The Forzon in an inertial mass system of omni-directional impulses

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Abstract: Based on the analysis of special relativity (SR), we conclude that matter-energy can be explained with a type of motor particle that we call natural impulse \( I_n \). This particle, besides its vector properties, has the capacity to agglutinate which allows it to unite in conglomerates whose main exponent is the omni-directional impulse system (OIS), represented by the mass at rest. OIS is a system of impulse \( I_n \) pulling in all directions and senses without getting motion. This demonstrates the existence of energy supplying impulse \( I_n \) motor activity. This is about energy as it has remained hidden for physics. On the other hand, this theory shows that the mass of particles works as a stock of \( I_n \) and that the state of motion and rest is a result of a balance between its stoked impulses. Following its premises of storage with the corresponding equations, we can obtain the same results as SR from Lorentz equations. This means that SR is in reality, a way to manage the \( I_n \) storage. The true value of OIS is not in resolving the problems that SR has resolved wonderfully but in answering all the interrogations that SR, despite its solutions, has generated. And above all, to demonstrate that the theory of special relativity, contrary to what has been believed, has always been full of common sense. © 2011 Physics Essays Publication. [DOI: 10.4006/1.3653237]

Résumé: Sur la base de l’analyse de la Relativité Spéciale (RS), on conclue que la matière-énergie peut s’expliquer par un type de particule moteur appelé impulse naturelle \( I_n \). Cette particule en plus de ses propriétés vectorielles possède la capacité de s’agglutiner ce qui lui permet de s’unir en conglomérats dont le principal exposant est le système d’impulse omnidirectionnel (OIS), représenté par la masse au repos. OIS est un système d’impulse \( I_n \) tirant avec une force égale dans toutes les directions et sens, mais sans atteindre un mouvement. Cela démontre l’existence d’une énergie alimentant l’activité moteur de l’impulse \( I_n \). On parle d’une énergie, qui comme l’impulse \( I_n \), était restée cachée en physique. D’autre part, cette théorie montre que la masse des particules fonctionne comme un stock d’impulse \( I_n \) dont l’état de mouvement et de repos est le résultat d’une balance entre ses stocks d’impulses. Suivant les prémisses du stockage avec les équations correspondantes on peut obtenir les mêmes résultats que la RS à partir des équations de Lorentz. Cela signifie que la RS est en réalité un moyen de gérer le stockage d’impulse \( I_n \). La valeur réelle du système OIS n’est pas de résoudre les problèmes que la RS a résolus merveilleusement sinon de répondre aux interrogations que la RS, outre ses solutions, a générées. Et surtout, de démontrer que La Théorie de la Relativité Spéciale, contrairement à ce qu’on pensait a toujours été remplie de bon sens.

Key words: Forzon; OIS; Natural Impulse; Inertial Mass; Time; Force; Velocity; Special Relativity.

I. INTRODUCTION

The inertial mass of the particles is responsible that an impulse \( I \) (Ref. 1) [Eq. (1)] applied to a particle in Newton per second (N s) is converted into momentum \( P \) [Eq. (2)], in such a way that \( I = P \),

\[
I = Ft \tag{1}
\]

\[
P = mv. \tag{2}
\]

According to the special theory of relativity,\(^2\) we can apply an infinite quantity of impulses \( I \) to a particle producing in it identical quantities of impulses \( P \), whereas velocity \( v \) is a finite quantity. This is possible because when the velocity of the particle reached its limit \( c \) and cannot be increased further; its mass would be the one that will increase in a completely linear manner or will be equivalent to impulse \( I \) in order to allow \( P \) increase. From that moment until the infinite, impulse \( I \) equals mass. In other words, we can think that mass always equals impulse \( I \) excepting at velocities below \( c \). Thinking that mass is impulse and the phenomenon of inertia functions equally in all senses and directions, we conclude that the mass at rest would be a sort of omni-directional system in which the impulses maintain a tense state of equilibrium. This means, the mass at rest would consist a quantity of impulses represented as vectors distributed in a spherical shape pointing in all directions according to Fig. 1.

