

Axis Motion of the Planets - (Solution to the Unsolved Mystery)

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Abstract: *The origin of angular momentum: Equilibrium between orbital Plane and Galactic Plane As far as we are aware, all astronomical bodies are doing two motions- one is rotational movement and the other is axis movement. There have been many theories for the angular momentum of the planets or any other celestial bodies. But none of them gives an adequate Explanation of the mechanism of angular moment or say axis movement. If galaxies and other condensed objects are ejected from dense configurations as it has been suggested by some of the scientists, the angular momentum must have aroused from the relative motions of different part of ejected objects. But it does not give a clear picture of how this process has taken place. However, after a detailed study it is revealed that there is a huge synchronization between the movements of various celestial bodies. This firmly indicates that the axis motions of the planets or any celestial bodies are due to one similar reason. We will take the example of our Solar system. As it is known that every planet is doing two motions simultaneously – one is Orbital movement around the Sun and the second movement is an Axis motion, broadly causing day and night. For doing the both motions, every planet or celestial body has to satisfy two planes simultaneously one is orbital plane and the second one is Galactic plane. As to stand on the parameters of both planes every planet has to go through two motions – Orbital motion- which is floating motion around the Sun, the second one is Axis motion –Which is like filling the Gap of two paths by doing a spin on axis of the planet. In this, planet or the celestial body works like a pinwheel movement. This movement may be named as “Equilibrium motion” –Since it is being done to establish the equilibrium between the Orbital plane and Galactic plane maintaining the unique synchronization of the both path of the two motions.*

Keywords: axis, motion planetary galactic motion unsolved stellar constellar kepler kepler law solar disc momentum equilibrium orbit plane mystery

The Origin of Angular Momentum: Equilibrium between Orbital Plane and Galactic Plane.

As far as we are aware, all astronomical bodies are doing two motions- one is Rotational movement and the other is Axis movement. There have been many theories for the angular momentum of the planets or any other celestial bodies. But none of them gives an adequate **Explanation of the mechanism of angular moment or say Axis movement.**

If galaxies and other condensed objects are ejected/ formed from dense configurations as it has been suggested by some of the scientists, the angular momentum must have aroused from the relative motions of different part of ejected objects. But it does not give a clear picture of how this process has taken place. (“A Different approach to cosmology”- **Some unsolved problems –Axis motion of the planets**–page 321 by F. Hoyle, F. Burbidge, J.V. Narlikar).

Therefore, till date it is treated as an unsolved mystery of the space science.

Let us examine the factors responsible for the axial rotation of the planets, Satellites and other heavenly bodies having diverse axial inclinations, size shapes, gravity, velocities etc. What are the common factors responsible for their axis motion despite their diversity. Our Galaxy, the Milky Way is a huge wheel shaped collection of stars, having more than 100 billion stars. Its diameter is 1,00,000 light years. The width of this galaxy from its centre is about 20,000 light years and is 3000 light years at the outer tail ends. Our Sun is about 30000 light years away from the Centre of the Galaxy. Almost at the outer part of the Galaxy. Such a huge system of stars in the form of a Galaxy rotates with its

constituents. It would be interesting to know which force coordinates this motion on such a massive scale.

I propose here a new hypothesis to solve this mystery, which gives an adequate solution to the mystery. We must treat it as “Freedom within Constraints”. The Galaxy may be considered like a huge dish – like a floral wreath, whose components are heavenly bodies which are tied together within their constrained limits by mutual Gravitational attraction. Like the track ball of a computer mouse rotating freely within the constrained limits of Gravitational forces among themselves inside the galaxy. When this dish like system of Galaxy moves, then, as a consequence its constituent stars, planets and other celestial bodies will also move - supporting to the Total movement of Galaxy accordingly. Since these bodies have a particular position due to the net Gravitational pull (in case of pro grade motion) /push (in case of retrograde motion) exerted by various bodies in their vicinities, the reaction to the movement of the galaxy system as a whole may possibly lead to their axis motion. Conversely, the same bodies move in a system like the wheels of the Galaxy.

