01.Dimensional Thinking Power and Evolutionary Development of Ages:
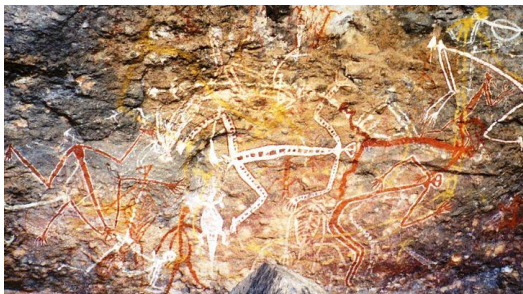
Only mankind tends to keep some readable records of his experience. Art works in rough sketches were the first expressions of man and repeating of a certain sign indicated their accounts.

Distance is the first parameter (thing) that historic man wanted to measure. At latter stages of development he used to measure the other fundamental physical parameters such as weight and time.

1.1 THE 1ST DIMENSION:

Art work remained in caves exhibit the premature stage of thinking of the primitive man. It seems that only a sense of length for everything presented in minds but it had been color full from the beginning, though all the colors were not available.

Only one axis on a plane exhibits their one dimensional thinking power.
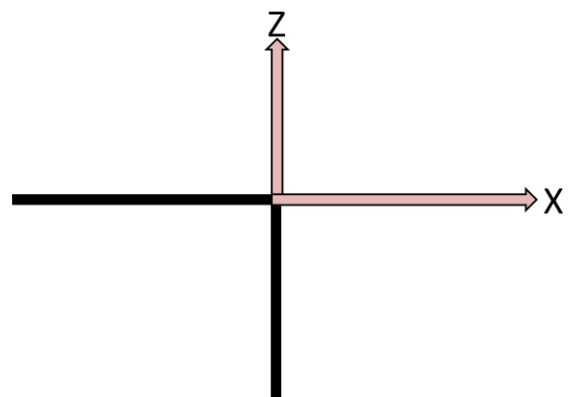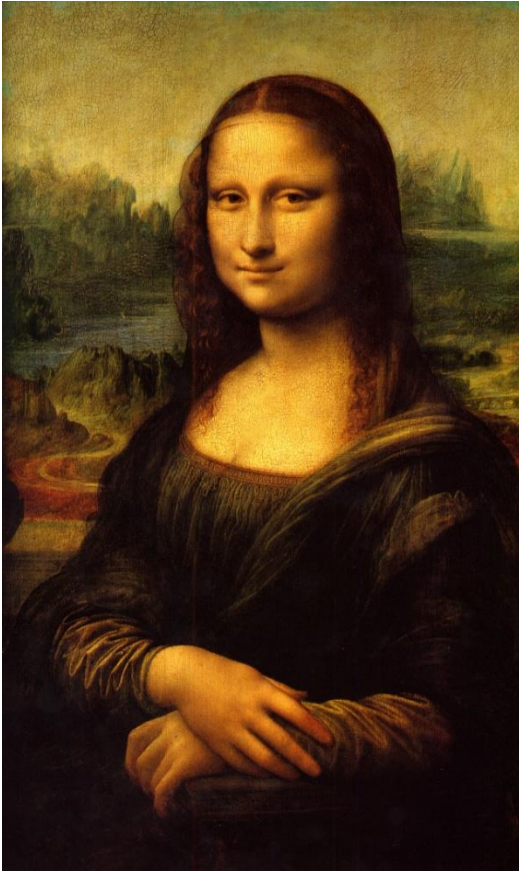

1.2 THE 2ND DIMENSION:

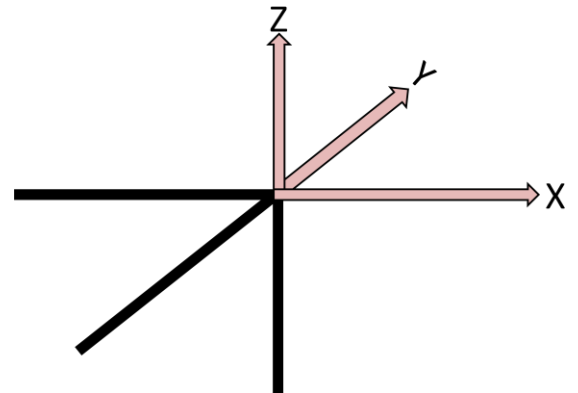Carvings of latter ages in the evolutionary development

exhibit two dimensional thinking with their measures of a length and a width as well.

1.3 THE 3ᴿᴰ DIMENSION:

Not only length, but width and depth also had been considered in more developed ages. Mathematics was born and the three axis could be indicated on a Cartesian Plane by X, Y and Z axis which are perpendicular to each other .

1.4 THE 4ᵀᴴ DIMENSION:

By the entrance to 21ˢᵗ century, many scientists and philosophers seemed to have sensed the existence of another measure named as the 4ᵗʰ dimension, and they realized the importance of understanding of it.

The prominent scientists of the 20ᵗʰ century had taken much emphasis to explain the **unexplained extent of science**, but their **theorizations** immediately after observations, seemed to have ended in **Uncertainty.** That is for no other reason but due to lack of **imagination** upon the **4ᵗʰ Dimension**. They couldn't explain 'Where the Matter come from to appear and to where they disappear?

THE 4ᵀᴴ DIMENTION

& WORLDS OF DIFFERENT SCALES

The worlds beyond the magnifying capacity of **Telescope** or the **Microscope** are still remain in complete darkness. Therefore the Scientists and Philosophers of the 21st century have a big responsibility to **open** their minds and develop '**Imagination** ', '**Analytical Thinking**' and '**Scientific Deduction**' in them, or else, everything will rest in '**Uncertainty**' perhaps till the tragic end of the Global Human Civilization.
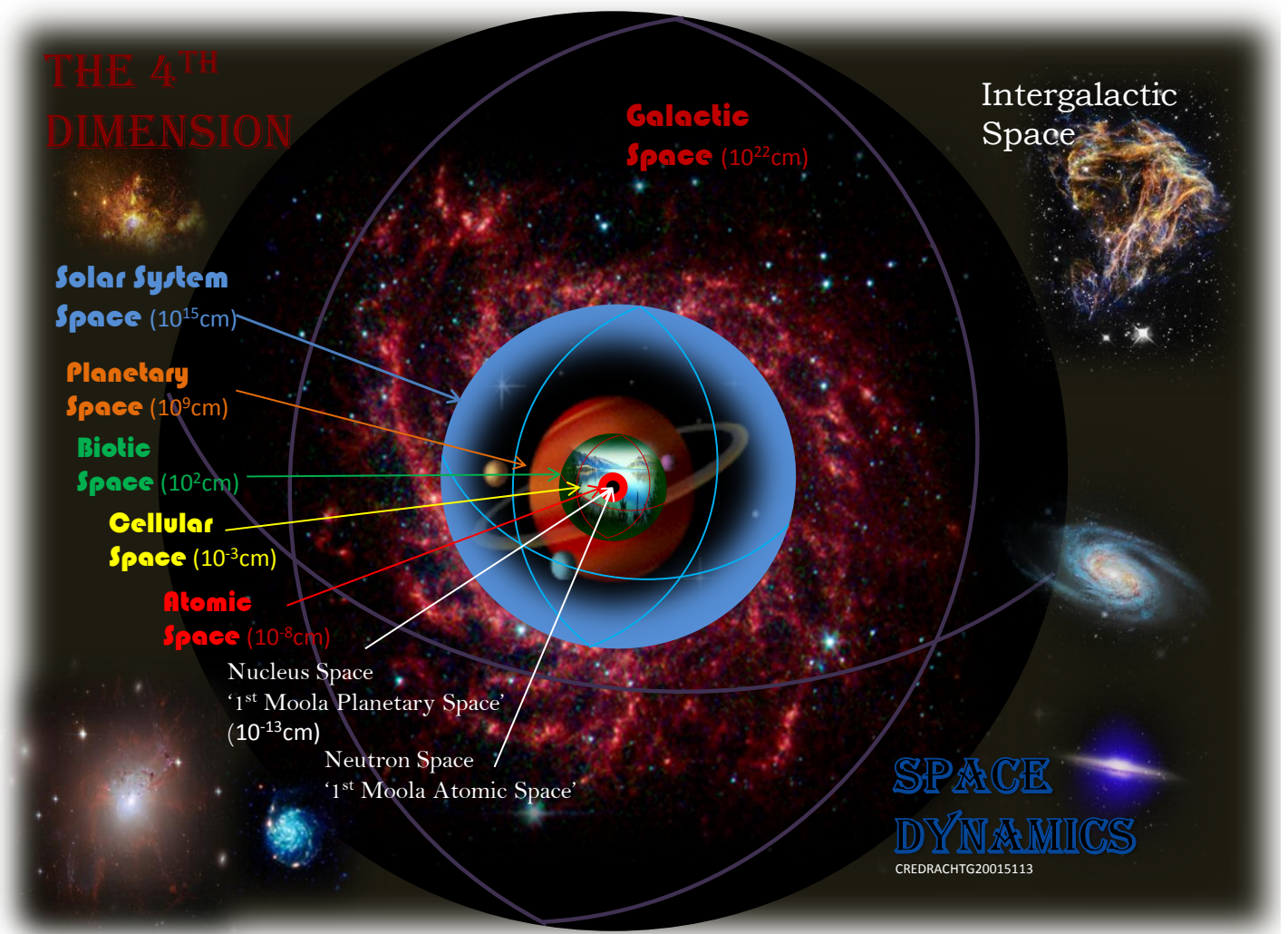

