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

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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.

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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 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.

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)[1-15]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"[18].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 slighter 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

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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 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:

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

such that

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

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:

a) 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').
b) Empirically test another CUFT's 'critical prediction' predicting that "in-between" any two consecutive Universal Frames ($c^2/(2*h) = 1.45^{-42}/2$ 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 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 21st 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)

$$\cdot\frac{c^2}{h} = \frac{s}{t}\left[\cdot\frac{e}{m}\right]$$

References Références Referencias

1. Bentwich J (2016) The 'Computational Unified Field Theory': A Paradigmatic Shift. Research & Reviews. Journal of Pure & Applied Physics.
2. 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.

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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.

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