The Forzon and the Space Energy

D. S. Acosta¹

Received: January 6, 2013 Accepted: February 17, 2013 Online Published: March 21, 2013

Abstract

The Forzon, is the primordial particle from which have been built all the physical particles, i.e. all the matter and energy. This particle is the cause of impulse and has a motor allowing its displacement through space at the speed of light consuming its inner energy. In this manner, the Forzon is the cause of the mass of all the particles, including the ones known as particles without mass. The exact way in which the forzon produced inertia has been described in the omnidirectional impulses system (OIS) theory.

The present work aimed to explain the way in which the Forzon obtains its energy in space and in which form this energy is found in the vacuum space in order for the Forzon to use it; simultaneously being the origin of other manifestations, as the universe expansion, the dark matter ,dark energy, gravitation and the electromagnetic fields.

All of these lead to a model of a fluid universe where the time, is the base of the matter and energy, and also the space evacuator.

Keywords: Gravitation, gradient energy space, electro space, pressure space, time evacuator, fluid space

1. Introduction

OIS is the theory of mass for its inertial aspect (Acosta, 1998), but as we know mass supports inseparably two phenomenon, inertia and gravitation. Consequently, the OIS wouldn't be really good to us if it can only be used to describe the inertial mass, incompatible anyhow for its gravitational aspect. What we pretend in this work is to put into evidence how the same forzon is the cause of gravitation

Being the origin of what we pretend to explain, we have to make a brief introduction to the inertial aspect of OIS.

By making an analysis of relations between impulses brought to a particle under the form of force per time and their corresponding momentum increases under mass form per velocity, we arrive to the ineludible conclusion that the particles mass at rest acts as an omnidirectional system of impulses. The idea is that all the matter and energy are formed by absolute motorized particles that are names Forzons (Acosta, 2011).

OIS calculations demonstrate that the Special Relativity Theory (SRT) and its equations are in reality a way to manage the stocks of forzons constituting the particles mass. OIS brings us the proper equations and procedures in order to manage directly these stocks, obtaining the same results as SRT. This converts OIS as an alternative way to SRT calculations, with the additional advantage that we can obtain from OIS a much more unequivocal idea of what the mass is.

From this way, the unique equation that governs the stock behavior, also governs the inertial behavior of the particles and is the cause of Isaac Newton laws of movement.

Structurally represented in figure 1 we can see that forzon is constituted by a time surface T that is the origin of the binomial vector force-speed, a much better way to understand it is to think T as a surface area swept by the forzon propulsion propeller.

¹ Instituto de Productos Naturales y Agrobiologia, San Cristobal de La Laguna, Spain

¹ Correspondence: D. S. Acosta, IPNA (CSIC) Avda. Astrof. Fco. Sanchez, 3, 38206 San Cristobal de La Laguna S/C Tenerife, Spain. Tel: 34-922-260-190. E-mail: dacosta@ipna.csic.es

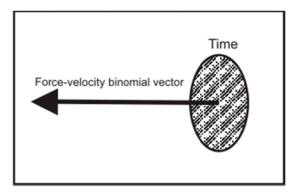


Figure 1

Only once we will use T instead of t in order to refer to it in the geometrical aspect, i.e. this surface in the tridimensional space. Clearly, this surface is located in the 3D Euclidian space and represents the Physics time for all purposes. This eliminates the need to attribute time to this mysterious 4th dimension which has maintained the world charmed for more than a century. There are forzons orientated in all directions and ways, but each forzon only possesses a unique and inalterable orientation

At the beginning, forzons, as the representing of the energy, neither creates nor destructs.

The agglutination capacity of time surfaces permits the forzons to unit themselves according to its surfaces forming bigger complexes with varieties of configurations. For example, forzons of different directions and ways unify their surfaces to form a homogeneous sphere that remains in a tense rest form, because each forzon pulls from the union in its direction and ways (cf. Figure 2).

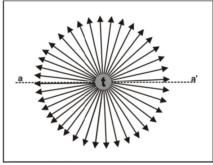


Figure 2

This is how OIS represents the particles mass at rest. In such system, the movement is caused by the disequilibrium between the quantities of forzons pulling in one way and their opposite. This unbalance can be caused by forzons flows between the particle system and another external cause (cf. Figure 3).

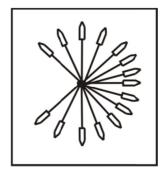


Figure 3

These flows are totally equivalent to what we know as impulse under Ft form, and the change produced on the particle is what we know as momentum mv.