FIGURE-1

Worlds of different scales are created with the growing radius of '**Spherical Expansion**' of space matter.

02. What is the shortcut to Reality?

OBSERVATIONS

THEORIZATION

LABORIOUS EXPERIMENTATION

CONCLUSIONS IN UNCERTAINTY

OBSERVATIONS

HYPOTHESIS

SCIENTIFIC DEDUCTION

THEORIZATION TOWARDS REALITY

4TH Dimension is the measure to observe worlds of D**ifferent Scales** and that axis can be stretched out from the **Absolute Zero** towards the plus infinity as a growing radius in **Spherical Expansion**.   But man will never find where the absolute zero is, because the scale of the world, where he lives, is too big for that.

2.1 WHAT IS DISTANCE?

Teacher:-   Can we measure a distance?

Students:- Yes teacher we can measure distances by a meter tape.

Teacher:-   What is the distance between two meter readings?

Students:-   Thousand millimeters.

Teacher:-   Good. Then what is the distance between any two millimeter readings?

Students:-   Thousand micrometers.

Teacher:-   What is the distance between any two micro meter readings?

Students:-   Thousand nanometers .

Teacher :-   Well, then what is the distance between any two nanometer readings?

Students:-   Thousand picometers.

Teacher :-   What is the distance between any two picometer readings?

Students:-   Thousand of more finer parts teacher.

Teacher :-   Excellent. But what is the distance between any two of those readings ?

Students:-   We don't know teacher?

Teacher:-   Can you measure a distance realistically in this manner ?

Students:- No, we cannot measure the real distance between any two points.

Teacher :- *Yes, we can't because **distance is immaterial** and the sense of **units** are just **conceptual measures** which are relative only to the **scale** of our living world.*

The Definition for Distance:

"Distance is the Space between any two Destinations and it doesn't exist where, Destinations are not in Existence."

2.2 WHAT IS TIME?

Time is the other thing that has been much complicated by the scientists of the 20ᵗʰ century and some seem to have induced even **some life** too, in to time. But realistically time is **immaterial** and just a **concept** like distance.

The Definition for Time:

Time is the Space between any two Changes and it doesn't Elapse Where, things don't Change."

2.3 WHAT IS MASS?

Mass had been very well defined by the great scientist **Newton** by his realistic theory of **Gravity** and latter on, more value is added to the definition, by the great Philosophic Scientist **Einstein** through his universal theory of '**Conservation of Energy**'.

Therefore '**Mass**' is not just a concept but it **exists** as far as '**Matter**' exists in the space and it is not elastic like time or distance. We can summarize therefore the definitions produced by the two above great scientists, such as;

"Mass is the measure of "Energy Density" of Matter"

2.4 WHAT IS ENERGY?

Energy is recognized by man in many different forms but in the common sense, it is the **capability of doing work**.

Fundamentally, Energy exists only in two forms such as;

1. **Kinetic Energy:-** (any mass in motion has some ability to work)

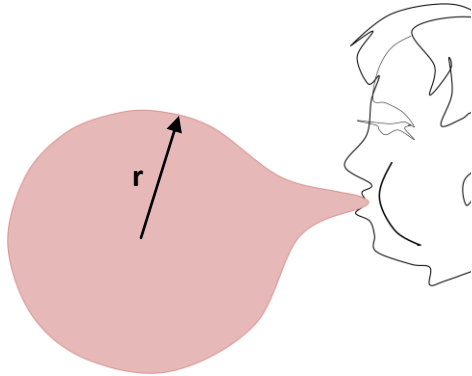 $E_k = \frac{1}{2}mv^2$ in linear motion (where, '**m**' is mass & '**v**' is velocity) and

E_k = ½ $I\omega^2$ in rotary motion (where, 'I' is moment of inertia & 'ω' is angular velocity) as defined in **Newtonian Mechanics**.

2. **Volumetric Energy**:- (Matter need energy to possess and maintain a **volume** in a **pressure** medium - ref. Space Dynamics –V1/2009 for details of the deduction)

It is simply understood by the example of a balloon.

r

No work is done and no energy is required if the outside pressure is zero and the tensile stress in the rubber membrane is negligible. But a stock of potential energy is accumulated there and that is capable of doing some work. Once the balloon is released it does work in return.

Similarly Matter is made up of the fundamental spherical particles like balloons and recognized as Atoms.

Unless a big pressure difference is there between inside and outside a circular shape could not be achieved by the surface.

Similarly every object has done work to own a volume in the space against pressure and that is named as '**Volumetric Energy**'.

Volumetric Energy is deduced such as; $E = P \times {}_o\!\int^r (4\pi r^2)dr = P[4/3 \times \pi r^3] = PV$

E_v **= PV** (where, 'r' is radius,'P' is the outside pressure & 'V' is the volume of the object).

All the other sort of energies so far recognized, can be put in to above two categories of energy such that;

i. Wave energies such as sound, electromagnetic waves and gravitational waves etc. are belonged to **kinetic energy** because a wave **moves** the medium in a frequent **vibration** and **transmit** energy through the medium itself. Sound is transmitted through air medium and it stops where, air doesn't exist.

Electromagnetic waves are transmitted far through the 'Eatheric medium' (space medium) and they can be extended even up to the boundary within a **Galaxy** if enough energy is pumped to the wave at transmission.

ii.   Heat, light, ultra-violet rays, infra red rays, X-rays, Gama rays, electrons, solar wind etc. are recognized as line **projection of particles** and therefore, belonged to the group of **kinetic energy**.

iii.   Electrical Energy, Magnetic Energy & Gravitational Energy are not born unless there exists a substantial medium (Eatheric medium) in between atomic masses. They can be put in to the group of **Potential Energy**. Potential energy is recognized as a **force** held against **moving** and therefore, those are also, belonged ultimately to the group of **kinetic energy**.

03. Fundamental Space Matter and Energy Stock in Them

1. **WHAT ARE THE FUNDAMENTAL SPACE MATTERS?**

'**Solids, Liquids & Gases**' could be the due answer by a student in the level of Primary Education. But is that adequate to satisfy the Scientists of the 21ˢᵗ Century?

Then what about the matter such as, Galactic Wind, Solar Wind, Electrons, Light, Heat, X-rays and Gama rays etc? They possess a **Mass** even though they don't respect for **Gravity**.

Solid, liquid and gas are the three states of '**Atomic Matter'.** There are two other forms of matter in existence such as; '**Energy Matter**' and '**Medium Matter**'. (pl.ref. **Space Dynamics-V1**/2009 for structures and behavior of the **three phases of Space Matter**)

3.11 ENERGY MATTER:

Heat, light and all other **Energy Rays** are recognized as **linear projection** of energy **particles** of different sizes. Sir **Isaac Newton** had sensed that reality almost before a couple of centuries but thereinafter scientists of the latter stages seemed to have too complicated the matters to end up ultimately at uncertainty.

Energy matter is not recognized as energy when the particles stopped moving by dropping **velocity** due to **medium resistance**. They can travel in the space even **beyond galaxies** because space resistance in Eatheric medium is much lesser. But in more denser mediums they stop before travelling long and expand in to stillness as **particles** of the **space medium**.

