The INDIAN Astrophysical Research Centre

Discovery Mission

STREPULSION-PHYSICS PART-II: THE SECTION OF STREPLOMETRICS

- 1. DVd-TRIQUILIBRIUM (DVdT) (Page 02)
- 2. HOW & WHY THE Dd-LAW FOLLOWED? (Page 04)
- 3. THE DISCOVERY OF NEW LAW OF ORBITAL VELOCITY OF PLANETS (Page 05)
- 4. DVd-TRIQUILIBRIUN (DVdT) (Page 06)
- 5. ASTROMATICAL EXPLANATION OF 12 FORMULAS OF DVdT (Page 08)
- 6. DVdT IN THREE LAWS (Page 09)
- 7. MASS OF NINE PLANETS UNDER DVdT (Page 10)
- 8. DENSITY OF THE SUN UNDER DVdT (Page 11)
- 9. ORBITAL VELOCITY OF THE SUN (Page 13)
- 10. THREE ELEMENTARY FORCES AND THEIR INTENSITIES (Page 15)
- 11. FORCE OF ATTRACTION IN SOLAR SYSTEM (Page 17)
- 12. PRIME PLANETARY SYSTEMS (Page 18)
- 13. THE LAW OF AXIAL ROTATION (SPINNING) OF PLANETS (Page 19)
- 14. THE TABLE OF EQUATORIAL DIAMETER AND AXIAL VELOCITY OF PLANETS IN DESCENDING ORDER (Page 20)
- 15. ORBITAL REVOLUTION OF PLANETS PROVE THE SUN EXERTS REPULSION FORCE (Page 22)
- 16. Dr. N.K. SHAH'S LAW OF STAR-LIGHT DEFLECTION (SLD) IN THE SOLAR SYSTEM (Page 24)
- 17. PREDICTIONS UNDER STREPULSION-PHYSICS (Page 25)
- 18. DOUBLE ANGLE DEFLECTION BY MUTUAL REPULSION FORCE (Page 26)
- 19. OUTLINES OF SORLOD SPACE SYSTEM (Page 27)
- 20. DISCOVERY OF TWO GIANT PLANETS BEYOND PLUTO (Page 28)
- 21. THE MODIFIED BODE-TITUS RULE (Page 29)
- 22. ABSTRACT PAGE (Page 31)
- 23. NEWTON'S CONCEPT OF THE UNIVERSAL GRAVITATION: THEOLOGY OR SCIENCE? (Page 32)
- 24. CONCLUSION (Page 33)
- 25. STREPULSION PHYSICS & DISCOVERY OF THE NEW UNIVERSE (Page 34)

Dr. Navinchandra K. Shah

And Associates:
Prof. Pankaj N. Jain
Prof. Padmavati P. Jain
Prof. Raviraj Chitranjan (USA)

Prof. Mayuri Raviraj (USA)

http://www.strepulsion.com & http://www.strepulsion.org

1

DVd-TRIQUILIBRIUM (DVdT) THE ASTROPHYSICAL TRIANGLE WHICH DOMINATES THE SOLAR SYSTEM

DISCOVERED BY NAVINCHANDRA K. SHAH INARC, B-12, Katchi House, HUBLI (INDIA)

Which astrophysical law decides **DISTANCE** (d) and **DENSITY** (D) factors of nine planets of the Solar System?

- (1) Why planet Pluto located at farthest distance (5900 Million Klm) from the Sun while planet Mercury located in the nearest orbit (57.9 Million Klm)?
- (2) Why DENSITY of the Earth is (1.00) greater than planet Uranus (0.23)? Is there any Law exist which decides DISTANCE & DENSITY factors of planets in the Solar System? Or these are just 'random' factors? Up today, there is no answer for this problem in Astrophysics, but now with efforts of 20 years, I have discovered the natural LAW, which is followed by nine planets. This is DENSITY-DISTANCE LAW (DdL). This law is the part of STREPULSION PHYSICS.

DdL: DENSITY (D) and DISTANCE (d) are mutually interlinked reverse factors. That is to say, as D increases d decreases.

THE LAW: (1) $\mathbf{D} \propto \mathbf{C}/\sqrt{\mathbf{d}}$ i.e., (2) $\mathbf{d} \propto \mathbf{1}/\mathbf{D}^2$

- (1) DENSITY IS INVERSELY PROPORTIONAL TO SQUARE ROOT OF DISTANCE:
- (2) DISTANCE IS INVERSELY PROPORTIONAL TO SQUARE OF DENSITY

As DISTANCE is known factor, let us compute DENSITIES of nine planets on basis of above LAW 1: d = DISTANCE between the Planet and the Sun in unit of Million Kilometres. D = DENSITY when Earth Density = 1.

Follow the Table/calculations on next page.

TABLE 1: LAW: $\mathbf{D} \propto \mathbf{C}/\sqrt{\mathbf{d}}$: $\mathbf{C} = \text{Constant} = 12.231 = \text{root of Earth d.}$

PLANETS	DISTANCE : d = I/D2	: C /√d	= DENSITY:	OLD & WRONG VALUES OF DENSITY:
MERCURY	: 57.9	: 12.231/7.609	= 1.607	: 1.00
VENUS	: 108.2	: 12.231/10.401	= 1.175	: 0.96
EARTH	: 149.6	: 12.231/12.231	= 1.000	: 1.00
MARS	: 227.9	: 12.231/15.096	= 0.809	: 0.71
JUPITER	: 778.3	: 12.231/27.898	= 0.438	: 0.24
SATURN	: 1427.0	: 12.231/37.775	= 0.323	: 0.13
URANUS	: 2869.6	: 12.231/53.568	= 0.228	: 0.31
NEPTUNE	: 4496.6	: 12.231/67.056	= 0.182	: 0.33
PLUTO	: 5900.0	: 12.231/76.811	= 0.159	: unknown

COMENTS:

- 1) Old values of DENSITIES of planets are wrong and should be corrected as above.
- 2) The LOWEST DENSITY is of the PLUTO, not SATURN.
- 3) The HIGHEST DENSITY is of the MERCURY, not EARTH.
- 4) The Higher DENSITY of Mercury Planet than old estimation is accepted by NASA, Washington after tracking mission of the Spacecraft Mariner 10.

So, DISTANCE and DENSITY factors of nine planets are not just random but follow the LAW, which I have stated here. MERCURY Planet is located in nearest orbit to the Sun because it is HIGHEST in DENSITY and PLUTO at farthest because it is LOWEST in DENSITY. Density of the EARTH is greater than URANUS because it is nearer to the Sun than Uranus.

HOW & WHY THE Dd-LAW FOLLOWED?

The Solar-space acts like ocean and the Sun is at the bottom of the Ocean. As in marine navigation, DENSITY is prime factor, not mass of the body. Accordingly, in Astrospace, Density is prime factor. The body having higher density remain closer to the bottom and bodies having lower density remain away from bottom that is near the surface. Denser bodies "sink" towards bottom while light bodies float at surface. The same law is followed in Solar System. So, planets with greater density are in closer orbits to the Sun and lighter planets are having orbits far away from the Sun, at edges of the Solar System. Lighter planets are away while denser planets are nearer to the Sun in their orbit.

Table 1: Here Distance is in unit of million Klm. By dividing constant 12.231 with square root of distance of planet, we get its DENSITY. When distance is in unit of million miles, then divide constant 9.638 with square root of distance of planet and result will be DENSITY of planet.

Here we have observed / computed DENSITY with absolute accuracy on basis of DISTANCE. Accordingly, by reversing the formula, DISTANCE (d) can be computed on basis of DENSITY. The Law is as below:

THE LAW (2): $d \alpha l/D^2$: C = constant = 149.6 when d unit in Million Klm.

: C = constant = 92.89 when d unit in Million Miles.

CALCULATION:

- 1) DIVIDE 149.6 by SQUARE OF DENSITY OF PLANET, RESULT WILL BE DISTANCE IN MILLION KILOMETERS.
- 2) DIVIDE 92.89 by SQUARE OF DENSITY OF PLANET, RESULT WILL BE DISTANCE IN MILLION MILES.

So, DENSITY & DISTANCE ARE CO-RELATED FACTORS.

THE DISCOVERY OF NEW LAW OF ORBITAL VELOCITY OF PLANETS:

Why Orbital VELOCITY (V) of planet Mercury is higher than Earth while V of Pluto is lower than Earth? There is one four-Century-old vague law of Kepler, which is linked with distance to calculate Velocity. There is no reasoning that how and why distance influence Velocity.

Now, I have discovered a new Law of ORBITAL VELOCITY as below:

THE LAW (3): V a D : THE VELOCITY OF PLANET IS PROPORTIONAL TO DENSITY OF PLANET

As we have already computed DENSITIES of planets, now let us derive VELOCITY on basis of DENSITY:

- (1) DENSITY is known factor
- (2) VELOCITY in Kilometres per Second.
- (3) C = constant = 29.8 = Earth Velocity.
- (4) MULTIPLY DENSITY WITH 29.8, RESULT WILL BE VELOCITY IN Kilometres per Second.
- (5) MULTIPLY DENSITY WITH 18.5, RESULT WILL BE VELOCITY IN Miles per Second.

