Article

Another Look at Physics: It's a Dynamic Universe

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ABSTRACT

The different disciplines of Physics were based on principles which, if not taken into consideration, result in apparent conflicts and misinterpretations. A careful analysis of these underlying principles however would provide us a deeper understanding of the basic postulates that must be adopted in order to lay down the ground works towards unification. Symmetry, which is an inherent characteristic of nature, plays a very important role in the development of a cosmology that need not disagree but rather augment the present Physics. While many Physicist cringe at the mention of GOD, the theory of creation is extremely necessary if we must have a logical beginning of existence. Adopting creation as the starting point however need not disregard the Big Bang theory as this provides the mechanism to complete the entire of universal generation.

Keywords: Dynamic existence, relativity of mass time and space, gravity, Zero Point Energy, Matter, Anti-matter, Dark matter, Dark Anti-matter

INTRODUCTION

Physics is supposed to be a science. However Physics is riddled with so many inconsistencies that it appears more of a religion than science. Classical Mechanics does not agree with Relativity. Relativity fails in the subatomic level. Quantum Mechanics, despite of providing an understanding of the behavior of light, is built on principles that most likely cannot be proven.

I think however that the disagreement in the different fields of Physics is not due to inherent errors in there formulations but rather due to vague explanation of their bases. Failure to realize the true basis of each field results in apparent inconsistencies.

It is therefore appropriate to take a closer look at these bases, understand them, and provide more alternative approaches if necessary, in order to arrive at unification.

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1. IT'S A DYNAMIC UNIVERSE

I think that the apparent inconsistency between Classical Newtonian Physics and Einstein's Relativistic Physics arises from our failure to clearly define the basis of these fields. It is my opinion that the primary question that must be resolved even before we attempt to build the foundation of a Physics field is that of the nature of the existence of mass.

Can mass exist in a static state of absolute zero momentum or does mass have to move in order to exist?

To admit that mass can exist in absolute zero momentum implies a concept that truly rigid bodies are possible. A truly rigid body is one that remains unchanged or, borrowing from Geometry terms, remains congruent to itself when moved from one position to any of the other infinite possible positions in space. The kinematic relationships of mass and velocity therefore is as follows:

$$P = mv \qquad (1)$$

Where:

P = momentum
m = the metrical value of mass
v = the velocity

$$F = ma = mdv/dt \qquad (2)$$

Where:

F = the magnitude of the force applied to cause motion
a = the acceleration or the rate of change in velocity

From Eq. (1);

$$dP = mdv \qquad (3)$$

Therefore:

$$dP/dt = mdv/dt = F \qquad (4)$$

But:

$$E = FS$$

$$= \int dP/dt \; x \; S$$

$$= \int dP \; x \; S/dt$$

$$= \int v \; x \; dP$$

$$E = \int mvdv \qquad (5)$$

Thus:

$$E = ½ \; mv^2 \qquad (6)$$

Equation (6) is the equation of energy in Classical Physics, where E is the kinetic energy gained by the body from one state of motion to another; and v is the change in velocity. **This equation holds if a concept that mass can exist at absolute zero momentum is accepted.**

But as I set here pondering and almost unmoving from my seat, I know that actually I am travelling at a speed of about 30.248 kilometers per second reckoning from the sun. The sun itself is known to be moving towards a point in the constellation Hercules. Even galaxies have been observed to be receding from each other.

It would therefore be more appropriate to admit a notion that all bodies are in motion. Thus all physical bodies (masses) that exist must be in motion. Corollary to this, all that exist must therefore move, hence, **motion or velocity is a necessary component for the existence of mass.**

If velocity is necessary for mass to exist, then mass and velocity are variables and Eq.(3) no longer applies. Rather:

$$dP = mdv + vdm \qquad (7)$$

Thus:

$$E = \int v \; x(\; mdv + vdm)$$

$$E = \int vmdv + \int v^2 dm \qquad (8)$$

For our evaluations we may now use an arbitrary relationship between mass and velocity as follows:

If m is proportional to v, and k and n are the constant and degree of proportionality correspondingly then:

$$m = kv^n \qquad (9)$$

$$dm = nkv^{n-1} \; dv \qquad (10)$$

Substituting Eq.(9) and (10) in (8):

$$E = \int kv^{n+1} dv + \int v^2 \; nkv^{n-1} \; dv$$

$$= \int kv^{n+1}dv + \int nkv^{n+1}\,dv$$

If we now assume that when $\boldsymbol{v = c}$, the normal velocity of light (we will discuss in another article later whether the velocity Integrating between velocity limits *0* to *v* yields:

$$E = (1/(n+2))kv^{n+2} + n(1/(n+2))kv^{n+2}$$

$$= (1/(n+2))\, mv^2 + n(1/(n+2))mv^2$$

$$E = ((n+1)/(n+2))\, mv^2 \qquad (11)$$

If we now assume that when $\boldsymbol{v = c}$, the normal velocity of light, *n* approaches infinity and at such condition *m* is *m'* then:

$$E = m'c^2 \qquad (12)$$

Equation (12) is similar to the energy equation in Einstein's Relativistic Physics but not necessarily identical due to the arbitrary relationship, (Eq. (9)), used in the exercise. However if the LORENTZ TRANSFORM $(m' = m_o/(1 - v^2/c^2)^{1/2})$ were used as the mass-velocity relationship, then the resulting final equation will still be the same as Eq. (12) which would then be perfectly identical to Einstein's energy equation.

We may note however that if mass exist in a static state, then *n* in Eq. (9) is necessarily zero and *m* is constant. Eq.(11) would then reduce to Eq.(6) which is the equation of energy in Classical Physics.

The above exercise is not intended to discredit Classical Newtonian Physics or Einstein's Relativistic Physics but only to show the effect of our basic concept of the nature of the existence of mass.

I believe however that it should be a **dynamic existence** and that all physical bodies must move in order to exist. Hence;

MOTION IS A PRIMARY REQUISITE FOR MASS TO EXIST.

2. ARGUMENTS ON THE MICKELSON-MORLEY EXPERIMENT

In the light of the findings of other researchers, which seem to indicate that the interpretation of the result of the Mickelson-Morley experiment is erroneous, much less, that the kinematical assumptions of the experiment were simplistic to the point that some important phenomena were not considered, I decided to conduct my own analysis of the experiment. It would however be helpful to take a look at the background why the experiment was conducted.

It was argued that if light is a wave, then there must be a medium by which the wave travels. Since light can travel from distant stars across interstellar space, which is a vacuum, then there must be something in that vacuum that conducts the wave of light.

That the planet, as it orbits around the sun, does not drag along the Aether in its motion, is deduced from the existence of annual aberration of light coming from the stars which agrees with the kinematical results of compounding the velocity of light in a vacuum with the velocity of the earth in its orbit. This is however viewed as an Aether wind, which blows opposite in direction to that of the motion of the earth. Right here, we can see that the notion of an Aether wind is somewhat absurd. Since the Aether is not dragged by the planet, the Aether is stationary and therefore no Aether wind**.** What is perceived to be an Aether wind is just another means of viewing the motion of the earth relative to the motion of light. This is like what you seem to see when you are inside a moving car and what you see when you are not in the car. When you are not in the car, you can see that the car is moving relative to the stationary state of things on the ground, but when you are in the car, you would see that the stationary objects on the ground appear to be moving at the same speed as your car's speed but in the opposite direction, yet in the actual, the car is the thing that is moving and not the things on the ground. If you stick out your hand outside the window of your car, you would feel that there is a wind blowing in the opposite direction even when there is not a single ripple in the air. Now if someone throws an object to your moving car you would see from inside your car that the object thrown seem to move on a curve so that the object does not hit your car exactly at the point where the object was aimed at. What really is happening then? The phenomenon is the effect of the kinematical interaction of your car's motion and the object thrown devoid of any effect of the apparent wind, which in reality does not exist.