This can also be explained as following. In the beginning, during the formation of galaxies, there was probably a Big explosion (may it be the Big Bang) of a huge mass made up of the matter in different forms, including of mass and or gases. As a result of the explosion, the separated fragments formed the various heavenly bodies These different bodies, due to interaction of their gravitational forces started a motion, which was primarily irregular shaped, later on it converted in regular circular shape motion due to balancing of each other forces. Resulting into a revolving in orbits, as well as simultaneously rotating on their own axes due to the resulting forces exerted by the mutually opposing motions (i.e. pulling forces of all bodies in their own directions due

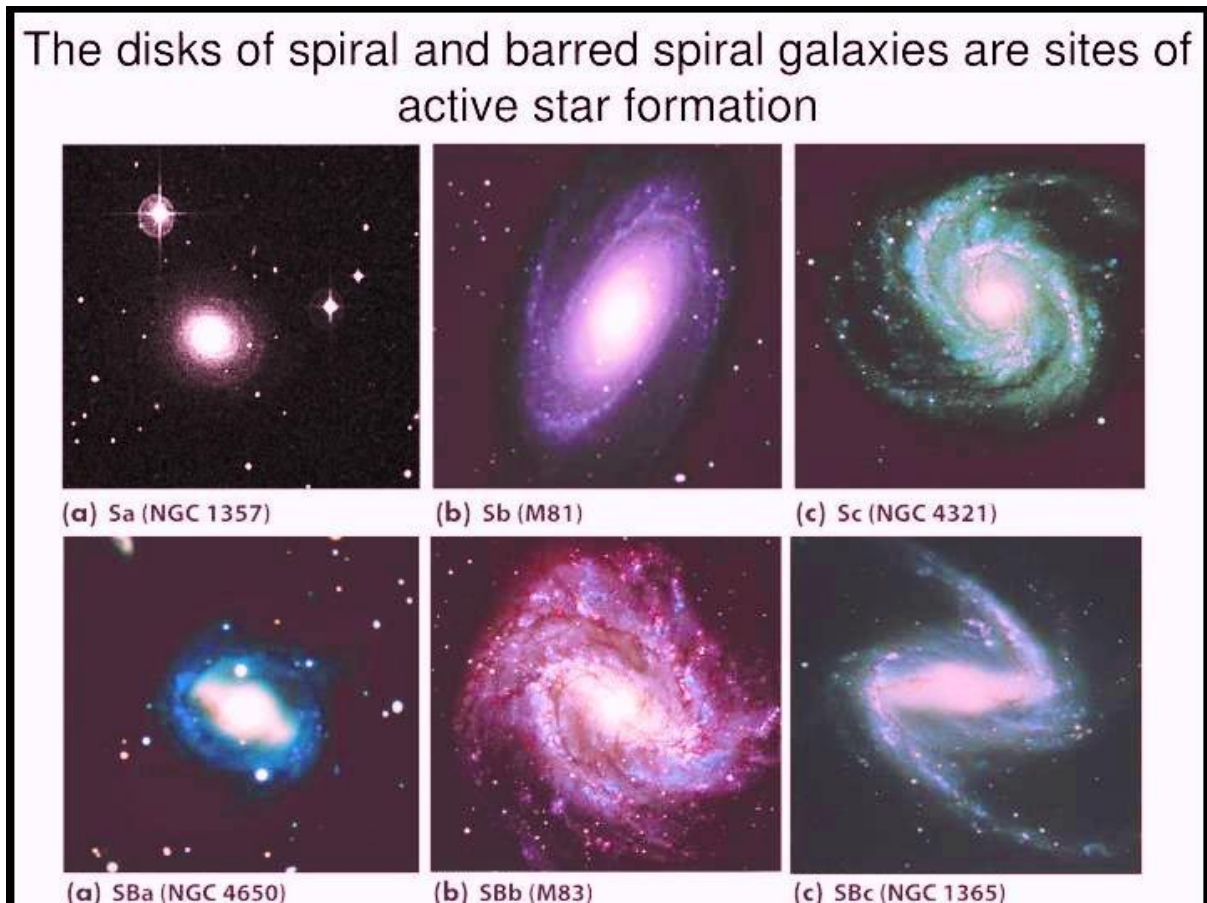
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to gravitation). This continuous pull and other forces led this structure to develop into a large system which moved on its axis and drove along with it in the matter in its vicinity. This all begun with the starting of formation of the celestial bodies, which converted into Galaxy finally. Since Galactic motion may be looked into totality therefore we may term it

as the total deviation of a celestial body as rotation plus Axis motion (as one is floating and the second one is pinwheel movement) of all planets and contents of galaxy is equal to Galactic motion or deviation from one point to another in a given time.



