

01 – The Entrance:

A brief of the Background

Evolution of the subject field of ‘Atomic Structure’ had had only a philosophic origin up to the **18th century** till **John Dalton** paid much emphasis to figure out atomic composition in molecular units of elements.

Thomson’s atomic model of positively charged inner space with scattered negatively charged electrons, was displaced by the **Rutherford’s** model (**1911**) in which the electrons orbit round the positively charged nucleus.

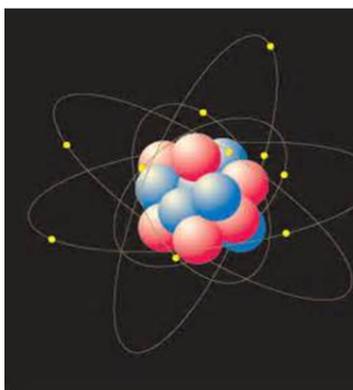
Various models of the atomic structure have been developed ever since till a more realistic energy responded model is introduced by **Niels Bohr (1913)**. In his model, electrons are orbiting the nucleus at different potential energy levels and an electron could leap the orbit by exchanging of a **certain quantity** of energy (packet or quantum) through energy radiations.

Scale (size) of the nucleus of hard state is so infinitesimally tiny that, it is 10^{15} (ten to the power fifteen) times smaller than the atom and the modern day knowledge base is thorough enough to figure out of **size, charge** and **mass** of the inner atomic particles mainly such as **Electrons, Protons** and **Neutrons**.

However this technical paper doesn’t aim to bring evolution of the subject field but to draw attention of Global Knowledge Departments upon the dark area of the subject remains still unexplained up to the 21st century.

What is unexplained?

1. There is no clear definition as yet for **boundary** of an atom. But ‘Scientific Deduction’ emphasizes that there should be a skin boundary for atoms which should be hard enough to **reflect light rays** or otherwise we could not observe any element.
2. What is the correct atomic structure to comply with the inner dynamics? The atomic structure in the so far acceptance is comprised with Protons and Neutrons bonded together as shown in the picture.



The problematic structure

How could be particles in the nucleus bonded together? It cannot be electricity because protons should be repelled if so. Is that Magnetism or Gravity then?

3. How electrons rotate about the nucleus and why don't they collide?
4. Why don't they rotate on a single **equatorial plane** like planets around Sun?
5. Inner dynamics in the atomic structure is not explained well as yet and how about the dynamic stability of the rotation?
6. Atom **consumes energy** but the phenomenon is not explained as yet.

Prime objective of the technical monograph.

The aforesaid lapses of the atomic structure, is therefore addressed in this technical paper for improvements sake. At the same time the new concept of '**Moola Unit Space**' under the perspective of '**Ultimate Dimension**' is brought forth on behalf of future reformations in the subject field.

02–Concept of ‘Moola Unit Space’

01. Introduction of the Moola Unit Space:

*Atom can be considered as a ‘Unit Space’ of the tiniest scale named as ‘Moola Unit Space’. (the term ‘Moola’ indicates ‘first reason’ or ‘root cause’ in Sinhala and Paly languages). Natural dynamics in **Moola Space** is as same as in the **Galactic Space** and governed by the three natural phenomena such as;*

1. Medium Vortex-(Fluid Dynamics and Magnetism),

2. Energy Rays-(Exchange of Mass and Energy),

3. Energy Waves-(Electricity, Gravity and Moola Gravity),

The three above phenomena are explained bellow respectively with examples to make it easy for understanding of the **energy based** new structure of the ‘Moola Unit Space’ ultimately.

1.1- Medium Vortex :

Vortex is a rotary medium organization to transfer energy from one destination to another and its behavior is described by pressure based **fluid dynamics**. Pressure of any fluidic medium drops down with increased mobility and that is the theory explained by **Bernoulli 1726**. Tornados, cyclones and water eddies etc. are the easily observable examples of the sort and in addition, the bellow furnished phenomena too must be accepted as **medium vortexes**.

1.11 Galactic Vortex:-

- i. **Expanding galaxies** are **centrifugal spherical vortexes** of galactic medium and hydrogen is produced at the exploding galactic center of **dark matter**. We are living in an expanding galaxy and ‘Milky Way’ is just a single dynamic wing of the gigantic **vortex**.



What is the medium?

A galaxy is a **Universe** and it is made up of the three fundamental space materials such as; 1)-**Atomic Matter**, 2)-**Energy Matter** & 3)-**Medium Matter**. The 1st is known and the 2nd is well defined by **Einstein (E=Mc²)**. But the third has not yet been recognized by the world.

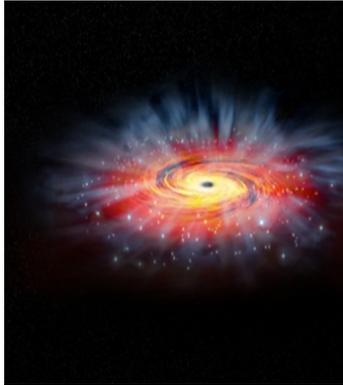
[I have deduced its existence mathematically and produced the properties such as; density (4.773x10⁻⁴ g/cm³) and Pressure (2.145 x10¹⁷dynes/cm²) in the Experimental Monograph published as; 'Space Dynamics-V1'/2009 at www.cyrilhtgamage.com , www.worldmysteries.com and www.sciencedoubts.com . Medium is made up of a different particle structure which doesn't reflect light rays and therefore it is not visible at all.]

What is visible in a galaxy like a vortex is all **atomic matter** such as dark matter, hydrogen, helium, magma plasma, stars, planets, asteroids, comets and dust etc. but not the galactic medium. A galaxy is a **spherical vortex** and therefore the boundary of its medium ought to be almost spherical as a bubble.

- ii. **Contracting Galaxies** are **centripetal spherical vortexes** where energy is absorbed towards the center to make **dark matter**. Not only energy matter but also all the three types of space matter is absorbed towards the center by the gigantic spherical vortex. Bluish and reddish color of the dynamic systems indicates contraction of atomic matter by a **scale drop of 10¹⁵** (ten to the power fifteen) along the **4th dimension** to make dark matter.

[4th dimension is the distance from infinity to the absolute zero as explained in 'Time & the 4D Universe'/Space Dynamics-V8/2015 at www.cyrilhtgamage.com]

In that contraction, the medium bubble too is contracting altogether in to a small dark matter (neutron) globe. However the end of contraction is the beginning for another expansion and that is the **pendulum type dynamic package** of the universe as foreseen by the millennium Scientist **Albert Einstein**.



What is the 4th Dimension?

It is the distance to travel by scale dropping from infinity to the Absolute Zero. Galaxies are born, been existing and vanished by Oscillatory Expansion along the 4th Dimension.

[The 4th Dimension-Space Dynamics-V7 /2015 at www.cyrilhtgamage.com]

None rotating Galaxies could take many different odd shapes whereas the central rotary dynamic organization (vortex) is held up and they are known as **Nebulas**. Though the central organization is lost, many individual vortexes are scattered functioning discreetly and perhaps contraction of a big star could **centralize** the entire system back again in to a **mono-centric centripetal vortex** (contracting galaxy).

*“As a whole, the ‘Infinite Universe (Multiverse)’ is comprised with many galaxies (Finite Universes) which are at the dynamic state of either **Expansion** or **Contraction** by exchange of **Energy** with **Mass** against **Time**.”*

1.12 Star Vortex:-

- i. Young Stars which create planetary systems possess inner organization of **centrifugal spherical vortex of electrons** and the vortex accounts for a strong magnetic field and spinning about the polar axis. It is known that **nuclear fusion** provides electrons for the vortex.
- ii. Once a star grew old without having adequate hydrogen (deuterium) for the nuclear fusion, the rotation could be held up and the body is gradually expanded in to a **red giant**.
- iii. Centrifugal vortex of energy emission is then converted in to a **centripetal vortex** of energy absorption and balance material of the star is abstracted towards the center contracting in to **dark matter** at the final phase recognized as a **White Dwarf**. (The light emitted by a white dwarf, is quite different than normal light)
- iv. In a gravity governed binary system of stars, one star can rundown gradually in to a white dwarf by growth of a dark matter globe in the center. Dark matter doesn't respond for Newtonian gravity and then White Dwarf loses its orbital balance.

Meanwhile increased vortex dynamics attracts the other star in to its **centripetal spherical vortex** which is more strengthened by the growing dark matter globe inside. **Fluid dynamics** explains how vortexes of different rotational directions

are attracted towards each other and ultimately the binary system of stars collides with a gigantic explosion to be recognized as a **Supernova**.

1.13 Planetary Vortex:

Planets which possess strong magnetic fields and spinning about with one or more moons are recognized as ‘**Productive Planets**’ and they are rotated by a **centripetal spherical vortex of electrons** in the core region. Earth is a productive planet and it absorbs energy from **solar wind** to run the **geomagnetic motor**. Energy is mass ($E=Mc^2$) as **Albert Einstein** has declared and therefore the globe is being grown in weight and size with time (pl refer “Theory of Solar Mass Transplantation” /2016 at www.cyrilhtgamage.com /Space Dynamics)

1.14 Inner Atomic Vortex:

Prime objective of this technical paper is to introduce the vortex based dynamics in the atomic space (Moola Unit Space).

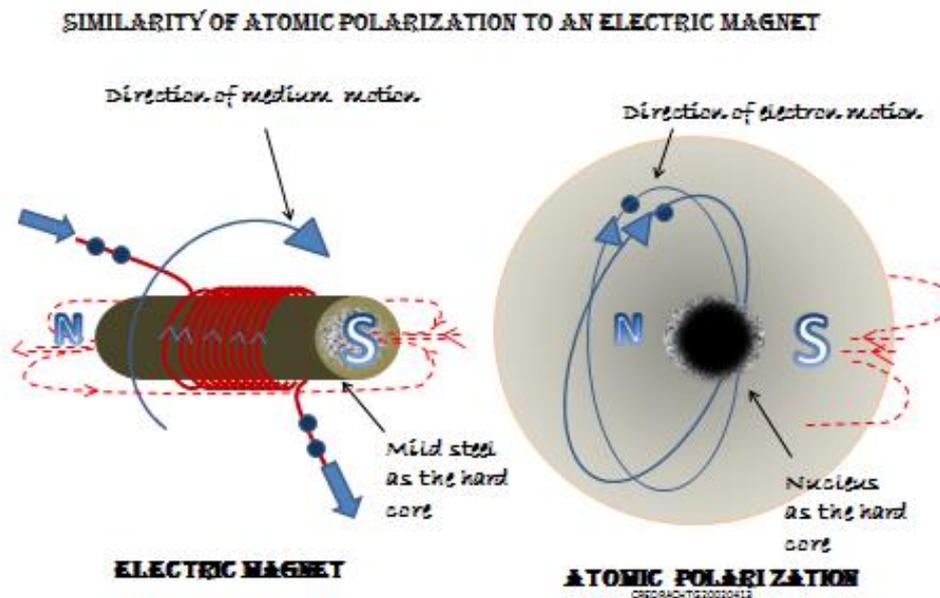


Figure-01

Nucleus of an Atom absorbs energy (light and heat radiation) to maintain a **centripetal spherical vortex** at the center. Heat and light rays can be considered as line projection of energy particles of infinitesimal scale. They behave as electrons (**Moola Electrons**) in the Moola Unit Space. Everything in the Moola Space is dropped in size by **10¹⁵ of a scaling gap**. [Therein we are given a good link to think that a light particle is 10¹⁵ times smaller than an electron]

Why does nucleus absorb energy?

Before that we have to prove whether atoms absorb energy or not. Therein students can do a simpler type of a test.

Let us take several objects of different substances such as a piece of iron, a piece of aluminum, a piece of glass, a stone, a piece of wood, a piece of paper etc. and keep them in a dark cool room for some time. If you take them out after several hours and touch, you would feel iron is the coolest and why? Because, denser materials absorb heat from your skin faster than the materials of less density do.

That simplest experiment indicates that the hard matter in the **nucleus** of an atom **consumes energy** (heat and light rays) for some inner **dynamics** not explained as yet. [Prime objective of this letter is to explain the very subject matter in the due sequence of it]

Without waiting for the explanation, I have got to remark at this stage that “**Each atom is polarized by possessing of a North and South magnetic poles.**” But the polarization is limited only to the ‘Moola Unit Space’ in the atom and the outer world doesn’t feel its effect except from the case of a **permanent magnet** in which all the atoms could turn in a directional array.

1.15 Magnetic Medium Vortex:

Magnetism is born due to a medium vortex where **attraction** and **repletion** could be well explained by **Bernoulli 1726** principle of fluid dynamics.

Moving electrons have the ability of giving a motive force for the medium too. It also indicates that electrons have a resistive motion through the space medium.

Therefore where there is a flow of electrons, the space medium also moving in the same direction (*best example is the solar wind*). A moving medium always drops its pressure as **Bernoulli** explained.

Current carrying cables prove that magnetic force is nothing else but simply due to medium pressure drop which could be explained by fluid dynamics.

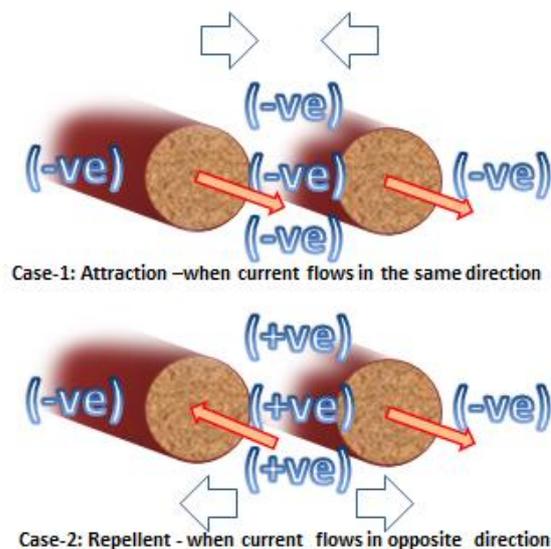


Figure-02

Electrons prefer to move in outer surface of a current cable and therefore the outer medium too gets a directional move. If the current in both cables flows in the same direction, the medium pressure in between drops and therefore they attract each other. In contrary, the medium pressure in between rises in case, where currents flow in opposite directions resulting repulsion. Therefore only fluid dynamics explains how attraction and repulsion occur between current wires.