The forzons possessing a particle with a mass at rest can be calculated as impulses with the equation

$$I = mc \tag{1}$$

And for the particle known as particles without mass at rest, with the equation

$$P = E/c \tag{2}$$

OIS supposes that the different properties of particles correspond to different configurations or ways forzons aggregate in space.

For example, the particles without mass at rest would be constituted of unidirectional masses of forzons, i.e. they do not possess the vector components opposite to the movement direction and way.

OIS describes the particles mass as a machine in function with power

$$W = mc^2 (3)$$

And therefore with an energy consumption per second of

$$E = mc^2 (4)$$

This is the energy needed to maintain the motors in function of all the forzons mass particles. The energy consumed by the forzons has never been taken into account until now in Physics because it refers to the energy consumed by particles while at rest or in order to maintain its none accelerative movement. In this way OIS is pointing out the existence of an energy that is in space which aliments matter. The energy that we have always known is referred to the interchange of forzons between particles.

The Forzon theory is consistent with its calculations and furthermore one of its prediction, related to the accumulation of kinetic energy in agrupacion of surface areas of unidirectional forzons has been experimentally documented in highly energetic protons observed in the big European particle accelerator LHC (Block & Halzen, 2011). The experiment demonstrates that these protons, while the energy increases, tend to form a flat disc perpendicular to the movement, which is predicted by the OIS theory as the sum of the forzon surface areas which represents the kinetic energy for a determinate direction and sense.

Although the cited OIS work suggests that forzons obtain this energy from space, it does not explain the mechanisms involved in the process. This will be the aim of the work presented here. In order to succeed we should not modify the inertial mass model we have, we only need to explain how the time surface areas cause the gravitational mass.

As we have seen previously, forzon, being a motor particle, still needs a form of energy which necessarily will obtain from the space where it is found, which makes us think that space contains some type of unknown energy. The best proof of the existence of this energy in space is denounced when in consequence of this energy consumption by the forzons, it generates in space a decrease gradient of energy related to the matter, this gradient is evidently known as the gravitational field. This gradient remains perfectly identified as we know it as the potential energy, which is due to the energetic change experimented by particles while they are displaced radially in the space energetic gradient; hence the energy that the particle exhibited corresponds to the space's energy in which they are.

2. The OIS Universe

Actually, almost no one doubts that vacuum is very energetic (Peebles & Ratra, 2003).

The problem is presented to us when the energy detected in vacuum is 10^{-124} times inferior to the one expected (Millonni).

Furthermore, we would have to determinate in which forms the energy is found in vacuum and how it interacts with matter.

Fortunately, the OIS theory and its forzon dynamics leave few doubts about how space should be and what is its relation with matter.

OIS universe is an open container, i.e. it possesses an entry and an exit among which it circulates, which we call space. In this and other things, OIS coincides with the universe steady state theory proposed by Conrad Razan (2010).

Furthermore, the OIS space is absolute, tridimensional, electrical, bipolar, pressurized, fluid (Shaw, 2012; Lindner, 2012) and sub quantum.

2.1 Tridimensional

Because only exist three dimensions Euclidian space. The fourth dimension is not necessary; we substitute space-time for electro-space, where the four dimensions is substituted by a scalar quantitie that correspond to the electrical tension of each space point.

2.2 Neutral, Bipolar and Polarizable

As well known, space is electrically neutral although it can present electrically charged regions that are known under the name of electrical fields. Those fields are associated to both types of electrical charge: symbolized as + for the positive ones and – for the negative ones.

This prompt us to accept the fact that space is at least constituted by the accumulation of these two types of charge or space units, the negative ones, (-) and the positive ones, (+) in this theory, both have a tension with respect to the absolute zero of reference.

We should think of these space units as some extremely small portions of space in which predominates one polarity. Of course these space units possess electrical charges whose fractions are too small to be compared with the electron charge. As we will see, there are evidences of these charges possessing energy more inferior than half of the Planck quantum.

The final space or electro space is constituted by the sum of two corresponding spaces each one at each polarity (cf. Figure 4), i.e. a negative space and a positive space exist. Both unipolar spaces coexist forming a neutral and bipolar space due to the homogeneous distribution between their spatial units.

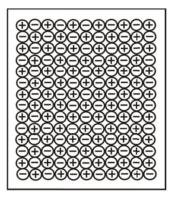


Figure 4

2.3 Pressurized

This pressure is the consequence of the repulsive electrical forces type (expansive) between same polarities space units (cf. Figure 5 a and b), against what it seems that there are not cancelled by the contradictory or attractive forces between distinctive spaces polarity (cf. Figure 5 c)

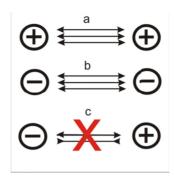


Figure 5

In this space, pressure and voltage are equivalent.