We come, thus, to the first assumption of this theory (cf. Fig. 1),

\[
m = \frac{I}{c}. \tag{3}
\]

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In an impulse ships are distributed in a spherical shape. Each boat equals essence, this is what we call an OIS. In a 3D system the energy developed by the motors of all the boats. In a floating buoy, both will constitute a tense system out of movement, pulling in all directions of a floating buoy, (Fig. 1), an equivalent relation exists between surface area and impulse. A system formed by couple of ships, as described by pulling in all directions of a floating buoy (cf. Fig. 1), remains tense out of movement, but its energy is the sum of the energy developed by the motors of all the boats. In essence, this is what we call an OIS. In a 3D system the ships are distributed in a spherical shape. Each boat equals an impulse \( I_n \) and normally we will use Newton second, \( Ns \), as the \( I_n \) unit. Therefore, if we consider Eq. (3), it means that a mass of 1 kg is constituted of the quantity \( 1 \ c \ I_n \), or \( 1 \ c \ Ns \) uniformly distributed in all directions and senses.

\[ I = mc \quad (4) \]

III. POWER AND ENERGY OF MASS

The power in Watts (W) of this system is obtained multiplying the number of boats \( I \) [cf. Eq. (4)] by the velocity of the fluid displaced by the boats propellers, \( i.e. \), speed \( c \),

\[ W = mcc = mc^2. \quad (5) \]

Such machinery consumes each second in Joules and its power value in watts, \( i.e. \),

\[ E = mc^2. \quad (6) \]

Certainly, this is the famous Albert Einstein equation of energy receiving a new interpretation in this theory. We understood this energy as the energy that consumes the mass machinery in order to exist. A better name for this energy would be precisely “the absolute energy.” This energy is unprofitable; in our world, we only can use the relative differences between the mass systems.

The comparison between the boats and the impulse \( I_n \) models is good, but in the case of impulse, \( I_n \), the friction forces from the boat’s hull with water do not exist. Consequently, the \( I_n \) fluid velocity passing through the propeller plan is always the same regardless of impulse \( I_n \) velocity, \( i.e. \), constant \( c \).

Thus, the power traction mechanism \( T \) depends on the measured surface of the jet section. Following the comparison of the helix, this measure coincides with the surface area of the circle swept by the propeller, in such a way that, in order to calculate the power, we need to make the sum of all impulses \( I_n \) surface areas,

\[ E = Pc. \quad (7) \]

Also we understand that Eq. (7) describes the energy consumed per second for a system having a jet with \( P \) section (all the impulses \( I_n \) at speed \( c \). An equivalent relation exists between surface area and impulse.

Impulse \( I_n \) is the smallest particle of mass and energy and is also a way of understanding the quantum energy of Plank.\(^4\)

Stable elementary particles with mass seem to consist of systems of impulses as the one described (OIS). The fact that impulse \( I_n \) remains united, despite being pulled in contradictory sense reveals the existence of a mechanism of agglutination that overcomes the driving forces, \( i.e. \), a mechanism equivalent to the rope and tie that connects the boat to the buoy. The OIS systems seem very organized and show a very regular and homogenous programmed behavior. This behavior is described by the equations of special relativity and vice versa, \( i.e. \), the behavior offered by OIS explains the relativistic equations.

As shown, the boat system has proven to explain the origin of the famous equation \( E = mc^2 \) [cf. Eq. (6)] relating mass to energy.

IV. THE MOVEMENT

Evidently, the movement will occur if the system\(^5\) is unbalanced. We can achieve it in three ways: increasing the number of boats in the hemisphere that points in the sense of the movement, removing boats from the opposite sense, or doing both.

After analyzing the relativity data, the last option resulted to be the right one.

V. IMPULSES \( I \) AND \( P \) IN OIS

“The cue hits the pool ball which is set in motion”

If we imagine that an external agent tries to introduce “by force” in the system two boats in a determinate direction
and sense, for internal organizational reasons, the system at receiving them acts as if it was attacked and decides to respond to the attack by liberating two boats of direction contrary to the boat’s intruders, i.e., against the external agent. At the end, four boats are moved, two entered which added them to the existing ones with the same sense, and two of opposite sense were exiting from the existing system, i.e., leaving the system (cf. Fig. 2). This total transit of four boats’ Ns is in Physics called impulse $I$ and the change introduced in the system by entering and exiting impulses is understood as the system’s momentum $P$.

Logically, the $P$ changes of the system will be proportional to the transiting impulse $I_n$ explaining in this way, the relation of equality between $P$ and $I$, i.e., $P = I$.

As observed, one of the consequences of these changes is the disequilibrium between the quantities of boat or impulse $I_n$ pulling in one sense and in the opposite one.

