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## Considerations over the problem of the knowledge of the Universe

day/dialogue second

On the Energized Space Fabric ( character of the Ether ) and other  
conclusions regarding the mass-energy .

It wasn't long time after our first dialogue when I contacted P. for coffee, he came and after coffee and biscuits, we attacked the subject.

This was then the second conversation of the many which followed, and this time I was prepared and the atmosphere was also more relaxed, therefore after a brief interlude about the weather and the consideration that here in SA , after all, fortune favored us with a mild climate which we , ungratefully , give for granted , forgetting that only few people enjoy so much good weather conditions during their lifetimes....

I started saying that after our first dialogue I had become aware of the necessity to present the matter (and I asked him to prepare himself to listen without stopping me) since I thought necessary to talk, for quite a while, without being interrupted, in order to expose some of the relevant points of my theory (and if he found it necessary he could have taken notes).

P. agreed, in effect I sought him extract a pen from a small notebook that he was carrying.

Not certainly I had in mind to stand on the stage, but necessity put words on my mouth, one after the other and, hereunder, there is a preliminary introduction and the context of what I remember saying during our second meeting.

I : I must say at first that for long time the subject tempted my mind and little I realized that numberless individuals more or less illustrious had attempted the problem. In the past, I also casually, was asking myself the questions, without afterwards stopping long enough in search of an answer.

Gradually for various reasons independent from my will, my active life was

grinding to an halt and I started to dedicate more time and attention to this speculative activity and to absorb concepts previously ignored, whilst, slowly my sphere of interests in the field of knowledge was expanding.

All along I was always scribbling over pieces of scrap paper, and one day investigating the possibility that the planet Mercury could be subjected to internal gravitational transformations of cyclical character, almost mechanically I tempted a simple result, apparently of little consequence, multiplying it by  $\pi$  and again by the number of seconds contained over a time interval of hundred years.

To my great surprise I obtained a value in meters that fitted the known value of precession for the planet Mercury as had been measured by the Astronomers.

How from the metric part of a formulation representing power could derive the precession left me flabbergasted, but at the same time instinctively I was telling myself that I was confronting something great and unknown and worth to be carefully investigated, which is exactly what I did along these years never abandoning the subject.

The results, although are incomplete and always will be, can be valued only now that I am certain to have developed a theory, which even if it is not the true in absolute, is containing enough truth to permit an advance in the Science of movements falsifying more than one of the present perceptions.

I must add that since I introduced the Ether/ESF (or ESF in short) in our previous conversation now becomes easier for me to communicate my results.

I carried on talking, and hereunder there is a relation over the most important and necessary concepts that I presented to my interlocutor.

I: The ESF is pure substance in a state of existence, having properties and characters some of which at present one can say that I have been able to describe, it results to my enquiry and judgment to be constituted by pure mass-energy and very close to the condition of mass since we can say that its density is  $\rho=1$ , and possesses other attributes belonging to the physical masses, but having substance, and not having consistence, if observed in conditions of quiet (or near quiet), results difficult to be perceived.

One of the characters of the ESF is the capacity of being irreversibly absorbed by the gravitational neutronic mass-energy  $M_0$ , constituted by the atomic nuclei  $M_0 = M_{RM} + M_{ESCM}$ ,  $M_{RM}$  is neutron m-e or Real Mass constituted by neutrons and protons, and the glue holding together neutrons and protons, is m-e called  $M_{ESCM}$ .

This neutronic m-e  $M_0$ , contained inside the physical mass existing in the Universe (for which here we use the symbol  $M$  or  $M_{HM}$  for Heavy Mass or other subscripts like  $M_{LGM}$ ).

The ESF is gradually incorporated into the neutronic mass  $M_0$  in a state that can be assimilated to the neutrons, which is an effect difficult to establish but understandable when we look at the plethora of isotopes of the various atoms since, to me, their presence is proof that the atoms are undergoing at any time a process of transformation and growth.

