

# Shape & Motion of Planets

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## **Abstract**

Newton noted that all bodies produce gravitational attraction, but he did not answer that HOW and WHY this force is generated. Einstein explained gravitation is deformation of omnipresent fabrics of Space-Time by any body and the bodies move towards each other due to the difference of slope they produce (according to their different individual masses), but WHY still remained unanswered.

According to geometrical 'Tree model of structure and working of universe' [Ref. 1 to 6 & page 100 to 150 9a]

'Gravitation is produced by three dimensional (*around gravitational centre of all terrestrial body*) and four dimensional (*gravitational sphere of all cosmic bodies*) load dependent contraction, of our multilayered ten dimensional omnipresent space-

matrix', by action –reaction mechanism, to neutralize the load of this body on space matrix.

One dimensional contraction of this Space–matrix produced by load of photon (packet of EM energy) generates, rotating *transverse kinetic coloumns* which exhibit EM force; while it's two dimensional deformation produces multiple *orbitums* (@ one orbitum for one quanta mass energy) to support all loads from unit Electron to unit mass; and this deformed geometry produces nuclear and weak forces.

The Space matrix is vibrating at '*Planck Frequency*' (which is  $1.854 \times 10^{43}$  times per second). This number  $1.854 \times 10^{43}$  is denoted as S by me; and is the 'cosmic code'.<sup>[9b]</sup>

This S decides the value of *all universal constants*.<sup>[9c]</sup>  
<sup>[9d]</sup> *Unit energy* (S number of strings or Treos or kinetons, is one Quantum energy)<sup>[9e]</sup>, *Unit mass* ( $S^2$  free treos)<sup>[9f]</sup>, *Unit time* (S vibrations or one second)<sup>[9g]</sup>, *unit speed* (speed of light or S treos distance per second)<sup>[9c]</sup>, *Unit Space* (S treos on one side of cube)<sup>[9h]</sup> *Unit expansion* <sup>[9i]</sup> and *unit contraction* in universe.

$\sqrt{S}$  Quantum levels <sup>[9j]</sup> are present in gravitational coloumn (field) of Sun, at which in a particular orbit

rotating matter wave *revolves* the ‘symbolic point mass of a planet’ at bound *treo* distance per second (*equal to frequency of this matter wave*).

*Number of bound treo layers* in Anti- clockwise Rotating Gravitational sphere of any cosmic body, *primarily decides its speed of its rotation*. (Where number of layers = number of unit masses in this body); but resultant speed of rotation of body is influenced by many other factors.

Locally deformed space matrix around Sun, decides *shape & inclination* in gravitational (field) column of Sun will determine the angle of *inclined orbit and rotational axis* of any planet.

## Text

We will observe Motion of planet in three parts (which is also true for any cosmic baby body) and in fourth part we will discuss about shape of planets and all cosmic bodies.

(!) What decides, Speed of planet at which it *revolves* around Sun?

(!!) Reason of its *rotation* at its axis, along with the factors which influence resultant speed of its rotation.

(!!!) Reason for the inclination of orbit of any planet and tilt in their rotational axis.

(!V) Why all cosmic bodies are spherical and Saturn has its rings?

The 'Treo model' explains "basic of all known basics of our universe". We will now explore the basis of revolution, rotation, inclination in orbits and axial tilt of planets, all of which are governed by *local geometry of deformed space matrix*, in accordance with proposed 'Treo model of structure and working of space matrix'.

## **(!) SPEED OF REVOLUTION OF PLANETS-**

Basic question which immediately arises in our mind is *what propels things indefinitely* in the Universe and *why* maximum speed of motion; is speed of light?

By maneuvering the geometry of one dimensional deformation the deformed unit space matrix can *propel* all photon packets *at speed of light* (the so called maximum speed in universe).

