'energy' and 'mass') cease to exist an "independent-objective" physical property but is rather seen as merely a manifestation of the singular Universal Consciousness Reality; Third, it points at the fundamental nature of the Universal Consciousness Reality's 'Universal-Rate' – as a basic property characterizing this singular Universal Consciousness Reality's production- and manifestation- of the physical universe, e.g., as merely a manifestation of the singular Universal Consciousness Reality; Indeed, it is suggested that in the same manner that Relativity recognized the Constancy of the Speed of Light (for all relativistic observers) as a fundamental property characterizing nature, so does the CUFT acknowledges the 'Universal Rate': " $c^2/h$ " =  $1.45^{-42}$  seconds as a most fundamental characterization of the rate at which the singular Universal Consciousness Reality computes- "dissolves"- re-creates- and evolves- every exhaustive spatial pixel in the physical universe! Interestingly, this new 'Universal Rate' and the 'Universal Computational Formula' (in which it is embedded) represent a broader generalization of Relativity's 'Constancy of the Speed of Light' (e.g., as well as Quantum's properties – such as for instance its Uncertainty-Principle's complimentary pairs of 'space and energy' or time and mass' which are

fully embedded and integrated within the CUFT's new Universal Computational Formula). Indeed, the CUFT's new 'Universal-Rate':  $c^2/h = 1.45^{42}$  seconds precisely embeds- and integrates-Relativity's 'Constancy of the Speed of Light' together with Quantum Mechanics' (QM) 'h' Planck's constant to describe the rate at which the Universal Consciousness Reality computes the extremely rapid rate of the USCF's frames which create- "dissolve"- re-create- and evolve- the entire physical universe... So, we obtain that this new Universal-Rate represents a basic property of the physical universe (which fully integrates- and transcends- both RT and QM Models, as represented by the CUFT's full 'Universal Computational Formula').

We now come to discuss the CUFT's new 'A-Causal Computation' Paradigm's discovery of the principle difference between "Potential-Time" and "Computed-Time": based on the above mentioned (and previous) delineation of the Universal Consciousness Reality's Supra-Spatial-Temporal Reservoir, e.g., which contains all "past"- "present"- and "future/s\*" USCF's exhaustive spatial-pixels we recognize the existence of 'Potential-Time': that is, the potentiality of all 'past', 'present' and 'future/s\*' events, objects, occurrence/s and phenomena – as already existing in a "potential-format" within the singularity of this Universal Consciousness Reality's Supra-Spatial-Temporal Reservoir! In contrast, "Computed-Time" refers to the actual USCF's frame/s that are being computed, e.g., on an ongoing continuous basis by this singular Universal Consciousness Reality: this 'Computed-Time' therefore refers to the continuous "present" USCF's frame that is being computed by this singular Universal Consciousness Reality. Therefore, in effect, it may be said that the 'Computed-Time' represents a "present-continuous" embodiment taken from the totality of the Universal Consciousness Reality's exhaustive Supra-Spatial-Temporal Reservoir's 'Potential-Time'. Once again, the utilization of the 'Cinematic-Film Metaphor' may be helpful at this point: when we watch a cinema film 'rolling-out' we can differentiate between its 'Potential-Time' which would refer to all 'potential "past" and "future" film-frames that are not being presented at the exact "present" frame... In contrast, 'Computed-Time' can be seen as the "actual-frame" that is being presented at any given moment in the film's presentation – which constitutes one of multitude "potential-frames" comprising the entire film... It is important to note, however, that there exists one principle difference between the 'Cinematic-Film Metaphor' and the CUFT's description of the singular Universal Consciousness Reality's Supra-Spatial-Temporal Reservoir which contains all exhaustive 'Potential-Time' USCF's frames and also embodies any "current" 'Computed-Time' USCF frame/s: This difference is that whereas in the 'Cinematic-Film Metaphor' both the 'Potential-Time' exhaustive pool of (yet) "un-presented" film-frames (and

all of their comprising exhaustive spatial-pixels) as well as all 'current' 'Computed-Time' USCF's frames – remain constant irrespective of their sequential presentation through the continuous film presentation; in the case of the singular Universal Consciousness Reality's continuous production of the (extremely rapid) sequence of USCF's frames, as will be pointed out (below), it is stipulated that the actual presentation of each "present" (sequential) USCF's frame – and particularly the 'Dynamic-Equilibrium' (e.g., moral-based) "free-will choices" made by any Individual Human Consciousness comprising the entirety of given exhaustive spatial pixels comprising each "present" (e.g., 'Computed-Time') USCF's frame/s *does alter all "past" and "future/s\*" USCF's frames' potential pixels!* This is because, whereas in the Cinematic-Film Metaphor all exhaustive 'past', 'present' and 'future/s\*' film-frames are "fixed" and pre-determined by the producer of the film and cannot be altered during the progressive presentation of the film, in the real case of the Universal Consciousness Reality's ongoing production of the consecutive series of USCF's frames: due to the previously delineated 'Dynamic-Equilibrium' Moral Principle which recognizes the singular unity of all apparently "separate" Individual Human Consciousness' and the innate "balancing-mechanism" of this singular Universal Consciousness Reality to "correct" any "moral-imbalance" that may have occurred in case one given Individual Human Consciousness afflicts "pain" or "suffering" upon another 'Individual Consciousness'; Hence, the Dynamic-Equilibrium Principle postulated that in such case the singular Universal Consciousness Reality would initiate a 'balancing-effect' that would force the "inflicting-pain" Individual Human Consciousness to experience precisely the same quality and intensity of 'suffering' (or 'pain') that the "inflicted" Individual Human Consciousness has to endure... So, the principle difference between the Cinematic-Film Metaphor and the singular 'Universal Consciousness Reality's' continuous computation associated with the (ongoing) origination- sustenance- and evolution- of the entire physical universe is that in the (unique) case of the Universal Consciousness Reality's operation, the free "moral-choices" that each Individual Human Consciousness takes affects- and indeed alters- all "past" and "future/s\*" related USCF's frames' occurrences, e.g., based on the above mentioned 'Dynamic-Equilibrium' intrinsic propensity of the singular Universal Consciousness Reality (as further described below).

## VI. THE "BI-DIRECTIONAL TIME-FLOW HYPOTHESIS" (BDTFH)

A further development of the CUFT's new conception of "time" is its 'Bi-Directional Time-Flow Hypothesis' (BDTFH) which stipulates that based on the



earlier discovery of the 'Universal Consciousness Supra-Spatial-Temporal Reservoir' and 'Individual Human Consciousness Expansive Spectrum Hypothesis' (IHCESH) it may be possible to affect a "two-directional flow of time"! This is due to the fact that according to the Universal Consciousness' Supra-Spatial-Temporal Reservoir Postulate all "past-", "present-" and "future"\*-USCF's frames (including all of their exhaustive spatial pixels) are "stored" within this Supra-Spatial-Temporal Reservoir; This means that from the expansive perspective of the singular Universal Consciousness Reality, all "past"- "present"- and "future"- USCF's frames (and all of their exhaustive spatial-pixels, objects, and occurrences) is accessible to – and can be reproduced- by this singular Universal Consciousness Reality (e.g., which is also supported through the CUFT's additional "Universal Consciousness Reality's Infinite Omniscient, Omni-present" postulate previously presented asserting that all past- present- and future/s\* USCF's exhaustive spatial pixels are "knowable" and "producible" by this singular Universal Consciousness Reality); Therefore, according to the 'Individual Human Consciousness Expansive Spectrum Hypothesis' which postulates that Individual Human Consciousness possesses the potential to "expand" and function in a manner equivalent to the Universal Consciousness Reality, then this such 'expanded' Individual Human Consciousness can access- produce- and evolve- any "past"- "present"- or "future/s"\*- USCF's frames stored within the 'Universal Consciousness Reality's Supra-Spatial-Temporal Reservoir'... Hence, it should be possible for such an 'expanded' Individual Human Consciousness to successively produce (for instance) a series of USCF's comprising say the life of a given "amoeba" (e.g., or indeed any other object that exists or that existed anywhere in the universe!) in a "reversed" sequence", i.e., such that its presentation would comprise of the USCF's frames in the "reversed-time flow", from its "aging" state to its "young" state. In much the same manner, it was previously stipulated that a technological equivalent embodiment can be produced which can record any given object (e.g., such as a biological "amoeba" organism) across a series of USCF's frames, i.e., comprising all of its constituting exhaustive spatial-electromagnetic pixels values at any given USCF/s frame across the series of USCF's frames comprising its biological life-span, and then apply a particular electromagnetic stimulation directed to each one of its constituting spatial-electromagnetic pixels in such a manner as to re-produce a "reversed-sequence" of that 'amoeba's' constituting spatial-electromagnetic pixels across a parallel series of USCF's frames, e.g., de-facto "reversing" that amoeba's biological-time!

Hence, the "Bi-Directional Time-Flow Hypothesis" (BDTFH) stipulates that due to the existence of all exhaustive "past"- "present"- and "future/s"\*-USCF's spatial pixels as stored within the Universal

Consciousness Reality's Supra-Spatial-Temporal Reservoir, and due to the possibility to access- and "reverse"- any given series of USCF's frames' exhaustive spatial pixels either through an "expanded" Individual Human Consciousness, or indeed based on the above mentioned technological manipulation of specific electromagnetic simulation of any given object's (or phenomenon's), it should also be possible to "reverse time", that is allow time to "flow" both in its "ordinary-direction" from the past to the future, or 'reverse' its flow, e.g., from the future/s\* to the past... Interestingly, the above described (new) discovery of the CUFT's Universal Consciousness Reality's difference between 'Potential-Time' and 'Computed-Time' (and its associated Individual Human Consciousness' Free-Will Hypothesis which can alter all related 'past- and 'future'-USCF's frames' occurrences and phenomenon spatial pixels) opens-up completely new possibilities for further scientific exploration, e.g., relating to the possibility of an "expanded" Individual Human Consciousness to access- and potentially affect- any Potential-Time "past" or "future/s"\* occurrence/s etc.

## VII. THE "INDIVIDUAL HUMAN CONSCIOUSNESS FREE-WILL HYPOTHESIS" (IHCFWH)

The final development of the CUFT's new conception of "time" – not as dependent upon any Relativistic or Quantum measurement, nor as a unidirectional strict "stream" that flows from the "past" to the "future", but not vice versa (e.g., but rather based on the above mentioned 'Bi-Directional Time-Flow Hypothesis' potentially flowing in both directions); we are reaching a final 'Individual Human Consciousness Free-Will Hypothesis' (IHCFWH) which combines with an earlier "Universal Consciousness Reality Dynamic Equilibrium Principle": According to the 'Universal Consciousness Reality Dynamic Equilibrium Principle', due to the singularity of the Universal Consciousness Reality, which exists both "during" each consecutive USCF's frame/s (e.g., computing every exhaustive spatial-pixel in the universe and its four associated physical features of 'space', 'time', 'energy' and 'mass') and also solely exists "in-between" any two consecutive USCF's frames, the 'Dynamic-Equilibrium' Principle postulates that there exists a basic innate tendency of this singular Universal Consciousness Reality to "balance" any "moral-imbalance", i.e., in case one Individual Human Consciousness afflicts "pain" (or "suffering") upon another Individual Human Consciousness since both Individual Human Consciousness comprise inseparable parts of this singular Universal Consciousness Reality; this means that in order to "balance" any such affliction of 'suffering' by one Individual Consciousness to another Individual Consciousness, the 'Afflicting-Individual Consciousness'



would have to experience an equivalent 'degree of suffering' to that which the 'Inflicted-Individual Consciousness'.

But, this means that there exists a "Free-Choice" for each Individual Human Consciousness, which allows it to choose "moral-decisions" (e.g., whether to consciously inflict suffering or not to inflict suffering – and vice versa to 'benefit' or 'affect-positively' any other Individual Human Consciousness at any point in time); Indeed, according to this new 'Individual Human Consciousness Free-Will Hypothesis' (IHCFWH), the moral-choice/s that any such Individual Human Consciousness chooses (towards any other single or multiple Individual Human Consciousness) brings about a natural 'Universal Consciousness Reality's Dynamic-Equilibrium' selection of one of multiple possible "future/s\*" for each associated Individual Human Consciousness based on the moral/immoral (positive or negative) conscious motivation of each of the involved Individual Human Consciousness... Hence, we obtain a far more complex (and fascinating) conception of "time" – especially of "Potential-Time" and its manifestation as "Computed-Time" based on this additional 'Individual Human Consciousness Free-Will Hypothesis' and associated 'Universal Consciousness Reality Dynamic Equilibrium' Principle: no longer is 'Computed-Time' a "fixed" property executed within the exhaustive pool of the 'Universal Consciousness Reality's Supra-Spatial-Temporal Reservoir', but rather the 'moral-choices' that each Individual Human Consciousness opts (e.g., in the "past", "present" or "future/s\*") affect a proportionate 'balancing-act' of the singular Universal Consciousness Reality associated with its Dynamic-Equilibrium Principle to alter the pool of spatial-pixels' events embedded within the exhaustive 'Universal Consciousness Reality's Supra-Spatial-Temporal Reservoir's' Computed-Time... To revert back to the 'Cinematic-Film Metaphor', contrary to the ordinary-film instance, in which all "past", "present"- and "future/s\*" stored film-frames within the exhaustive pool of the film's entire series of frames, in which the presentation (or "role-out") of any single- or multiple- film's frame/s cannot alter (in any way) any "future" or "past" film-frame; in the unique case of the Universal Consciousness Reality, according to the 'Individual Human Consciousness Free-Choice Hypothesis' the moral choices executed by each Individual Human Consciousness at any single- or multiple- USCF's frame/s can- and does- affect- the singular Universal Consciousness Reality's Dynamic-Equilibrium 'balancing-act' of future/s\* (and potentially also of past) USCF's frames' occurrences.

We therefore obtain a completely new understanding of "time" – not as strictly depending upon any relativistic or quantum measurement/s, nor as flowing "uni-directionally" (e.g., from the past to the future but not vice versa), nor as being "fixed" (e.g., based on past relativistic or quantum effects); but rather,

as being computed continuously by the singular Universal Consciousness Reality for each exhaustive spatial-pixel/s in the physical universe and as being interactively affected by 'past'- 'present'- and 'future/s\*'-USCF's frames' comprising Individual Human Consciousness' moral-choices (and the Universal Consciousness Reality's balancing 'Dynamic-Equilibrium' mechanism)... This new conception of "time" (as well as of the other three basic physical features of 'space', 'energy' and 'mass') as being continuously computed by a singular (unitary) 'Universal Consciousness Reality' significantly alters our basic understanding of the physical universe as being totally dependent upon- and merely a manifestation of- a singular Universal Consciousness Reality. Finally, this new conception of "time", "space", "energy" and "mass" is also associated with the centrality of Individual Human Consciousness, which is seen as truly "inseparable" from the singular Universal Consciousness Reality as well as possesses the potential to "expand" and alter any exhaustive spatial pixel in the physical universe, "reverse-time", and can also affect certain "past"- "present"- and "future/s\*"- occurrences based on moral/immoral conscious actions which "trigger-off" the Universal Consciousness Reality's 'Dynamic-Equilibrium' balancing principle.

## REFERENCES RÉFÉRENCES REFERENCIAS

1. Bentwich, J. (2012a) "Harmonizing Quantum Mechanics and Relativity Theory". Theoretical Concepts of Quantum Mechanics, In tech (ISBN 979-953-307-377-3), Chapter 22, pp. 515-550.
2. Bentwich, J. (2012b) "Theoretical Validation of the Computational Unified Field Theory". Theoretical Concepts of Quantum Mechanics, (ISBN 979-953-307-3773), Chapter 23, pp. 551-598.
3. Bentwich, J. (2013a). "The Theoretical Ramifications of the Computational Unified Field Theory". Advances in Quantum Mechanics (ISBN 978-953-51-1089-7), Chapter 28, pp. 671-882.
4. Bentwich, J. (2013b). The Computational Unified Field Theory (CUFT): A Candidate Theory of Everything. Advances in Quantum Mechanics (ISBN 978-953-51-1089-7) Chapter 18, pp. 395-436.
5. Bentwich, J. (2014a). Critical Empirical Validation of the 'Computational Unified Field Theory' (CUFT) vs. Quantum & Relativistic Models. Selected Topics in Applications of Quantum Mechanics (ISBN 978-953-51-2126-8).
6. Bentwich, J. (2014b) What if Einstein was Right? Amazon Kindle Book Store. Bentwich, J. (2015).
7. On the Geometry of Space, Time, Energy & Mass: Empirical Validation of the Computational Unified Field Theory. Proceedings of Vigier IX – Unified Mechanics: Natural Science Beyond the Veil of Spacetime (Baltimore, Maryland).

8. Bentwich, J. (2016) The 'Computational Unified Field Theory': A Paradigmatic Shift. Research & Reviews: Journal of Pure & Applied Physics.
9. Bentwich, J. (2017a) The Computational Unified Field Theory: Could 'Dark Matter' & 'Dark Energy' be "Superfluous"? Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21<sup>st</sup> Century Physics.
10. Bentwich, J. (2017b) The Computational Unified Field Theory: Explaining the Universe from "Without". Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21<sup>st</sup> Century Physics.
11. Bentwich, J. (2017c). The Computational Unified Field Theory: A New 'A-Causal Computation' Physics. Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21<sup>st</sup> Century Physics.
12. Bentwich, J. (2017d). The 'Computational Unified Field Theory' (CUFT) May Challenge the 'Big-Bang Theory'. Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21<sup>st</sup> Century Physics.
13. Bentwich, J. (2017e). Can the 'Computational Unified Field Theory' (CUFT) Challenge the Basic Laws of Conservation? Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21<sup>st</sup> Century Physics.
14. Bentwich, J. (2017f). The Computational Unified Field Theory: Time Reversal May be Possible. Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21<sup>st</sup> Century Physics.
15. Bentwich, J. (2017g). The Computational Unified Field Theory (CUFT) Transcends Relativity's Speed of Light Constraint. Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21<sup>st</sup> Century Physics.
16. Bentwich, J. (2017h). The Computational Unified Field Theory's New Physics: Transcending Space, Time and Causality. Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21<sup>st</sup> Century Physics.
17. Bentwich, J. (2017i). A "Supra-Spatial-Temporal Universal Consciousness Reality". Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21<sup>st</sup> Century Physics.
18. Bentwich, J. (2017j). A New Science: An Infinite Omniscient Dynamic-Equilibrium Universal Consciousness Reality. Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21<sup>st</sup> Century Physics.
19. Bentwich, J. (2017k). The Computational Unified Field Theory (CUFT) Challenges Darwin's 'Natural Selection Principle'! Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21<sup>st</sup> Century Physics.



GLOBAL JOURNAL OF SCIENCE FRONTIER RESEARCH: A  
PHYSICS AND SPACE SCIENCE  
Volume 18 Issue 8 Version 1.0 Year 2018  
Type: Double Blind Peer Reviewed International Research Journal  
Publisher: Global Journals  
Online ISSN: 2249-4626 & Print ISSN: 0975-5896

# The “Double-Faceted Universal Consciousness Reality”: A Theoretical Review

By Jehonathan Bentwich, Ph.D.

*Introduction-* Twenty First Century Physics is being metamorphosed by the discovery of the Computational Unified Field Theory” (CUFT), i.e. from its “old” “Material-Causal” Paradigm to the CUFT’s newly discovered “Universal Consciousness Reality’s ‘ACausal Computation’ Paradigm! Hence, The purpose of this last article within this Special Issue is to summarize and encapsulate the far reaching theoretical implications of the CUFT’s new Universal Consciousness Reality which replaces and transcends Relativity Theory (RT) and Quantum Mechanics (QM): As described extensively in the fourteen articles within this Special Issue (and previously: Bentwich: ???) the empirical validation of at least one of the Computational Unified Field Theory’s (CUFT) “differential-critical predictions”, e.g., associated with the “Proton-Puzzle” findings, alongside its resolution of the principle (apparent) theoretical inconsistency between RT and QM; as well as of a series of unresolved “Physical Conundrums” (e.g., such as “Dark-Energy” and “Dark-Matter”, the “Arrow of Time” etc.)

*GJSFR-A Classification: FOR Code: 029999*



*Strictly as per the compliance and regulations of:*



# The “Double-Faceted Universal Consciousness Reality”: A Theoretical Review

Jehonathan Bentwich, Ph.D.

## I. INTRODUCTION

Twenty First Century Physics is being metamorphosed by the discovery of the “Computational Unified Field Theory” (CUFT), i.e., from its “old” “Material-Causal” Paradigm to the CUFT’s newly discovered “Universal Consciousness Reality’s ‘A-Causal Computation’ Paradigm! Hence, The purpose of this last article within this Special Issue is to summarize and encapsulate the far reaching theoretical implications of the CUFT’s new Universal Consciousness Reality which replaces and transcends Relativity Theory (RT) and Quantum Mechanics (QM): As described extensively in the fourteen articles within this Special Issue (and previously: Bentwich: ???) the empirical validation of at least one of the Computational Unified Field Theory’s (CUFT) “differential-critical predictions”, e.g., associated with the “Proton-Puzzle” findings, alongside its resolution of the principle (apparent) theoretical inconsistency between RT and QM; as well as of a series of unresolved “Physical Conundrums” (e.g., such as “Dark-Energy” and “Dark-Matter”, the “Arrow of Time” etc.) position the CUFT as a satisfactory “Theory of Everything” (TOE) and establishes it’s new ‘A-Causal Computation’ Paradigm as a novel alternative to the current ‘Material-Causal’ Paradigm underlying both RT and QM: Succinctly stated, this new ‘A-Causal Computation’ is based on the discovery of a singular higher-ordered Universal Consciousness Reality which is responsible for the computation- “dissolution”- sustenance- and evolution- of all exhaustive spatial pixels comprising the entire physical universe at every minimal time-point USCF’s frame/s (e.g., which is being solely produced by this singular Universal Consciousness Reality). Indeed, according to the CUFT, this Universal Consciousness Reality computes each consecutive USCF’s frame/s at the incredible rate of  $c^2/h = 1.45^{42}!$  which comprises all exhaustive spatial pixels in the physical universe, e.g., including their four associated physical features of “space”, “time”, “energy” and “mass”; Additionally, the CUFT posits that “in-between” any two consecutive USCF’s frame/s, only the singularity of the Universal Consciousness Reality exists – i.e., with no presence of the physical universe “in-between” any two such consecutive USCF’s frames!

The principle metamorphosis that this new Universal Consciousness Reality brought about in

Author: e-mail: drbentwich@gmail.com

Twenty-First Century Theoretical Physics stems from the fact that it advocates an “A-Causal Computation” new Paradigm, i.e., wherein the entire physical universe is being computed “simultaneously” (at every such minimal time-point USCF’s frame/s:  $c^2/h = 1.45^{42}!$ ), as opposed to the “Old Material-Causal” Paradigm of Relativity Theory and Quantum Mechanics! In a nutshell, this new ‘A-Causal Computation’ Paradigm was shown to negate the possibility of the existence of any “material-causal” physical relationship/s (between any two or more exhaustive spatial pixels in the entire physical universe) at either a relativistic or quantum level, e.g., due to the “simultaneity” of this Universal Consciousness Reality’s computation of any such exhaustive spatial pixels at any single or multiple USCF’s frames, and the “dissolution” of the entire physical universe “in-between” any two consecutive USCF’s frame/s (e.g., which prevents the transference of any physical effect or phenomenon across any two consecutive USCF’s frames)! This principle negation of any ‘material-causal’ (quantum or relativistic) effect or phenomena dramatically altered- and revised-the old ‘Material-Causal’ Paradigm’s conception of Relativity Theory and Quantum Mechanics:

## II. THE CUFT REVISES RELATIVITY’S AND QUANTUM’S CONCEPTION OF THE UNIVERSE

Thus, General Relativity Theory’s conception of the physical universe as being governed by Einstein’s (famous) Equations which postulate that mass curves ‘space-time’ and conversely this curvature of space-time determines the movement pathways of ‘massive objects’ – was proven invalid due to the impossibility of the existence of any such ‘material-causal’ (interactive) physical relationships between “curved space-time” and “massive-objects”! Specifically, it was shown that since no physical universe exists “in-between” any two consecutive USCF’s frames, and since each exhaustive spatial pixel throughout the entire physical universe is produced “simultaneously” by the (singular) Universal Consciousness Reality, then there cannot exist any ‘material-causal’ physical relationship/s between any given ‘massive-object/s’ and ‘curved space-time’, e.g., either within any single USCF’s frame/s or across any two consecutive USCF’s frames! Hence, the CUFT’s new ‘A-Causal Computation’ Paradigm brought about a



profound change in the way that this new Universal Consciousness Reality views and explains the origination, sustenance and evolution of the entire physical cosmos; Instead of Relativity Theory's origin of the entire physical universe from a nuclear “Big-Bang” explosion which is currently assumed to have created all of the mass, energy, galaxies, etc. (some 13.5 Billion years ago), the CUFT's ‘A-Causal Computation’ Paradigm explains the origins of the physical universe – as being continuously “created”, “dissolved”- “re-created” – and “evolved” solely based upon the Universal Consciousness Reality's extremely rapid computation of the series of USCF's frames (e.g., every “ $c^2/h$ ”= $1.45^{-42}$  second!) Once again, to utilize the ‘Cinematic-Film Metaphor’ for Universal Consciousness Reality's continuous origination of the rapid series of USCF's comprising the entire physical cosmos – in the same manner that we cannot say that the “first-frame” in a given film has “created”- or “caused”- the “second”, “third” etc. frames, but rather that the “producer” of the film has arranged all of the frames in that film in a particular order; in the case of the Universal Consciousness Reality, it is hypothesized to originate at every “ $c^2/h$ ”= $1.45^{-42}$  second! The entire physical universe, e.g., just as it produced the “first-frame” depicting a ‘Big-Bang’ nuclear explosion... Moreover, since there cannot be any “transference” of any physical effect, “matter”, or phenomenon – from any given USCF's frame/s to any subsequent USCF's frame/s (e.g., due to the “dissolution” of the entire physical universe “in-between” any two consecutive USCF's frames), therefore the new ‘A-Causal Computation’ Paradigm negates Relativity's posited evolution of the cosmos based on the interactive physical relationships between ‘space-time’ and its ‘curvature by massive objects’ (and vice versa this assumed ‘curved space-time's’ “causing” ‘massive objects’ to travel in particular pathways): Instead, the CUFT's ‘A-Causal Computation’ Paradigm asserts that the origination- “dissolution-” (e.g., “in-between” any two consecutive USCF's frame/s) and evolution of any exhaustive spatial-pixel in the universe (as well as of the entire physical universe) is solely dependent upon the continuous computation of each exhaustive spatial pixel in the universe by this singular Universal Consciousness Reality (at every minimal time-point “ $c^2/h$ ”= $1.45^{-42}$  second!) In this manner, “Dark-Matter” and “Dark-Energy” were “swept away” and rejected as “superfluous” (e.g., “non-existent”) – e.g., not “causing” the accelerated expansion of the physical universe, but rather that the universe is expanding (at an accelerated rate) simply due to one of the intrinsic features of this singular Universal Consciousness Reality; which is its “accelerated” increase of the number of exhaustive spatial pixels for each subsequent USCF's frame/s! In other words, the physical cosmos expands – not as “caused” by any “non-existent” “Dark-Matter” or “Dark-

Energy” (which is currently assumed to account for up to 90% of all “mass” and “energy” in the universe but could not be detected empirically, akin to the “superfluous” “Ether” concept which could also not be verified empirically prior to Einstein's 1905 Relativity Paradigmatic Shift!) Instead, the accelerated expansion of the entire physical cosmos and its overall evolution – must be attributed solely to the computation-dissolution- re-creation- and evolution- of each exhaustive spatial pixel within it by this singular Universal Consciousness Reality at every minimal time-point “ $c^2/h$ ”= $1.45^{-42}$  second!