Note: the nuclei of the atoms, (in this theory) are represented with the concept of gravitational mass at rest  $M_0 = M_{RM} + M_{ESCM}$  (or neutronic mass).

In this presentation the density results to be a value associated to a volume (is the density of a continuum) and is available to be summed mathematically in the same volume, but this is a non acceptable result from the physical point of view and it comes out that physically, to have more density inside the same volume it is necessary to add gradually, inside the atoms, particles of the same type as those present in the ESF but acquiring compression at a very high density, constituting, in such a way, the nucleus, is extremely dense since tied up through forces of adhesion (it happens that inside the atoms the mass-energy  $M_{ESCM}$  is binding the neutron mass, constituted by the neutrons and the protons, and together with them constitutes the m-e  $M_0$ ).

The binding forces (of indestructible nature) belonging to the hypothetical particles SP making up the m-e  $M_0$  are subjected also to change of direction and when their action switches in the opposite direction the m-e changes, in various consecutive degrees, its status of existence.

Thanks to these changes the atoms become able to form, since due to presence of Static Force, the neutrons are deprived of part of their m-e and are transformed by gravitational reaction, in the status of protons whilst electron m-e comes out of them.

Presence of electrons forms the atomic volume since they can exclude the ESF from the surroundings of the nucleus from which they proceed.

After this preface, if the approach results to be the beginning of a true theory, we have to accept that the ESF is pure mass-energy occupying the Euclidean space, and to accept that (through a transformation of universal invariable character to which can be associated the physical measure of the time phenomenon) it can be absorbed continuously by the gravitational neutronic m-e  $M_0$  contained inside the physical mass  $M$  becoming mass-energy  $M_{RM}$  in the status of neutrons, and in fixed proportional amounts to the  $M$  over the unit of time.

This is a process common to all types of physical gravitational mass  $M$  present in the Universe.

We then must accept that this is a Universal character, and the absorption represents a Universal Law, which never changes when is referred to the component  $M_0$  of the mass  $M$  in quiet.

This primary transformation-degradation consisting of absorption of ESF by the gravitational component  $M_0$  of the Heavy Mass  $M_{HM}$  (which here we call also physical mass  $M_{HM}$  or simply  $M$ ) happens in a continuous invariable manner and is the one that by necessity is responsible for the invariable passage of time and the flow of ESF continuously absorbed by the mass  $M_0$  influences the way in which the ESF occupies the Euclidean space (that other ways would be uniformly occupied by the ESF), insofar the ESF is flowing, at the same time it results subjected to depression in the Euclidean space surrounding the physical mass  $M$ .

In other terms we say that a continuous flow of ESF that by all means can be considered invariable is flowing towards a physical mass  $M$  in quiet (containing

gravitational mass  $M_0$  capable to absorb the ESF as  $M_{RM}$ ) and with this flow is established a field of depression extended to the whole Euclidean space filled of substance ESF surrounding the physical mass  $M$  and having physical characters including a local gradient along the direction radial to the center, of the physical mass  $M$ .

Therefore at any given instant the presence of physical gravitational mass  $M$ , (assumed that  $M_0 \cong M$ ) corresponds to a constant radial flow of ESF per unit of time (second) proportional to  $M$  through a factor  $k/c^2 = 4\pi G/c^2$ , absorbed by  $M$  as mass-energy transformed-degraded inside it in the status  $M_{RM}$  which is the one in which neutrons and protons are present:

$$\Delta M_{ESFC^2}/\text{sec} = k M [\text{kJ}/\text{sec}] = \Delta M_{RM} c^2/\text{sec}$$

Assuming that the volume occupied by the mass  $M$  is spherical, the ESF will continuously flow through a spherical surface external and concentric to  $M$  and a depression of the ESF in that point of the spherical surface will correspond to that flow.