This does not mean that the Aether does not exist. This only means that the Aether may exists but does not necessarily move.

The Mickelson - Morley experiment was designed to determine whether there is an Aether wind or not, **but not to prove whether the Aether exist or not**. It is unfortunate however that the null result of the experiment was interpreted as the absence of **a luminuferous medium** rather than the absence of **an Aether wind**. This is actually a case where something that proves exactly what is true was looked at in a 180 - degree manner analogous to calling a spade a heart and a heart a spade.

Our intention is not to disprove the common view on the results of the Mickelson - Morley experiment by presenting philosophical arguments to the contrary. Our intention is to present some factors that we believe should be considered in order that the results of the experiment would be viewed in a logical manner.

In interstellar space, the Aether, as perceived originally, is stationary. But in terrestrial environment such as the environment where the Mickelson - Morley experiment was conducted, everything, including the source of light used, is moving with the exception of the Aether, if there is Aether in a terrestrial environment, which is stationary. The parts of the interferometer are moving along with the rotation of the earth on its axis, thus the Aether would indeed appear to be moving in the opposite direction.

Now, if we look at the interactions of velocities occurring in an equal-legged interferometer such as the ones used by Mickelson and Morley in their initial model we can readily see the following:

1. Any effect of the velocities of the individual parts such as the light source, the mirrors and the eyepiece or recording instrument, will simply cancel out as these surfaces are all moving in pairs and at the same velocity.
2. The net interaction, if there is any interaction at all, would then be only that of the velocity of the Aether, if an Aether wind exists, and the velocity of light.

Therefore the following can be deduced:

1. In the case where there is no Aether wind, the portion of the light that is directly reflected towards the eyepiece would take $2l/c$ seconds to reach the eyepiece from the time it left the source while the portion that is reflected towards the mirror in the opposite side would take $6l/c$ seconds to reach the eyepiece from the time it left the source. There is therefore a difference between the times of arrival of the two beams equal to $4l/c$ seconds.
2. In the case where there is an Aether wind, the portion of the light going towards the mirror on the opposite side of the eyepiece would experience a reduction in velocity since it would be going against the Aether wind, but would get a corresponding boost from the ether wind on the return trip. In effect, the second portion of the light beam, in its journey towards the eyepiece, would get a net assistance from the Aether wind on only one third of the three horizontal legs of the journey. Thus the time it would take for the second portion to reach the eyepiece from the light source would be $(5l/c + l / (c +v))$ seconds; where v is the velocity of the Aether. On the other hand, the portion of the light beam that was reflected directly to the eyepiece would take $(l/c + l/(c+v))$ seconds. The difference between the times of arrival of the two portions of light beam from the source would be $4l/c$ seconds; which is the same as the difference in the times of arrival of the two beams when there is no Aether wind.
3. Our kinematical analysis above shows that the value of v does not come into the picture. Would it be logical then to expect a positive result from the experiment?

A closer look at the assumptions in the experiment would also lead us to pose the following questions:

1. The experiment was conducted in a place where the surrounding space was filled with air (not in a vacuum). Hence, the space in the room was occupied by physical bodies. Can the Aether co - exist separately in the same space as that occupied by a physical body?
2. If the answer to the above question were affirmative, then that would generate another question. Does light prefer to travel through the Aether rather than through the air?
3. If the answer to the question however is negative, then whatever Aether present in the space is assimilated and becomes an integral part of the occupying physical body. Air would then be the medium in the travel of light in the experiment, and since the air was moving at the same velocity as the interferometer, then no interaction of the velocity of the wind and that of the light can be expected.
4. The other question that must be addressed is whether the interaction of the velocity of light and the velocity of the Aether is instantaneous such that the full magnitude of the Aether wind adds up to or deducts to the magnitude of the velocity of light.

The experiment did not actually produce a null result but yielded an apparently insignificant value in comparison to the expected value. But in spite of the fact that this has been consistently showing up in the succeeding experiments, it was simply dismissed as experimental error. Table 1. below, shows the values of the fringe shifts obtained from different instances when the experiment was conducted. This might be an indication that a positive result may have been disregarded because it did not agree with ones expectation, which in the first place was based on a conjecture that is wanting in logic. An interference fringe shift of as much as 0.002 was noted even on the first experiment that used an equal - arm interferometer of just one meter while the expected fringe shift was in the vicinity of 0.04. Thus a value of .002 is too small compared to what was expected. But we must consider also the effect of the assumptions. It was assumed that the velocity of the Aether (if indeed there was an Aether wind) would instantly impart a boost or reduction to the velocity of light in its full magnitude. This however is not necessarily the case.

Suppose that we have a body with a mass of ten pounds and a cross sectional area of one square inch which is being pushed by a force of 200 pounds (to counteract friction) to maintain a velocity of 200 feet per second, would a wind traveling at 20 feet per second in the same direction as the body increase the speed of the body, instantaneously to 220 feet per second? The answer to this is a big fat **NO!** The force that would be imposed by the wind against the body would only be about 0.0038784 pounds, hence would cause an acceleration of only 0.0003874 feet per second per second, so that the body will attain a speed of 220 feet per second after about 51,627 seconds.

There is no direct correlation between the above example and that of the interaction of the velocities of the Aether and that of light. However it shows that the interaction between the Aether and light is not necessarily a simple case of arithmetic addition or subtraction. Time definitely comes into play, thus with the very small time value involved in the experiment, can a full interaction of light and the Aether wind occur?

The actual values of the fringe shifts obtained in the various experiments shown in Table 1 below, may yet be the actual values at the extent of interaction occurring within a very short period of time and not just mere experimental errors.

RESULTS OF VARIOUS INTERFEROMETER EXPERIMENTS

Name	Year	Arm Length Meters	Expected Fringe shift	Measure Fringe Shift
Mickelson	1881	1.2	0.04	0.002
Mickelson and Morley	1887	11.0	0.40	<0.01
Morley and Miller	1902-1904	32.0	1.13	0.015
Miller	1921	32	1.12	0.08
Miller	1923-1924	32	1.12	0.03
Miller (sunlight)	1924	32	1.12	0.014
Tomascheck (starlight)	1924	8.6	0.30	0.020
Miller	1925-1926	32	1.12	0.088
Kennedy (Mt Wilson)	1926	2.0	0.07	0.002
Ilingworth	1927	2.0	0.07	0.0002
Picard and Stahel	1927	2.8	0.13	0.006
Mickelson et al.	1927	25.9	0.90	0.010
Joos	1930	21.0	0.75	0.002

TABLE 1

In summary we would like to present the following:

1. The null result of the MICKELSON- MORLEY experiment is not a valid proof that the Aether does not exist. It can be viewed as an indication that the Aether wind does not react with the velocity of light the way it was expected.
2. The Aether does not exist separately from physical bodies in the presence of the latter. (No two things, as separate entities, can occupy the same space at the same time.)