Consequently, we have a determined quantity of $I_n$ mass (practically the same) moving at a determined velocity.

Referring to movement vector of OIS, all the vectors forming an angle below 90° with it have components of force in the same direction and sense of the movement, this implies half of the sphere’s vectors, dividing the sphere in two hemispheres, one has impulses $I_n$ in the movement sense and the other one in the opposite sense. Both correspond to the mass of action ($m_a$) and reaction mass ($m_r$), respectively (cf. Fig. 3).

VI. CONCLUSIONS

1. Two types of mass compose in equal parts the system of mass at rest. The reaction mass $m_r$ and the action mass $m_a$.
2. The reaction energy, $E_r$, is limited to half of the mass at rest.
3. $E_r = \frac{m_0}{2} c^2$. (8)

VII. ACCELERATION OR CHANGES IN STORES

Mass can be considered as a store of impulses $I_n$ constituted of two sub-stores corresponding to two mass types: action mass $m_a$ and reaction mass $m_r$. In addition to containing impulse $I_n$, the system allows them to enter and exit following an interchanging protocol with the exterior.

Evidently, when the force of impulse $I$ is bigger the more intense will be the flow of impulse $I_n$ entering and exiting the store.

Each time an impulse $I$ is applied to a particle, an acceleration of the particle will be the result. But being acceleration $a = \frac{F}{m}$, the acceleration will not only depend on the flow intensity but will also depend on the relative change produced in the stock state, and this depends on the stores size, i.e., m.

VIII. OIS ORGANIZATION AND BEHAVIORS

OIS is not like any store; we cannot extract and introduce impulses wherever and whenever you want it. Soon it is understood that stores are at the system service, it is not our store, it belongs to OIS, who manages it according with its mysterious interests. In reality OIS has a predictable behavior that has permitted Newton¹ to legislate his mechanics laws and specially his third law about: “Every action has a reaction.” It is not possible to give an impulse to OIS in one sense without him responding with another impulse in the opposite sense. OIS is an ensemble operating as unity. OIS constitutes the first organizational level of existence and shows similarities to any living beings with its genetically programmed actions and reactions. We do not know exactly why things occur like this or where is the programmed OIS behavior, but from our level in the existence its behavior seems to be rigidly programmed and constitutes a solid base from where, in fact, has been possible to build our world of particles and atoms.
In this moment, our knowledge of OIS, its stores, and flows will allow us to know the standard followed by OIS in its stores management.

As we have seen, the flow $I$ is composed of outflow $I_o$ deducting $I_o$ to $m_r$ store and other inflow $I_i$ adding $I_i$ to $m_a$ store. We can also refer to the $I_o$ exiting and entering as an emission and reception of the OIS impulses. As a result, every time a transit $I$ occurs, $m_r$ store tends to empty and $m_a$ to fill. We found that, at all times, the proportion between both flows $I_o$ and $I_i$ composing $I$ is the same as the proportion between the contents of their respective stores $m_r$ and $m_a$.

This is the law that governs the OIS behavior, and as a consequence, the law that governs the world. It is the first law, i.e., Newton’s laws of mechanics are a consequence of it.

As mass $m_r$ empties the proportion of outflow, $I_o$ is also reducing compared with the proportion of inflow $I_i$, producing an accumulation or $I_o$ increase in the system. This increase divided by $c$ is what is called in special relativity (SR) increment mass $m_I$. All the $I_o$ coming in the OIS, i.e., belonging to $I$, flow are stored in the kinetic ring, a ring that circles the hemisphere of action constituting $I_o$, possessing the same direction and same sense of movement.

A. OIS equations

The writing standard can be expressed in a more precise manner as follows:

$$I_o = \left( \frac{m_r}{m_r + m_a} \right) I_p,$$

(9)

$$I_i = \left( \frac{m_a}{m_r + m_a} \right) I_p,$$

(10)

$$I_i = I_p - I_o,$$

(11)

$$I_o = I_p - I_i.$$  

(12)

If we divide impulse $I$ that we want to apply to a particle in portions or packages of impulses $I_p$ small enough, we will be able to calculate at every time with Eq. (9) or (10) the portion of impulse corresponding to input impulse $I_i$ and output impulse $I_o$. Applying $I_p$ signifies subtracting $I_i$ from $m_r$ and adding $I_i$ to $m_a$ according to the following equations:

$$m_r c - I_o$$

(13)

and

$$m_a c + I_i.$$  

(14)

There are two complementing sets of equations; either can be used to regulate the store operation, determining at all times which one should be the portion of output and input impulses. We can calculate the exiting part with Eq. (9) and the entering part with Eq. (11) or the entering with Eq. (10) and exiting with Eq. (12).