The meaning of it is that we are in presence of an irreversible transformation since during transformation there is degradation of the characters of the substance involved, and if we compare the transformation to the action involved on descending a step without the possibility to step back ( without the possibility to return the neutron mass to the previous status of ESF ) , we must hypothesize to be in presence of a staircase of which only one step is known , a conclusion that compels us to individuate the staircase, first, and consequently the other steps that belong to it including their properties and characters .

I can say that always in the past, in the mind of the Scientists was axiomatically given for granted that the atomic mass was invariable and when somebody towards the end of the nineteen century tried to defy this concept he found himself faced by the unanimous reaction of the sapience of the époque invariably constrained in the following answer: " the mass is invariable and immutable " . \*\*\*\*

The mass of the atoms can vary indeed! As demonstrated by the presence of atomic transformations all over the Universe, and of transformations happening inside the nuclear reactors, and inside the nuclear explosive devices (just to mention the most evident cases).

The perceptions now have changed and I introduce here the concept that the ESF undergoes transformation into neutron mass  $M_{RM}$  when absorbed by the gravitational m-e  $M_0$  (assimilated to the whole mass  $M$ ), and this is a revolutionary step, more or less acceptable at present because is already accepted the concept of transformation internal to the mass and the concept of transformation consisting of outpouring of mass-energy, as dissipation of  $M_{Heat}$ , from a mass.

That is not enough because we have to define the presence of the intermediate phenomena, coming into existence, inside a gravitational mass  $M$  subject to the gravitational field of depression and flow of ESF caused by a Large Gravitational Mass  $M_{LGM}$  .

Inside that mass  $M$  the flow of ESF caused by the presence of a physical  $M_{LGM}$  generates a Static Force (a contact Force of mass) which is always present in static conditions and opposed by a contact Force (here not better specified).

If contact Force is withdrawn, due to the capacity that the gravitational field of ESF has to react with the m-e  $M_{RM}$  the said  $M_{RM}$  undergoes transformation-degradation causing inversion of the capacity to adhere to each other that the particles of m-e SP (of which the m-e is made) have and this inversion means that the conservable adhesion becomes spin released in the direction of the gravitational flow of ESF and therefore we now are in presence of the equivalent Force associated to that release, whilst an amount of m-e  $\Delta M_{RM}$  /sec is transformed into the status of existence of m-e  $\Delta M_{ESCE}$  /sec associated to movement and therefore to increase of velocity ( $\Delta M_{ESCE}$  is m-e equivalent to kinetic energy).

In this transformation from m-e  $M_{RM}$  to  $M_{ESCE}$  the gravitational character of the  $M_{RM}$  is lost and the character of the  $M_{ESCE}$  results to be "only inertial", we will see in due course how important is this status of existence of the m-e.

Note: the gravitational Forces (to which I refer now are Static Force, Starter Force, Dominant Force and Total Force) they represent transformations-degradations of different but related type and are phenomena of very important nature tied up to various types of movement (some of them unstoppable).

In the transformations of the m-e internal to a physical mass we find many answers since they, on Earth and in the Universe at large, in conditions of normal physical activity, can happen with a destructive power but not necessarily spread death around them, on the contrary if we are at safe distance from the masses subjected to them, or if they are controlled, their effects can be beneficial.

On the other hand since the nature of the transformation from gravitational m-e to m-e inertial (affecting a physical mass with some sort of movement) through interaction with the gravitational field of ESF, involves extremely small quantities of mass it can be considered that in most cases their influence over the mass is so limited that the possibility to measure directly these amounts of mass transformed from neutron mass  $M_{RM}$  to inertial mass  $M_{ESCE}$  is far beyond the power of measurement of our most precise instruments, nevertheless we have the solution since we measure the energy of the movement in kJ that the release of spin produces and through the Law of equivalence we have an indirect measure of the amount of m-e in Ton involved in the transformation.