In much the same manner, the discovery of the singular Universal Consciousness Reality also challenged and fundamentally revised Quantum Mechanics' conception of the origination and dynamics of any hypothetical subatomic “target” particle or phenomenon: this is because according to Quantum Mechanics, any subatomic quantum “target” particle (or phenomenon) may only be determined based on that subatomic target's “probability wave function's collapse” – which is “caused” by its direct physical interaction with another subatomic “probe” element; But, since the CUFT's new ‘A-Causal Computation’ Paradigm negates the possibility of any “material-causal” interaction between any two (or more) exhaustive spatial pixels, e.g., including those subatomic “probe” and “target” elements (existing either in the same- or other- USCF's frames), therefore the new A-Causal Computation’ Paradigm negates QM's postulation regarding the “collapse” of the “subatomic target's probability wave function” as “caused” by its direct physical interaction with another “subatomic probe element”! Instead, the CUFT advocates (once again) an instantaneous computation of all exhaustive spatial-pixels comprising the same USCF's frame/s, e.g., including any two given subatomic “probe” and “target” elements... In fact, the new conception of the CUFT's A-Causal Computation Paradigm goes even further to elucidate the fact that there exist “single spatial-temporal” “particle” measurements, “multi-spatial-temporal” “wave” measurements – which are both embedded within the exhaustive USCF's frame/s measurement that includes all ‘single spatial-temporal *particle*’ and ‘multiple spatial-temporal wave’ measurements! Indeed, it is based on this exhaustive theoretical framework of the CUFT's Universal Consciousness Reality's computation of all exhaustive spatial-pixels (embedding within it both the ‘particle’ and ‘wave’ measurements) that the new ‘A-Causal Computation’ Paradigm was able to resolve the apparent theoretical inconsistency that seems to exist between RT's “speed of light limit” for the transmission of any physical signal across space and time and QM's “quantum-entanglement” phenomenon (e.g., which suggests that a measurement of a given “entangled particle” “instantaneously affects” its other entangled



particle's "complimentary properties" – thereby apparently violating the 'speed of light constraint' for transmitting any physical signal or effect!); This is because according to the CUFT new 'A-Causal Computation' Paradigm, the Universal Consciousness Reality computes simultaneously all 'single-spatial-temporal particle/s', and all 'multi-spatial-temporal wave' measurements as embedded within the Universal Consciousness Reality's exhaustive USCF's frame/s computation; Hence, what appears to be two "separate" 'single-spatial-temporal' "entangled particles" – are in truth but different segments of the same 'multi-spatial wave' measurement, which in turn is computed simultaneously as part of the exhaustive USCF's frame/s! This implies that in reality – it is not that one "entangled-particle" interacted with the other 'entangled particle' (e.g., at a speed greater than the Speed of Light), but rather that these two 'entangled particles' represent "equivalent points" alongside the same ('multi-spatial-temporal') "wave" measurement which therefore yields "equivalent complimentary-pairs" values for these two particles (as explained previously); this explanation was also tied with another fascinating insight brought about by the CUFT's new 'A-Causal Computation' Paradigm (of 21<sup>st</sup> Century Physics), e.g., wherein it was realized that the Universal Computational/Consciousness Principle computes the four basic physical features of 'space', 'time', 'energy' and 'mass' based on its three 'Computational Dimensions' of "Framework" ('object' vs. 'frame'), "Consistency" ('consistent' vs. 'inconsistent') and "Locus" ('global' vs. 'local'); it was thus shown that in the same manner that one cannot perceive at the same time a "half-empty" glass and a "half-full" glass, so do the two computational levels "frame" – consistent and inconsistent ('space' and 'energy') or of "object" – consistent and inconsistent ('mass' and 'time') necessarily comprise exhaustive computational pairs, e.g., giving rise to Heisenberg's Uncertainty Principle "complimentary-pairs" simultaneous measurement accuracy constraint!

### III. TRANSCENDING RELATIVISTIC & QUANTUM CONSTRAINTS

Indeed, it turned out that this novel (singular higher-ordered) CUFT's Universal Consciousness Reality's 'A-Causal Computation' Paradigm was successful in resolving the apparent theoretical inconsistency between RT and QM and moreover fully integrated them within the singular theoretical framework of the Universal Consciousness Reality's "Universal Computational Formula", which delineates the Universal Consciousness Principle's extremely rapid simultaneous computation of every exhaustive spatial pixel in the entire physical cosmos (e.g., including its four

associated 'space', 'time', 'energy' and 'mass' physical features).

*Universal Computational Formula (Ucf)*

$$\frac{c^2}{h \cdot t} = \frac{s}{m} \cdot \frac{e}{\hbar}$$

- 1) *Relativistic Representation:*  $e \times \frac{s}{h} = m \times \frac{c^2}{\hbar}$
- 2) *Quantum Representation:*  $t \cdot \frac{m c^2}{h} = s \cdot \frac{e}{\hbar}$

Indeed, several fascinating facets of this singular Universal Computation Formula were unraveled which include: its replication- yet transcendence- of both quantum and relativistic known relationships (and laws); the discovery of the extraordinary rate at which this (singular) Universal Consciousness Reality computes the series of minimal time point: " $c^2/h$ " = 1.45<sup>-42</sup>! USCF's frames comprising the entire physical universe; and the complete unification of the four basic physical features of "space", "time", "energy" and "mass" – as secondary computational measurements of the degree of "change" (inconsistency) or "un-change" (consistency) at any exhaustive spatial pixel/s in the universe (e.g., computed by this Universal Consciousness Reality)!

Thus, as outlined previously, the two "Relativistic" and "Quantum" formats of the (singular) Universal Computational Formula highlight the replication and embedding of key relativistic and quantum relationships within the broader theoretical framework of the CUFT's Universal Consciousness Reality's 'A-Causal Computation' new Paradigm of 21<sup>st</sup> Century Theoretical Physics:

Beyond that, the new Universal Computational Formula exemplifies the merely "transient" and "phenomenal" nature of those four basic physical features of 'space', 'time', 'energy' and 'mass' and hence of the whole physical universe as existing only "during" each Universal Consciousness Reality produced USCF's frame/s but not "in-between" any two such consecutive USCF's frames (as indeed posited by the CUFT's 'Computational Invariance Principle', Universal Consciousness Principle and , Universal Consciousness Reality theoretical postulates! Finally, the far reaching theoretical ramifications derived from this (singular) Universal Computational Formula are that 'space', 'time', 'energy' and 'mass' are no longer "separate" from each other – as they all represent different computational derivatives of the same singular Universal Consciousness Reality's exhaustive computation of the degree of "consistency" or "inconsistency" as pertaining to computational

measurements of a single "object" or relative to the entire "frame" being depicted (by the Universal Consciousness Reality) across a series of USCF's frames (as represented by the three "Computational Dimensions" of "Framework" (frame/object), "Consistency" (consistent/inconsistent) and "Locus" (global/local)!

Indeed, by fully integrating Relativistic and Quantum relationships and based on the extraordinary discovery of the singular Universal Consciousness Reality's singular computation of every exhaustive spatial pixel/s in the entire physical universe, e.g., which recognizes the four basic physical features of 'space', 'time', 'energy' and 'mass' as (integrated) secondary computational products of the singular 'Universal Consciousness Reality', the CUFT new Universal Consciousness Reality's new 'A-Causal Computation' Paradigm has opened an entirely new, broader, and very exciting perspective on the true nature of the physical universe – i.e., as merely representing a "transient", "phenomenal" manifestation of the singular ("computationally invariant") Universal Consciousness Reality (which exists "unaltered" both "during" each USCF's frame/s and also solely exists without the presence of any physical universe "in-between" any two consecutive USCF's frames)! The ensuing theoretical conception of the physical universe – not as "caused" by any "material-causal" 'Big-Bang' nuclear explosion, or as governed by Einstein's General Relativity's 'material-causal' relationships between "massive objects" curvature of "space-time" (which is conversely assumed to determine the travelling pathways of those 'massive objects'), nor as propelled by a "superfluous" (e.g., non-existent!) "dark-matter" or "dark-energy" (Bentwich: ???); but rather as being continuously created- "dissolved"- "re-created"- and evolved- by the singular Universal Consciousness Reality completely alters our basic conception of the physical universe – which merely represents a "transient-phenomenal" manifestation (e.g., "computationally-variant") manifestation of the singular permanent ("computationally invariant") Universal Consciousness Reality which both creates- and transcends- the physical universe!

#### IV. AN "ANIMATING" OMNISCIENT INFINITE SUPRA-SPATIAL-TEMPORAL UNIVERSAL CONSCIOUSNESS REALITY

Indeed, the "new picture" of the physical universe changes dramatically with the discovery of this singular Universal Consciousness Reality's "Supra-Spatial-Temporal Omniscient (Omnipresent) Infinite" characterizations (as outlined in this Special Issue): Given the fact that all "past"- "present"- and "future"\* USCF's frames are "stored" within this singular "Universal Consciousness Reality's Supra-Spatial-Temporal Reservoir", then this brought about a profound

change in our basic conception and understanding of the physical cosmos as being "animated" and in fact representing only a sort of a "camouflage" which in truth is only a manifestation of the singularity of this Universal Consciousness Reality (\*as explained previously, due to the moral-based "Dynamic-Equilibrium" principle associated with this singular Universal Consciousness Reality suggests that "multiple-futures" exist which are dependent upon the moral choice/s of the "Individual Human Consciousness"!)) This new realization profoundly revised our conception of the physical universe and our scientific ontological knowledge of it: thus, for instance, since this singular Universal Consciousness Reality computes- dissolves- re-creates- and evolves- every exhaustive spatial pixel/s in the universe (at every minimal time-point " $c^2/h$ " =  $1.45^{42}$ !) this was shown to imply that this Universal Consciousness Reality "cognizes" and is "Omniscient" (and Omnipresent) at every such exhaustive spatial-pixel in the universe, e.g., in any "past", "present" or "future" USCF's frame/s! As such it revised Gödel's Incompleteness Theorem's apparent inherent Mathematical constraint imposed upon the possibility to construct any consistent finite Mathematical System: instead, the discovery of the new Universal Consciousness Reality's Infinite Omniscient Supra-Spatial-Temporal Reservoir implied that whereas any Logical-Mathematical System is "nullified" by the Universal Consciousness Reality's 'A-Causal Computation' Paradigm (e.g., which negates the possibility of the existence of any 'material-causal' relationship/s existing either within the same- or different- USCF's frame/s including any such 'Logical-Mathematical System!); Nevertheless, this singular Universal Consciousness Reality does in fact "cognize" and is in fact "Omniscient" regarding any exhaustive spatial-pixel in the universe in the "past", "present" and "future"\*, thereby opening new and profound possibilities for both deductive and inductive Science!

Indeed, one of the first instances in which this CUFT's Universal Consciousness Reality's new 'A-Causal Computation' Paradigm of 21<sup>st</sup> Century Physics has already shown to negate- and call for a basic revision- of the old "Material-Causal Paradigm" was in the case of Darwin's Natural Selection Principle (based Evolutionary Theory): It was shown that since Darwin's Natural Selection Principle is based upon this old 'Material-Causal' assumption wherein it is assumed that it is the direct physical interaction between any given biological organism and an exhaustive set of 'Environmental Factors' – which "causes" this organism (and all of its potential descendants) to "survive" or be "extinct"; and since the CUFT's new 'A-Causal Computation' Paradigm strictly negates the very possibility of any such 'material-causal' physical interaction/s between any two (or more) exhaustive spatial-pixels (e.g., existing either in the same- or

different- USCF's frames), therefore Darwin's Natural Selection Principle was negated by this new 'A-Causal Computation' Paradigm! Instead, a new Universal Consciousness Reality based understanding of the workings of this Universal Consciousness Reality, which creates- dissolves- re-creates- and evolves- any exhaustive spatial pixel in the universe, e.g., including its apparent intrinsic characteristic to evolve the physical forms from "inanimate", through "animate": "plants", "animals", "humans" – and up to the full manifestation of a Universal Consciousness within human Consciousness! Other significant examples for the profound necessary change throughout the whole of Deductive and Inductive Science are: the challenging of General Relativity's "Einstein's Equations", "Dark-Matter" and "Dark-Energy", the "Second Law of Thermodynamics" (outlined in this Special Issue).

## V. A "DOUBLE-SIDED UNIVERSAL CONSCIOUSNESS REALITY"!

Perhaps another final significant derivative of the discovery of this new profound Universal Consciousness Reality is the realization that this Universal Consciousness Reality possesses "two facets", i.e., the "physical" facet derived from the Universal Computational Formula which delineates the "mechanics" of the Universal Consciousness Reality's computation of the four basic physical features of 'space', 'time', 'energy' and 'mass' through its three Computational Dimensions (e.g., at the rate of " $c^2/h = 1.45^{42}!$ "); and the "Individual Human Consciousness Expansive Spectrum Hypothesis" (IHCESH) facet, which is associated with the CUFT's earlier discovery wherein Individual Human Consciousness possesses the potential to function in an identical manner to the Universal Consciousness Reality, i.e., in its "expanded" format (in the waking state of Individual Consciousness): According to this IHCESH postulate of the CUFT Individual Human Consciousness (in its "expanded" form) can produce- "dissolve"-sustain- and evolve- any exhaustive spatial pixel in the universe at any minimal time-point USCF/s (" $c^2/h = 1.45^{42}!$ ") – just as the Universal Consciousness Reality does! Moreover, due to the fact that according to the 'Supra-Spatial-Temporal Infinite Omniscient Omnipresent Reservoir' postulate of the CUFT, which posits that the Universal Consciousness Reality "stores" all 'past'- 'present'- and 'future'\* USCF's frames, therefore it follows that such an "expanded" Individual Human Consciousness must also be capable of accessing (and even potentially "affecting"! ) any exhaustive spatial pixel/s throughout the entire physical cosmos in the "past", "present" or "future"! The gist of the difference between these "two sided-facets" of the singular Universal Consciousness Reality is that whereas the 'physical' facet focuses on those

('transient-phenomenal') physical features of 'space', 'time', 'energy' and 'mass' (associated with each exhaustive spatial pixel/s in the universe) – which exist only at any given USCF's frame/s but "dissolves" "in-between" any two consecutive USCF's frames; and moreover its ontological stance is only "transient-phenomenal" – merely representing the singular reality of the Universal Consciousness Reality; the "internal-facet" of this Universal Consciousness Reality – which may be "accessible" by the "expanded" Individual Human Consciousness is not likewise "limited" to the "present" USCF's frame that is being presented, e.g., in terms of our physical measurements or our ability to manipulate any particular spatial-pixel/s.

In order to emphasize this principle difference between the ('internal') 'Expanded Individual Human Consciousness' facet of the (singular) Universal Consciousness Reality and its ('external') 'physical' facet, let us perhaps utilize one of the previously (three) "differential-critical predictions" of the CUFT (which differentiate it from both RT and QM – one of which has received initial empirical validation through Bernaur and Pohl's 2014 "Proton-Radius Puzzle"): namely, the "Time-Reversal Hypothesis"! According to this 'Time-Reversal Hypothesis' (see Bentwich: 2017???) it may be possible to "reverse-time" in one of two methodologies: a) based on the precise recording of the particular 'spatial-electromagnetic pixels' of any given object (which changes with time such a biological organism or tissue etc.) across a series of consecutive USCF's frames and subsequently to apply such 'electromagnetic-stimulation' which may "reverse" those spatial-pixels' particular electromagnetic-spatial values (across the same number of USCF's recorded); and b) to employ the "Expanded Individual Human Consciousness" to access- or indeed alter- any "past"- "present"- or "future"\*\*\* USCF's frame/s' depiction of any given object (or phenomenon)! Hence, the (principle) difference between these two facets of Universal Consciousness Reality (e.g., in the particular case of "time-reversal") is that whereas the "external-physical" facet may only reverse any given USCF's frame/s depiction of a given object (or phenomenon) based on that object's previously recorded spatial-electromagnetic pixels' values, the "internal-Expanded Individual Human Consciousness" facet allows for accessing- and potentially altering- any "past"- "present"- or "future"\*\*\*-USCF's configuration of any exhaustive spatial pixel/s (potentially) throughout the entire physical universe! To utilize the previously outlined 'Cinematic-Film Metaphor' analogy for this singular Universal Consciousness Reality (in the specific case of 'time-reversal' described above) – the 'external-physical' facet may be represented as the manipulation of a certain number of USCF's frames' depiction of a given object (e.g., in order to reverse its sequential electromagnetic spatial-

pixels values), whereas the 'internal-Expanded Individual Human Consciousness' facet may be represented as the accessing- and even altering- of any "exhaustive spatial pixel" which exists in any of the film-frames!

## VI. DISCUSSION: THE NEW 'UNIVERSAL CONSCIOUSNESS REALITY' SCIENTIFIC HORIZONS

An (exciting) emerging development of this Universal Consciousness Reality Science is the realization that it possesses a "two-facets" – i.e., as it appears from the perspective of the physical cosmos, and as it appears from the perspective of an "Expanded Individual Human Consciousness" perspective! To utilize the (previously outlined) "Cinematic-Film Metaphor", these two facets of this singular Universal Consciousness Reality may be likened to looking at the production of the film from the perspective of the "screen" (upon which it is projected) as opposed to analyzing the film from the perspective of the "projector"; Indeed, following this (refined) Cinematic-Film Metaphor may be quite fruitful in understanding the full scope and potential of the 'Computational Unified Field Theory's' to elucidate the new emerging picture of the entire cosmos as solely produced by the singularity of the Universal Consciousness Reality (and the intrinsic potential of our Individual Human Consciousness that is closely associated with this Universal Consciousness Reality)! This is simply because if we were to examine- and possibly affect- any "physical occurrence/s" or "physical features" taking place on the Cinematic Film Screen, we could approach this issue from two different perspectives: a) from the perspective of this Screen (itself), or b) from the perspective of the dynamics of the Cinematic-Film dynamics (e.g., frames, rate of projection, or even the entire "dvd" and its "playing-out" across the screen!) It is suggested that in this regards this 'Cinematic-Film Metaphor' may be quite equivalent to the "Two Sided Facets" of the singular Universal Consciousness Reality:

Indeed, as shown previously, the CUFT delineated the Universal Consciousness' Reality's computation- "dissolution"- sustenance- and evolution- of every exhaustive spatial pixel throughout the entire physical universe (at every minimal time-point " $c^2/h$ " =  $1.45^{421}$ ) which comprises the extremely rapid series of USCF's frames originating, sustaining and evolving the entire physical cosmos! Moreover, it was shown (and deduced) that since only the Universal Consciousness Reality exists both "during" each such consecutive USCF's frame/s and also exists "in-between" any two USCF's frames (without the presence of any physical universe), therefore only this Universal Consciousness Reality exists "invariantly" (e.g., consistently and permanently) whereas the entire

physical cosmos exists only as a manifestation of this singular Universal Consciousness Reality (and even as a mere "camouflage" for this singular Universal Consciousness Reality!) Hence, our entire perception- and understanding of the physical cosmos is altered (altogether) – pointing at its merely "transient" and "phenomenal" existence, e.g., existing only "during" but not "in-between" any two consecutive USCF's frames and only representing a manifestation of the singularity of the Universal Consciousness Reality! This (profound) metamorphosis of the physical universe – from its current 'Material-Causal' stance which views the universe as originated by the "Big-Bang" nuclear fusion and whose expansion is accelerated based on the (empirically undetected) "Black Matter" and "Black Energy" or as existing based on 'material-causal' "collapse of the subatomic target's probability wave function" which is "caused" by its direct physical interaction with another subatomic "probe" element; towards the Universal Consciousness Reality's new Paradigm which views the every exhaustive spatial pixel in the universe, e.g., at any "past", "present" or "future" USCF's frame/s as solely and singularly produced- "dissolved"- sustained and evolved- by the Universal Consciousness Reality brings us closer and closer to the recognition of the two facets of this Universal Consciousness Reality, i.e., akin to the abovementioned two possible perspectives for perceiving- and potentially also affecting- any exhaustive spatial pixel's associated physical features...

Hence, the emerging new 'Universal Consciousness Reality' based Science opens new profound horizons for the further development of all Deductive and Inductive Science: This new "Universal Consciousness Reality" (UCR) Science realizes that there exists only one singular Reality which exists both "during" each USCF's frame/s (e.g., giving rise to every exhaustive spatial pixel/s throughout the entire physical cosmos – in the "past"- "present"- and "future"\*-) and also solely exists without the presence of any physical universe "in-between" any two consecutive USCF's frames; It emphasizes the continuous "origination"- "dissolution"- sustenance- and evolution- of every such exhaustive spatial-pixel in the universe (as well as of the whole cosmos) by this singular Universal Consciousness Reality, rather than the old 'Material-Causal' Paradigm which assumes that the universe was created 13.5 Billion years ago by a Big-Bang nuclear explosion and is being "propelled" by a ("non-existent") "Dark-Matter" and "Dark-Energy"... Indeed, this new UCR's 'A-Causal-Computation' Paradigm revolutionizes our whole conception of every inductive and deductive 'material-causal' relationship/s, such that it negates the very possibility of the existence of any such 'material-causal' relationship/s between any (two or more) exhaustive spatial-pixel/s (existing within any "past"-



"present"- or "future"-\* USCF's frame/s)! Hence, this new 'A-Causal Computation' Paradigm (of 21<sup>st</sup> Century Physics) was shown to negate and revise Relativity's 'Einstein's Equations' (e.g., due to the impossibility of any 'material-causal' dynamic interaction between any 'massive-objects' and the 'curvature of space-time'), negate 'Second Law of Thermodynamics' (e.g., likewise due to the negation of any such 'material-causal' relationships between the given state of Entropy in any particular USCF's frame/s and its assumed increase in any subsequent USCF's frame/s), reject Darwin's Natural Selection Principle (e.g., due to the negation of any 'material-causal' relationship between any 'Environmental-Factors' and the "survival" or "extinction" of any given organism or its descendants); Likewise, Gödel's Incompleteness Theorem (GIT) was revised – i.e., as the whole of Deductive Logic-Mathematics based on this new 'A-Causal Computation' Paradigm which negates the possibility of the existence of any 'material-causal' relationship/s between any exhaustive spatial-pixel/s including any "computing device" or even the "human-brain" at any "past", "present" or "future"\* USCF's frame/s)!

The new ensuing 'Universal Consciousness Reality' based Science is quite an extraordinary one – in that it opens almost unlimited "infinite" possibilities for Science's understanding (and to a certain extent even "control") over all natural (deductive and inductive) phenomena... This is because one of the far –reaching theoretical conclusions arising from the new Universal Consciousness Reality Paradigm of 21<sup>st</sup> Century Physics is that since this Universal Consciousness Reality singularly computes- sustains- "dissolves"- and evolves- each exhaustive spatial pixel throughout the entire physical universe, and moreover that none of these exhaustive spatial pixels (comprising the entirety of the physical cosmos) exists "permanently" (e.g., in and of itself), but rather these exhaustive spatial pixels exist only as a manifestation of the singularity of the Universal Consciousness Reality – which "holds" all "past"- "present"- and even "future"\*- USCF's frames' exhaustive spatial pixels (within the Universal Consciousness Reality's Reservoir); therefore it was inferred that this singular Universal Consciousness possesses an "Infinite Omnipresent, Omniscient" knowledge- and effect- over all "past", "present" and "future"\* USCF's exhaustive spatial pixels, phenomena and occurrences! Given the CUFT's discovery of the (hypothesized) equivalence of the "expanded" format of the Individual Human Consciousness and the singularity of the Universal Consciousness Reality, this was then shown to imply that at least in principle such an "expanded" Individual Human Consciousness could "know" and also potentially "affect" any "past"- "present"- or "future"\* USCF's exhaustive spatial pixel/s, phenomena or occurrences! This implies that to the

extent that Science could probe and utilize this "expanded" Individual Human Consciousness faculty (e.g., which was previously shown to exist in all Individual Consciousness – in the "deep sleep" state, or indeed "in-between" any two consecutive thoughts or in a "pure-prayer" or meditation state); then Science can probe- "know"- and even affect- every exhaustive spatial pixel in the universe (in the "past", "present", or "future"\*) USCF's frame/s! Indeed, in the case of Gödel's Incompleteness Theorem it was shown that this new Universal Consciousness Reality's Infinite Omnipresent Omniscient characteristic may allow Logic-Mathematics to "know" and "resolve" any exhaustive hypothetical relationship/s (e.g., while at the same time negating the possibility of any finite logical-mathematical System to compute any 'deductive-causal' relationship or even interaction – once again due to the *simultaneity* of this Universal Consciousness Reality's computation of all exhaustive spatial pixel/s existing either in the same- or different- USCF's frames)!