Ultimate Energy Stock in energy matter is given by ; $E_k = mc^2 + \frac{1}{2} mv^2 + PV$

(where **m-** mass, c- velocity of light, v-velocity of motion, P- outside pressure, V- volume).

PRESSURE SHOOTING OF ENERGY

Particles of the skin boundary

P_0

P_1

Energy particles are shot out from the Skin Boundary of Matter under condition of increased pressure difference in & out. Pressure inside is increased when Matter is heated and pressure outside is dropped when Matter is moving speedily.

SPACE DYNAMICS

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The picture shows how light particles are shot out from the highly tensioned skin of an electron. Electrons are contracted when outside pressure is dropped. But one may argue why doesn't it expand when outer pressure drops. No, it is **further contracted** when outer **pressure is dropped** due to the natural tensioning mechanism of the skin (pl ref. Space Dynamics –V1/2009 for 'Skin Boundary of Matter'). Therefore when the skin is over tensioned, the tiniest particles by which the skin is made up of, are shot out due to increased internal pressure and we recognize them as **rays of light**. And **Heat** is recognized as **a slow projection** of the same energy particles.

***Measuring Mass of Energy*:**
Students can measure the mass of heat energy by a simple practical as described bellow;
Step-1:
Take a test tube, a bottle or any utensil like that and fix a filled air balloon to the mouth of it as shown in the picture. (The balloon must be almost spherical in shape for simplicity of measuring diameter).
Step-2:
Measure the diameter and heat the utensil for some time, by a flame of fire.
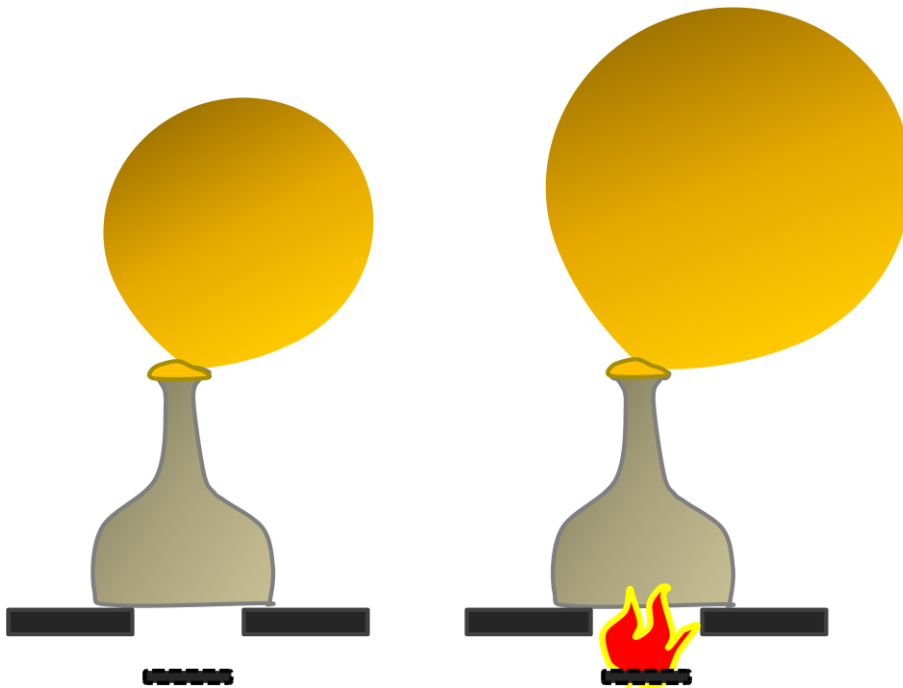
Step-3:

Measure the diameter of the balloon again.

Observation:

Air is expanded due to absorption of heat energy from the flame of fire.

Hypothesis:

Heat must be substantial and therefore it should have a **Mass**.

Deduction:

Calculate the volume increment of air by $\Delta V = 4/3 \times л\ (R^2 - r^2)$ where r is the initial radius and R is the radius at expanded stage.

Expansion was done in against of atmospheric pressure- 'P_a' and therefore the **work done** by the expansion $= P_a \times \Delta V$

Theorization:

According to the Einstein's law of **Conservation of Energy**, the Heat energy pumped in to the system (the input) must be equal to the work done (the output).

$$mc^2 =\ P_a \times \Delta V$$

(it is assumed that velocity of heat=velocity of light and volume of heat particles are comparably negligible)

Mass of heat- $m = P_a \times \Delta V / c^2$

Where; c – velocity of light=2.998 x 10^{10} cm/s, P_a - atmospheric pressure=1.013 x 10^6 dynes/cm^2, ΔV - volume increment in cm^3 from the practical)

Let's assume the practically measured volume increment in the balloon=100cm3 and calculate the mass of heat by the above expression.

$$m = 1.013 \times 10^6 \times (100) / (2.998 \times 10^{10})^2$$
$$\underline{m = 1.12 \times 10^{-13} g}$$

Conclusion:
No work could be possible without consuming energy and energy is substantial.

3.12 SPACE MEDIUM MATTER:
The space medium is made up of stopped energy particles and its density is very low. But pressure of our space is so high that, you would not believe if I say;

$$P_o = 4.292 \times 10^{17} dynes/cm^2$$
Let us compare it with atmospheric pressure

$$P_a = 1.013 \times 10^6 \ dynes/cm^2$$
It is 10^{11} times bigger than what we feel as the atmospheric pressure. (the mathematical derivation is furnished bellow, in this letter itself)

But fortunately we don't feel this big pressure on our bodies, because that Etheric medium exists inside of our body as well as outside. However the atoms in our body cells must stand against such a big pressure, even though we are not aware of.

Electromagnetic waves such as, Radio, TV, and Radar could not be transmitted far in to the space, unless such a big pressure is there in the space medium. Besides that either **Magnetism** or **Electricity** would not work unless the Eatheric media exists there.

However the ultimate energy stock in medium matter is entirely '**Volumetric Energy'**

$E_v = PV$ (where P is the outside pressure and V is the volume in the boundary .

3.13 ATOMIC MATTER

Atomic structure and inner content were explained explicitly in the so far developed background art but without recognition of the '**Skin Boundary'.** (pl. ref. Space Dynamics-V1 /2009 for derivation of mass of the atomic skin boundary)

Even though, atomic matter seems stationary, it is a magnificent **dynamic rotary system** with a **rotating nucleus** at the center and a cloud of electrons **orbiting** about.
It has a considerable volume too and therefore, its ultimate energy stock is comprised of both **kinetic energy** and **volumetric energy** as well.

$$E = mc^2 + PV$$

(where; m-mass, c-velocity of light, P-pressure of outer space and V –volume in the atom)

04. Expansion of Dark Matter and Origin of the Universe

4.1 WHAT IS DARK MATTER?

Dark matter has been identified by the scientists but all the dark spots in a galactic photograph cannot be considered as dark matter because, atomic mass too could look like dark matter when light rays come from behind.
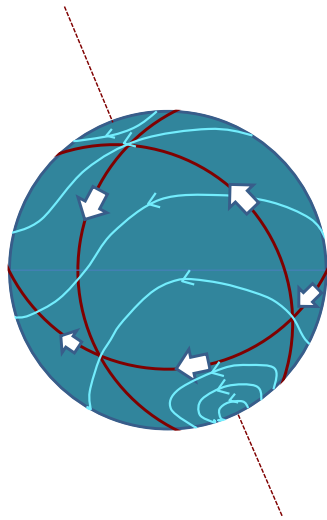
Dark matter exists at **Galactic Centers** where, pressure is dropped to almost **zero** due to activation of a **Spherical Vortex** of space matter. Dark matter is formed at the center of a **Contracting Galaxy** and it is known as a **Black Hole**. In contrary, a huge stock of dark matter is expanding in to hydrogen at the center of an **Expanding Galaxy** and we are also living in a galaxy which is still in the phase of expanding.

Galactic center is not the only locality, where dark matter exists. It also exists at the center of Stars and at the mid of **Productive Planets**(spinning planets) too. (pl ref. 'Star Mechanism'/ Space Dynamics-V4/ -2011 & 'Galactic Dimension on Climate Change'/Space Dynamics-V4/2012)

Dark matter is a mass of Neutrons in speedy motion, at or above of the velocity of light. At any lesser speed it tends to explore in to Hydrogen. Therefore nobody could observe a neutron which is at rest.