[But the difficulty is that world has not yet even accepted the existence of a **space medium** other than the atmosphere around us. Please refer 'Space Dynamics-V1/2009' at www.cyrilhtgamage.com for derivation of space medium parameters such as; density= $4.773 \times 10^{-4} \text{ g/cm}^3$ and pressure= $2.145 \times 10^{17} \text{ dynes/cm}^2$]

If we consider a rod magnet, it creates a medium vortex about the outer surface of the magnet. That is because all the atoms of outer surface of a magnet turn in the same polar direction of the magnet as shown in the figure-03.

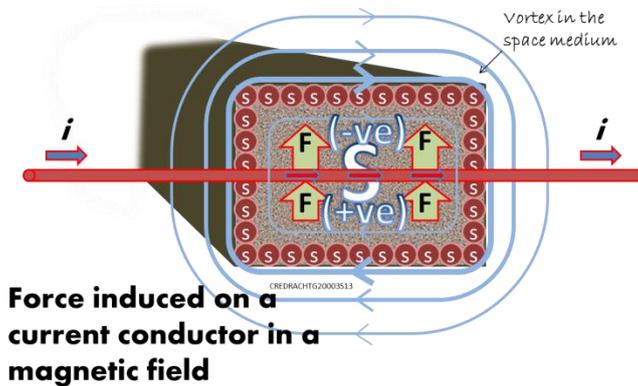


Figure-03

Atoms of outer surface of the magnet are arranged so as all the electrons are rotating from the same direction and therefore outer medium too gets a motive force. It makes an almost cylindrical vortex around the magnet. If you place a current carrying wire across the face of the magnet, only fluid dynamics would explain how a motive force is induced on the wire as shown in the figure-03. That is the mechanism behind **Fleming's hand rule**. (pl. refer to 'Space Dynamics-V5/2013 at www.cyrilhtgamage.com)

1.2- Energy Rays:

What are Energy Rays?

Energy rays are line projection of energy particles.

Energy particles in the world have to be recognized respectively such as;

1.21 Neutrons: (Gamma rays- projected out from atomic nucleus of isotopes or projected out in nuclear fission). Neutron itself is not an energy particle but it contains much energy as **Mass**.

It is very heavy and therefore could be shot out like a real bullet which is capable to penetrate in to any hard block. Whereas it stops, **explodes** like a missile bomb making a Hydrogen ion with releasing of an electron as energy.

Neutron=Proton+ Electron +Medium +Skin=Hydrogen is the reaction of massive volumetric expansion of 10^{15} (ten to the power fifteen) and also named as **1st Fundamental Cosmic Reaction- (FCR-1)**.

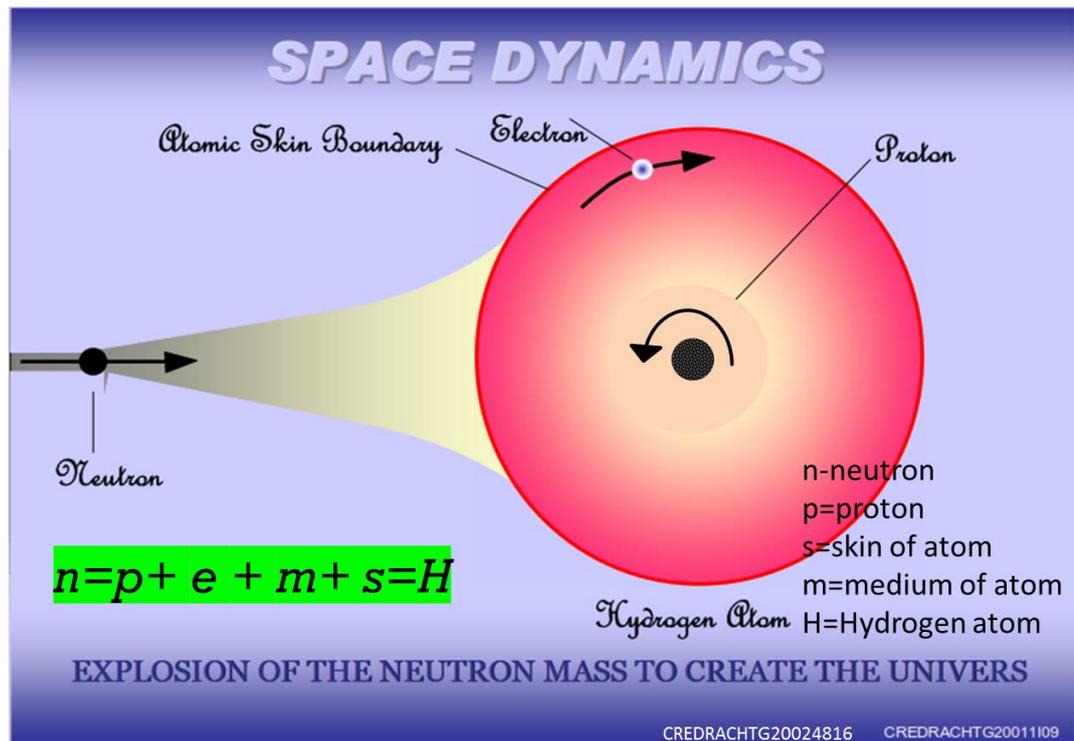


Figure-04(abstrated from 'Space Dynamics-V1'/2009)

That is how **dark matter** is expanded in to hydrogen clouds creating galaxies in the universe. *[But the thing is that world has not yet even accepted neutrons as dark matter and some astronomers are searching for dark matter in the far interstellar space wasting great deal of money upon aimless experimentation].*

(Please refer 'Space Dynamics-V1/2009' at www.cyrilhtgamage.com for mathematical deduction of masses to balance the equation of **FCR-1** as shown in the figure-04)

- 1.22 **Electrons:** (X-rays)- Electrons are projected out from atoms and they are very light in weight. The **momentum** of a particle therefore is not adequate to penetrate far in to any hard bodies. Light and heat particles are shot out from the body of an electron when it starts contracting. Moving energy particles have a **critical velocity** relative to the medium. Beyond the critical speed, the skin starts contracting and the internal pressure is immensely increased.

Fluid dynamics proves that outer pressure at the skin becomes zero at the critical velocity. Therefore skin particles are projected out like bullets and that is how we observe sparking light in electric welding. Path between terminals is not straight because atmosphere is a very resistive medium for electrons to move.



Figure-05 (electron motion through a resistive medium)

What is the structure of an Electron?

The reader would understand that the matter at this level goes beyond the level of experimentation but still a single human measuring organ- 'logical thinking of **Mind**' - is capable of **deducting** of the facts towards the **Reality**.

Suppose electron has no nucleus but possesses a balloon like skin membrane made up of similar particles of the dropped scale (**Moola electrons**).

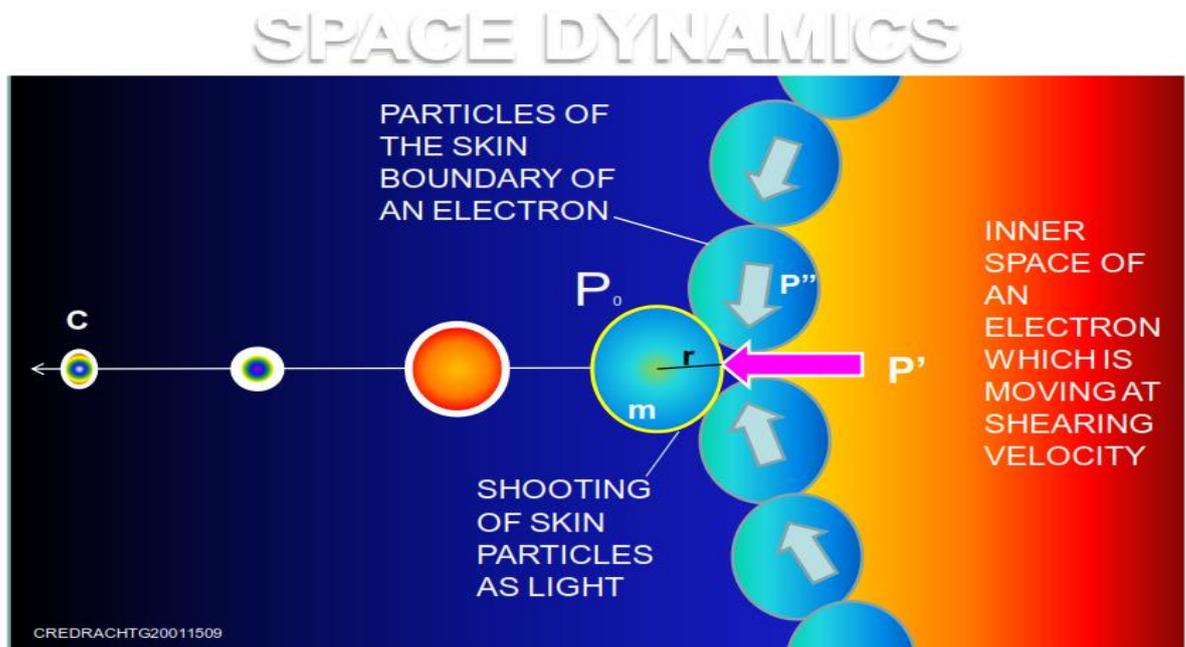


Figure-05(abstrated from 'Space Dynamics-V1'/2009)

How electrons are contracted at motion beyond the critical speed?

It is clear that outer pressure is dropped at motion due to shearing against the medium particles (fluid dynamics).

Then the reader would question that, a normal rubber balloon is expanded when outer pressure is dropped down. But in contrary energy particles are said to be contracted when outer pressure is dropped and how?

That is explained by the structure of energy particles as shown in the figure-06 bellow. Inner pressure of an electron is developed massively when outer pressure is dropped because the skin is more tensioned. The two skin particles are contacted along the line of their centers –AB (figure-06). Particles tend to turn about the contact point due to the force shown in small white arrows. The turning force increases as much as the outer pressure is dropped and the skin membrane is then more tightened. ‘T’- is the resultant introvert force and ‘F’-is the extravert force upon a skin particle. In this manner internal pressure of the electron is so highly increased that the skin particles are shot out in all directions like bullets what we observe as light.

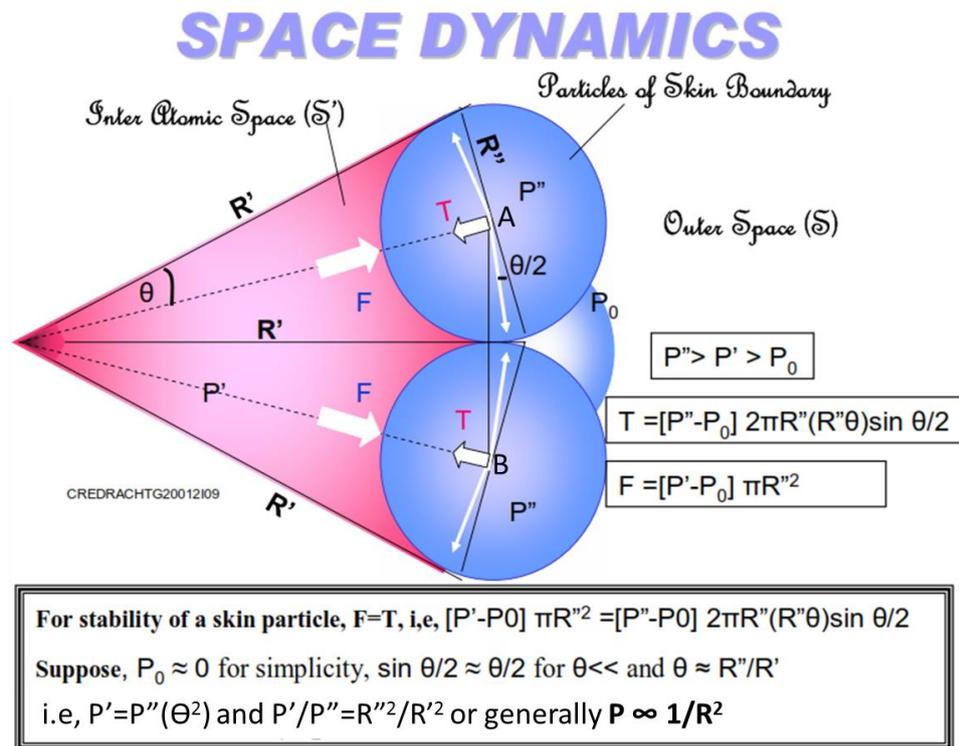


Figure-06 (abstracted from ‘Space Dynamics-V1/2009’) Projected particles behave as light & heat in rays and the mother electron is worn out in mass and energy as well. Above mathematical deduction also gives an important relation about energy particles such as; Pressure in an energy particle is inversely proportionate to square of the radius.

1.23 Light particles: (photons-light rays)-infra red, ultra violet etc. are recognized as line projection of energy particles.

Light belongs to the category of '**Energy Matter**' and it doesn't exist as light without moving at its critical speed (velocity of light). When the velocity is dropped light particles are expanded in to heat particles and ultimately stopped as the still medium particles (**Medium Matter**).

1.24 Heat particles: (heat rays)-projected out from highly energized electrons as well as from shearing electrons through a resistive medium. But speed of heat rays is lesser than that of light rays.

1.3- Energy Waves:

What are Energy Waves?

Energy Wave is entirely a **medium property** and different ways of energy transferring through the media is categorized as AM or FM energy waves.

Speed of the wave is directly dependent on the medium qualities such as; 1)- **Pressure**, 2)-**Density**, 3)-**Elasticity**.

Frequency of the wave, **Amplitude** (of AM waves) and **Displacement** (of FM waves) are the properties belong to the **wave source**.

There are only two patterns of **linear waves** as recognized as yet in the world such as;

- a) Frequency Modulated Waves-(FM)
- b) Amplitude Modulated Waves-(AM)

1.31-FM waves:

i. **Sound** is the most simple thing to be observed in the atmosphere and it can be reflected by hitting against a hard surface. It also can refract **towards denser medium** while traveling. (Speed of sound in atmosphere is about 343.2m/s)

ii. **FM- Radio & TV waves** are also of the same pattern as sound but they are much speeded than sound waves because the **medium** through which they travel is quite different. Then the reader may ask what the medium is?

I am much helpless again in answering for the question because world has not yet accepted existence of the galactic space medium. [I have deduced

mathematically density of space medium as $4.773 \times 10^{-4} \text{ g/cm}^3$ and pressure of space medium as $2.145 \times 10^{17} \text{ dynes/cm}^2$ (pl ref 'Space Dynamics-V1/2009 at www.cyrilhtgamage.com)].

I have also explained how those parameters are varied a bit starting from the center of solar system to out and calculated density of space medium at our world 'Earth' as $1.386 \times 10^{-4} \text{ g/cm}^3$. (pl ref 'Dynamic stability in orbital motion of planets'/ Space Dynamics-V6/2013 at www.cyrilhtgamage.com).