3. WHERE PHYSICS WENT AWRY

In view of the null result of the Mickelson -Morley Experiment, which was interpreted as the absence of the Aether, and to reconcile this result with the observed aberration of light, a totally absurd idea was proposed.

The Fitzgerald Contraction Hypothesis proposed that the dimension of a moving body contract along the direction of its motion in the order of:

$$l' = l(1-v^2/c^2)^{1/2} \qquad (1)$$

Where:

l' = the length of the body in its state of motion

l = the length of the body in its state of rest

v = velocity of the body

c = a constant numerically equal to the velocity of light in a vacuum

This is a clear case of manipulating mathematics to fit an assumed reality. We can only ask this question. If the length of a moving body contracts, thus the volume of the body shrink so that it becomes denser than when it is not moving?

The answer to this question may be affirmative. However the volumetric contraction may not be in accordance with Eq. 1.

Independently, Lorentz was able to arrive at the relativity equation:

$$m' = m_o/(1-v^2/c^2)^{1/2} \qquad (2)$$

But Lorentz dismissed the result of his work as a mere mathematical curiosity probably because the equation yields both positive and negative values for velocities less than ***c*** and imaginary values for velocities greater than ***c,*** which is, as far as Mathematics is concerned, a **no-no** for representing reality.

Thus Physics remained tied to the concept of the Aether for some time until Einstein came up with his revolutionary ideas.

Einstein's Relativity was based on the postulate that the velocity of light in a vacuum is constant. Where he based this postulate from is not clear. But any attempt to prove this postulate would be a case similar to that of the fifth postulate of Euclid regarding parallel lines, where the postulate itself would be used to prove itself, something that is not acceptable in logical reasoning. It may be worth mentioning here that apparent speeds in the order of up to **300*c*** have been attained in recent experiments but these are explained as **quantum tunnelling** wherein the photon does not necessarily traverse but jump across space and time.

Relativistic Physics prohibits velocities beyond the velocity of light; cannot account for the movement of the photon; and limits the possibilities of existence within the confines of ***c***. (Eintein's Relativity would prohibit you from travelling across interstellar space within your lifetime. The Galaxies are there only for you to look upon in your telescope but you are not allowed to reach them. What a big blasphemy!)

Einstein's Relativity does not provide a value of mass for the photon as the equations would then give a value of infinity for both mass and energy.

Quantum Mechanics however is very explicit on this. The energy of the photon is given by the equation:

$$E = h\nu \qquad (3)$$

Where:

h = Planck's constant

ν = frequency

But for Quantum Mechanics to be able to account for the movement of the photon, it would be necessary to adopt a notion of the existence of the Aether, where this time the Aether is given some other names such as vacuum energy, residual big-bang energy, Light Matrix , Maxwellian Aether, and many other exotic names.

The idea of an Aether in Quantum Mechanics however brings as back to where it all started, the need for a medium which conducts the light wave, then the Aether wind, the Mickelson-Morley Experiment, the Fitzgerald Contraction Hypothesis, Lorentz Transform, Einstein's Relativity, and back to Quantum Mechanics, then back again over and over.

Why the carousel? Because we do not look at things the way they should be viewed. We base our views on unfounded notions such as:

1. The possibility of existence at zero momentum
2. The independent existence of force, space and time
3. Space is independent of its contents
4. That the limit of velocity attainable by acceleration is the velocity of light
5. Quantum tunnelling or photon jump across space and time
6. And so on and so forth

4. DIMENSIONS

We have always tried to visualize or make images of objects that have more than three dimensions. The efforts however have all been futile.

Dimensions are the parameters we adopt or employ in viewing objects, concepts or phenomena. Our views are dependent on the number of dimensions we use. On the spatial aspect, if we use a single dimension, then we are looking at a line and we have a concept of length. Two dimensions will give us the perception of a flat plane or area and three dimensions give us the perception of either a curved surface or a solid.

It is unfortunate that our physics did not define the distinction between local space and universal space. Local space is the space occupied by a body, while universal space is the space between individual bodies. Confusion therefore arises when we use only three dimensions for all space. This would not be a problem for as long as our math accounts for the space being viewed. However it would have been a lot clearer if we assigned different sets of dimensions for local and universal space. Thus if we adopt a Cartesian coordinate system, we may use (x, y, z) for local space and (X, Y, Z) for universal space. Here it would be clear that the product xyz means volume but xyzX or xyzXY or xyzXYZ no longer refer to the metrical structure of local space.

We often confuse that other dimensions are spatial in nature. Our efforts to visualize or make images of objects with four or more dimensions have always been futile because of this erroneous assumption.

Other dimensions do not necessarily relate to space. The three dimensions namely length, width and height (x, y, z) would suffice to describe local space. The other set of three coordinates (X, Y, Z) are also sufficient to describe the relative spatial location of bodies in a universal space. Thus the linear distance between two points would be:

$$S = (X^2 + Y^2 + Z^2)^{1/2} \qquad (1)$$

But what would happen if we move a body from one point to another point in universal space? There would be a change in distance between the body and the reference point and there would be a rate of change in distance per unit interval which can be mathematically expressed as dS/dt. Here, a new dimension is introduced; dt, which is an element of time. We just cannot deny that there must be time because we could perceive that what has been is different from what is present and what would be. So we have a past, a present and a future, all referring to time.

In the universe where we exist, time appears to flow equably in one direction which is from past to future. This is our own timeline. It could however also be possible that time flows in at least three directions. If such is the case then time can have its own set of Cartesian coordinates similar but not necessarily the same as that of space. We may assign (T_x, T_y, T_z) as the coordinates of time. Here we have a universe of at least nine dimensions.

We have always been using a notion of the sense of direction. We say that a thing goes forward or backward, positive or negative. These senses of direction therefore are dimensions in their own right and may be denoted a **+** forward and **–** for backward.

So far we have only looked at the possible dimensions governing the relation of a local body with a reference point in universal space. Without a concept of relativity, we presume that rigid bodies are possible, where a rigid body remains unchanged when moved from one point to any of the infinite possible locations in universal space. In other words we assume that space is independent of its contents. In such a view our physics is basically Newtonian.

The existence of a particular body however is also governed by other parameters. Careful observations will lend us the idea that all things are in motion. Motion or momentum therefore is a property of matter. We could then deduce that nothing exists which does not move. If such is the case, then space could not exists separate from matter hence all matter has space and all spaces have matter.

THERE IS THEREFORE NO EMPTY SPACE.

5. SYMMETRY, MATTER PROPAGATION AND INTERACTIONS

Nature is endowed with a peculiar characteristic, which is symmetry. It appears that everything has a symmetrical counterpart.