However, owing to its repulsive forces both space units types tend to mix homogenously and to unify to its opposite as a no repulsive space. When there is an opposite space polarity, repulsive force does not exist, it seems that there is an attraction between distinctive charges sign.

The strength of the pressure explains the limitation of the forzons F1 force in OIS and this force limits the light velocity.

2.4 Fluids

OIS compels us to understand that the universe is open, i.e. it has an entry and exit, and space is something that flows through.

For what is known about the homogeneity of the universe and until there are not any precise studies realized in respect, we will suppose that space enters all the universe parts at a constant rhythm and under an homogenous form, and exits the regions where the particles with mass are concentrated (Lindner, 2012).

All that we are interested in knowing at this moment about the space evacuation mechanism is that it belongs to matter and energy in a way that we will see posteriorly in the paragraph about evacuation.

It is clear that space, when exits our universe, does not belong to our universe, it simply disappears, and the one that enters appears from what we call nothing, getting more space where there was less before. We should observe the sense of the flow, i.e. from vacuum to matter and never in the opposite sense. This is the cause of the proper sense of all existence in our universe. We should take into account that the logics of fluid contain something as important as the logics of causality or the time irreversibility, logics that should be maintain in the entire universe.

2.5 Absolute

Because its pressure or tension can be measured in relation to the absolute zero of reference, present in the forzons time surfaces areas.

3. The Time Evacuator

In the OIS universe the forzon T surface area, corresponding to time is in reality the space hole evacuator surface. As we can see, something is missing in our perception of the time passing; hence not everything that is occurring is a consequence of the time passing, but the space passing through time

This is a premise of OIS that space exits the universe through the forzon time surface area at light speed velocity.

This way forzon acts at this level like a black hole species that does not devours matter, only space, this space suction causes time surface areas agglutination, thing that situate forzon as the most suitable candidate known as gluon.

From the electrical point of view T is equivalent to a conductor that brings current to mass, its tension is zero. In this model, space and electrical charge are inseparable, we are indeed dealing with the electro-space, this way the space evacuation current is also equivalent to an electrical current, neither electrons nor protons, but the electric charges associated to the vacuum space or space units.

3.1 The Photon, the Simplest Evacuator

The simplest example of evacuator known particle is the photon, a small time surface oriented perpendicularly in

the movement direction. The photon velocity c in space is in reality the velocity at which the space enters the forzon time surface constituting the photon, i.e. the photon travels sucking the space encountered in its way and this is the origin of the apparent displacement through space, and it is also the origin of the movement of all the particles which all are already forzons aggregations.

The photon energy is proportional to the space consumed and depends directly on the surface T size and the pressure of the space transited. Because the photon is electrically active and it describes a bipolar cycle we should think that in each hemicycle it evacuates a quantity of unipolar space, which equals to an electrical energy intake equivalent to half of the Planck constant.

$$E = \hbar/2 \tag{5}$$

The quantum evacuation of space, made by the photon, does not necessarily involve that the unipolar units constituting space have the quantum dimensions, all the contrary, when we try to explain the wavelength shortening in photons of major energy, we found that a photon that doubles its energy can evacuate the same quantity of space units (volume) at half wavelength, i.e. completing its hemicycle of evacuation with apparent minor displacement. If we think space as a volume to evacuate by a circular surface area, we see that the geometric figure generated by the lineal displacement of such surface area is a cylinder, and certainly, like the photon, if we double the surface areas of the cylinder base, we can obtained the same volume (energy) at halfway. Once more, these simple calculations confirm the validity of the surface areas model of evacuation in order to explain the relation between the energy and wavelength of photon

In theory, the photons with a frequency of 1 Hz should travel 300 000 000 meter in order to evacuate the space units quantity corresponding to the Planck energy h. Which diameter should have its evacuation surface area and what dimensions the space units should have in order for them to be allocated inside the cylinder it has generated? This demands that the quantum unipolar space units should be sub-quantum in any dimensions that approximate to the infinitely small.