Wave speed is given by the equation $v = \sqrt{2P/\rho}$ where P-pressure & ρ -density of the medium. (It is a good exercise for students to calculate velocity of sound and speed of Tsunami pressure wave which travels in the deep sea bed. It is attached to the sea bed (by **refraction**) due to high pressure and high density at the sea bed. At the shallow coastal sea, the wave is **reflected** up by hitting against the hard soil bed creating of a huge tide of much potential energy but of low speed.

iii. **Seismic Waves** are miss-interpreted by the Scientists due to wrong identity of the **medium**.

The electromagnetic waves transmitted by electric instruments should not be taken as seismic waves because they travel through the **space medium**, which continues even inside of soil up to the hard rock in Earth. These waves are much speeded and reflected being **radio waves**.

But real **seismic waves** are born due to huge explosions in the Earth crust and they are much slower than the radio waves because the medium is quite different.

Seismic waves are born only as **FM** waves (P-waves) at the explosion and while they are spread forward, vibration of medium particles creates AM waves (S-waves) too in all the perpendicular directions.

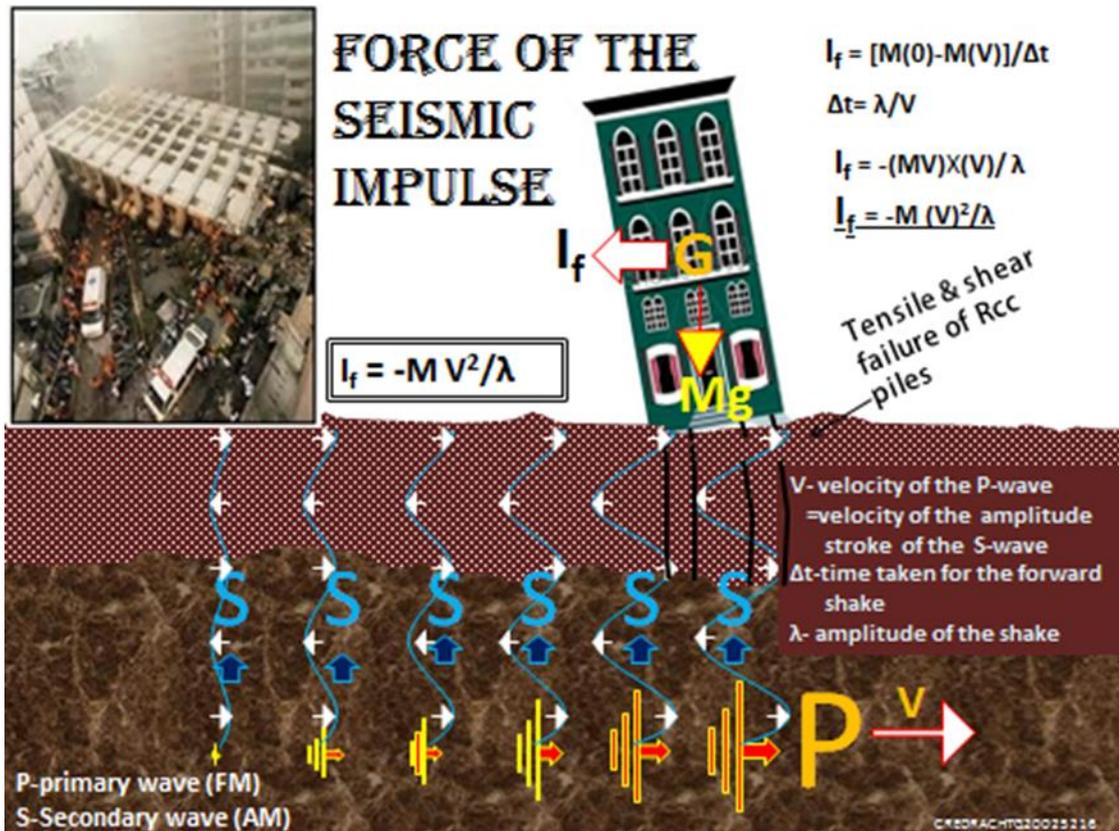


Figure-07 (abstracted from 'Theory of seismic impulse'/2016)

$I_f = -M V^2/\lambda$ where 'V' is velocity of the P-wave, 'λ' is the stroke length of the horizontal ground oscillation (amplitude of the related S-wave) and 'M' is the weight of the building.

The impulsive force is deduced such as;

If the entire building could gain the same velocity of the wave stroke, within the short time gap, thence there is no building failure at all. Then the impulsive force is the change of momentum of the building during the short time gap. But if the building is unable to move with the stroke, then the same force is acting in negative direction, upon the center of gravity to fail the building structure moreover at the foundation level. The direction on which majority of falling of buildings indicates the direction of P-wave traveled underground from the explosion.

Therefore Structural Engineering in megacity development has to consider the equation $I_f = -M V^2/\lambda$ or unless a death trap is being created for urban human civilization.

(Pl refer 'Theory of Hollow Globes'/Space Dynamics-V10/2016 at www.cyrilhtgamage.com for more of the subject of seismic waves.)

iv. Gravitational Wave:

Astronomers have been searching to find gravitational waves among galaxies while plenty of gravitational waves are beating our bodies continuously to attract us down towards Earth. Sir **Isaac Newton** has well explained the physical properties of **Gravity** but the mechanism behind the phenomenon remained unexplained up to the 21st century.

Inquisitive students should ask their physics teaches "How gravity is pulling its victims without even touching of them?"

Famous scientists of the 19th and 20th centuries after Newton, had made Gravity as unnecessarily complicated to be a **paradox** but the mechanism behind gravity is so simple that even a student of junior secondary level can easily understand when it is explained.

A Physical Science Student of logical thinking and open mind should ask only two questions;

1. Why Gravity **attracts** only and why not repels things?
2. Why does Gravity attract only '**Atomic mass**' and why not other masses such as light, heat, photon, electron, neutron & solar wind etc.?

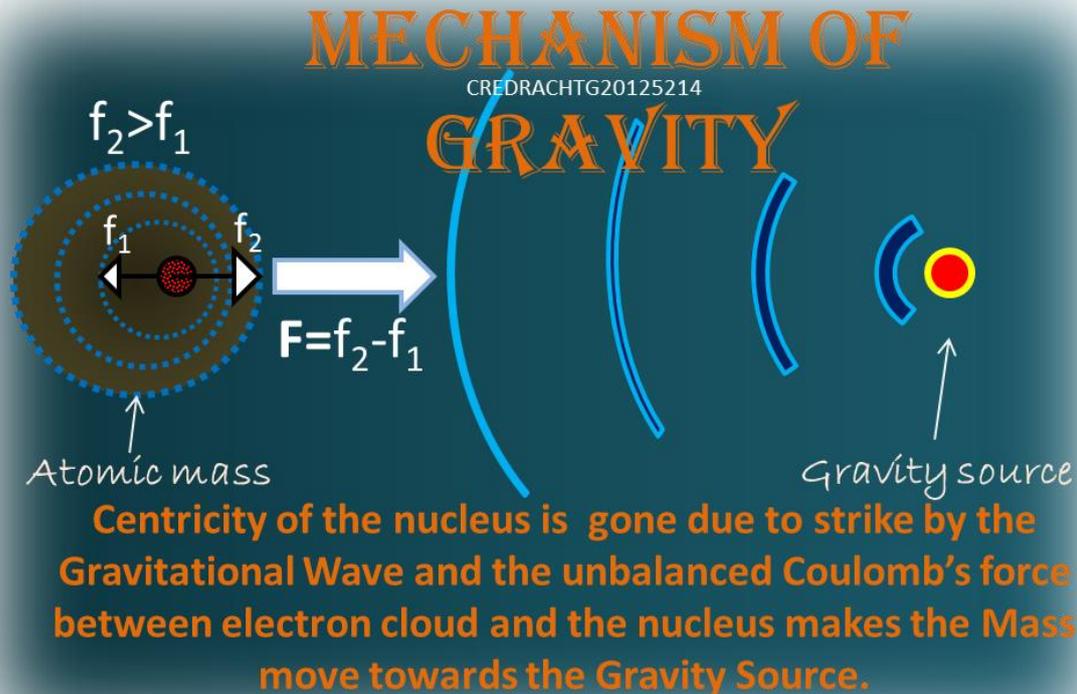


Figure-08(abstrated from 'Space Dynamics-V2/2009)

The Mechanism of Gravity:-

Gravity is born due to a **FM wave through the space medium** transmitted by **vibration** of '**atomic mass**'. Any secondary atomic mass in the field responds to the wave, through induced **attraction** towards the source. The attraction is nothing else but the **unbalance** of Coulombs' electromagnetic force, due to **eccentricity** occurred at the **nucleus** in the **direction** from where the gravitational waves attack.

How gravitational wave is born?

Put a fly in to calm water and you would observe tiny waves generating round and round. That is how atomic masses produce **gravitational waves** in the space medium due to **vibration**. A single atom can be considered as a massive rotary organization in which electrons are orbiting vigorously round the nucleus. Mechanical Engineers would explain that any rotary machine in the world creates a **vibration**.

You would be astonished if you could hear the sound and vibration of the atoms in your own body. It has to be comprehended as a vigorously dynamic steel factory.

So an atom vibrates and a **bigger collection** of atoms makes a bigger vibration to transmit a **stronger wave** through the space medium. That is how **gravitational waves** are born and please refer '**Space Dynamics-V2**'/2009 at www.cyrilhtgamage.com for the experimental way to find frequency of the wave as **10⁷ cycles per second**.

But how on Earth it can attract another mass in the field?

Before answering above question we have to clarify what are the 'Three Fundamental Space Matter' in this universe.

Solids, Liquids and Gasses must be the sure answer from a student of junior secondary level. But you know they are only the **three phases** of the same '**Atomic Matter**'. There are another two types of matter in the universe to be recognized by Scientists.

1. **Atomic Matter**-(everybody knows it as **internal rotary organizations** where electron clouds are vigorously orbiting the nucleus)
2. **Energy Matter**-(line projection of energy particles such as; light, heat, X-ray etc. But we cannot identify them when speed is lost. Have you ever seen an electron at a stop?)
3. **Medium Matter**-(densely packed particles of speed lost Energy Matter. Solar wind too becomes the medium matter ultimately by losing speed).

How a secondary body is attracted by Gravity?

Some people think everything in the world is succumbed to gravity but that is wrong. Even modern Physicists believe that, light is bending towards planets by attraction of gravity. The practical observation there is correct but the definition is incorrect. It is not gravity but light rays are bended a bit towards planets because of medium pressure drop resulted due to intense vibration of the space medium at huge gravity sources.

How about a lightning stroke which can break even a rock boulder in to pieces? You would agree it should have a big mass and a big momentum with no arguments. But such a strong lightning stroke being a flow of electrons, don't respect at all for Newtonian Gravity and why? Because 'Energy Matter' don't have any internal organization of rotary dynamics to respond for the gravitational wave. Similarly Medium Matter too doesn't respect for Gravity.

When the gravitational waves strike upon any **secondary atom** in the field, the rotating electron cloud is a bit shifted closer to the nucleus from the direction at where the waves strike from.

Thence the **balance of Coulomb's electromagnetic force** between negatively charged electron cloud and the positively charged nucleus is lost. The force from the side of wave attack becomes bigger because the distance to nucleus in that direction is decreased as shown in the figure-08. The resultant unbalance force then makes the atom move gradually towards the gravity source and Sir **Isaac Newton (1643-1727)** has explained all the physical properties of the phenomenon explicitly.

1.32-AM waves:

a. Electric Wave –(Mechanism behind Coulomb's Electricity)

Readers could be astonished to hear for the first time that electricity too is born due to a medium wave. It is a **curvilinear AM wave spreading spirally** out from the body of a rotating source as shown in the figure-09.

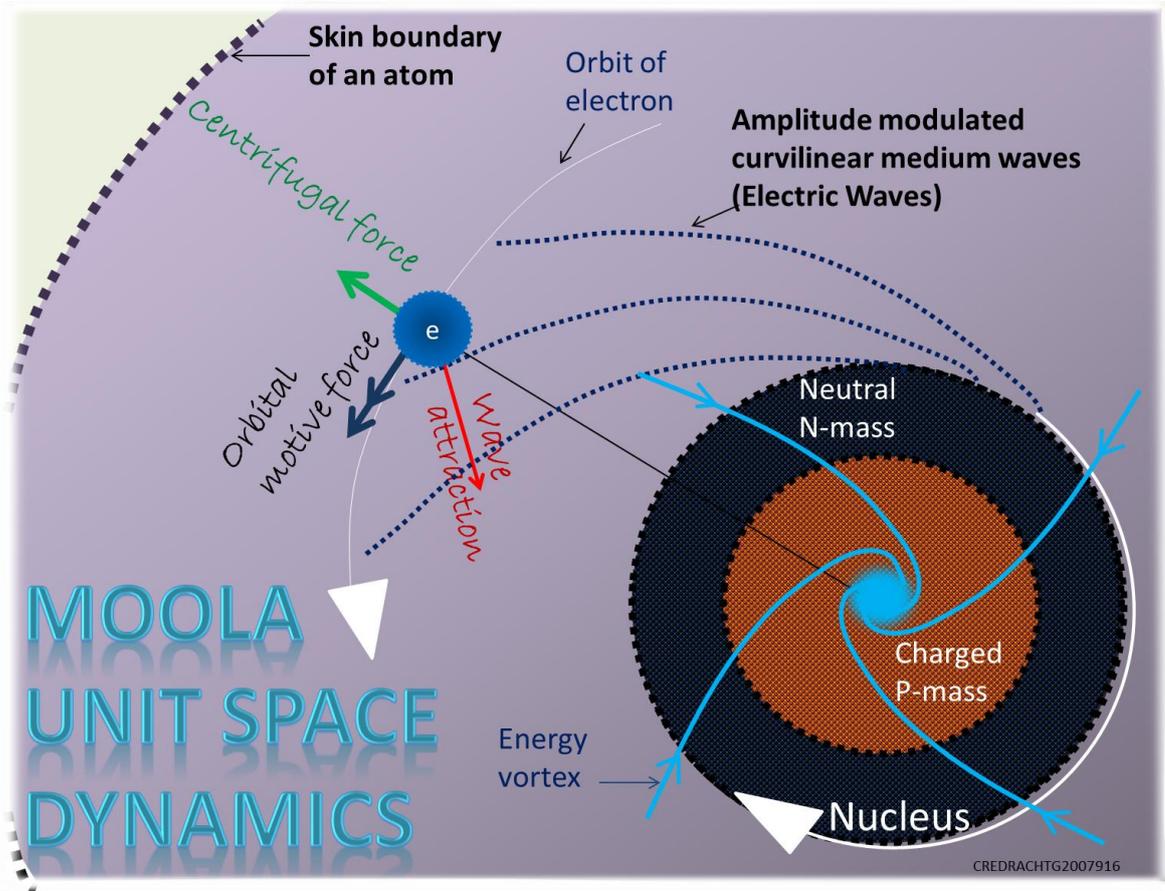


Figure-09 (Electricity is born by a medium wave of amplitude modulation)

Surface of nucleus of an atom must be so irregular being covered with hard particles. The nucleus must be rotating violently due to the spherical vortex of energy absorption. Therefore the inner atomic pressure medium is induced with a spirally spreading AM wave as shown. When the balloon like electron surface is rubbed by the wave, medium pressure at the side is dropped and the electron gets an orbital motive force to move in the opposite wise direction of the rotation of the nucleus.