Mathematically, symmetry occurs in different forms as may be defined by a rectangular space coordinate system. Polar symmetry occurs when at least three attributes are opposite through the origin. Examples of this are:

(x,y,z) is the symmetrical counterpart of (-x,-y, -z)

(x,-y,z) is the symmetrical counterpart of (-x,y,-z)

(-x,-y,z) is the symmetrical counterpart of (x,y,-z)

(x,-y,-z) is the symmetrical counterpart of (-x,y,z)

Planar symmetry occurs when at least two attribute are opposite thus the symmetrical objects are in opposite quadrants. Examples of this are:

(x,y) is the symmetrical counterpart of (-x,-y)

(-x,y) is the symmetrical counterpart of (x,-y)

Linear symmetry or simple symmetry occurs when at least one attribute are opposite. Examples of these are:

(x,y) is the symmetrical counterpart of (-x,y)

(x,y) is the symmetrical counterpart of (x,-y)

(-x,y) is the symmetrical counterpart of (-x,-y)

(x,-y) is the symmetrical counterpart of (-x,-y)

If we adopt Creation as the beginning of everything, the creation from nothing event would have been as defined by the Bible. Thus when the command "Let there be light" was given (which is the exciter or cause) two things were produced from nothing; Light and Darkness. This pair production may be represented by the equation of ZERO which is;

$$0 = (+1) + (-1)$$

(+1) here represents Light and (-1) represents darkness. The operator **+** represents the command.

Light has attributes. It has energy, velocity and direction. Darkness should therefore also possess these attributes but opposite that of Light. Darkness therefore is dark energy.

What could happen then if Light collides with Darkness? The apparent possibility is that Light and Darkness may cancel each other. But if they must cancel each other then the command or cause that created them must have to be released. A command however is a command, and once it is given, it cannot be undone. You cannot swallow back the words that you have already uttered. So the annihilation of Darkness and Light may not be possible. The possible reaction therefore would be a secondary creation process. When Light, which is basically energy, collides with darkness which is also energy, a new entity is created; ZPE, which is Light Matrix or Energy Matrix. Here there is no need for a symmetrical counterpart of ZPE, it being energy at its lowest possible density. ZPE therefore is its own symmetrical counterpart. ZPE is also a form of virtual of mass.

Matter and Energy however can also interact. When sufficient Light energy is imparted to the Light Matrix, the Light energy is transformed into two particles; matter and anti- matter. The same thing happens to Dark energy on the Light Matrix. Each pair of two new particles have identical metrical structures but differ in one attribute which is charge; one positively and one negatively charge. Each pair of these particles is therefore linearly symmetrical opposite. Light generates **MATTER** and **ANTIMATTER**. Dark energy generates **DARK MATTER** and **DARK ANTIMATTER**.

When symmetrically opposite particles collide, they annihilate each other and revert back to the type of energy that they originated from. (See Fig.1, Fig. 2, and Fig. 3, for the diagrams of matter propagation and interactions).

Matter and Dark Matter can also interact. When they collide, they will release the energy that created them while there masses cancel out; Light Energy and Dark Energy. The same reaction can be expected when Anti- matter and Dark anti-matter collide.

There are two other possible reactions; the collision of Matter and Dark anti-matter, and the collision of Anti-matter and Dark matter. What could possibly happen here, we can only speculate. These may not result in annihilation however as the said particle pairings are not

necessarily symmetrical opposites. Hence the reactions are most likely mass fragmentation or possible assimilation, the later resulting in the growth of mass.

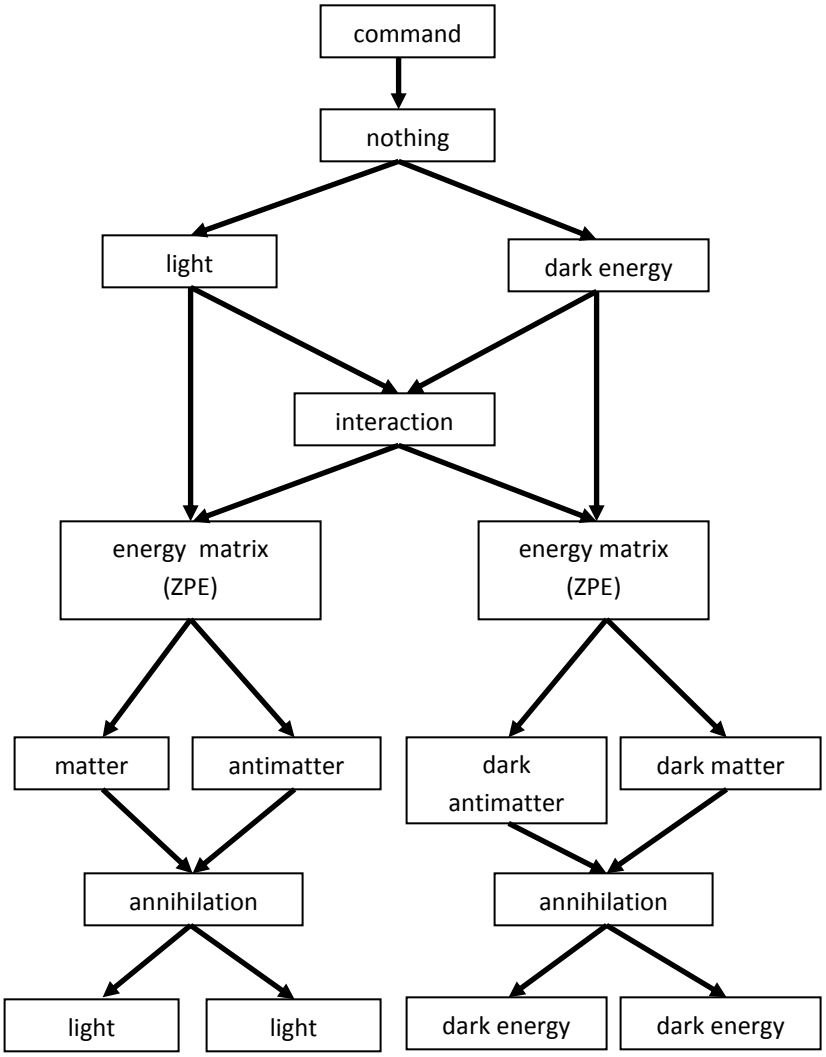
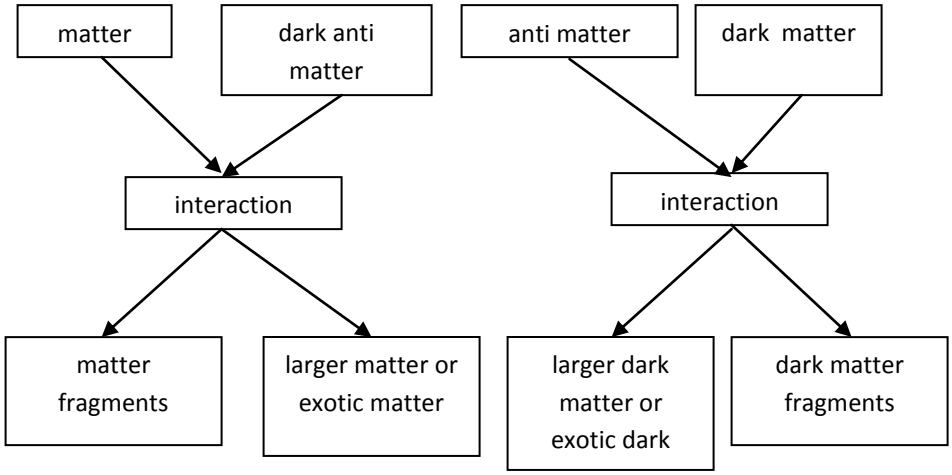