Since we measure the values of movements of mass  $M$  (constant or accelerated movements) as values of energy which can be associated to the value of transformation from a status to another of an amount of m-e equivalent inside the physical mass under examination we have a sure but indirect method permitting us to measure that transformation starting from a measure of variation of energy of movement belonging to the physical mass.

As we will see, at times using instruments allowing the measure of interference of light or particular measurements of geometric nature (precessions) extended to long periods of time, presence of transformations hitherto unknown can be evidenced.

Let me come back to this step of ours, as part of the staircase whose existence I presumed, at this point I am faced by a dilemma, since I only have at hand a transformation from m-e in a status of existence to m-e in a successive status, happening through absorption of the ESF by the mass  $M_0$  put us in presence of a movement although of limited nature (a flow of ESF towards the physical Large Gravitational Mass  $M_{LGM}$ , causing in all cases a velocity of the ESF, usually of excessively small value, through a generic spherical surface, external to the  $M_{LGM}$ ).

The impasse can be solved if I consider that in nature nothing happens by chance and every phenomenon or physical problem can be solved provided one is lucky enough to have the necessary data and hints, the most important of them require us to take into account the Law of equivalence and the Doppler effect, (made available not long time ago to the genial minds of men of Science).

It appears to me that the addition to the present knowledge of these two Laws results sufficient and permits further advances.

After considerations I managed to put into focus the phenomenon causing the flow of the ESF, and I did that, since my intuition told me that it was possible to find lots of answers in it, and I wasn't wrong...

The first consideration was that if this flow represents movement although of nature extremely reduced, this movement must happen through the mass, which if it is in a condition of immobility must by necessity react somehow to its passage, I took long time but in the event found the conclusion in the fact that this passage of ESF as m-e flowing over a mass  $M$  in quiet, immersed in the field of absorption of the ESF by the  $M_{LGM}$ , is producing the Static Force which always results opposed by an equal contact Force but to my mind must be acting over the atoms and therefore must be a mass Force.

This Static Force appears in the formulation given by Sir I.N as an unspecified contact force, since the mass affected by it results concentrated on a point.

Nevertheless we need to interpret his formula as a flow of ESF through the physical mass  $M$  concerned caused by the large gravitational mass  $M_{LGM}$  on which, we suppose, it rests, after that if support is removed below the said mass, a movement in the direction of the Force is generated and an internal reaction transforming the mass  $M_{RM}$  can be read as presence of a Force which causes movement, and taking into account the Law of equivalence given by Prof. A.E. we can calculate the amount of mass-energy involved in the said internal transformation.

At this point, we consider a static Force acting over an object at rest over the surface of a Large Gravitational Mass  $M_{LGM}$ , but we could extend the concept of mass at rest over the Large Gravitational Mass  $M(R)_{LGM}$  intending that a whole layer  $(R-r)$  of the  $M_{LGM}$  is resting over the internal section of mass  $M(r)_{LGM}$  continuously shrinking.

Note this topic is only mentioned but is solved and will be part of another paper.

Note: up to now the physical mass is always considered neutral from the electrostatic point of view and perfectly rigid and the transformations-degradations that flow of ESF enacts inside the atoms of the gravitational mass at rest through splitting of neutron m-e into electron m-e and generation of

protons from the neutrons are ignored.

Proceeding with this type of reasoning if I dig a well inside the gravitational mass (a Borehole) going through its centre from a surface to the opposite one, I have that a small mass  $M$  under the effect of gravity of the large  $M_{LGM}$  can fall in this gravitational well and intuitively (because in reality this well is only a mathematical instrument) reach, passing through the center, the opposite point (see [Ruggeri15](#) page 7).

Be as it may be, a very important phenomenon takes place if I remove the contact surface under a physical gravitational object mass  $M$  subjected to the Static Force generated by the  $M_{LGM}$  and laying on top of the said well, the object moves without fail inside the well accelerating its movement towards the centre of the gravitational mass  $M_{LGM}$ .