4. Space Polarization or Electric Field

As we have seen in the ultimate section, we can explain particles with charge as selective or preferential space evacuators of a determinate polarity. This selective evacuation creates a depression in one of the spaces that composed the bipolar space. This differential pressure between the two space types is what we know as electrical field

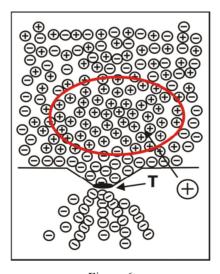


Figure 6

The photon, by making an alternate evacuation of opposite charges generate in space electrical imbalances under pressure changes or alternative tension in both polar spaces, these changes tend to propagate through space as a wavelength at the speed of light, this could explain the basic form of why the photon can exhibit including simultaneously this double wave-particle aspects (A. Pal & D. Pal, 2012; Peruzzo, Shadbolt, Brunner, Popescu & O'Brien, 2012).

The photon is a particle that generates electromagnetic wavelength by progressing through space. We can understand it as an ambulant emitter.

For the same motive, the electron must be a preferential evacuator of positive space units that create a depression in the positive space attracting positive charges, and generating a positive charge deficit in space, i.e. a space field dominated by the pressure or negative tension.

Figure 6 shows the accumulation of positive charges as a result of preferential evacuation of negative charges in the proton. This explains that opposite poles appear to attract between them, when in reality these forces of attraction do not exist in absolute.

Clearly, these space unipolar fields result to be a world apart. Moving particles with their electric field demands surrounding space reorganization, which causes the appearance of magnetic fields; what this model understands as a reorganization of space charges that comes up with matter forming channels or pathways that we understood are electromagnetic flow lines. These pathways are a manner to concentrate the flow energy and allowing a scope that won't have otherwise; they are the cause of all the phenomenology of, electromagnetism, something that Physics has known to resolve and use so exquisitely.

Transferring all we know of electromagnetism to the space model we are proposing is a task that exceeds the present work claims. For now, it is sufficient to ensure the minimal bases which will allow posterior development or interpretations of Physics to the OIS universe.

For what we see, to unbalance space in such way results somehow very serious, this brings up unimaginable forces in matter. The neutralizing effect is produced when we found a fractional equilibrium of the unipolar charges, i.e. units too small. If we look closely, in the neutral space we won't find accumulations of unipolar charge of bigger dimensions. On the contrary, in the electric fields, the unipolar spatial unity sums up to create unipolar hypercharges that normally do not exist in neutral space. When the unit density reach the proton or electron dimensions, the forces occurring between them are disproportionally big compared to the ones caused by the bipolar depression that causes gravitation.

5. The Power and the Constant c

As said before, in OIS, the space flow can be understood in all facts as electrical flow, where pressures correspond to voltage and the speed evacuation in the hole surface. For a determinate surface hole, this speed is equivalent to intensity. The hole surface corresponds to mass and mass is electrically the inverse of resistance, i.e.

$$m = 1/R \tag{7}$$

This speed depends solely on the pressure difference between the space to evacuate and the space at the other end of the hole evacuator. Perhaps, there are yet no ways to measure in absolute space pressure, but indirectly we can deduce that pressure from the photon displacement speed in its interior. Indeed, in the interpretation that this theory makes of the equation of energy (4), c corresponds to space pressure, i.e. an indirect way to measure it without any doubt has been used in relativity.

The power of the evacuation system depends on the intensity I of the jet multiplied by the pressure difference between the two spaces connected by the evacuator. As electric space fluid is in reality electrical current the Ohm's law is enough to describe all. Then power:

$$W=IV$$
 (8)

Where I is intensity and V is voltage

Equally, the matter potency including photons is, i.e. fluid intensity I times pressure c:

$$W = Ic (9)$$

As intensity, i.e. evacuation speed c times hole surface m:

$$I=cm (10)$$

Finally, we obtain:

$$W = cmc$$
 (11)

Meaning:

$$W = mc^2 = \frac{1}{R}v^2$$
 (12)

The space evacuation system and its charges show that the forzon have in reality an electric motor with 100% yields.

6. Gravitational Field

As said earlier, the gravitational potential energy can be interpreted as the clearest evidence of the existence of the space energetic gradient.

Gravitational field is understood as an electrically equilibrated depression of bipolar space caused by the proximity of the evacuation system or mass evacuated equally by both space types.

The gravitational fields consist of a gradient of descending and centripetal pressure, with all the consequences it has for the particles energy in it. We yet know that the energy is linked to the square of pressure c.

Acceleration of the gravitational field at a given point is proportional to the pressure gradients at this point.

$$F = -\nabla U \tag{13}$$

Given that the output of space by matter evacuators is made at maximal speed, space flow entrainment onto matter should be inexistent or depreciable. What entrainment force can perform a fluid onto a structure absolutely hollow as onto the forzon surface area?