(www.slideserve.com - id:1296021)

Star or Celestial Body formation -> Constellation-> Disc formation of Galaxy, Galaxy formation

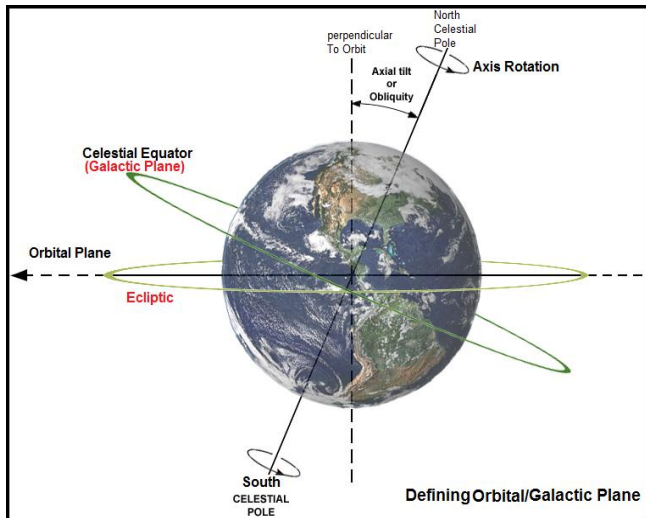
Which carries the Cumulative effects of Gravitational interaction between the individual celestial bodies of the Galaxy. The movements of the Galaxy and its constituent bodies seem to complement each other. While on the one hand the constituent bodies act as ‘Wheels’ of the galaxy and contribute to its overall motion, on the other hand, the Galaxy behaves as an integrated unit and drives them along in its own path. Hence, Axis motion of planets and pull of Galaxy are vice versa. The Density of Gravity also explains the spiral formation of Galaxy. As in the core, it is perfectly circular due to high density of interactional gravity forces of dense constellation where as at the outer skirt it is according to the spiral arm gravity. We can put this in an equation –

The sum of axis rotations plus Orbital rotation of all heavenly bodies in Galaxy= Axis rotation of the Galaxy
 $\Sigma AMX n = AMG$

Where AM = Axis movement, Xn= number of heavenly bodies in the Galaxy, G= Galaxy

However, after a detailed study it is revealed that there is a huge synchronization between the movements of various celestial bodies. This firmly indicates that the axis motions

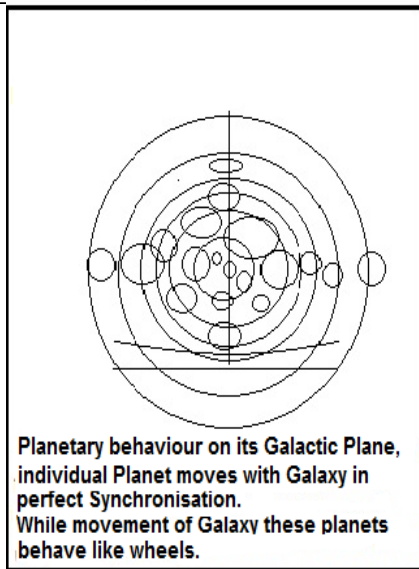
of the planets or any celestial bodies are due to one similar reason. We will take the example of our Solar system. As it is known that every planet is doing two motions simultaneously – one is Orbital movement around the Sun and the second movement is an Axis motion, broadly causing day and night. For doing the both motions, every planet or celestial body has to satisfy two planes simultaneously one is Orbital plane and the second is Galactic plane. As to stand on the parameters of both planes every planet has to go through two motions – Orbital motion- which is floating motion around the Sun, the second one is Axis motion –Which is like filling the Gap of two paths by doing a spin on axis of the planet. In this, planet or the celestial body works like a pinwheel movement. This movement may be named as ‘Equilibrium motion’ –Since it is being done to establish the equilibrium between the Orbital plane and Galactic plane(This may be supposed as two layers interactional behavior), maintaining the unique synchronization of the both path of the two motions.



- One and foremost important point is that our Solar system is maintaining its position in Galaxy, this position is not changed. Since, if it has been changed, it might have collided with other planets or group of other star/s. Some of the other facts are mentioned below establishing the synchronization in the various motions. The Galactic pull is created due to the group behavior of gravitation of Galaxy (i.e. Behavior of Galaxy as single unit).
- Polar Direction (i.e. north and south) of all planets of our solar family are in the same direction.

For identical reasons, the apparent position of the Sun relative to the backdrop of the stars at some seasonally fixed time slowly regresses a full 360° through all twelve traditional constellations of the zodiac, at the rate of about 50.3 seconds of arc per year (approximately 360 degrees divided by 25,772), or 1 degree every 71.6 years. Since, This applicable to our whole solar system, is a best example to elaborate the symmetry of the celestial bodies in the Galaxy as a whole. (Axial Precision- Wikipedia)

We have mentioned some facts below, which indicates that there is perfect relationship between all the motions of every celestial body/ planets.