In the case of the inductive Natural Sciences this Infinite Omnipresent Omniscient capacities of the "expanded" Individual Human Consciousness brought about a 'dramatic' transcendence of all apparent existing constraints on Science's capacity to probe- "know"- and even affect- every exhaustive spatial pixel throughout the entire physical cosmos: e.g., including the transcendence of the "Speed of Light Barrier" for transference of information of effects across space and time;





This page is intentionally left blank



GLOBAL JOURNAL OF SCIENCE FRONTIER RESEARCH: A  
PHYSICS AND SPACE SCIENCE

Volume 18 Issue 8 Version 1.0 Year 2018

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals

Online ISSN: 2249-4626 & Print ISSN: 0975-5896

## Letter to AAOAJ: "Dark Matter" May Not Exist!

By Jehonathan Bentwich, Ph.D.

*Introduction-* Twenty-First Century Theoretical Physics may be in a state akin to 19th century Physics prior to Einstein's Relativity Paradigmatic Shift and Quantum Mechanics discovery; This is because the two primary pillars of Modern Physics, namely RT and QM seem inconsistent (e.g., such as the apparent contradiction that exists between QM's "quantum entanglement" phenomenon indicating the possibility of "non-local" instantaneous effects as opposed to RT's strict constraint imposed upon the transmission of any signal across time and space (at a speed greater than the speed of light). Additionally, up to 85% of all Mass and Energy in the universe cannot be detected empirically but instead is hypothesized to comprise of "Dark Matter" and "Dark Energy", which are hypothesized to "cause" the accelerated expansion of the physical universe.

*GJSFR-A Classification: FOR Code: 020199*



*Strictly as per the compliance and regulations of:*



# Letter to AAOAJ: "Dark Matter" May Not Exist!

Jehonathan Bentwich, Ph.D.

## I. INTRODUCTION

Twenty-First Century Theoretical Physics may be in a state akin to 19<sup>th</sup> century Physics prior to Einstein's Relativity Paradigmatic Shift and Quantum Mechanics discovery; This is because the two primary pillars of Modern Physics, namely RT and QM seem inconsistent (e.g., such as the apparent contradiction that exists between QM's "quantum entanglement" phenomenon indicating the possibility of "non-local" instantaneous effects as opposed to RT's strict constraint imposed upon the transmission of any signal across time and space (at a speed greater than the speed of light). Additionally, up to 85% of all Mass and Energy in the universe cannot be detected empirically but instead is hypothesized to comprise of "Dark Matter" and "Dark Energy", which are hypothesized to "cause" the accelerated expansion of the physical universe.

Indeed, it is herein suggested that despite several hypothetical approaches towards the discovery of 'Dark-Matter' and 'Dark-Energy' (which are succinctly stated below), the recent discovery- and initial empirical validation- of a new 'Computational Unified Field Theory' (CUFT)<sup>1-15</sup> may challenge the (thus far hypothetical) existence of 'Dark-Matter' and 'Dark Energy' and offer an alternative new 'A-Causal Computation' Paradigm which may completely unify and integrate between RT and QM and also provide a satisfactory explanation for a series of "Physical Conundrums" which also include an alternative theoretical account for the empirically observed accelerated expansion of the physical universe, as well as potentially expand our basic understanding of the origin- and makeup- of the physical universe. Thus, despite the fact that the hypothetical existence of "Dark-Matter" has been postulated as early as the 1930's (de Swart, Bertone & van Dongen, 2017 *Nat. Astron.* 1, 0059; 2017) and which further converged with the "Nonbaryonic Dark Matter" Theory (Peebles, J., *Nat. Astron.* 1, 0057; 2017) and the Rubin's work on galactic rotation curves *Nature* (542, 32; 2017). Although there are several prospective experimental approaches which may provide indirect empirical evidence for the existence of "Dark-Matter" and "Dark-Energy" including: detection of imprints of "Dark-Energy" on various energy spectra or cosmic rays etc. (Conrad & Reimer: *Nat. Phys.* 13, 224–231; 2017); or "Dark-Matter" could be detected through neutrino telescopic measurements (*Nat. Phys.* 13, 232–

238; 2017) or through the Canadian Hydrogen Intensity Mapping Experiment (*Nat. Astron.* 1, 0037; 2017).

However, this hypothesis is challenged based on the initial empirical validation of one of the "critical predictions" of the "Computational Unified Field Theory" (CUFT) through findings associated with "Proton-Radius Puzzle"<sup>18</sup>. The CUFT's critical prediction differentiate it from the corresponding predictions of both Relativity Theory (RT) and Quantum Mechanics (QM). It predicted that a more massive particle (such as the 'Muon') would be measured as more "spatially-consistent" than a less massive particle (such as the 'electron') across a series of (minimal) time-measurements, which was validated empirically through the 'Proton-Radius Puzzle' findings. These findings indicated that that the nucleus of a Hydrogen atom encircled by a 'Muon' particle is measured approximately 100 times smaller (and more accurate) than an equivalent Hydrogen atom surrounded by an electron (which is approximately 100 time sligher than the Muon particle). Since these 'Proton-Radius Puzzle' findings validated the 'critical prediction' of the CUFT's – but could not be accounted for by either RT or QM, therefore the CUFT is considered a potentially satisfactory 'Theory of Everything' (TOE);

But, if indeed, the CUFT may be considered a satisfactory 'TOE' then its new 'A-Causal Computation' Paradigm challenges the very possibility of the existence of "Dark-Matter": This is because the basic assumption underlying the existence of the hypothetical "Dark Matter" is that this 'Dark-Matter', e.g., which accounts for up to 80% of all the mass in the universe "causes" the empirically observed accelerated expansion of the physical universe. However, the existence of such a "causal" relationship between "Dark-Matter" and the accelerated expansion of the physical universe is strictly negated according to the CUFT's new 'A-Causal Computation' Paradigm. This is because this 'A-Causal Computation' Paradigm states that there exists a singular (higher-ordered) "Universal Computational Principle" (represented by the Hebrew Letter "Yud": "י") which *simultaneously computes* every exhaustive spatial pixel in the universe at every minimal time-point: " $c^2/h = 1.45^{-42}$  sec. Due to the Universal Computational Principle's *simultaneous computation* of every exhaustive spatial pixel in the universe (e.g., at the incredible rate of  $c^2/h = 1.45^{-42}$  sec. which produces a series of 'Universal Frames' comprising all exhaustive spatial pixels in the universe), the new 'A-Causal Computation' Paradigm was shown to negate the possibility of the existence of any "causal" relationships between any two exhaustive

Author: e-mail: drbentwich@gmail.com

spatial pixels in the universe at any single- or multiple-Universal Frame/s (minimal time-point frame/s). Therefore, the very existence of "Dark-Matter" as "causing" the accelerated expansion of the universe is negated by the CUFT's new 'A-Causal Computation' Paradigm. Indeed, this principle negation of the existence of any 'causal' relationships between any two (quantum or relativistic) spatial pixels at any single or multiple 'Universal Frames' (due to the simultaneous computation of every exhaustive spatial pixels in the universe at any such single or multiple Universal Frames by the Universal Computational Principle) was also shown to bear potentially far-reaching theoretical

$$M: \Sigma[o\{x,y,z\} \text{ USCF}(n)] = o(i...j-1) \{ (x), (y), (z) \} \text{ USCF}(i...n) \} / h * n\{\text{USCF's}\}$$

such that

$$[oi\{x,y,z\}\text{USCF}(n)] - [oi\{(x+j),(y+j),(z+j)\}\text{USCF}(1...n)] \leq n * h[\text{USCF}(1...n)]$$

wherein the 'mass' (M) value of an object is computed based on a measure of the number of times an "object" is presented "consistently" across a series of USCF's, divided by Planck's constant.

This new "computational definition" of "mass" can be directly tested through one of two experimental conditions:

- Empirically test another CUFT's 'critical prediction' (differentiating it from the corresponding predictions of both RT and QM) wherein a relatively more massive particle (such as the 'Muon') would be measured across a greater number of 'Universal Frames' (or some proportionate sampling of them) than a less massive particle (such as the 'electron').
- Empirically test another CUFT's 'critical prediction' predicting that "in-between" any two consecutive Universal Frames ( $c^2/(2*h) = 1.45^{42}/2 \text{ sec}$ ) there would not appear any "mass" bearing particle (e.g., including the Boson-Higgs particle assumed to impart mass to other particles).

Needless to say that to the extent that either one of these CUFT's 'critical-predictions' would be validated empirically, this would significantly challenge the (old) "Material-Causal" Paradigm underlying both RT and QM (e.g., both assuming the determination of any given relativistic space-time or energy-mass "phenomenon" or quantum complimentary space-energy or time-mass subatomic "target" values strictly based on their direct physical interaction with another relativistic 'observer' or subatomic 'probe' element) – in favor of the (new) CUFT's 'A-Causal Computation' Paradigm which negates the possibility of the existence of any such 'material-causal' physical relationship/s between any two exhaustive spatial pixels in the universe (at any minimal time-point) Universal Frame/s). Specifically, the empirical validation of the second above mentioned (b) critical prediction indicating the "dissolution" of all subatomic particles "in-between" any

ramifications: Thus, it was shown that this new 'A-Causal Computation' Paradigm challenges such basic assumptions in Modern Physics as the 'Big-Bang' Model, the "Second Law of Thermodynamics" and the existence of "Dark-Matter" (and "Dark-Energy").

Another, more directly testable negation of the existence of "Dark-Matter" by the CUFT's new 'A-Causal Computation' Paradigm is the suggested empirical testing of the CUFT's new computational definition of "mass" as the UCP's computation of the number of times a given object is presented spatially-consistent across a given number of (minimal time-point) Universal Frames, thus:

two consecutive Universal Frames (e.g., followed by the UCP's re-production of all exhaustive spatial pixels at the subsequent Universal Frame/s) would undermine the existence of any hypothetical 'material-causal' relationships at either the relativistic or quantum levels, i.e., including a negation of the existence of 'Dark-Matter' (and 'Dark Energy'). This would necessitate a complete revision of 21<sup>st</sup> century Theoretical Physics based on the CUFT's new 'A-Causal Computation' Paradigm. Indeed, one of the significant new discoveries of this new CUFT's 'A-Causal Computation' Paradigm is its unravelling of a complete unification of the four basic features of 'space', 'time', 'energy' and 'mass' as secondary (integrated) computational by-products of the Universal Computational Principle (extremely rapid) computation of all exhaustive spatial pixels in the physical universe at every minimal time-point Universal Frame/s as expressed by the CUFT's Universal Computational Formula (e.g., which also integrates and transcends RT and QM as embedded within this singular higher ordered Universal Computational Formula:

*Universal Computational Formula (Ucf)*

$$\frac{c^2}{h} = \frac{s}{t} \cdot \frac{e}{m}$$

## REFERENCES RÉFÉRENCES REFERENCIAS

- Bentwich J (2016) The 'Computational Unified Field Theory': A Paradigmatic Shift. Research & Reviews. Journal of Pure & Applied Physics.
- Bentwich J (2017a) The Computational Unified Field Theory: Could 'Dark Matter' & 'Dark Energy' be "Superfluous"? Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT) - A Paradigmatic Shift in 21st Century Physics.

3. Bentwich J (2017b) The Computational Unified Field Theory: Explaining the Universe from "Without". Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT) - A Paradigmatic Shift in 21st Century Physics. 6.
4. Bentwich J (2017c) The Computational Unified Field Theory: A New 'A-Causal Computation' Physics. Research & Reviews: Journal of Pure & Applied Physics Special Issue: The Computational Unified Field Theory (CUFT) - A Paradigmatic Shift in 21st Century Physics.
5. Bentwich J (2017d) The 'Computational Unified Field Theory' (CUFT) May Challenge the 'Big-Bang Theory'. Research & Reviews: Journal of Pure & Applied Physics Special Issue: The Computational Unified Field Theory (CUFT) - A Paradigmatic Shift in 21st Century Physics. 8.
6. Bentwich J (2017e) Can the 'Computational Unified Field Theory' (CUFT) Challenge the Basic Laws of Conservation? Research & Reviews: Journal of Pure & Applied Physics Special Issue: The Computational Unified Field Theory (CUFT) - A Paradigmatic Shift in 21st Century Physics.
7. Bentwich J (2017f) The Computational Unified Field Theory: Time Reversal May be Possible. Research & Reviews: Journal of Pure & Applied Physics Special Issue: The Computational Unified Field Theory (CUFT) - A Paradigmatic Shift in 21st Century Physics. 10.
8. Bentwich J (2017g) The Computational Unified Field Theory (CUFT) Transcends Relativity's Speed of Light Constraint. Research & Reviews: Journal of Pure & Applied Physics Special Issue: The Computational Unified Field Theory (CUFT) - A Paradigmatic Shift in 21st Century Physics.
9. Bentwich J (2017h) The Computational Unified Field Theory's New Physics: Transcending Space, Time and Causality. Research & Reviews: Journal of Pure & Applied Physics Special Issue: The Computational Unified Field Theory (CUFT) - A Paradigmatic Shift in 21st Century Physics.
10. Bentwich J (2017i) A "Supra-Spatial-Temporal Universal Consciousness Reality". Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT) - A Paradigmatic Shift in 21st Century Physics.
11. Bentwich J (2017j) A New Science: An Infinite Omniscient Dynamic-Equilibrium Universal Consciousness Reality. Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT) - A Paradigmatic Shift in 21st Century Physics.
12. Bentwich J (2017k) The Computational Unified Field Theory (CUFT) Challenges the Second Law of Thermodynamics. Physical Science & Biophysics Journal Jehonathan Bentwich.
13. Bentwich, J. (2017). The 'Computational Unified Field Theory' (CUFT) Transcends Relativity's Speed of Light Constraint. Phy Sci & Biophy J 2017, 1(1): 000105.
14. Bentwich, J. (2017) Research & Reviews: Journal of Pure & Applied Physics Special Issue: The Computational Unified Field Theory (CUFT) - A Paradigmatic Shift in 21st Century Physics.
15. Bentwich J (2006a) The 'Duality Principle': Irreducibility of sub-threshold psychophysical computation to neuronal brain activation. Synthese 153(3): 451-455. Brumfiel G (2006) Our Universe: Outrageous fortune. Nature 439: 10-12.
16. Bernauer, Pohl (2014) The Proton Radius Puzzle. Scientific American 310(2): 20-24.





This page is intentionally left blank



GLOBAL JOURNAL OF SCIENCE FRONTIER RESEARCH: A  
PHYSICS AND SPACE SCIENCE

Volume 18 Issue 8 Version 1.0 Year 2018

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals

Online ISSN: 2249-4626 & Print ISSN: 0975-5896

# Testing the CUFT's 'Differential-Critical Prediction/s': The Higgs-Boson Particle May Not Exist Continuously

By Jehonathan Bentwich, Ph.D

*Introduction-* Twenty-first century Theoretical Physics is undergoing a major Paradigmatic Shift due to the discovery of the 'Computational Unified Field Theory' (CUFT); Indeed, the discovery of the CUFT is bringing about a 'Paradigmatic Shift' from the Old 'Material-Causal' Paradigm underlying both 'Relativity Theory' (RT) and 'Quantum Mechanics' (QM) towards the New 'A-Causal Computation' Paradigm; As shown previously, this 'Paradigmatic Shift' from the Old 'Material-Causal' Paradigm of RT and QM to the CUFT's new 'A-Causal Computation' Paradigm is warranted based on Kuhn's (1962) famous rigorous scientific criteria for the initiation of a "Paradigmatic Shift" in Science: According to Kuhn, the fulfillment of several scientific criteria are necessary to justify the alternation between a "Standard Science Paradigm" towards a "Paradigmatic Shift" (e.g., and the acceptance of a "New Paradigm" in any given scientific discipline):

*GJSFR-A Classification: FOR Code: 029999p*



*Strictly as per the compliance and regulations of:*



RESEARCH | DIVERSITY | ETHICS

# Testing the CUFT's 'Differential-Critical Prediction/s': The Higgs-Boson Particle May Not Exist Continuously

Jehonathan Bentwich, Ph.D

## I. INTRODUCTION

Twenty-first century Theoretical Physics is undergoing a major Paradigmatic Shift due to the discovery of the 'Computational Unified Field Theory' (CUFT); Indeed, the discovery of the CUFT is bringing about a 'Paradigmatic Shift' from the Old 'Material-Causal' Paradigm underlying both 'Relativity Theory' (RT) and 'Quantum Mechanics' (QM) towards the New 'A-Causal Computation' Paradigm; As shown previously, this 'Paradigmatic Shift' from the Old 'Material-Causal' Paradigm of RT and QM to the CUFT's new 'A-Causal Computation' Paradigm is warranted based on Kuhn's (1962) famous rigorous scientific criteria for the initiation of a "Paradigmatic Shift" in Science: According to Kuhn, the fulfillment of several scientific criteria are necessary to justify the alternation between a "Standard Science Paradigm" towards a "Paradigmatic Shift" (e.g., and the acceptance of a "New Paradigm" in any given scientific discipline):

- a) The existence of a basic theoretical crisis between the pillars of a given scientific discipline.
- b) Existence of a series of "unexplained phenomena" that the Old Scientific Paradigm cannot account for – but which can be explained by the "New Paradigm".
- c) Identification of at least one "differential-critical prediction" that the New Paradigm predicts which is significantly different than the predictions of the "Old Paradigm".
- d) Empirical Validation of this 'differential-critical prediction' (as different than then Old Paradigm's prediction/s).
- e) Ideally, the 'New Paradigm' will also offer new insights, empirical predictions, and a broader theoretical framework which expands the "horizons" of our Scientific Understanding (in a given field and hopefully also in other fields of Science).

One of the intriguing new theoretical ramifications of this new 'A-Causal Computation' Paradigm of the CUFT is that it stipulates that there cannot exist any "material-causal" relationships between any (two or more) exhaustive spatial pixels existing

either on the same- or different USCF's frames (e.g., at either the relativistic or quantum levels). This is due to the CUFT's discovery of a new singular higher-ordered 'Universal Computational Principle' (UCP) which computes simultaneously every exhaustive spatial pixel in the universe at every minimal time-point: " $c^2/h = 1.45 \cdot 10^{42}$  sec", which comprises an extremely rapid series of "Universal Simultaneous Computational Frames" (USCF's) comprising all exhaustive spatial pixels in the universe at every such minimal time-point. This Universal Computational Principle is hypothesized to compute for all exhaustive spatial pixels (e.g., comprising each consecutive USCF's frame/s) its four basic physical features of "space", "energy", "mass" and "time", based on the UCP's three "Computational Dimensions" of "Framework" ('frame' vs. 'object'), "Consistency" ('consistent' vs. 'inconsistent') and "Locus" ('global' vs. 'local'). Specifically, the UCP's two 'Computational Dimensions' of 'Framework' and 'Consistency' four possible combinations produce the four physical features of 'space', and 'energy', 'mass' and 'time' (respectively) (Figure 1). The key point to be noted is that "in-between" any two consecutive USCF's frames there doesn't exist any physical universe (but only the singular Universal Computational Principle). Furthermore, the CUFT's "Computational Invariance Principle" reasons that since this 'Universal Computational Principle' (UCP) represents a '*computationally-invariant*' principle, i.e., as it exists singularly both "during" its sole computation of each exhaustive spatial pixel of any (single or multiple) USCF's frame, and also solely exists "in-between" any two such consecutive USCF's frames; whereas those four physical features (of 'space', 'energy', 'mass' and 'time') are regarded as "*computationally-variant*" since they exist only "during" each consecutive USCF's frame (as solely computed by the UCP) but cease to exist "in-between" any two consecutive USCF's frames; therefore, the 'Computational Invariance Principle' reasons that only this '*computationally-invariant*' UCP may be regarded as 'permanent' and 'continuous' whereas the four basic physical features may only be regarded as 'phenomenal' and 'transient'...

The UCP's computational definitions of 'space', 'energy', 'mass' and 'time'

Author: e-mail: drbentwich@gmail.com

$$S: (f_i\{x,y,z\}[\text{USCF}(i)] + \dots f_j\{x,y,z\}[\text{USCF}(n)]) / h * n\{\text{USCF's}\}$$

such that

$$f_j\{x,y,z\}[\text{USCF}(i)] \leq f_i\{x+(h*n), y+(h*n), z+(h*n)\} [\text{USCF}(i\dots n)]$$

wherein the 'space' measure of any given object (or event) is computed based on a "frame-consistent" computation of the UCP which adds the specific USCF's (x,y,z) localization across a series USCF's [1...n] –

which nevertheless do *not* exceed the threshold of Planck's constant per each ('n') number of frames (e.g., thereby providing the CUFT's definition of "space" as 'frame-consistent' USCF's measure).

$$E: ((f_j\{x,y,z\} [\text{USCF}(n)]) - (f_i\{(x+n), (y+n), (z+n)\} [\text{USCF}(i\dots n)])) / c * n\{\text{USCF's}\}$$

such that

$$f_j\{x,y,z\} [\text{USCF}(n)] > (f_i\{x+(h*n), y+(h*n), z+(h*n)\} [\text{USCF}(i\dots n)])$$

wherein the 'energy' value of any given 'object' (or event) is computed based on the subtraction of that object's "frame-pixel/s" location/s across a series of USCF's

frames, divided by the 'speed of light' multiplied by the number of USCF's frames (being measured).

$$M: \Sigma[o_j\{x,y,z\} [\text{USCF}(n)] = o(i\dots j-1) \{(x), (y), (z)\} \{\text{USCF}(i\dots n)\} / h * n\{\text{USCF's}\}$$

such that

$$[o_i\{x,y,z\}[\text{USCF}(n)] - [o_i\{(x+j), (y+j), (z+j)\}[\text{USCF}(1\dots n)]] \leq n * h[\text{USCF}(1\dots n)]$$

wherein the 'mass' value of an object is computed based on a measure of the number of times an "object"

is presented "consistently" across a series of USCF's, divided by Planck's constant.

$$T: \Sigma[o_j\{x,y,z\} [\text{USCF}(n)] \neq o(i\dots j-1) \{(x), (y), (z)\} \{\text{USCF}(i\dots n)\} / c * n\{\text{USCF's}\}$$

such that

$$T: \Sigma[o_i\{x,y,z\}[\text{USCF}(n)] - o_j\{(x+m), (y+m), (z+m)\} [\text{USCF}(1\dots n)]] \leq c * n\{\text{USCF's}\}$$

wherein the 'time' measure of a given "object" is computed based on the number of times that 'object' is presented 'consistently' across a series of USCF's frames, divided by Planck's constant.

Indeed, several far-reaching theoretical ramifications were derived from the discovery (and initial empirical validation) of the CUFT:

Therefore, according to the CUFT, 'mass', and 'time', or 'energy' and 'mass' merely represent secondary computational by-products of the singular UCP's simultaneous computation of all exhaustive spatial pixels' degree of "lack of change" ('consistency') or "change" ('inconsistency') relating to a particular 'object' (e.g., 'mass'/time') or relative to the entire (USCF) 'frame' ('space'/energy'); In this manner, the UCP was able to unify and integrate – not only Relativity Theory and Quantum Mechanics (e.g., as different aspects of the UCP's singular computation, see 'Quantum' and 'Relativistic' Representations), but also these four basic physical features within a singular "Universal Computational Formula":

*Universal Computational Formula (Ucf)*

$$\frac{c^2}{h} = \frac{s}{t} \cdot \frac{e}{m}$$

$$1) \text{ Relativistic Representation: } e \times \frac{s}{t} = m \times \frac{c^2}{h}$$

$$2) \text{ Quantum Representation: } t \frac{mc^2}{h} = s \frac{e}{h}$$

a) Since the CUFT's 'A-Causal Computation' Paradigm asserts that there cannot possibly exist any "material-causal" physical relationship (or even interaction) between any two (or more) exhaustive spatial pixels (e.g., existing either in the same- or different- USCF/s frame/s) at the quantum or relativistic levels, i.e., due to the fact that the UCP simultaneously computes all exhaustive spatial pixels comprising any single or multiple USCF's frames; therefore the CUFT's negated the "Big-Bang" Model which assumes that it was an initial "nuclear explosion" which "caused" the origination of "matter", "energy", stars, galaxies etc..

b) Similarly, since no such 'material-causal' relationship is allowed by the CUFT's 'A-Causal Computation' Paradigm, therefore the existence of "dark-matter" or "dark-energy" were negated by the CUFT as "superfluous" (none-existent) due to their assumption of such 'material-causal' physical relationship between these 'dark-matter' and 'dark-energy' hypothetical concepts and their "expulsion" of the universe's accelerated expansion rate.

c) Both Relativity's Einstein's Equations and QM's probabilistic wave interpretation are challenged by the CUFT's new 'A-Causal Computation' Paradigm:

this is because in both cases it is assumed that it is the direct physical interaction between a "massive-object" which "causes" a "curvature of space-time", and conversely that it is the direct physical interaction between this "curved space-time" which "causes" those (and other) "massive-objects to travel in particular travelling pathways"; But, since the new 'A-Causal Computation' Paradigm clearly negates the possibility of the existence of any such 'material-causal' physical interactions between any (two or more) exhaustive spatial pixels in the physical universe (e.g., once again due to the UCP's simultaneous computation of all exhaustive spatial pixels at any single or multiple USCF's frames); therefore the CUFT challenges Relativity's Einstein Equations, as well as QM's assumed "collapse" of the subatomic 'target's' probability wave-function as "caused" by its direct physical interaction with another subatomic 'probe' element.