B. OIS, a model of SR without the Lorentz equations

Equations set (9), (11) or (10), (12) permit to develop a parallel and independent formulation to SR based only on the proposed model of $I_o$ store. Both equations are complementing because $I$ is the sum of $I_o$ and $I_i$.

Starting from a quantity of mass at rest $m_0$ a predictable evolution of $m_r$ and $m_a$ values is possible in function of impulse $I$ applied.

Based on cited equation, a computer program capable to realize simulations has been developed in order to confirm the prediction.

The program works giving packets $I_p$ of impulses to a determined particle at rest $m_0$. The program requests three data: mass at rest $m_0$ of the particle, the maximum quantity of impulse $I$ that we will apply to a given particle, and the quantity of impulse composing packet $I_p$. The program applied packets of impulses until reaching the total quantity specified $I$. Each time a packet is applied, Eq. (8) is used to calculate the portion of the packet impulse that should be deducted to $m_r$ and the portion that should be added to $m_a$, updating in this way the storage state. The result, as we can see in Fig. 4, was compared with the results obtained applying the relativistic equations.

As we can see, there exists a minimum error easily reduced tuning a little more the mathematical method applied in the program, i.e., we are dealing with an error caused by a deficiency in the method and not by the mistakes in the premises implied in the equations because these were obtained from the SR data analysis.

Using Eq. (10) with the procedure mentioned above, we can obtain the mass and a posteriori with Eq. (15) we can also obtain velocity $v$. In this way, we have an alternative solution to SR. The importance of this new way resides in the validation of OIS model and its premises,

$$v = \frac{I}{m}.$$  

(15)

With this simple simulation that anyone can repeat this experiment is the best demonstration of the validity of the OIS theory.

IX. THE NATURAL IMPULSE

Impulse $I_n$ like its homonym $I$ [cf. Eq. (1)] contains the same elements but forming a structure. Impulse $I_n$ consists of
a time surface area where is projected perpendicularly the vector binomial \( B_v \) (cf. Fig. 5),

\[
B_v = c = F + v. \tag{16}
\]

We should think in as a class of particles for which natural state is the speed of light, \( i.e., v = c + F = 0 \). \( I_n \) speed can be reduced to zero having a force in the opposite direction and sense. The opposite force should then be the maximum or also called \( F_1 \). Impulse \( I_n \) is the basic motor particle, originating matter and energy.

Impulse \( I_n \) behaves like a vector excepting in the vector sum, which is not possible due to the existence of a force limit, \( i.e., \) the maximum force or \( F_1 \).

An important property of \( I_n \) is their capacity to agglutinate between themselves. \( I_n \), including with the impulses \( I_n \) opposite to them in order to make agglutinated unions of \( I_n \). This capacity is possible due to the time surface areas, which join together in a scaling way in order to make a bigger surface. When two impulses \( I_n \) of opposite sense join together, they form a group whose velocity is zero, and as a consequence the vector velocity of both joint \( I_n \) will also be zero and its vector tension will be 1 or maximum (cf. Fig. 6).

If the group is the result of the agglutination of two impulses \( I_n \) of the same sense, its velocity will be maximum \( c \) and its tension null (cf. Fig. 7).

The mass at rest is a sphere resulting from the time surface areas union of impulses in all directions; such a way that each little area would irradiate its force vector 1 perpendicularly to its surface element, like a prolongation of its spherical radius.

A. The photon mass

Photons and all the particles that do not possess a mass at rest are identified as an agglutination of \( I_n \) having the same sense, \( i.e., \) all \( I_n \) forming the agglutinate belong to the vector movement space itself.

The photon mass relation with energy is simple \( E = Pc \). Relaxed binomial state is \( v = c + F = 0 \).

If the impulses that compose particles with mass at rest are released, the result would be the emission of \( I_n \) as photons.