From the physical mass  $M$  in static conditions over the  $M_{LGM}$  I obtain a physical mass  $M$  in conditions of movement along the Borehole inside it and what I can say is that at the center of the Borehole when the physical mass  $M_{HM}$  has acquired maximum speed ( $v \ll c$ ) another step in the staircase of the transformations has been descended, since in this transformation an amount of neutron m-e  $\Delta M_{RM}$  belonging to the physical mass  $M$  has undergone transformation-degradation into inertial mass,  $\Delta M_{ESCE}$  measurable as an equivalent quantity of energy in the status that is referred as "kinetic energy".

This gives us the possibility to evaluate the amount of inertial mass-energy belonging to the physical mass  $M$  and interacting with the ESF in such a way that a directional movement of the physical mass  $M$  is present.

Is known that the relation  $E = M c^2$  (given by Prof. A.E. that the mass-energy  $M$  (that here is measured always in Ton) is equivalent to the value of energy  $E$  (that here is measured always in kJ) and related to it through the proportional constant  $c^2$ ) can be also written as  $\Delta E = \Delta M c^2$ .

Is known that Work, Kinetic Energy and Heat are energies and can be expressed with the same units of energy (kJ) but we have to notice that whilst work is the expression of how a transformation-degradation happens, Kinetic Energy is the result of what happened and Heat is the measure of a transformation of complete release of m-e from the physical mass obtained through different means.

We then can safely say that Work, Kinetic Energy and Heat are measure of different physical phenomena related to the modus in which the spin belonging to a fixed amount of m-e is transformed (Work), exists (Kinetic Energy) and is released (Heat).

Our new approach compels us to define the kinetic energy under the new name of Total Force and to say that to it corresponds an equivalent amount of mass-energy only called "inertial" because is in a status in which it has lost its gravitational character.

At this point we have to remember that all the transformations-degradations that we are observing are gravitational and we have individuated an initial transformation, i.e. the absorption of ESF by the gravitational component of the physical mass a final one consisting of outpouring of mass-energy obtained

through transformation-degradation of the neutronic m-e  $M_{ESCM}$  into  $\Delta M_{Heat}$  (that we measure as an equivalent amount of Heat in kJ/sec or Watt flowing as dissipation from the physical mass), and an internal transformation-degradation from  $M_{RM}$  to  $M_{ESCE}$ .

Cursorily we mentioned that there was an open cycle of transformation-degradation and now we have individuated the one transforming  $M_{RM}$  into  $M_{ESCE}$ , namely the intermediate phenomena inside the mass in which m-e is in a status in which can interact at the same time with the M and with the ESF.

Nevertheless when I mentioned the mass M moving inside the Borehole I stopped the presentation at the center of it, where M had the maximum value of velocity v, now I have to point out that from the center of the Borehole to the opposite surface there is reduction of speed from v to zero.

I explain this saying that whilst the first internal transformation-degradation above described produces internal release of the spin belonging to the m-e  $M_{RM}$  which becomes  $M_{ESCE}$  the second also associated the concept of degradation, is an inversion and causes the spin belonging to the  $M_{ESCE}$  to be reabsorbed as a degraded neutronic type of m-e  $M_{ESCM}$  (gravitational).

The m-e in the new status of  $M_{ESCE}$  is interacting with the ESF but still remains bound to the physical mass  $M_{HM}$ , and this is the general character of this type of transformation-degradation which over an unitary interval of time is expressed as Force, therefore since to each description of transformation-degradation of m-e we can associate a particular definition of Force starting with the relation:

$\Delta E = \Delta M_{ESCE} c^2$  which represents a complete transformation of mass  $\Delta M_{RM}$  inside the physical mass M into a  $\Delta M_{ESCE}$  and which, in base of what said above, can be better represented by a generic Total of Forces that I call Total Force:

$$\vec{F}_T = \Delta M_{ESCE} c^2 \quad \text{kJ}$$

a transformation inside the mass M that happens during a time interval expresses presence of Force acting over the mass M and is associated to variation of speed of M (since the spin which is the one character of the m-e interacting with the ESF carries the physical mass to which it belongs to a value v of velocity, due to transformation keeps accumulating inside the physical mass, also the velocity of the mass M must increase) the average value :

$$F_D = \frac{\Delta F_T}{\Delta t} = \frac{\Delta M_{ESCE} c^2}{\Delta t} \quad \text{kW}$$

is called Dominant Force, or instant power of transformation.