Now let us compute and test the LAW (3) with actual observation.

TABLE 2: V a D

PLANETS	DISTANCE : Earth = 1	CONSTANT 29.8 = Earth V	= VELOCITY in Klm/Sec.
MERCURY	: 1.607	x 29.8	= 47.9 Klm/Sec.
VENUS	: 1.175	x 29.8	= 35.0 Klm/Sec.
EARTH	: 1.000	x 29.8	= 29.8 Klm/Sec.
MARS	: 0.809	x 29.8	= 24.1 Klm/Sec.
JUPITER	: 0.438	x 29.8	= 13.1 Klm/Sec.
SATURN	: 0.323	x 29.8	= 09.6 Klm/Sec.
URANUS	: 0.228	x 29.8	= 06.8 Klm/Sec.
NEPTUNE	: 0.182	x 29.8	= 05.4 Klm/Sec.
PLUTO	: 0.159	x 29.8	= 04.7 Klm/Sec.

NOTE: 29.8 constant is Earth Velocity.

By multiplying Density with 18.5, result will be Velocity in Miles per Second. 18.5 is constant which is Earth Velocity in Miles per Second.

The above Computed result of ORBITAL VELOCITY of planets can be verified for its accuracy and correctness with any standard Text Books of Astrophysics. This is mean Velocity of planets around the Sun in their orbits.

WHY VELOCITY is proportional DENSITY?

The answer is there in STREPULSION-PHYSICS, the new science established by us. As per STRP, ORBITAL VELOCITY IS ACTIVATED BY RETRACTION FORCE (RTF). RTF acts on planetary bodies in ratio proportional to their DENSITIES, so VELOCITY is proportional to DENSITY. RTF? D? V

DVd-TRIQUILIBRIUN (DVdT):

So, DENSITY, VELOCITY and DISTANCE of PLANETS are co-related factors. When any one is known, other two can be computed with absolute accuracy. These three factors are mutually in Triquilibrium. This is DVdT. Solar System is balanced by DVdT. When this Triquilibrium breached, the Solar System will be ended either by dispersion or by collision. DVdT is the dominating Astrophysical and Astromatical Triangle, which balances and dominate the Solar System.

THE LAW (4): $D \alpha V \alpha 1 / \sqrt{d}$: This is Unified Law of the Solar System

- SIX FORMULAS OF DVDT FOR THE NEW SPACE TECHNOLOGY (SSS)
- (i) Unit in Kilometres
- 1) DENSITY BY DISTANCE: Divide 12.231 by square root of DISTANCE of Planet, result is DENSITY of planet.
- 2) DENSITY BY VELOCITY: Divide VELOCITY of Planet by 29.8, result is DENSITY of Planet.
- 3) DISTANCE BY DENSITY: Divide 149.6 by square of DENSITY of the planet, result is DISTANCE of the planet.
- 4) DISTANCE BY VELOCITY: Divide 132851 by Square of VELOCITY of planet, result is DISTANCE of the planet.
- 5) VELOCITY BY DENSITY: Multiply DENSITY of planet by 29.8, result is VELOCITY of the Planet.
- **6) VELOCITY** BY DISTANCE: Divide 364.5 by square root of DISTANCE of the planet, result is VELOCITY of planet.
- (ii) Unit in Miles.
- 1) DENSITY BY DISTANCE: Divide 9.638 by square root of DISTANCE of planet, result is DENSITY of Planet.
- 2) DENSITY BY VELOCITY: Divide VELOCITY of planet by 18.5, result is DENSITY of the Planet.
- 3) DISTANCE BY DENSITY: Divide 92.89 by square of DENSITY of the planet, result is DISTANCE of the planet.
- 4) DISTANCE BY VELOCITY: Divide 31791 by square of Velocity of planet, result is DISTANCE of the planet.
- 5) VELOCITY BY DENSITY: Multiply DENSITY of the planet by 18.5, result is VELOCITY of the Planet.

6) VELOCITY BY DISTANCE: Divide 178.3 by square root of DISTANCE of the planet, result is **VELOCITY**.

Unit in Kml:

Unit in Miles:

- 1) Mean DISTANCE in million Klm.
- Mean DISTANCE in million Miles.
 VELOCITY in Miles per Second.
- 2) VELOCITY in Klm per Second.3) DENSITY = Earth as 1.00
- 3) DENSITY = Earth as 1.00

Results obtained by above 12 formulas agree with observations.

ASTROMATICAL EXPLANATION OF 12 FORMULAS OF DVdT

(1) Unit in Kilometres

1) DENSITY (D) BY DISTANCE (d) :	: DαC1/√d	: C1 Constant = 12.231 is : Square root of 1 Astron unit
2) DENSITY (D) BY VELOCITY (V) :	: Dα V/C2	: C2 = Constant = 29.8 is : Earth Velocity in Klm/Sec.
3) DISTANCE (d) BY DENSITY (D) :	; d α C3/D²	: C3 = Constant = 149.6 is : 1 Astron unit = Earth distance
4) DISTANCE (d) BY VELOCITY (V):	; d α C4/V²	: C4 = constant = 132851 is : 1 Astron x Square of 29.8 (EV)
5) VELOCITY (V) BY DENSITY (D) :	: V α D x C5	: C5 = constant = 29.8 is : Earth Velocity.
6) VELOCITY (V) BY DISTANCE (d) :	: V α C6/√d	: C6 = constant = 364.5 is : Sq. root of 1 Astron x 29.8 (EV)

(ii) Unit in Miles

1) DENSITY (D) BY DISTANCE (d) :	: DαC1/√d	: C1 = constant = 9.638 is : Sq. root of 1 A.U. (i.e., 92.89)
2) DENSITY (D) BY VELOCITY (V) :	: Dα V/C2	: C2 = constant = 18.5 is : Earth Velocity in Miles/Sec.
3) DISTANCE (d) BY DENSITY (D) :	; d α C3/D²	: C3 = constant = 92.89 is : 1 A.U. = Earth-Sun distance
4) DISTANCE (d) BY VELOCITY (V) :	: d α C4/V ²	: C4 = constant = 31791 is : 1 A.U. = 92.89 x Sq. of Earth V
5) VELOCITY (V) BY DENSITY (D) :	: V α D x C5	: C5 = constant = 18.5 is : Earth Velocity in Miles/Sec.
6) VELOCITY (V) BY DISTANCE (d) :	: V α C6/√d	: C6 = constant = 178.3 is : Sq. root of 1 A.U. x Earth V.

Astron Unit (A.U.) is mean Earth-Sun distance.

1 A.U. = 92.89 Million Miles or 149.6 Million Kilometres

 $C4 = constant = 132851 = 149.6 \times 29.82 : 31791 = 92.89 \times 18.52$

 $C6 = constant = 364.5 = 12.231 \times 29.8 : 178.3 = 9.638 \times 18.5$

D = density = Earth density = 1

d = distance in million Miles/Klm from the Sun.

V = Velocity in Miles or Kilometres per Second (Orbital)

Astromatics = Mathematics relating to Astrophysics.

THESE FORMULAS ARE FOUNDATION OF SORLOD SPACE SYSTEM - THE NEW SPACE TECHNOLOGY INVENTED TO NAVIGATE THE SOLAR SYSTEM AND BEYOND.

We have tested the Formulas in Table 1 and 2 based on Kilometres. Now here is Table 3 to test Formulas in the units of Miles.

TABLE - 3

PLANETS	: DISTANCE (d) d = C3 / D2	: C1/√d	: = DENSITY x 18.5	= VELOCITY: Miles/sec.
MERCURY	: 35.96	: 9.638/ 5.996	= 1.607 x 18.5	= 29.729
VENUS	: 67.20	: 9.638/ 8.197	= 1.175 x 18.5	= 21.737
EARTH	: 92.89	: 9.638/ 9.638	= 1.000 x 18.5	= 18.500
MARS	: 141.60	: 9.638/11.899	= 0.809 x 18.5	= 14.966
JUPITER	: 483.30	: 9.638/21.984	= 0.438 x 18.5	= 8.103
SATURN	: 886.20	: 9.638/29.769	= 0.323 x 18.5	= 5.975
URANUS	: 1783.00	: 9.638/42.225	= 0.223 x 18.5	= 4.220
NEPTUNE	: 2794.00	: 9.638/52.858	= 0.182 x 18.5	= 3.367
PLUTO	: 3670.00	: 9.638/60.580	= 0.159 x 18.5	= 2.941

- 1) DISTANCE (d) in unit of Million Miles from the Sun.
- 2) C3 = Constant = 92.89 = Earth-Sun Distance.
- 3) C1 = Constant = 9.638 = Square root of Earth-Sun distance.
- 4) 18.5 = Constant = Earth Orbital Velocity in miles per second.
- 5) Velocity (V) in miles per second. This is Orbital Velocity (Mean).

In above Table, DISTANCE is a known value. On basis of Distance (d), with help of our new formulas, DENSITY and VELOCITY are computed. Reader can test the result by following standard Text Books of Astrophysics having above Data. Old values of Densities will not agree with above new values because of wrong estimations based on old laws. The new computed values of DENSITY proved correct by obtained results of accurate velocities of planets.