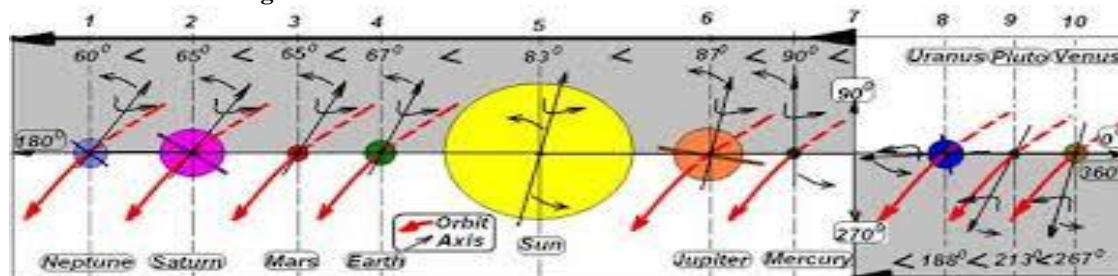


(Wikipedia)

Table Showing symmetry in net inclination of the Planet and moon of Solar Family

Object	Axial-Tilt Degrees (A)	Orbit to Axis (degrees) (B)	Total Degree inclination to the Celestial plane (A+/-B)=	Semi Major Axis (AU)	Geocentric Inclination (GI)	Heliocentric Inclination (HI)	Geocentric +/- Heliocentric =Total(Net) inclination	Prograde (inclination upto-90-D) /Retrograde (Inclination Above-90D)
Mercury	0.01	89.99	90.00	0.38709893	7.005000	0.245000	7.25 (GI+HI)	prograde
Venus	177.36	87.36	90.00	0.72333199	3.394580	3.855420	7.25 (GI+HI)	Retrograde
Moon	1.54	88.46	90.00	0.00000011	5.140000	2.110000	7.25 (GI+HI)	prograde
Ceres	93.00	03.00	90.00	2.76600000	10.593000	3.343000	7.25 (GI-HI)	Retrograde
Jupiter	3.13	86.87	90.00	5.20336301	1.305000	5.945000	7.25 (GI+HI)	prograde
Earth	23.44	66.56	90.00	1.00000011	0.000050	7.249950	7.25 (GI+HI)	prograde
Mars	25.19	64.81	90.00	1.52366231	1.850000	5.400000	7.25 (GI+HI)	prograde
Saturn	26.73	63.27	90.00	9.53707032	2.485240	4.764760	7.25 (GI+HI)	prograde
Neptune	28.32	61.68	90.00	30.06896348	1.767975	5.482025	7.25 (GI+HI)	prograde
Uranus	97.77	07.77	90.00	19.19126393	0.772556	6.477444	7.25 (GI+HI)	Retrograde
Pluto	122.53	32.53	90.00	39.48200000	17.151394	9.901394	7.25 (GI-HI)	Retrograde

Tilt of Orbit to the Axis including the Sun and other Planets



There is either pull or push force liable for movement, one is causing the orbital movement around the Sun and the second one is due to galactic pull causing axis movement (Axis movement behaves like a wheel for the Galactic spin, This movement satisfies the requirement of planetary movement according to the Galactic spin). In this regards we may frame the equation of motion as mentioned below-

If -Galactic Pull is $>$ Orbital pull = Pro grade movement = Orbital tilt + Axis tilt = 90 degree

Galactic pull is $<$ Orbital pull = Retrograde movement = Axis tilt - Orbital tilt = 90 degree

There is an amazing correlation among the angular momentums of axis movement of distant clusters of stars of this huge stellar world and the planets, satellites of our own solar system. This system off course is applicable on the other stellar clusters of the galaxy forming a very accurate geometric symmetry, showing that the overall movement of the entire galaxy utilizes these heavenly bodies and the axis motion of the entire galactic system as a unit are complementary to each other.

References

- [1] "A Different approach to cosmology"- Some unsolved problems -Axis motion of the planets-page 321 by F. Hoyle, F. Burbidge, J.V. Narlikar
- [2] www.slideserve.com - id:1296021
- [3] Wikipedia- wow.com
- [4] The Earth as seen by the Apollo 17 Crew on the way to the Moon.
- [5] Universe in the Classroom No. 71 • Spring 2007 Page 2
- [6] The Sun, seen in ultraviolet light with instruments aboard the SOHO satellite.
- [7] Image credit: NASA Marshall Space Flight Center (NASA-MSFC)
- [8] The Sun travels with billions of other stars through the Milky Way Galaxy, which is thought to look much like the Andromeda Galaxy, pictured above.
- [9] Universe in the Classroom No. 71 • Spring 2007 Page 3
- [10] The Hubble Deep Field image shows some of the most distant Galaxies in the Universe.
- [11] Universe in the Classroom No. 71 • Spring 2007 Page 4
- [12] Image credit: NASA/WMAP Science Team
- [13] WMAP image of the Cosmic Microwave Background radiation
- [14] Universe in the Classroom No. 71 • Spring 2007 Page 5