

# An explanation of Foucault Pendulum leads to No-Shape Substance (SubQuantum Aether) and some implications

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## Abstract

The present paper explains Foucault Pendulum experiment which leads to No-Shape Substance form of SQ Aether of Ji Qi. We also discuss some related phenomena. This paper can be viewed as a dialogue effort to find connection between the notion of aether by Western scientists in the past and No-Shape Substance by Ji Qi et al.

## Introduction

In 1851, French physicist Jean Leon Foucault designed a revolutionary experiment which demonstrates that the Earth is a rotating body. His apparatus was rather simple; a 28 kg mass on a 67 m long wire which was attached to the ceiling of the dome of the Pantheon in Paris in such a way that allowed the pendulum to swing freely in any direction. Foucault found that the plane of oscillation rotated in a clockwise direction, as viewed from above, at a rate of approximately 11 degrees per hour, and one full 360 degree rotation of this plane took 32.7 hours.[4]

According to Qi Ji et al. [2], a strange phenomenon is found by studying on Foucault pendulum again and again. It is that when Swing ball is located in the north-south direction at the initial time, the rotation angular velocity in the swing plane is relatively large, while Swing ball is located in the east-west

direction at the initial time, the angular velocity is much smaller, or even almost no rotation. And, when the ball is north-south swing, the swing state itself can be distorted to clockwise swing. However, when the ball is east-west swing, the swing state itself is hardly changed, or even slightly distorted toward counter-clockwise direction. The experimental phenomenon is in *contradiction* with the classical theory. According to Qi Ji et al., the experimental results can prove the existence of another substance in the nature, which is No-Shape-Substance.

The present paper explains Foucault Pendulum experiment which leads to No-Shape Substance form of SQ Aether of Qi Ji. We also discuss some other related phenomena.

### **No-Shape Substance Interpretation of Foucault Pendulum**

Based on their observation of Foucault Pendulum actual motion, Qi Ji et al, argues on the existence of No-Shape Substance, which was called “aether” in the West by 17<sup>th</sup>-19<sup>th</sup> century physicists.

Qi Ji et al. found a strange phenomenon as follows: [2]

“The law of Foucault pendulum movement is well explained by the classical theory, and it is proved that the angular velocity of rotation on the swing plane has nothing to do with the initial conditions. That is, when the ball is the north-south or east-west swing at the initial state, the swing ball should rotate the same angle within the same time. But through doing Foucault pendulum experiment again and again, it is found that when the ball is north-south swing at the initial state, the rotation angular velocity of the swing ball is relatively large; when the initial conditions is east-west swing, the angular velocity is much smaller, or even the swing ball is almost no rotation. The experimental results are in contradiction with the classical theory.”

They also believe that there is a lot of another state of matter in nature, which is the foundation of movement for all the objects. The Earth is not likely to bring completely the No-Shape-Substance on the earth’s surface, when the

earth is translational movement. But when the Earth rotates, it is not easier to bring completely No-Shape-Substance on the earth's surface. Because the speeds of all the points on the surface are completely different, even though that of a point is different at the different time, when the Earth rotate.[2]

Now they apply this new concept of No-Shape Substance to explain the strange phenomenon observed by Foucault Pendulum:

“...we consider the center as a reference point, because the center position of Foucault pendulum is constant. When the ball is north-south swing in the northern hemisphere, the southern No-Shape-Substance from the center is westward movement relative to the center; the northern No-Shape-Substance from the center is eastward movement relative to the center. Obviously, in the northern hemisphere, the rotating direction of the swinging ball will be driven to clockwise due to the role of No-Shape-Substance.”[2]

By a rough calculation, Qi Ji et al. found that if the speed difference of No-Shape-Substance a more accurate calculation should be allowed to Foucault pendulum swinging in a vacuum to avoid air resistance. It is seen that the speed difference of No-Shape-Substance between the equator and the North Pole obtained by a rough calculation is basically equivalent to the Earth's rotation speed on the equator 463.8m/s. Therefore, they conclude that Foucault pendulum experiment indicates that No-Shape-Substance moves relative to the surface of Earth.[2]

Now, the question is: how can we find a conceptual bridge between the notion of No-Shape Substance and SubQuantum Aether medium? (See also our previous paper [1].)