Instead, the emerging new picture of the universe is one which is continuously being computed- "dissolved"- re-computed- and evolved- e.g., at every consecutive minimal time-point: " $c^2/h=1.45^{42}$  sec'

$$M: \Sigma[o\{x,y,z\} \text{ USCF}(n)] = o(i...j-1) \{ (x), (y), (z) \} \{ \text{USCF}(i...n) \} / h * n\{ \text{USCF's} \}$$

such that

$$[oi\{x,y,z\} \text{ USCF}(n)] - [oi\{(x+j),(y+j),(z+j)\} \text{ USCF}(1...n)] \leq n * h[\text{USCF}(1...n)]$$

wherein the 'mass' value of an object is computed based on a measure of the number of times an "object" is presented "consistently" across a series of USCF's, divided by Planck's constant.

Therefore, the "mass" of any given particle is not "caused" by its direct physical interaction with the 'Higgs-boson' particle – i.e., as such subatomic physical ('material-causal') interactions are negated by the UCP's *simultaneous* computation of all exhaustive spatial pixels in the universe (at any single or multiple USCF's frame/s); Rather, it is solely and singularly being computed (at every minimal time-point consecutive USCF's frame) by the singular reality of the UCP (for each exhaustive spatial pixel/s in the universe at any such consecutive USCF's frame/s).

We therefore find ourselves in an "awkward" theoretical situation in which the conception of "mass" (e.g., of an object or of a particle) is described in almost "*antithetical*" manners by the prevailing RT's and QM's conceptions – as opposed to its computation by the CUFT's This is because in Relativity Theory "mass" constitutes an intrinsic "continuous-constant" physical property of objects (or particles) which "causes" a curvature of 'space-time'; In Quantum Mechanics, the measurement of the "mass" of any subatomic 'target' particle is contingent upon its direct physical interaction with another subatomic 'probe' element which is assumed to "cause" the "collapse" of that 'target's' (assumed) "probability wave-function" due to its direct

USCF's frame/s... Hence, also the CUFT's new 'A-Causal Computation' Paradigm's conception of "mass" – as "caused" by the Higgs-boson particle, e.g., through its direct physical interaction with all other basic particles is challenged (and in fact negated) by this new Paradigm in 21<sup>st</sup> Century Theoretical Physics: This is because if we are to reject the basic possibility of the existence of any 'material-causal' physical relationship/s (or even interactions) between any (two or more) exhaustive spatial-pixels (existing either in the same- or different- USCF's frames), due to the simultaneous computation of the UCP of every exhaustive spatial pixel in the universe (in any single- or multiple- USCF's frame/s) – then there cannot exist any physical interaction between the 'Higgs-boson' particle and any other subatomic particle (once again at any single- or multiple- USCF's frame/s)... Also, viewed from the CUFT's 'Universal Computational Formula' perspective, the "mass" (as well as the 'space', 'energy' and 'time') physical feature of any given 'Higgs-boson' particle or indeed of any other particle – is computed solely based on the UCP's computation of that particle's "object-consistent" values (as shown above and previously):

physical interaction with another subatomic 'probe' element; In contrast, according to the CUFT, the "mass" of any given particle is computed solely based on the UCP's computation of that particle's degree of "consistent" spatial presentations (across a series of USCF's frames); Moreover, the CUFT negates the very possibility of the existence of any such 'material-causal' quantum or relativistic physical interactions, e.g., associated with the determination of "mass". This contrast between RT's and QM's and the CUFT's conception of "mass" is particularly striking when we take into consideration a few particular "differential-critical predictions" postulated by the CUFT as clearly differentiating it from the corresponding predictions of both RT and QM:

It was previously predicted by the CUFT that if we are to compare the appearances of a 'massive' vs. a 'less-massive' subatomic particle (across a series of USCF's frames) we expect to obtain that the 'more massive particle' would appear more spatially-consistent" across a given series of USCF's frames: This means that: a) the 'more-massive' particle was predicted to be measured at a greater number of USCF's frames than the 'less-massive' particle; b) its measurement should be spatially more "consistent", i.e., its spatial measurement should occupy a "smaller size" than the 'more-massive' particle; and c) its spatial measurement accuracy should be greater than the spatial measurement accuracy of the 'less-massive' particle;



Intriguingly, an initial empirical validation for this CUFT's 'differential-critical prediction regarding the more consistent spatial presentation of the more massive Muon particle relative to the electron particle was given by Bernaur & Pohl (2016); they found that the nucleus of a Hydrogen nucleus that is encircled by a negatively charged Muon (which is approximately 100 times more massive than the electron) is found to be approximately 100 times smaller (and its measurement is 100 times more precise) than the radius of the equivalent Hydrogen nucleus which is encircled by the electron particle. This greater "spatial-consistency" of the radius of a Hydrogen nucleus into which a Muon particle sinks relative to the measurement of an equivalent Hydrogen atom that is encircled by an electron, e.g., manifesting as the Muon-Hydrogen Nucleus' (100 times) smaller radius and more accurate measurement precisely confirms the above mentioned CUFT's 'differential-critical prediction': this is because according to the CUFT, the "mass" of any given particle is computed by the 'Universal Computational Principle' (UCP) as a measure of the degree of "consistency" of that particle ('object') across a series of USCF's frames; Obviously, according to this 'computational-definition' of 'mass'

$$M: \Sigma[o\{x,y,z\} \text{ USCF}(n)] = o(i...j-1) \{(x), (y), (z)\} \{ \text{USCF}(i...n) \} / h * n\{ \text{USCF's} \}$$

such that

$$[o\{x,y,z\} \text{ USCF}(n)] - [o\{(x+j), (y+j), (z+j)\} \text{ USCF}(1...n)] \leq n * h[\text{USCF}(1...n)]$$

wherein the 'mass' value of an object is computed based on a measure of the number of times an "object" is presented "consistently" across a series of USCF's, divided by Planck's constant.

Specifically, the aim of this article is to test three 'differential-critical predictions' of the CUFT associated with its UCP's (abovementioned) computation of 'mass', which differentiate it from the corresponding predictions of both RT and QM:

- Test the CUFT's 'differential-critical' prediction that "more-massive" particles would appear across a greater number of USCF's frames than a "less-massive" particle, i.e., above and beyond the expected increase in the quantum measurement of more massive particles relative to less massive particles.
- Test the CUFT's 'differential-critical prediction' that any given subatomic particle cannot be measured "in-between" any two consecutive USCF's frames (e.g., due to the complete "dissolution" of all exhaustive spatial pixels constituting any given USCF's frame "in-between" any two consecutive USCF's frames); Perhaps most significant (in this regard) is to demonstrate that the 'Higgs-boson' particle "doesn't exist", i.e., cannot be measured "in-between" any two consecutive USCF's frames as the 'Higgs' particle is currently assumed to impart

(as computed by the UCP at every minimal time-point " $c^2/h = 1.45^{42}$  sec") the more massive a particle is measured to be the greater its "spatial-consistency", e.g., its spatial size and its spatial accuracy (of measurement). Therefore, Bernaur & Pohl's (2014) "Proton-Radius Puzzle" indicating that Hydrogen-Muon Nucleus is measured as 100 times smaller (and more accurate) than its equivalent Hydrogen Nucleus encircled by an electron (which is 100 times lighter in its mass than the Muon particle) precisely confirms one of the CUFT's 'differential-critical prediction'.

It may be said that these "Proton-Radius Puzzle" findings confirm to a large degree several aspects of the abovementioned (and previous) 'differential-critical prediction' of the CUFT, as they indicate that the more massive Muon particle is measured as "spatially more consistent" than the less massive particle, i.e., both in its "proton-radius size" and its "spatial measurement accuracy" (e.g., confirming 'b' and 'c' above aspects of the CUFT's differential-critical prediction). Indeed, the purpose of this article is to test the CUFT's new conception of "mass" as representing the UCP's computation of an "object-consistent" measure":

"mass" to all other subatomic particles: If indeed, it will be shown empirically that the Higgs particle doesn't exist continuously "in-between" any two consecutive USCF's frames, then this would imply that all other particles do not exist "in-between" any two consecutive USCF's frames, thereby substantially validating the CUFT as the new satisfactory 'A-Causal Computation' Paradigm (of 21<sup>st</sup> century Physics)..

## II. METHOD

Therefore, the proposed method for testing these three 'differential-critical predictions' comprises of several different experiments that can verify each of these predictions:

- Test the CUFT's 'differential-critical' prediction whereby a "more-massive" particle would appear across a greater number of USCF's frames relative to a "less-massive" particle; at least two experimental embodiments for verifying this 'differential-critical prediction' are hereby suggested:
  - Testing CUFT's "Less Temporal Measurements of Less Massive Particles" Prediction: Contrasting between the number of "fine-temporal measurements" (e.g., see below their mathematical calculation) in which a 'more massive particle' would be detected relative to a "less-massive" particle

(across the same given number of such fine-temporal measurements): It is suggested to test the CUFT's 'differential-critical prediction' regarding the appearance of the 'more massive particle' at a significantly greater number of 'fine-temporal measurements' than the 'less massive particle' (across the given number of 'fine-temporal measurements'); Specifically, in order to test this 'differential-critical prediction' of the CUFT it is necessary to contrast the number of 'fine-temporal measurements' in which the 'more-massive' 'Muon' relative to the number of 'fine-temporal measurements' in which the 'less-massive' electron particle would be detected. A key point to be note is that the temporal resolution of most accelerators is far less "sensitive" than the hypothesized rate at which the Universal Computational Principle (UCP) computes the series of USCF's frames, i.e., " $c^2/h=1.45^{-42}$  sec' – with certain accelerators reaching almost the speed of light " $c = 3.33^{-6}$  sec' (e.g., regarded as the 'fine-temporal measurements' accuracy level in this experiment), producing a magnitude difference of  $x^{-36}$  sec'; Nevertheless, it is suggested that even if we opt to sample temporal measurements at such a "decreased" temporal resolution (below) the speed of light " $c = 3.33^{-6}$  sec', e.g., in effect sampling a significantly decreased temporal accuracy level (e.g.,  $x^{-36}$  sec' decreased magnitude of accuracy relative to the rate at which the Universal Computational Principle (UCP) computes the series of USCF's frames (i.e., " $c^2/h=1.45^{-42}$  sec')) ; we can still expect that the more massive Muon particle would appear at a greater percentage of these " $c = 3.33^{-6}$  sec' samplings relative to the number of (decreased accuracy) time-samplings in which the electron would be detected. As stated above, in calculating the CUFT's 'differential-critical prediction' regarding the significantly smaller number of 'fine-temporal measurements' in which the 'electron' particle would be detected relative to the number of such 'fine-temporal points' in which the 'electron' may be measured, we need to correct for the known subatomic (quantum theory related) bias towards a slightly "easier" measurement of such 'more-massive' 'Muon' particle relative to the measurements of a 'less massive' 'electron' particle; In other words the CUFT's 'differential-critical prediction' regarding the significantly greater 'fine-temporal measurements' (FTM) at which the 'more massive' Muon(M) would be detected relative to the number of equivalent 'fine-temporal measurements' at which the 'less-massive' electron (e) particle would be detected should subtract the "quantum measurement bias" (QMB) towards a more 'sensitive temporal measurement' of more massive particle:

$$\text{FTM(M)} - \text{QMB} > \text{FTM(e)}$$

- 2) A second (almost equivalent) experimental procedure geared towards testing this 'differential-critical prediction' regarding the detection of a 'more-massive' particle at a significantly greater 'fine-temporal-measurements' relative to the detection of a 'less-massive' particle (measured across the same number of 'fine-temporal measurements'), involves the acceleration of a beam of electrons – to two significantly different velocities (relative to the speed of light); The proposed experimental design involves utilizing a special Accelerator which can accelerate a beam of electrons at varying velocities up to 99% of the 'speed of light': given the fact that the more accelerated electrons (relative to the speed of light) are, the greater is their "mass" value, we propose to construct an experimental design wherein the beam of electrons would be accelerated to two significantly different levels: a) electrons that will be accelerated to 99% of the speed of light and hence their "mass" value would increase considerably (possessing a "high-mass value", 'HMV'; and b) a condition in which the beam of electrons would only be accelerated to roughly 10% of the speed of light, therefore possessing a relatively "lower mass value", 'LMV'. Once again, it is suggested that the number of 'fine-temporal measurements' (FTM) in which the 'high-mass value electron' (HMV-e) would be measured (across a given number of FTM) would be significantly higher than the number of FTM in which the 'low-mass value electron' (LMV-e) would be measured (e.g., excluding the above mentioned "quantum measurement bias" 'QMB'):

$$\text{FTM(HMV-e)} - \text{QMB} > \text{FTM(LMV-e)}.$$

- b) *Test the CUFT's Non-Continuous Temporal Existence of the 'Higgs-boson' Prediction:* Namely, test the experimental hypothesis wherein the Higgs-boson particle cannot be detected "in-between" any two consecutive USCF's frames: As discussed above, despite the far less "time-sensitive" measurements enabled by an Accelerator (e.g., which can only conduct measurements that are below the speed of light: " $c = 3.33^{-6}$  sec'), which represent a decreased temporal measurement accuracy in the magnitude of  $x^{-7}$ sec' relative to the Universal Computational Principle's (UCP) rate of computing the series of USCF's, " $c^2/h=1.45^{-42}$  sec'; Nevertheless, it is hypothesized that it may still be possible to detect the "non-existence" of the Higgs-boson particle "in-between" any two consecutive USCF's frames; However, in order to be able to adjust the measurement of a "Mid-Point" (MP) "in-between" any two consecutive USCF's frames

(which involves measurements in the magnitude of " $c^2/h = 1.45^{-42}$ ") by a given Accelerator that can only measure a minimal 'fine-temporal measurement' (FTM) in the magnitude of " $c = 3.33^{-6}$  sec", it is necessary to carry out several (computational and experimental) steps, which include:

- 1) Compute the precise "Accelerator's Temporal Sampling-Ratio" (ATSR)

Compute the above "fine-temporal measurement" (FTM) divided by the "Universal Computation Rate" (UCR) (e.g., the Universal Computational Principle's 'UCP' rate of computing the series of USCF's frames: " $c^2/h = 1.45^{-42}$  sec"):

$$\text{ATSR} = \text{FTM}/\text{UCR}$$

This (Accelerator-specific) 'ATSR' value provides us with a measure of the precise sampling ratio that exists between the 'Universal Computational Rate' (UCR) (the rate at which the 'Universal Computational Principle' UCP computes every consecutive USCF's frame/s) and the (far-less sensitive) 'fine-temporal measurement' (FTM) rate at which the specific Accelerator measures:

- 2) Measure the presence of a 'Higgs-boson' particle at a given time " $t_i$ ".
- 3) Calculate the "Mid-Point" between this given " $t_{i1}$ " USCF frame and its subsequent " $t_{i2}$ " USCF's frame (USCF-MP- $t_i\{1.5\}$ )

$$\text{USCF-MP-}t_i\{1.5\} = \text{USCF-}t_{i2} - \text{USCF-}t_{i1} / 2$$

- 4) Calculate the "Accelerator-Detectable Mid-Point" (ADMP)

Adjust this calculated USCF-MP- $t_i\{1.5\}$  based on the Accelerator-specific 'ATSR' in order to "capture" this USCF-MP- $t_i\{1.5\}$  by the "decreased" FTM of the given Accelerator; to accomplish this we simply need to multiply the calculated USCF-MP- $t_i\{1.5\}$  by the Accelerator (specific) ATSR value:

$$\text{ADMP} = \text{USCF-MP-}t_i\{1.5\} * \text{ATSR}$$

This ADMP (Accelerator-specific) value provides us with a calculation of the precise (measurable) time-point at which the given Accelerator can "detect" the 'Mid-Point' between any such given two consecutive (USCF- $t_{i1}$  and USCF- $t_{i2}$ ) USCF's frames (e.g., due to its "synchronization" of a precise cyclic number of USCF's frames' that elapse from an initial detection of a given USCF's Higgs-boson particle existence – with the 'Accelerator's Temporal Sampling-Ratio' ATSR, to provide the precise Accelerator-Detectable Mid-Point, ADMP).

- 5) In fact, due to the reoccurrence of such a 'temporal mid-point' (TMP) between every two consecutive USCF's frames

$$\text{USCF-MP-}t_i\{x\}\{1.5\} = \text{USCF-}t_{i+n+1} - \text{USCF-}t_i\{n\} / 2$$

It is also possible to measure a "Reoccurring Detectable Mid-Point" (RDMP) thus

$$\text{RDMP} = \text{USCF-MP-}t_i\{x\}\{1.5\} * \text{ATSR}$$

- 6) We can now test the CUFT's "Non-Continuous Temporal Existence of the 'Higgs-boson' Prediction by trying to measure at any such given RDMP for the existence of the Higgs-boson particle.
- 7) Moreover, in order to fully validate this second 'differential-critical prediction' of the CUFT, e.g., regarding the "Non-Continuous Temporal Existence of the 'Higgs-boson Particle' we now focus on detecting the (same) Higgs-boson particle in the precise (Accelerator-detectable) time-points at which the UCP computes each consecutive USCF's frame/s; (This is based on the CUFT's stipulation that the UCP computes an extremely rapid rate of " $c^2/h = 1.45^{-42}$  sec" of consecutive USCF's frames, including all of their exhaustive spatial pixels comprising the entire physical universe at every minimal time-point USCF's frame/s – which completely "dissolve" "in-between" any two such consecutive USCF's frames, and is then "re-produced" in the consecutive USCF's frame/s by the UCP.) Therefore, in order to "capture" this UCP's stipulated "re-production" of the Higgs-boson particle with each consecutive USCF's frame/s we construct the experimental design to aim measuring those FTM measurements occurring at precisely each "Detectable Recurring USCF's" (DR-USCFs):

$$\text{DR-USCFs} = \text{USCF-}t_i\{x\} = \text{USCF-}t_i\{i..n\} * \text{ATSR}$$

Indeed, according to this CUFT's second 'Non-Continuous Temporal Existence of the 'Higgs-boson' Prediction, it is predicted that if we alternate between measurements of "Detectable Recurring USCF's" (DR-USCFs) – in which the 'Higgs-boson' particle can be detected, and measurements of "Reoccurring Detectable Mid-Point/s" (RDMP) – in which the 'Higgs-boson' particle cannot be detected; we may reach the inevitable conclusion that the Higgs-boson particle may not exist "continuously"... More significantly, since the Higgs-boson particle is currently assumed to impart "mass" to all other subatomic particles, then to the extent that it may be shown empirically to "not-exist" "in-between" any two consecutive USCF's frames, then this implies that no other subatomic particle/s can "exist" – "in between" any two consecutive USCF's frames!

- a) *Test" Non-Continuous Temporal Existence of Other Subatomic Particles" Prediction:* Indeed, to the extent that the above empirical testing of the "non-

existence" of the 'Higgs-boson' particle "in-between" any two consecutive USCF's frames would be verified experimentally, this would lead to a broader testing of the "non-existence" of other subatomic particles "in-between" any two consecutive USCF's frames (e.g., based on the above mentioned 'fine temporal measurement' (FTM) which is adjusted to the Accelerator's ATSR; at least two different "embodiments" (experimental design and set-up) that can test this new intriguing 'differential-critical prediction':

- b) Utilizing any given Accelerator to test for the "dissolution" of various subatomic particles "in-between" any two consecutive USCF's frames and their "re-production" at any consecutive USCF's frame/s (based on an equivalent experimental design as listed above – adjusted to the given Accelerator's specific ATSR value as explained above).
- c) Utilizing the above mentioned special Accelerator capable of accelerating electrons up to the "speed of light", we can use the same (above mentioned) methodology to calculate the Accelerator's ATSR and RDMB, DR-USCFs which would allow for an empirical testing of the UCP's "production"- "dissolution"- and "re-production"- of differentially accelerated electrons (which possess different masses).

Needless to say that to the extent that these CUFT's differential-critical predictions would be validated empirically this may bear potentially far-reaching theoretical ramifications in terms of its validation of the CUFT's new 'A-Causal Computation' Paradigm, as well as impart theoretical validity to the CUFT's broader conception of the physical universe as being solely computed- "dissolved" (e.g., "in-between" any two consecutive USCF's frames)- and re-produced- by the singular 'Universal Computational Principle' (UCP) with every consecutive USCF's frame/s that it produces.

## REFERENCES RÉFÉRENCES REFERENCIAS

1. Bentwich, J. (2006a). The 'Duality Principle': Irreducibility of sub-threshold psychophysical computation to neuronal brain activation. *Synthese*, Vol. 153, No. 3, pp. (451-455)
2. Bentwich, J. *Universal Consciousness: From Materialistic Science to the Mental Projection Unified Theory*, iUniverse Publication (2006b).
3. Bentwich, J. (2012a) "Harmonizing Quantum Mechanics and Relativity Theory". *Theoretical Concepts of Quantum Mechanics*, Intech (ISBN 979-953-307-377-3), Chapter 22, pp. 515-550.
4. Bentwich, J. (2012b) "Theoretical Validation of the Computational Unified Field Theory". *Theoretical Concepts of Quantum Mechanics*, (ISBN 979-953-307-377-3), Chapter 23, pp. 551-598.
5. Bentwich, J. (2013a). "The Theoretical Ramifications of the Computational Unified Field Theory". *Advances in Quantum Mechanics* (ISBN 978-953-51-1089-7), Chapter 28, pp. 671-882.
6. Bentwich, J. (2013b). *The Computational Unified Field Theory (CUFT): A Candidate Theory of Everything*. *Advances in Quantum Mechanics* (ISBN 978-953-51-1089-7) Chapter 18, pp. 395-436.
7. Bentwich, J. (2014a) *What if Einstein was Right?* Amazon Kindle Book Store.
8. Bentwich, J. (2014b). *On the Geometry of Space, Time, Energy, and Mass: Empirical Validation of the Computational Unified Field Theory*. *Proceedings of VIGIER IX Conference – Unified Mechanics: Natural Science Beyond the Veil of Spacetime*, Baltimore, Maryland.
9. Bentwich, J. (2015a). *On the Geometry of Space, Time, Energy & Mass: Empirical Validation of the Computational Unified Field Theory*. *Proceedings of Vigier IX – Unified Mechanics: Natural Science Beyond the Veil of Spacetime* (Baltimore, Maryland).
10. Bentwich, J. (2015b) *The Computational Unified Field Theory: Could 'Dark Matter' & 'Dark Energy' be "Superfluous"?* In Press, *Journal of Modern Physics*.
11. Bentwich, J. (2015c) *The Computational Unified Field Theory: Explaining the Universe from "Without"*. In Press, *Journal of Modern Physics*.
12. Bentwich, J. (2015d). *The Computational Unified Field Theory: A New 'A-Causal Computation' Physics*: In Press, *Journal of Modern Physics*.
13. Bernauer & Pohl (2014). *The Proton Radius Puzzle*. *Scientific American*, 310 (2), p. 20-24.
14. Born, M. (1954). *The statistical interpretation of quantum mechanics*, Nobel Lecture, December 11,
15. Brumfiel, G. (2006). *Our Universe: Outrageous fortune*. *Nature*, Vol. 439, pp. (10-12).
16. Ellis, J. *The Superstring: Theory of Everything, or of Nothing?* *Nature*, Vol. 323, No.089, pp. (595–598) (1986).
17. Giacosa, Francesco (2014). "On unitary evolution and collapse in quantum mechanics". *Quanta* 3 (1): 156–170. doi:10.12743/quanta.v3i1.26.
18. Greene, B. *The Elegant Universe*, Vintage Books, New York (2003).
19. Heisenberg, W. *Über den anschaulichen Inhalt der quanten theoretischen Kinematik und Mechanik*. *Zeitschrift für Physik*, Vol. 43 No. 3–4, pp. (172–198) (1927).
20. Horodecki, R.; Horodecki, P.; Horodecki, M. & Horodecki, K. *Quantum entanglement*. *Rev. Mod. Phys.*, Vol. 81, No. 2, pp. (865–942) (2007).
21. J. von Neumann (1932). *Mathematische Grundlagen der Quantenmechanik* (in German). Berlin: Springer.

22. J. von Neumann (1955). Mathematical Foundations of Quantum Mechanics. Princeton University Press.
23. Kuhn, Thomas S. (1962). The Structure of Scientific Revolutions (1st ed.). University of Chicago Press. p. 172.LCCN 62019621
24. "Ockham's razor". Encyclopædia Britannica. Encyclopædia Britannica Online. <http://www.britannica.com/EBchecked/topic/424706/Ockhams-razor>. Retrieved 12 June 2010.
25. Polchinski, J. All Strung Out? American Scientist, January-February 2007 Volume 95, Number 1 (2007).







GLOBAL JOURNAL OF SCIENCE FRONTIER RESEARCH: A  
PHYSICS AND SPACE SCIENCE  
Volume 18 Issue 8 Version 1.0 Year 2018  
Type: Double Blind Peer Reviewed International Research Journal  
Publisher: Global Journals  
Online ISSN: 2249-4626 & Print ISSN: 0975-5896

# An Empirical & Mathematical Program for Validating the 'Computational Unified Field Theory' (CUFT)

By Jehonathan Bentwich, Ph.D

**Abstract-** Twenty-First century Physics is undergoing a Paradigmatic Shift from Relativity Theory (RT) and Quantum Mechanics (QM) Old "Material-Causal" Paradigm to the "Computational Unified Field Theory" (CUFT) New "A-Causal Computation" Paradigm. The new 'A-Causal Computation' Paradigm challenges such basic assumptions as the 'Big-Bang' Model, negates the "dark-matter" and "dark-energy" as "superfluous", challenges and revises RT and QM basic 'material-causal' assumption and introduces a new "Universal Computational Formula" (UCF) resolves the principle theoretical inconsistency between RT and QM and fully integrates 'space', 'time', 'energy' and 'mass' as computed by a singular higher-ordered 'Universal Computational Principle' (UCP) which simultaneously computes every exhaustive spatial pixel in the universe at every minimal time-point: " $c^2/h$ ". Initial empirical validation of this new CUFT's 'A-Causal Computation' Paradigm is described alongside a complete 'Empirical & Mathematical Program' for validating this new Paradigm of 21<sup>st</sup> century Theoretical Physics.