Table 1 and 2 are combined in Table 3. Formulas are same. Only values of constant are changed as unit of Table 1 and 2 based on Kilometres while Table 3 based on Miles.

DVdT IN THREE LAWS

- 1) DISTANCE IS INVERSELY PROPORTIONAL TO SQUARE OF DENSITY AND VELOCITY. I AW 1: $\frac{d}{d} \frac{\alpha}{a} \frac{1}{b} p^2 \frac{\alpha}{a} \frac{1}{v^2}$
- 2) VELOCITY IS PROPORTIONAL DENSITY AND INVERSELY PROPORTIONAL TO SQUARE ROOT OF DISTANCE.

LAW 2: V \alpha D \alpha \frac{1}{\sqrt{d}}

3) DENSITY IS PROPORTIONAL TO VELOCITY AND INVERSELY PROPORTION TO SQUARE ROOT OF DISTANCE.

LAW 3: DαVα 1/√d

MASS OF NINE PLANETS UNDER DVdT:

The MASS = DENSITY x VOLUME. The VOLUME of nine planets is taken here as observed. DENSITY is taken as computed by DVdT. The result chart is as below:

PLANETS	:DENSITY Earth = 1	VOLUME x Earth = 1	MASS = Earth = 1	: MASS Old theories
MERCURY	: 1.607	x 0.06	= 000.096	: 000.055
VENUS	: 1.176	x 0.88	= 1.036	: 0.815
EARTH	: 1.000	x 1.00	= 1.000	: 1.000
MARS	: 0.810	x 0.15	= 0.121	: 0.108
JUPITER	: 0.438	x 1316.00	= 576.400	: 317.900
SATURN	: 0.324	x 755.00	= 244.620	: 95.200
URANUS	: 0.228	x 67.00	= 15.270	: 14.600
NEPTUNE	: 0.182	x 57.00	= 10.374	: 17.200
PLUTO	: 0.159	x 00.02	= 00.003	: Unknown

PREDICTIONS:

- 1) Mass of the MERCURY is 75% greater than old values.
- 2) Mass of the JUPITER is 81% greater than old values.
- 3) Mass of the VENUS is 27% lesser than old values.
- 4) Mass of the SATURN is 156% greater than old values.
- 5) Mass of the NEPTUNE is 40% lesser than old values.

The Science world of Astronomy and Astrophysics should get corrected the values of Planetary MASS as above, based on DVdT of Strepulsion- Physics. Old values are wrong and baseless. Accuracy of DENSITY is established by perfect results of DISTANCES and VELOCITIES. So, computed values of MASS, which is based on Density proved its accuracy and perfection.

Observations by NASA under Space-Missions support our predictions.

DENSITY OF THE SUN UNDER DVdT:

As we have computed densities of nine planets with absolute accuracy by Formula and Principles of DVdT, accordingly DVdT computes the DENSITY of the Sun here.

FORMULA: $D \propto C / \sqrt{d}$: D = Density, d = Distance, C = Constant. DENSITY IS INVERSELY PROPORTIONAL TO SQUARE ROOT OF DISTANCE.

In computing DENSITY of planets, we have taken the mean DISTANCE between the Sun and Planet. But when computing the DENSITY of the SUN, we have to take DISTANCE from the centre of the Sun to the Surface, that is LENGTH OF THE RADIUS OF THE SUN.

FORMULA:
$$D \propto \frac{C}{\sqrt{R}}$$
: D = Density, R = Radius of the Sun, C = Constant.

THE DENSITY OF THE SUN IS INVERSELY PROPORTIONAL TO SQUARE ROOT OF RADIUS OF THE SUN. This is applicable to all stars. As per this formula, larger the stars lesser the Density and visa versa.

CALCULATION:

1) Radius in unit of Million-Miles;

The Radius of the Sun is 0.432494 Million Miles.

$$D = C/\sqrt{R}$$
: $C = 9.638$, $D = Earth 1$

D =
$$9.638/\sqrt{0.4325}$$
 = 9.638 / 0.6576 = 14.66 DENSITY OF THE SUN.

CALCULATION:

2) Radius in unit of Million Kilometres:

The Radius of the Sun is 0.696 Million Kilometres.

$$D = C/\sqrt{R}$$
: $C = 12.231$, $D = Earth 1$

D =
$$\frac{12.231}{\sqrt{0.696}}$$
 = 12.231 / 0.834 = 14.66 DENSITY OF THE SUN.

C = Constant is square root of mean distance between the Earth and the Sun. As the Earth Density is base, so Earth distance is base.

PREDICTIONS

1. The DENSITY OF THE SUN is 14.66. In old values the Density of the Sun is only 0.25 (Earth = 1). So, the Sun is not constituted by light gaseous elements only. The Sun and all stars are constituted by heavy radioactive dense elements. The Sun and Stars are not just light gaseous bodies but dense solid metallic bodies with 50 to 100 times greater Densities than imagined in old science theories.

- 2. Thermonuclear Reactions are not possible under light gaseous constitution. Stars are under millions of degree temperature generated by thermonuclear reactions of radioactive elements.
- 3. Because of heavy metallic constitutions of stars, these bodies survive for billions of years under millions of degree heat liberated by Nuclear Reactions.
- 4. If the Sun and Stars would be constituted mainly by hydrogen and helium gases with extremely weak density and feeble constitution, then, these stellar bodies would never survive under tremendous heat. These bodies would be dispersed as clouds under nuclear reactions and in great temperature. Therefore, there would be no existence of the Sun and Stars if these bodies posses light gaseous densities as believed in Old Science.
- 5. Strepulsion-Physics rejects the concept of "Gaseous-Stars". Observed abundance of Hydrogen and Helium gases are contents of external atmosphere of the Sun and Stars not linked with physical constitution of the Sun and Stars. If the Sun and Stars would be simply gaseous bulbs as believed, then, they should not survived up to now for tens of billions of years.
- 6. The thermonuclear reactions in Stars, their huge temperature and lifespan of billions of years prove that the DENSITY calculated on basis of DVdT is the Universal reality.

The Science world of Astronomy and Astrophysics should correct the DENSITIES OF THE SUN AND STARS in their Text Books. Density of the Sun is 14.66 not 0.25.

- 7. The Sun is an average Star. There exists Stars having density 50 and 100 or even more. (The Sun = 14.66, Earth = 1)
- 8. The atomic constitution of different stellar systems and different galaxies varies. On this Earth, we know URANIUM with atomic mass number of 98. Science accepted this atomic weight as highest value in the nature. This is wrong. There exist elements having atomic mass number ranges from 500 to 1000. High-density Stars posses elements with atomic mass of 1000 and above.
- **9**. Present Science world believe that 80% of the mass of the Universe is MISSING. This is because the old science world considers stars as gaseous bodies with very low density. DVdT of Strepulsion-Physics proved that MASS and DENSITY of Stars is 50 to 100 times greater. So, the said "MISSING MASS" is now discovered. The missing mass is located in Stars of the Universe.
- 10. Theory and concept of Thermonuclear Reaction in Stars of Old Science world need major corrections. Nuclear Reactions are neither by any "Gravitational Pressure" at the centre of Stars nor does it start from centre, as believed today. But as per DVdT, Nuclear Reactions are started from the SURFACE of the Sun and Stars and activated by "Imbalanced Intra-atomic Repulsive Force". The whole process is discovered by Authors and titled it as RACS NUCLEAR REACTION (RNR), which is explained in separate sections.

ORBITAL VELOCITY OF THE SUN:

Satellites revolve around Planets and Planets around the Sun. The Sun revolves around the centre of Milky Way Galaxy. This is ORBITAL REVOLUTION of astronomical bodies resulted by RETRACTION FORCE.

Centre of our Galaxy consist massive non-stellar body, which exert force of GRAVITATION. Stars exert REPULSION. Stars REPEL while Galactic Central Body (GCB) ATTRACTS. Therefore, neither stars escape out of galaxy by own REPULSION nor collide upon GCB by GRAVITATION. However, remain in their orbit at mean constant distance from GCB. Resulted RETRACTION force by interaction of Stellar Repulsion and GCB Gravitational force keeps stars in Revolution and Rotation (spinning).

Retraction force (RTF) acts on stars in ratio proportional to their DENSITY: REVOLUTION is owing to RTF and RTF? DENSITY. Therefore, ORBITAL VELOCITY OF THE SUN IS PROPORTIONAL TO ITS DENSITY:

LAW: $V \ a \ D$: D x 18.5 = Velocity of the Sun in Miles per Second: 18.5 is constant = Earth Velocity.

 $: 14.66 \times 18.5 = 271.22 \text{ MILES PER SECOND}:$

THIS IS ORBITAL VELOCITY OF THE SUN.

LAW: VaD

: D x 29.8 = Velocity of the Sun in Kilometre per sec. 29.8 is constant = Earth Velocity.

 $: 1466 \times 29.8 = 436.87 \text{ KLM's PER SECOND}$

THIS IS ORBITAL VELOCITY OF THE SUN.

