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# It is Impossible to Create the Universe without Nonlinear Physics

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**Abstract-** The author predicted that if the Black Holes are anti-matter, they must have hyperboloid shape. Shortly after the prediction a Black Hole was photographed and it had hyperboloid shape. The author further explained that two galaxies (or two Black Holes) would merge only if they have opposite magnetic polarity, which can happen only if they spin in opposite directions. Since the anti-vortices spin counterclockwise and create magnetic field off the anti-vortex, they are the ones that create matter. If so, the Black Holes at the center of the galaxies at the first half of their lifespan, when they are actively making new stars, must spin counterclockwise like an anti-vortex. Since all observed merging of Black Holes, galaxies, and galaxy clusters requires opposite magnetic polarities of the mergers, which means spinning in opposite direction, in the second half of their lifespan, the galaxies and the Black Holes at the center of them must spin clockwise (like vortices). Since vortices suck energy, in the second half of the galaxy lifetime, the galaxy's Black Hole will spin clockwise and attract and swallow the old stars to recycle them and turn them into anti-matter, so that with time new stars can be created in perfect order.

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# It is Impossible to Create the Universe without Nonlinear Physics

Prof. Maria Kuman, PhD

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## I. INTRODUCTION

Many physicists refuse to get acquainted with nonlinear physics assuming it must be a lot more difficult and complicated than the linear physics. It is not and considering the importance of nonlinear physics, we must include it in our curriculum and start teaching it. Why is nonlinear physics so important? First, you cannot explain without nonlinear physics how the Universe was created and how it functions [1]. Second, you cannot explain the dynamic of onset of a disease and its cure without nonlinear physics [2]. Third, you cannot describe the dynamic of phase transitions in liquids, solids, or liquid crystals without nonlinear physics [3]. Forth, you cannot describe doped organic polymers without nonlinear physics because the doped polymers are

inhomogeneous media and inhomogeneous media requires nonlinear description [4], etc.

Let us first explain what is nonlinear physics, i.e. what nonlinear physics deals with. Let us introduce some concepts of nonlinear physics, which we would need. The flux of running river-water would be linear, if the bottom of the river is smooth. However, if there is a big stone on the bottom of the river, the water needs to flow around the stone and the water flux becomes nonlinear. Behind the stone, turbulence would be observed manifested with a couple of: vortex spinning clockwise and anti-vortex spinning counterclockwise.

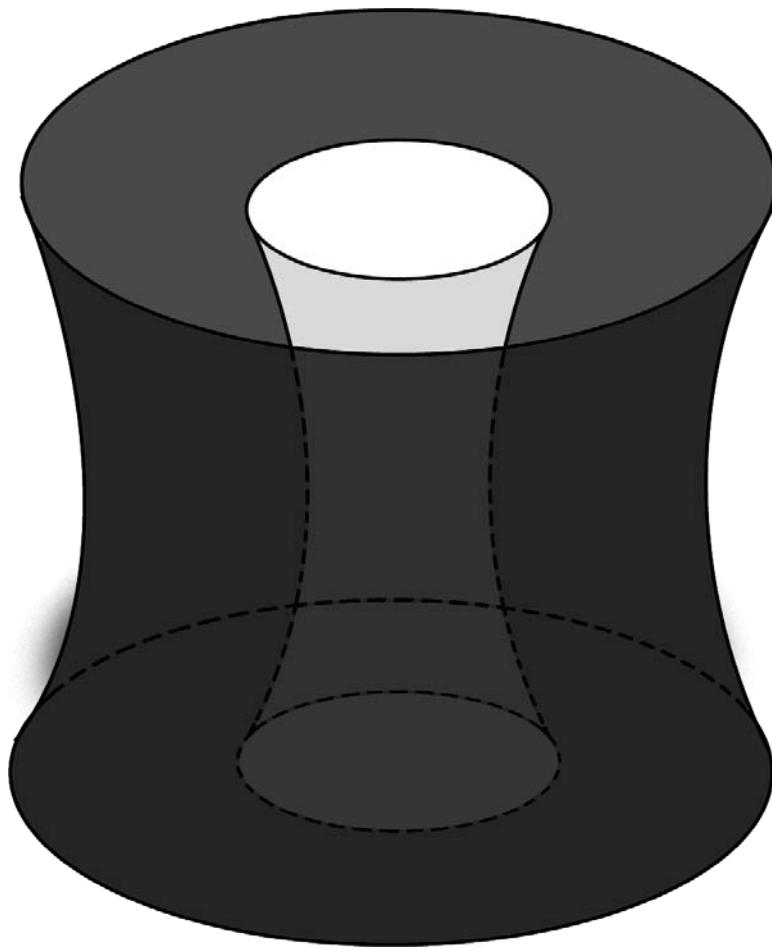
Following the law of the folded fingers of the right hand in physics, when the folded fingers show the direction of the electrical current in a solenoid (or the direction of plasma spinning), the vertical thumb show the direction of the induced magnetic field. Following this law, the vortices (which spin clockwise) would induce magnetic field toward the surface. This would make the vortices to suck energy in. Following the same law, the anti-vortices (which spin counterclockwise) would induce magnetic field off the surface, which would make the anti-vortices to emit energy.