But to *support and propel* the increased load of any elementary particle packet (from unit electron to unit

mass) *at the speed of light is not possible by space matrix.*

### **(A) SPEED OF LIGHT.**

Treo model explains that any photon packet shifts from one supporting kinetic column to adjacent next kinetic column, with each vibration of space matrix (after a gap of Planck's least time) and thus photon moves by approx 300,000 Km per second or exactly by S number of bound treos distance per second which is equal to  $2.997924 \times 10^8$  meter per second; the known speed of light.<sup>[9c]</sup>

This motion is possible only with one dimensional deformed geometry of space matrix, where rotating transverse kinetic columns wraps (as EM waves) and propel rotating photon packet indefinitely at the speed of light.

### **(B) FREQUENCY AND WAVE LENGTH OF A PACKET (ANY LOAD ON SPACE MATRIX)**

Question arises, how *frequency* (number of rotations per second) and *wave length* (length of spread of packet on space matrix) from unit photon packet to unit mass i.e. of all photons (EM energy packets) and elementary particles (mass energy packet) is decided.

From unit photon packet (S free treos packet) to unit mass packet (S<sup>2</sup> free treos packet) the frequency and

wave length is decided by following proposed universal formula.

### Common formula for any load on space matrix<sup>[9k]</sup>

**Frequency of photon packet** (number of rotations of photon packet or number of EM waves which form in one second) is equal to *number of quanta EM energy in this packet*:

**Frequency of elementary particle** or number of bound treos distance this particle will move in its orbit in one second; is equal to *number of quanta Mass energy in this packet*:

**Wave length** is calculated as, *S number of bound treos / number of quanta energy in this packet*. This is length of spread of any packet on space matrix as proposed in Treo model, and is expressed in bound treos distance.

#### **(1) FREQUENCY OF EM WAVES**

EM waves are formed for any EM energy Photon packet, by producing transverse kinetic columns with one dimensional deformation (in length) of one unit space matrix. [i.e. for any photon of *EM spectra* from Unit photon (S free treos packet) to Gamma photon ( $\sqrt{S} \times S$  free treos packet) <sup>[9L]</sup>]

**Frequency of EM wave = Number of quanta EM energy in its photon packet** = number of units of Planck's constant (unit action; which decides total angular momentum of this photon packet) = Total **number of kinton layers in any one kinetic column** = Number of rotations of photon packet per second = **number of EM waves formed per second.**<sup>[9m]</sup>

## **(2) FREQUENCY OF MATTER WAVES**

Following above general rule the Matter waves are formed for all mass energy packets, [From Unit electron ( $\sqrt{S} \times S$  free treos packet) to unit mass ( $S^2$  free treos)] on unit space matrix with its two dimensional deformation in length and breadth which form Orbitums.

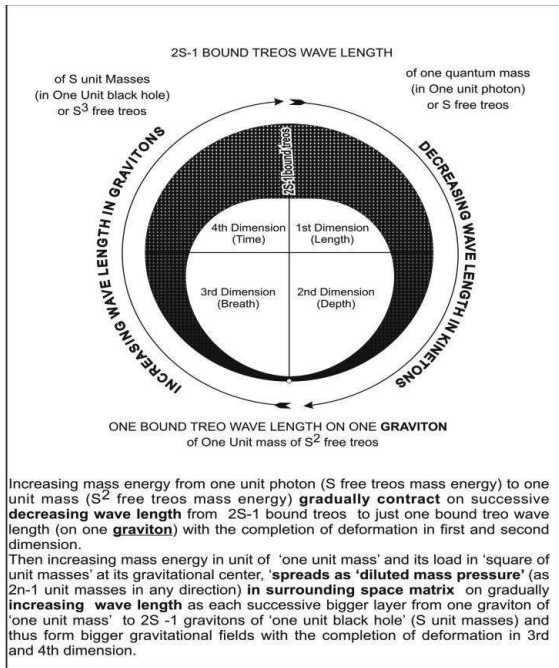
**Frequency of matter wave = Number of quanta mass energy** in any elementary particle packet (ranging from unit electron to unit mass) = Total **number of supporting orbitums\*** (formed in all sub shells of shells of this matter wave) = Total **number of kinton layers in any one shell** = total **number of bound treo distance traveled per second** in its orbit, by this packet/ or point mass of any planet.<sup>[9n]</sup>

\*All identical energy orbitums one over other, which forms in any sub shell, of all shells placed along wave length of vertically placed particle /exerted load, in matter wave together unites to form one orbit.