So, the Sun having DENSITY of 14.66, REVOLVE around the GCB at VELOCITY of 271.22 Miles or 436.87 Kilometres per second.

PREDICTIONS:

- 1. For first time in history of Science, we have possible to predict the ORBITAL VELOCITY of the Sun with absolute accuracy based on Astromatics of DVdT. There is no any mathematical formula in Old Science to calculate VELOCITY of the Sun.
- 2. Present assumed Orbital Velocity by old Science theories is 250 Kilometre per second. This assumption is wrong and need correction as 437 Kilometre per second or 271 Miles per second.
- 3. Old Science believes that up to now, the Sun has encircled the CGB for only 20 times. But this is wrong. The Sun encircled the CGB 36 times and now entered in 37th "Galactic Year".

http://www.strepulsion.com & http://www.strepulsion.org

13

- 4. The Sun is normal Star with Density of 14.66. But, there are Stars having greater Density and so greater orbital velocities in our Milky Way Galaxy.
- 5. Large Stars revolve at lower Velocity than smaller Stars.
- 6. Stars generally revolve around the centre of galaxy at ratio, which is inversely proportional to square root of their radius. $\sqrt[V \alpha]{\sqrt{R}} = D = V$. So, by observing RADIUS, Density and Velocity can be computed with accuracy.

THREE ELEMENTARY FORCES AND THEIR INTENSITIES

In 1685, Sir Isaac Newton (1642-1728) announced his discovery of UNIVERSAL GRAVITATIONAL FORCE by publication of book titled "Philosophe Naturalis Principa, Mathematica". This is Universal force of attraction.

In 1980, I, Navinchandra K. Shah in association with my son (PANKAJ) and daughter-in-law (PADMA) discovered UNIVERSAL REPULSION FORCE and UNIVERSAL RETRACTION FORCE. The discovery announced worldwide from Hubli (India) by Press on 6th Feb. 1980 and appeared on 7th & 9th Feb. 1980 in all leading National Press as title news.

After discovery of two universal forces, established a new section of science titled "STREPULSION-PHYSICS (STRP)". According to STRP and ULTIMATE REALITY OF THE UNIVERSE (URU) intensities of three Universal forces are as following

- 1) FORCE OF ATTRACTION (Absolute):
- i) INTENSITY OF THE FORCE OF ATTRACTION (A) IS PROPORTIONAL TO THE MASS (m) OF THE BODY AND INVERSELY PROPORTIONAL TO DISTANCE (d).

A a m/d

ii) INTENSITY OF THE MUTUAL FORCE OF ATTRACTION BETWEEN TWO ATTRACTING BODIES IS PROPORTIONAL TO THE PRODUCT OF THEIR MASSES AND INVERSELY PROPORTIONAL TO DISTANCE.

A a m x m/d

This ratio of intensity is a pure or absolute force of attraction/gravitation undisturbed by other forces.

- 2) FORCE OF REPULSION (Absolute):
- i) INTENSITY OF FORCE OF REPULSION (R) IS PROPORTIONAL TO THE MASS (m) OF THE BODY AND INVERSELY PROPORTIONAL TO DISTANCE (d).

R a m/d

ii) INTENSITY OF MUTUAL FORCE OF REPULSION BETWEEN TWO REPELLING BODIES IS PROPORTIONAL TO THE PRODUCT OF THEIR MASSES AND INVERSELY PROPORTIONAL TO DISTANCE BETWEEN THEM.

Ramxm/d

This ratio of intensity is of pure or absolute force of Repulsion undisturbed by other forces.

3) FORCE OF RETRACTION:

By interaction of Repulsion and Attraction a new force is resulted which acts as third elementary force of the universe. This is force of RETRACTION.

- i) Intensity of Retraction force (RTF) is proportional to products of MASSES of Attracting and Repelling bodies and inversely proportional to square-root of DISTANCES between them. RTF α mxm/ \sqrt{d}
- ii) In the solar system, the sun exert SOLAR REPULSION FORCE (SRF), planets exert force of Gravitational Attraction (PGF). Both are REVERSE forces acting against each other. So, this equation follows:

SRF α m/d Z PGF α m/d = RTF α m x m/ \sqrt{d}

In calculation,

(1) Solar mass is constant for all planets. So it is not considered. (2) To take mass per unit that is DENSITY of planet.

ORBITAL REVOLUTION (OR) of planets is owing to Retraction force, which acts on planetary bodies in ratio proportional to their DENSITIES and inversely proportional to square-root of DISTANCE from the Sun. So, OV can be computed either by DENSITY or by DISTANCE.

- (1) ORBITAL VELOCITY (OV) OF PLANET IS PROPORTIONAL TO DENSITY (D) OF PLANET. OV a \boldsymbol{D}
- (2) ORBITAL VELOCITY (OV) OF PLANET IS INVERSELY PROPORTIONAL TO SQUARE-ROOT OF DISTANCE FROM THE SUN.

OV $\alpha 1/\sqrt{d}$

ALL PLANETS REVOLVE AROUND THE SUN IN VELOCITY EITHER PROPORTIONAL TO DENSITY &/OR INVERSELY PROPORTIONAL TO SQUARE-ROOT OF DISTANCE.

FORCE OF ATTRACTION IN SOLAR SYSTEM:

In the Solar System, the Sun exerts Solar Repulsion force (SRF) while all rest bodies exert force of gravitational attraction.

The mass of the Sun is 99.9% of the Solar System. So, entire Space of Solar System is "charged" with SRF. SRF is anti-gravitational force, which retards intensity of force of gravitation by converting about half the ratio of gravitation into Retraction force.

As entire space is charged with SRF in the Solar System, SRF retards gravitational intensity between two attracting bodies in ratio proportional to distance (d) between them.

SRF a d

Now let us calculate intensity of mutual gravitational force between two attracting bodies in the Solar System.

 $G = m \times m/d$: In case the Sun does not exist

SRF = d : Sun exists and SRF acts in ratio proportional to distance between two attracting bodies.

$$G = i.e., G = \frac{m \times m}{d \times d}$$

$$G = m \times m/d^2$$

Therefore, INTENSITY OF MUTUAL GRAVITATIONAL FORCES IN THE SOLAR SYSTEM IS PROPORTIONAL TO PRODUCT OF MASSES AND INVERSELY PROPORTIONAL TO SQUARE OF DISTANCE BETWEEN TWO ATTRACTING BODIES. This is not ABSOLUTE Gravitational Intensity. Newton's "Inverse Square Law of Gravitation" proves THE SUN EXERTS SOLAR REPULSION FORCE, not Gravitation.

Solar Repulsion Force converts about 50% of gravitational intensities of planets and satellites, asteroids and ringlets in Solar System into RETRACTION FORCE. The Retraction force, which is generated by interaction of SRF keeps all these bodies in revolution and in rotation.

Here absolute ${\bf G}$ a ${\bf mm/d}$ is converted into ${\bf G}$ a ${\bf mm/d}^2$ spared ${\bf G}$ is force converted into RETRACTION FORCE.

PRIME PLANETARY SYSTEMS:

The Solar System is Prime Stellar System (PSS) in which a giant star is located at the center around which planets revolves. In PSS systems intensity of mutual gravitational forces follows this equation.

$Gamm/d^2$

IN THE UNIVERSE EXITS PRIME PLANETARY SYSTEMS (PSS) IN WHICH A GIANT PLANET IS LOCATED AT THE CENTER AROUND WHICH SEVERAL MINOR STARS REVOLVES.

Planets exert Gravitational force (PGF). Stars exert Repulsion force (SRF). As most of the mass of the PPS is condensed into planetary body, entire space is "charged" with force of gravitation, which retards intensity of Mutual Repulsion force (MRF) between stars in ratio proportional to distance between them. Thus, equation of force of SRF is as below.

R = mm/d if planet does not exist.

G = d Planet exists and PGF acts in ratio proportional to disctnace between two repelling bodies (Stars).

G = Anti Repulsion force.

$$R = \frac{mm}{dx di.e., R} = \frac{mm}{d^2}$$

INTENSITY OF MUTUAL REPULSION FORCE BETWEEN STARS IN PSS IS PROPORTIONAL TO THE PRODUCTS OF THEIR MASSES AND INVERSELY PROPORTIONAL TO SQUARE OF DISTANCE BETWEEN THEM.

R = mm/d2

This is not ABSOLUTE Repulsion Force.

Here, \mathbf{R} a $\mathbf{mm/d}$ is converted into \mathbf{R} a $\mathbf{mm/d}^2$. The spared Repulsion force is converted into RETRACTION FORCE (RTF) by PGF. This RTF keeps stars in revolution and in rotation.

Dr. NAVINCHANDRA K. SHAH & Prof. PADMAVATI P. JAIN

THE LAW OF AXIAL ROTATION (SPINNING) OF PLANETS

There is neither any LAW nor any FORMULA to calculate VELOCITY of Axial Rotation of Planets in present Astrophysics based on Kepler-Newton-Einstein's theories. Here we have established THE LAW for the first time in history of Science to calculate AXIAL VELOCITY (AV) with REASON and ACCURACY.