Why is it not possible to describe the dynamic of creation and functioning of our Universe without nonlinear physics? Our Universe is a cluster of galaxies. Finally, our scientists agreed that every galaxy seems to have a Black Hole in the middle. And there should be a good reason why this Black Hole is in the middle - the young Black Hole gives birth to the stars of the galaxy. During this time, powerful jets of anti-matter are ejected from both ends of each Black Hole swirling as far as trillion km [1]. For this to happen, the Black Hole must be a swirling pool of anti-matter. And a swirling whirlpool could be described only by nonlinear physics.

## II. THE AUTHOR PREDICTED HYPERBOLOID SHAPE OF THE BLACK HOLES AND SHORTLY AFTER THE PREDICTION SUCH WAS OBSERVED AND PHOTOGRAPHED

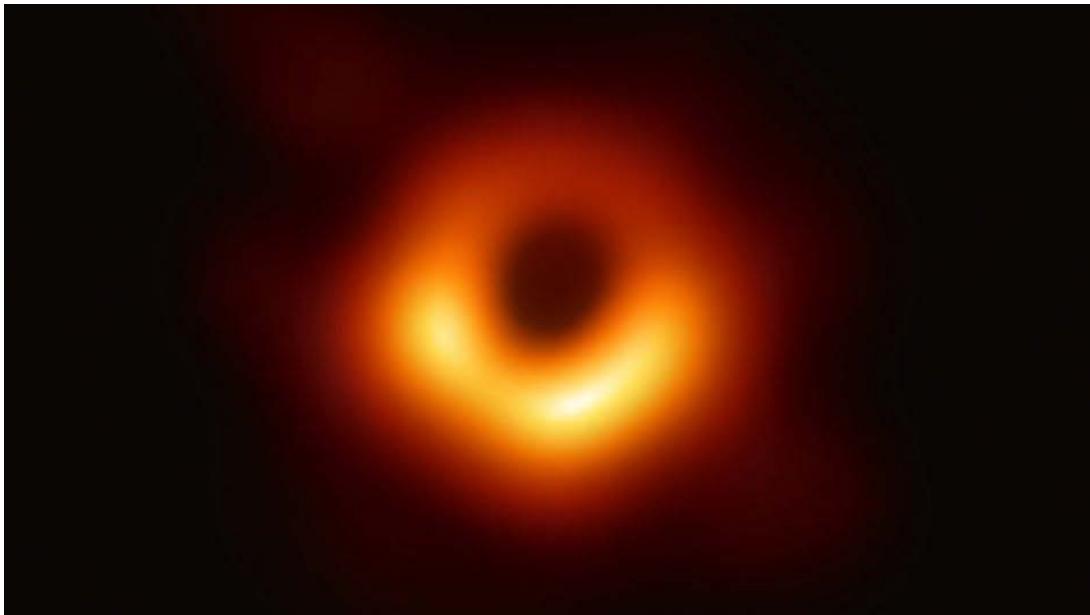
In 2019, I published an article in Open Access Journal of Mathematical and Theoretical Physics – “How Was the Material World Created? - Origin of Its Nonlinear Electromagnetic Field (NEMF)” [1]. The article was submitted on February 22 and posted online on March 18, 2019. Fig. 1 presents the picture of the Black Hole, which I have in article [1].