**GJSFR-A Classification:** FOR Code: 029999



*Strictly as per the compliance and regulations of:*



# An Empirical & Mathematical Program for Validating the 'Computational Unified Field Theory' (CUFT)

Jehonathan Bentwich, Ph.D

**Abstract-** Twenty-First century Physics is undergoing a Paradigmatic Shift from Relativity Theory (RT) and Quantum Mechanics (QM) Old "Material-Causal" Paradigm to the "Computational Unified Field Theory" (CUFT) New "A-Causal Computation" Paradigm. The new 'A-Causal Computation' Paradigm challenges such basic assumptions as the 'Big-Bang' Model, negates the "dark-matter" and "dark-energy" as "superfluous", challenges and revises RT and QM basic 'material-causal' assumption and introduces a new "Universal Computational Formula" (UCF) resolves the principle theoretical inconsistency between RT and QM and fully integrates 'space', 'time', 'energy' and 'mass' as computed by a singular higher-ordered 'Universal Computational Principle' (UCP) which simultaneously computes every exhaustive spatial pixel in the universe at every minimal time-point: " $c^2/h$ ". Initial empirical validation of this new CUFT's 'A-Causal Computation' Paradigm is described alongside a complete 'Empirical & Mathematical Program' for validating this new Paradigm of 21<sup>st</sup> century Theoretical Physics.

## I. INTRODUCTION

The Computational Unified Field Theory has been recognized as a satisfactory "Theory of Everything" (TOE)(Brumfiel, 2006; Ellis, 1986; Greene, 2003) shown capable of resolving the principle theoretical inconsistency that exists between Relativity Theory (RT) and Quantum Mechanics (QM). Two 'Special-Issues' (Bentwich: 2017a-l) have been recently published comprising eleven articles delineating this new CUFT including their challenging of such basic assumptions underlying Modern Physics such as: challenging of the 'Big-Bang' Model, Relativity's Einstein's Equations, the probabilistic interpretation of Quantum Mechanics, negation of "dark-matter" and "dark-energy" as "superfluous" (i.e., non-existent), postulating that "time-reversal" may be feasible and revision of "Second Law of Thermodynamics"; Essentially, the CUFT identifies a new 'A-Causal Computation' Paradigm which postulates the existence of a singular higher-ordered "Universal Computational Principle" (represented by the Hebrew Letter "Yud": "י") which simultaneously computes all exhaustive spatial pixels in the physical universe at every minimal time-point: " $c^2/h=1.45\cdot 10^{-42}$  sec", giving rise to an extremely rapid series of "Universal Simultaneous Computational Frames" (USCF's) each comprising the entire physical universe. The CUFT also hypothesizes

that "in-between" any two consecutive USCF's frames there doesn't exist any physical universe but only the singular Universal Computational (or Consciousness) Principle (into which the entire physical universe "dissolves" and from which each consecutive USCF's frame is produced and evolved)... The principle difference between this new 'A-Causal Computation' Paradigm and the current 'Material-Causal' Paradigm underlying both RT and QM is that according to this new 'A-Causal Computation' Paradigm, due to the 'Universal Computational Principle's' (UCP) simultaneous computation of all exhaustive spatial pixels in the physical universe (at each single/multiple USCF's frame) there cannot exist any "material-causal" physical relationships (or even interactions) between any two (or more) exhaustive spatial pixels existing either on the same- or different- USCF's frames (e.g., whereas both RT and QM assume that the determination of any 'space-time', 'energy-mass' relativistic 'phenomenon' or of any quantum subatomic 'target' value is determined based on the physical interaction between such relativistic 'phenomenon' and another relativistic observer, or between such subatomic 'target' entity and another corresponding subatomic 'probe' element). Ensuing from this CUFT's new 'A-Causal Computation' Paradigm stem the above mentioned new theoretical conclusions that challenge Relativity's Einstein's Equations which assume a 'material-causal' physical interaction between "massive objects" which are assumed to "cause" the "curvature of space-time" and conversely assume that it is this "curved space-time" which "causes" those "massive objects" travelling trajectories"; as well as the negation of QM's current probabilistic interpretation wherein it is assumed that it is the direct physical interaction between the subatomic 'probe' element with the subatomic 'target's' assumed "probability wave function" which "causes" this target's 'probability wave function' to "collapse" into a singular complimentary 'space-energy' or 'mass-time' value (Giacosa, Francesco, 2014); as well as the negation of both the purely hypothetical concepts of "dark-matter" and "dark-energy" due to the 'material-causal' assumption that the accelerated expansion of the physical universe is "caused" by the interaction of this (purely hypothetical) 'dark-matter' and 'dark-energy' with the exhaustive spatial components of the physical

Author: e-mail: drbentwich@gmail.com

universe; The CUFT's new 'A-Causal Computation' Paradigm was also shown to negate the 'Second Law of Thermodynamics' due its implicit 'material-causal' assumption wherein it is assumed that "passage of time" inevitably "causes" an increase in the "entropic value" of any given Physical System; Finally, it was shown that even the Big-Bang Model must be revised based on the CUFT's new 'A-Causal Computation' Paradigm since there cannot exist any such 'material-causal' physical relationship/s between any two (or more) exhaustive spatial pixels comprising the initial 'Big-Bang' USCF's frame or any subsequent (single or multiple) USCF's frame...

## II. METHOD

Instead, the CUFT postulates the existence of a singular 'Universal Computational Formula' through which the 'Universal Computational Principle' simultaneously computes every exhaustive spatial-pixel in the universe, e.g., including its four basic physical features of 'space' and 'energy' or 'space' and 'time' per each minimal time-point USCF's frame. According to the CUFT's new 'A-Causal Computation' Paradigm, this singular 'Universal Computational Formula' delineates the UCP's complete integration of these four basic physical features which stems from the UCP's extremely rapid ("c<sup>2</sup>/h" = 1.45-42 sec) computation of every exhaustive spatial pixel in the physical universe based on the operation of three "Computational Dimensions", e.g., "Framework" ('frame' vs. 'object'), "Consistency" ('consistent' vs. 'inconsistent'), and "Locus" ('global' vs. 'local'). If we focus (initially) on only the two first Computational Dimensions, 'Framework' and 'Consistency', we obtain through their four possible combinations the four basic features of the universe, namely: 'space' and 'energy', 'mass' and 'time'; 'space' and 'energy' are seen to comprise the 'frame-consistent' vs. 'frame-inconsistent' computational combinations of the Universal Computational Principle's 'Framework' and 'Consistency' Dimensions. Likewise, 'mass' and 'time' represent the UCP's 'object-consistent' vs. 'object-inconsistent' computational combinations. The third Computational Dimension supplements these four basic physical features of 'space' and 'energy', 'mass' and 'time' with relativistic effects based on the consideration of the "computational locus" – i.e., of whether the computation is carried out from the perspective of from within the object or relative to the whole frame. Interestingly, it was found that indeed this singular 'Universal Computational Formula' embeds within it "specific instances" of both RT's and QM's particular Representations:

*Universal Computational Formula (Ucf)*

$$\frac{c^2}{h} = \frac{s}{t} \cdot \frac{e}{m}$$

- 1) *Relativistic Representation:*  $\frac{e \times s}{t} = m \times \frac{c^2}{h}$
- 2) *Quantum Representation:*  $t \frac{mc^2}{h} = s \frac{e}{h}$

Now, in order to validate the CUFT as a satisfactory "Theory of Everything" (TOE), we need to advance in several parallel routes:

- a) Identify particular empirical instances in which the predictions of the CUFT may be significantly different than the predictions of both RT and QM; and empirically test these "differential-critical predictions" of the CUFT – e.g., to the extent that those 'differential-critical predictions' of the CUFT are validated empirically, then this provides an unequivocal experimental validation of the CUFT as more valid than both RT and QM.
- b) Mathematically test and validate the CUFT's 'Universal Computational Formula', i.e., in terms of its embedding of particular Relativistic and Quantum Laws as "special-instances" within the Universal Computational Formula (e.g., Relativistic and Quantum Representation).
- c) Internal Validation of the 'Universal Computational Formula' *visa vis*. The CUFT's Computational Definitions of 'space', 'time', 'energy' and 'mass'; Another important 'internal-validation' of the CUFT 'critical-predictions' comprises the full mathematical analysis of the coherency between its computational definitions of these four physical features and their complete integration within the singular Universal Computational Formula (as delineated below).

## III. RESULTS

Preliminary results indicate an initial empirical and mathematical validation of the CUFT's above mentioned 'critical-predictions' (which cannot be accounted for by either RT or QM predictions):

- a) *Initial Empirical Validation: The 'Proton-Radius Puzzle' Findings*

Previously, based on the CUFT's computational definition of "mass" as a measure of an "object-consistent" measure (e.g., specific combination of the Universal Computational Principle's 'Framework' and 'Consistency' Computational Dimensions); it was previously predicted that relatively "more massive" particles would be measured as spatially more consistent across a series of USCF's frames in contrast to the measurement of relatively "less massive" particles. Initial empirical validation of this CUFT's critical-prediction was given through the "Proton-Radius Puzzle" findings (Bernauer & Pohl, 2014.) which indicated that indeed the more massive "Muon" particle Hydrogen nucleus is measured approximately 100 times smaller

(and more accurate) than its equivalent electron-Hydrogen nucleus – which could not be accounted for by either RT or QM; As delineated previously, these 'Proton-Radius Puzzle' findings closely correlate with the CUFT's abovementioned 'critical-prediction' which predicted that such heavier 'Muon' (embedded nucleus) would be measured spatially "more consistent" than the lighter 'electron' (related nucleus); Further empirical validation of this 'critical-prediction' of the CUFT comprises a direct comparison of the number of USCF's frames (e.g., minimal resolution time sampling) in which the heavier 'Muon' particle may be measured as opposed to the lighter electron particle: specifically, the CUFT's 'critical prediction' predicts that such minimal time resolution measurements would yield a greater percentage of those time-measurements in which the Muon particle would be detected in comparison with the number of measurement in which the (lighter) electron could be detected (e.g., an empirical result which could not be accounted for by either RT or QM).

b) *Direct Experimental Validation of the CUFT's 'Critical-Prediction'*

A further direct experimental validation of the CUFT's 'critical-prediction' can be tested utilizing a minute-temporal measurement comparison of the presence of relatively more massive particles across a greater number of USCF's frames, in comparison to the number of USCF's frames in which relatively less massive particles could be detected; due to the extremely rapid temporal rate of the Universal Computation Principle's computation of the USCF's frames (e.g., " $c^2/h = 1.45 \cdot 10^{42}$  sec") such minute-temporal measurement testing of the difference in the number of USCF's frames at which more massive particles (such as the Muon) would appear relative to less massive particles – the suggested minute-temporal measurement experiment would (in practice) "sample" a

given number of USCF's frames (based on the ratio of the " $c^2/h = 1.45 \cdot 10^{42}$  sec" USCF's computation to the minimal time resolution of the experimental apparatus) in order to test the CUFT's prediction regarding the appearance of the relatively 'more massive' particles across a greater percentage of the temporal measurements than the 'less massive' particle; In fact, it is hereby predicted that based on the computed ratio of the USCF's rate (" $c^2/h = 1.45 \cdot 10^{42}$  sec") to the given Experimental Temporal Measurement, a precise prediction could be made regarding varying masses of particles, e.g., in terms of the percentage of their Experimental Temporal Measurements' presence (based on the CUFT's computational definition of "mass").

c) *Mathematical Validation of the CUFT's 'Universal Computational Formula'*

Another avenue for validating the CUFT as a satisfactory "Theory of Everything" (TOE) comprises of a mathematical validation of the CUFT's Universal Computation Formula (UCF), e.g., as represented in its Relativistic and Quantum Representations:

- 1) Relativistic Representation:  $e \times s = m \times c^2$   
t h
- 2) Quantum Representation:  $t \times mc^2 = s \times e$   
h

Specifically, it is suggested that an examination of the Relativistic Representation of the 'UCF', i.e., in terms of elucidating the "special-case" of Relativity's "Energy-Mass Equivalence" ( $E = Mc^2$ ) as embedded within this Relativistic Representation of the UCF (as shown above) could reveal the precise embedding of Relativistic Laws within the broader theoretical framework of the CUFT's UCF. In particular, an "internal-validation" of the UCF can be accomplished based on the CUFT's "computational definitions" of the four basic physical features of 'space', 'energy', 'mass' and 'time':

$$S: (f_i\{x,y,z\}[\text{USCF}(i)] + \dots f_j\{x,y,z\}[\text{USCF}(n)]) / h * n\{\text{USCF's}\}$$

such that

$$f_j\{x,y,z\}[\text{USCF}(i)] \leq f_i\{x+(h*n),y+(h*n),z+(h*n)\} [\text{USCF}(i\dots n)]$$

wherein the 'space' measure of any given object (or event) is computed based on a "frame-consistent" computation of the UCP which adds the specific USCF's (x,y,z) localization across a series USCF's [1...n] –

which nevertheless do not exceed the threshold of Planck's constant per each ('n') number of frames (e.g., thereby providing the CUFT's definition of "space" as 'frame-consistent' USCF's measure).

$$E: ((f_j\{x,y,z\} [\text{USCF}(n)]) - (f_i\{(x+n), (y+n), (z+n)\} [\text{USCF}(i\dots n)])) / c * n\{\text{USCF's}\}$$

such that

$$f_j\{x,y,z\} [\text{USCF}(n)] > (f_i\{x+(h*n),y+(h*n),z+(h*n)\} [\text{USCF}(i\dots n)])$$

wherein the 'energy' value of any given 'object' (or event) is computed based on the subtraction of that object's "frame-pixel/s" location/s across a series of USCF's frames, divided by the 'speed of light' multiplied by the number of USCF's frames (being measured).



$$M: \Sigma[o\{x,y,z\} \text{ [USCF}(n)] = o(i...j-1) \{(x), (y), (z)\} \{\text{USCF}(i...n)\} / h * n\{\text{USCF's}\}$$

such that

$$[oi\{x,y,z\}\text{USCF}(n)] - [oi\{(x+j),(y+j),(z+j)\}\text{USCF}(1...n)] \leq n * h[\text{USCF}(1...n)]$$

wherein the 'mass' value of an object is computed based on a measure of the number of times an "object"

is presented "consistently" across a series of USCF's, divided by Planck's constant.

$$T: \Sigma[o\{x,y,z\} \text{ [USCF}(n)] \neq o(i...j-1) \{(x), (y), (z)\} \{\text{USCF}(i...n)\} / c * n\{\text{USCF's}\}$$

such that

$$T: \Sigma oi\{x,y,z\}[\text{USCF}(n)] - oi\{(x+m),(y+m),(z+m)\} [\text{USCF}(1...n)] \leq c * n\{\text{USCF's}\}$$

wherein the 'time' measure of a given "object" is computed based on the number of times that 'object' is presented 'consistently' across a series of USCF's frames, divided by Planck's constant.

Further, more detailed mathematical analysis of the Universal Computational Formula's Relativistic Representation and its relationship to the "special-case" of 'E = Mc<sup>2</sup>' found in Relativity Theory is underway. Likewise, it is suggested that an examination of the Quantum Representation of the 'UCF', i.e., in terms of elucidating the "special-case" of QMs' Heisenberg's Uncertainty Principle's complimentary pairs (e.g., "mass-time" and "energy-space") Planck's constant (h) accuracy constraint - could reveal the precise embedding of Quantum Laws within the broader theoretical framework of the CUFT's UCF. Specifically, an implementation of the above mentioned computational definitions of the four basic physical features would elucidate the precise embedding of Heisenberg's Uncertainty Principle's complimentary pairs' accuracy constraint as a "special-case" within the CUFT's exhaustive UCF. (Such detailed mathematical analysis is currently underway.)

#### IV. DISCUSSION

This article set to construct an Empirical and Mathematical Program for validating the 'Computational Unified Field Theory' (CUFT) as a satisfactory 'Theory of Everything' (TOE); it begun with a demonstration of Twenty-First Century's basic 'Paradigmatic Shift' from the current 'Material-Causal' Paradigm underlying both RT and QM to the CUFT's new 'A-Causal Computation' Paradigm. The essential difference between the Old 'Material-Causal' Paradigm and the New 'A-Causal Computation' is that whereas the 'Material-Causal' Paradigm assumes that it is the direct physical interaction between 'massive-objects' with space-time' that "causes" those 'massive objects' to travel in particular travelling trajectories), or that it is the direct physical interaction between the subatomic 'probe' and 'target' element which "causes" the "collapse" of the target element's (assumed) 'probability wave function'; the new 'A-Causal Computation' Paradigm asserts that there cannot exist any such 'material-causal'

relationships between any two (or more) relativistic or quantum exhaustive spatial pixels in the physical universe (e.g., at any single or multiple USCF's frame/s). Instead, the new 'A-Causal Computation' Paradigm postulates that the singular 'Universal Computational Principle' (UCP) simultaneously computes every exhaustive spatial pixel in the physical universe relating to its four basic physical features of 'space', 'energy', 'mass' and 'time' – based on the four possible combinations of two (of its three) Computational Dimensions, i.e., 'Framework' and 'Consistency': according to this new CUFT's 'A-Causal Computation' Paradigm (of 21st Century Physics) 'space' and 'energy', 'mass' and 'time' comprise a "frame-consistent" and "frame-inconsistent" computational measures of the 'UCP', whereas 'mass' and 'time' represent the UCP's computation of "object-consistent" and "object-inconsistent" measures. –

As mentioned above (and delineated previously), this CUFT's new 'A-Causal Computation' Paradigm was shown to resolve the principle theoretical inconsistency between RT and QM, i.e., based on the CUFT's discovery of the singular (higher-ordered) 'Universal Computational Principle' (UCP) which embeds within it RT's single spatial-temporal 'object' measures with QMs' 'multi spatial-temporal' 'wave' measure (e.g., thereby resolving the apparent contradiction between RT's strictly "causal" "Speed of Light Constraint" with QMs' "Quantum-Entanglement" phenomenon – which are both "embedded" and integrated into the UCP's exhaustive-simultaneous 'A-Causal Computation' Paradigm). Furthermore, this new 'A-Causal Computation' Paradigm's negation of the possibility of the existence of any "material-causal" physical relationships between any two (or more) exhaustive spatial pixels in the physical universe (existing at any single- or multiple-) USCF's frames also led to the challenging of the "Big-Bang Model", discarded "dark-energy" and "dark-matter" as "superfluous" (i.e., non-existent) and also challenged the 'Second Law of Thermodynamics', i.e., due to the fact that all of these laws and (purely hypothetical) concepts are based on a "material-causal" assumption which is negated by the CUFT's A-Causal Computation' simultaneous



computation all of exhaustive spatial pixels in the universe at any minimal time-point USCF's frame/s.

In order to empirically validate this new 'A-Causal Computation' Paradigm several mathematical and empirical "critical-predictions" have been identified including: a) a critical-empirical prediction regarding the CUFT's greater "spatial-consistency" of a more "massive" particle, relative to a "less-massive" particle: Indeed, an initial empirical validation of this 'critical-prediction' of the CUFT was given based on the "Proton-Radius Puzzle" findings wherein the more massive "Muon" (e.g., approximately 100 times more massive than its equivalent negatively charged 'electron' particle) was measured to possess more "spatially-consistent" measures, i.e., possessing an approximately 100 times smaller "nucleus" size (of a Hydrogen atom in which this Muon "sinks" into) and being 100 times more accurate; b) A call for Experimental Physicists to directly test the CUFT's critical empirical prediction, predicting that such a more massive (Muon) particle would be measured across a greater number of USCF's frames relative to a less massive particle (such as an electron): given the fact that the rate of the Universal Computational Principle (UCP) is extremely rapid (" $c^2/h$ ") transcending even the fastest available measuring device it is suggested that even a sampling of an "x" number of USCF's frames provided by a (given) minute-temporal measuring device would suffice to yield an equivalent manifestation of this critical-prediction of the CUFT (namely: that a more massive particle such as the 'Muon' would be measured across a greater number of given fine-temporal measurements relative to a less massive particle such as the 'electron'); c) A Mathematical validation of the CUFT's Universal Computational Formula (UCF), i.e., that would elucidate the precise mathematical "special conditions" in which this singular UCF manifests (through its Relativistic or Quantum Representations) as the known RT or QM Laws (and phenomenon): two first instances for this Mathematical Validation were RT's (known) 'Energy-Mass Equivalence' ( $E=Mc^2$ ) and QMs' Uncertainty Principle's complimentary pairs simultaneous measurement accuracy constraint – which were shown to represent 'special-cases' embedded within the exhaustive UCF (RT and QM Representations).

Hence, the current article provides an initial empirical validation of the CUFT as a satisfactory new 'A-Causal Computation' Paradigm which is found to be more valid than the Old 'Material-Causal' Paradigm of 20th Century Physics, e.g., underlying both RT and QM; A complete Empirical and Mathematical Program is outlined which can provide a full theoretical validation for this new CUFT's 'A-Causal Paradigm' of Twenty-First Century Physics, e.g., which was already (previously) shown to embed- integrate- and indeed transcend- the Old 'Material-Causal' Paradigm's Relativity Theory and Quantum Mechanics' Models of the physical reality.

## REFERENCES RÉFÉRENCES REFERENCIAS

1. Bentwich, J. (2012a) "Harmonizing Quantum Mechanics & Relativity Theory". Theoretical Concepts of Quantum Mechanics, In tech (ISBN 979-953-307-377-3), Chapter 22, pp. 515-550.
2. Bentwich, J. (2012b) "Theoretical Validation of the Computational Unified Field Theory". Theoretical Concepts of Quantum Mechanics, (ISBN 979-953-307-3773), Chapter 23, pp. 551-598.
3. Bentwich, J. (2013a). "The Theoretical Ramifications of the Computational Unified Field Theory". Advances in Quantum Mechanics (ISBN 978-953-51-1089-7), Chapter 28, pp. 671-882.
4. Bentwich, J. (2013b). The Computational Unified Field Theory (CUFT): A Candidate Theory of Everything. Advances in Quantum Mechanics (ISBN 978-953-51-1089-7) Chapter 18, pp. 395-436.
5. Bentwich, J. (2014a). Critical Empirical Validation of the 'Computational Unified Field Theory' (CUFT) vs. Quantum & Relativistic Models. Selected Topics in Applications of Quantum Mechanics (ISBN 978-953-51-2126-8).
6. Bentwich, J. (2015). On the Geometry of Space, Time, Energy & Mass: Empirical Validation of the Computational Unified Field Theory. Proceedings of Vigier IX – Unified Mechanics: Natural Science Beyond the Veil of Spacetime (Baltimore, Maryland).
7. Bentwich, J. (2016) The 'Computational Unified Field Theory': A Paradigmatic Shift. Research & Reviews: Journal of Pure & Applied Physics.
8. Bentwich, J. (2017a) The Computational Unified Field Theory: Could 'Dark Matter' & 'Dark Energy' be "Superfluous"? Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21st Century Physics.
9. Bentwich, J. (2017b) The Computational Unified Field Theory: Explaining the Universe from "Without". Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21st Century Physics.
10. Bentwich, J. (2017c). The Computational Unified Field Theory: A New 'A-Causal Computation' Physics. Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21st Century Physics.
11. Bentwich, J. (2017d). The 'Computational Unified Field Theory' (CUFT) May Challenge the 'Big-Bang Theory'. Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21st Century Physics.
12. Bentwich, J. (2017e). Can the 'Computational Unified Field Theory' (CUFT) Challenge the Basic

- Laws of Conservation? Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21st Century Physics.
13. Bentwich, J. (2017f). The Computational Unified Field Theory: Time Reversal May be Possible. Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21st Century Physics.
14. Bentwich, J. (2017g). The Computational Unified Field Theory (CUFT) Transcends Relativity's Speed of Light Constraint. Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21st Century Physics.
15. Bentwich, J. (2017h). The Computational Unified Field Theory's New Physics: Transcending Space, Time and Causality. Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21st Century Physics.
16. Bentwich, J. (2017i). A "Supra-Spatial-Temporal Universal Consciousness Reality". Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21st Century Physics.
17. Bentwich, J. (2017j). A New Science: An Infinite Omniscient Dynamic-Equilibrium Universal Consciousness Reality. Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21st Century Physics.
18. Bentwich, J. (2017k). The Computational Unified Field Theory (CUFT) Challenges the Second Law of Thermodynamics. Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21st Century Physics.
19. Bentwich, J. (2017l). The Computational Unified Field Theory (CUFT) Challenges Darwin's 'Natural Selection Principle'! Research & Reviews: Journal of Pure & Applied Physics, Special Issue: The Computational Unified Field Theory (CUFT)- A Paradigmatic Shift in 21st Century Physics.
20. Bernauer & Pohl (2014). The Proton Radius Puzzle. Scientific American, 310 (2), p. 20-24.
21. Born, M. (1954). The statistical interpretation of quantum mechanics, Nobel Lecture, December 11,
22. Brumfiel, G. (2006). Our Universe: Outrageous fortune. Nature, Vol. 439, pp. (10-12).
23. Ellis, J.(1986). The Superstring: Theory of Everything, or of Nothing? Nature, Vol. 323, No.089, pp. (595-598).
24. Giacomini, Francesco (2014). "On unitary evolution and collapse in quantum mechanics". Quanta 3 (1): 156-170. doi:10.12743/quanta.v3i1.26.
25. Greene, B. The Elegant Universe, Vintage Books, New York (2003).
26. Heisenberg, W. Über den anschaulichen Inhalt der quantentheoretischen Kinematik und Mechanik. Zeitschrift für Physik, Vol. 43 No. 3-4, pp. (172-198) (1927).



GLOBAL JOURNAL OF SCIENCE FRONTIER RESEARCH: A  
PHYSICS AND SPACE SCIENCE  
Volume 18 Issue 8 Version 1.0 Year 2018  
Type: Double Blind Peer Reviewed International Research Journal  
Publisher: Global Journals  
Online ISSN: 2249-4626 & Print ISSN: 0975-5896

# A Computational Unified Field Theory's Epilogue (CUFT): Possible Reversal of the "Arrow of Time" and Abolishment of "Death"!

By Jehonathan Bentwich, Ph.D.