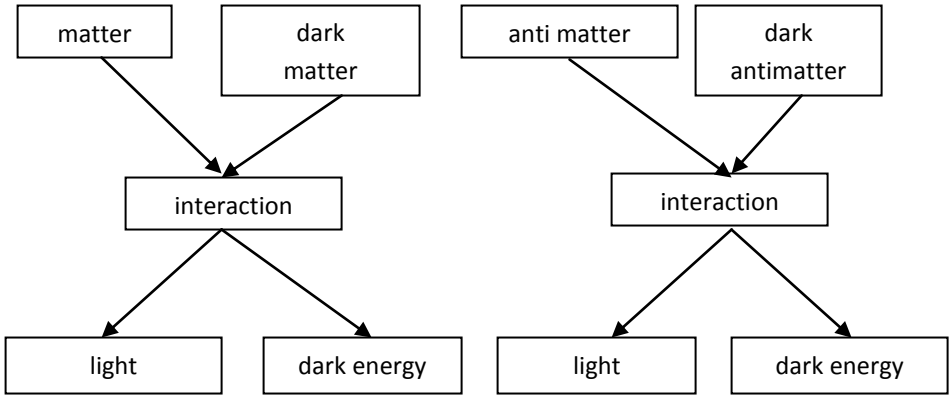
FIG. 1. DIAGRAM OF MASS PROPAGATION AND CONVERSION



CROSS OVER **CROSS OVER**

TYPE A **TYPE B**

FIG.2. OTHER POSSIBLE MASS INTERACTIONS



CROSS OVER **CROSS OVER**

TYPE C **TYPE D**

FIG.3. OTHER POSSIBLE MASS INTERACTIONS

6. BEFORE THE BEGINNING OF SPACE AND TIME

When pondering how this universe came into existence, we arrive at least two possibilities:

1. That it all started with the Big Bang. That there was in the beginning an ultra-hot, hyper-dense primordial egg of infinitesimal size which exploded and generating space, time, and matter in the process. Here, we may ask the question "What made the primordial egg? Unless we adopt a concept of definite beginning, any answer to the question will lead us to asking the same question on and on. Alternatively, we can take a view that the whole thing was a cycle so that there is no end or beginning and that this cycle was there all along. Ultimately therefore, there was this universe that expanded to what it is now, and later will contract back to that primordial egg only to explode again. While it may no longer be valid to ask the question of beginning in this view, there are however some questions that need to be clarified which we will discuss later.
2. That the whole thing was created by God. That there must be an omnipotent entity that caused this all to happen. Here, we may be tempted to ask the question "Who created God"? But if we take a view that God is the ultimate cause of existence, then the question will no longer be valid.
   The process of creation is not necessarily magical but can be looked at in a scientific view.

When God gave the command "Let there be light..." the cause was issued and creation started. In the presence of a cause, things could be created out of nothing. This can be demonstrated by the operation of ZERO as follows:

$$0 = (1) + (-1)$$

Here, it is clear that a cause is exerted which in this case is the operator +, 0 is split into two distinct but symmetrically opposite entities. When the command "Let there be light.." was therefore given, two symmetrically opposite entities were therefore created out of nothing; light and its opposite counterpart, darkness.

If light is a form of energy characterized by extreme velocity the darkness is therefore another form of energy. Darkness therefore could be that undefined dark energy.

Normally, two opposite entities when brought together would annihilate each other and release the cause that created them. This could not be the case however in the case of entities created by a command since a word could not be taken back once it is given. So what happens when light

and darkness meet each other? A second generation creation process occurs which we have known quite some time and we call it pair production.

The union of light and darkness does not cause annihilation but produces light matrix which would enable the propagation of matter and anti-matter. Here, space in the form of two volumetric entities is created and time which distinguishes matter from anti-matter is also created. This second generation creation process therefore gives birth to space and time and manifest in the forms of matter and anti-matter.

7. THE PROCESS OF CREATION

"In the beginning there was a Word, and the Word was God, and God said "Let there be light", and there was light….. so the Holy Book says.

But when light was created, darkness was also created simultaneously with it.

It is hard to visualize a condition where light and darkness do not exist. There is no contrast. But we can imagine this in terms of abstract ideas such as the zero in Mathematics or a condition or state where the entropy is unity (no chaos or no activity) on a Thermodynamics standpoint.

If we view the process of creation in these manners, we find that our views are also parallel with the Biblical version.

First, there must be and exciter or an action to cause the event. This is one of the basic principles of the scientific discipline. "NOTHING HAPPENS WITHOUT A CAUSE".

In Mathematics, if we are to create two entities out of zero, then we perform a mathematical operation (the cause). Thus:

$$0 = (+1) + (-1) \qquad (1)$$

Two distinct and different entities are thus created but when both are combined, the result will still be zero.

On a Physics standpoint, the creation of the Universe would have been a process on a grand scale similar to that described by DIRAC, that " When sufficient energy is imparted to matter in the negative state, the matter transcends unknown barriers and come to existence in the positive state, living a void in the negative state". Here, the only difference is that matter already is assumed to exist in the negative state and that positive matter comes from something negative in form and not created from **nothing.**" (Sort of a Big Bang creating two matters. But the Big Bang theory employs the idea of a primordial egg to start with. Yet if we start with a primordial egg we have to answer the question "What created it"?).

But if we view creation in the light of the result of the Anderson Experiment, we can see the parallelism. In the experiment, where; when a 2MEV gamma (the cause, which in the experiment was more than the total energy equivalent of two electron-like particles) was aimed at an aluminum foil target, two particles were simultaneously created out of nothing; an electron and a positron. This in Physics is termed as **pair production,** and was taken as the proof of Dirac's "HOLE THEORY". However, the positron is not necessarily a void, as it manifests as mass just like its sister, the electron, but only opposite in charge. It is more likely then that the positron is also a mass but differs from the electron in charge because, maybe just plain maybe, it has a time direction or time dimension opposite that of the electron.

When a positron is made to collide with an electron, both are annihilated, (completely vanished into nothingness) and releases the energy that created them, a 1.1MEV gamma.

This is also the case of life. The breath of life was imparted to a ball of dust and man got his soul and lived. When he dies he gives up the soul and returns it to his Maker.

The observed pair production in the Anderson Experiment however is not necessarily a case as described by DIRAC'S Hole Theory. Neither would it be a case of creation from nothing like that implied by Eq.(1).

If we take a view that space is never empty, then the 2MEV gamma (which is way above the energy of two electron-like masses) would have imparted enough energy for matter in a lower energy level so that that matter gains enough energy to come out as an electron moving in the same time direction as our physical universe. But, for every action there is an equal and opposite reaction. So if an electron is created, a positron is also simultaneously created and that the positron is metrically identical to the electron except for the charge which is opposite that of the electron. Maybe, the positron is another type of matter which is moving at an opposite time direction from that of the electron. This is similar to a DIRAC phenomenon except that the matter in the negative state is not necessarily negative as the term implies.

Zero matter does not have any logical meaning if used to refer to mass, how much more with negative matter? For vector quantities however, negative refers to locations or directions opposite those which are considered positive, but the structure of the mass in that region may not be negative.