6.1 The Potential Energy

It is defined as the energy acquired by the evacuation system when it is displaced between two space points at different pressure. When forzons are moved at a pressure gradient as it is the case in the gravitational field, its vectors magnitude varies equivalently, i.e. increasing with pressure such as when major is the pressure major is the vectors magnitude (cf. Figure 7).

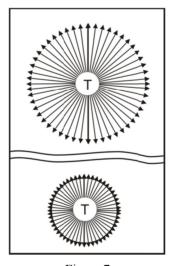


Figure 7

Because the energy equation includes c^2 the pressure differences between two points can be calculated from the potential energy differences observed in a determinate mass being moved between them. With equation the number 14.

$$c = \sqrt{\frac{U}{m}} \tag{14}$$

The result obtained should be summed up or subtracted from c according to point c of major or minor energy we wish to know.

6.2 Light Speed c

Of course, the evacuation speed is equivalent to the pressure which implies that the photon's speed displacement also varies proportionally to space pressure through which it passes

Surely, the constant c does not seem so constant this way and in fact it is not. It was confirmed by the experiment where a light ray was passed near the sun surface area and the delay could be observed at the light arrival (Shapiro, 1964). In fact, this experiment has been done yet in Nature; hence we can observe the matter jets (Junor, Biretta & Livio, 1999) emitting by the galactic centers with apparent velocities up to 3c. It is not difficult that pressure out of galactic disc could be twice or three times superior to the one existing inside where our Earth is found, a place full of evacuators.

The fact that the gravitational field is caused by the same evacuation phenomenon that cause the electrical field, it explains the similarities observed between both fields.

6.3 The Process Slowdown or Time Dilation

As we can imagine, the consequences of pressure decrease in depressed spaces are enormous affecting light speed and equally they affect the velocity of execution of all the physical processes, this is what in relativity is known as time dilatation. From OIS point of view, this happened because the vectors of the force-speed binomial associated to forzons time surfaces decrease its magnitude proportionally to the existing pressure in its space of location. With minor force per time unit the execution speed decrease and as a consequence the execution time increase (Sorli & Fiscaletti, 2012).

As seen, what relativity has observed as time dilatation can consist of a simple process slowdown, herein Relativity and OIS coincide. So, the interpretations are very different because SR proclaims the existence of a fourth dimension somewhat unnecessary in OIS and other theories (Sorli & Fiscaletti, 2012)

7. Other Implications of OIS

When OIS model is applied, this implies some direct consequences about how should be interpreted some observations. For example, the space expansion remained cancelled by the space evacuation and as a consequence neither the universe expansion nor the background radiation can be caused by the inexistent Big Bang. Other interpretative consequences can occurred when the space pressures are changed, which can change the matter energy in it as well as the speed of physical processes.

OIS proposes a mechanism of space evacuation that causes the gravitation by unifying it with the inertial mass aspect. In this way the space evacuation model of OIS gives a fundamental support to the theories of space fluids; especially to the Razan cellular space theory (Razan, 2010) where these consequences have been extensively developed.

Without entering into details, at continuation, we will only point out the most important and inevitable consequences from OIS point of view.

7.1 Dark Matter: a Shiny Matter?

OIS defines matter as a time surface singularity and the alteration caused by it in the tridimensional space.

Comparatively, the pressure's differences cause differences in the energy associated to a determinate quantity of surface area of evacuation, this means that the same matter quantity located in depressing space will have less energy and will behave as it would have less mass, this constitutes an interesting explanation to the galaxies rotation and dark matter, hence it means that the galaxy external matter can have comparatively more energy than the internal matter where the space pressure is debilitated by the evacuators abundance.

Which could mean that the majority of dark matter does not exist, excepting the one corresponding to the dark stars, planets, dust and other residues, only exists what we see and shine in the sky at night.

As already have observed (Tully & Fisher, 1977), when establishing the relation of the same name, the galaxy's light energy, is the fourth potency of its gyration velocity. This relation between velocity and energy support OIS idea: matter energy can vary in function of space pressure c in which it is found

This fact more than checked gives a solid support to OIS idea that matter's energy is calculated as a square of pressure, or of space speed c in which it is located. Hence, it is not strange that a relation exists between the speed of movement and matter's energy and as a consequence its temperature and light radiation.

As seen earlier, where space's energy is more elevated everything succeeds very fast, and the stars movements are not an exception.

7.1.1 Changes in the Stars' Type and Evolution

It is possible that a star with the same quantity of matter evolved in a different form according to the space tension where it is, for example, in a tenser space outside the galaxy our sun could shine as white dwarf, wasting its energy some hundred millions years. We should considerate the changes that can cause the introduction of tense space concept in the stellar model

7.2 The False Expansion of the Universe

The space entering intercalates in the existing space, i.e. space grows, increases between any two space points. This means that the much longer a light ray travels through space in expansion much bigger will be its wavelength which also will grow in the space where it is found.