*Introduction-* 21<sup>st</sup> Century Physics is undergoing a major "Paradigmatic Shift" from its current "Material-Causal" Paradigm to the new 'A-Causal Computation' Paradigm associated with the 'Computational Unified Field Theory' (CUFT); As described previously [REF??] the need for such a 'Paradigmatic Shift' came about based on the existence of an apparent theoretical inconsistency between the two primary pillars of Physics, namely: Relativity Theory (RT) and Quantum Mechanics (QM) as well as a series of unresolved 'Physical Conundrums', e.g., including: "dark-matter" and "dark-energy" (which are purely hypothetical concepts referring to up to 85% of all of the mass and energy in the universe which cannot be observed empirically!?)

*GJSFR-A Classification: FOR Code: 029999*



*Strictly as per the compliance and regulations of:*



# A Computational Unified Field Theory's Epilogue (CUFT): Possible Reversal of the "Arrow of Time" and Abolishment of "Death"!

Jehonathan Bentwich, Ph.D.

## I. INTRODUCTION

21st Century Physics is undergoing a major "Paradigmatic Shift" from its current "Material-Causal" Paradigm to the new 'A-Causal Computation' Paradigm associated with the 'Computational Unified Field Theory' (CUFT); As described previously [REF??] the need for such a 'Paradigmatic Shift' came about based on the existence of an apparent theoretical inconsistency between the two primary pillars of Physics, namely: Relativity Theory (RT) and Quantum Mechanics (QM) as well as a series of unresolved 'Physical Conundrums', e.g., including: "dark-matter" and "dark-energy" (which are purely hypothetical concepts referring to up to 85% of all of the mass and energy in the universe which cannot be observed empirically!?)

One of the emerging new properties of this new 'A-Causal Computation' (ACC) Paradigm is its principle negation of the existence of any "material-causal" physical relationships between any two (or more) exhaustive spatial pixels existing either in the same- or other- Universal Frames (UF's); But, if this 'A-Causal Computation' Paradigm is valid (e.g., see below 'Initial Empirical Validation' of this ACC Paradigm and prospective 'Call for Experimental Validation'), then it is suggested that another basic tenet of both RT and QM has to be revised, i.e., the "Arrow of Time" hypothesis! According to this 'Arrow of Time' hypothesis, "time" may only "flow" in one direction: from the "past" to "present" and "future" – but not vice versa! However, as will be explained (below) through a "Cinematic-Film Metaphor" (previously delineated) – just as in a standard cinematic film progression, we may be able to "roll" the film "forward" and "backwards", so it is suggested that it should be possible to manipulate any given "Physical System" such that it could not only progress based on this 'Arrow of Time' hypothesis (from the 'past' to the 'future'), but also in the "reversed order" – from the 'future' back to the 'past'! It may (obviously) seem "counter-intuitive" (initially) to hypothesize that such a "Reversed Arrow of Time" (RAT) may be possible, but once we take into account the full depth of the CUFT's new 'ACC' Paradigm's complete and total negation of any 'material-causal' physical relationship/s (at either the quantum or

relativistic levels), we reach the inevitable conclusion that such RAT postulate is tenable, e.g., and in fact may even be associated with an important "Universal Consciousness Reality's Reversed Time Goal Hypothesis" (UCR-RTGH), outlined below; Finally, this article sets to advance another new theoretical postulate entitled: the "Abolishment of Death Hypothesis" (ADH), wherein due to the possibility to "Reverse the Arrow of Time", and the ACC Paradigm's principle negation of any 'material-causal' physical relationship between any two (or more) exhaustive spatial pixels comprising any single or multiple UF's, therefore it may be possible to "abolish death" in any given biological organism, i.e., either through a manipulation of a "reversed sequence" of any biological organism's series of UF's or through a higher-ordered Universal Consciousness Reality's (equivalent) manipulation...

To fully understand the possibility of a 'Reversed Arrow of Time' (and potentially its associated "abolishment of Death") we begin with an analysis of the 'Cinematic-Film Metaphor' which is somewhat equivalent to certain features associated with the CUFT's Universal Consciousness Principle's computation of the (extremely rapid) series of 'Universal Frames' (e.g., comprising all exhaustive spatial pixels of the universe at every minimal time-point,  $c^2/h = 1.45 \cdot 10^{-42}$  sec); The Cinematic-Film Metaphor likens the UCP's consecutive production of the rapid series of UF's to a standard film's production of a series of film-frames: Just as in a film's production the appearance of any given object's "energy" may be given through a computation of the degree of "displacement" of that object across a given number of film-frames, so the CUFT postulates that the 'energy' value of any given (relativistic) object or (quantum) particle based on the UCP's computation of that object's 'displacement' across a series of UF's, e.g., based on the UCP's two Computational Dimensions of 'Framework' ('frame/object') and 'Consistency' ('consistent/inconsistent'). Similarly, the CUFT postulates that the UCP computes the other three basic physical features of 'space', 'time' and 'mass' based on the possible combinations of these 'Framework' and 'Consistency' Dimensions (i.e., with 'energy' and 'space' representing the 'frame's' – 'inconsistent' and 'consistent' computational combinations, and 'time' and 'mass' reflecting the UCP's computation of an 'object's' –



'inconsistent' vs. 'consistent' combinations). Accordingly, the UCP's computation of "time" associated with any given object comprises the UCP's computation of the degree of that object's exhaustive spatial pixels' 'inconsistency' across a series of UF's. Significantly, the appearance of an "Arrow of Time" unidirectional progression from (that object's) 'past' to 'present' to 'future' changes (e.g., "inconsistencies") arises strictly due to the UCP's standard computation of the series of UF's in such a 'unidirectional' sequence; However, it is hereby hypothesized that akin to the 'Cinematic-Film Metaphor's' possibility to present any standard film – either in its "standard" 'past' to 'future' sequential presentation order, or conversely in a "reversed" 'future to past' sequentially ordered presentation; so it may be possible to manipulate the UCP's consecutive computation of any given series of UF's pertaining to any given object – such that the comprising exhaustive spatial electromagnetic pixels composition across a given series of UF's would be "reversed" (i.e., from its "standard" 'Arrow of Time' depiction from 'past to future'), thereby effectively "reversing" that object's 'Arrow of Time' time-flow)...

To fully comprehend the potentially far-reaching theoretical and pragmatic implications of such a possibility to reverse the 'Arrow of Time' (e.g., associated with any given object's composition across a series of UF's), we need to review the Paradigmatic Shift represented by the CUFT's new 'A-Causal Computation' Paradigm, i.e., especially in terms of its basic understanding of the UCP's computation- "dissolution" ('in-between' any two consecutive UF's)- sustenance- and evolution- of every exhaustive spatial pixel/s in the universe; Contrary to the "old" 'Material-Causal' Paradigm associated with both Relativity Theory and Quantum Mechanics, which assumes that the four basic physical features of "space", "time", "energy" and "mass" can be determined solely based on the direct physical interaction of a given relativistic observer and (space-time, energy-mass) 'phenomenon' or between a given subatomic 'probe' and 'target' particles, and that these four basic physical features exist "continuously"

## II. METHODS

In order to test an initial empirical verification of the CUFT's specific prediction, wherein it may be possible to "reverse" the "Arrow of Time" – i.e., as it pertains to a simple Biological System, we propose the following Experimental Setup

The Experimental Design comprises of an Electromagnetic "Sensing-Computing-Stimulating Device" (SCSD) which is capable of measuring the precise electromagnetic values of all of the spatial pixels comprising any given Physical System, e.g., across a given series of USCF's frames (or even sampling thereof); Combined with a computing mechanism which

records those spatial-electromagnetic pixels' values of the given Physical System, e.g., in this initial Experiment the Physical System will consist of the single cell "amoeba" across its entire life-span from "birth" to "aged"; Combined with the SCSD's computation of the precise "Electromagnetic Stimulation Parameters" (ESP) necessary to invoke a "reversed-sequence" of the given amoeba's recorded USCF's frames' particular spatial-electromagnetic pixels corpus (e.g., at each subsequent USCF's frame/s).

In other words, the proposed Experiment will take a single cell 'amoeba' and apply the outlined SCSD apparatus to its life-span's changing electromagnetic spatial pixels' values in order to induce a "reversed-sequence" of its exhaustive pool of spatial-electromagnetic pixel's (values) across its life-span, e.g. from "birth" to "aging": such that hypothetically this amoeba's exhaustive spatial electromagnetic pixels' values would change from those comprising the "aged" amoeba's values gradually (i.e., in the precise reversed USCF's exhaustive spatial pixels' electromagnetic values) to its "young" exhaustive spatial electromagnetic pixels values composition!

## III. DISCUSSION

To the extent that such a SCSD device could be constructed and to the extent that such a proposed Experimental Design subjecting a single cell amoeba to a precise recording- computing- and stimulation sequence for each of this amoeba's exhaustive spatial electromagnetic pixels would indicate that indeed this single cell amoeba "reverses its biological time sequence"; this would validate one of the key "differential-critical predictions" of the CUFT, i.e., of "reversing the Arrow of Time" prediction! This is because according to the CUFT "time" can be "reversed" – which stands in a clear contrast to the strict "impossibility" to "reverse-time", according to the predictions of both Relativity Theory and Quantum Mechanics; Once again, according to RT no physical signal can travel at a velocity greater than the "Speed of Light Constraint"- hence, it is not possible to "catch" any light signal which was emitted by any "past" event, e.g., therefore it is not possible to "reverse-time"! Likewise, in Quantum Mechanics, it not possible to "reverse-time" since any given subatomic "target" probability wave function is assumed to "collapse" following its direct physical interaction with another subatomic "probe" element – which results in the selection of only one singular "complimentary" (space-energy, mass-time) measured target value (e.g., out of the multifarious exhaustive target values embedded in the "un-collapsed probability wave function"); Hence, following any such subatomic direct physical interaction between a measuring subatomic 'probe' element and any given subatomic 'target' probability wave function – there occurs an "un-



reversible" "collapse" of the target's (assumed) probability wave function (e.g., from its exhaustive multifarious potential target values to a singular 'complimentary' "collapsed" measured target value). Therefore, from the perspective of QM it is not possible to "un-collapse" the already "collapsed" singular subatomic 'target' particle (complimentary 'space-energy' or 'mass-time') value – following its direct physical interaction with the subatomic 'probe' element, and return it back to its exhaustive dispersed "un-collapsed" probability wave function's multifarious values; Therefore, "time-reversal" is not possible theoretically either from the perspective of RT or from that of QM! Hence, to the extent that the CUFT's differential-critical prediction regarding the possibility of "reversing-time", e.g., as it pertains to the case of a single amoeba's life-span reversal, then this would comprise a clear validation of one of the CUFT's differential-critical predictions, thereby validating it as a satisfactory new 'A-Causal Computation' Paradigm of 21st century Physics.

The principle difference, then between the CUFT's new 'A-Causal Computation' Paradigm and the old 'Material-Causal' Paradigm – e.g., as it pertains to the "flow of time" is that whereas according to the old 'Material-Causal' Paradigm time flows uni-directionally from the "past" through the "present" to the "future" (the 'Arrow of Time'); according to the CUFT's new 'A-Causal Computation' Paradigm "time" can flow (at least theoretically) – in both directions, e.g., from the "past to the future" (as the 'Arrow of Time's' "unidirectional" sequence), or indeed also in the "reversed" sequence from the "future to the past"! In order to fully comprehend this new "exciting" possibility relating to the CUFT's new 'A-Causal Computation' Paradigm of 21st century Theoretical Physics, let us review (once more) the CUFT's new 'A-Causal Computation' Paradigm's computational definition of "time" (as well as of "space", "energy" and "mass"): According to the CUFT's new 'ACC' Paradigm, 'time' is computed based on the UCP's computation of the degree of 'object-inconsistent' measure across a series of USCF's frames; Specifically then, from the new ACC Paradigm's perspective the "flow of time" is not strictly constrained to flow "uniformly", e.g., according to the 'Arrow of Time', but can be made to "flow" in the reversed sequence, e.g., in terms of a given Physical System's exhaustive spatial electromagnetic pixels sequential USCF's frames' composition. It is important to mention (at this point) that this new theoretical possibility to "reverse-time" according to the CUFT's new ACC Paradigm can be affected in one of two means: a) through the abovementioned accurate recording- computation- and manipulation of the exhaustive electromagnetic spatial pixels' values of each of a given Physical System' (e.g., such as the amoeba case) – in such a manner which would reverse the electromagnetic spatial pixels' values

sequence (across a given series of USCF's frames); b) "time-reversal" may also be produced based on the (previously published) intrinsic possibility of Individual Human Consciousness to "expand" in such a manner that it can function equivalently to the 'Universal Consciousness Reality', i.e., in terms of its simultaneous computation of all exhaustive spatial pixels comprising each consecutive USCF frame (constituting the entire physical cosmos)...This second route for "time-reversal" can be affected through the utilization of the "expanded" Individual Human Consciousness mode in such a manner as to "reverse" any given Physical System's exhaustive electromagnetic spatial pixels' values across a given series of USCF's frames (similarly to the first route's physical manipulation of the amoeba's exhaustive electromagnetic spatial pixels' values).

The potentially significant theoretical implications of this new discovery of the CUFT – advocating the possibility to "reverse-time" may be twofold

- a) Empirically, the possibility to "reverse-time" – i.e., specifically even in the case of reversing "biological-time" (as in the specific case of an 'amoeba' as described experimentally in this article) may open the door for an attempt to "Abolish Death"! This is simply due to the fact that at least theoretically, if "time" can be reversed in any given Physical System – and can even be shown to be "reversed" in the case of a simple biological organism such as an 'amoeba', then it may be the case that "death" can be averted in the case of such an amoeba, or indeed may be expanded to apply to more complex organisms.. Once again, it is important to note that the CUFT's new 'ACC' Paradigm completely alters our basic conception of "time", its hitherto assumed "uni-directional" 'Arrow of Time' flow – instead advocating an entirely new approach wherein "time" merely constitutes the degree of change (e.g., 'object-inconsistency') across a series of USCF's frames, thereby allowing for the manipulation of "biological-time" to flow in the reversed order, which may also bring about the possibility of "abolishing death" altogether...
- b) The second possible theoretical implication stemming from the CUFT's new discovery of the possibility to "reverse-time" relates to the broader exploration of the Universal Consciousness Reality's origination- sustenance- and indeed "purpose" behind its consecutive production of any given Physical System's evolution with 'time': Indeed, we hereby advance a new "time-related" theoretical postulate of the CUFT named: the 'Universal Consciousness Reality's Reversed-Time Goal Hypothesis' (UCR-RTGH)

The "Universal Consciousness Reality's Reversed Time-Goal Hypothesis" (UCR-RTGH)

Succinctly stated, this new UCR-RTGH theoretical postulate postulates that the Universal Consciousness Reality may organize any given Physical System based on a "prospective-goal" which that specific Physical System is selected to fulfill! This new UCR-RTGH postulate may offer new useful insights to the further development of Theoretical Physics as well as other key scientific disciplines (e.g., and unresolved scientific enigmas such as Darwin's "Natural Selection Principle" which was shown to be negated by the CUFT's new 'A-Causal Computation' Paradigm); As shown previously, the CUFT's new 'A-Causal Computation' Paradigm negates any "material-causal" physical relationships between any two (or more) exhaustive spatial pixels existing either in the same- or different- USCF's frames, e.g., due to the simultaneity of the Universal Consciousness Principle's (UCP) computation of all exhaustive spatial pixels comprising any single USCF's frame. Indeed, this principle negation of the existence of any possible (relativistic or quantum) "material-causal" physical relationships at any single/multiple USCF's frame/s revolutionized Physics basic 'Material-Causal' Paradigm underlying both RT and QM: Specifically it was shown that Einstein's RT's "Einstein's Equations" must be negated as they are based on precisely such a 'material-causal' assumed relationships between "massive objects" and their "causing" of the "curvature of space-time", and conversely between this "curvature of space-time by massive-objects" and its "causing" of the determination of the "travelling pathways of massive objects". Instead, the new 'A-Causal Computation' Paradigm asserted that the origination- sustenance- and evolution- of every exhaustive spatial pixel comprising the entire physical universe at each consecutive USCF's frame/s, and even their complete "dissolution" between any two consecutive USCF's frames – can only be produced and computed by the singularity of the UCP. Hence, the new 'ACC' Paradigm negated the 'Big-Bang' Model's assumption wherein the entire physical universe was assumed to be created by an initial "nuclear explosion" which "caused" the creation of all "mass", "energy", galaxies and space etc.; Instead, the new ACC Paradigm postulates that the entire cosmos – including every exhaustive spatial pixel/s comprising it is being continuously "computed"- "dissolved"- "sustained"- and "evolved"- solely based on the (simultaneous) computation of this singular Universal Consciousness Reality (e.g., with each consecutive minimal time-point: " $c^2/h = 1.45\text{-}42 \text{ sec}$ ")! This new CUFT's 'ACC' Paradigm of 21st century Physics therefore also negated the existence of "dark-matter" and "dark-energy" as "superfluous" (e.g., as they also assumed the existence of similar "material-causal" physical relationships between these purely hypothetical concepts of "dark-matter"/"dark-energy" and the continuous explosion and accelerated expansion of the physical universe).

Instead, the CUFT's new 'ACC' Paradigm postulates that the accelerated expansion of the physical cosmos is due to the accelerated addition of the number of exhaustive spatial pixels comprising the entire physical universe – with every consecutive USCF's frame as computed by the singular UCP Reality. Another principle negation of a major scientific conception brought about by the CUFT's new 'A-Causal Computation' Paradigm is its challenging of Darwin's Natural Selection Principle basic paradigm of Evolution: As shown previously, due to the CUFT's new ACC Paradigm which negates the possibility of the existence of any 'material-causal' physical relationships between any (two or more) exhaustive spatial pixels existing either in the same- or different- USCF's frames, "Darwin's Natural Selection Principle's" basic assumption whereby it is the direct physical interaction between any given organism and its exhaustive set of 'Environmental Factors' which "causes" that object to "survive" or be "extinct" was negated! Instead, once again, the new ACC Paradigm postulated that it is solely the simultaneous computation of the UCP of every exhaustive spatial pixel in the universe (for each consecutive USCF's frame/s) which brings about the apparent "evolution"- and "selection"- of any given organism or specie... Thus, according to this new 'ACC' Paradigm the evolution of say humans from apes – has nothing to do with any direct physical interaction between any given "ancestor" ape organism and its direct physical environment which seemed to have favored the evolution of a genetically "mutated" "human descendent" (e.g., simply because according to this new 'ACC' Paradigm there cannot exist any direct physical interaction between any given organism and any exhaustive set of Environmental Factors); Instead, the CUFT's ACC Paradigm postulated a new Universal Consciousness Reality postulate wherein the UCR advances ever more expansive forms of "inanimate"→"animate": "plants"→"animals"→"humans"→"expanded Individual Human Consciousness" forms...

The fascinating new emerging basic feature of this singular Universal Consciousness Reality leads us to this new 'Universal Consciousness Reality's Reverse-Time Goal Hypothesis' (UCR-which postulates that this singular Universal Consciousness Reality may organize its continuous consecutive origination of every exhaustive spatial pixel comprising the entire physical universe based on its primary Goal to express ever more conscious, moral forms – ultimately leading to the "pinnacle" of the UCR evolution of the universe which is in the form of the "expanded" Individual Human Consciousness! In other words, instead of Darwin's Natural Selection Principle which was negated due to it 'material-causal' basic assumption the new UCR-RTGH postulates that the evolution of any given specific specie is driven by the UCR-RTGH which "plans" or "organizes" any successive exhaustive series of USCF's depicting

the evolution of any given specie based on its "end-goal" which is aligned with the abovementioned basic motivation of the UCR to express ever more expansive forms leading up to the human form and ultimately to its "Expanded Individual Human Consciousness" form! This new intriguing UCR-RTGH may apply to both an individual organism as well as to the entire specie – i.e., in both cases the UCR is hypothesized to "plan" a "reversed-time" sequence based on the "end-goal" fulfillment for that particular organism or specie: if for instance, the UCR's postulated "goal" for Individual Human Consciousness is to attain its "expanded" mode (e.g., it which is "unites" or is "equivalent" to the Universal Consciousness Reality), then according to this new UCR-RTGH, the UCR "plans" and "organizes" the entire sequence of the evolution of humans based on this overarching goal of evolving human beings towards the prospective 'Expanded Individual Human Consciousness' mode... In fact, since as illustrated previously (and above) the CUFT hypothesizes that the entire evolution of all 'inanimate', 'animate': 'plants', 'animals', and 'humans' is geared towards this general expansion in forms towards the attainment of the 'Expanded Individual Human Consciousness' form then it may be said that entire evolution of all inanimate, animate and human forms in the physical universe are geared towards the ultimate expression of the fully 'Expanded Individual Human Consciousness' form. Therefore, from the perspective of this new (progressive) UCR-RTGH postulate the entire origination- "dissolution"- sustenance- and evolution- of each exhaustive spatial pixel in the universe is solely organized from the "future" to the "past", i.e., from the "future" attainment of a fully 'expanded Individual Human Consciousness' towards all "past" and "present" USCF's frames' exhaustive spatial pixels' organization.. Indeed, if we take also into consideration another accompanying intrinsic feature of this singular 'Universal Consciousness Reality'- e.g., especially as it pertains to the dynamics of Individual Human Consciousness' in terms of the (previously outlined) 'UCR- Dynamic Equilibrium' (moral principle), we may appreciate the full scope of this newly postulated 'UCR-RTGH':

This is because according to this 'Dynamic-Equilibrium' moral principle, the Universal Consciousness Reality (UCR) is characterized by its basic moral balancing-principle, which necessarily counterbalances any infliction of "pain" or "suffering" by one Individual Consciousness upon another Individual Consciousness – such that the "inflicting" Human Consciousness has to endure the same proportionate "pain" or "suffering" that it inflicted upon another Individual Human Consciousness. (This is due to the fact that there does not exist any real "separation" between the various constituting "Individual Human Consciousness" comprising the same singular unitary Universal Consciousness Reality – therefore any "moral

imbalance" in which one Individual Human Consciousness inflicts pain upon another Individual Human Consciousness offsets the UCR's 'Dynamic-Equilibrium' moral principle which brings about an infliction of 'pain' or 'suffering' upon the 'inflicting Individual Human Consciousness' in order to restore the harmonious unitary wholeness of the singular Universal Consciousness Reality. This 'Dynamic-Equilibrium' (moral principle) is important in the context of the new UCR-RTGH which we discussed, because – at the Individual Human Consciousness level, the involvement of this 'Dynamic-Equilibrium' principle, together with the operation of the UCR-RTGH implies that we may be able to account for the various occurrences taking place for any Individual Human Consciousness through an understanding of that Individual Human Consciousness' selection of certain "moral" or "immoral" actions (e.g., inflicting 'pain' or 'suffering' upon another Individual Human Consciousness), together with the UCR general overarching basic drive to push every such Individual Human Consciousness towards fulfillment of its full "expanded Individual Human Consciousness" form. Thus, the new UCR-RTGH postulate may further advance Physics' basic understanding of the origin-sustenance- and evolution- of the physical universe based on the CUFT's new 'ACC' Paradigm which suggests that the singular UCR may (continuously) create- "dissolve"- sustain and evolve- each exhaustive spatial pixel in the universe based on its overarching UCR-RTGH purpose of evolving the physical universe to allow ever more expansive ('inanimate', 'animate': 'plants', 'animals', 'humans' etc.) forms leading to the highest most evolved expression of an 'Expanded Individual Human Consciousness' form. Indeed, such a UCR-RTGH postulate, e.g., alongside the CUFT's ACC Paradigm's basic Paradigmatic Shift, i.e., from the old 'Material-Causal' Paradigm towards the new 'A-Causal Computation' Paradigm places the major focus of 21st century Physics upon the further investigation and discovery of the singular Universal Consciousness Reality's basic characteristics and features pertaining to its 'Reversed-Time-Goal Hypothesis' program for evolving the physical universe to fulfill the UCR's purpose of expressing the fullest and most exhaustive forms of the Universal Consciousness Reality.

