

# Quantic and Gravitational Bases of the Stabilization of Matter: A Theory

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**Abstract:- Quantum matter, electromagnetically neutral but influenced by gravity at different intensities, can relate to electromagnetic waves. On an atomic scale, an offset that obeys a metric tensor that maintains stability can occur despite the existence of intrinsic kinetic energy. In the face of new gravitational influences a new displacement can occur, which would be the basis of many chemical reactions. A new tensor could then be delimited according to metric coordinates when stabilization of the displaced matter occurs in the molecule. Practical implications in computing, in the area of materials engineering, in pharmacological and biomedical could occur. This matter could be a candidate for dark matter.**

**Keywords:- Gravity. Quantic. Metric. Tensor.**

## I. INTRODUCTION

The interaction of matter - energy has always been the object of studies of thinkers since ancient times. The observation of nature and its phenomena was the basis for traditional and modern concepts. Copernicus, Galileo, Isaac Newton, Tesla and Einstein, passing through several other scientists, observers, chemists and theoretical and experimental physicists sought to unravel and give explanations of conceptual parts and conjunctures of matter and energy, with acceptable mathematical concepts and many later proven.

The electron was the gold particle responsible for the wonders of modernity. Electricity, electronics, robotics and computing had their operating basis from the control of the main variables of the electron, such as its position and speed in various media; parameters such as frequency, intensity, direction and direction can be modulated in modern technology. Under a certain level of excitation an electron emits a particle, called a photon, that propagates in waveform – the electromagnetic wave.

Some of them, such as higher frequency and therefore greater energy are used in technology to transport other waves with image and audio information for equipment such as TVs, smartphones, computers, smartvts, among others.

Atoms and molecules absorb and emit electromagnetic waves. At different wavelengths – certain radio frequencies transmit the various colors and shades.

Electromagnetic waves can be captured and processed from natural or artificial sources, such as astros and electronic equipment, respectively.

With the advent of quantum physics studies other particles began to be studied.

In this work adopted – if the hypothesis that neutrino is the most elementary particle of both the constituent matter of electrons, atoms and dark matter.

The spatial conformation between the nucleus of atoms and the electrosphere also determines the degree of gravitational influence between neutrinos and those. This interaction determines the forces of attraction between molecules, the state of matter, enthalpy, viscosity among other characteristics.

The interaction between electromagnetic indas, connected by the particlesneutras, can generate different volume formats where these particles are concentrated.

## II. NEUTRINOS BUNDLES

Neutrino beams can be obtained when the beams of electromagnetic waves, with opposite phases or with angles ebtre aplitudes opposite to 180 degrees, are concentrated in a certain direction – as cobsequencepoderiamif created opposite msgnetico fields. High and low frequency may or may not be combined. The tendency of low frequencies is to form points of higher density of matter. High frequency beams can "shape" neutrino masses through contact displacement or even gravitational action; maybe displace masses at higher or lower speed.

So the mass formation would be proportional to the lower speed of the neutrinos, to the lower frequency.

### • Suggested equacao:

$$M = ((q \cdot 1/f \cdot 1/v) \cdot m \text{ (neutrino)})$$

$$M = 10^{50} \cdot 1/10 \cdot 1/10^{18}$$

$$M = 10^{50} \cdot 10^{-1} \cdot 10^{-18}$$

$$M = 10^{49} \cdot 10^{-18}$$

$$M = 10^{31} \cdot m \text{ (neutrino)}$$

q = amount of neutrino

It is possible that the next neutrinos suffer gravitational influence of the formed mass and participate in the curvature of space – time, as they occur theoretically with stars.

An increase in the time of momentary mass increment of the set could corroborate this thesis.

It would be more feasible to calculate a beam of low frequency neutrinos over a denser mass.

### III. FIELD EQUATION – EINSTEIN

#### A. Space-time curvatura = constant × -energy

The curvature of space-time is given, mathematically, by Einstein<sub>G<sub>μν</sub> tensor</sub>:

The matter and energy part of Einstein's equations is given by the energy-moment tensor<sub>T<sub>μν</sub></sub>. The complete Einstein field equations then have the following compact form:

$$G_{\mu\nu} = -\kappa T_{\mu\nu}$$

where  $\kappa = 8\pi G/c^4$  is Einstein's gravitational constant,  $G$  is the universal gravitational constant and  $c$  is the speed of light in the vacuum [1].

A delay in beam velocity passing over the neutrino mass could confirm Einstein's field equation.

$$R_{\mu\nu} - \frac{1}{2} g_{\mu\nu} R + g_{\mu\nu} \Lambda = \frac{8\pi G}{c^4} T_{\mu\nu}$$

#### B. Ricci Tensor - R

$R = g^{\mu\nu}(\partial\nu\Gamma_{\mu\lambda}^{\lambda} - \partial\lambda\Gamma_{\mu\nu}^{\lambda} + \Gamma_{\mu\lambda}^{\rho} \Gamma_{\rho\nu}^{\lambda} - \Gamma_{\mu\nu}^{\rho} \Gamma_{\rho\lambda}^{\lambda})$ .

The cosmological constant = in this case, because it is at the quantum level, it would be 0  $\Lambda$

This curvature of space time could explain interactions of the mass of neutrinos with other masses of these particles, with that of other particles and even with matter – more specifically as proteins and water.