Supposing what is occurring to particles interacting with antiparticle, the result is the liberation of all the energy of their masses as photons.\(^8\)

B. Principle of the model delimitation

As we can appreciate, we are assuming impulse \( I_n \) work and energy consuming properties without explaining in absolute how this phenomenon occurs. Certainly, these facts demand an additional explanation but we consider it is not the main object of this work, which is limited to establish the properties that \( I_n \) have to meet in order to cover the model functionalities. There are papers published that provide data such as, for example, in 1998 (Ref. 7) showed that the spin of the photon comes from the angular motion of the orbital helix of the photon.

In any case this OIS model exigency can be considered as the most favored proof of the existence of the dark energy\(^8\) used somehow by \( I_n \) in order to obtain its traction capacities.

X. SR ANALYSIS AND THE MECHANISMS OF MASS

According to SR, when we apply an impulse \( I \) to a particle it increases its impulse \( P \), \( i.e., \) speed and mass. They show that the particles have two mechanisms acting simultaneously, each one deviates a part of \( I \) to its own purpose. One mechanism deviates toward incrementing the speed and the other toward incrementing the mass.

A. The part of \( I \) that increments mass

The indication \( m_1 \) is used in SR to define the incremented mass and \( m_0 \) to define the mass at rest. The quantity of \( I_n \) that has been deviated to increment mass is \( m_1c \).

B. The part of \( I \) that increment the velocity of OIS

If \( m_1c \) is subtracted to impulse \( I \) applied to a particle supposedly, we will have the impulses part \( I_v \) that incremented.
velocity \( I_r \) is a part of the entering flow \( I_0 \), that restitutes in \( m_o \) (kinetics ring) the quantity of \( I_n \), evacuated of \( m_r \), by \( I_o \). It is interesting to note the fact that both \( I_r \) and \( I_o \), are counted as part of \( I \) without incrementing \( I_n \) quantity in OIS, i.e., the quantity of mass, but they cause a disequilibrium between stores \( m_o \) and \( m_r \), reducing the \( I_o \) quantity in \( m_r \) and increasing the \( I_n \) quantity in \( m_o \). In other words,

\[
I_v = I - m_1c
\]  

and

\[
I_v = I_o + I_r.
\]  

There are almost a linear relationship between \( I_v \) and \( v \) and between \( m_r \) decrements and \( v \) increments. The total quantity of impulses \( I_n \) dedicated to \( I_v \) possesses the same tendency approaching \( m_0c \) than \( v \) approaching \( c \).

C. The connection between SR and OIS

Let’s see how to get from SR parameters those of OIS. Working in terms of OIS the energy state of the particle depends on the impulse \( I_n \) stocked in \( m_o \) and \( m_r \) stores and their stocks would depend on the mass at rest \( m_o \) and entry flow \( I_o \) and exit flow \( I_r \) submitted to them when impulse \( I \) was applied to OIS. The connection between SR parameters and OIS is shown in the following.

As we know, the quantities of impulse \( I_n \) constituting OIS when it represents the mass at rest is \( m_0c \), where

\[
m_r c = \frac{m_0}{2} c = m_c.
\]  

When an impulse is given to a particle where it is at rest, the goal is to update stores \( m_o \) and \( m_r \). For this purpose, our first objective consists in knowing the portion of impulse \( I \) that was used to increment mass. This data is found in the relativistic data \( m_1c \). According to OIS model, this quantity should be added to \( m_o \),

\[
m_o c + m_1c.
\]  

Now we can easily deduce which quantity of impulse \( I \) will be used to produce velocity with the Eq. (17) and we know,

\[
I_r = I_o = \frac{I_v}{2}.
\]  

We can observe that the emission of reaction impulse \( I\text{ }n \) in detriment \( m_r \) will increase \( v \) in detriment \( F \) (Fig. 10). We recall that \( B_r = v + F \). In this manner, the equilibrium between forces \( F_a \) and \( F_r \) is reestablished in order to reach a uniform and rectilinear movement (cf. Fig. 9). Each reduction of \( F_r \) has to produce an increase in velocity diminishing magnitude \( F_a \).

The fact that \( v \) increase is not totally linear with the proportional loss of \( m_r \) and force \( F_r \) is due to the lack of

FIG. 8. Photons have momentum \( P \) retained by Compton.

XI. VELOCITY

We have to assume that each mass hemisphere \( m_r \) and \( m_o \) possesses their respective associated forces \( F_r \) and \( F_a \). These forces result from impulse \( I_n \) contained in each hemisphere, and they have the same direction but opposite sense.