This wavelength enlargement could be interpreted as a Doppler effect and makes us believe that the sources where it comes from move away, enlarging the universe size, but this universe expansion could be false if the quantity of space consumed by the galaxies is equal to the ones created in the empty spaces between them. This way, despite the appearances, the quantity of space separating two galaxies could be constant. Surely this quantity could be really be increasing if the evacuated quantity would be less than the generated one, but knowing that space critical density measures ensure that the space is flat (Miller et al., 1999; Melchiorri et al., 2000; Hanany et al., 2000). The idea of an universe where the quantity of space entering is equal to the one exiting result much more probable.

7.3 The Microwave Background as the Last Frontier in the Perception of Deep Space

This form of the universe forces us to reinterpret the microwave background radiation (Penzias & Wilson, 1965), which could not have been produced by the famous Big Bang theory. Hence, it would be interpreted as the ultimate radiation perceptible of a faraway matter. Due to the expansion of the wavelength associated to the distance, it is very possible that it exists a range of distance in which the majority of the radiations with sufficient energy reaching us had incremented their wavelength until they meet with the microwaves, which are, very possibly, the ultimate wavelength with sufficient energy to reach us from this enormous distance. The radio frequencies of major wavelength may not have sufficient energy or physical characteristics of propagation suitable to reach us. In this way, the microwave radiation simply would correspond to the ultimate border of our perceptible universe and not in anyways an echo of the hypothetical BB theory.

The region of the universe where microwaves proceed is a hollow sphere, i.e. we are in the center of two concentric spheres with different radios R and r.

At the smallest distance r, we can see the stars emit infrared light reaching us as microwave, and at distance R will be located quasars and objects capable to emit powerful gamma radiations, which due to the enormous distance at which there are from us will also reach us as microwaves. The magnitude of this spherical zone and the quantity of galaxies contained inside can give us this homogeneous fund of microwaves.

7.4 The Cycle of the Forzon in the Galaxy and Space

The galaxy is the major structural unit of matter in the universe, it possesses an organization and a well-defined function in which we can distinguish a complete cycle constituted by two movements of opposite ways, one centripetal tends to concentrate matter in the center and other reverse movement or centrifugal which return the matter outside the galaxy. As we know, forzons, which are the basis of matter and energy, are returned to the outside in forms, matter and energy of photons. Both movements represent the drift of matter to space forces fluids passing through it.

The cycle repeats endlessly since in principle, matter does not create nor destruct, only can transform or organize itself. The matter returned from the jets outside the galaxy center, resumes its journey in the form of stars and dust into the center of the galaxy.

The result of this reversal movement is the ionized gas cloud that practically surrounds the galaxy. This gas has been recently detected with the maximum quality because it emits radiation in the meter wavelengths frequencies that have been detected by the new European telescope LOFER (Gasperin et al., 2012).

At major scale, galaxies appear to organize themselves in clusters of galaxies and these clusters in filaments which lie between the large voids occurring in space enough to feed the matter of the galaxies.

7.5 Forces Unification

Pressure c is the force that permeates everything, it is the cause of every other force, hence this model is also the model of OIS unification, it is a rational and a complete model of the universe based upon the simple fluids

model that guarantees sense in all its parts. To be fair this is nothing new, Heraclitus already said it more than 2000 years ago, "everything flows". The book named "Tao the kin" supposedly written 4000 years ago in China says: "Tao is a hollow vessel, the more we ask, the more we give, it is inexhaustible and is the source of everything, it is eternal". In respect to vacuum it says: "emptiness is endless and the more you move it more it emerge".

Pressure in itself is not sufficient, the role of evacuators is essential so that appear structures or significant differences in space; vacuum is simply a homogeneous space. But equally, the existence of evacuators only can be understood as the connector between our universe's space and what is outside on the other side of the time surface. For science what exists are our universe and its laws, we live in it and we can experiments in it, whatever is further than time does not exist, whatever that does not have sense for the ones belonging to this universe, and consequently it belongs to the metaphysical field.

8. The Todal (Acosta, 1987)

However, the most elemental logic of fluids supposes the existence of a previous universe or para-universe from where proceeds our electro-space, also exists a posterior universe or meta-universe where our evacuated electro-space is leading to Figure 9.