In the Solar System, the Sun exerts SOLAR REPULSION FORCE (SRF) while planets exert PLANETARY GRAVITATION (PGF). Interaction of SRF x PGF = RETRACTION FORCE (RTF). SRF converts about 50% of PGF in to RTF. So Intensity of $PGF = MM/d^2$ is observed. Otherwise the equation would be: PGF = MM/d. RTF keeps planetary bodies, satellites, ringlets, comets and manmade satellites in SPHERICAL MOTION in the Solar System. REVOLUTION and ROTATION of bodies is Spherical Motion.

RTF activates ORBITAL REVOLUTION (OR) and AXIAL ROTATION (AR) of all astronomical and manmade bodies in the Solar System.

RTF acts on planetary bodies in ratio to DENSITY cause OR

RTF acts on planetary bodies in ratio to DIAMETER cause AR

AXIAL ROTATION is activated by RTF. Therefore, AXIAL VELOCITY (AV) is proportional to the intensity of RTF.

AV a RTF

THE LAW OF AXIAL ROTATION:

RTF ACTS ON PLANETARY BODIES IN RATIO PROPORTIONAL TO CUBE- ROOT OF EQUATORIAL DIAMETER (ED) OF PLANETS.

RTF $\alpha \sqrt[3]{ED}$

AXIAL VELOCITY IS PROPORTIONAL TO CUBE-ROOT OF EQUATORIAL DIAMETER (ED) OF PLANETS

AV α 3/ED

AV is proportional to Cube-root of Diameter. Therefore, planets, which are large having greater diameter, rotates at higher velocity than smaller planets. Planets Jupiter and Saturn rotate in highest velocity while planets Mercury and Pluto rotate at lowest velocity. Let us compute AV of nine planets by the NEW LAW of AV (LAV)

THE TABLE OF EQUATORIAL DIAMETER AND AXIAL VELOCITY OF PLANETS IN DESCENDING ORDER:

TEST REPORT OF LAW OF AXIAL VELOCITY (LAV)

PLANETS	: EQUATORIAL DIAMETER (ED) IN MILES	: ED EARTH=1	: COMPUTED AV = ∛ED (LAV)	: OBSERVED ROTATIONAL PERIOD IN HOURS	: NO. OF RTN. IN 24 HRS.	: VARIATION %
JUPITER	: 89350	: 11.21	: 2.24	: 9.83 Hrs.	: 2.44	: + 9%
SATURN	: 74850	: 9.45	: 2.11	: 10.53 Hrs.	: 2.28	: + 8%
URANUS	: 31770	: 4.01	: 1.59	: 17.25 Hrs.	: 1.39	: - 12%
NEPTUNE	: 30780	: 3.88	: 1.57	: 19.10 Hrs.	: 1.26	: - 20%
EARTH	: 7930	: 1.00	: 1.00	: 24.00 Hrs.	: 1.00	:
VENUS	: 7500	: 0.95	: 0.98	: Uncertain	:	:
MARS	: 4150	: 0.53	: 0.80	: 24.65 Hrs.	: 0.97	: + 21%
MERCURY	: 3030	: 0.38	: 0.72	: Uncertain	:	:
PLUTO	: 1430	: 0.18	: 0.56	: 153.39 Hrs. ?	: 0.16 ?	: ?

NOTES:

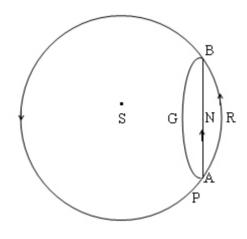
- 1) AV is based on "Number of Rotation around axis in 24 hours". Higher the number, greater the velocity.
- 2) Planets Jupiter, Saturn, Uranus and Neptune are not solid. Different parts rotate at different velocities, so variation observed.
- 3) MARS: Observed 21% higher AV than LAV calculation is owing to the Satellite PHOBOS which revolve around Mars at much higher velocity (8 hours per revolution) than axial velocity of Mars. Mars take 24.6 hours to complete one rotation. Again, the Phobos is very close to Mars at mean distance of 5800 miles only. So, the Phobos cause **pro-drag** by which axial velocity is raised by 21%.
- 4) URANUS: Extremely high tilted axis (98?) of Uranus and retrograde motions of its Satellites cause anti-drag and retards axial velocity of Uranus by 12% than calculations based on LAV.
- 5) NEPTUNE: Observed 20% less average AV than LAV calculations is owing to reasons: (1) AV based on LAV calculation is of equatorial zone which is higher than north and south
- areas.
 (2) Rotational period of NEPTUNE should be two hours lesser than present counted/considered 19.10 hours. That is, period should be 17.10 hours.
- 6) JUPITER: Observed higher AV than LAV calculations is owing to pro-drag effect resulted by high velocity of eastward equatorial thick denser winds. These winds raise AV of semi-liquid state zone by 9%. (Winds follow velocity of 150 and above Miles/sec).
- 7) SATURN: Observed 8% higher AV than LAV calculations is owing to pro-drag effect resulted by extremely high velocity (500 Miles/sec) of dense atmospheric winds at equatorial

zone, which flow eastward. These winds cause pro-drag by which AV raise by 8% than LAV computed result.

The Law of Axial Velocity (LAV) $AV = \sqrt[3]{Dm}$ which is established by us which states that ALL PLANETS ROTATES AT VELOCITY DIRECTLY PROPORTIONAL TO CUBE-ROOT OF THEIR DIAMETER is proved correct here by actual observation. Is LAV an Universal Law? We have to judge in future.

Dr. NAVINCHANDRA K. SHAH & Prof. MAYURI RAVIRAJ

ORBITAL REVOLUTION OF PLANETS PROVE THE SUN EXERTS REPULSION FORCE



S = Sun P = Planet

ANB = Straight path of planet P undisturbed by the Sun AGB = Pro-Solar curved path by Solar Gravitation ARB = Anti-Solar curved path by Solar Repulsion force.z

PLANET P: DESTINATION FROM POINT A to B:

Planet P has to reach from point A to B. The shortest route is ANB straight line. If the Sun does not exist, the planet follows path ANB.

The Sun exist and exert a force which influence the motion of Planet and its straight path for destination from point A

to B is disturbed.

What kind of the force the Sun exerts?

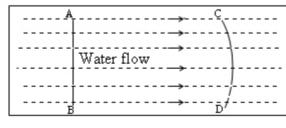
- 1) IF THE SUN EXERTS ZERO FORCE, PLANET P SHOULD FOLLOW PATH ANB.
- 2) IF THE SUN EXERTS FORCE OF GRAVITATION, PLANET P SHOULD FOLLOW PATH AGB BECAUSE, STRAIGHT PATH ANB TURNED PRO-SOLAR CURVE BY SOLAR GRAVITATIONAL FORCE (SGF)
- 3) IF THE SUN EXERTS FORCE OF REPULSION, PLANET P SHOULD FOLLOW PATH ARB BECAUSE, STRAIGHT PATH ANB TURNED ANTI-SOLAR CURVE BY SOLAR REPULSION FORCE (SRF).

Observation proves straight path of planet P turned into anti-solar curve by Solar Repulsion Force and planet P follows the path ARB to reach its destination B. The straight path of planet constantly turned anti-solar CURVE by Solar Repulsion Force. This anti-solar CURVE is the ORBITAL PATH of Planet through which planets revolve around the Sun.

THEREFORE, ORBITAL REVOLUTION OF PLANET PROVES THE SUN EXERTS SOLAR REPULSION FORCE (SRF) NOT GRAVITATION.

HOW PRO OR ANTI-SOLAR CURVE OF PLANETARY PATH RESULTED?

THE EXAMPLE:



Take a strong thread and hold its both ends separately in two hands. Hold it tightly in a river or in flowing water.

AB = Thread hold tightly follows straight line uneffected by flow of water.
 CD = Thread hold loosely follows CURVE CD by force of water flow.

According to above simple example, when you hold the thread loosely, the straight thread will turned into CURVE CD in pro-direction to the flow of water by the force of water flow.

http://www.strepulsion.com & http://www.strepulsion.org

22

The above example of thread and water-flow interaction is to explain phenomenon of CURVE in astrophysics. The ANTI-SOLAR CURVE, the path of planet P is owing to SRF. If the Sun exerted Gravitation that is Pro-solar radiation of force, the CURVE would be PRO-SOLAR.

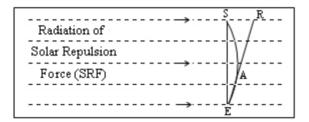
The anti-solar curve ARB of planetary path proves the Sun exerts REPULSION force.

THE ANTI-SOLAR STARLIGHT RADIATION CURVE ALSO FOLLOWS THIS PHENOMENON AND PROVES THE SUN EXERT REPULSION FORCE NOT GRAVITATION.

ANTI-SOLAR RADIATION CURVE PROVES THE SUN EXERT REPULSION:

Whenever starlight radiates in the vicinity of the Sun, its straight path turned into anti-solar radiation curve, and star appear (image) at greater distance from the Sun than its real location. This anti-solar displacement of Star image proves the Sun exert REPULSION, not Gravitation.