A neutron can exist only at **zero** pressure. Zero pressure is preserved only by **speedy motion** in the **frictional** space medium, by linear motion or by rotary motion. In the nucleus inside of an atom, a collection of neutrons and protons exists rotating like a spinning **planet** with electrons orbiting like **satellites**.

What is a Spherical Vortex?

Spherical Vortex is the dynamic rotary organization in which particles can move without collides in the 4ᵗʰ dimensional expansion or in contraction.

It is easy for students to construct a spherical vortex. Let us take a ball and draw any equator on it. Then draw any altitudinal circumference perpendicular to it. Then draw the circumference which is perpendicular to the both former curves. Then mark an arrow to indicate a direction on your own on each circle. Now you would observe two poles are there and all the lines in between are moving almost in the **same direction** about the polar axis.

A spherical vortex is in action in **atoms**, **spinning planets**, **stars** and also at the center of a **galaxy**. (pl. ref. Earth Mechanism/Space Dynamics-V3/2010 for the theory of Spherical Vortex).

Ultimate Energy Stock in dark matter is comprised only of **Kinetic Energy** because volume of a neutron is comparably negligible. But one may suspect, 'what is there in such a infinitesimal tiny particle to have such a big stock of energy'? That is where you have got to develop your **imagination power** along the axis of the **4ᵗʰ Dimension**.

Then only you would enter in to the wonderful world of the dropped scale to identify a **neutron** as a huge planet made up of **infinitesimal atoms** in a further dropped scale.

*The world inside of any atom in our world, is named herein as "1ˢᵀ MOOLA ATOMIC SPACE". And the world inside of a **tiny atom in a neutron** is named herein as " 2ⁿᵈ MOOLA SPACE" (that is for convenience of explaining the particles of further dropped scales) .*

What is a Proton then?

If all the tiny electrons inside of a **Neutron** are abstracted out, that collection is identified as an **Electron.** Then the rest has been recognized as a **Proton** which is almost similar to a **Neutron** in mass and size. But is has become a charged particle.

How a Proton was Charged then?

What will happen if somebody could remove all the planets from our **Solar System**?

Then our Sun shall be accelerated violently in rotating about(spinning), because the **buffering force** applied upon Sun by orbiting planets too could be gone. What is that buffering force upon Sun?

A planet is not orbiting round Sun, just as it was rotated at the origin, because there is a very big **resistive force** against any motion through the space medium. So a very big lateral force too is applied on planets by Sun, to rotate them around. That's why all the planets are orbiting in the same direction about Sun. This phenomenon is named as **'Theory of Gravity Deviation'** and the best proof of it is, there are no satellites in the possession of non spinning planets. (pl. ref. **Mechanism of Gravity** /Space Dynamics-V2/2009.)

So, if Sun is deprived of its planets, it will be accelerated violently to extend its force of gravity deviation to catch hold of even more distant space objects such as; asteroids, comets & even remote planets of other solar systems too.

That ability of **far extending of influence** of attraction is recognized as '**being charged'** and similarly a **proton** becomes a charged particle in absence of the **electron**. That phenomenon was recognized as **Electricity**.

It is not by gravity between electrons and protons but the **spherical vortex,** which creates a **pressure drop** towards the center to **attract** electrons. And in balance, the **centrifugal force** due to cyclic motion, keeps electrons in their orbits.
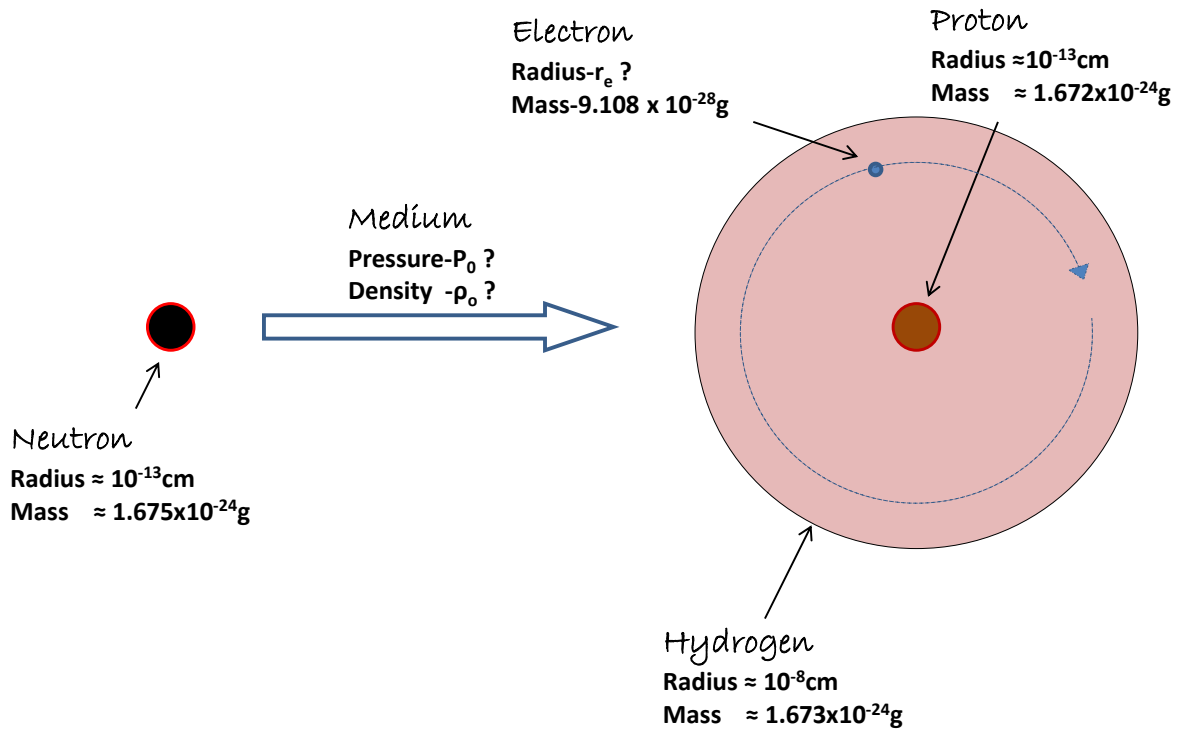
4.2 ORIGIN OF THE UNIVERSE

The most significant happening to be **observed** in the space is the expansion of '**Dark Matter** (Neutron Mass)' in to '**Hydrogen Clouds'** in the **mass vortex** at a center of a **Galaxy**.

This is an explosion of 10^{15} in volumetric magnitude and this must be the origin of a Universe.

Electron
Radius-r_e ?
Mass-9.108 x 10^{-28}g

Proton
Radius ≈10^{-13}cm
Mass ≈ 1.672x10^{-24}g

Medium
Pressure-P_0 ?
Density -ρ_o ?

Neutron
Radius ≈ 10^{-13}cm
Mass   ≈ 1.675x10^{-24}g

Hydrogen
Radius ≈ 10^{-8}cm
Mass   ≈ 1.673x10^{-24}g

If you are prepared to work upon that hypothesis, **pressure** of the space medium and **density** of it can be deduced **mathematically** by means of **Einstein**'s theory of '**Conservation of Energy**' **E = mc²**.

05. Deduction of Pressure and Density of Space Medium

5.1 PRESSURE OF THE UNIVERSE :
By now it is simple mathematics and you can calculate pressure of our living space. Let us consider how **Energy** is conserved in the great expansion of a N**eutron** in to a **Hydrogen atom**.

$$E_n = E_h$$
$$M_n c^2 = M_h c^2 + P_o V$$

(Any mass has a ultimate energy stock as mc^2 and it is comprised with Kinetic Energy and Volumetric Energy)

$$P_o V = [M_n - M_h]c^2$$

(V=4/3 x л$(10^{-8})^3$ cm^3, M_n =1.675 x10^{-24}g, M_h =1.673 x 10^{-24}g, c= 2.998 x 10^{10} cm/s)

$\underline{P_o = 4.292 \times 10^{17} dynes/cm^2}$

That is the pressure at which the dark matter is expanded in to Hydrogen for building of a universe and therefore, it is the pressure, that could be expected to have in the **galactic medium.**

But we, who live in the '**Biotic World**', don't experience (feel) that much of a pressure because that medium exists **outside** and **inside** of our bodies as well. There for we feel only the atmospheric pressure.

Now let us find the density of the 'Space Medium' (Eatheric Medium).