This is more likely the process of creation. Matter can be created from nothing provided a cause or exciter is applied. Matter emerging from something is transformation.

When light (electromagnetic energy) was created out of zero, darkness was simultaneously created with it. This darkness actually is dark energy which is the opposite of light.

When dark energy interacts with light, it does not result in annihilation to zero. A primary pair production therefore occurs and the products are virtual masses. These are the ZPE's. ZPE being the lowest energy density becomes its own symmetrical counterpart. As mass cannot exist without velocity, ZPE must be at the lowest velocity possible, thus its volume is at maximum

equivalent level. This is the definition of a vacuum. A vacuum is a condition where the energy density is minimal hence it occurs at the maximum equivalent volume.

The difference between light and ZPE, and dark energy and ZPE are actually at extreme conditions. While light and dark energy have no volume metric structures, they have energy and velocity. On the other hand, the ZPE has volume metric structures but has almost zero velocity. It seems that space is a function of mass and velocity is a function of energy. It appears that as velocity increases, the volume of an object shrinks, while when velocity decreases, the volume of an object increases.

Thus in the transformation of mass to energy, the spatial dimensions of an object is lost and conversely, when energy is transformed into mass, a major part of the velocity is lost, while space is gained.

The creation of ZPE therefore is the second stage towards the creation of mass. The third stage of creation is when light or dark energy of sufficient quantity is imparted to ZPE. The result is another pair production where two similar but oppositely charged bodies are created for each type of interaction.

Since two bodies are created in pair production, an equivalent additional volume of space is gained. This accounts for the expansion of the Universe. As energies are converted to physical matter, the universe will keep on expanding until all energies have been converted to physical matter.

8. MASS, ENERGY AND SPACE

When light was created another thing was simultaneously created with it. This other thing is of dark energy. By the process of pair production, energies are converted to masses.

Matter exists in two basic form; mass or energy. Our present day physics provide the mechanics of how mass can be converted to energy and vice versa. But what really is the distinction between mass and energy?

The primary characteristic of mass is that it occupies space. Space is therefore an intrinsic property of mass. For mass to exist it must have space as its component. Conversely, space does not exist without mass. But nothing exist which does not move hence mass must have velocity.

Energy on the other hand has velocity as its primary characteristics. Thus energy is more appropriate to define in terms of velocity instead of its mass equivalent. The Lorentz transform becomes meaningless if used to describe electromagnetic energies. It cannot account for the photon. Thus the Maxwell equation is used to describe light and the photon is assumed to be mass-less. To assume that the photon is mass-less however is a violation of basic logic because

light is energy and therefore should have a mass equivalent. This only points out the shortcoming of the Special Theory of Relativity to account for all existence.

If mass has space component while energy has mainly velocity component, what happens to the space when mass is converted to velocity? Also what happens to velocity when energy is converted to mass? The answers to these questions will probably provide a wider and clearer vision of reality.

It appears that when mass is converted to energy, its spatial dimensions decrease in accordance with a certain equation of inverse proportionality such that when mass is transformed to energies at the very high speeds, the spatial dimensions shrink to infinitesimal value but not necessarily, zero. This seems to be pointed by the Fitzgerald's contraction hypothesis, although, I think, it should be a three dimensional spatial change rather than just a linear contraction and not necessarily an inverse square root function. Thus we perceive light as something close to pure energy form.

When light on the other hand is transformed to mass as in the case of pair production, the velocity of the photon is substantially decreased and the spatial dimensions increase giving birth to the space component of mass.

When all electromagnetic energies have been transformed into physical matter, the expansion of the universe stops. Gravity then takes over. Masses will start to pull each other closer, space decreases, and the mass density of the universe increases. Space shrinks not because of mass to energy conversion but simply due to density increase. Matter and anti-matter would be drawn closer to each other until finally they will annihilate each other into energy form and start another cycle of energy to mass conversion.

A complete cycle would take about 100 billion years.

9. WHAT IS SPACE?

In my article "It's a Dynamic Universe", I have shown that velocity is a necessary factor for mass to exist and in "The Process of Creation", I have shown how something can be created out of nothing.

Here, we try to look at what is space. Does space exists as a separate entity from matter and energy, or in other words, is space independent of its contents?

As we mentioned in "The Process of Creation", when light was created, darkness was created simultaneously with it. It is always a case of symmetry so that the equation of Zero can be satisfied. This darkness is not nothingness or Zero because it is a product of creation.

Nothingness is Zero, no attributes, no basis of comparison. Darkness however, being the symmetric counterpart of light must also have attributes.

Light and darkness are forms of energies and are capable of producing masses by pair production. Light has velocity while mass has volume. Mass has volume but may not possess velocity comparable with light and therefore has space. The ZPE therefore, is the condition of extreme low energy density, hence large space component..

Space therefore is a property of mass. Without space, existence can only be in the form of pure energy with velocity.

What happens then when light energy is converted to mass and vice versa?

Pair production gives the process of conversion of electromagnetic energy to mass. When this happens, the transformation of energy into matter occurs. The ZPE provides the necessary dimensions of space and time and the energy converts into two particles; matter and anti-matter, each with its own space. When physical matter grows, space also correspondingly grows. This is the reason why the universe is expanding. Energy is still in the process of being converted to physical mass.

10. PHOTON, DARK MATTER, AND PAIR PRODUCTION COSMOLOGY

When the universe was created, two things came to existence; physical matter and dark matter. Physical matter is either the normal matter that we know or its anti-matter counterpart, the difference being only that of charge. Dark matter and Dark Anti-matter are the products of the conversion of dark energy to mass. But energy can be transformed to mass and vice versa. Dark energy therefore has a virtual mass. The sum of the energies of physical matter, light, dark energy and dark matter comprises almost the total energy of the universe. The total energy of physical matter accounts for only a very small portion of the total energy. The transformation from energy to physical matter and vice versa is continuously going on.

There has been a very lengthy debate among Physicist why light manifest as a wave when no one is looking. I think however that this confusion is due to the basic assumption that light is a wave and at the same time a particle; a duality of existence. But is this really the case? Could it be that the photon is the exciter and the wave is the effect?

If we take a view that space is never empty then all spaces that are not occupied by physical bodies (matter and anti-matter) are occupied by energy no matter how small that energy is. Call that Residual Big Bang Energy, Zero Point Energy, Dark Energy, Light Matrix or any other name. But since it is energy then it must have a virtual mass.

Now if a photon is generated by the introduction of energy to a black body, can the photon continuously traverse across space if that space is also occupied by virtual bodies? The photon therefore can only move a little. What would happen is that it will collide with a virtual particle and impart its kinetic energy to the virtual particle. The virtual particle would then gain energy which transforms it into a photon while the original photon loses energy and transforms into a virtual particle. The process would then go on and on in a chain reaction fashion until the last photon generated at the end of the line causes an effect in the recording instrument. The photon therefore does not travel across space but the kinetic energy travels from one particle to another.

Of course it can be argued that virtual bodies may not be capable of absorbing enough energy to transform them into photons. But pair production has shown that this is possible. In fact if sufficient photon energy is used, not just photons are produced but bigger bodies such as an electron and a positron.