S = Star, E = Earth, R = Star image



The real location of Star is at point S. If the Sun exerted no force, Stars should appear at S. But, owing to SRF straight path turned into anti-solar radiaton curve (SAE) and Star appear at location R proves Sun exerts Repulsion Force (SRF).

Dr. N.K. SHAH'S LAW OF STAR-LIGHT DEFLECTION (SLD) IN THE SOLAR SYSTEM

According to Strepulsion-Physics and Ultimate Reality of the Universe (URU), STARS EXERT FORCE OF REPULSION. Therefore, whenever star-light enters in the Solar System it is REPELLED by the SUN. The straight path of star-ray is turned into anti-solar radiation curve and star image appears at different location (away from the Sun) than real position. This is anti-solar deflection of star image by Solar Repulsion Force.

What should be ANGLE (Δ) of SLD ?

Prof. Pankaj N. Jain established a new law by which the ratio of angle can be accurately measured.

THE LAW OF SLD:

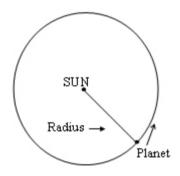
THE ANGLE OF SLD IS PROPORTIONAL TO THE RADIUS OF ORBITAL CIRCLE OF PLANET.

RADIUS = Mean distance of Planet From the Sun (d)

As radius is greater, star-light passes from greater distance under influence of Solar Repulsion Force (SRF). SLD is owing to SRF. Therefore, Planets having greater radius follows higher angle of deflection and visa versa.

Radius = distance from the Sun (d)

D of SLD a d



ANGLE OF STAR-LIGHT DEFLECTION IS PROPORTIONAL TO MEAN SUN-PLANET DISTANCE (d).

PREDICTIONS UNDER STREPULSION-PHYSICS:

STAR-LIGHT FOLLOWS 0.35° SECOND ANTI-SOLAR DEFLECTION PER UNIT OF 100 SECONDS OF RADIATING TIME.

OR

STAR-LIGHT FOLLOWS 0.35° SECOND ANTI-SOLAR DEFLECTION PER 30 MILLION-KILOMETRE UNIT OF DISTANCE IT RADIATES.

Now let us compute Δ of SLD on the Earth.

The EARTH

- 1) SUN-EARTH DISTANCE is 150 Million Km.
- 2) Velocity of Star-light is 0.3 Million Km/Sec.
- 3) LAW: PER UNIT OF 30 MILLION KILOMETRE OF DISTANCE, ANGLE (Δ)

OF DEFLECTION IS 0.35° SECONDS BY SRF.

SLD a $d/30 \times 0.35$

d = 150 million miles

 $150/30 = 5 \times 0.35 = 1.75^{\circ}$ seconds

THE ANGLE OF ANTI-SOLAR DEFLECTION OF STAR-LIGHT ON THE EARTH IS 1.75° SECONDS.

Now let us compute Δ SLD of all Planets on the New Law of P.N. JAIN.

FORMULA:

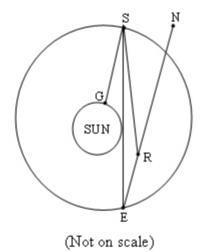
DIVIDE DISTANCE BY 30 AND MULTIPLY RESULT BY 0.35 = Δ of SLD d/30 x 0.35 = D of SLD

D of SLD ON NINE PLANETS

Planets	Radius or distance	$d/30 \times 0.35 = \Delta \text{ of SLD}$	Angle of deflection
MERCURY	58	\div 30 = 1.93 x 0.35	= 0.68° seconds
VENUS	108	$\div 30 = 3.60 \times 0.35$	= 1.26° seconds
EARTH	150	\div 30 = 5.00 x 0.35	$= 1.75^{\circ}$ seconds
MARS	228	\div 30 = 7.60 x 0.35	$= 2.66^{\circ}$ seconds
JUPITER	778	\div 30 = 25.93 x 0.35	$= 9.07^{\circ} \text{ seconds}$
SATURN	1427	$\div 30 = 47.57 \times 0.35$	$= 16.65^{\circ} \text{ seconds}$
URANUS	2870	\div 30 = 95.67 x 0.35	$= 33.48^{\circ} \text{ seconds}$
NEPTUNE	4497	\div 30 = 150.00 x 0.35	$= 52.5^{\circ}$ seconds
PLUTO	5900	\div 30 = 196.67 x 0.35	= 68.83° seconds

Radius = distance in unit of Million Kilometres

 Δ SLD in second's degree



The above result proves the SUN AND STARS EXERT FORCE OF REPULSION.

IF THE SUN EXERTED GRAVITATIONAL FORCE THEN ANGLE OF DEFLECTION SHOULD BE HALF THE RATIO AND THAT TOO IN PRO-DIRECTION TO THE SUN.

ASTROGRAPH:

S = Star

E = Earth

SE = Star-ray's undisturbed path

SR = Deflection of SE by SRF

RE = Pro-Earth curve by Earth Gravitation

N = Star Image

SEN = Angle of deflection = 1.75° seconds (not on scale)

If the Sun exerted gravitational force, the star-ray should be deviated inwardly towards the Sun by path SG and vanished into the Sun. Therefore, the Star would be turned INVISIBLE to the Earth observer – if the Sun exerted force of gravitation.

THE SUN EXERTS REPULSION FORCE. Owing to Mutual Repulsion Force (MRF) between the Sun and Star-ray, the straight path SE is deflected by MRF and turned away from Sun by route SR. Onward SR, star-ray is attracted by Earth's gravitational pull and followed path RE.

Therefore, to the Earth observer, the Star appears at point N. The angle of anti-solar deflection SEN on Earth is 1.75° seconds. On Pluto, it is 68.83° seconds.

DOUBLE ANGLE DEFLECTION BY MUTUAL REPULSION FORCE:

The observed angle of SLD is double than calculations based on Newton's Law of Gravitation. This is because the angle of SLD is owing to MUTUAL REPULSION FORCE between the Sun and Star-light. So angle follows 0.35° seconds per unit of 100 seconds. Therefore, the angle of SLD on Earth follows 1.75° seconds. If the angle of SLD would be by MUTUAL GRAVITATION, the angle should be followed 0.175° seconds per unit of 100 seconds and the angle of SLD on the Earth should be followed 0.0875° seconds. By Mutual Repulsion Force, angle EXPANDS. By Mutual Gravitational Force, angle CONTRACTS.

OUTLINES OF SORLOD SPACE SYSTEM

THE NEW SPACE TECHNOLOGY - based on DVdT to boost Space Navigation ahead by century

by: NAVINCHANDRA K. SHAH & PANKAJ N. JAIN

DVd-TRIQUILIBRIUM (DVdT) is the new formula of Astrodynamics and Astrophysics established by Authors. The formula is $D = C\sqrt{d}$, $d = C^2/D^2$, V = DxK.

Description: D = Density of the body in space (in ratio Earth Density = 1)

d = Distance between the Sun and the body in space in Million Miles(MM) Unit.

V = Orbital Velocity of the body around the Sun in miles per second.

C = Constant = 9.638 (Earth's \sqrt{d})

K = 18.5 constant (Earth's V) for V.

A: According to the formula, when you have to launch spacecraft around the Sun, suppose having DENSITY 2.00 (Earth = 1), then shift the body to FZI (Free Zone Inward, that is region in space free from gravitational pull of the earth in active ratio. Inward means in direction towards Sun), onward the SOLAR-SPACE (SS) will boost spacecraft towards the Sun and from distance of $(\mathbf{d} = \mathbf{C}^2/\mathbf{D}^2 = 9.638^2/2^2 = 92.89/4 = 23.22)$ 23.22 Million Miles from the Sun. The spacecraft will revolve at velocity of $(V = D \times 18.5)$ 37 M.P. Sec.

B: Now, when you want to launch spacecraft around the Sun at DISTANCE of 5000 Million Miles away from the Sun, and then build spacecraft having Density of ($D=C\sqrt{d}_{\ i.e.,\ }9.638/\sqrt{5000}=9.638/70.71=0.136)$ 0.136 and leave it in FZO that is Free-Zone Outward (Away from Sun) by Rockets. Onward SS will shift spacecraft to destination 5000 MM from the Sun. From this distance it will revolve around the Sun at velocity of (V = D x 18.5) = (0.134 x 18.5) = 2.516 miles per second around the Sun. V = 2.516 MPS

C: But, when you have to launch a spaceliner around the Sun the velocity of 10 miles per second around the Sun, then build the spacelinear of Density ($\mathbf{d} = \mathbf{C}^2/\mathbf{D}^2 = 9.638^2/0.54^2 = 92.89/0.2916 = 318.55$) of 0.54 and leave it in FZO by Rocket. Onward SS will shift the spaceliner to distance of ($\mathbf{d} = \mathbf{C}^2/\mathbf{D}^2 = 9.6382/0.542 = 92.89/0.2916 = 318.55$) 318.66 MM away from the Sun. This is Asteroid's region. The spaceliner will revolve from here at velocity of 10 MPS.