Finally, it may be worthwhile to highlight the fact that the discovery of this new 'UCR-RTGH' theoretical postulate may further strengthen the abovementioned CUFT ACC Paradigm's unique "differential-critical" prediction regarding the possibility of "time-reversal" (e.g., and by extension also of "death-abolishment!"); This is because if indeed the Universal Consciousness Reality may compute- and organize- the entire sequence of USCF's arrangement from the "future to the past" – e.g., based on the fulfillment of a particular overarching "goal" of allowing each inanimate, animate (plants, animals and humans) to evolve towards the

ultimate "Expanded Individual Human Consciousness" form; then this demonstrates the very possibility of the Universal Consciousness Reality's – arrangement of the given series of a given 'inanimate', 'animate', etc. form in the "reversed-order" e.g., relative to the currently assumed 'Arrow of Time' unidirectional sequence! But, if it is possible for the UCR to (implicitly) arrange the given series of USCF's frames in the "reversed-order" (from the "future" to the "past"), then based on the (abovementioned) "Individual Human Consciousness Expansive Spectrum Hypothesis" (IHCESH) – which postulates that the "expanded" Individual Human Consciousness can function equivalently to the Universal Consciousness Reality, it should be possible for the "expanded" Individual Human Consciousness to also access such "reversed" 'future to past' sequential order within the exhaustive corpus of (simultaneously existent) exhaustive USCF's of all "past", "present" and "future/s"... Moreover as stipulated above regarding the Experimental design geared towards validating the possibility of "time-reversal"- based on the precise recording- of each and every exhaustive spatial pixels' electromagnetic value (comprising a given Physical System such as an amoeba) across a given series of USCF's frames – and a computation of the necessary specific electromagnetic stimulation parameters that need to be applied to each exhaustive spatial pixel comprising the given Physical System (amoeba) in order to affect the production of this amoeba's "reversed-life-cycle" sequence of exhaustive spatial pixels comprising the amoeba at each previous USCF's frame... Despite the probable "instinctive" opposition to the very possibility of "reversing-time" and (even more so) the possibility of averting- or abolishing "death", it should be noted that not only the basic conception of "time" based on the CUFT's new 'ACC' Paradigm changes "dramatically" – which allows for a complete revision of our basic assumptions regarding the uni-directionally assumed 'Arrow of Time' flow, but also our current understanding of "life" and "death" also must necessarily undergo a fundamental metamorphosis: Instead of "time" existing as a "semi-objective" reality which exists continuously, e.g., based on the direct physical interaction between a relativistic observer and a given relativistic (space-time or energy-mass) 'phenomenon', or between a given subatomic "probe" and "target" elements (e.g., which brings about the "collapse" of the target's probability wave function) – the CUFT new 'ACC' Paradigm regards "time" as merely the computation of the UCP of the degree of "object-inconsistency" (change) across USCF's frames, e.g., with no particular constraint imposed upon the "uni-directionality" of the flow of "time". Therefore, to the extent that the precise electromagnetic-spatial pixels' values of a given amoeba (across a given number of USCF's frames) can be "reversed", then that amoeba's "biological time" can indeed be reversed! Moreover, even the existence of

"death" may be "averted" or "abolished" based on the same (abovementioned) reversal of the electromagnetic-spatial values sequence comprising the amoeba's life-cycle; This is because according to this new ACC Paradigm there cannot exist any "material-causal" physical relationships between any (two or more) exhaustive spatial pixels existing either in the same- or different- USCF's frames, so that there does not exist any "necessary" between the passage of "time" and an amoeba's (or any other organism's) "aging"! As indicated above, the 'ACC' new Paradigm negation of the 'Material-Causal' old Paradigm's unidirectional 'Arrow of Time' assumption – arises from the fact that the UCP's (apparently) "standard" sequence presents the USCF's frames in the "past to present to future" order, but this new ACC Paradigm does not negate at all the possibility of presenting the given USCF's particular electromagnetic spatial pixels comprising any given organism (or Physical System) in the "reversed": "future to past" order! Hence, both "aging" and "death" do not represent any "necessary" consequence stemming from any basic "causal" relationship between the flow of "time" and the "aging" or "death" of a given organism – but only represent the "standard" sequence in which the UCP regularly presents the life-sequence of that given organism (amoeba). If however, this specific sequence of exhaustive electromagnetic-spatial pixels can be "reversed", e.g., such as for example through the suggested manipulation of the amoeba's electromagnetic-spatial pixels values "reversed-sequence", then there is no principle reason that the amoeba's "death" may not be averted or abolished! Finally, it should be noted that it is precisely due to the CUFT new 'ACC' Paradigm which negates the existence of any "material-causal" physical relationships between any two (or more) exhaustive spatial pixels in the universe (at any single- or multiple-) USCF's frames; and which (instead) postulates that every exhaustive spatial pixel in the universe is continuously being "computed" by the singular UCP at every consecutive USCF's frame/s – followed by its complete "dissolution" "in-between" any two consecutive USCF's frames; therefore the CUFT previously stipulated the 'Computational Invariance Principle' and associated 'Universal Consciousness Reality' theoretical postulates which essentially assert that since only the singularity of the 'Universal Consciousness Reality' exists continuously both "during" each consecutive USCF's frame/s (e.g., solely computing every exhaustive spatial pixel's four basic physical features of 'space', 'time', 'energy' and 'mass') and also solely exists "in-between" any two consecutive USCF's frames; whereas those four basic physical features (pertaining to each exhaustive spatial pixel in the universe) exist only "during" each consecutive USCF's frame/s (as solely being computed by this singular UCP) but not "in-between" any two consecutive USCF's frames (wherein only the singular UCP exists



without the presence of any physical universe); therefore the 'Computational Invariance Principle' and 'Universal Consciousness Reality' theoretical postulates assert that only the "computationally invariant" 'Universal Consciousness Principle (UCP) may be regarded as "real" or "permanent" whereas those four basic physical features of 'space', 'time', 'energy' and 'mass' may only be regarded as "computationally-variant" (e.g., transient and 'phenomenal'); Hence, the 'Universal Consciousness Reality' postulates that there exists only one singular 'Universal Consciousness Reality' which exists continuously and uniformly both "during" each consecutive USCF's frame – giving rise to the four basic physical features of every exhaustive spatial pixel in the universe, and also solely exists (without the presence of the physical universe) "in-between" any two consecutive USCF's frames, and wherein the entire physical universe (and every exhaustive spatial pixel comprising it at each consecutive USCF's frame/s) is seen as not separate from- and in fact only a manifestation of- this singular Universal Consciousness Reality! Indeed, viewed from this new CUFT 'ACC' Paradigm's higher-ordered perspective, since every exhaustive spatial pixel in the universe "dissolves" in-between any two consecutive USCF's frames, and since each exhaustive spatial pixel is seen as "inseparable" from the continuous and permanent existence of the singular Universal Consciousness Reality, then in truth that cannot exist any real "death", i.e., of any exhaustive spatial pixel in the universe (including of any biological organism) but only the alternation between its "appearance" and "computation" by the UCP "during" each consecutive USCF's frame and "dissolution" – i.e., back into the singular UCP "in-between" any two consecutive USCF's frames... Nevertheless, it becomes completely feasible to "reverse-time" and "abolish-death" through the abovementioned suggested Experimental Design of a precise recording- computing- and specific electromagnetic stimulation of every exhaustive spatial pixel comprising any given biological organism (such as the amoeba) in such a manner as to produce that organism's "reversed-spatial-electromagnetic values" across the organism's recorded life-cycle...

#### *Dedication:*

This article is dedicated to my dear beloved Mother Dr. Tirza Bentwich and my two beloved sons, Shoham and Nethanel;

It is also dedicated to Science- and Humanity's- (sincere) quest after Truth (with the deep prayer that It may not be afraid to "let go" of "old conceptions" (and Paradigms) in pursuit of the full scope Truth, which points at the singularity of a Universal Consciousness Reality which unifies- integrates- and transcends- the apparent constraints of the old "fragmented" 'Materialistic-Reductionistic' Paradigm. May Humanity "march-on", reach higher towards this singular higher-

ordered Universal Consciousness Reality which creates- sustains- and evolves- every exhaustive spatial pixel throughout the entire physical universe so many times per second...

## REFERENCES RÉFÉRENCES REFERENCIAS

1. Bentwich, J. (2006a). The 'Duality Principle': Irreducibility of sub-threshold psychophysical computation to neuronal brain activation. *Synthese*, Vol. 153, No. 3, pp. (451-455).
2. Bentwich, J. *Universal Consciousness: From Materialistic Science to the Mental Projection Unified Theory*, iUniverse Publication (2006b).
3. Bentwich, J. (2012a) "Harmonizing Quantum Mechanics and Relativity Theory". *Theoretical Concepts of Quantum Mechanics*, In tech (ISBN 979-953-307-377-3), Chapter 22, pp. 515-550.
4. Bentwich, J. (2012b) "Theoretical Validation of the Computational Unified Field Theory". *Theoretical Concepts of Quantum Mechanics*, (ISBN 979-953-307-3773), Chapter 23, pp. 551-598.
5. Bentwich, J. (2013a). "The Theoretical Ramifications of the Computational Unified Field Theory". *Advances in Quantum Mechanics* (ISBN 978-953-51-1089-7), Chapter 28, pp. 671-882.
6. Bentwich, J. (2013b). *The Computational Unified Field Theory (CUFT): A Candidate Theory of Everything*. *Advances in Quantum Mechanics* (ISBN 978-953-51-1089-7) Chapter 18, pp. 395-436.
7. Bentwich, J. (2014a) *What if Einstein was Right?* Amazon Kindle Book Store.
8. Bentwich, J. (2014b). *On the Geometry of Space, Time, Energy, and Mass: Empirical Validation of the Computational Unified Field Theory*. *Proceedings of VIGIER IX Conference – Unified Mechanics: Natural Science Beyond the Veil of Spacetime*, Baltimore, Maryland.
9. Bentwich, J. (2015a). *On the Geometry of Space, Time, Energy & Mass: Empirical Validation of the Computational Unified Field Theory*. *Proceedings of Vigier IX – Unified Mechanics: Natural Science Beyond the Veil of Spacetime* (Baltimore, Maryland).
10. Bentwich, J. (2015b) *The Computational Unified Field Theory: Could 'Dark Matter' & 'Dark Energy' be "Superfluous"?* In Press, *Journal of Modern Physics*.
11. Bentwich, J. (2015c) *The Computational Unified Field Theory: Explaining the Universe from "Without"*. In Press, *Journal of Modern Physics*.
12. Bentwich, J. (2015d). *The Computational Unified Field Theory: A New 'A-Causal Computation' Physics*: In Press, *Journal of Modern Physics*.
13. Bernauer & Pohl (2014). *The Proton Radius Puzzle*. *Scientific American*, 310 (2), p. 20-24.
14. Born, M. (1954). *The statistical interpretation of quantum mechanics*, Nobel Lecture, December 11,



15. Brumfiel, G. (2006). Our Universe: Outrageous fortune. *Nature*, Vol. 439, pp. (10-12).
16. Ellis, J. The Superstring: Theory of Everything, or of Nothing? *Nature*, Vol. 323, No.089, pp. (595–598) (1986).
17. Giacosa, Francesco (2014). "On unitary evolution and collapse in quantum mechanics". *Quanta* 3 (1): 156–170. doi:10.12743/quanta.v3i1.26.
18. Greene, B. *The Elegant Universe*, Vintage Books, New York (2003).
19. Heisenberg, W. Über den anschaulichen Inhalt der quantentheoretischen Kinematik und Mechanik. *Zeitschrift für Physik*, Vol. 43 No. 3–4, pp. (172–198) (1927).
20. Horodecki, R.; Horodecki, P.; Horodecki, M. & Horodecki, K. Quantum entanglement. *Rev. Mod. Phys*, Vol. 81, No. 2, pp. (865–942) (2007).
21. J. von Neumann (1932). *Mathematische Grundlagen der Quantenmechanik* (in German). Berlin: Springer.
22. J. von Neumann (1955). *Mathematical Foundations of Quantum Mechanics*. Princeton University Press.
23. Kuhn, Thomas S. (1962). *The Structure of Scientific Revolutions* (1st ed.). University of Chicago Press. p. 172. LCCN 62019621
24. "Ockham's razor". *Encyclopædia Britannica*. *Encyclopædia Britannica Online*. <http://www.britannica.com/EBchecked/topic/424706/Ockhams-razor>. Retrieved 12 June 2010.
25. Polchinski, J. All Strung Out? *American Scientist*, January-February 2007 Volume 95, Number 1 (2007).

# GLOBAL JOURNALS GUIDELINES HANDBOOK 2018

---

[WWW.GLOBALJOURNALS.ORG](http://WWW.GLOBALJOURNALS.ORG)

# FELLOWS

## FELLOW OF ASSOCIATION OF RESEARCH SOCIETY IN SCIENCE (FARSS)

Global Journals Incorporate (USA) is accredited by Open Association of Research Society (OARS), U.S.A and in turn, awards “FARSS” title to individuals. The 'FARSS' title is accorded to a selected professional after the approval of the Editor-in-Chief/Editorial Board Members/Dean.



- The “FARSS” is a dignified title which is accorded to a person’s name viz. Dr. John E. Hall, Ph.D., FARSS or William Walldroff, M.S., FARSS.

FARSS accrediting is an honor. It authenticates your research activities. After recognition as FARSB, you can add 'FARSS' title with your name as you use this recognition as additional suffix to your status. This will definitely enhance and add more value and repute to your name. You may use it on your professional Counseling Materials such as CV, Resume, and Visiting Card etc.

*The following benefits can be availed by you only for next three years from the date of certification:*



FARSS designated members are entitled to avail a 40% discount while publishing their research papers (of a single author) with Global Journals Incorporation (USA), if the same is accepted by Editorial Board/Peer Reviewers. If you are a main author or co-author in case of multiple authors, you will be entitled to avail discount of 10%.

Once FARSB title is accorded, the Fellow is authorized to organize a symposium/seminar/conference on behalf of Global Journal Incorporation (USA). The Fellow can also participate in conference/seminar/symposium organized by another institution as representative of Global Journal. In both the cases, it is mandatory for him to discuss with us and obtain our consent.



You may join as member of the Editorial Board of Global Journals Incorporation (USA) after successful completion of three years as Fellow and as Peer Reviewer. In addition, it is also desirable that you should organize seminar/symposium/conference at least once.

We shall provide you intimation regarding launching of e-version of journal of your stream time to time. This may be utilized in your library for the enrichment of knowledge of your students as well as it can also be helpful for the concerned faculty members.





The FARSS can go through standards of OARS. You can also play vital role if you have any suggestions so that proper amendment can take place to improve the same for the benefit of entire research community.

As FARSS, you will be given a renowned, secure and free professional email address with 100 GB of space e.g. [johnhall@globaljournals.org](mailto:johnhall@globaljournals.org). This will include Webmail, Spam Assassin, Email Forwarders, Auto-Responders, Email Delivery Route tracing, etc.



The FARSS will be eligible for a free application of standardization of their researches. Standardization of research will be subject to acceptability within stipulated norms as the next step after publishing in a journal. We shall depute a team of specialized research professionals who will render their services for elevating your researches to next higher level, which is worldwide open standardization.

The FARSS member can apply for grading and certification of standards of their educational and Institutional Degrees to Open Association of Research, Society U.S.A. Once you are designated as FARSS, you may send us a scanned copy of all of your credentials. OARS will verify, grade and certify them. This will be based on your academic records, quality of research papers published by you, and some more criteria. After certification of all your credentials by OARS, they will be published on your Fellow Profile link on website <https://associationofresearch.org> which will be helpful to upgrade the dignity.



The FARSS members can avail the benefits of free research podcasting in Global Research Radio with their research documents. After publishing the work, (including published elsewhere worldwide with proper authorization) you can upload your research paper with your recorded voice or you can utilize chargeable services of our professional RJs to record your paper in their voice on request.



The FARSS member also entitled to get the benefits of free research podcasting of their research documents through video clips. We can also streamline your conference videos and display your slides/ online slides and online research video clips at reasonable charges, on request.





The FARSS is eligible to earn from sales proceeds of his/her researches/reference/review Books or literature, while publishing with Global Journals. The FARSS can decide whether he/she would like to publish his/her research in a closed manner. In this case, whenever readers purchase that individual research paper for reading, maximum 60% of its profit earned as royalty by Global Journals, will be credited to his/her bank account. The entire entitled amount will be credited to his/her bank account exceeding limit of minimum fixed balance. There is no minimum time limit for collection. The FARSS member can decide its price and we can help in making the right decision.

The FARSS member is eligible to join as a paid peer reviewer at Global Journals Incorporation (USA) and can get remuneration of 15% of author fees, taken from the author of a respective paper. After reviewing 5 or more papers you can request to transfer the amount to your bank account.



## MEMBER OF ASSOCIATION OF RESEARCH SOCIETY IN SCIENCE (MARSS)

The ' MARSS ' title is accorded to a selected professional after the approval of the Editor-in-Chief / Editorial Board Members/Dean.

The “MARSS” is a dignified ornament which is accorded to a person’s name viz. Dr. John E. Hall, Ph.D., MARSS or William Walldroff, M.S., MARSS.



MARSS accrediting is an honor. It authenticates your research activities. After becoming MARSS, you can add 'MARSS' title with your name as you use this recognition as additional suffix to your status. This will definitely enhance and add more value and repute to your name. You may use it on your professional Counseling Materials such as CV, Resume, Visiting Card and Name Plate etc.

*The following benefits can be availed by you only for next three years from the date of certification.*



MARSS designated members are entitled to avail a 25% discount while publishing their research papers (of a single author) in Global Journals Inc., if the same is accepted by our Editorial Board and Peer Reviewers. If you are a main author or co-author of a group of authors, you will get discount of 10%.

As MARSS, you will be given a renowned, secure and free professional email address with 30 GB of space e.g. [johnhall@globaljournals.org](mailto:johnhall@globaljournals.org). This will include Webmail, Spam Assassin, Email Forwarders, Auto-Responders, Email Delivery Route tracing, etc.







We shall provide you intimation regarding launching of e-version of journal of your stream time to time. This may be utilized in your library for the enrichment of knowledge of your students as well as it can also be helpful for the concerned faculty members.

The MARSS member can apply for approval, grading and certification of standards of their educational and Institutional Degrees to Open Association of Research, Society U.S.A.



Once you are designated as MARSS, you may send us a scanned copy of all of your credentials. OARS will verify, grade and certify them. This will be based on your academic records, quality of research papers published by you, and some more criteria.

It is mandatory to read all terms and conditions carefully.



## AUXILIARY MEMBERSHIPS

### Institutional Fellow of Global Journals Incorporation (USA)-OARS (USA)

Global Journals Incorporation (USA) is accredited by Open Association of Research Society, U.S.A (OARS) and in turn, affiliates research institutions as “Institutional Fellow of Open Association of Research Society” (IFOARS).

The “FARSC” is a dignified title which is accorded to a person’s name viz. Dr. John E. Hall, Ph.D., FARSC or William Walldroff, M.S., FARSC.



The IFOARS institution is entitled to form a Board comprised of one Chairperson and three to five board members preferably from different streams. The Board will be recognized as “Institutional Board of Open Association of Research Society”-(IBOARS).

*The Institute will be entitled to following benefits:*



The IBOARS can initially review research papers of their institute and recommend them to publish with respective journal of Global Journals. It can also review the papers of other institutions after obtaining our consent. The second review will be done by peer reviewer of Global Journals Incorporation (USA). The Board is at liberty to appoint a peer reviewer with the approval of chairperson after consulting us.

The author fees of such paper may be waived off up to 40%.

The Global Journals Incorporation (USA) at its discretion can also refer double blind peer reviewed paper at their end to the board for the verification and to get recommendation for final stage of acceptance of publication.



The IBOARS can organize symposium/seminar/conference in their country on behalf of Global Journals Incorporation (USA)-OARS (USA). The terms and conditions can be discussed separately.

The Board can also play vital role by exploring and giving valuable suggestions regarding the Standards of “Open Association of Research Society, U.S.A (OARS)” so that proper amendment can take place for the benefit of entire research community. We shall provide details of particular standard only on receipt of request from the Board.



Journals Research  
inducing researches

The board members can also join us as Individual Fellow with 40% discount on total fees applicable to Individual Fellow. They will be entitled to avail all the benefits as declared. Please visit Individual Fellow-sub menu of GlobalJournals.org to have more relevant details.



We shall provide you intimation regarding launching of e-version of journal of your stream time to time. This may be utilized in your library for the enrichment of knowledge of your students as well as it can also be helpful for the concerned faculty members.



After nomination of your institution as “Institutional Fellow” and constantly functioning successfully for one year, we can consider giving recognition to your institute to function as Regional/Zonal office on our behalf.

The board can also take up the additional allied activities for betterment after our consultation.

### **The following entitlements are applicable to individual Fellows:**

Open Association of Research Society, U.S.A (OARS) By-laws states that an individual Fellow may use the designations as applicable, or the corresponding initials. The Credentials of individual Fellow and Associate designations signify that the individual has gained knowledge of the fundamental concepts. One is magnanimous and proficient in an expertise course covering the professional code of conduct, and follows recognized standards of practice.



Open Association of Research Society (US)/ Global Journals Incorporation (USA), as described in Corporate Statements, are educational, research publishing and professional membership organizations. Achieving our individual Fellow or Associate status is based mainly on meeting stated educational research requirements.

Disbursement of 40% Royalty earned through Global Journals : Researcher = 50%, Peer Reviewer = 37.50%, Institution = 12.50% E.g. Out of 40%, the 20% benefit should be passed on to researcher, 15 % benefit towards remuneration should be given to a reviewer and remaining 5% is to be retained by the institution.



We shall provide print version of 12 issues of any three journals [as per your requirement] out of our 38 journals worth \$ 2376 USD.

### **Other:**

**The individual Fellow and Associate designations accredited by Open Association of Research Society (US) credentials signify guarantees following achievements:**

- The professional accredited with Fellow honor, is entitled to various benefits viz. name, fame, honor, regular flow of income, secured bright future, social status etc.



- In addition to above, if one is single author, then entitled to 40% discount on publishing research paper and can get 10% discount if one is co-author or main author among group of authors.
- The Fellow can organize symposium/seminar/conference on behalf of Global Journals Incorporation (USA) and he/she can also attend the same organized by other institutes on behalf of Global Journals.
- The Fellow can become member of Editorial Board Member after completing 3yrs.
- The Fellow can earn 60% of sales proceeds from the sale of reference/review books/literature/publishing of research paper.
- Fellow can also join as paid peer reviewer and earn 15% remuneration of author charges and can also get an opportunity to join as member of the Editorial Board of Global Journals Incorporation (USA)
- • This individual has learned the basic methods of applying those concepts and techniques to common challenging situations. This individual has further demonstrated an in-depth understanding of the application of suitable techniques to a particular area of research practice.

## Note :

//

- In future, if the board feels the necessity to change any board member, the same can be done with the consent of the chairperson along with anyone board member without our approval.
- In case, the chairperson needs to be replaced then consent of 2/3rd board members are required and they are also required to jointly pass the resolution copy of which should be sent to us. In such case, it will be compulsory to obtain our approval before replacement.
- In case of “Difference of Opinion [if any]” among the Board members, our decision will be final and binding to everyone.

//



# PREFERRED AUTHOR GUIDELINES

**We accept the manuscript submissions in any standard (generic) format.**

We typeset manuscripts using advanced typesetting tools like Adobe In Design, CorelDraw, TeXnicCenter, and TeXStudio. We usually recommend authors submit their research using any standard format they are comfortable with, and let Global Journals do the rest.

Alternatively, you can download our basic template from <https://globaljournals.org/Template.zip>

Authors should submit their complete paper/article, including text illustrations, graphics, conclusions, artwork, and tables. Authors who are not able to submit manuscript using the form above can email the manuscript department at [submit@globaljournals.org](mailto:submit@globaljournals.org) or get in touch with [chiefeditor@globaljournals.org](mailto:chiefeditor@globaljournals.org) if they wish to send the abstract before submission.

## BEFORE AND DURING SUBMISSION

Authors must ensure the information provided during the submission of a paper is authentic. Please go through the following checklist before submitting:

1. Authors must go through the complete author guideline and understand and *agree to Global Journals' ethics and code of conduct*, along with author responsibilities.
2. Authors must accept the privacy policy, terms, and conditions of Global Journals.
3. Ensure corresponding author's email address and postal address are accurate and reachable.
4. Manuscript to be submitted must include keywords, an abstract, a paper title, co-author(s) names and details (email address, name, phone number, and institution), figures and illustrations in vector format including appropriate captions, tables, including titles and footnotes, a conclusion, results, acknowledgments and references.
5. Authors should submit paper in a ZIP archive if any supplementary files are required along with the paper.
6. Proper permissions must be acquired for the use of any copyrighted material.
7. Manuscript submitted *must not have been submitted or published elsewhere* and all authors must be aware of the submission.

## Declaration of Conflicts of Interest

It is required for authors to declare all financial, institutional, and personal relationships with other individuals and organizations that could influence (bias) their research.

## POLICY ON PLAGIARISM

Plagiarism is not acceptable in Global Journals submissions at all.

Plagiarized content will not be considered for publication. We reserve the right to inform authors' institutions about plagiarism detected either before or after publication. If plagiarism is identified, we will follow COPE guidelines:

Authors are solely responsible for all the plagiarism that is found. The author must not fabricate, falsify or plagiarize existing research data. The following, if copied, will be considered plagiarism:

- Words (language)
- Ideas
- Findings
- Writings
- Diagrams
- Graphs
- Illustrations
- Lectures





- Printed material
- Graphic representations
- Computer programs
- Electronic material
- Any other original work

## AUTHORSHIP POLICIES

Global Journals follows the definition of authorship set up by the Open Association of Research Society, USA. According to its guidelines, authorship criteria must be based on:

1. Substantial contributions to the conception and acquisition of data, analysis, and interpretation of findings.
2. Drafting the paper and revising it critically regarding important academic content.
3. Final approval of the version of the paper to be published.

### Changes in Authorship

The corresponding author should mention the name and complete details of all co-authors during submission and in manuscript. We support addition, rearrangement, manipulation, and deletions in authors list till the early view publication of the journal. We expect that corresponding author will notify all co-authors of submission. We follow COPE guidelines for changes in authorship.

### Copyright

During submission of the manuscript, the author is confirming an exclusive license agreement with Global Journals which gives Global Journals the authority to reproduce, reuse, and republish authors' research. We also believe in flexible copyright terms where copyright may remain with authors/employers/institutions as well. Contact your editor after acceptance to choose your copyright policy. You may follow this form for copyright transfers.

### Appealing Decisions

Unless specified in the notification, the Editorial Board's decision on publication of the paper is final and cannot be appealed before making the major change in the manuscript.

### Acknowledgments

Contributors to the research other than authors credited should be mentioned in Acknowledgments. The source of funding for the research can be included. Suppliers of resources may be mentioned along with their addresses.

### Declaration of funding sources

Global Journals is in partnership with various universities, laboratories, and other institutions worldwide in the research domain. Authors are requested to disclose their source of funding during every stage of their research, such as making analysis, performing laboratory operations, computing data, and using institutional resources, from writing an article to its submission. This will also help authors to get reimbursements by requesting an open access publication letter from Global Journals and submitting to the respective funding source.

## PREPARING YOUR MANUSCRIPT

Authors can submit papers and articles in an acceptable file format: MS Word (doc, docx), LaTeX (.tex, .zip or .rar including all of your files), Adobe PDF (.pdf), rich text format (.rtf), simple text document (.txt), Open Document Text (.odt), and Apple Pages (.pages). Our professional layout editors will format the entire paper according to our official guidelines. This is one of the highlights of publishing with Global Journals—authors should not be concerned about the formatting of their paper. Global Journals accepts articles and manuscripts in every major language, be it Spanish, Chinese, Japanese, Portuguese, Russian, French, German, Dutch, Italian, Greek, or any other national language, but the title, subtitle, and abstract should be in English. This will facilitate indexing and the pre-peer review process.

The following is the official style and template developed for publication of a research paper. Authors are not required to follow this style during the submission of the paper. It is just for reference purposes.