We can observe that the emission of reaction impulse consumes \( I_n \) from \( m_r \), this reduction affects the resulting force \( F_r \) such as it is proportionally diminished.

At first place, \( F_r \) diminution respect to \( F_a \) gives resulting forces in the sense of \( F_a \), causing a state of acceleration in the system and an increases of velocity (cf. Fig. 9).

This \( v \) increase is the one that finally restores the equilibrium between \( F_a \) and \( F_r \), because action impulses \( I_n \) will increase vector \( v \) at detriment \( F \) (Fig. 10). We recall that \( B_r = v + F \). In this manner, the equilibrium between forces \( F_a \) and \( F_r \) is reestablished in order to reach a uniform and rectilinear movement (cf. Fig. 9). Each reduction of \( F_r \) has to produce an increase in velocity diminishing magnitude \( F_a \).

FIG. 9. This figure shows OIS in a state of acceleration due to the resulting force \( F = F_a - F_r \). We can see the hemispheres its types of mass and the kinetic ring or accumulated parallel impulses with movement sense, consequent of \( I_n \) flux. The 3D representation is done by rotating on the \( a\ axi\$s$. 


linearity between \( v \) increase and the decrease in \( F_a \) magnitude in the action impulses \( I_a \).

SR calculations show that when \( F_r \) is reduced by 22\% the speed will be 25\% of \( c \), this fact is interpreted as the action impulses \( I_a \) needing a speed of 25\% of \( c \) in order to reduce vector \( F_a \) to 22\%. Figure 11 shows the graph of the deviation between \( v \) and \( F_r \). In the \( x \) axis we have the evacuated mass \( m_e \) percentage of \( m_r \), which should be the same as \( v \) percentage of \( c \).

As we see (cf. Fig. 12) this deviation has a maximum of 13\%, showing that the vector binomial of the impulses \( I_a \) can exceed the value 1 in 0.13. This deviation is usually normal in any traction system and depends on the characteristics of each system, e.g., helix type, type of fluid, torque, revolutions per minute, etc.

This deformation produces an increase in velocity major to the \( F_r \) reduction. Since we know impulse \( I \) applied to particle and its total mass \( m (m = m_0 + m_1) \), it is possible according to Eq. (14) to know the velocity \( v \).

### A. Losing reaction mass \( m_r \) and reaction force \( F_r \)

We need to know the relationship between the outgoing quantity mass of \( m_r \) and the resulting \( F_r \).

Outgoing mass would be reflected in the reaction hemisphere as a loss in time surface area, being achieved in an orderly fashion with impulses \( I_a \) better orientated toward the direction of reaction going first when \( I_o \) occur (cf. Fig. 13).

Each package of impulses acts as if we were cutting off another slice from the zenith toward the base of the hemisphere, hence eliminating a larger spherical shell and consequently leaving a smaller spherical zone.

In order to explain the relation between \( I_a \) evacuated mass and the resulting reaction force, we can think that the resulting force depends on the projection of the vector force of magnitude 1 in the axis of movement, see vector \( F_r \) on the left in Figs. 13(a) and 13(b), i.e., the resulting \( F_r \) is in reality a vector force component better oriented with respect to the movement axis, see the bold vectors in \( m_r \) hemisphere (cf. \( F_r \) Fig. 13). This projection coincides with the height of the spherical zone, which is inversely proportional to \( v \). As a result, it is possible to find forces \( F_r \) of magnitude varying between 0 and 1 from vectors that only having strength 1.

Due to the sphere geometry, the relation between the area of the evacuated shell and its height is completely linear.
XII. THE FORZON

What we call $I_0$ has enough entity to be named Forzon. If any natural element supports all the considerations that we have done until now on $I_0$, only this element can be the purest raw material from which everything is based. The origin of energy, mass, and the matter itself will have from now its own name Forzon.

From the role played in the model, we can deduce some of Forzon characteristics.