*Fig. 1:* Anatomy of a Black Hole

On April 10, 2019 (less than a month after the posting of my article) the first photo of a Black Hole was published (see Fig. 2).



*Fig. 2:* Photo of a Black hole first published on April 10, 2019 [5]. One can see the same hyperboloid curvature as the Black Hole, which my mind has seen (Fig.1) (for how the mind see, see [6]).

However, as it was explained in [1], the dark-inside Black Hole like the one on the photo on Fig. 2, is a Black Hole in the second half of its lifetime when it is in a retrieving state. It spins clockwise (like a vortex) and retrieves (sucks back) the already old dying stars. The Black Hole on Fig. 1, which is not totally dark inside, is a Black Hole in the first half of its lifetime when it is in a creative cycle. It spins counterclockwise (like an anti-vortex) and gives birth to new stars (for details see [1]). I hope in the future we will also have photos of Black Holes in their active cycle when giving birth to stars and looking like the picture on Fig. 1.

### III. THE NATURE OF THE BLACK HOLES

As explained in [1], since the new stars move away from the Black Hole in open trajectories, the Black Hole must be anti-matter creating anti-gravitational field pushing the stars away from the Black Hole. To create stars, the Black Hole must spin counterclockwise like an anti-vortex because only anti-vortices spinning counterclockwise create outward magnetic field, which can give birth to matter.

As explained in [1], the Black Hole at the center of each galaxy squirts out powerful jets of anti-matter perpendicular to the plane of the galaxy. This is another proof that the Black Hole is anti-matter, which must be spinning fast counterclockwise to emit such outward powerful jets, reaching distances of trillions of kilometers. The magnetic field, which the Black Hole generated by this fast spinning, is also very powerful.