With  $G = 0$ , the equation is:

$$R_{\mu\nu} = 1/2 g_{\mu\nu} R$$

$$\begin{pmatrix} R_{00} & R_{01} & R_{02} & R_{03} \\ R_{10} & R_{11} & R_{12} & R_{13} \\ R_{20} & R_{21} & R_{22} & R_{23} \\ R_{30} & R_{31} & R_{32} & R_{33} \end{pmatrix} - \frac{1}{2} \begin{pmatrix} g_{00} & g_{01} & g_{02} & g_{03} \\ g_{10} & g_{11} & g_{12} & g_{13} \\ g_{20} & g_{21} & g_{22} & g_{23} \\ g_{30} & g_{31} & g_{32} & g_{33} \end{pmatrix} R = -\frac{8\pi G}{c^4} \begin{pmatrix} T_{00} & T_{01} & T_{02} & T_{03} \\ T_{10} & T_{11} & T_{12} & T_{13} \\ T_{20} & T_{21} & T_{22} & T_{23} \\ T_{30} & T_{31} & T_{32} & T_{33} \end{pmatrix}$$

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### IV. AUDIO WAVES

To obtain some hypothetical material arrangements suggests – whether audio waves at the lowest possible frequencies, modulated or not by electromagnetic waves of higher frequencies and consequently higher energy – which would allow more specific or greater ranges.

### V. CHANCE

#### A. UTILITY OF NEUTRINOS CONCENTRATIONS

After the separation of neutrinos with electromagnetic waves they can have the mass determined, experimentally, the mass – which occupies the impact material – in relation to time. Variables such as temperature, speed and frequency could be determined depending on the distance of the neutrino generator with their receiver.

Possible usefulness would be in nanotechnology, in the formation of compounds such as medicines and their potentiation; in computing, in the production of chemicals and measuring and electromedical equipment, among others.

#### B. CALCULATION OF MASS INCREMENT AT QUANTICO LEVEL

The asymmetry of the mass set can generate new types of fields – all derived from fundamental gravity – similar to the hypothesis of generation of electric and magnetic fields by electrons and protons.

At the quantum level you can also – if you consider the gravitational constant equal to zero.

The field equation would then be summarized to the mass increment when neutrino beams pass.

$$R_{\mu\nu} - \frac{1}{2} g_{\mu\nu} R = -\frac{8\pi G}{c^4} T_{\mu\nu}$$

**Value of R**

In this article can be considered the tensor of curvature of space at the microscopic level.

**Example:**

Consider the volume of a neutrino as the result of the variables in the time period in which the unit is 1.

$$R=1$$

$$R_{uv}=1/2. G_{uv}R$$

$$R_{uv}=1/2.g_{uv}.1$$

$$g_{uv}=2$$

The tensor is 1 and g is 2.

**VI. DARK MATTER AND DARK ENERGY***A. Dark energy field*

The possible electromagnetic-like field for dark matter could be derived from photon similars resulting from the larger oscillation of the smaller neo formed masses.

The faster the particle, the less time it is trapped to the curve caused by the tensor. If tensor-level collisions occur, a form of a variable particle concentrate could occur.

A distance from the neo cluster formed to the main mass also comes into existence. The kinetic velocity of the particles can form solenoid movements with possible energy preservation and also promote stability to the main mass set plus neo formed mass. It would be a version of organization similar to atomic, but with particle and energies with different intensities and variables.

**VII. HYPOTHESIS - PHOSPHORUS ELEMENT CHEMISTRY**

The energy to be transmitted by neutrinos is high and easier to be realized because they are at a higher level of oscillation. The energy increment could be calculated by displacement of the Ricci tensor: - a new tensor originated by spatial and metric variables that the bodies of neutrinos will then tend to follow under the influence of other phosphorus atoms.

Tensor R tends to be higher considering the equation:

R = proportional to Kinetic Energy  $E_c$

$E_c$  = greater than magnetic field B

$E_c$  = larger than electric field U

*A. Possible equation:*

$$E_c=B.U$$

$$m.v^2=B.U$$

This energy can be considered kinetic and not random due to tensor.

In the nucleus of the photon the probability of existence of greater neutrino concentrate, and that maintains the peripheral neutrino.

*B. Possible equacao:*

$$E_c \text{ (from R)} = F.d$$

$$F = E_c/a$$

It should - if you calculate d from R.

The matrices variables for the Ricci tensor can be calculated considering a symmetry, at first. But it is asymmetry that can form countless forms of interaction between matter and energy.

When zero is found as a result it is when a mass stabilizes in a certain region of space, even having intrinsic kinetic energy.

There is an extravasation of energy when an object causes deformation in space-time – gravitational energy.

**VIII. OPPOSING MAGNETIC FIELDS - A THEORY**

When opposite magnetic fields are approximated electrons have the spins with modified orientation, so that there is a decrease in magnetic interference in other materials. As a consequence, *with the effects of gravity increase on them.*

*In this way the water in the container can have considerably increased the power of attraction on particles.*

*A. Possible equation*

$$M2 \text{ water} = m1/B1. B2$$

$$M2 = \text{setmatter} + \text{water}$$

$$M1 = \text{matter}$$

$$B1 = \text{magnet magnetic field 1}$$

$$B2 = \text{magnet magnetic field 2}$$

**IX. CONCLUSION**

There is the possibility of organizing and using neutral elementary particles of less priceless mass, which can have numerous technological applications. Gravity at the quantum level, considering both Newton's and Einstein's formulations would correlate to the explanation of some phenomena related to these particles.

**REFERENCE**

- [1.]DOMINGOS, Soares. The physical-mathematical foundations of relativistic cosmology. Available in <http://lilith.fisica.ufmg.br/~dsoares/ensino/cosmrel/cosmrel.htm>. Access 14 marc. 2022.