### **Remark on the notion of No-Shape Substance**

The speed of light is not a constant but varies according to the local density of the aether and according to the local velocity of the aether, as we have

published in our recent papers which include Mishin's 5 Phase Aether and an aether energy-density diagram [1], based on Mishin's astrophysical observations in conjunction with astrophysicist N.A. Kozyrev.

From this exposition on aether by Qi Ji, we have just realized that the reason there are no constants<sup>1</sup> is because of the attraction between the aether substance and physical substances, as expressed by Qi Ji [3]. This attraction is the origin of the Aether Atmosphere which can be seen with the unaided eye as a white or black "fog" which clings to the edges of all, normally visible, solid matter.

We have not yet found where Qi Ji has examined local variations of aether density which will cause the interactions between the Aether Substance and ponderable matter, to vary with circumstances and over time.

The attraction between the Shapeless Substance and ponderable matter, will change according to the local phase state of the Shapeless Substance and the local phase state of ponderable matter, at the given time and place. There should be factors such as viscosity, reluctance, acceptance, permeability, resistance, and so on, in and of the various phase states of the aether substance.

As the aether varies in local phase state, local density, and local velocity, the degree of, and direction of, attraction between the aether substance and normal matter, changes, relative to the given phase state of the normal matter under local consideration.

This is also the reason for variations in the force due to gravitation, as variations in the velocity and density of the Aether media, relative to the phase

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<sup>1</sup> See also discussion section in our paper presented at 5<sup>th</sup> EuroSciConf on Quantum and Plasma, held at Stockholm, May 2019.

states of physical matter, result in changes in the measured force, with similar results obtaining for all the other forces and all the "constants".

As we have said before, there are no constants. There are only excursions above and below a somewhat reliable averaged value, centered on the "standard value" of the "constant". When any so-called constant is examined over large volumes and over large spans of time, if the measurement apparatus is very accurate, variations in the measured values of the given constant will be seen with the averaged value being approximately equal to the "standard value".

This approach to measurements of the "constants" will also allow us to obtain a much more accurate value for where exactly is the mean center-value of the given constant. We might easily find that over large volumes and large spans of time, the calculated values of the constants are not in perfect agreement with the measured values of the "constants".

This is another kind of application for Neutrosophic Logic, where we are examining excursions of plus and minus from a mean center value. Rather than examining the tri-state values of yes, no, and maybe, we are examining the averaged (mean) center-value of the situation, relative to the observed extremes. Something like:

+Extreme > Median < Extreme -

representing the spread of observed values of the given system.

This approach should have multitudes of applications in the physical world. This also has applications in QM as the origination of the majority of the quantum behaviors, has to do with the information carrying, up to infinite velocity, SubQuantum aether, while obviating other parts of QM.[1]

In the meantime, Volodymyr Krasnohilovets's "inertons"[5] are locally captured particles, comprised of the infinitesimals which primarily comprise the "Shapeless Substance", which resemble a fallen leaf from a tree, captured by water and moving along with the water as the water moves.

Local to ponderable matter, while the "*Shapeless Substance*" still interpenetrates ponderable matter such as atoms, particles larger than infinitesimals can be locally captured by atoms, molecules, and so on. Inertons are smaller than electrons, but much larger than the Kolmogorov Limit of  $10e^{-58}$  meters.

By  $F = ma$ , ignoring the limitations caused by the non-physical Lorentz transformation, it is easy to see that velocities up to infinity can be caused by application of any manner of force, to an infinitesimal. And there we have the origination of the infinite velocity "vortex lines" of fluid dynamics. And as we know, vortex lines originate ponderable matter. So now we come full circle.

The Universe is both vaster and more complicated than we have been given to understand by the "standard view" of the physics. And at the same time, when viewed from a "top down" approach, the workings of the Universe are suddenly much simpler, clearer, and easier to understand, and much more coherent. Feelings of satisfaction and completion and confidence, arrive with understanding the principles of Aether Physics.

### **Other Phenomena related to SubQuantum Aether**

Allow us to make a few notes on the above remark on Qi Ji's et al.'s explanation of strange phenomenon observed with Foucault Pendulum. First, we shall note here that the notion of physical aether medium has almost been forgotten by most physicists nowadays, in particular after publication of Einstein's STR in 1905. But before that, most physicists of 19<sup>th</sup> century and

even long before that, agreed on its existence, including Maxwell, Kelvin, Thompson etc.