Accordingly, DVdT can launch any body or any mass size anywhere in the Solar System to revolve around the Sun. But, for LINEAR-MOTION of spacecraft for Interplanetary-Space navigation, you have to follow simple technology named DID – that is Decreasing-Increasing-Density of body in space by Radio Signals or by computerized programs in the body itself. DID is possible by expansion-contraction of volume of space-body. Increase density of body, it will start moving inwardly (towards the Sun), decrease density of body, it will start moving outwardly (away from the Sun). Thus, to and from motion of spacecraft from one planet to another within Solar System can be achieved. The body will move by average Velocity of 43.5 Miles in Linear path. Now, as per DVdT, Densities of nine planets is as following: M = 1.607, V = 1.175, E = 1, Mars = 0.809, J = 0.438, S = 0.323, U = 0.228, N = 0.182, P = 0.159. So when

you launch the spacecraft having density as above, it will move in respective orbits of planet and by DID it can move to further required orbits of Planet. Therefore, by DVdT you can dominate the Solar System. The force, which keep SPACECRAFT in motion, is Solar Repulsive Force (SRF), being liberated when mass converted into light, heat and Repulsive force in solar Nuclear Reaction.

Under Super DID system, it is possible to achieve 10% of velocity of light to navigate the Solar System.

DISCOVERY OF TWO GIANT PLANETS BEYOND PLUTO

The planet PLUTO is the 9th planet. As per our observations, there exist further TWO giant planets beyond Pluto in the Solar System. Of course, it is not possible to detect them by present Optical or Radio Telescope owing to great distances and planetary constitution. However, existence can be proved on THREE factors. These are as below:

- 1. BODE-TITUS RULE OF PLANETARY DISTANCE PROGRESSION FROM THE SUN.
- 2. THE HIGHEST ECCENTRICITY OF PLUTO'S ORBIT AROUND THE SUN.
- 3. THE HIGH EXTREMITY OF APHELIA OF ORBIT OF THE GROUP OF COMETS-16.

THE MODIFIED BODE-TITUS RULE:

Progression of planetary distance stands near accurate up to the planet URANUS. In the next step of Bode-Titus rule, the planet Neptune disappears. Therefore, there need some modification/correction in the rule for accurate result. With efforts of more than one year, we have possible to modify the old rule to obtain accurate distances of Neptune and Pluto from the Sun. When we continued this modified rule of Bode-Titus, we have possible to detect the DISTANCES of two new and still unknown planets beyond Pluto. That is to say, if such planets exist, then their DISTANCE from the Sun should be as per the below formula: Up to the planet Uranus, it is possible to obtain accurate DISTANCE by Bode-Titus rule. Onward we have modified the ratio of progression in HALF and observed the accurate result of DISTANCE of Neptune and then Pluto so it is continued for next planets. Now let us start with modified formula from URANUS: 192+4 = 196/10 = 19.6 AU of URANUS. 288+4 = 292/10 = 29.2 AU of NEPTUNE, 384+4 = 388/10 = 38.8 AU of PLUTO and accordingly for next planets, progression is 576+4 = 580/10 = 58 AU of 10th planet. 768+4 = 772/10 = 77.2 AU of 11th planet. One AU (Astron Unit) = 92.89 million miles. This is mean distance of the planet EARTH from the Sun. Accordingly, mean distances of 10th and 11th planets, if they exist should be as below as per modified BTR.

THE 10th PLANET IS AT DISTANCE OF $58.0 \times 92.89 = 5387.62$ MILLION MILES THE 11th PLANET IS AT DISTANCE OF $77.2 \times 92.89 = 7171.11$ MILLION MILES

At these great distances of 10th and 11th planets from the Sun, what should be their DENSITY AND ORBITAL VELOCITY? We have possible to calculate the DENSITY and ORBITAL VELOCITY with accuracy on basis of our Astromathical Formula DVd-Triquilibrium (DVdT), which we have derived and proved its accuracy on basis of actual observation. Here is result:

DENSITY AND ORBITAL VELOCITY OF PLANETS:

As per DVdT, $D = c/\sqrt{d}$, $V = D \times k$. Description: D=DENSITY of planet (Earth Density=1), d = mean DISTANCE of planet from the Sun in unit of million miles, $V = Orbital \ velocity$ of planet around the Sun in unit of miles per second, C = constant = 9.638, k = constant = 18.5 (Earth's velocity in miles per second). Thus, by knowing the DISTANCE of planets from the Sun, DENSITY and VELOCITY can be computed on basis of DVdT. Now let us compute the DENSITY and VELOCITY of 10th and 11th planets on basis of DVdT:

10th PLANET:
$$D = 9.638 / \sqrt{5387.62} = 9.638 / 73A = 0.131 DENSITY$$

$$d = 5387.62$$
: $V = D \times 18.5 = 0.131 \times 18.5 = 2.423 VELOCITY$

11th PLANET: D =
$$9.638 / \sqrt{7171.11} = 9.638 / 84.68 = 0.114 DENSITY$$

$$d = 7171.11$$
: $V = D \times 18.5 = 0.114 \times 18.5 = 2.109 VELOCITY$

DIAMETER OF PLANETS:

As per our formula of TRIANGULAR PROGRESSION OF DIAMETER (TPD) of Planets, DIAMETER of 10th Planet is 91588 miles and of 11th planet is 72630 miles. That is to say, the size of these planets resembles JUPITER and SATURN.

PROOF OF EXISTENCE OF 10th PLANET:

ECCENTRICITY OF ORBITAL PATH OF PLANETS (EOP):

EOP of planet Mercury is result of Venus influence; EOP of Mars is result of Jupiter. But highest Eccentricity (0.25) is with PLUTO'S ORBIT and this is only possible by nearby massive unknown planet's influence. That planet is 10th planet, which is only at distance of 1717 million miles away from the Pluto having higher mass. Therefore, EOP of Pluto proves the existence of 10th planet beyond Pluto in the Solar System at distance of 5387.62 Million Miles from Sun.

PROOF OF EXISTENCE OF 11th PLANET:

THE APHELIA OF COMETS GROUP- 16:

Comets revolve around two centers, at Perihelion, around the Sun and at Aphelion, around distant planet. There is a group of 16 comets, which encircles the Sun at Perihelion but their APHELIA EXTENDED BEYOND 7000 MILLION MILES FROM THE SUN. Therefore, it is 11th PLANET, which controls these 16 comets. This group encircles the 11th PLANET at their Aphelion. Without existence of a giant massive planetary body at this distance, these comets would not reach to that remote space. The existence of OORT CLOUD – the reservoir of a 'cloud' of hundreds of comets in orbit around the Sun at the distance of about 105 AU also prove the existence of 10th and 11th Giant Planets beyond Pluto in the Solar System.

THE RECORD OF DETECTION:

In Feb. 1986 at the Science debate of IARC about Pluto's high eccentricity of orbit and about extremity of Aphelia of some comets, we have derived the concept of existence of 10th and 11th Giant Planets beyond the Planet Pluto. It was recorded in the Record Book, intimated to NASA, USA with data about existence of two new and giant planets and requested for detection under VOYAGER-1 and VOYAGER-2 mission. It was also intimated to ESA, Paris. NASA recorded the DATA for the detection. Receipts of letters are acknowledged and recorded in the year 1986.

Dr. NAVINCHANDRA K. SHAH & Prof. RAVIRAJ CHITTARANJAN

ABSTRACT PAGE

THE EXISTENCE OF TWO GIANT PLANETS BEYOND PLUTO IN THE SOLAR SYSTEM WAS FIRST ASSUMED AND DETECTED BY US IN FEB. 1986. WE HAVE TITLED THE NEW PLANETS AS 10th AND 11th PLANET. THE DISTANCE CALCULATED AFTER MODIFICATION OF BODE-TITUS RULE OF PROGRESSION AS BELOW:

THE 10th PLANET IS LOCATED IN ORBIT AT DISTANCE OF 5388 MILLION MILES.

THE 11th PLANET IS LOCATED IN ORBIT AT DISTANCE OF 7171 MILLION MILES.

THESE ARE MEAN DISTANCES FROM THE SUN. THESE PLANETS REVOLVE AROUND THE SUN AT ORBITAL VELOCITY CALCULATED ON BASIS OF OUR DVdT FORMULA AS BELOW:

THE 10th PLANET REVOLVES IN ORBIT AT VELOCITY OF 2.4 MILES PER SEC. THE 11th PLANET REVOLVES IN ORBIT AT VELOCITY OF 2.1 MILES PER SEC.