What could really happen then when the virtual particle absorbs the kinetic energy of the photon? The virtual particle gains energy and its energy density increases so that its spatial dimensions shrinks into that of the photon while the exciter photon loses energy and its energy density decreases hence it will correspondingly expand to the spatial dimensions of a virtual particle. The volumes of space that are occupied by these bodies therefore oscillate and manifest as a wave travelling in the direction of the energy transfer, thus the apparent wave nature of light. The photon therefore is not the wave but the one that caused the energy wave.

Pair production also behaves the same way as the above photon - virtual particle process. When sufficient energy is imparted to a virtual particle in the vicinity of an atomic nucleus, the virtual particle transforms into two physical masses, matter and anti-matter. Two volumes of spaces are also simultaneously created. The original volume occupied by the virtual mass would then be filled by energy coming from the adjoining virtual masses. The energy density of ZPE is reduced while additional volume is added to the volume of the universe.

On a small scale, the reduction on the energy density of the ZPE may be negligible, but given due time, the reduction becomes considerable and the time it would take for the transfer of energy from a photon to a virtual particle would eventually take longer. The speed of light would thus be reduced.

Unless the rate of pair production is balanced by an equal rate of matter anti-matter annihilation, the volume of space will continue to expand as more physical bodies are created. When the energy density of the ZPE matter has reduced to almost zero, all volumes of space would have been almost filled with physical bodies. Then gravity and charge attraction takes over. Masses will coalesce and matter and anti-matter will be drawn closer to each other. Then they will annihilate each other and release the energy that created them only to start another creation process and the cycle is repeated.

11. THE INSEPARABILITY OF FORCE, SPACE AND TIME

The basic question addressed by this article is whether Force, Space and Time can exist as separate entities completely independent from one another.

But before we go into the arguments addressing this question, allow me to present my idea of what is an absolute statement and what is an arbitrary one.

In Mathematics, we are faced with two identities that we often consider as similar in meaning. These are:

$$\boldsymbol{0 = 0 \times k} \qquad (1)$$

$$\boldsymbol{0 = 0 \times 0} \qquad (2)$$

Now let us define an absolutely true statement as one, which does not draw any argument i.e., any question asked of the statement, can be answered logically.

If we now test the two identities using the equation $E= mc^2$, without delving into its relativistic meaning, we can see the following. Suppose that there is a condition of zero energy ($E=0$), what would be the values of m and c.

If we view the condition using Eq.(1), we are bound to conclude that m equals zero because c has a finite value. But is our conclusion absolutely true or not? We can test this by searching logical questions that we can throw on the conclusion. There is at least one that cannot be logically answered. The question is "How can there be velocity if there was nothing to move in the first place"? The conclusion therefore is arbitrary.

If we apply Eq.(2) however, both m and c should be equal to **zero** when E is **zero**. In this view, the question will no longer be valid.

This implies that if we were to build a universal Physics it must be one which is based on an absolutely true statement and not on an arbitrary one.

In my first article entitled "It's a dynamic Universe", I have shown the effect of adopting a concept of mass existing at zero momentum and that of a concept of a dynamic existence of matter.

In a dynamic concept, mass cannot exist without velocity, and vice versa. Motion would therefore be a requirement for mass to exist and conversely, nothing exist which does not move. Mass would therefore be consist of the elements of force, space and time and neither one can be completely dissociated from the others if mass must exist.

We can see this clearer by looking at the metrical unit of mass in terms of energy and velocity using the Classical Physic equation. Thus:

$$M = 2E/v^2 = k \text{ ft-lbs/(ft/sec)}^2 \qquad (3)$$

Where: k is numerical value

If we rearrange the unit of mass, we have:

$$M = k \text{ (lbs-sec)/ft/sec} \qquad (4)$$

The unit of mass in Eq. (4) implies that mass is **Impulse per unit velocity**. What would become of mass if we take out the space component (ft)?

Since Force (lbs), Space (ft), and Time (sec) comprise mass, neither one of them can be totally removed if mass should exist. We can only alter the numerical value of mass, which means that we change the proportion of force, space and time, which is something like altering the density. However, we cannot completely dissociate any of its components.

SPACE THEREFORE IS NEVER EMPTY AND CONVERSELY, SPACE CAN NOT EXIST WITHOUT MASS, FORCE AND TIME AND NEITHER TIME CAN EXIST WITHOUT FORCE AND MASS.

12. GRAVITY HYPOTHESIS

Postulate: Motion is a requisite for existence. Anything that exist moves.

Discussions:

Since all masses are in motion, how must the elementary particles comprising a specific size of mass move in order to preserve the identity of a body?

It is obvious that random motion cannot guarantee conglomeration of the elementary particles to form the mass, as in a very short while the particles would be far from each other. There should therefore be an organized pattern of movements in order that conglomeration could occur.

There are several organized movements that the particles could take. The particles could move towards a common point but even this will not result in conglomeration since the particle would be radiating outward after the collision and would continue to move away from each other.

However if we consider that these elementary particles that are radiating from a common center is a vector array, another result can happen with the introduction of another movement. If the vector array is allowed to rotate on an axis, a new vector will be generated which would be parallel to the axis of rotation and whose direction of motion would be in accordance with Flemings Right Thumb Rule. But since the total energy of the system must be conserved, the new vector must draw its energy from the vector array and would in effect restrain the elementary particles to radiate outward.

The addition of a rotary motion would actually alter the original direction of motion of the elementary particles from a linear outward motion to an orbital motion. The new vector however could drain all the energies of the elementary particles and in due time all the elementary particle would have been converted into the form of the new vector.

But if another mode of motion exists, where in addition to the original radial motion of the elementary particle and the rotation of the entire array, the array moves on a direction perpendicular to the axis of rotation, another thing happens. The new vector will now take a curved path and would re-enter the array at the pole opposite to where it left. A vector field or force field is therefore generated around the array and the identity of the array as a physical mass comes to existence.

The generated vector field is actually the gravity field around the mass and gives the mass its identity.

In summary, **GRAVITY IS A FIELD GENERATED BY AT LEAST THREE MODES OF MOTION OF ELEMENTARY PARTICLES TO ENABLE THE EXISTENCE OF SPECIFIC QUANTITIES OF MASS.**

The quarks, having mass identities of their own, must therefore be made of basic elementary particles that are bound by a gravity field. By induction, larger individual bodies up to the macro levels are also bound by their own gravity fields. (Binding of different individual particles is due to differences in charges and polarity and may be considered as non-gravitational bonding or binding).

GRAVITY CO-EXISTS WITH MASS. WITHOUT GRAVITY, MASS CANNOT EXIST, AND CONVERSELY, WITHOUT MASS THERE IS NO GRAVITY.

Mass therefore is not just the physical body that occupies a visible volume of space. Mass includes the volume that is occupied by the generated field. The field that is generated is the

gravitational field of the body. The total volume of a body including, that which is occupied by its field, however is governed by the interaction of its field with those of adjoining bodies. Two bodies with similar directions of rotation and field direction would exhibit repulsion thus restrain each other's field within a confined volume of space. Two bodies with opposite direction of rotation and field directions would exhibit attraction so that the bodies will be forced to orbit around each other within a specific region of space. Field induction also could come into play. A small gravitating body in the field of a larger one regardless of the direction of its field will, by induction, adopt a field direction which would create attraction unless the actual original field sense of the body is somehow maintained by some technological means, so that repulsion occurs. This provides the possibility of anti - gravity propulsion.