Functional characteristics of the mass natural impulse $I_0$ or forzon:

- Each fraction of unidirectional mass displaced travels through space at a maximum velocity $c$ upon a face perpendicular to its time surface.
- Each $I_0$ unity can associate itself with, join, stick to or agglutinate with other $I_0$ by adding their time surface area.
- The force of the union of time surface area is superior to force vector 1, so that once those impulses are joined; $F_1$ is not strong enough to separate the agglutinated impulses even though they may pull in opposite ways.
- The union of $I_0$ of the same direction and sense does not assume the addition of magnitude force; force $F_1$ is yet maximum and insuperable.
- The union of $I_0$ pulling in the same direction but in opposite sense will result in a state of rest or zero velocity for the agglutinated group.
- The energy of any agglutinated system is directly proportional to the system time surface area.
- The time surface area is the direct cause of mass in its entire sense: i.e., the inertial and the gravitational masses.
- Each unit of impulse $I_0$ acts in its own way and direction with plain force 1, and interact with other directions in proportion to the magnitude of its projection.
- In electricity, impulse $I_0$ is polarizable, i.e., can adopt any polarity and charge fractions. Any unity or entire charge quantity (electron or positron) result from the sum of these fractions carried by forzons.
- Each unit of $I_0$ is in itself a perpetuum mobile, an inexhaustible motor. This means that its natural state is dynamic, either tense when agglutinated with its opposite or in motion when it travels at maximum speed $c$, when it is not agglutinated with opposite impulses.

The Forzon is the essential component of matter. We can only find them forming part of matter like mass at rest $m_0$ or kinetic energy $m_1$ or traveling at speed $c$ agglutinated in a unidirectional mode, like photons mass or neutrinos mass. Hence its quantity is as finite as the same matter it form or the energy that it represents. Natural impulses are always found organized in two set types: the omni-directional set corresponding to particles with mass at rest and the unidirectional set forming part of what we have until now called particles without mass or hot matter.

XIII. DISCUSSION

We have described the essential of this work but now it would be more convenient being used to the idea of how OIS introduce subtle shades and how it re-interprets some facts known in Physics.

A. The kinetic energy an unidirectional mass of Forzons

In the particle accelerators, this work could be very important. Basically, the particle kinetic energy is a unidirectional mass of forzons, but when this particle meets with another similar mass but in the opposite sense, the forzons can recombine themselves, forming new particles according to adequate electrical conditions and spin of the carrying particles. The fact that Z boson with a significant mass and without electrical charge finishes its life in a pair of particles of opposed charge shows us that this said boson is a pure unidirectional mass of forzons coming from the kinetic energy provided by the accelerator showing signs of instability in re-organizing itself into two groups or particles of opposite charge. Clearly, complex charges are originated from a neutral mass of forzon even though they have to generate themselves as pairs with opposite charges. We can think that the groups of forzon have a tendency to polarize electrically. In other words, they have a tendency to position themselves according to their electrical charge choosing a determinate polarity. Above all, if the space travelled by the mass of forzon presents an electromagnetic field that can destabilize it such as in the case of the particle accelerator in which boson has been observed.

B. Neutral and ghost matter

We must accept that if we give sufficient impulse to an electron, its mass of unidirectional forzon (kinetic mass) can become as big as the mass of boson Z and can remain perfectly neutral and stable in the electron, i.e., without modifying its electrical properties. A very interesting property of stable particles is outlined earlier, i.e., the particle capacity to allocate theoretically infinite quantities of forzons as unidirectional mass, without altering its own electromagnetic identity.

Obviously, we are talking about unidirectional mass of forzons responsible for the particles kinetic energy. We mean that from the OIS point of view, the kinetics energy is a type of neutral and ghost matter. The denomination of dark matter is actually used for a type of matter in the universe that does not emit sufficient radiation as to be detected. A different concept is the ghost matter, which does not interact electromagnetically with the particle carrying it. This property converts it into an invisible matter.

We should think about forzon as polarizable elements. The idea is that electric unit charge of electron proceeds from the contribution of infinitesimal charge or electric fractions of each forzon. This can be due to the fact that forzon must possess necessarily some portion of charge regardless of its sign.

The best way to understand the concept is to consider the electron or positron as complex institutions of forzons that for some good reason result stable only when the unity charge is generated, i.e., when forzons of the agglutinate reach an electromagnetic agreement. This fact conditions the
electrical tendency of forzon in a way that each one should bring its corresponding electrical charge portion, once the unity electron charge is reached, it remains inalterable, independent of the forzon increment quantity by kinetic mass cause. Once the necessary charge is reached for the stability, the more are the forzons, the more is distributed the effort or the electrical charge that each forzon should realize.

Quarks and leptons appear like primary organized model of forzons, first stable formations even though their stability, in the quarks case, is conditioned by the posterior grouping of two or three quarks. Quarks and leptons properties are relied on quantities of mass, i.e., forzons.