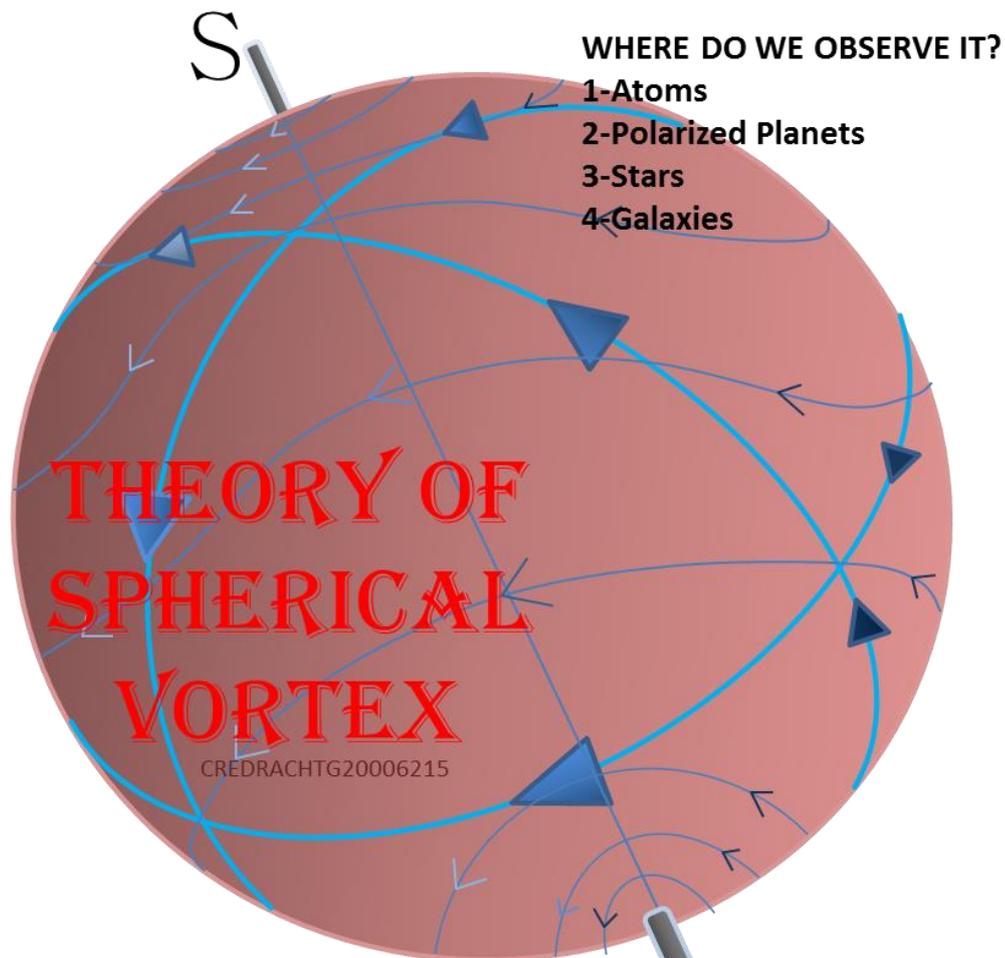
Why should the nucleus rotate?

Theory of **spherical vortex** explains all the rotary dynamics in the universe such as; **Galactic vortex**, **Inner vortex of Stars**, **Inner vortex of spinning planets** and ultimately the **rotary dynamics in the atomic space**.

What is a Spherical Vortex?

Theory of Spherical Vortex:-

'Space Matter' is arrayed as a dynamic spherical rotary organization, by flowing of 'Energy Flux' in-between the zero center and infinity along the 4th dimension.



A Spherical vortex of Matter is born whereas, Energy Matter is flown along the 4th dimension contracting towards a high dynamic zero center or expanding towards a less dynamic infinity.

Figure-10 (Spherical vortex)

Demonstration of a Spherical Vortex: -

1. Get a plain ball and draw three circumferences which are perpendicular to each other. (nobody can draw more than three perpendicular circumferences on a globe)
2. Give directions for each circle (mark arrow heads on your own)
3. Draw safe paths (by additional arrow heads) for particle movements to avoid head to head collides at crossings.

Observations:-

1. Now you observe the ball to find two poles emerged upon the globe.
2. If you connect the two poles by an axle, you would observe that, almost all the particles are moving in one direction around the axle (some paths are zigzag but the ultimate moving direction is of the same).

Deductions:-

1. Suppose the axle is a rod of **iron** and electric **current** is moving along the paths that you have drawn? Then the system must be polarized with a magnetic **North Pole** and a **South Pole**, as shown in the figure.
2. Let's pay attention first of our living globe Earth. Current is but just a flow of electrons and Earth absorbs much of them from the atmosphere and atmosphere is regularly being recharged by the flux of **Solar Wind**.
3. Magma shell and the crust of Earth contain much iron and having a rich flux of electrons (receiving from thunder strokes) flowing around through a **spherical vortex** and the globe is polarized just like an electric magnet.

[No other proof is needed if you would consider Bermuda triangle and five other most magnetic influential places upon the globe which represent the crossing terminals of the geo spherical vortex. pl refer 'Earth Mechanism'-Space Dynamics-V3/2010]

The six sub terminals of the geo electromagnetic vortex:

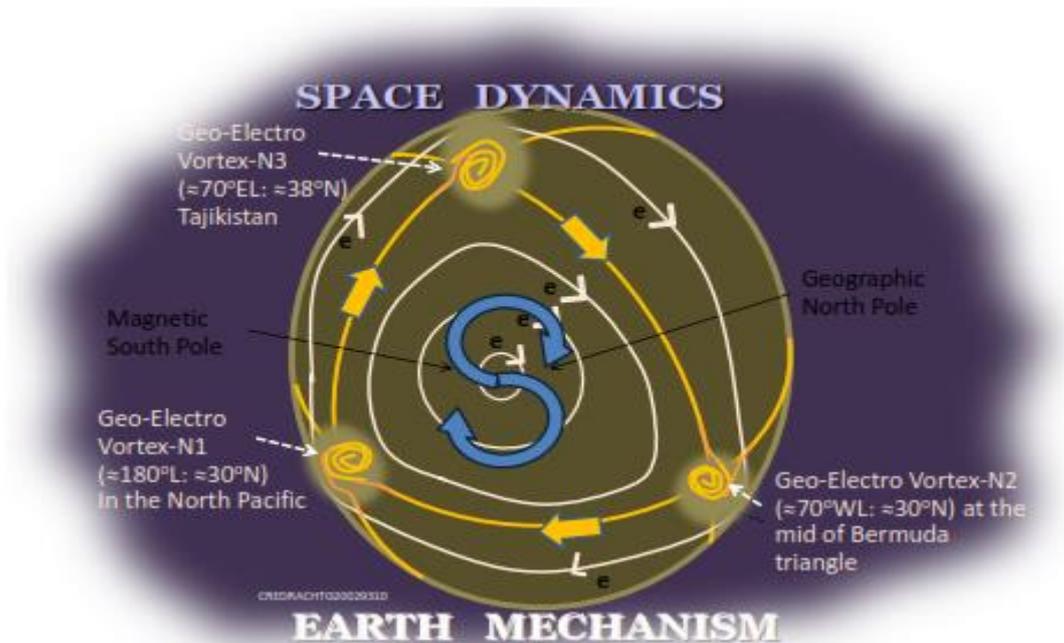


Figure-11 (abstracted from 'Earth Mechanism'/2010)

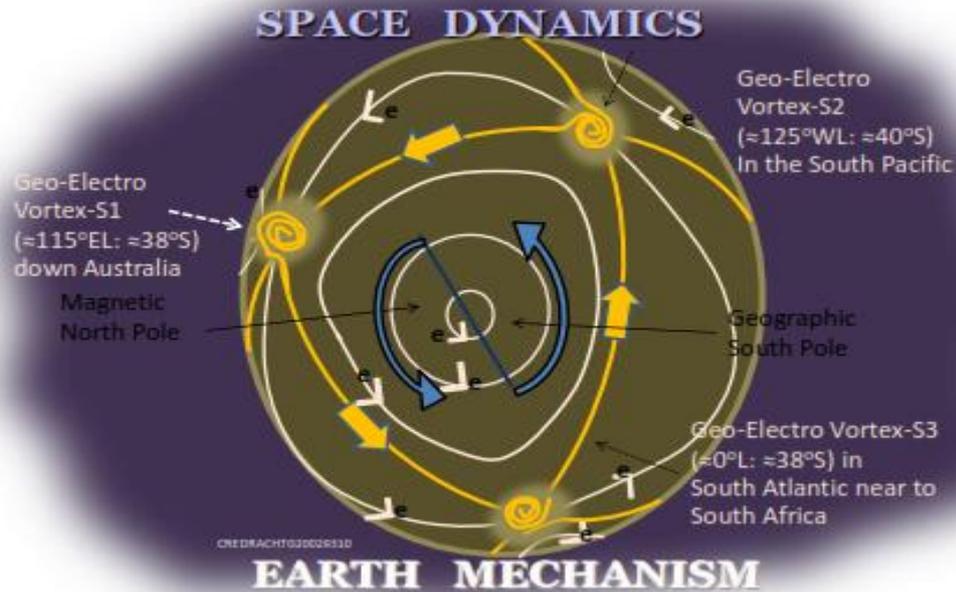


Figure-12 (abstracted from 'Earth Mechanism/2010)

Those six localities of sub terminals possess vortexes of electrons oriented towards the earth core. In other words electrons abstracted by the atmosphere from solar wind are passed down in to the Earth core mainly through the six sub vortexes.

4. But non spinning planets such as Mercury, Venus and Pluto don't have a spherical vortex of charged particles in them and as a proof of the theory, they don't claim for magnetic fields.[Mars is a lost world at a magnetic reversal, spinning as yet but it is no more productive without possessing of a spherical vortex.
5. Sun is exemplary for stars having **centrifugal spherical vortexes** of charged particles in them. A massive flux of electrons is coming out from the core of Sun, through this gigantic dynamic organization.
6. Electrons are produced by nuclear fusion of hydrogen (deuterium) in the core but even a school child could question "how hydrogen, the lightest known material in worlds could sink so deep down in to the core of Sun against all the theories of Physics?"

So we have got to deduce that, hydrogen is being born there at the core of Sun by expansion of the **Dark Matter**. [Dark matter is **neutron mass** and the reaction is as explained in 1.21 such as; $n=p+e+m+s=H$ is a reaction of massive volumetric expansion of 10^{15} (ten to the power fifteen) and also named as **1st Fundamental Cosmic Reaction- (FCR-1)**.

7. Dark matter is consumed in stars to produce energy and in contrary dark matter is grown at the core of polarized '**Productive Planets**' like Earth by absorbing energy from solar wind.(pl refer 'Earth Mechanism'/Space Dynamics-V3/2010)

8. That's why productive planets are growing in mass and size as well by pushing the cracked old crust segments (tectonic plates) more and more apart. (pl refer "Theory of Solar Mass Transplantation"/2015 at 'Space Dynamics' –www.cyrilhtgamage.com-)
9. Example of the biggest scale for the spherical vortex is a Galaxy. There are only two types of galaxies in the universe such as **Expanding Galaxies** and **Contracting Galaxies**. We are living in an expanding galaxy and Milky way is a dynamic wing of the gigantic vortex.
 - A galaxy is born whence a **globe** of dark matter starts expanding in to **Hydrogen** mass $n=p+e+m+s=H$
 - Young stars are born when hydrogen clouds are gathered in to clusters by **Newtonian Gravity**.
 - **Helium** is produced in **Stars** as a result of **nuclear fusion** and **Magma** is the final production of stars by combination of **helium ions**.
 - **Stars** are exploded by increased interior pressure perhaps at a late magnetic reversal and the projected out magma masses are contracted in to **planets** by self-gravity.
 - **Moons** and asteroids etc. are born by planetary bangs which could also take place at late magnetic reversals in spinning planets.
11. An expanding galaxy must be a **bubble like growing sphere**. But Astronomers cannot observe the medium bubble and they observe only the atomic masses including newly born solar systems, asteroids, dust and gasses etc. as spread upon the **equatorial plane** of the galactic rotary organization.

Whence the central vortex is washed out, **fluid dynamics** too is gone and matter is then scattered freely forming **gravity based cluster** units giving odd shapes for the community and then we identify them as **Nebulas**.

Contraction of a big star by activation of a strong **centripetal spherical vortex** could perhaps reorganize a cluster at first and then gradually **centralize** the entire Nebula in to a single **rotary organization**. But the journey this time is directed from infinity towards the absolute zero along **the 4th dimension** and the entire organization is vanished ultimately in to a small **globe of dark matter**.

Still the matter has not reached towards the destination **-absolute zero-** along the **4th dimension**. But there is no more external energy supply adequate enough to maintain the high dynamic rotary organization for further contraction and thence, the globe of dark matter tends to reverse by expanding once again. That is the **oscillatory dynamic package** of the Universe of pendulum type as foreseen by **Albert Einstein**.

But the same thing is not repeated again and again in the universe because the dark matter globe could possess a **directional motive force** at the final phase of

contracting and it could travel far and perhaps emerge from another distant universe or inside of another galaxy making a big **difference** next time. Therefore it is suggested hereby that, the Universe must be a '**Change dominated package of Reversible Dynamics.**

03–Structure of the Moola Unit Space

Man is a measurer and he measures the world by six measuring organs such as 1)-Eye(observing), 2)-Ear(hearing), 3)-Nose(smelling), 4)-Tongue(tasting), 5)-Body(feeling) and 6)-Mind(thinking).