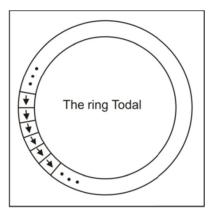


Figure 9

In such a model all that is proper to each universe are their evacuators and their particular space fluid sense.

Likewise, we can think of the union of all universes as a closed union or a ring of universes through which space has always flown and forever. This union has the particularity of possessing all the senses and none specially. It relieves from accountability since it does not have sense in its entirety as it is in the case of each universes forming it. This singular circular union of universes that had the entire time and space; all senses and none specially, it is what we called El Todal (Acosta, 1987).

9. The Necessity to Re-Interpret Physics

By considering matter as a consumer of generated space homogeneously in the entire universe, the pressure at any point will depend on the consumers surrounding and on the dynamics or capacity of space to migrate from the most pressurized zones to the most depressed zones for evacuation. This dynamic is warning us of the possible non-homogeneity in space pressure and can be the origin of anomalies observed in the galaxy gyration, and others that have been justified by the use of modified gravitational theories.

In any case, this theory warns us of the possibility that we have to develop a universe map of pressure attending to some types of observable parameters.

The universal OIS theory is consistent with what is known and explain the universe in its essence but demands a reinterpretation of Physics supposing a huge work which can lead to decades and obviously is out of what the present work claims.

10. Conclusion

Someone predicted that vacuum should have a big quantity of energy, but as the energy detected in vacuum resulted to be of order 10^{-128} the idea was then forgotten. However some decades later, after the year 2002 was

declared the year of dark energy, Physics would never have imagined the existence of such a big Force acting in our universe. Despite that has passed another decade, this energy only has been able to be detected in the macro cosmos and never has been detected in the vacuum surrounding our solar system, such as the origin and causes of such energy continue to be considered mysterious.

In this matter there are various questions requiring answer:

In which form vacuum space can contain so much energy?

In which form it interacts with matter?

Why it cannot be detected?

How can it be detected?

OIS space, i.e. the model of tense space evacuated by time surface areas marks a possible scientific pathway towards the complete understanding of dark matter, also known as vacuum space and general dynamic of the universe.

This has been achieved approximately following these sequences of steps:

- -Discovering the existence of Forzon as the particle carrying time and as a consequence of all matter and energy manifestation.
- -Demonstrating unequivocally how the agglutinated systems of Forzons can be the cause of inertial mass and of all the effects that have been described in the Special Relativity.
- -Exposing that each Forzon equals to an absolute particle of traction, which needs energy to function. And as a consequence of masses of Forzons constituting such particles, they consume each second a quantity of energy equals to mc². The Forzon can only obtain its energy from vacuum. How does it do it?
- -Giving to Forzon an adequate type of space in order to aliment from it and be the cause of other phenomenon associated to matter, such as the electrical field and the gravitational field:
- -Pointing out that Forzon time surfaces areas as tense space evacuation surfaces.
- -Relating particles energy with its space evacuation capacity.
- -Revealing the universe pressure as the origin of constant c.
- -Associating universe pressure with repulsive forces between same sign space charges, without attraction forces between them in order to obtain expansive space as the final result.
- -Dark matter, we understand the value of this constant can vary from one site of the universe to the other and how these variations are conditioning the matter energy that space may contain.
- -Unifying, explaining that all forces proceed from the force that tenses vacuum space. We are referring to repulsive force c, tension c, velocity c, and as we know energy of matter in function of c^2 .
- -Pointing out gravitation field as a depressurize space that is being revealing because the matter moved by it shows from the potential energy changes, the pressure changes of the space where it moves.
- -Explaining relations between the energy and photon wavelength as a consequence of the evacuation of a cylindrical volume of space, generating from the displacement of a circular time surface area.
- -The need of a bipolar space model and the differential evacuation of both spaces permit to explain the apparition of bipolar electrical fields observed in photon.
- -Electrical field, the idea is generalized by explaining any electrical field as a unipolar depression of bipolar space.
- -Electro-space, we see mass as an electric conductor, i.e. equivalent to 1/R in Ohm's law.
- -Pointing out equilibrate evacuation of both unipolar spaces as a cause of gravitational field.

For everyone, OIS space looks simple and solidly fitted to space energy calculations that we know and to its principal energetic manifestations.

With this new way of understanding energetic space and its relation to matter, we are opening a door to a generation of new technologies, which perhaps we would not be able to imagine today, maybe motors to travel in spaces without basing on the current systems of reaction.