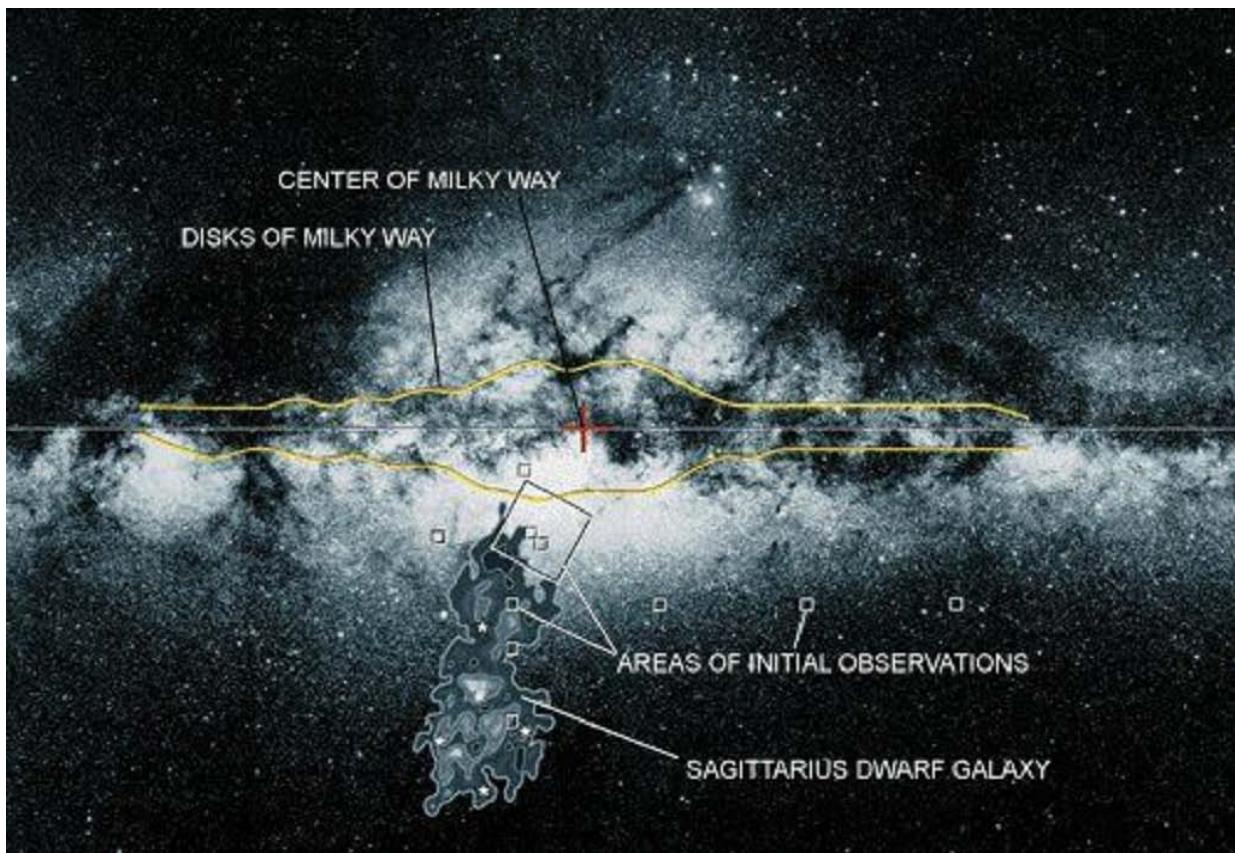
### IV. MERGING OF BLACK HOLES

Since the Black Holes in the first half of their lifetimes spin counterclockwise and in the second half of their lifetimes spin clockwise, they will create magnetic fields with opposite polarity and they will attract each other as two magnets with opposite polarities do. Therefore, the recently observed merging of two Black Holes with LEGO [7] must be Black Holes with opposite magnetic polarity, i.e. Black Holes spinning in opposite direction. This means that one of the Black Holes was in the first half of its lifetime and the other one in the second half of its lifetime. Therefore, merging means a younger Black Hole engulfs an old Black Hole, which is recycling of the old Black Holes.

When the opposite magnetic fields of two Black Holes merge, expect electromagnetic waves to be emitted. Therefore, the wave LEGO detects are not gravitational waves, they are electromagnetic waves. These electromagnetic waves must be nonlinear to be able to travel trillions of kilometers without dissipation and there should be a media for them to propagate [1]. Electromagnetic waves must also be observed when galaxies merge and even when galaxy clusters merge.

### V. MERGING OF GALAXIES AND CLUSTERS OF GALAXIES

In [1] it was explained that two galaxies could merge only and only if they have opposite magnetic polarity because they would attract each other as two magnets with opposite polarity do. For this to happen, they must spin in opposite direction. It was also explained that the younger galaxies, which still create stars spin counterclockwise like an anti-vortex and crank outward magnetic field. The older galaxies spin clockwise and crank inward magnetic field, which retrieve (suck in) the old stars to recycle them [1]. If so, younger galaxies will be engulfing older galaxies. Indeed, our galaxy has engulfed the older Sagittarius Dwarf Galaxy in the past and we can still see its Black Hole with the leftover stars orbiting around the center of our galaxy.



*Fig. 3:* The Black Hole and the leftover stars of the older Sagittarius Dwarf Galaxy, which our galaxy engulfed in the past, is still orbiting around the center of our galaxy. Also, remnants of another older galaxy were found in the Milky Way and its stars were orbiting in opposite direction of ours [8]

The same rule of merging applies to galaxy clusters. Recently, the Low Frequency Array Telescope, which operates in Nederland, detected unobserved radio synchrotron radiation and X-ray emission between two merging galaxy clusters in the filament that connects Abell 0399 and Abell 0401 [9]. Frederica Govoni of the National Institute for Astrophysics in Italy [10] interpreted this synchrotron emission as generated by powerful magnetic fields that extend to very large distances (more than it was thought possible). Govoni said that "they don't know if the observed phenomenon is common in the cosmic web or not". I can assure her that, yes, it is a common phenomenon in the cosmic web.

What generates the powerful magnetic fields is fast spinning plasma. Just like in the case of merging Black Holes or galaxies, two galaxy clusters merge only when they create magnetic fields with opposite polarities. This means that a younger galaxy cluster engulfs an older galaxy cluster spinning in opposite direction. Therefore, the merging of Black Holes, galaxies, and galaxy clusters is a process of recycling of the old Black Holes, galaxies, and galaxy clusters. If so, the whole Universe cannot expand indefinitely, contraction should follow the expansion.