Mind and logical thinking is the only measuring organ remaining ultimately when man and his tools fail to enter in to the infinitesimal scale of worlds. **Imagination** is the skill of immense importance to create many different conceptual models and **Scientific Deduction** is the sharp tool to cut off illogical models.

Deduction-01:

There should be a tightly tensioned skin boundary of matter for Atom.

The logic says that we can't observe any object made up of **atomic matter** unless light rays are reflected back towards our eyes.

Then what is there in the atomic structure to **reflect** light rays?The nucleus?.....No, it cannot be because it is 10^{15} (ten to the power fifteen) times smaller than the atom and if so, you could observe almost nothing.

What about the electrons?.... No, they are orbiting the nucleus vigorously and then light rays must be scattered here and there instead of reflecting back in to your eyes.

Then how on earth you could observe figures of atomic matter as beautiful?

*Therein we have got to accept that, there ought to be a **skin boundary** for the **Atom** which is hard enough to reflect light particles back.*

The skin boundary ought to be then a balloon like membrane of which any holes are instantly healed by tension of other particles just as in soap bubbles. A certain percentage of light and heat rays are reflected back at the skin boundary of an atom.

Deduction-02:

Pressure inside of the atom must be bigger than that of outside.

Bubble shape could not be achieved by particles unless the inside pressure is higher. Existence of a **pressure medium** in the 'Moola Unit Space' indicates **medium resistance** against motion of Electrons. It proves that electrons must be given a **lateral force** too in support of orbiting the about the nucleus against medium resistance.

Deduction-03:

Nucleus should attract electrons by a certain force extended through the medium

Centrifugal force on orbiting electrons must be balanced with the **attraction** of the nucleus for **orbital stability**. But how could nucleus attract electrons unless by a medium wave? Is that a gravitational wave?No,.. Electrons don't respect to gravity at all.

Then it must be the **electricity** what **Coulomb** has found in the 18th century (pl see fig-09). The AM wave which is spread **curvilinear** spiral way out from the rotating surface of the nucleus, rubs the bubble surface of an electron to drop down the pressure (**Bernoulli**) and that is the **orbital motive force** on the electron to move.

Deduction-04:

The nucleus of an atom must be rotating vigorously.

Neutrons cannot exist anywhere unless the external pressure is at the **absolute zero**. Pressure becomes zero only in motion (linear or rotary) at the **critical speed** of the medium. In motion through the free space medium, **speed of light** is the critical speed. [Astronomers observe the globe of dark matter as stationary perhaps at the mid of a galactic vortex but it must be rotating at the speed of light. At any lower speeds it is not observed because it is being expanded in to hydrogen and surrounded by hydrogen clouds.]

Therefore neutron mass in the atomic space too, must be rotating vigorously in a centripetal spherical vortex which consumes energy.

Deduction-05:

Centripetal Spherical Vortex in the nucleus consumes Energy and at a state of certain **Quantity** of energy absorption, it delivers an **Electron** out.

The period of delivery of an electron by a nucleus depends on the rate of external energy input as light and heat.

*["Time taken to deliver an Electron by the nucleus = Total energy of an Electron ÷ Energy input to the Nucleus per second'. This phenomenon is similar to how a Moon is delivered by a Productive planet by an explosion which could take place at a late magnetic reversal. A Productive planet is rotated by a centripetal spherical vortex of electrons absorbed from solar wind. Energy is of mass and a mass making process is going on inside of any productive planet. When the quantity of mass is grown in the core up to a **certain level**, it is released towards the crust by **reversing of the magnetic poles**. It could be a big explosion perhaps at a late magnetic reversal and a tectonic plate could be loosened and projected out in to the sky to orbit as a Moon. Where there is a **spherical vortex** in action, the same thing could be expected and nucleus of an atom should exhibit the similar behavior by projecting out electrons out periodically].*

However where there is a **Spherical Vortex**, the **Dynamics** ought to be **Reversible** and **Matter** changes **Phase** (by contracting or expanding along the 4th dimension) by exchange of **Energy**.

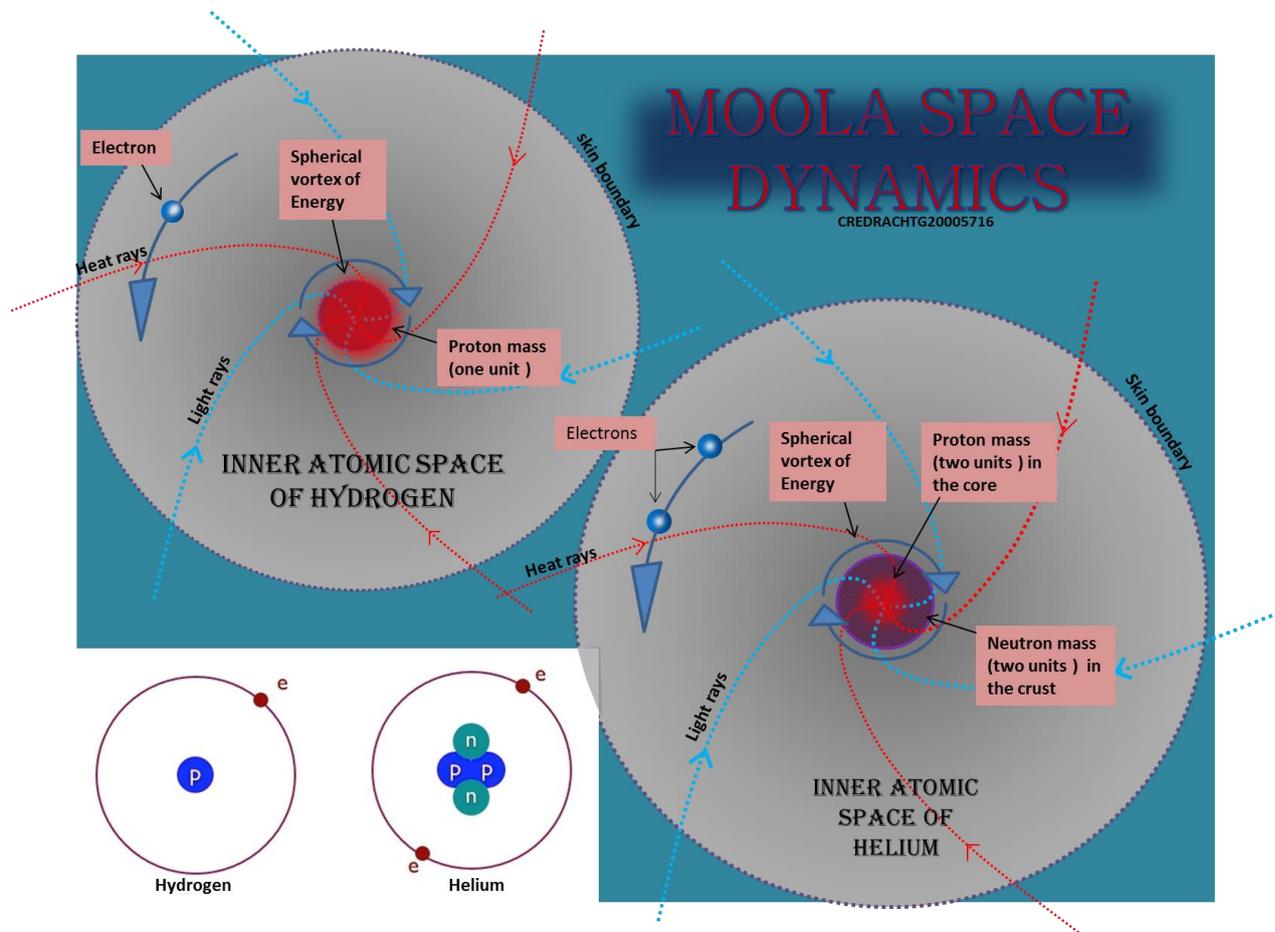


Figure-13 (Inner structure of Hydrogen and Helium)

Concluding notes of 'Moola Unit Space':

- The new concept of 'Moola Unit Space' explains how electrons and the nucleus are in **dynamic stability** due to the energy consuming centripetal spherical vortex. It also supports the zigzag way of orbiting of electrons, because theory of spherical vortex explains that some resultant paths must be of zigzag way but keeping the same resultant orbital direction. The rotation of electrons around a hard core explains how atoms are **polarized** about a polar axis.
- The new concept also declares that **Electricity** is born in the Moola Unit Space due to an amplitude modulated medium wave spreading spiral way out. The wave could induce a medium pressure drop when it rubs the bubble like surface of an electron giving an **orbital motive force** to rotate in the opposite direction about the nucleus. The nucleus is rotated by the energy consuming spherical vortex.
- The rotary system in the unit space must be of the balanced dynamic stability such that; **'Resultant angular momentum of the orbital electrons must be equal to the angular momentum of the nucleus'**.
- Above mentioned law of stability explains how an atom is **ionized** when electrons are escaped. Then the nucleus is highly accelerated to rotate the **entire atomic**

body and the rotation of the **boundary skin** of the atom creates another electric wave (AM wave) spreading through the outer space medium to attract electron rich atoms (**negative ions**) from the field.

- **Quantum** physics is also supported by the concept of 'Moola Unit Space' because an electron is delivered by the nucleus after absorption of a **certain quantity** (a packet) of energy. The packet doesn't contain an exactly measured quantity of energy but remains within a certain **domain**. It's just like how mass of planets varies but remain within a certain **mass range**. Similarly for Stars in the space, there is a mass range. Weight of humans, for an instant, exhibits a vast difference but each is considered as a Human.

04 – Moola Gravity – (Gravity of the dropped scale)

The phenomenon 'Moola Gravity' has to be introduced herein in a separate paragraph because it possesses some unique features of immense importance.

4.1-Demonstration: Moola Gravity is limited to the Moola Unit Space itself but its influence is so strongly exhibited in the outer space (the galactic space where we live) that, we can do nothing in our day today life unless there is **Moola Gravity** inside of the atom.

THEORY OF MOOLA GRAVITY

Data:

- T=Tensile force in the string = Hanging load = $M \times g$ (where 'M' is mass & 'g' is the acceleration of Newtonian Gravity).
- A-cross sectional area of the steel string.
- a-cross sectional are of an atom= $\pi(10^{-8})^2 \text{ cm}^2$

Experiment:
Load is gradually increased to find ultimate tension 'T' just before failing of the string.

Analysis:
Number of atoms occupy in the string section = A/a
Load held by a single atom = $(M \times g) / (A/a)$ Dynes

Logical Philosophy:
Who is there in the string to hold such a big force (Mg) which is well quantified externally by Newtonian Gravity?

It cannot be Coulombs Electricity because the atoms are not charged. Also it cannot be Magnetism because the string is not magnetized.

Conclusion:
It is the gravity inside of the atomic space named as 'Moola Gravity'. As same as Newtonian gravity, it is born due to a FM wave through the medium but it doesn't go beyond the atomic boundary unless the atoms are closely touched. Once the touch between two atoms is gone, the tensile force too is vanished at the same instant. 'Moola Gravitational Constant' can be deduced by this simplest demonstration.

Figure-14 (Demonstration of Moola Gravity in the Moola Unit Space)

The physical influence of the phenomenon would be comprehended by the above simple demonstration and also Gravitational Constant inside of the Moola Unit Space could also be deduced mathematically.

Discussion:

I have a doubt whether the world accept 'Moola Gravity' because the Global Knowledge Departments have not yet responded to my technical paper on 'Mechanism of Gravity' produced in 2009 by the monograph 'Space Dynamics-V2'.

Scientists are wasting a great deal of money to trace gravitational waves in the space, millions of light years afar while real gravitational waves of Earth (FM waves of frequency 10^7) are continuously beating us bellow feet. What Astronomers observe in the space as gravitational waves are, just the ripple like medium waves followed by a big explosion (bang).

Without understanding of the Mechanism behind Newtonian Gravity, How could the world understand 'Moola Gravity'? But I am doing my part in complete silence for the unborn Future.

4.2- Mechanism of Moola Gravity:

Neutron is the wonder in this Universe and it doesn't exist stationary unless at zero pressure state. Zero pressure state could not be achieved without moving at the **speed of light**. Motion could be either linear or rotary. Neutrons appear as a huge gathering in a dark globe (dark matter) at the mid of a galactic vortex and though it looks stationary, it is **spinning** at the speed of light.

In the tiniest space-'Moola Unit Space'- it appears in the nucleus which is rotating vigorously. Mechanical Engineers accept that, there is a vibration where there is a rotation. Due to this vibration of the nucleus, a FM medium wave is formed in the Moola Unit Space. That is the born of '**Moola Gravity**' but electrons don't respect for gravity of either kind because they don't possess any internal rotary organizations.

Then the waves of Moola Gravity transfer its vibration towards other atoms in touch to attract them with a **mighty force**. Once the touch is gone the force too is gone because the wave of Moola Gravity cannot continue travelling in the outer space(galactic space).

Why Moola Gravity could not be transferred through the free space?

Pressure, Density and Elasticity are the three properties of any medium which accounts for **fast spreading** of medium waves. The strength of Moola Gravity wave is badly lost out of the skin boundary of the atom. It indicates that **Pressure** has a vast difference between in an out of an atom. [*Outer pressure has already been deduced mathematically in Space Dynamics-V1/2009, as 2.145×10^{17} dynes/cm² and then what a big pressure it ought to be inside of an atom?*]

4.3- The cosmic reaction to create Universes:

Galaxies are born at first as a cloud of Hydrogen spreading out in a vortex created by the phase transformation of Neutrons (Dark Matter) in to Atomic Matter. The massive expansion of matter is of the volumetric scale of 10^{15} . The reaction is named as 'The 1st Fundamental Cosmic Reaction' (FCR-1) and Energy and Mass of both sides of the equation are well balanced.