## **(3) WAVE LENGTH OF ANY EM WAVE OR MATTER WAVE**

**Wave length of any EM wave or matter wave** (from unit photon to unit mass) = **length of spread** of this packet on space matrix with uniform distribution of its packet energy =

Number of kinetic columns / or shells which are present on each apex bound tree in each EM wave / or matter wave =  $S$   
**number of bound trees / frequency of EM or matter wave.** <sup>[90]</sup>



Diagrammatic representation of spread of load of increasing mass energy in all four dimensions

**Figure 1: Mass energy packets contracts on its reducing wave length in first and second dimension. While diluted mass pressure of central load is supported by gravitons in its increasing wave length in third and fourth dimension.**



## (C) ORBITAL MOTION OF PLANETS-

The *exerted load* of sun [diluted mass pressure of sun at any distance **expressed in number of quanta**] at any particular orbit **decides frequency** of matter wave according to general formula described above.

### (1) POINT MASS OF PLANET

After neutralization of load of planet (of square of unit masses in its body) on space matrix by its own individual gravitational sphere and diluted mass pressure of planet on space matrix by gravitational field of planet, the gravitational centre of planet will behave as “weight less symbolic point mass” on space matrix. <sup>[9p]</sup>

This ***‘Point mass of any planet’ will remain stationary in its orbit on one bound tree till vibrations occur, one by one in vertically placed each shell*** (which are present at each apex bound tree along wave length of this matter wave; and all these vibrations together will fluctuate this ‘point mass’ up or down), and ***then only it is pushed by next one vibration, to next one bound tree of its orbit;*** See Figure 1.

This decides the ***speed of revolution of planet*** (in number of bound tree distance covered per second) and it is equal to ***frequency*** of matter wave of this orbit. <sup>[9q]</sup>

### (2) EXAMPLE OF EARTH REVOLUTION

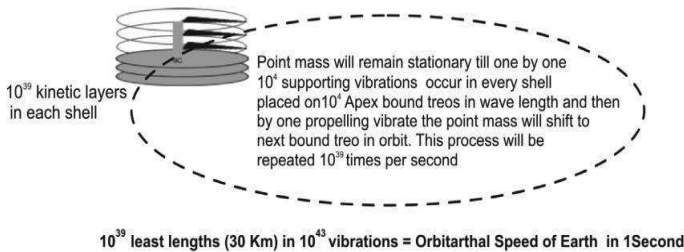
We will clarify it with the example of speed of revolution of our planet Earth.

$1.84319077 \times 10^{39}$  quanta load,\* (of one unit mass in Sun) exerted at each one bound tree in orbit of Earth = ***frequency*** ( $1.84319077 \times 10^{39}$ ) of this matter wave = Speed of revolution of earth (the ‘point mass of planet Earth’ will move by  $1.84319077 \times 10^{39}$  bound tree

distance per second, in its orbit) = 29.997924 km per second is the mean speed of revolution, or approx. 30 km per second.

\*LOAD or DILUTED MASS PRESSURE OF SUN AT A DISTANCE is exerted by each one unit mass of Sun, (at  $1.00658064 \times 10^{44}$  Gravitational field quantum level) where Earth orbit is placed.

In this motion of matter wave of sun at the level of Earth's orbit, the 'point mass of Earth' will **remain stationary till  $1.00658064 \times 10^4$  vibrations occur, one by one in  $1.00658064 \times 10^4$  shells present along its wave length** of  $1.00658064 \times 10^4$  apex bound treos, and then only it is shifted to next one bound treo in orbit by next one vibration. (Figure 2) These vibrations along wave length in each shell will also shift this point mass each time up or down.



**Figure 2:** The 'point mass of planet Earth' will shift by  $10^{39}$  bound treo distance in one second, equal to the frequency of matter wave of this orbit.