From philosophical point of view, we are also very close to the forgotten ideas of Heraclitus and his way of understanding the universe, i.e. coming closer to the absolute Sense of the Universe, the sense that impregnates

all, from the life of the big galaxies, passing by the miserable and ephemeras life of the human being and reaching far beyond the small until meeting these minuscule particles through which space leaves in hurry our universe after giving life and sense to all existence.

References

- Acosta, R. D. S. (1987). El todal. S/C de Tenerife.
- Acosta, R. D. S. (1998). The Inertial mass (expanded concept). San Cristobal de la Laguna
- Acosta, R. D. S. (2011). The Forzon in an inertial mass system of omni-directional impulses. *Physics Essays*, 24(4), 547-556. http://dx.doi.org/10.4006/1.3653237
- Duncan, W. S. (2012). The cause of gravity-a concept. *Physics Essays*, 25(1), 66-75. http://dx.doi.org/10.4006/0836-1398-25.1.66
- De Gasperin, F., Orrú, E., Murgia, M., Merloni, A., Falcke, H., Beck, R., ... Zarka, P. (2012). M 87 at metre wavelengths: the LOFAR picture. *A&A*, *547*, A56. http://dx.doi.org/10.1051/0004-6361/201220209
- Hanany, S., Ade, P., Balbi, A., Bock, J., Borrill, J., Boscaleri, A., ... Wu, J. H. P. (2000). MAXIMA-1: A Measurement of the Cosmic Microwave Background Anisotropy on Angular Scales of 10'-5°. *Astrophysical Journal*, 545(1), L5-L9. http://dx.doi.org/10.1086/317322
- Junor, W., Biretta, J. A., & Livio, M. (1999). Have shown that M87's jet is formed within a few tenths of a light-year of the galaxy's. *Nature*, 401, 891. http://dx.doi.org/10.1038/44780
- Lindner, H. H. (2012) Beyond Newton and Einstein to flowing space. *Physics Essays*, 25(4), 500-509. http://dx.doi.org/10.4006/0836-1398-25.4.500
- Martin, M. B., & Francis, H. (2011) Experimental Confirmation that the Proton is Asymptotically a Black Disk. *Phys. Rev. Lett.*, *107*, 212002. http://dx.doi.org/10.1103/PhysRevLett.107.212002
- Melchiorri, A., Ade, P. A. R., de Bernardis, P., Bock, J. J., Borrill, J., Boscaleri, A., ... Vittorio, N. (2000). A Measurement of Ω from the North American Test Flight of Boomerang. *Astrophysical Journal*, *536*(2), L63-L66. http://dx.doi.org/10.1086/312744
- Millonni, P. G. (n.d.). The Quantum Vacuum.
- Pal, A. K., & Pal, D. (2012). A new concept of photon having coexistent wave-particle duality. *Physics Essays*, 25(1), 34-37. http://dx.doi.org/10.4006/0836-1398-25.1.34
- Peebles, P. J. E., & Ratra, B. (2003). The cosmological constant and dark energy. *Reviews of Modern Physics*, 75(2), 559-606. http://dx.doi.org/10.1103/RevModPhys.75.559
- Penzias, A. A. & Wilson, R. W. (1965). A Measurement of Excess Antenna Temperature at 4080 Mc/s. Astrophysical Journal, 142, 419-421.
- Peruzzo, A., Shadbolt, P., Brunner, N., Popescu, S., & O'Brien, J. L. (2012). A Quantum Delayed-Choice Experiment. *Science*, 2, 634-637 http://dx.doi.org/10.1126/science.1226719
- Ranzan, C. (2010). The story of gravity and Lambda–How the theory of Heraclitus solved the dark matter mystery. *Physics Essays*, 23(1), 75-87. http://dx.doi.org/10.4006/1.3293983
- Shapiro, I. I. (1964). Fourth Test of General Relativity. *Physical Review Letters*, 13(26), 789-791. http://dx.doi.org/10.1103/PhysRevLett.13.789
- Sorli, A., & Fiscaletti, D. (2012) Special theory of relativity in a three-dimensional Euclidean space. *Physics Essays*, 25(1), 141-143. http://dx.doi.org/10.4006/0836-1398-25.1.141
- Torbet, E., Devlin, M. J., Dorwart, W. B., Herbig, T., Miller, A. D., Nolta, M. R. ... Tran, H. T. (1999). A Measurement of the Angular Power Spectrum of the Microwave Background Made from the High Chilean Andes. *Astrophysical Journal*, *521*(2), L79-L82. http://dx.doi.org/10.1086/312197
- Tully, R. B., & Fisher, J. R. (1977). A new method of determining distances to galaxies. *Astronomy and Astrophysics*, 54(3), 661-673.