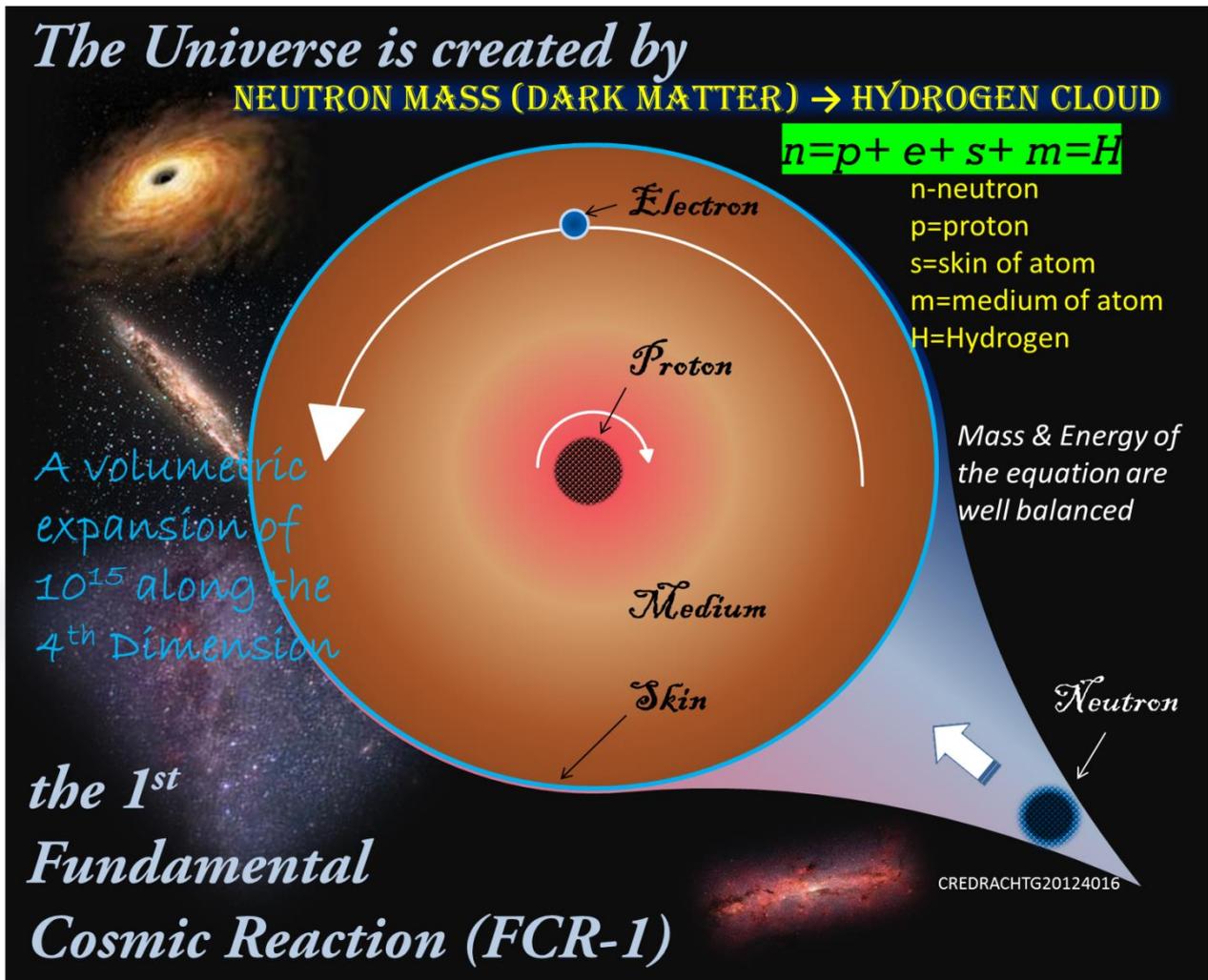


Figure-15 (How a Neutron is expanded in to Hydrogen creating of the Universe)

Balance of Mass& Energy in the equation of FCR-1

$n=p+e + m+ s=H$

Neutron=Proton + Electron + Medium + Skin

$1.675 \times 10^{-24} \text{g} = 1.672 \times 10^{-24} \text{g} + 9.108 \times 10^{-28} \text{g} + 1.999 \times 10^{-27} \text{g} + 9.1 \times 10^{-29} \text{g}$

Is that = Mass of Hydrogen atom?

Yes it must be equal to the mass of a Hydrogen atom but a bit of energy is escaped out as **light** & heat in this reaction or unless we could not have observed **beginning** of a Galaxy in the Universe at all. (pl refer 'Space Dynamics-V1/2009' for the mathematical deduction of masses at www.cyrilhtgamage.com)

4.4- What is a Neutron then? :

Alternative Definition for Neutron:

A **Neutron** is a spherical Packet (a certain fixed quantity) of 'Moola Atoms' (atoms of the tiniest dropped scale) rounded like a planet due to the influence of Moola Gravity.

4.5- How an Electron is bone? :

All the '**Moola Electrons**' in the '**Moola Atoms**' in a **Neutron** are pressed out as a globe of energy(**Electron**) to orbit around the nucleus at the massive phase transformation of the **FCR-1**. Therein all the moola atoms in the nucleus become **positively charged** because they have lost their moola electrons and thence the packet is known as a positively charged **Proton**.

4.6- Dynamic Stability in the Moola Unit Space:

Angular momentum of electrons in orbits must be balanced with the angular momentum of the nucleus. The nucleus is rotated by the spherical vortex of energy absorption. A medium wave of amplitude modulation (Electric Wave) is created due to unevenness of the surface of the rotating nucleus (as shown in the figure-09) and the electrons are therefore rotated in the opposite wise direction.

05–Final Review of Science and the Universe

5.1-Knowledge of Science and Future:

Man is a measurer and he measures the world by six measuring organs such as 1)-Eye(observing), 2)-Ear(hearing), 3)-Nose(smelling), 4)-Tongue(tasting), 5)-Body(feeling) and 6)-Mind(thinking).

It is observed that Scientists of the 21st century don't get adequate use of the most powerful and economical measuring organ –**Mind**- in their explorations or unless billions of money could have been saved by cutting off **unnecessary** experimentation.

Logical Thinking is the measuring tool of mind and **Mathematics** is the quantitative representation of logics. Science cannot be developed unless the best measuring organ '**Mind**' is not used to **guide** explorations and to **reduce** need aspects upon experimentation.

Besides that, the academic aspects of research and experimentation have become too **instrumental**, too **methodical** and too **conservative** upon the **Acceptance**. Therefore

almost no entrance opportunities are there for **Alternatives, New ideas, Innovations** and for **Creativity** as a whole.

Field Specialization in Science has created thousand and one field branches and specialists are busily engaged in harvesting **Knowledge**. New knowledge but nobody understands because the **terminologies** are not common and quite limited to their fields.

The monopoly is such that, any **new idea** for improvement of the subject field should come only from **qualified specialists** of the particular field itself or unless the idea is not taken even for consideration. But they should understand that the **Founders** of most of ground shaking findings in the past were not veterans or specialists of the particular subject fields.

As a result of the multi specialization today, no any Government could form a **decision** upon even a simple matter, without consulting hundred and one specialists. Even though, a definite **wholesome** decision is not possible today at all because it is very seldom if two specialists could **conclude** something agreeably.

In consideration of evolutionary development of **Knowledge** in human civilization, it has had a clear **direction** before the industrial age. Knowledge had a clear inclination towards **living** and **betterment of life**.

Conquering others and achieving **supremacy** was the hidden ambition of gaining knowledge by name of **Development** during the period of **Industrial Age**. Present day, 'Knowledge' has become premier to everything and this era seems worth enough to name as '**Age of Knowledge**'.

Growth of **Non Directional Knowledge** (NDK) is a very dangerous thing should be recognized as a **nuclear bomb** which is expanding without having a clear **direction** to move.

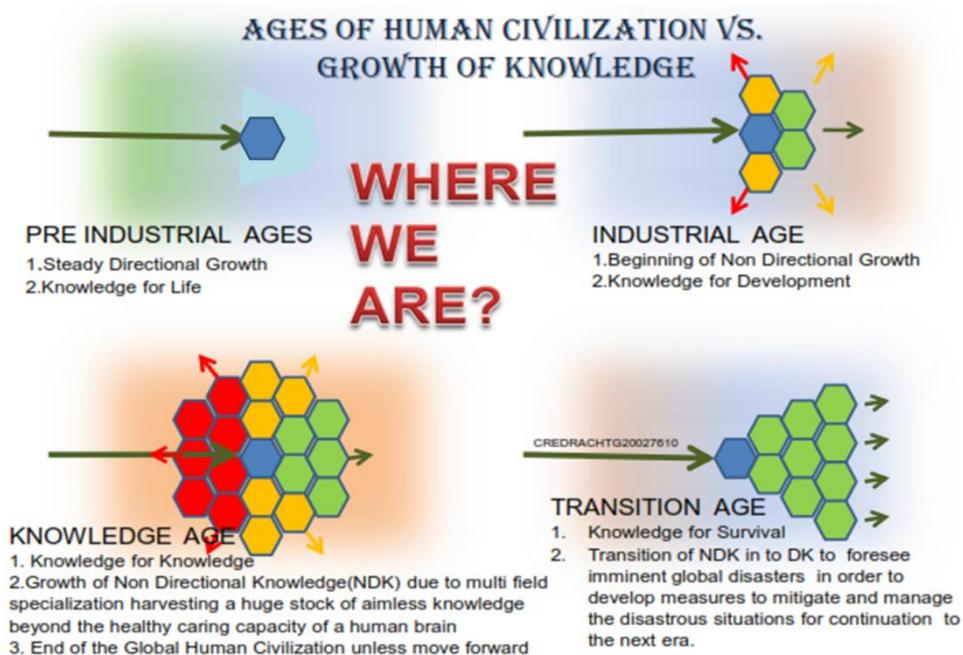


Figure-16(abstracted from 'Where We Are?'/2010)

Science always misguides Man by its **Wisdom**, giving the wrong impression that, Man can **conquer** the Nature. **Life** is a common **physical phenomenon** just as **Water** in availability all over the Universe. And then why not **more developed aliens** visit us so frequently from other **solar systems** while there are millions of them in the Milky Way itself?

Environmentalists know well how **natural ecosystems** control overgrowth of any kind of a **colony of species** by its natural tactical ways. Similarly the **Galactic Ecosystem** doesn't allow any **planetary beings** to gain too much of **Knowledge** to take a **governing hand** over the **Nature**. Just imagine, how many great civilizations of knowledge in the past had been fallen upon this Planet, by **Natural Disasters**?

How long it has taken for Man to be developed up to the **Stone Age**?

Perhaps some **millions of years**.

And how long it is from Stone Age to the **Agricultural Age**?

Some **hundred thousands** only.

Then from Agricultural Age to the **Industrial Age**?

Only **thousands** of years.

Well, at this rate of **Accelerating Dynamics in Development** of human race, another new Age might have come by now after elapsing of **hundreds** of years from the Industrial Age and you have to name it.

But the problem, 'what is this sky rising **Accelerating Development** bound for?' Let's look at the graph of exponential growth of human population upon this planet.

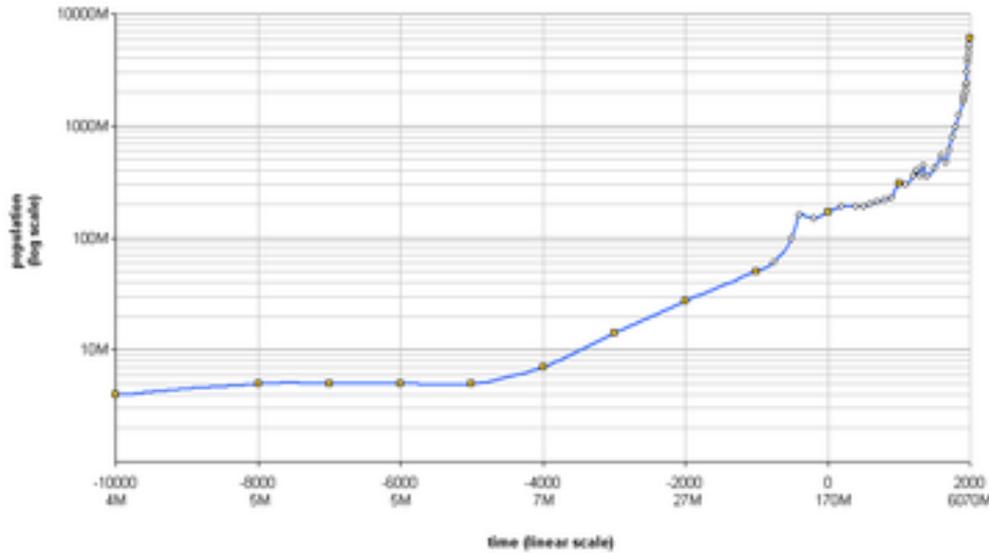


Figure 17-(with gratitude to the Wikipedia)

Biologists know well the fact that the **Natural Ecosystems** don't allow any species to grow like that and a **sudden fall** should settle the matter by dropping down it to the grass root level again.

Then what could be the possible perils that could drop us to the bottom again?

1. Astronomers always suggest that some alien asteroid should come across to hit upon the Globe
2. Geophysicists suggest that the forthcoming magnetic reversal could be much disastrous
3. What Environmentalists suggest it as the global warming and due adverse climate change
4. Biologists suggests it as a deadly virus
5. Politicians make it to be a nuclear world war

Though Man has won the title of '**Most Fitting**' among all other competitor animals in the evolutionary march upon this Globe, the modern generation has lost **Genetic Strength**, due to wrong '**Selection**' of aptitudes aiming unnecessary **life comfort**. Then a slightest attack from any above causation could drop the Great Globe Human Civilization down to the bottommost level.

Global Knowledge Departments are therefore fervently requested to be open for **new challenges** at least to test before rejecting or otherwise the centuries late subject stock of **Science** could be **conserved** till the forthcoming day of **World's End**.

5.2- The Universe:

5.21 What is Universe?

If a single Galaxy is considered as a Universe then the whole thing has to be named as the **Multiverse**. But it is more convenient to address the entire thing, of which the boundaries could never be cleared, as the **Universe**.

Can anybody speak of the Universe without referring the terms 'Time' and 'Energy'?

No. All the other properties that we identify such as; Matter, Mass, Density, Volume, Speed, Colour, Temperature, Polarity, Gravity, Magnetism, Electricity etc. are represented within the two above terms 'Time' and 'Energy'.

- ❖ **Time** is immaterial and just a **relative conceptual measure** of which units are fixed by convention.
- ❖ **Energy** represents the ultimate **Space Matter** what we recognize as the **Universe**.