### (3) CIRCUMFERENCE OF ORBIT OF EARTH (or any planet)

**Circumference of orbit of Earth =  $5.81 \times 10^{46}$  bound treos**  
**length** =  $2 \pi r$ , where r is distance of Earth orbit from Sun (when expressed in bound treos distance) = bound treos distance the 'point mass of Earth' moves in its orbit per second  $\times 315576000$  seconds in one year = Frequency of matter wave  $\times 315576000$  seconds in one year =  $2\pi \times$  [(number of Gravitational field

quantum level of Sun / or wave length of matter wave in orbit)<sup>2</sup> ×  
number of unit masses in body of sun].<sup>[9r]</sup>

## (!!) SPEED OF ROTATION OF PLANETS

Answer to the question, what decides the speed of rotation of planets lies in local geometry of deformed space matrix.

*S number of free treos (strings), is one quantum EM energy / or mass energy, which calculates the value of 'Reduced Planck's constant', while its angular momentum gives the exact value of 'Planck constant' (one unit action), see calculations<sup>[9e]</sup>.*

Thus one quantum EM/ or Mass energy produces a 'unit action' and with its one unit angular momentum, it takes one full rotation in one second to be supported by space matrix.

Each quanta EM energy/mass Energy in any packet (which can range **from unit photon** i.e. S free treos **to Unit mass** i.e. S<sup>2</sup> free treos) will rotate once in one second on unit space matrix, either by one EM wave or by one orbitum.<sup>[9s]</sup>

Thus, in first dimensional deformation of cubical 'unit space matrix' (S bound treo in each side of cube) any photon packet will rotate in one second by a number which is equal to number of quanta EM energy in this photon packet; and will produce equal number of EM waves per second, (with its supporting and rotating kinetic coloumns wrapped around this photon packet in a line). The rotating layers of all these rotating kinetic coloumns, together produce lines of magnetic forces<sup>[9t]</sup>.

In second dimension each quanta mass energy (S free treos) will rotate once in one second and is supported by one rotation of one supporting *orbitum* (made up of equal number of S kinetons).

This universal behavior of space matrix to rotate each one quantum mass energy @ *one rotation per second* (just to support it on space matrix), is reflected in speed of rotation of any cosmic body and is executed by rotation of its supporting gravitational sphere (four dimensional kinetic coloumn).

Speed of rotation of any cosmic body is primarily governed by the *size of this rotating four dimensional deformation* (i.e. *number of bound treo layers in its gravitational sphere which are also equal to the **Number of unit masses**, the body is made of*).<sup>[9u]</sup>

S number of bound treo layers in gravitational sphere of *unit black hole* (made up of S number of unit masses) will rotate the periphery of its gravitational sphere at the speed of light (S bound treo distance in S vibrations i.e. one second); where as gravitational centre of *one unit mass*, is supported *by one graviton* and will rotate only once in S vibrations of one second.

In between these two masses, all bodies made up of different number of unit masses have different rotational speed of their gravitational spheres e.g. Sun is made up of  $0.9 \times 10^{38}$  unit masses have  $0.9 \times 10^{38}$  layered gravitational sphere around its gravitational centre and will rotate any point at periphery of its gravitational sphere by  $0.9 \times 10^{38}$  bound treo distance in one second (S vibrations). The known size of gravitational sphere of Sun of 3 Km diameter as per General theory, when converted is exactly the same i.e.  $0.9 \times 10^{38}$  layered gravitational sphere. Where as the gravitational sphere of Earth is only of 1m.m. ( $10^{32}$  bound treo layers) as it is made up of  $10^{32}$  unit masses. <sup>[9v]</sup>

**Final resultant speed of rotation of any cosmic body** will depend on, (a) configuration of its body mass (gaseous, liquid or solid), (b) role of surrounding other cosmic bodies with their anticlockwise rotating gravitational fields locked with gravitational field of this body\*, (c) and inclination of its orbit and its rotational axis according to changed geometry of gravitational (column) field of Sun at this level.

\* Incidentally this factor of exerted effect of near by planets will also deform the local geometry of space around our mother planet Earth and will affect its inhabitants. When this affect is combined with, 'statistically analysis of behavior of we humans born in different months', it gives rise to all 12 Zodiac signs.

Gizachew Tiruneh's in 2011; also demonstrated the correlation between the masses of planets and their rotation periods.