Suffice to mention from now that the above relation represents a new way to interpret the presence of Force and that to other types of transformations-degradations and in particular to transformations-degradations releasing (through external friction causing dissipation) or reabsorbing (through inverse gravitational transformation of  $\Delta M_{ESCE}$  into  $\Delta M_{ESCM}$ ) unidirectional Spin, corresponds a

definitions of Force affecting negatively the interaction between the mass and the ESF and therefore related to reduction of movement.

Results then that due to reaction of the gravitational m-e, with the gravitational field of depression and flow of the ESF, firstly there has been a direct passage of an amount of mass-energy from a status to another strictly consequent and consisting of an irreversible transformation thanks to which movement, the nature of which was possible to trace, made its appearance in the mass and this corresponds to presence of a Dominant Force in kJ/sec or kW (accruing to movement) that must be part of the description of the phenomenon.

Thanks to the principle of equivalence to this Dominant Force can be attributed the transformation-degradation of m-e internal to the physical mass M, as described, and due to conservation presence of Dominant Force corresponds to accumulation of an equivalent value of the m-e responsible for the movement.

Note: I traced the movement but I do not know yet how to describe the m-e ESF and the spin which is the physical character of the ESF causing movement and for that reason my observation is empirical.

In any case the disappearance of movement from the center of the Borehole to the other extreme of the  $M_{LGM}$ , justifies the presence of another transformation-degradation, internal to the mass.

We will realize soon that this supposed step is also a landing in the staircase mentioned above, since there is possibility of a transformation returning the spin of the mass-energy, in degraded conditions of adhesion to the neutron mass inside the physical mass M, when the falling object moves against gravity, transforming the m-e  $\Delta M_{ESCE}$  into m-e  $\Delta M_{ESCM}$  which is the m-e gluing the neutrons and the protons together.

On the other hand if the neutronic mass-energy  $M_{ESCM}$  gluing the neutron components of the nuclei is released it cannot go back to a previous status of existence but can only undergo transformation-degradation into m-e  $M_{Heat}$  which comes out of the physical mass M as dissipation.

The spin, a peculiar character of the m-e is also conservative but becomes obvious only when transformation of a  $\Delta M_{RM}$  into  $\Delta M_{ESCE}$  occurs, its behavior consists of the fact that whilst the said  $\Delta M_{ESCE}$  remains bonded to the physical mass M it also interacts with the ESF, causing movement of M, and this is the reason why I try to refer all the transformations of m-e to different types of Force since m-e endowed of Spin obtained by continuous transformation-degradation and belonging to a mass M which interacts with the ESF is better described with a value of Starter Force the one causing movement of a mass from a status of quiet (when contact Force is removed).

The Starter Force always exist as a transformation releasing spin primed by the Static Force and whilst necessarily causes increase of speed is replaced/amplified by the Dominant Force which is a transformation-degradation amplifying it by the value v of the velocity along the radial direction of flow of the ESF.

Finally the sum of all the Dominant Forces developed along an interval of time also reflects a total amount of Spin released from the equivalent amount of mass-energy transformed-degraded, which Spin through interaction between M

and ESF is causing a total movement  $v$ , that if  $v \ll c$  is measured through the classic formula giving the kinetic energy or Total Force.