5.2 DENSITY OF THE SPACE MEDIM

There is an equation to describe density of any medium such as;

$$P = ½ \rho v^2$$ where; P- is the pressure in the medium, ρ-is the density of the medium & v- is the maximum velocity that could be achieved by a medium particle through the same medium. That velocity is also named as '**Critical Velocity of the Medium'** because it is the ultimate speed of any energy wave through the medium. (pl. ref. Space Dynamics- V1/2009 for derivation of the equation)

Velocity of light is the maximum velocity which has been identified as yet by man and that is the **critical velocity** of the Space Medium (Eatheric medium). It also indicates that a light particle too is a medium particle in the origin, but much more densely contracted due to speed gained at the projection.

To test the validity of above equation you can get velocity of sound by substituting atmospheric density and pressure in to it. Also, velocity of sound in deep waters can be deduced by

substituting water pressure with growing depths. It is valid not only in fluids but also in solids and students can calculate how sound of a coming train comes more speedily along rails before it arrives through atmosphere.

Lets substitute known parameters in the equation such as;

pressure of our universe $P_o = 4.292 \times 10^{17}$ dynes/cm^2 ,

Critical Velocity in the Eatheric medium $v_0 = c = 2.998 \times 10^{10}$ cm/s

$$P = \tfrac{1}{2} \rho v^2$$

$$\rho = 2(4.292 \times 10^{17})/(2.998 \times 10^{10})^2$$

$$\underline{\rho = 9.55 \times 10^{-4} \text{g/cm}^3}$$

That is the density of space medium of our universe.

(Density of air in the atmosphere, $\rho_a = 1.293 \times 10^{-3}$ g/cm^3 ,just to compare with it).

This medium is made up of so infinitesimal particles that, it can move through our bodies. It can move through biotic bodies, cellular bodies and difficultly though molecular structures. But it cannot penetrate the atomic structure.
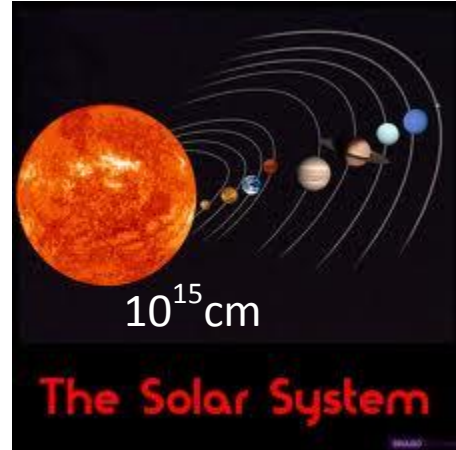
Space Resistance?

What is the advantage of this deduction of space medium density and pressure? 'Space Dynamics' is a big industry in the world and space craft designers need consideration of '**Space Resistance**' in their designs in order to save energy loss against friction. Body shape of the crafts, and the texture of surface materials are worth considering in minimizing resistance. (pl. await Space Dynamics-V6 for the Equation of Space Medium Resistance)

06. Scale Drops between Worlds

6.1 THE DROP FROM GALACTI SPACE TO SOLAR SPACE:

The Galaxy where we live has a radius of approximately **10²² cm**. The next world at immediate down scale is the 'Solar System ' and it has an approximate radius of **10¹⁵ cm** and the drop is nearly of **10⁷** in size.

10^7

10^{15}cm

The Solar System

10^{22}cm

6.11 What is the boundary?

Are there boundaries for everything in worlds? The answer depends on the way how matter is gathered in to the colony. If Matter is being collected from here and there in to the colony by influence of a force like Gravity, then there could be no boundaries at all. But if matter is born somehow inside of the colony itself, then there must be a **pressure gap** between in and out and therefore a **skin boundary** is formed.
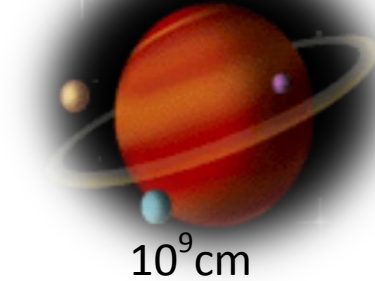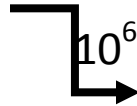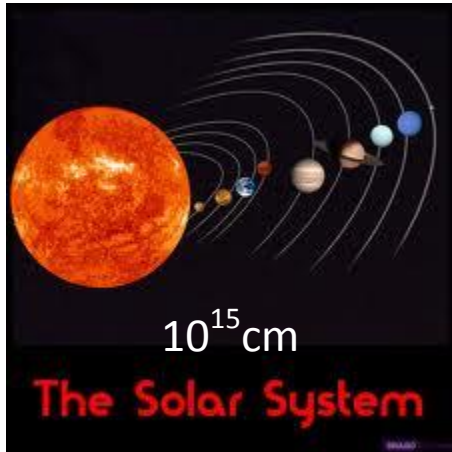
Space medium matter must have formed an invisible Skin Boundary for galaxies in order to maintain the big pressure gap between in and out. And it is being expanded in the expanding galaxies like ours. In contrary, the Skin Boundary of a contracting galaxy is being contracted.

Pressure is the main factor to maintain a skin for a colony and no exact boundaries could be expected for solar systems or planetary worlds. But Biotic and Cellular worlds maintain weak skins because pressure gap between in and out is not much.

Skin boundary is very strong in the Atomic world because the pressure gap is much high. (pl ref. Space Dynamics-V1/2009 for the deduction of **mass of skin boundary** of a hydrogen atom.)

6.2 THE DROP FROM SOLAR SPACE TO PLANETARY SPACE:

A Solar system is approximately of 10^{15} cm in size and average size of a planet should be 10^9cm in radius. Therefore the scale drop is approximately 10^6

10^{15}cm — The Solar System

10^6

10^9cm

Both of above worlds have no substantial boundaries and matter is gathered only by Gravity. Pressure and density of the medium between these couple of worlds are almost same and therefore, electromagnetic medium waves and energy rays too can travel without any obstacles.

6.3 THE DROP FROM PLANETARY SPACE TO THE BIOTIC SPACE
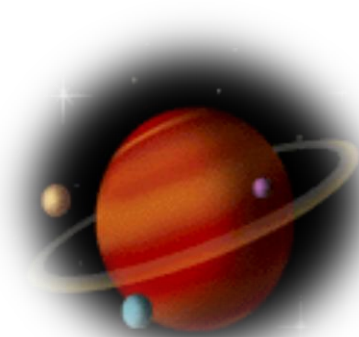Animal and Plant species can be considered as another world named '**Biotic World**'.

Doesn't that animal in the picture look a big world for microbes and bacteria to live in?
Gap between atmospheric pressure and body pressure of animals and plants, is not much and therefore boundary skins are not so strong. Body shapes too, are irregular because of the low pressure gap.
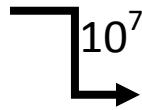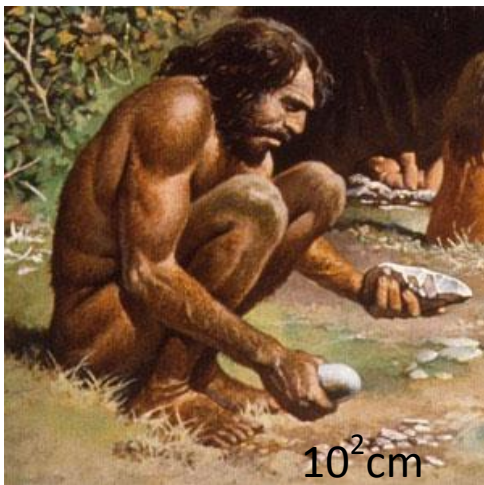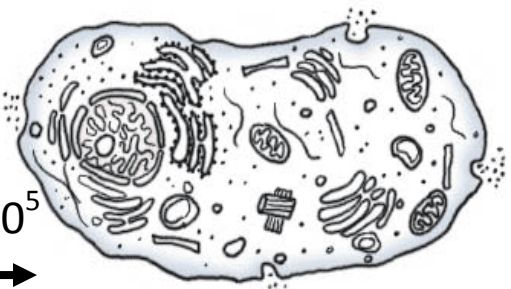
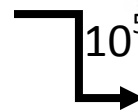10^9cm