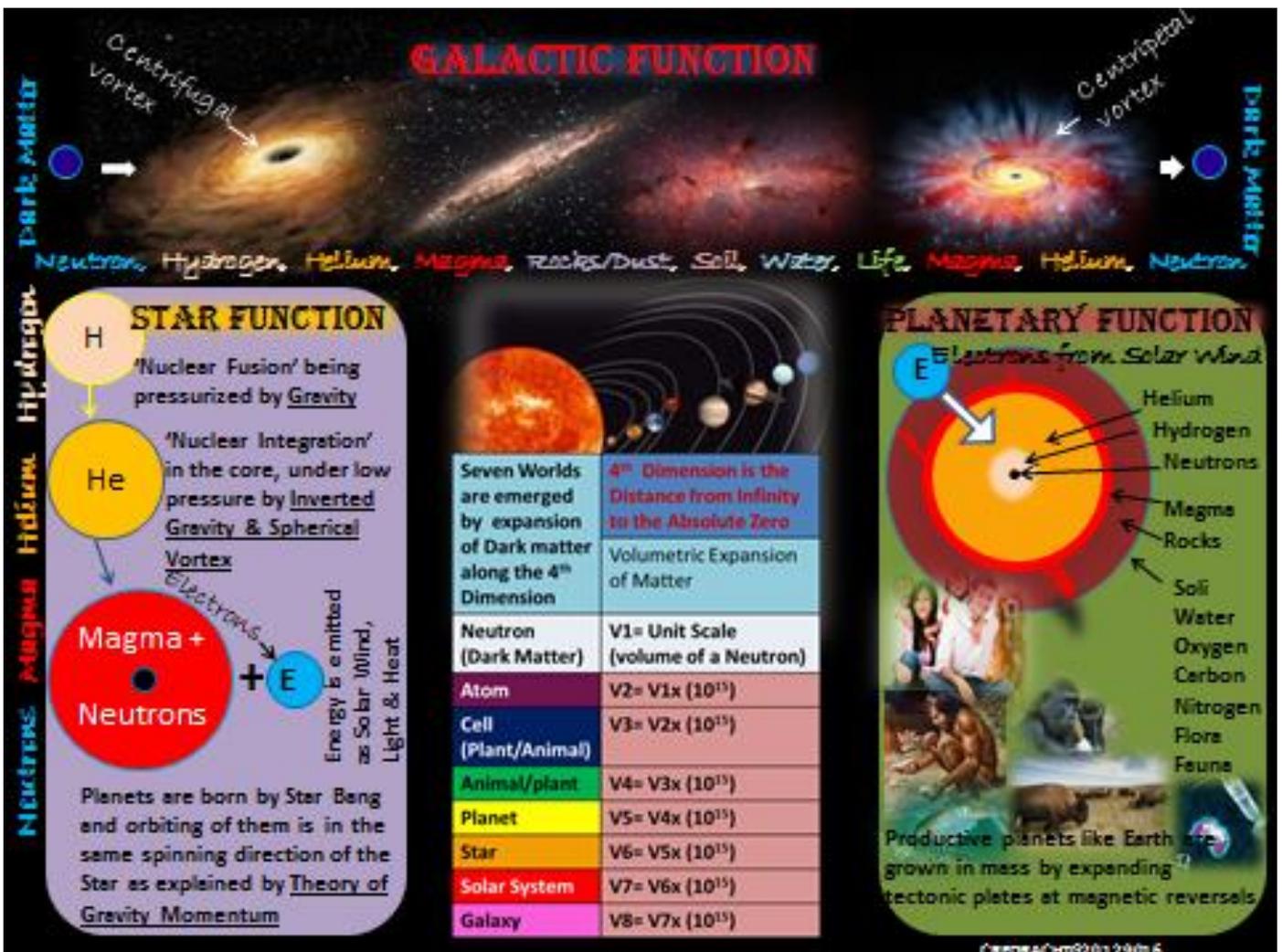


Figure-18(The Universal Functions)

5.22 What is Galactic Function?

Everything in Nature exhibits '**Cyclic Dynamics**' and a Galaxy too is born as a result of expansion of Dark Matter and it disappears again in to the same by contraction showing the common cyclic behavior. During the '**Time**' from birth to death a Galaxy performs important functions such as;

1. Formation of Hydrogen clouds by expanding of dark matter and issuing them to move spiral way out through a **centrifugal spherical vortex**.

What is newly added by the monograph?

- I. **Dark Matter** is nothing else but **Neutrons** and they don't exist without moving at the **speed of light** in whatever dynamics; linear or rotary.
 - II. Hydrogen is born by expansion of Neutrons as per the equation(**FCR-1**); [Neutron=Proton +Electron +Medium+ Skin=Hydrogen]. (ref. *Space Dynamics-V1/2009*)
 - III. Atoms possess a **skin boundary** of tiniest particles which is automatically tensioned by its curvilinear shape and the pressure gap between in and out. (ref. *Space Dynamics-V1/2009*)
 - IV. **Theory of Spherical Vortex** which explains '**Polarization**' and "Transfer of matter by scale dropping along the **4th Dimension**". (ref. *New theories at www.cyrilhtgamage.com*)
 - V. **4th Dimension** is not 'Time' but the '**Distance**' to travel from '**Infinity**' to the '**Absolute Zero**'. (ref. '*Time & the 4D Universe*'- *Space Dynamics-V8/2015 at www.cyrilhtgamage.com*)
2. Not only Hydrogen but the galactic medium too is formed by issuing of an energy flux which is named as '**Galactic Wind**'. **Medium Pressure** at the center is higher than that of out and then the galactic dynamics can be well explained by **Bernoulli** principle.

What is newly added by the monograph?

- I. **Galactic Wind** is a flux of energy emitted by the first fundamental cosmic reaction(**FCR-1**) and it is expanded losing speed in to the **galactic medium** of which the properties are deduced mathematically such as; **density**= $4.773 \times 10^{-4} \text{ g/cm}^3$ and **pressure** = $2.145 \times 10^{17} \text{ dynes/cm}^2$. (ref. *Space Dynamics-V1/2009*)
 - II. The entire Universe is not either expanding or contracting but a Galaxy elapses a period of **expanding** at its **growing age** (centrifugal vortex) and a period of **contracting** (centripetal vortex) at its **dying age**.
3. **Gravity** is born to the world at the same time wherein **atomic matter** is born and the hydrogen cloud is decentralized in to clusters by **Newtonian Gravity** to make **Stars**.

What is newly added by the monograph?

- I. **Gravity** is neither due to a 'String' nor curvature effect of 'Time' but a **FM wave** through the galactic **medium** which is born simply due to **vibration of atoms**. Any secondary body mass of atoms is attracted towards the gravity source due to **Coulomb's** electric force unbalance between rotating electrons and nucleus, created by frequent strokes of

the gravitational waves. The frequency of the gravitational wave is deduced as 10^7 cycles per second. (ref. *Space Dynamics-V2/2009*)

- II. **Moola Gravity** is a phenomenon as same as **Newtonian Gravity** but limited only to the **Moola Unit Space**(the space inside of an atom) and it describes the **big bond** between non ionized atoms activated only if they are in touch with one another.

5.23 What is Star Function?

1. **Gravity** centralizes Hydrogen in to **clusters** and a big pressure is created at cluster centers to start **Nuclear Fusion** with an outcome of **Helium ions** and **Electrons** as energy.
2. The nuclear reaction is continued till a certain quantity of Helium ions is accumulated in the core, which is adequate to start an **introvert flow** of electrons towards the center of **positive charge**. The introvert flow of energy creates a **Centripetal Spherical Vortex** through the mass of Helium ions under high dynamic **low pressure** condition, which produces **Magma** at the core area. The reaction is named as **Nuclear Integration (FCR-3)**.
But the phenomenon '**Inverted Gravity**' pushes Magma to outer region by forming of a **Hollow Globe** of a Sun and by this age the system exhibits dimly reddish and yellowish colors.
3. A becoming Star grows a globe of **Neutrons**(dark matter) at the center of the spherical vortex by absorption of energy from the **Nuclear Fusion(FCR-2)** which takes place by then at the outer hard **Shell of Magma**.
4. At the stage of the dark matter globe is grown big enough, Hydrogen load upon the hard shell becomes not adequate for a Nuclear Fusion and then the spherical vortex is weakened. At this stage rotation of the dark matter globe is being held up and it tends to **expand by reversing** of the **magnetic poles**. The first **magnetic reversal** of a Sun is a very big explosion (Star Bang) by producing Hydrogen and a huge bulk of energy (**FCR-1**). The young star is then exploded and clusters of Magma are projected out in to the space giving birth for a **Planetary System** to **orbit** in the same direction of the Sun's rotation.
5. Thereafter the Sun becomes small by contracting and brighter by maintaining of **two spherical vortexes** such as; 1)-a **centripetal** spherical vortex of **energy absorption** from the hard shell towards the center. 2)-a **centrifugal** spherical vortex of **energy emitting** from the hard shell towards the out.
6. Energy stock in a matured Star is limited to the initially grown up size of the dark matter globe. When Hydrogen stock in Sun is depleting it is reloaded by **magnetic reversals** and due expanding of dark matter from time to time.
7. However ultimately a stage comes at which the dark matter globe is depleted and no more hydrogen production. At this age the spherical vortex too is held up and the Sun starts **swelling** as a Red Giant.
8. When **rotation of Sun** is lowered down, all the planets are attracted in to the body by Newtonian Gravity because no orbital motive force is given by the dying sun. The swallowed planets add some fresh materials in to Sun and the fading **centripetal vortex** at the center of the Red giant is reenergized (**nuclear fiction**

is the reaction could be expected at this stage) to start growing of the dark matter globe again.

9. Contraction along the 4th dimension takes place at this age and the red giant is gradually contracted in to a **white dwarf** and then disappeared being a globe of dark matter ultimately. The reaction at this stage is named as the 4th **Fundamental Cosmic Reaction (FCR-4)** and the phenomenon is quite different. When the space **medium matter** is speedily absorbed in to the center as energy to the gigantic centripetal vortex, each atom starts **contracting individually** in to **neutrons**. Pressure drops to zero around each atom due to the speedy medium wind across, towards the center. By this contraction infinitesimal skin particles of atoms are projected out as light but this light is quite different from normal light rays because particles are shot out from the contracting **atomic skins**.
10. Contraction of stars in to dark matter takes place at the older age of a Galaxy and by the time probably the entire Galaxy might have started contraction absorbing all the space materials together with dying solar systems.

What is newly added by the monograph?

- I. **Inverted Gravity** and formation of **Hollow Globes** is introduced as a natural phenomenon. Newtonian Gravity is proportionate to the **Mass** of the gravity source and to the inverse square of the distance. But the thing is, if somebody walks in to a gravity source, then the mass of the passed body materials tends to pull him back. Then there should be a distance (before reaching to the center) at which the gravitational pull back is equal to the pull forward. Beyond that distance up to the center, **Gravity is Inverted** and all the body materials are attracted towards the shell upon which the gravity is changed. That is the theory of **Hollow Globes** common for **Stars and Productive Planets** like Earth, Jupiter, Saturn, Neptune and Uranus (*Mars had been productive in the past but at present it is a **lost world** which could have lost atmosphere and magnetic field as well at a late magnetic reversal*). (ref. '**Earth Mechanism- Space Dynamics-V3/2010**)
- II. **Nuclear Integration (FCR-3)** is the Fundamental Cosmic Reaction in the third place of importance among all the functions in the Universe. Helium ions are combined to produce **Magma** by absorption of electrons under very low pressure conditions.
- III. **Theory of Gravity Deviation** describes how Newtonian Gravity is deviated whereas the gravity source is rotating. The phenomenon explains how an **orbital motive force** is induced upon planets to move in the same direction of the rotation of the gravity source.
- IV. The 4th **Fundamental Cosmic Reaction (FCR-4)** is the final reaction by which the medium matter (galactic medium) is absorbed with all the materials in to the **centripetal vortex** of contraction. Even a galaxy could be contracted in to a small globe of dark matter by this reaction.
- V. **Solar Wind** is made up of speed dropped electrons issued as a flux out of Sun.

5.24 What is Planetary Function?

- I. **Productive Planets** are magnetically polarized and they possess atmospheres capable to be ionized to absorb electrons from **Solar Wind**. The absorbed electrons are transferred through the atmosphere in to the body as **lightening strokes** or gradually from the **magnetic South Pole** making **aurora**. Seasonal monsoonal rains and climatic weather pattern too are governed by the variation of **electron flux** through the atmosphere depending upon the spinning and orbiting dynamics of the planet.
- II. Productive planets are **rotated** about the magnetic polar axis, by the inflow of electrons through a **centripetal spherical vortex** . Energy is also of **Mass** according to **Einstein's** theory (conservation of energy $E=Mc^2$) and therefore Earth and other productive planets are grown in mass with time.
- III. Production in the core by absorption of energy is nothing else but **Dark Matter**. If energy is stored anywhere in the **Universe**, it is preserved as **Dark Matter**. The spherical vortex in the planet creates the **zero pressure state** for the neutron mass to exist in a high dynamic rotation. At **magnetic reversals** the dark mater globe expands back producing **Hydrogen**.
- IV. Inverted Gravity in side of productive planets creates a hard shell at which the direction of gravity changes. Upon the hard shell **nuclear fusion** takes place producing **Helium**. **Magma** is the final outcome of the process to emerge from volcano and gaps between **tectonic plates** expanding of the globe gradually.
- V. **Magma** is decaying in the crust producing almost all the elements appear in the **periodic table**. **Water, Oxygen, Nitrogen and Hydrocarbon** etc are the most prominent out comes of the slow process starting from Magma. [*Some people have mistaken that petroleum industry could be held up with depletion of the resources but **Hydrocarbon** is also a production by the same **geo thermal decaying process** just as **Water**].*
- VI. **Life** is the other function of a productive planet which is orbiting within the **Life Zone** in a Solar System, which is so important for **Mankind** to explore but the matter cannot be addressed **in depth** under the scope of this technical monograph.

Only thing to be expressed herein is, '**Living Cell**' of **Flora** and **Fauna** is an **Expanded Structure** made up of **Atoms** and the **volumetric scale gap** from atomic structure to cellular structure is of 10^{15} in magnitude.

Animal is a further expanded structure made up of **Cellular Structures** and the volumetric scale gap between the two structures is again of 10^{15} in magnitude.

(In linear units, size of an **Atom**, a **Living Cell** and an **Animal** is taken as; 10^{-8} cm, 10^{-3} cm and 10^2 cm in the above analysis)

What is newly added by the monograph?