The mass acquired by particles through acceleration or the mass of photons, bosons, and neutrinos resemble the most to pure agglutinated unidirectional forzons. According to this model, neutrino and boson Z for not having a charge or a mass at rest are the most similar to a particle with a pure kinetic energy such as forzon. But forzon is almost a ghost, if a quark is difficult “to see,” a particle united to forzon should not be detectable because anything that exists is larger than it. Curious existences that can be only reached by thinking and, however, can be as real and palpable as a bullet impact.

C. Universe of Forzons

We know that each second thousands of millions of neutrinos can come across us and according to OIS, neutrino is an agglutination of forzons, we can think of a possible existence of other forzons conglomerates, which can travel through space without leaving any trace or also about the existence of different types of neutral conglomerates.

Imagine a primordial universe in which we only encounter forzons travelling in all directions and senses in a chaotic manner owing to the agglutinate property of time, it is foreseeable that they will form complex agglutination of forzons in opposite sense, first in one direction, progressing toward more complex agglutinations until monopolizing all directions. In this way, the universe would be made of forzons to which we should sum up the electromagnetic properties of resulting conglomerates. As much as we know, the apparition of electric charges would not be expected, although it seems that there are the ones that mark the quantities of forzons that can form a complex or stable conglomerate, such as forzons traveling in all directions and senses (ghost matter) that can be thousands of millions of years traveling through space before forming a stable structure in three-dimensional space such as a proton or a neutron. We have to take into account that forzon travels until it meets another forzon of opposite sense, which will stabilize it. Its cross section is tremendously small but keeping enough time, space, and quantity of other forzons, everything occurs.

In this way, through time, more stable material will appear as a result of complicated forzon organization, and other intermediate particles, less stable (quarks), which in due and determinate moment can be the key to reach stable results of major mass, such as the synthesis of proton. The hydrogen proton is abundant and the primordial matter in the universe. This is nothing exceptional as we know that from neutral and ghost masses of forzons as kinetic energy can emerge particles with mass, i.e., matter.

Generally and without entering in details, this would be the origin of the universe from the forzons perspective.

Including, the possibility of an interminable cycle exists in which forzons scatter through the universe, ending up agglutinated first in material forms that finally will finish in a “pumping” mechanism then they would return to space to begin a new process of material organization. This mechanism of camber exists because it has been observed, coming from holes of the galaxies center, potential jets of particles with incredible kinetic energy travel toward vacuum spaces at large distances outside the galaxies.

XIV. CONCLUSION

Since OIS is obtaining the same results as SR, where is the novelty?

List of the main elements that characterize this work:

- Define impulse \( I \) as the flux of the primordial component of mass.
- Define this component of mass as a natural impulse present in all material form and energy.
- Define the characteristic components, structure, and behavior of natural impulse \( I_n \).
- Define the concept of maximum force \( F_1 \).
- Define the concept of time as surface area.
- Describe mass at rest as an omni-directional and tense system of \( I_n \).
- Amplify the concept of mass differentiating action mass \( m_a \) from reaction mass \( m_r \).
- Identify the origin of reaction energy Eq. (8), i.e., a finite quantity.
- Relate speed with the loss of reaction impulses explaining in this way why the speed of light cannot be surmountable.
- Define speed as disequilibrium between two internal and opposed forces of the particles, i.e., action force \( F_a \) and reaction force \( F_r \).
- Define \( I_n \) as the basic element of the matter.
- Define kinetic energy as a type of a neutral and ghost matter.
- Define the concept of absolute energy, interpreting the energy equation (5) as the mass energy consuming per second.
- Develop a new formulation parallel to SR totally based on the principles of flows and storage.

And, especially, making that everything fits in a unique model governed by a unique premise: Mass is always a mass of impulses calculated by Eq. (3). OIS is a very clear model of SR and the inertial mass. It is an alternative to SR calculations, this would have been impossible without Albert Einstein or Lorentz equations. We now have a series of new concepts: time as a surface area, movement as disequilibrium, maximum force, in which exponential is the maximum velocity \( c \), kinetic energy as a type of matter, absolute energy, mass as mass of forzons, and finally the ubiquitous forzon, which with its binomial action-tension is the key and motor to everything.
Seeing that how SR functions a set of flow and stores, hence we discover that common accounting and a strict control of the accounts exist since the origin of the universe.

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