Where as, many astronomers believed in past that planetary rotation is influenced by angular momentum and related phenomena, which may have occurred during the formation of the solar system (Alfven, 1976<sup>[13]</sup>; Safronov, 1995; Artemev and Radzievskii, 1995<sup>[14]</sup>; Seeds, 2001; Balbus, 2003). Hughes (2003)<sup>[15]</sup>, included that planetary spin is a function of the gaseous or terrestrial nature of planets. In his study, Park (2008)<sup>[16]</sup>, attempted to relate planetary-rotation period with torques exerted by a planet on its moon(s) and vice versa.

**Table : Planetary Masses and Rotation Periods**

Planets	Mass in kg	Rotation Period (hours)
Mercury	$3.31 \times 10^{23}$	1407.07
Venus	$4.87 \times 10^{24}$	5839.20
Earth	$5.98 \times 10^{24}$	23.93
Mars	$0.64 \times 10^{24}$	24.62
Jupiter	$1.90 \times 10^{27}$	9.92
Saturn	$5.69 \times 10^{26}$	10.23
Uranus	$8.69 \times 10^{25}$	17.23
Neptune	$1.03 \times 10^{26}$	16.05

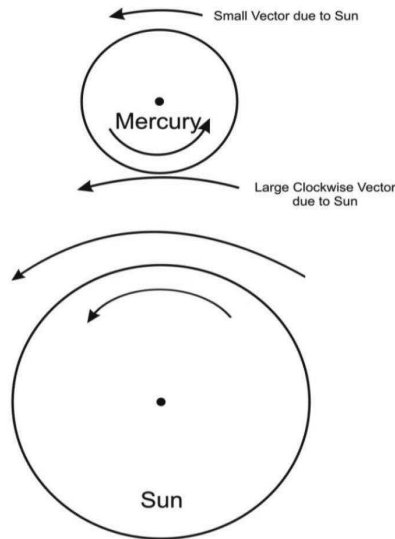
Following are few reasons which explain actually observed speed of rotation of planets as mentioned in above table.

## Explanation of anomalies in speed of rotation of few planets.

### (A) Prolong rotation period of Mercury-

Anticlockwise rotating kinetic columns of Sun and its gravitational fields will retard counterclockwise rotation of nearby placed small planet mercury. *Large clockwise vector of gravitational field of Sun, exerted on proximal side of body of Mercury will slow down its speed of anticlockwise rotation.*

(Figure 3)



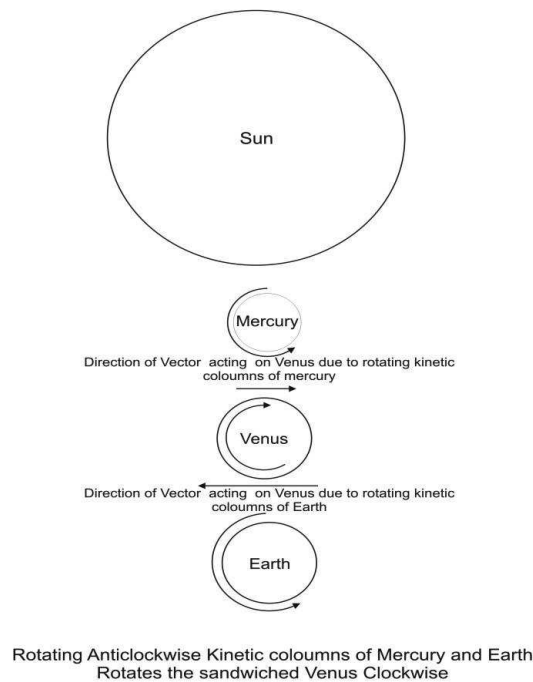
Anticlockwise rotating body and gravitational field of Sun, due to its large clockwise acting vector on proximal side of mercury, will markedly slow down anticlockwise rotations of nearby placed small planet Mercury.

Figure 3

**(B) Very slow clockwise rotation of Venus-**

First three planets are placed at first planetary quantum level (in this first shell the Mercury is at its centre, while Venus and Earth are placed in its *s* and *p* sub shells).