10^7

10^2cm

6.4 THE DROP FROM BIOTIC SPACE TO CELLULAR SPACE
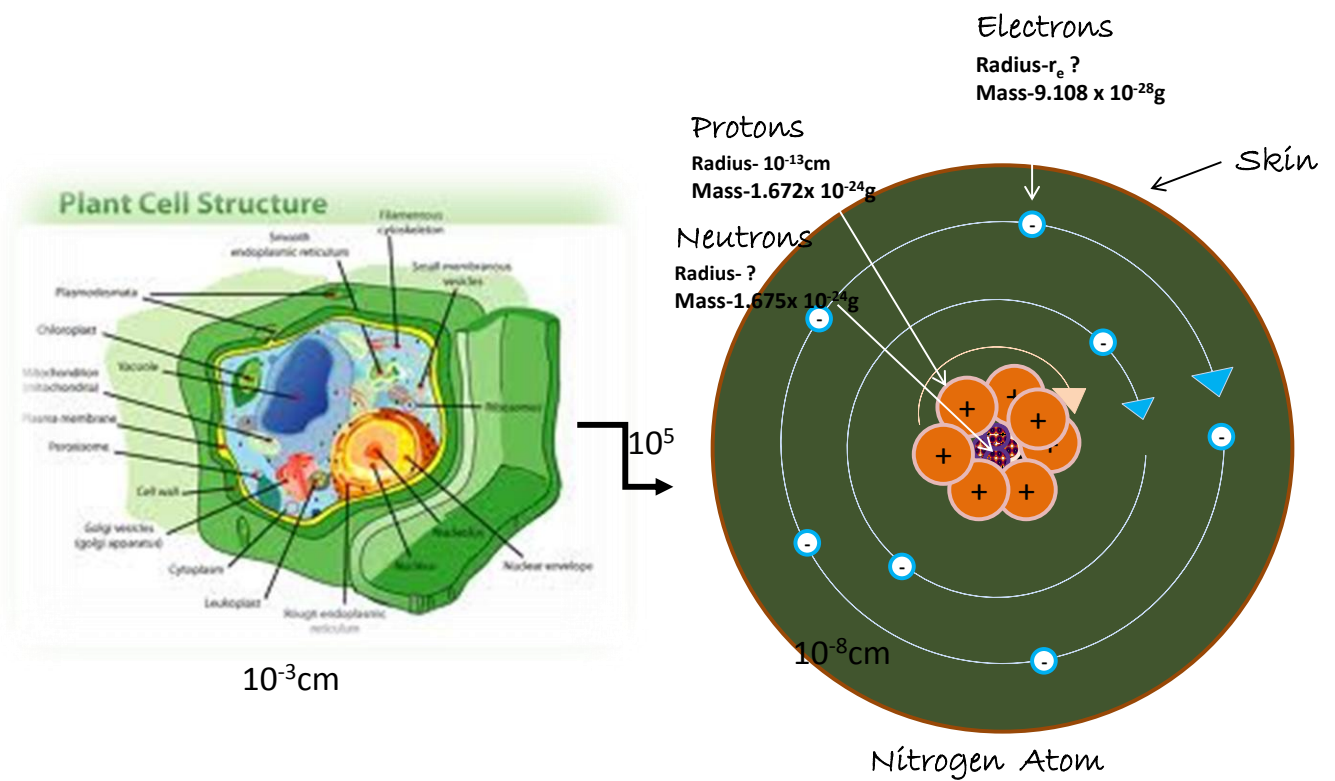
10^2cm

10^5

AN ANIMAL CELL

10^{-3}cm

6.41 Viral Attacks through the weak Skin

Both Animal body and Cellular body are vulnerable against viral attacks because of the weakness of their skin boundaries.   However the cell pressure must be a bit higher than the body pressure.

6.5 THE DROP FROM CELLULAR SPACE TO ATOMIC SPACE (1ˢᵗ MOOLA SPACE)

Life and beauty of the biotic world seem to be gone when the scale is dropped down furthermore.

Electrons
Radius-r_e ?
Mass-9.108 x 10^{-28}g

Protons
Radius- 10^{-13}cm
Mass-1.672x 10^{-24}g

Neutrons
Radius- ?
Mass-1.675x 10^{-24}g

Skin

10^5

Plant Cell Structure

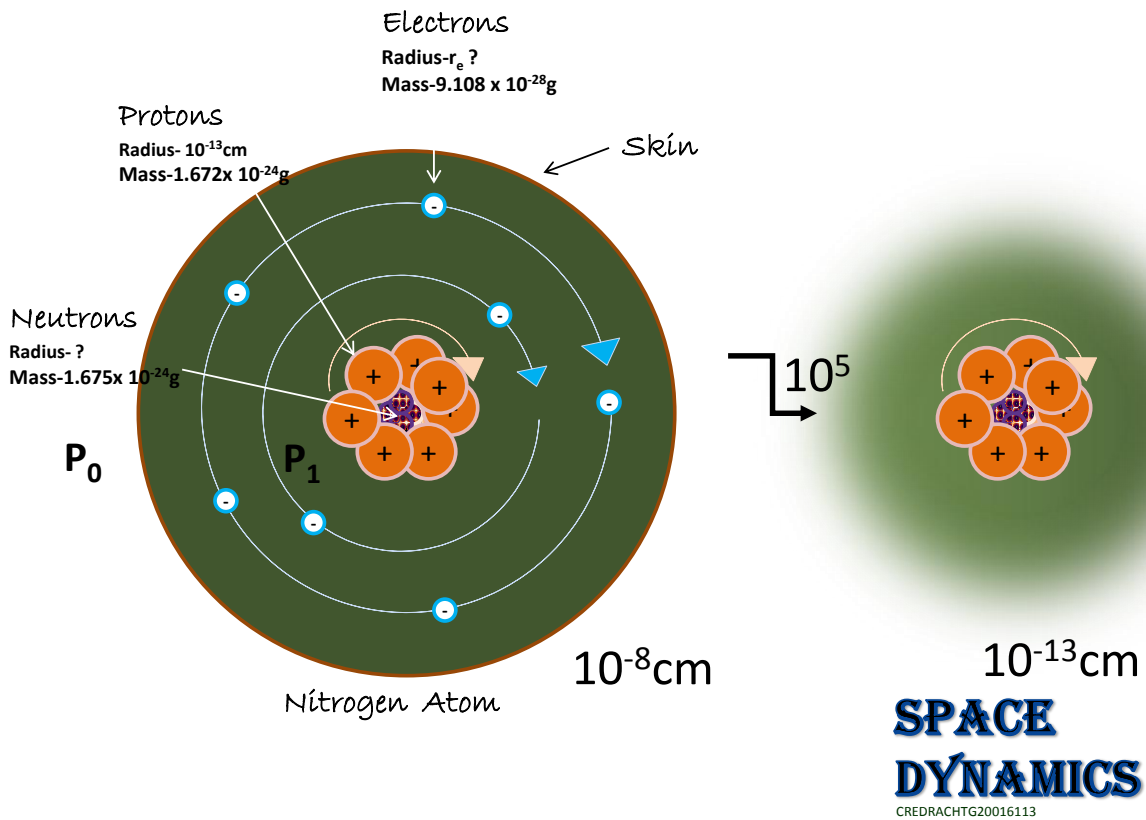10^{-3}cm

10^{-8}cm

Nitrogen Atom

By now the density and pressure of matter seem to be increased and Space Medium (Eatheric Medium) cannot penetrate through the 'Skin Boundary' of the Atom.

The balloon like spherical shape of it indicates that the pressure inside is much greater than that of outside.

6.6 THE DROP FROM ATOMIC SPACE TO THE NUCLEAR SPACE

Nucleus is very hard and dense and it is made up of a combination of two main particles such as **Neutron** and **Proton**. The atomic volume is named as the '**1ˢᵗ Moola Space**' for convenience of our deductive exploration for the worlds further down, along the 4ᵗʰ dimension.

Electrons
Radius-r_e ?
Mass-9.108 x 10^{-28}g

Protons
Radius- 10^{-13}cm
Mass-1.672x 10^{-24}g

Skin

Neutrons
Radius- ?
Mass-1.675x 10^{-24}g

P_0

P_1

10^5

10^{-8}cm

10^{-13}cm

Nitrogen Atom

SPACE DYNAMICS

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6.61 Dynamics in the 'Moola Space'

Electrons are orbiting the nucleus in a spherical vortex and then the atom is magnetically polarized. (pl. ref. 'The Earth Mechanism'/Space Dynamics-V3/2010 for the 'theory of Spherical Vortex'). Some electrons must move in a **zigzag** way but in the same direction of other electrons and this art of orbiting is identical in dynamics of charged particles in a **spherical vortex**.