## VI. THE SECRETS OF NOVA

Koji Mukai and Jennifer Sokoloski wrote an article in Physics Today, issue 11, 2019 "The New Science of Nova". However, there was no much science in the article because the authors were not acquainted with nonlinear physics. Nova is usually dwarf star coupled with a red giant as a binary star. The authors explain that the dwarf star sucks energy from the red giant, and when spiting out the engulfed energy, it shines bright and it is called Nova. The authors don't have a clue how this is done and why it is done.

Let us see what nonlinear physics can tell us. If the dwarf is sucking energy, it must spin clockwise like a vortex. If this is a binary star, the red star companion must be spinning counterclockwise - in another way, they will not attract each other to form a couple. They need to spin in opposite directions to create magnetic fields with opposite polarity and attract each other. Counterclockwise spinning of the red giant like an anti-vortex means that it would be emitting energy through the hole of its donut-shaped NEMF, while the dwarf companion would be sucking energy through the hole of its donut-shaped NEMF.

Nonlinear physics teaches that the dwarf will continue sucking energy until critical mass (bifurcation

point) is reached. Then the dwarf will release the engulfed energy, but retain the new state. Thus, knowing nonlinear Physics we were able to answer the question how the dwarf star sucked energy from the red giant, whose release later made it shine as Nova, and why it was done.

## VII. CONCLUSION

The author reported at the APS Conference in Los Angeles, California, in 2018: "Physics Must Emphasize Stronger the Role of Magnetic Fields in the Universe and Man" [11]. This article emphasizes again the important role, which magnetic fields play in the cosmos, and the source of these powerful magnetic fields is fast spinning plasma. However, fast spinning plasma means turbulence, which is subject of nonlinear physics. Therefore, astronomy cannot be understood without nonlinear physics and only nonlinear physics can help us understand how the Universe was created and function.

Recently LEGO observed merging of two Black Holes and two neutron stars. Two Black Holes, galaxies, or galaxy clusters would merge only if they spin in opposite directions because the opposite spinning creates magnetic fields with opposite polarity, which make the objects attract each other as two magnets with opposite polarity do. Since anti-vortices emit energy, Black Holes must spin counterclockwise like anti-vortices when they are young and give birth to matter (stars), which move away from them in open trajectories forming a galaxy.

The fact that the stars, which the young Black Hole created, move away from it in open trajectories means that the Black Hole creates anti-gravitational force. To create such anti-gravitational force, the Black Hole must be anti-matter. Since, as said, two Black Holes would merge only if they spin in opposite direction, this means that there are also Black Holes that spin clockwise as vortices and suck matter in. It seems that when the stars are old and the galaxy warped, they are sucked back in the Black Holes and recycled, i.e. turned into anti-matter again.

The Hubble telescope found that 60% of the galaxies in our Universe are warped. This means that our Universe is more than middle age. What will happen when 100% of the galaxies are warped? Obviously, the disordered Universe needs to be recycled, so that a new Universe in perfect order can be created. For this to happen, the Universe needs to start spinning in opposite direction and contracting. Every galaxy was created in perfect order, but when it becomes totally disordered, it needs to be sucked back in the Black Hole that created it and recycled, i.e. dismantled or turned back into anti-matter. With time the anti-matter of the Black Hole will create a new galaxy in perfect order.

If so, the merging of Black Holes (or neutron stars), which LEGO observed, is magnetic attraction between young cosmic objects spinning counterclockwise and old cosmic objects spinning clockwise. If so, the merging is a way to get rid of the old, i.e. it is part of the recycling process. Thus, the anti-matter of the Black Hole at the center of the galaxy created the whole material galaxy in perfect order, but as the galaxy and the stars age, they need to be sucked back by the Black Hole and recycled, i.e. turned back into anti-matter.

This means that:

- 1/ our Universe is constant periodic switch anti-matter <-> matter;
- 2/ our Universe cannot expand forever - the present expansion of the Universe must be followed by a process of contraction.

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