The anticlockwise rotating kinetic columns of Sun will also exert its clockwise vector on proximal side of Venus to slow it down [as shown in example (A) for Mercury]; while the anticlockwise rotating kinetic columns (gravitational fields) of Mercury and Earth, *both together will exert clockwise rotating vectors on Venus*, which will ultimately change the rotation of sandwiched planet Venus in actually observed *very slow clockwise rotation*.(Figure 4)  
[10 a]

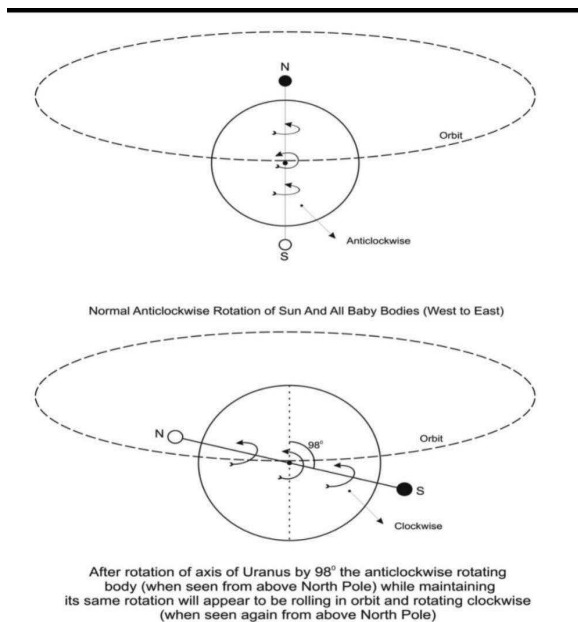


(Figure 4)

**(C) Clockwise rotating Uranus is rolling in its orbit-**

Axis of rotation of Uranus is tilted by  $98^{\circ}$  degree, due to grossly tilted gravitational (field) kinetic column of Sun at the level of orbit of Uranus because of proximal presence of heavy planets Jupiter and Saturn [see (!!!)].

Thus body of Uranus though still keeps on rotating on its axis in the same direction i.e. anticlockwise due to anticlockwise rotation of its gravitational sphere as before, *but after  $98^{\circ}$  axial tilt in its rotational axis* it will actually start *rolling* in its orbit and also *appear to be rotating clockwise* as observed (when seen from above, its now changed north pole). (Figure 5)



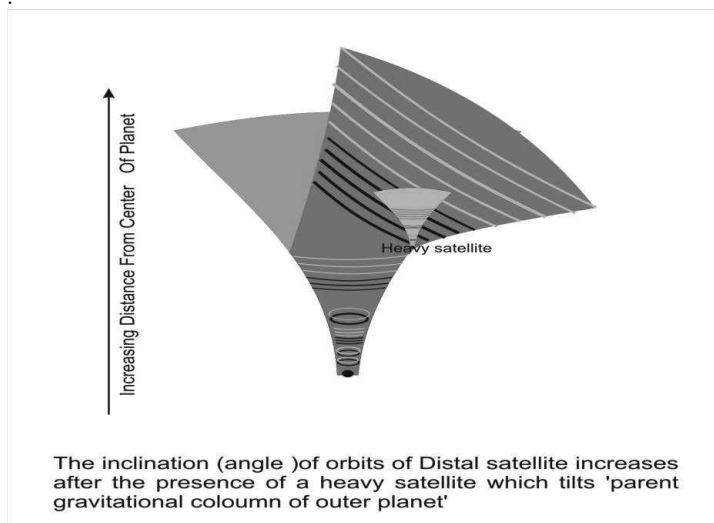
**(Figure 5) Anticlockwise rotating body (as seen from above North Pole) as seen in figure above; will maintain this rotation, but after rotation of axis of Uranus by  $98^{\circ}$  this will appear to be rolling in its orbit and rotating clock -wise (along with conversion of south pole in new north pole).**