### ***Manuscript Style Instruction (Optional)***

- Microsoft Word Document Setting Instructions.
- Font type of all text should be Swis721 Lt BT.
- Page size: 8.27" x 11", left margin: 0.65, right margin: 0.65, bottom margin: 0.75.
- Paper title should be in one column of font size 24.
- Author name in font size of 11 in one column.
- Abstract: font size 9 with the word "Abstract" in bold italics.
- Main text: font size 10 with two justified columns.
- Two columns with equal column width of 3.38 and spacing of 0.2.
- First character must be three lines drop-capped.
- The paragraph before spacing of 1 pt and after of 0 pt.
- Line spacing of 1 pt.
- Large images must be in one column.
- The names of first main headings (Heading 1) must be in Roman font, capital letters, and font size of 10.
- The names of second main headings (Heading 2) must not include numbers and must be in italics with a font size of 10.

### ***Structure and Format of Manuscript***

The recommended size of an original research paper is under 15,000 words and review papers under 7,000 words. Research articles should be less than 10,000 words. Research papers are usually longer than review papers. Review papers are reports of significant research (typically less than 7,000 words, including tables, figures, and references)

A research paper must include:

- a) A title which should be relevant to the theme of the paper.
- b) A summary, known as an abstract (less than 150 words), containing the major results and conclusions.
- c) Up to 10 keywords that precisely identify the paper's subject, purpose, and focus.
- d) An introduction, giving fundamental background objectives.
- e) Resources and techniques with sufficient complete experimental details (wherever possible by reference) to permit repetition, sources of information must be given, and numerical methods must be specified by reference.
- f) Results which should be presented concisely by well-designed tables and figures.
- g) Suitable statistical data should also be given.
- h) All data must have been gathered with attention to numerical detail in the planning stage.

Design has been recognized to be essential to experiments for a considerable time, and the editor has decided that any paper that appears not to have adequate numerical treatments of the data will be returned unrefereed.

- i) Discussion should cover implications and consequences and not just recapitulate the results; conclusions should also be summarized.
- j) There should be brief acknowledgments.
- k) There ought to be references in the conventional format. Global Journals recommends APA format.

Authors should carefully consider the preparation of papers to ensure that they communicate effectively. Papers are much more likely to be accepted if they are carefully designed and laid out, contain few or no errors, are summarizing, and follow instructions. They will also be published with much fewer delays than those that require much technical and editorial correction.

The Editorial Board reserves the right to make literary corrections and suggestions to improve brevity.



## FORMAT STRUCTURE

***It is necessary that authors take care in submitting a manuscript that is written in simple language and adheres to published guidelines.***

All manuscripts submitted to Global Journals should include:

### **Title**

The title page must carry an informative title that reflects the content, a running title (less than 45 characters together with spaces), names of the authors and co-authors, and the place(s) where the work was carried out.

### **Author details**

The full postal address of any related author(s) must be specified.

### **Abstract**

The abstract is the foundation of the research paper. It should be clear and concise and must contain the objective of the paper and inferences drawn. It is advised to not include big mathematical equations or complicated jargon.

Many researchers searching for information online will use search engines such as Google, Yahoo or others. By optimizing your paper for search engines, you will amplify the chance of someone finding it. In turn, this will make it more likely to be viewed and cited in further works. Global Journals has compiled these guidelines to facilitate you to maximize the web-friendliness of the most public part of your paper.

### **Keywords**

A major lynchpin of research work for the writing of research papers is the keyword search, which one will employ to find both library and internet resources. Up to eleven keywords or very brief phrases have to be given to help data retrieval, mining, and indexing.

One must be persistent and creative in using keywords. An effective keyword search requires a strategy: planning of a list of possible keywords and phrases to try.

Choice of the main keywords is the first tool of writing a research paper. Research paper writing is an art. Keyword search should be as strategic as possible.

One should start brainstorming lists of potential keywords before even beginning searching. Think about the most important concepts related to research work. Ask, "What words would a source have to include to be truly valuable in a research paper?" Then consider synonyms for the important words.

It may take the discovery of only one important paper to steer in the right keyword direction because, in most databases, the keywords under which a research paper is abstracted are listed with the paper.

### **Numerical Methods**

Numerical methods used should be transparent and, where appropriate, supported by references.

### **Abbreviations**

Authors must list all the abbreviations used in the paper at the end of the paper or in a separate table before using them.

### **Formulas and equations**

Authors are advised to submit any mathematical equation using either MathJax, KaTeX, or LaTeX, or in a very high-quality image.

### **Tables, Figures, and Figure Legends**

Tables: Tables should be cautiously designed, uncrowned, and include only essential data. Each must have an Arabic number, e.g., Table 4, a self-explanatory caption, and be on a separate sheet. Authors must submit tables in an editable format and not as images. References to these tables (if any) must be mentioned accurately.



## Figures

Figures are supposed to be submitted as separate files. Always include a citation in the text for each figure using Arabic numbers, e.g., Fig. 4. Artwork must be submitted online in vector electronic form or by emailing it.

## PREPARATION OF ELETRONIC FIGURES FOR PUBLICATION

Although low-quality images are sufficient for review purposes, print publication requires high-quality images to prevent the final product being blurred or fuzzy. Submit (possibly by e-mail) EPS (line art) or TIFF (halftone/ photographs) files only. MS PowerPoint and Word Graphics are unsuitable for printed pictures. Avoid using pixel-oriented software. Scans (TIFF only) should have a resolution of at least 350 dpi (halftone) or 700 to 1100 dpi (line drawings). Please give the data for figures in black and white or submit a Color Work Agreement form. EPS files must be saved with fonts embedded (and with a TIFF preview, if possible).

For scanned images, the scanning resolution at final image size ought to be as follows to ensure good reproduction: line art: >650 dpi; halftones (including gel photographs): >350 dpi; figures containing both halftone and line images: >650 dpi.

Color charges: Authors are advised to pay the full cost for the reproduction of their color artwork. Hence, please note that if there is color artwork in your manuscript when it is accepted for publication, we would require you to complete and return a Color Work Agreement form before your paper can be published. Also, you can email your editor to remove the color fee after acceptance of the paper.

## TIPS FOR WRITING A GOOD QUALITY SCIENCE FRONTIER RESEARCH PAPER

Techniques for writing a good quality Science Frontier Research paper:

**1. Choosing the topic:** In most cases, the topic is selected by the interests of the author, but it can also be suggested by the guides. You can have several topics, and then judge which you are most comfortable with. This may be done by asking several questions of yourself, like "Will I be able to carry out a search in this area? Will I find all necessary resources to accomplish the search? Will I be able to find all information in this field area?" If the answer to this type of question is "yes," then you ought to choose that topic. In most cases, you may have to conduct surveys and visit several places. Also, you might have to do a lot of work to find all the rises and falls of the various data on that subject. Sometimes, detailed information plays a vital role, instead of short information. Evaluators are human: The first thing to remember is that evaluators are also human beings. They are not only meant for rejecting a paper. They are here to evaluate your paper. So present your best aspect.

**2. Think like evaluators:** If you are in confusion or getting demotivated because your paper may not be accepted by the evaluators, then think, and try to evaluate your paper like an evaluator. Try to understand what an evaluator wants in your research paper, and you will automatically have your answer. Make blueprints of paper: The outline is the plan or framework that will help you to arrange your thoughts. It will make your paper logical. But remember that all points of your outline must be related to the topic you have chosen.

**3. Ask your guides:** If you are having any difficulty with your research, then do not hesitate to share your difficulty with your guide (if you have one). They will surely help you out and resolve your doubts. If you can't clarify what exactly you require for your work, then ask your supervisor to help you with an alternative. He or she might also provide you with a list of essential readings.

**4. Use of computer is recommended:** As you are doing research in the field of science frontier then this point is quite obvious. Use right software: Always use good quality software packages. If you are not capable of judging good software, then you can lose the quality of your paper unknowingly. There are various programs available to help you which you can get through the internet.

**5. Use the internet for help:** An excellent start for your paper is using Google. It is a wondrous search engine, where you can have your doubts resolved. You may also read some answers for the frequent question of how to write your research paper or find a model research paper. You can download books from the internet. If you have all the required books, place importance on reading, selecting, and analyzing the specified information. Then sketch out your research paper. Use big pictures: You may use encyclopedias like Wikipedia to get pictures with the best resolution. At Global Journals, you should strictly follow here.



**6. Bookmarks are useful:** When you read any book or magazine, you generally use bookmarks, right? It is a good habit which helps to not lose your continuity. You should always use bookmarks while searching on the internet also, which will make your search easier.

**7. Revise what you wrote:** When you write anything, always read it, summarize it, and then finalize it.

**8. Make every effort:** Make every effort to mention what you are going to write in your paper. That means always have a good start. Try to mention everything in the introduction—what is the need for a particular research paper. Polish your work with good writing skills and always give an evaluator what he wants. Make backups: When you are going to do any important thing like making a research paper, you should always have backup copies of it either on your computer or on paper. This protects you from losing any portion of your important data.

**9. Produce good diagrams of your own:** Always try to include good charts or diagrams in your paper to improve quality. Using several unnecessary diagrams will degrade the quality of your paper by creating a hodgepodge. So always try to include diagrams which were made by you to improve the readability of your paper. Use of direct quotes: When you do research relevant to literature, history, or current affairs, then use of quotes becomes essential, but if the study is relevant to science, use of quotes is not preferable.

**10. Use proper verb tense:** Use proper verb tenses in your paper. Use past tense to present those events that have happened. Use present tense to indicate events that are going on. Use future tense to indicate events that will happen in the future. Use of wrong tenses will confuse the evaluator. Avoid sentences that are incomplete.

**11. Pick a good study spot:** Always try to pick a spot for your research which is quiet. Not every spot is good for studying.

**12. Know what you know:** Always try to know what you know by making objectives, otherwise you will be confused and unable to achieve your target.

**13. Use good grammar:** Always use good grammar and words that will have a positive impact on the evaluator; use of good vocabulary does not mean using tough words which the evaluator has to find in a dictionary. Do not fragment sentences. Eliminate one-word sentences. Do not ever use a big word when a smaller one would suffice.

Verbs have to be in agreement with their subjects. In a research paper, do not start sentences with conjunctions or finish them with prepositions. When writing formally, it is advisable to never split an infinitive because someone will (wrongly) complain. Avoid clichés like a disease. Always shun irritating alliteration. Use language which is simple and straightforward. Put together a neat summary.

**14. Arrangement of information:** Each section of the main body should start with an opening sentence, and there should be a changeover at the end of the section. Give only valid and powerful arguments for your topic. You may also maintain your arguments with records.

**15. Never start at the last minute:** Always allow enough time for research work. Leaving everything to the last minute will degrade your paper and spoil your work.

**16. Multitasking in research is not good:** Doing several things at the same time is a bad habit in the case of research activity. Research is an area where everything has a particular time slot. Divide your research work into parts, and do a particular part in a particular time slot.

**17. Never copy others' work:** Never copy others' work and give it your name because if the evaluator has seen it anywhere, you will be in trouble. Take proper rest and food: No matter how many hours you spend on your research activity, if you are not taking care of your health, then all your efforts will have been in vain. For quality research, take proper rest and food.

**18. Go to seminars:** Attend seminars if the topic is relevant to your research area. Utilize all your resources.

**19. Refresh your mind after intervals:** Try to give your mind a rest by listening to soft music or sleeping in intervals. This will also improve your memory. Acquire colleagues: Always try to acquire colleagues. No matter how sharp you are, if you acquire colleagues, they can give you ideas which will be helpful to your research.





**20. Think technically:** Always think technically. If anything happens, search for its reasons, benefits, and demerits. Think and then print: When you go to print your paper, check that tables are not split, headings are not detached from their descriptions, and page sequence is maintained.

**21. Adding unnecessary information:** Do not add unnecessary information like "I have used MS Excel to draw graphs." Irrelevant and inappropriate material is superfluous. Foreign terminology and phrases are not apropos. One should never take a broad view. Analogy is like feathers on a snake. Use words properly, regardless of how others use them. Remove quotations. Puns are for kids, not grunt readers. Never oversimplify: When adding material to your research paper, never go for oversimplification; this will definitely irritate the evaluator. Be specific. Never use rhythmic redundancies. Contractions shouldn't be used in a research paper. Comparisons are as terrible as clichés. Give up ampersands, abbreviations, and so on. Remove commas that are not necessary. Parenthetical words should be between brackets or commas. Understatement is always the best way to put forward earth-shaking thoughts. Give a detailed literary review.

**22. Report concluded results:** Use concluded results. From raw data, filter the results, and then conclude your studies based on measurements and observations taken. An appropriate number of decimal places should be used. Parenthetical remarks are prohibited here. Proofread carefully at the final stage. At the end, give an outline to your arguments. Spot perspectives of further study of the subject. Justify your conclusion at the bottom sufficiently, which will probably include examples.

**23. Upon conclusion:** Once you have concluded your research, the next most important step is to present your findings. Presentation is extremely important as it is the definite medium through which your research is going to be in print for the rest of the crowd. Care should be taken to categorize your thoughts well and present them in a logical and neat manner. A good quality research paper format is essential because it serves to highlight your research paper and bring to light all necessary aspects of your research.

## INFORMAL GUIDELINES OF RESEARCH PAPER WRITING

### Key points to remember:

- Submit all work in its final form.
- Write your paper in the form which is presented in the guidelines using the template.
- Please note the criteria peer reviewers will use for grading the final paper.

### Final points:

One purpose of organizing a research paper is to let people interpret your efforts selectively. The journal requires the following sections, submitted in the order listed, with each section starting on a new page:

*The introduction:* This will be compiled from reference matter and reflect the design processes or outline of basis that directed you to make a study. As you carry out the process of study, the method and process section will be constructed like that. The results segment will show related statistics in nearly sequential order and direct reviewers to similar intellectual paths throughout the data that you gathered to carry out your study.

### The discussion section:

This will provide understanding of the data and projections as to the implications of the results. The use of good quality references throughout the paper will give the effort trustworthiness by representing an alertness to prior workings.

Writing a research paper is not an easy job, no matter how trouble-free the actual research or concept. Practice, excellent preparation, and controlled record-keeping are the only means to make straightforward progression.

### General style:

Specific editorial column necessities for compliance of a manuscript will always take over from directions in these general guidelines.

**To make a paper clear:** Adhere to recommended page limits.



### *Mistakes to avoid:*

- Insertion of a title at the foot of a page with subsequent text on the next page.
- Separating a table, chart, or figure—confine each to a single page.
- Submitting a manuscript with pages out of sequence.
- In every section of your document, use standard writing style, including articles ("a" and "the").
- Keep paying attention to the topic of the paper.
- Use paragraphs to split each significant point (excluding the abstract).
- Align the primary line of each section.
- Present your points in sound order.
- Use present tense to report well-accepted matters.
- Use past tense to describe specific results.
- Do not use familiar wording; don't address the reviewer directly. Don't use slang or superlatives.
- Avoid use of extra pictures—include only those figures essential to presenting results.

### **Title page:**

Choose a revealing title. It should be short and include the name(s) and address(es) of all authors. It should not have acronyms or abbreviations or exceed two printed lines.

**Abstract:** This summary should be two hundred words or less. It should clearly and briefly explain the key findings reported in the manuscript and must have precise statistics. It should not have acronyms or abbreviations. It should be logical in itself. Do not cite references at this point.

An abstract is a brief, distinct paragraph summary of finished work or work in development. In a minute or less, a reviewer can be taught the foundation behind the study, common approaches to the problem, relevant results, and significant conclusions or new questions.

Write your summary when your paper is completed because how can you write the summary of anything which is not yet written? Wealth of terminology is very essential in abstract. Use comprehensive sentences, and do not sacrifice readability for brevity; you can maintain it succinctly by phrasing sentences so that they provide more than a lone rationale. The author can at this moment go straight to shortening the outcome. Sum up the study with the subsequent elements in any summary. Try to limit the initial two items to no more than one line each.

*Reason for writing the article—theory, overall issue, purpose.*

- Fundamental goal.
- To-the-point depiction of the research.
- Consequences, including definite statistics—if the consequences are quantitative in nature, account for this; results of any numerical analysis should be reported. Significant conclusions or questions that emerge from the research.

### **Approach:**

- Single section and succinct.
- An outline of the job done is always written in past tense.
- Concentrate on shortening results—limit background information to a verdict or two.
- Exact spelling, clarity of sentences and phrases, and appropriate reporting of quantities (proper units, important statistics) are just as significant in an abstract as they are anywhere else.

### **Introduction:**

The introduction should "introduce" the manuscript. The reviewer should be presented with sufficient background information to be capable of comprehending and calculating the purpose of your study without having to refer to other works. The basis for the study should be offered. Give the most important references, but avoid making a comprehensive appraisal of the topic. Describe the problem visibly. If the problem is not acknowledged in a logical, reasonable way, the reviewer will give no attention to your results. Speak in common terms about techniques used to explain the problem, if needed, but do not present any particulars about the protocols here.



*The following approach can create a valuable beginning:*

- Explain the value (significance) of the study.
- Defend the model—why did you employ this particular system or method? What is its compensation? Remark upon its appropriateness from an abstract point of view as well as pointing out sensible reasons for using it.
- Present a justification. State your particular theory(-ies) or aim(s), and describe the logic that led you to choose them.
- Briefly explain the study's tentative purpose and how it meets the declared objectives.

#### **Approach:**

Use past tense except for when referring to recognized facts. After all, the manuscript will be submitted after the entire job is done. Sort out your thoughts; manufacture one key point for every section. If you make the four points listed above, you will need at least four paragraphs. Present surrounding information only when it is necessary to support a situation. The reviewer does not desire to read everything you know about a topic. Shape the theory specifically—do not take a broad view.

As always, give awareness to spelling, simplicity, and correctness of sentences and phrases.

#### **Procedures (methods and materials):**

This part is supposed to be the easiest to carve if you have good skills. A soundly written procedures segment allows a capable scientist to replicate your results. Present precise information about your supplies. The suppliers and clarity of reagents can be helpful bits of information. Present methods in sequential order, but linked methodologies can be grouped as a segment. Be concise when relating the protocols. Attempt to give the least amount of information that would permit another capable scientist to replicate your outcome, but be cautious that vital information is integrated. The use of subheadings is suggested and ought to be synchronized with the results section.

When a technique is used that has been well-described in another section, mention the specific item describing the way, but draw the basic principle while stating the situation. The purpose is to show all particular resources and broad procedures so that another person may use some or all of the methods in one more study or referee the scientific value of your work. It is not to be a step-by-step report of the whole thing you did, nor is a methods section a set of orders.

#### **Materials:**

*Materials may be reported in part of a section or else they may be recognized along with your measures.*

#### **Methods:**

- Report the method and not the particulars of each process that engaged the same methodology.
- Describe the method entirely.
- To be succinct, present methods under headings dedicated to specific dealings or groups of measures.
- Simplify—detail how procedures were completed, not how they were performed on a particular day.
- If well-known procedures were used, account for the procedure by name, possibly with a reference, and that's all.

#### **Approach:**

It is embarrassing to use vigorous voice when documenting methods without using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result, when writing up the methods, most authors use third person passive voice.

Use standard style in this and every other part of the paper—avoid familiar lists, and use full sentences.

#### **What to keep away from:**

- Resources and methods are not a set of information.
- Skip all descriptive information and surroundings—save it for the argument.
- Leave out information that is immaterial to a third party.



**Results:**

The principle of a results segment is to present and demonstrate your conclusion. Create this part as entirely objective details of the outcome, and save all understanding for the discussion.

The page length of this segment is set by the sum and types of data to be reported. Use statistics and tables, if suitable, to present consequences most efficiently.

You must clearly differentiate material which would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matters should not be submitted at all except if requested by the instructor.

**Content:**

- Sum up your conclusions in text and demonstrate them, if suitable, with figures and tables.
- In the manuscript, explain each of your consequences, and point the reader to remarks that are most appropriate.
- Present a background, such as by describing the question that was addressed by creation of an exacting study.
- Explain results of control experiments and give remarks that are not accessible in a prescribed figure or table, if appropriate.
- Examine your data, then prepare the analyzed (transformed) data in the form of a figure (graph), table, or manuscript.

**What to stay away from:**

- Do not discuss or infer your outcome, report surrounding information, or try to explain anything.
- Do not include raw data or intermediate calculations in a research manuscript.
- Do not present similar data more than once.
- A manuscript should complement any figures or tables, not duplicate information.
- Never confuse figures with tables—there is a difference.

**Approach:**

As always, use past tense when you submit your results, and put the whole thing in a reasonable order.

Put figures and tables, appropriately numbered, in order at the end of the report.

If you desire, you may place your figures and tables properly within the text of your results section.

**Figures and tables:**

If you put figures and tables at the end of some details, make certain that they are visibly distinguished from any attached appendix materials, such as raw facts. Whatever the position, each table must be titled, numbered one after the other, and include a heading. All figures and tables must be divided from the text.

**Discussion:**

The discussion is expected to be the trickiest segment to write. A lot of papers submitted to the journal are discarded based on problems with the discussion. There is no rule for how long an argument should be.

Position your understanding of the outcome visibly to lead the reviewer through your conclusions, and then finish the paper with a summing up of the implications of the study. The purpose here is to offer an understanding of your results and support all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of results should be fully described.

Infer your data in the conversation in suitable depth. This means that when you clarify an observable fact, you must explain mechanisms that may account for the observation. If your results vary from your prospect, make clear why that may have happened. If your results agree, then explain the theory that the proof supported. It is never suitable to just state that the data approved the prospect, and let it drop at that. Make a decision as to whether each premise is supported or discarded or if you cannot make a conclusion with assurance. Do not just dismiss a study or part of a study as "uncertain."



Research papers are not acknowledged if the work is imperfect. Draw what conclusions you can based upon the results that you have, and take care of the study as a finished work.

- You may propose future guidelines, such as how an experiment might be personalized to accomplish a new idea.
- Give details of all of your remarks as much as possible, focusing on mechanisms.
- Make a decision as to whether the tentative design sufficiently addressed the theory and whether or not it was correctly restricted. Try to present substitute explanations if they are sensible alternatives.
- One piece of research will not counter an overall question, so maintain the large picture in mind. Where do you go next? The best studies unlock new avenues of study. What questions remain?
- Recommendations for detailed papers will offer supplementary suggestions.

#### **Approach:**

When you refer to information, differentiate data generated by your own studies from other available information. Present work done by specific persons (including you) in past tense.

Describe generally acknowledged facts and main beliefs in present tense.

### THE ADMINISTRATION RULES

Administration Rules to Be Strictly Followed before Submitting Your Research Paper to Global Journals Inc.

*Please read the following rules and regulations carefully before submitting your research paper to Global Journals Inc. to avoid rejection.*

*Segment draft and final research paper:* You have to strictly follow the template of a research paper, failing which your paper may get rejected. You are expected to write each part of the paper wholly on your own. The peer reviewers need to identify your own perspective of the concepts in your own terms. Please do not extract straight from any other source, and do not rephrase someone else's analysis. Do not allow anyone else to proofread your manuscript.

*Written material:* You may discuss this with your guides and key sources. Do not copy anyone else's paper, even if this is only imitation, otherwise it will be rejected on the grounds of plagiarism, which is illegal. Various methods to avoid plagiarism are strictly applied by us to every paper, and, if found guilty, you may be blacklisted, which could affect your career adversely. To guard yourself and others from possible illegal use, please do not permit anyone to use or even read your paper and file.





CRITERION FOR GRADING A RESEARCH PAPER (COMPILATION)  
BY GLOBAL JOURNALS

Please note that following table is only a Grading of "Paper Compilation" and not on "Performed/Stated Research" whose grading solely depends on Individual Assigned Peer Reviewer and Editorial Board Member. These can be available only on request and after decision of Paper. This report will be the property of Global Journals.

Topics	Grades		
	A-B	C-D	E-F
<b>Abstract</b>	Clear and concise with appropriate content, Correct format. 200 words or below	Unclear summary and no specific data, Incorrect form  Above 200 words	No specific data with ambiguous information  Above 250 words
<b>Introduction</b>	Containing all background details with clear goal and appropriate details, flow specification, no grammar and spelling mistake, well organized sentence and paragraph, reference cited	Unclear and confusing data, appropriate format, grammar and spelling errors with unorganized matter	Out of place depth and content, hazy format
<b>Methods and Procedures</b>	Clear and to the point with well arranged paragraph, precision and accuracy of facts and figures, well organized subheads	Difficult to comprehend with embarrassed text, too much explanation but completed	Incorrect and unorganized structure with hazy meaning
<b>Result</b>	Well organized, Clear and specific, Correct units with precision, correct data, well structuring of paragraph, no grammar and spelling mistake	Complete and embarrassed text, difficult to comprehend	Irregular format with wrong facts and figures
<b>Discussion</b>	Well organized, meaningful specification, sound conclusion, logical and concise explanation, highly structured paragraph reference cited	Wordy, unclear conclusion, spurious	Conclusion is not cited, unorganized, difficult to comprehend
<b>References</b>	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring



# INDEX

---

---

## A

Amoeba · 19, 20, 75, 130, 131, 132, 137, 138, 139  
Anschaulichen · 114, 126, 141  
Assertion · 13, 17, 48, 65  
Asymmetry · 28, 29

---

## C

Conundrums · 4

---

## L

Locus · 9, 64

---

## I

Intriguingly · 51, 107

---

## M

Merely · 8, 40, 67, 68, 69, 72, 78, 85, 86, 89, 91, 103, 132, 137  
Minimal · 1, 4, 6, 7, 8, 9, 11, 12, 17, 40,  
Mordechai · 44

---

## N

Nethanel, · 22

---

## S

Schaulicheninhalt · 58  
Shneur · 22  
Sustains · 25, 26, 33, 41, 69, 92, 140

---

## Z

Zeitschriftfür · 58, 114



save our planet



# Global Journal of Science Frontier Research

---

Visit us on the Web at [www.GlobalJournals.org](http://www.GlobalJournals.org) | [www.JournalofScience.org](http://www.JournalofScience.org)  
or email us at [helpdesk@globaljournals.org](mailto:helpdesk@globaljournals.org)

ISSN 9755896



© Global Journals