I stop here after defining the gravitational Static Force the Starter Force the Dominant Force and the Total Force as physical entities related to transformations borne from flow of ESF and the capacity that the field of ESF under the effect of a gravitational  $M_{LGM}$  has to cause transformations-degradations generating these Forces and related movement, but the concept of Force can be extended to all the transformations-degradations of m-e with whom we will deal, since to release m-e from a chemical substance or to start a nuclear reaction, in all cases a starter phenomenon of transformation is an absolute necessity.

This last presentation then enables me to accept the existence of the supposed staircase each step of which is a transformation-degradation, of irreversible nature and whose presence up to now was only a matter of speculation.

I can rush now to discover the existence of subsequent phenomena and maybe many other intermediate steps in this staircase ....

As matter of fact at this point materialized a problem that in the beginning only was at the far horizon: "if there is presence of transformations consisting of irreversible degradations, what will be the ultimate destiny of this mass-energy when released from the physical mass? And how can we define this all? " .

I want to answer to this urgent question before proceeding since this is the suitable moment for the introduction of a concept that was taking shape during this presentation.

It should be evident that these transformations-degradations, are part of a chain of cause and effect and therefore they follow a cycle which cannot be closed, because it does not makes sense that after a series of degradations the mass-energy could acquire again the status of ESF it had in the beginning, this can never happen and there is no need for it to happen since the phenomenon at the end of the open cycle is dissipation of m-e  $M_{Heat}$ , occurring when the Spin possessed by the ESF has been released completely and, absorbed by the ESF, moves the mass-energy to which it belongs away from the physical mass and in the only possible direction (the radial direction).

Then the open cycle that I have proposed is the only possible way through which can be avoided that m-e, through the phenomenon of absorption, can clog all the space during the life of the Universe ( in effect I am presenting a repetition of the paradox of Olbert in regard to the mass, see [Ruggeri8](#) showing the values of absorption and the dissipation of our Sun in Ton/sec and [Ruggeri14](#) showing the order of magnitude of the presumed dissipation of the Sun and eight of its planetary masses.

The answer had been in front of anybody's eyes all the time, since if  $M_{Heat}$  comes out of the mass  $M_{LGM}$  and since both ESF and  $M_{Heat}$  are made of m-e , the subtraction of this substance in the status of  $M_{Heat}$  from the mass  $M_{LGM}$  reduces in it, the gravitational m-e value which originally had been accumulated by the absorption of ESF, now if the dissipation of  $M_{Heat}$  in the form of Speeding Particles SP absorbed back and dissipating into the ESF at the

maximum possible speed  $c$ , is larger than absorption, the mass would stop growing (as it is the case of the Sun).

Now, isn't that dissipation also the last step in the abovementioned staircase?

It certainly is and with this I can close at least for now the cycle of the transformations-degradations which induces the ESF to be transformed in the conditions aforementioned and after becoming a form of mass-energy  $M_{RM}$  and thereafter acquiring various consecutive degraded states of m-e (whose presence is measured in Ton of m-e or in equivalent energy of movement in kJ) eventually becomes  $M_{Heat}$  and as dissipation moves away from the physical mass ( thanks to invariable presence of Spin ).

The m-e  $M_{Heat}$  in dissipation is absorbed (transformed into a third status of existence, the SP moving away from the physical mass  $M$  at  $c$  speed) into the ESF from which was originated.

A last consideration then must be added and consist in the fact that since the dissipation is subjected to radial diffusion from a physical mass which originates it, all over the Euclidean continuum, the m-e in dissipation inside the ESF originated by the many physical masses which are dissipating (stars) is constituting a form of physical ballast, which has been named Entropy and of which has been said that is always on the increase, (a form of cannibalism we could say ... through which the ESF reabsorbs the ashes of itself after a complete series of transformations-degradations has taken place)

The consequences of what is affirmed here are enormous ... and here I stopped , leaving to my Guest the necessary time needed to evaluate them and in this fashion ended the second dialogue that practically was a monologue .

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