For instance, a quote on James Clerk Maxwell's own words can be found in Duncan Shaw's article:[6]

“The posited aether is modeled substantially on the form of aether described by James Clerk Maxwell in his treatise, *The Dynamical Theory of the Electromagnetic Field*, published in 1865. It is in this treatise that Maxwell set out his theory of electromagnetic fields and his equations that are still in use today, over a century-and-a half later. His theory and equations were based upon his posited form of aether. In the words of Maxwell:

- “We have therefore some reason to believe, from the phenomena of light and heat, that there is an ethereal medium filling space and permeating bodies, capable of being set in motion and of transmitting that motion from one part to another, and of communicating that motion to gross matter so as to heat it and affect it in various ways.”
- “We may therefore receive, as a datum derived from a branch of science independent of that with which we have to deal, the existence of a pervading medium, of small but real density, capable of being set in motion, and of transmitting motion from one part to another with great, but not infinite, velocity.”
- “Here, then, we perceive another effect of electromotive force, namely, electric displacement, which according to our theory is a kind of elastic yielding to the action of the force, similar to that which takes place in structures and machines owing to the want of perfect rigidity of the connexions.”
- “It appears therefore that certain phenomena in electricity and magnetism lead to the same conclusion as those of optics, namely, that there is an ethereal medium pervading all bodies, and modified only in degree by their presence; that the parts of this medium are capable of being set in motion by electric currents and magnets; that this motion is communicated from one part of the medium to another by forces arising from the connections of those parts; that under the action of these forces there is a certain yielding depending on the elasticity of these connections; and that therefore energy in two different forms may exist in

the medium, the one form being the actual energy of motion of its parts, and the other being the potential energy stored up in the connections, in virtue of their elasticity.”

- “Thus, then, we are led to the conception of a complicated mechanism capable of a vast variety of motion, but at the same time so connected that the motion of one part depends, according to definite relations, on the motion of other parts, these motions being communicated by forces arising from the relative displacement of the connected parts, in virtue of their elasticity.”

Now, after the above quote, it seems worthy to see how this notion of aether medium actually can explain vast number of other related phenomena.

Aether is the network/vehicle which is in all things, and connects all things. The electrical resistance of carbon changes as the aether flux density changes, as proved by experiments performed by T.T. Brown. Brown made a gravitation flux detection instrument based on the variations in carbon resistors of the old style, where powdered carbon was wound along a rod of metal.

A related device was produced and used by Hodowanec based on the fact that capacitance value changes as the aether flux density varies while passing through the capacitor. He made a gravity detection instrument based on operational amplifiers using current amplification, as the value of the capacitor changed due to aether flux variations, and provided several photographs of instrumented displays which documented gravitation variations.

We are more familiar with LaPlace model of gravitation, which is a source-sink model with stellar objects and cosmic Birkeland currents as the primary output source. The LaPlace model coincides with the aether model promoted by Mendeleev and Tesla. This version of the aether was actually physically proved by the results of the Michelson-Morley experiments.

Gravitation goes in to whatever, and E/M radiation and subquantum aether particles come out. This applies to all physical objects.

Mass density is ultimately a product of the compression or rarefaction of the aether. Compression leads to denser Aether. Rarefaction, less dense. Hence, we have concentric shells of varying densities of Aether. Here is an illustration of concentric shells of aether, outbound from a galactic center.

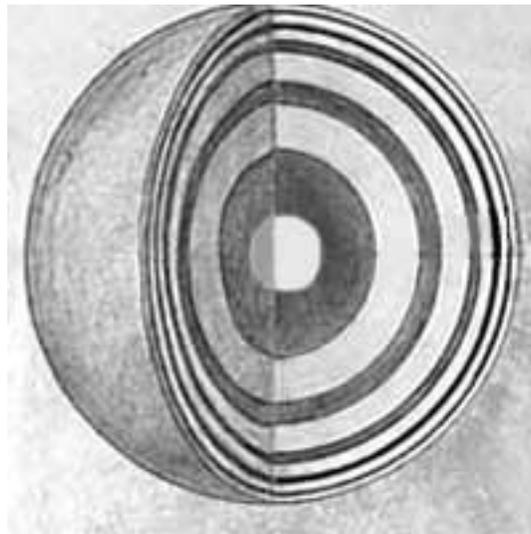


Fig. 1. concentric shells of varying densities of aether

This applies at all scales of size, from galaxies, down to the Kolmogorov Limit of  $10e^{-58}$  meters

As these shells pass through where we live in our galaxy, the local properties of the media change, which results in changes in the laws of physics in the local volume. Changed physics values arise in a slow ramping-up way as the aether shell passes through. This is what is causing the spider-webbing and rainbow spikes and rainbow hexagon-circles which radiate from all light sources in the world today.