DENSITY OF NEW PLANETS WE HAVE CALCULATED ON OUR DVdT FORMULA AS BELOW:

THE DENSITY OF 10th PLANET IS 0.13 WHEN EARTH = 1.00

THE DENSITY OF 11th PLANET IS 0.11 WHEN EARTH = 1.00

DIAMETER CALCULATED ON BASIS OF "TRIANGULAR PROCESSION THEORY" DEVELOPED BY US IS AS FOLLOWING:

THE DIAMETER OF 10th PLANET IS 91588 MILES AND THE 11th PLANET HAVING DIAMETER OF 72360 MILES: IT IS NOT POSSIBLE TO DETECT THESE PLANETS EITHER BY OPTICAL OR BY RADIO TELESCOPES BECAUSE OF GREAT DISTANCES AND PLANETARY NON-LUMINOUS CONSTITUTION. HOWEVER, EXISTENCE IS PROVED ON BASIS OF VERY HIGH ECCENTRICITY (0.25) OF PLUTO'S ORBIT, WHICH IS ONLY POSSIBLE WHEN THERE EXIST 10th PLANET NEARBY THE PLUTO. THE EXISTENCE OF 11th PLANET IS PROVED ON BASIS OF APHELIA OF THE 16 COMETS GROUP, WHICH IS EXTENDED BEYOND 7000 MILLION MILES FROM THE SUN. COMET HALLEY'S APHELIA ALSO PROVES THE EXISTENCE OF 10th PLANET. NASA, USA AND ESA, PARIS HAVE RECORDED ABOVE DATA FOR INVESTIGATION.

(The revised research paper titled "Our Discovery of Two Giant Planets beyond Pluto" is reviewed and recognised by ISCA, Calcutta and presented in 88th International Science Session at New-Delhi, 2001. The above abstract is recorded in book of physics proceedings of 88th ISC/2001, following Page No. Serial No.)

Dr. NAVINCHANDRA K. SHAH & Prof. RAVIRAJ CHITTARANJAN

31

NEWTON'S CONCEPT OF THE UNIVERSAL GRAVITATION: THEOLOGY OR SCIENCE?

TRANSCRIPT FROM NEWTON'S STATEMENTS ABOUT HIS UNIVERSAL GRAVITATIONAL THEORY – MENTIONED IN "PRINCIPIA" AND IN OTHER LITERATURES.

- 1. "The concept of GRAVITY could only be fully understood by means of an appeal to THEOLOGICAL PRINCIPLES" Newton
- 2. "The concept of the Force of GRAVITY could only be explained ultimately as the manifestation of DIVINE AGENCY" Newton
- 3. "Without periodic DIVINE INTERVENTION, the Planetary System would become disordered. Nature would rundown and needed to be constantly replenished." Newton
- 4. "As matter itself is entirely inert and devoid of all internal activity, the REACTIVATION of the natural world could only be provided by DIVINE AGENCY" Newton
- 5. "Gravitational Cosmology is fully compatible with BIBLE that is CHRISTIAN VIEW of the Universe" Newton
- 6. Ultimate purpose of the study of nature is to shed light on the problems of GOD'S RELATION to the nature, to understand the cosmos including GOD AS THE CREATOR AND SUSTAINER of Nature. Newton
- 7. "Concept of GRAVITATION is restatement of ideas known to PYTHAGORAS (570-500 BC) which had been hidden in enigmatic phraseology" Newton
- 8. "Rediscovery of the TRUE-SYSTEM of the world by restoration of ANCIENT WISDOM should be the task of student of natural world Newton
- 9. "THE GOD IS PRESENT IN THE INFINITE SPACE OF COSMOS and the Universe is the TEMPLE OF GOD. By means of force of GRAVITY, GOD SUSTAINED the operations of Nature. (This mean: GOD OPERATES AND CONTROLS THE UNIVERSAL MOTIONS BY FORCE OF GRAVITATION) Newton
- 10. "The Fundamental working of the Universe is the result of activating power of DIVINE AGENCY" Newton

Great Newton was constantly involving god with astrophysical phenomena and the force of GRAVITATION was considered as DIVINE POWER. Along with astronomy and mathematics, Newton also engaged in BIBLICAL Studies. Newton aimed to achieve the universal knowledge by combing the ANCIENT WISDOM – the revealed knowledge of PROPHETS.

According to Newton, the Mechanical Universe is like a clock that required rewinding and cleaning by DIVINE PROVIDENCE.

(This is the abstract from Everyman's Science of ISCA, Calcutta - Sept 1997 (Page 76-77)

CONCLUSION

SIR ISAAC NEWTON STATED THAT-THE CONCEPT OF UNIVERSAL GRAVITATION IS THEOLOGICAL PRINCIPLE; THIS IS NOT ANY UNIVERSAL LAW. ACCORDING NEWTON, GRAVITATION IS DIVINE POWER AND GOD OPERATES AND CONTROLS THE UNIVERSE BY THIS DIVINE POWER. NEWTON CLARIFY THAT THE THEORY OF GRAVITATION IS BASED ON BIBLICAL (CHRISTIAN) VIEW OF THE UNIVERSE. WE SHOULD APPRECIATE THE GREAT SCIENTIST FOR HIS LOVE TOWARDS GOD AND FOR HIS DEVOTION.

ANYHOW, NOW, THE SCIENCE WORLD OF 21st CENTURY SHOULD NOT BLINDLY STICKUP TO THE SO CALLED LAW OF GRAVITATION. THE UNIVERSAL TRUTH IS REVERSE TO THIS LAW. ENTIRE STELLAR UNIVERSE (99.9% mass of the Universe) EXERTS FORCE OF REPULSION – NOT GRAVITATION. ONLY NON-STELLAR MASS OF THE UNIVERSE, WHICH IS LESS THAN 0.1% OF THE UNIVERSAL MASS FOLLOWS NEWTON'S LAW AND EXERTS GRAVITATION. SO NEWTON'S LAW IS NO MORE ANY UNIVERSAL REALITY.

THE APPLE FALLS DOWN ON THE GROUND FROM THE TREE. SO THE EARTH EXERTS FORCE OF GRAVITATION IS THE REALITY. BUT THIS DOES NOT MEAN THAT EACH AND EVERY PARTICLE OF THE UNIVERSE EXERT FORCE OF GRAVITATION. OF COURSE, IN 1685 NO FORCE OTHER THAN GRAVITATION WAS IMAGINED OR KNOWN. SO THIS ONE AND THE ONLY FORCE APPLIED TO THE WHOLE UNIVERSE, WHICH WAS "CORRECT" IN THOSE YEARS — BUT NOT NOW.

THE UNIVERSE IS DOMINATED BY THREE UNIVERSAL FORCES - NOT ONE. THESE FORCES ARE REPULSION, GRAVITATION and RETRACTION. THE SOLAR SYSTEM AND GALAXIES BALANCED AND IN SPHERICAL MOTION OWING TO THESE THREE FORCES.

STREPULSION - PHYSICS & DISCOVERY OF THE NEW UNIVERSE

AS ATOM IS BALANCED BY TWO REVERSE ELECTRICAL CHARGES THAT IS NEGATIVE AND POSITIVE, CARRIED BY ELECTRONS AND PROTONS WHILE NEUTRONS ARE NEUTRAL PARTICLES WITHOUT ANY CHARGE.

ACCORDINGLY:

THE SOLAR-SYSTEM, GALAXIES AND UNIVERSE BALANCED BY TWO REVERSE FORCES THAT IS REPULSION & GRAVITATION (ATTRACTION) EXERTED BY STELLAR AND NON-STELLAR BODIES WHILE DARK-MATTER IS NEUTRAL MATTER WHICH EXERTS NO FORCE.

INTERACTION BETWEEN REPULSION AND ATTRACTIONAL FORCES (GRAVITATION) RESULTED INTO THE NEW FORCE THAT IS THE FORCE OF RETRACTION, WHICH KEEPS THE UNIVERSE IN SPHERICAL MOTION.

CONCLUSION

PHYSICAL UNIVERSE IS CONSTITUTED BY THREE KINDS OF MATTER (STELLAR, NON-STELLAR & NEUTRAL MATTER) EXERT THREE KINDS OF FORCES (REPULSION, GRAVITATION & RETRACTION) FOLLOWS THREE KINDS OF MOTIONS (OFF-CENTRE MOTION, PRO-CENTRE MOTION AND NEUTRAL SPHERICAL MOTION)

OFF-CENTRE MOTION IS BY REPULSION, PRO-CENTRE MOTION IS BY GRAVITATION (ATTRACTION) & SPHERICAL MOTION IS BY RETRACTION.

THIS IS THE ULTIMATE REALITY OF THE PHYSICAL UNIVERSE ESTABLISHED BY STREPULSION – PHYSICS.

SOLAR SYSTEM

IN THE SOLAR SYSTEM, THE SUN EXERTS SOLAR REPULSION FORCE AND REST BODIES EXERT GRAVITATION. BY INTERACTION OF REPULSION x GRAVITATION, RETRACTION FORCE IS LIBERATED. SOLAR SYSTEM IS BALANCED AND IS IN MOTION BY THESE THREE FORCES. IT IS POSSIBLE TO UTILISE SOLAR REPULSION FORCE AND RETRACTION FORCE UNDER SORLOD SPACE SYSTEM (SSS) TO NAVIGATE THE SOLAR SYSTEM AND BEYOND. SSS IS NEW SPACE TECHNOLOGY ESTABLISHED BY AUTHORS TO DOMINATE AND NAVIGATE THE SOLAR SYSTEM. SSS CAN LEAD PRESENT SPACE PROGRAMS AHEAD BY A CENTURY.