The above theory does not answer how different bodies occur at specific mass levels such as the distinctions of the photon, electron, proton, etc. This is probably how nature really must occur. It follows a certain mathematical code, which probably falls under the FIBONACCI Series as indicated by natural occurrences. The theory however provides a possible explanation of the mechanics of mass propagation and gravity. Note that the apparent speeds of light above ***c,*** attained in recent experiments, occur in a pattern of Phi harmonic.

With gravity now defined, the reactions between gravitating bodies could now be investigated.

Experimental verification:

> With the above description of the hypothesis, it would now be possible to design an experiment on anti-gravity for the purpose of verification and should it prove valid, we would have simultaneously accomplished the long standing dream of making a non-impulse propulsion device for interstellar if not intergalactic travel.

13. THE POSSIBILITIES OF EXISTENCE IN AN ELEVEN - DIMENSIONAL UNIVERSE

Perhaps, the varied views that we take in viewing phenomena is because our present concept of the manifold of the Universe consist of only three dimensions of space and one dimension of time. We have no problem in visualizing a three-dimensional object but a four- dimensional object is definitely very difficult to visualize with our very narrow threshold of human perception.

As explained in my earlier articles, the basic components of mass, which are force, time and space, cannot be completely dissociated from one another, hence mass, in any form, cannot exist if any one of these ingredients is absent.

We also know that local space, which is the space component of a body, occurs in three dimensions, which are length, width and height. We also know that the separation between two bodies occur in three basic dimensions of distance. We also know that there are two senses of direction, either forward or backward. Our present Physics considers time as another dimension but flows equably in one direction. Our unit of mass however shows that the time component of mass is squared. If there is a square function of time and the other components of matter are three dimensional, could it not be then that time is also three-dimensional?

Now if we adopt an eleven - dimensional manifold of existence, would it not be more difficult to visualize than a four - dimensional manifold? At first glance it appears to be an impossible task but there is a way by which it can be done.

Mathematics provides us a method of representing complex mathematical expressions in simplified form. This is by using parametric equations. Thus if we represent universal existence in parametric form and adopting a spherical view, and without including the senses of direction in the equations, we have:

$$X^2 + Y^2 + Z^2 = D^2 \qquad (1)$$

$$L^2 + W^2 + H^2 = R_S^2 \qquad (2)$$

$$T_x^2 + T_y^2 + T_z^2 = R_T^2 \qquad (3)$$

Where:

X , Y , and Z are the dimensions of force distance

L, W, and H are the dimensions of local space

T_x, T_y, and T_z are the dimensions of time

D, R_S, and R_T are the radius vectors of the specific locations in terms of force, space and time

Eq. (1), (2) and (3), now represents the parametric equations of local space, distance and time. The relationships of these equations, which still need to be found, would be the universal relativity equation.

On a Cartesian coordinate system, these parametric representations of the universe will allow the possibility of existence in at least eight regions whose senses of the directions are different from

each other. In fact if we allow a component of mass such as time, to move in a direction opposite that of local space and distance, it will allow infinite possibilities of existence in any of the eight Cartesian regions. Such a view would perhaps cover all phenomena including those that we label as paranormal.

14. TRAVERSE THROUGH TIME AND SPACE

The present theories describe a **black hole** as the result of the collapse of a body under its own gravity, such as that which happens to massive stars. As explained by our present day physics, when a massive star has become too distended and the rate of fusion that fuels the star is reduced, the outward radiation pressure, which balances the force of gravity, is considerably lessened and the star begins to shrink. As the star shrinks gravity increases until the physical bodies are shrunk to nothing and the star is transformed into a singularity called a black hole. The gravitational pull of a black hole is too strong that even light cannot escape from it.

Here we can readily see defiance to logic. How can something that is devoid of mass have gravity? The idea of the black hole therefore was just conceived to provide an explanation to the fate of massive stars even if such idea completely disregards reason.

Somehow, to lend credence to the idea, phenomena that resemble the supposed effects of a black hole, as the burst of extreme radiation in the vicinity of unknown bodies, are interpreted as proof of its presence. This is just like a blind man who says that an elephant is made of two round balls because he is holding on to the testicles of the beast.

If however, we accept a notion that space is never empty, then there is no such thing as a black hole. Bodies that resemble a black hole can still exist in a universe based on this notion but not necessarily without mass. What then could be these things that produce the effects which are seen as those from a black hole?

As explained in our discussion on pair production, energy in the form of electromagnetic radiation (High energy gamma ray, x-ray, etc) can produce mass in pairs, one of which manifest in our own time frame while the other in an opposite time frame hence has an opposite charge. In a star, these electromagnetic radiations are constantly produced by the fusion of atoms. Most of these radiations are emitted outward giving the stars its noticeable luminescence. However, deep in the star some of the radiation cause pair production and the positive matter products (electron, protons etc) are mostly emitted outward in the same direction as the rest of the radiation. The anti-matter products (positron, anti - proton, etc) however move inward and accumulate in the interior of the star. When the star has almost used up all of its fusion fuel the core of the star would already consist mostly of anti-matter. The gravity of the anti-matter cluster increases in

proportion to the rate of production. Because the emitted particles and the electromagnetic particles are also masses with corresponding space component, the volumetric or space component of the remaining particles are also reduced, As the volume of the anti-matter shrinks, there would be a rapid increase in gravity force so that the anti-matter is compressed to a very small volume of space thus the anti-matter cluster will exhibit behavior such as that which we see and interpret as the proof of a black hole. The thing that we call as a black hole, is therefore also a mass, but is not necessarily metrically or spatially the same as the matter that we know. Since it may have a negative (opposite) flow of time, then its gravity field need not be something that surrounds it but it can be gravity in the reverse direction. An analogy to this is that if we look at the gravity field of physical bodies as spherical, then the gravity field of an anti-matter is a pseudo-sphere, (the orthogonal trajectory of the sphere). Regardless of the direction of the gravitational lines of forces, attraction would be exerted to masses in the vicinity of more massive bodies because of induction. This attraction will be more pronounced in the vicinity of a 'black hole' because of the smaller volume of space occupied by its anti-matter components. Thus a 'black hole' has a very strong gravity.

It is the common notion that even light cannot escape the gravitational pull of a black hole. This is probably because no light is observed coming out of the event horizon.(Recent revision to this idea was made by Stephen Hawking, that something escapes from a black hole, and this has been called Hawking radiation).

What would happen then with a physical body getting inside a 'black hole'? Since the black hole is consist of anti-matter then it should annihilate any physical body getting into it, but why no burst of gamma or x-ray?

In a region where gravity is in reverse orientation with that of physical bodies other processes can happen. Instead of annihilation, the physical body can be momentarily given a higher time component enabling it to jump across space and emerge somewhere else in the universe.

This is speculation for the moment but we wait until the results of the operation of the HADRON COLLIDER, which is expected to produce not only HIGG bosons, but also open the STARGATE.

Reference:

Source of Table 1: The Overlooked Phenomena in the Mickelson-Morley Experiment – Marmet Paul – May 30, 2004.