- I. Earth is the Productive planet which is grown in **Mass** with time by absorption of **Electrons** from the **Solar Wind**.
- II. The globe is slowed down gradually due to growth in **Mass** and as a result Moon increases distance from Earth reaching gradually towards a final **Departure** to be promoted as a new planet in future to orbit Sun in more close proximity. (ref. 'Theory of Hollow Globe'-Space Dynamics-V10/2016)

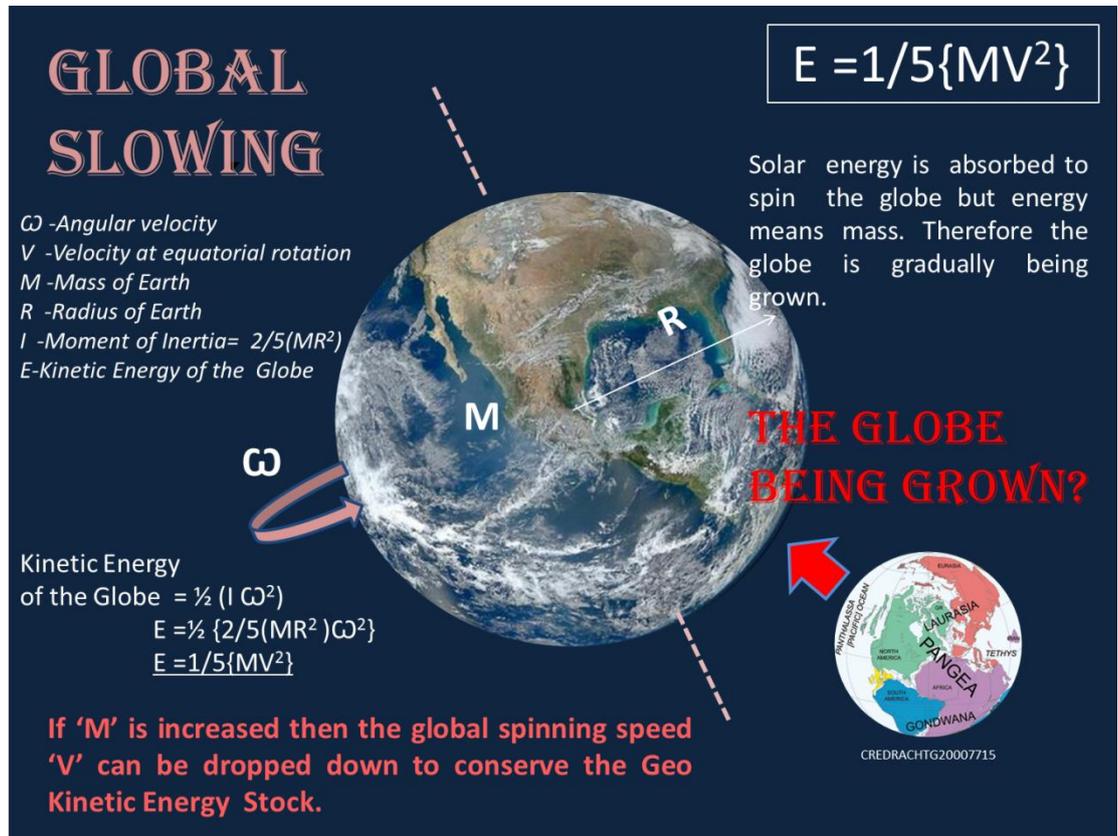


Figure-19(Abstracted from "Theory of Solar mass Transplantation /2015')

- III. Magnetic Reversal is a known reality but how Helium ions are combined to produce **Magma** by absorption of electrons (**FCR-3**) under very low pressure conditions is expressed in this monograph.
- IV. **Magma** is being decayed under different geothermal conditions, creating a world for **Life** (**FCR-4**) by producing of all the necessary elements such as; Oxygen, Nitrogen, Water etc. But the same origin for **Hydrocarbon** too is declared in this monograph and also it is expressed that the resources are not depleting at all.

5.25 What is Time in the Universe?

Can anybody speak of the Universe without referring the terms 'Time' and 'Energy'?
 No. All the other properties that we identify such as; Matter, Mass, Density, Volume, Speed, Colour, Temperature, Polarity, Gravity, Magnetism, Electricity etc. are represented within the two above terms 'Time' and 'Energy'.

- ❖ **Time** is immaterial and just a **relative conceptual measure** of which units are fixed by convention.
- ❖ **Energy** represents the ultimate **Space Matter** what we recognize as the **Universe**.
- ❖ **Energy** exhibits an **Oscillatory Phase Transformation** versus **Time**
- ❖ The **Oscillation** is between **Kinetic Energy** and **Volumetric Energy** as a whole.
- ❖ **Kinematic Energy** of the universe disguises to appear in two shapes such as;
 - a) **Dark Matter** and **Atomic Matter** being contracted in **Rotary Motion**.
 - b) **Light** and **Heat** (line projection of particles) as **Energy Matter** being contracted in **Linear Motion**.
- ❖ **Volumetric Energy** (=Pressure x Volume) introduces the most singular **pressure medium** of the Universe which cannot be observed and hence not recognized by Scientists as yet.
- ❖ The **Oscillatory Expansion** takes place along the **4th Dimension** (the distance between **absolute zero** and **infinity**)
- ❖ Whence **Dark Matter** (Neutrons) starts expanding, it creates seven worlds at volumetric gaps of 10^{15} (scale drops) such as; 1). **Atomic world**, 2). **Cellular world**, 3). **Animal world**, 4). **Planetary world**, 5). **Star**, 6). **Solar system** and 7). **Galaxy**.

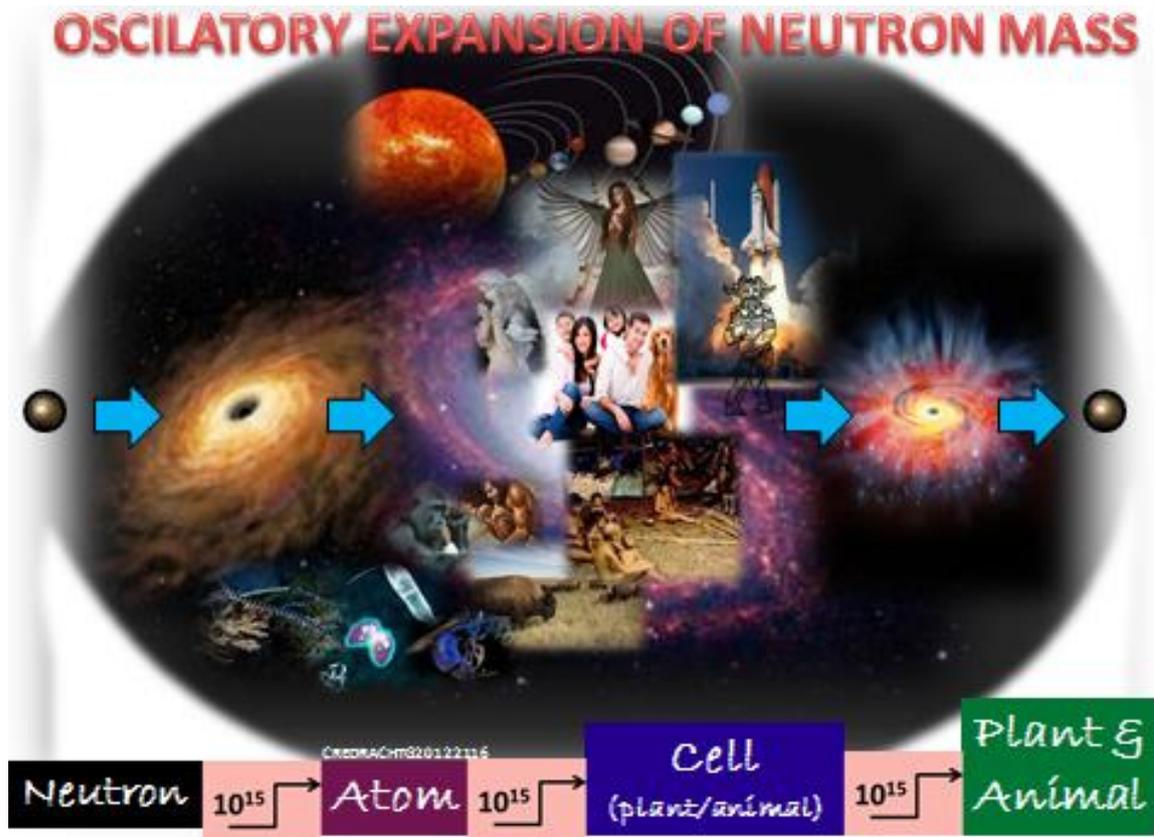


Figure-20 (Oscillatory expansion of dark matter to make Universes)

06–General Dialogue

It is a thought dialogue between Reeder and the Author to make it easy for understanding.

Q: What is the beginning of the Universe as you think? Is that the famous **Big Bang?**

A: There are several bangs in the universe could take place at any moment such as; 1). Collision of two galaxies, 2). Collision of two Stars, 3). Star Bangs (to create planets at late magnetic reversals), 4). Planetary Bangs (to create Moons at late magnetic reversals) and 5). Collision between planets and asteroids etc.

Besides that it must be really a big bang whence **Dark Mater** starts expanding in to **Hydrogen** in creating of galaxies.

Q: You mean then, there is no beginning or **Origin for the world?**

A: **Start** and **End** are the essential destinations of **linear thinking** but what is the use of referring to an origin whence galaxies are being born even at this very instant in the space?

Q: You have declared that **Energy represents the whole **Universe** ultimately?**

A: Yes I did.

Q: But the famous great scientists of the late centuries had declared a time dominated space and also, it is in the acceptance that, Time is the 4th Dimension.

A: What are the fundamental units of Energy? **Time** is also hidden there in **Energy** as ML^2T^{-2} . But Energy is not hidden in Time and hence what is premier? Time is immaterial but **Energy** represents **Materials**.

As you know, it is defined as **distances** along the axis **X, Y & Z** in the Cartesian plane up to the 3rd dimension. Therefore the **4th dimension** too ought to be a distance. The distance is from **infinity** towards the **absolute zero**.

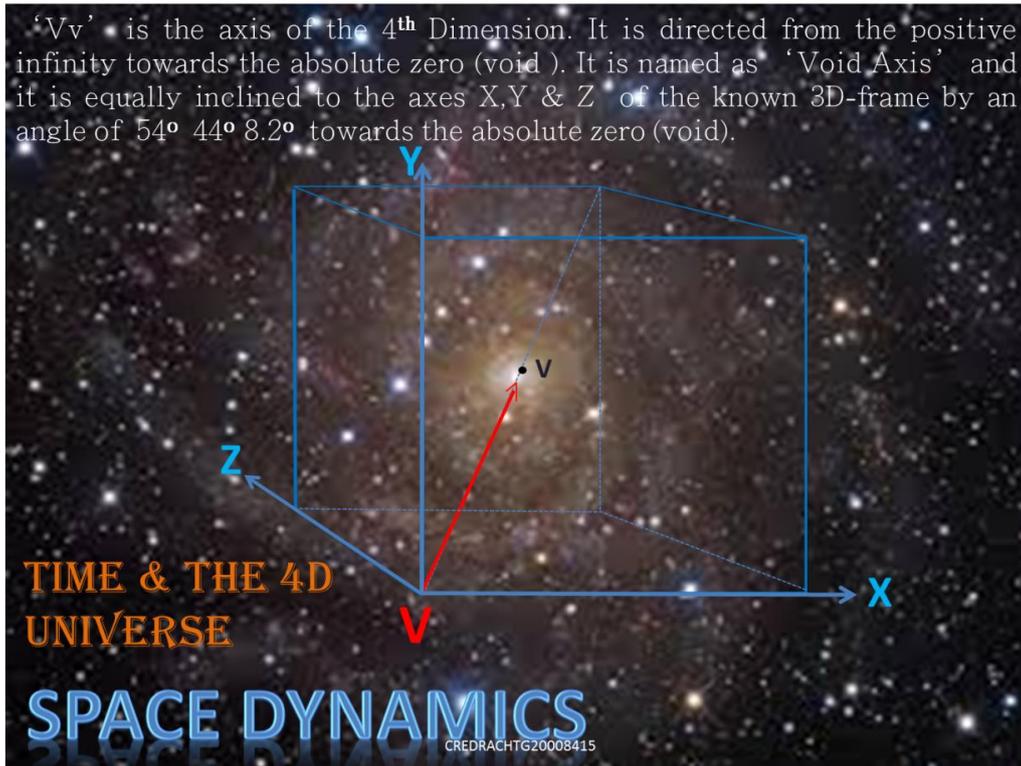


Figure-21 (abstracted from 'Space Dynamics-V8/2015)

Q: Then time has no significance or importance in your model of the universe?

A: Why not? It plays the main role yet in the universe and let's have a look at the picture in the figure-20. It is an oscillatory expansion of Matter along the 4th dimension to create a **Universe** for us.

Q: What's the role of Time there?

A: If Time was too fast to elapse, what could happen then? Suppose the dark matter globe is **expanded** making of the Universe and **contracted** again all at the same time and what's your feeling of the happening?

Q: I fed like nothing is happened there.

A: Yes, if 'Time' for the universe is too quick ($T \approx 0$), no world is born there giving enough time for us to enjoy.

Q: But Sir Isaac Newton has declared that 'Time of the Universe is an offered package

A: It is true, and instead the great Scientist of the 20th century, **Albert Einstein** has declared a **pendulum type Dynamic Package** in which the tenses **Past, Present & Future** are relative to the observer.

Q: What package do you believe to be correct?

A: Both Scientists have struck upon the **Reality** in **Nature** but in different angles. But my logic is not over yet. What will happen if 'Time' is too slow to elapse ($T \approx \infty$)?

Q: Your dark matter globe shall remain as it is forever without expanding to create worlds.

A: Exactly. Then we observed that **no world** is created at both extreme ends of 'Time'.

Q: Then who has fixed a suitable value for Time to elapse leisurely making a good world for us?

A: **Nature** has fixed it by giving a limit for **Speed**. It is the velocity of **Light** [$c = 2.998 \times 10^{10}$ cm/s]. Time is directly appeared in Speed as you see.

Q: Someday Man will conquer Time and Nature for certain, by exceeding the velocity of light

A: Man or any sophisticated manmade craft could never reach to that limit because **Atomic Matter** starts contracting in to **Dark Matter** at this critical speed. That's why our safety is so firmly assured against attacks from far **alien worlds**.

Q: But Expansion is followed closely after the Contraction in this pendulum type dynamics and the craft with aliens should emerge back from dark matter in our presence with the attack. How is that theory?

A: Well, it is a fantastic theory for a scientific fiction but when dark matter starts expansion, the first outcome is **Hydrogen**. I don't think that your aliens could emerge from hydrogen back.

-END-

The Final Remark:

This is the due end of the experimental monograph -SPACE DYNAMICS-presented in 11 volumes through a period of seven years starting from 2009. Please refer to my own website www.cyrilhtgamage.com for more details of each volume.

As an Independent Explorer I have launched almost a lifelong experiment to understand Fundamental World Realities and I firmly believe that I have found most of it. But I don't think my struggle would succeed in explaining it to the World. However it is up to the Global Society to take it or not and I am happy to say Goodbye.

'I have done my part'.

Cyril H Thalpe Gamage

30.11.2016