Moola Gravity

Neutrons and protons are gathered at the center due to high influence of '**Moola Gravity'**. That is similar to Gravity in our world, and active only within the **1ˢᵗ Moola Space**. Principle is as same as gravity and only atomic matter is attracted by means of the **gravitational wave**. That cannot come out from the atomic boundary and therefore Moola Gravity cannot attract things beyond the region.

Therefore neutrons (dark matter) at the center of a **Galaxy** cannot attract atomic mass at all. But Newtonian Gravity is active where there is a gathering of atomic mass. Besides, the medium **pressure difference** of the spherical vortex, attracts all sorts of matter towards a **black hole.**

6.62 Energy Consumption for the Atomic Spherical Vortex

No motion could be expected in worlds without energy consuming. Then who is providing energy for the spherical vortex in an atom? As we know, It is nothing else but Solar Wind, which brings energy in to Earth through **ionosphere** for rotation of the **Geo Electric Motor**.(pl. ref. Earth Mechanism/Space Dynamics-V3/2010)

Similarly energy particles such as **light** and **heat** brings energy in to the Moola Space to activate the inner atomic spherical vortex. Those infinitesimal particles are recognized as **electrons** of the **2ⁿᵈ Moola Space**(the space in a proton and a neutron)

That's why atomic substances **absorb heat**. Why do you feel metallic surfaces are always cooler than atmospheric temperature? That is because it absorbs heat from your skin rapidly to maintain the inner dynamics of the atomic world. Denser metals are more cooler as you could feel, because they need more energy from the surrounding to run their tiny **atomic motors**.
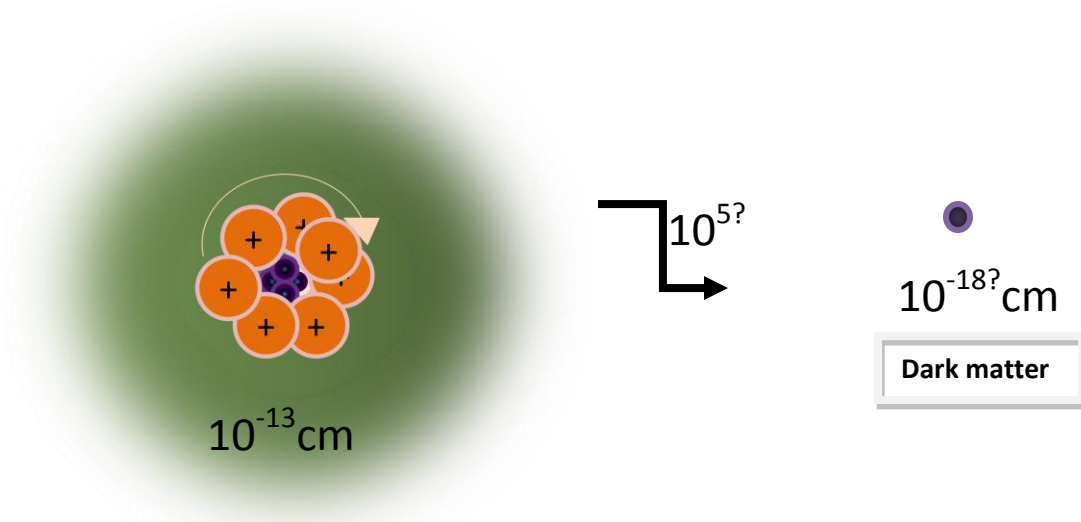
6.7 THE DROP FROM NUCLEAR SPACE TO NEUTRON SPACE

The drop is assumed as of the level **10^5** in consideration of the so far sequence of drops in the cascade, and then radius of a Neutron must be of the level **10^{-18} cm.**

$10^{5?}$

$10^{-18?}$cm

Dark matter

10^{-13}cm

07. Entrance to the Moola Space

The term '**Moola**' indicates the '**Origin** and the '**Root**'. Without having a logistic basis of how matter behaves in that infinitesimal world, Scientist could not succeed in explaining of the so far Unexplained.

Without a daring invasion in to this tiniest world by scientists, with hand full of hypothesis and imaginations, the things might remain unsolved till the tragic end of global human civilization.

Telescopic explorations alone could not explain the **mysteries of worlds** because the **root cause** is always hidden in the **tiniest world**.

Entrance in to the '1ˢᵗ Moola Atomic Space' for exploration, could seem as complete madness at the beginning but when the outcomes seem near to the **reality** and fit enough to logics, then you would agree the journey is not in vain.

7.1 WHAT IS THE RADIUS OF AN ELECTRON?

Assumption:- Let's assume that, an **electron** is nearly of the same density of the **nucleus** .

Justification :- Satellites (moons), which orbit round planets, have nearly the same density of planets.

Planets, which orbit round Sun, have nearly the same density of Sun.

Similarly Electrons, which orbit round nucleus, must have nearly the same density of the nucleus.

Deduction   :-

Density of the nucleus ≈ density of a proton= mass/volume

$$= 1.672 \times 10^{-24} g \div [4/3 \times л (10^{-13} cm)^3$$

$$= 3.99 \times 10^{14} g/cm^3$$

≈density of an electron

(mass of an electron = $9.108 \times 10^{-28} g$)

$$3.99 \times 10^{14} = 9.108 \times 10^{-28} \div [4/3 \times лr^3]$$

Radius of an electron $= 5.447 \times$

$$\underline{r_e = 8.16 \times 10^{-15} \text{ cm}}$$

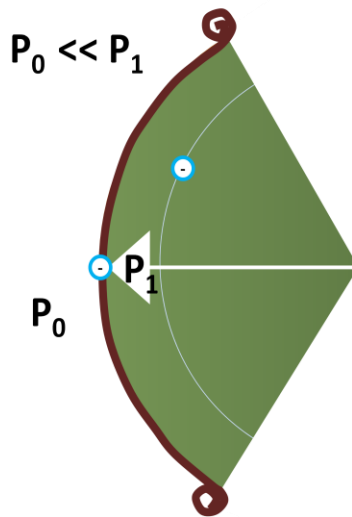It seems hundred times smaller than a proton.

7.2 WHAT IS THE PRESSURE IN THE MOOLA SPACE?

Deduction of pressure in an atom is of immense importance because it accounts for **Ultimate** B**earing Capacity** of engineering materials. When you compress bricks, concretes , steel or whatever it is of a building block, the ultimate bearing pressure is decided by any two atoms in contact with one another in the molecular structure. Therefore finding of the **pressure** in that balloon like particles (atoms) is of immense importance.

Can you stand on table tennis bolls? No, they are weak and pressure in them is not adequate to carry your weight. But you can stand on tires because pressure in them is more than adequate to carry the weight.

Known data:- Cathode ray experiments have proved that, velocity of an electron, that comes out from the atomic body is nearly of the level of $10^9 cm /s$.

Assumption:- When external energy is pumped in to system, an electron is shot out penetrating the boundary skin due to high pressure P_1 in the atom.

Cross sectional area of an electron $= \pi r^2$

Force due to pressure difference $= \pi r^2 (P_1 - P_0)$

Distance moved under the force $= 2r$

Work done = Energy gain at shooting = distance x force

$$= 2r \times \pi r^2 (P_1 - P_0)$$

Kinetic energy gain by the electron $= \frac{1}{2} mv^2$

Kinetic energy gain $=$ Work done

$\frac{1}{2} (9.108 \times 10^{-28}) \times (10^9)^2 = 2 \pi (8.16 \times 10^{-15})^3 \times P_1$

(P_0 is negligible compared to P_1)