# (!!!) INCLINED ORBITS AND TILTED ROTATIONAL AXIS OF PLANETS.

All 8 planets of Sun are placed at first (Mercury, Venus and Earth); second (Mars); Third (Asteroids); Fourth (Jupiter); Fifth (Saturn); Seventh (Uranus) and Ninth (Neptune) Planetary quantum levels: between ten  $10^{4\text{th}}$  and  $10^{5\text{th}}$  gravitational field Quantum levels of Sun. □ As Pluto is placed exactly at  $10^{\text{th}}$  Planetary quantum level its status to *full planet* can be restored.<sup>[10b]</sup>

It was observed with the study of orbits of baby bodies of *outer planets* <sup>[9x]</sup>, that orbits of distal satellites get inclined after presence of proximal heavy satellite, due to tilt in gravitational field (kinetic column) of this planet. (Fig 6)



**Figure 6-** A heavy satellite will tilt the parent gravitational column of outer planet.

Orbit of earth is inclined to ecliptic plain by  $0^{\circ}$ , but the rotational Axis of Planet Earth is tilted by  $23.436^{\circ}$  at present (it wobbles from  $22.1^{\circ}$  to  $24.5^{\circ}$ ). All three Mercury, Venus and Earth are placed at *first planetary quantum level* in first shell (at centre, and in s, p two sub shells respectively) and this shell (kinetic coloumn) though placed and aligned with ecliptic plain, but itself *tilts at its end i.e. p subshell level*, which tilts the rotational axis of Earth by  $23.4^{\circ}$ .

## **(!V) WHY ALL COSMIC BODIES ARE SPHERICAL AND SATURN HAS RINGS?**

*Gravitation Is Four Dimensional Deformation of Space Matrix, Produced to neutralize exerted Load of body on space matrix.*

All cosmic bodies are more or less spherical WHY? The geometry of its gravitational sphere (in four dimensional deformation) and its surrounding three dimensional spherical gravitational field, *moulds* the shape of mass present in all cosmic bodies.

Highly condensed mass of unit black hole (made up of S unit masses) is *accommodated in its four dimensional deformation* itself (inside its gravitational sphere of 3 lacs Km diameter), while its periphery is rotating by S bound treos per second (i.e. at speed of light) so even the photons can not be emitted out from its body. This makes black holes invisible.

Smaller cosmic bodies with lesser mass, *accommodate themselves also in their three dimensional spherical deformations (spherical moulds)* of their individual gravitational fields around their small gravitational spheres (about 3 Km is diameter of gravitational sphere Sun and 1mm is of Earth); and thus all cosmic bodies are spherical.

In two dimensional deformation of gravitational field (as two dimensional geometries can form only orbits) all baby bodies of all cosmic bodies are placed in orbits.

While one dimensional deformation of gravitational field (or space matrix) around any body, will extend up to the periphery of gravitational field, where exerted load of body at last  $\sqrt{S}$  quantum level is just one free tree and is supported by just one kinton in its  $\sqrt{S}$ <sup>th</sup> number orbit. [9x]

*Newton's gravitational field equations ( $MG = r^2a$ :  $MG = rv^2$ ) only describe this one dimensional deformation (force field) of any body which extends uniformly, throughout its gravitational field.*

*Density of Saturn is so low that its body will float in water. When this big rarified mass of Saturn could not be accommodated in its three dimensional (mould) gravitational field, it spills out in two dimensional deformation of its gravitational field among orbits (two dimensional deformations) of its satellites, and it form **spectacular rings of Saturn.*** [9y]

## CONCLUSION

Speed of orbital motion of '*symbolic point mass of a planet*' depends on the speed of **matter wave** of the orbit present at particular quantum level in gravitational field of Sun.

In the orbit of different planets (placed at different gravitational field quantum levels of Sun) one small matter wave forms for each unit mass present in body of Sun (where number of matter waves remains same but its length varies in proportion to its quantum level) and when all Compton wave length of all matter waves in a orbit joins together it form *circumference of an orbit* of a planet.

Speed of Rotation of any planet on its axis is *primarily governed by its mass (and influenced by other near by bodies)*; while

inclination of its orbit and tilt of rotational axis of all planets is according to geometry of *local deformed space matrix*.

The Shape of cosmic bodies moulds according to geometry of its own gravitational field.

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