When the quantization-changing aether shell has completely passed through a location, then physical behaviors in the location remain at a relatively constant state, which holds until the next shell of aether passes through.

This depends on the oscillation values of the intense aether/plasma entity which is at the center of every galaxy, which values depend on the local properties of the local aether/plasma media. This is a windowed value which is in the vicinity of the integer value of the cube of  $(9/8)$  times  $(d/r)^2$ . The galactic Aether (and perhaps this is true at all scales of size) has levels of energy density which lock into the quantum state corresponding to the integer value of the cube of  $(9/8)$  times  $(d/r)^2$ .

"Space" is exceedingly anisotropic. There are no two places exactly the same, anywhere and at any time. It appears that Uniqueness applies at all scales down to the actually infinitely small. Exact fluidic solutions in terms of topological thermodynamics, involve Pfaff dimension 4, at which level, energy is **never conserved**.

Energy radiation is the equal and opposite force to gravity. Electromagnetic radiation and SubQuantum particles (vortex lines) are the outflows of Aether, which cause gravity. *Gravity is the inflow of aether* ( See for instance, Duncan Shaw. [6]).

There are concentric quantized shells around all subatomic particles, such as electrons, positrons, and protons. Concentric shells of quantization also appear as related to atoms and molecules. Concentric quantized shells and vortex aether flows exist around planets, stars, and galaxies. They also exist around life forms such as trees, animals, human beings and all life forms. These quantization shells are invisible to normal sight, just as the appearance of sound geometries is also invisible unless specialized instruments are used.



Figure 2. Earth field



Figure 3. Galaxy torus field

This also involves "double layers" of charge separations in plasmas, which occur in discrete quantized shells, which look like this:

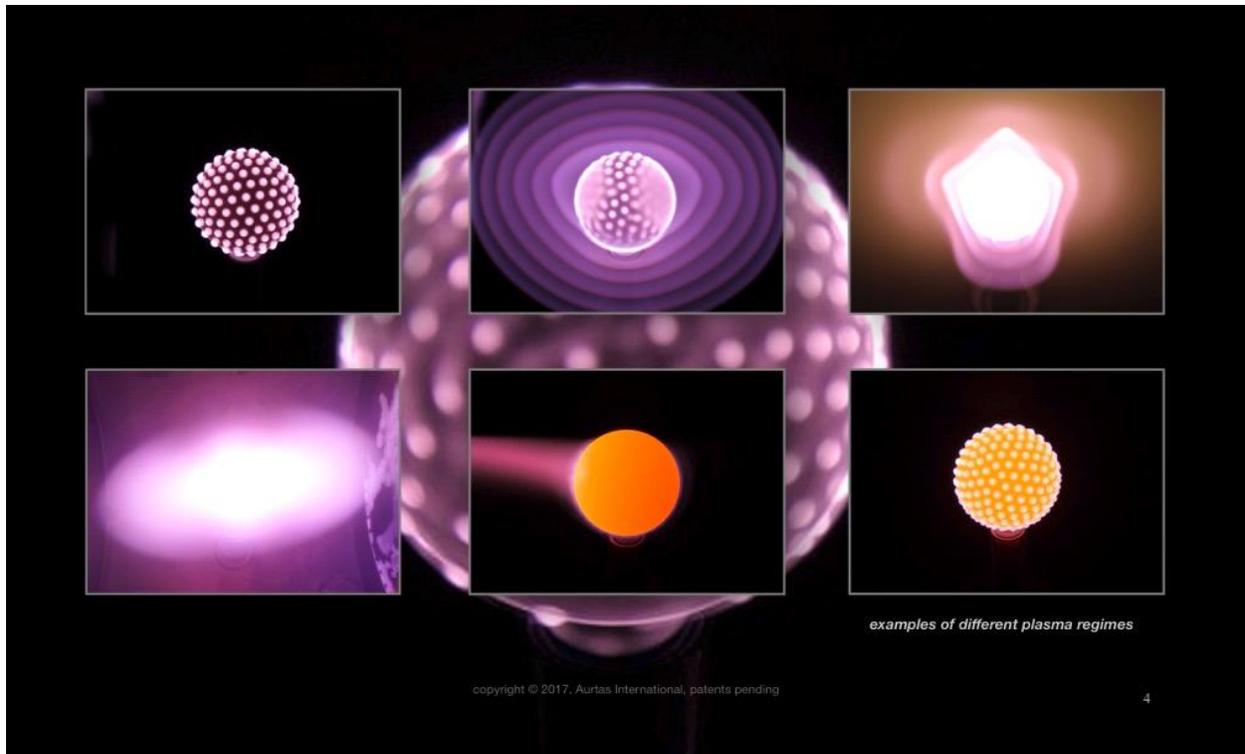


Figure 4. double layers of charge separation in plasma<sup>2</sup>

These photos of double layer charge separations in plasma, as the plasma is heated, also resemble the Helmholtz vortex, in terms of layered shells of the media:

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<sup>2</sup> See <https://www.safireproject.com/index.html>

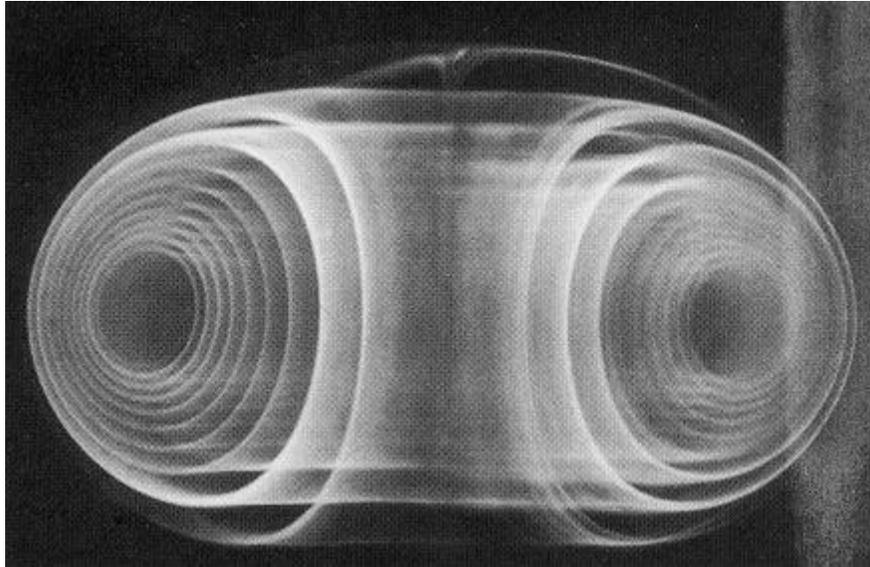


Figure 5. Helmholtz electron vortex (see also [1])

The layering in the Helmholtz vortex is obviously the result of **[semi-quantized]** differing energy levels. So, the same layering of shells applies to pretty much everything, in certain regards.

Again, shells of discrete semi-quantized energy layers of aether and electrical potential, radiate from the aether-plasmoid which lives at the center of each galaxy.

The common theme is expanding shells radiating from a center point or a central ring.

Krasohnolovets' instrumentations and experimental results have already proved some parts and portions of the behaviors of what I call "the quiescent aether", which is comprised of a range of particle sizes, to which the Eikonal equation can be applied, in its mixed granularity form.

Interstellar and intergalactic spaces are exceedingly anisotropic. How can a person look at photographs of nebulae and insist that space is "isotropic"?



Figure 6. Carina Nebulae (a).



Figure 7. Carina Nebulae (b).

## Concluding Remarks

In this paper, we have outlined a new interpretation of strange phenomena as observed in the Foucault Pendulum experiment, by the help of No-Shape Substance of Qi Ji et al. We also make a few remark on possible conceptual connection with SubQuantum Aether model of us, see also [1].

This remains an incomplete description of all those phenomena, we just point to new direction of future investigation.

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