$\underline{P_1} = 1.33 \times 10^{32}$ **dynes/cm^2**

What a big pressure is there in the Moola Space? But without that much of a pressure in an atom, huge multistoried buildings would not sustain against bearing pressure.
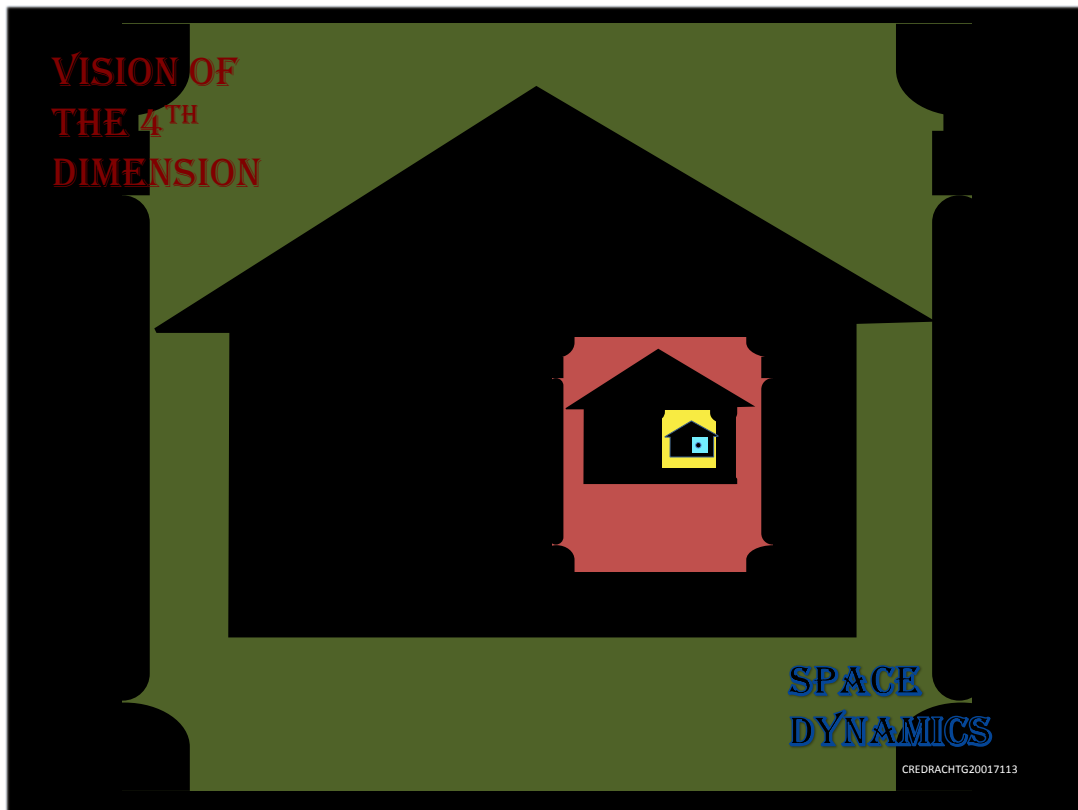
The ultimate bearing pressure of building materials is decided by the molecular structure of matter and finally pressure in atoms of the structure.

But molecular structures are more over incapable of getting the maximum use of atomic pressure due to deformations and voids created in the body in crystallized formation.

There comes **Nanotechnology** , therefore to get the maximum use of materials by addressing the texture of materials at the more tinier scale.

08. The tiniest Worlds

Sometimes things could not be explained by thousand and one words, but possibly with a small picture.

The picture exhibits the idea of entering in to the worlds of different scales upon the 4th Dimension.

Through the opening in your house you observe another house.

Through the opening of that house, you observe a wall plate picture, in which a similar house to be seen.

To your surprise, a real opening is observed in the house of the picture.

Through that opening you observe a distant house of the same passion.

Again a wall plate picture is observed with a picture of a house.

Through the tiny real opening in it you could observe a infinitesimal hose far away.

And again you observe……..

8.1 INSIDE OF A NEUTRON?
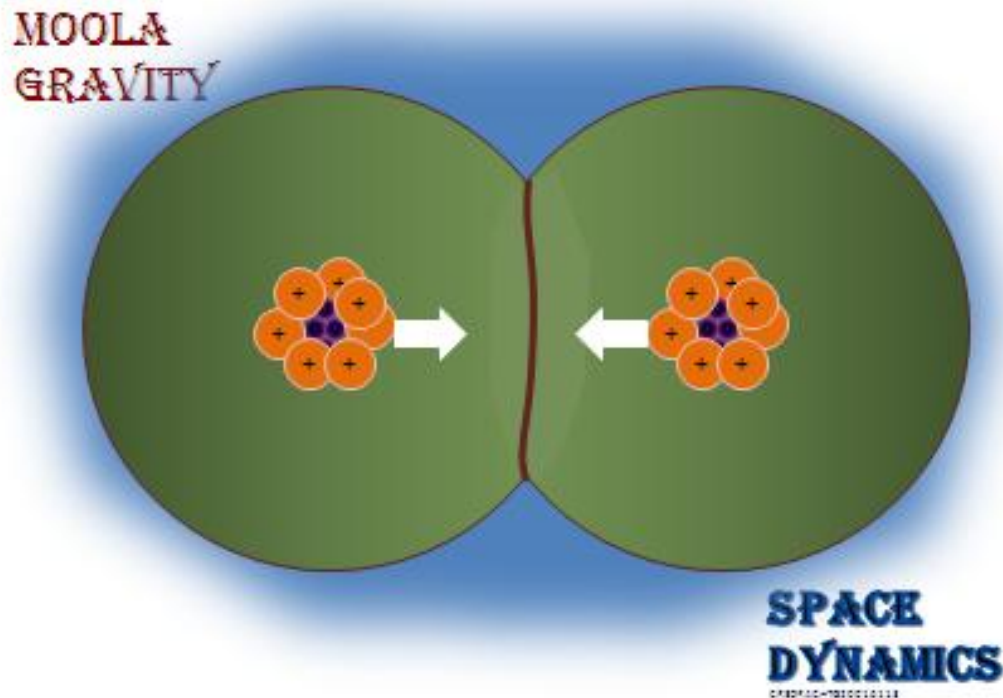
What is there inside of a Neutron?

There are enough evidence to believe that a Neutron is a Planet like sphere which is densely packed with a sort of tiniest atoms. Electrons of those tiniest atoms are recognized as the light and heat particles by which our world is lit and warmed.

Beyond the level of neutron mass (dark matter) the things disappear from us but never could be destroyed and shall appear again in the return way expansion.

8.2 WHAT IS MOOLA GRAVITY?

Definition for Moola Gravity:

Moola Gravity is defined as the attraction between the particles such as Protons and Neutrons.

Gravity is the phenomenon of attraction between any two masses which are made up of particles of internal dynamic rotary systems such as atoms.

The particles with no internal dynamics such as '**Energy Matter**' [solar wind, electrons, light & heat particles, energy rays etc.] and '**Space Medium Matter**' [stopped energy particles], don't respect for Gravity at all.

8.21 Curvature of Light?

Energy Particles in rays are moving straight along the direction as they were projected out and speed is gradually lowered down due to loss of linear momentum against Space Resistance.

They don't respect for Gravity at all but they can be **diverted** by **medium pressure differences** to be experienced in their path.

1. **Medium pressure** is dropped at a medium vortex (just like at the center of a Galaxy) and path of all the space matters, including energy matter too, could be curved with no difference.
2. **Medium pressure** could also be dropped where mighty magnetic fields are in action, at Stars and Spinning Planets. Because a magnetic field is a vortex of tiny space particles. Therefore the path of light rays that passes close to the body of a Star, can be a bit curved towards due to the drop of medium pressure.

8.3 TENSILE STRESS WITHOUT MOOLA GRAVITY?
Moola Gravity is the attraction between Moola Atomic masses and it is much stronger than the **Newtonian Gravity** of our world.

But fortunately it won't extend its mighty force in to our world unless otherwise, two atoms are touched tightly with one another as shown in the figure.

It proves that, Moola gravity doesn't work if the medium is discontinued. It also proves that a **medium wave** is the **root cause for gravity** and Moola Gravity is stopped just there at the boundary of the medium. But when the two atoms are touched tightly the wave is transmitted to the other space by continuation of the vibration.

The high 'Tensile Stress' in steel cables, carbon fiber etc. could not be possible at all, unless Moola Gravity is there in action between tightly touched atoms.

09. Conclusion

A man explored the worlds to find a good answer for his kid's question *"Father, tell me How all that happened in this world?"*

However the man succeeded ultimately in his tiring exploration and explained the child about "*how all that happened*". The child looked a bit satisfied but asked his next question.

"Father, tell me Why all that has happened?"

END

(Origin and End are the distinct destinations created by Linear Thinking)

If anything novel to the world is introduced herein by this technical paper, all that is exposed for the world community to be used freely on good will of experiments, researches and practices on behalf of Coexistence of the Global Ecosystem and Human Civilization.

- Cyril H. Thalpe Gamage - (18ᵗʰ Friday January, 2013)-

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