

Multilinear Extensions of Gerges Francis Twadrous Equation

by

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Abstract:

1. The Gerges Francis equation states:

$$\mathbf{D} = \mathbf{A} \mathbf{R}^2 \mathbf{Pi}^n$$

2. Clearly this equation follows from the basic planetary chart and the seminal work of Gerges Francis.

3. If the read is not familiar with this basic equation, we refer to [1-5].

4. This paper discusses multilinear extensions.

5. Much future research needs to be done.

Keywords: Diameter of Venus, Planetary, Multilinear Tawdrous estimate

Planetary Fact Sheet - Metric

| | MERCURY | VENUS | EARTH | MOON | MARS | JUPITER | SATURN | URANUS | NEPTUNE | PLUTO |
|--|-------------------------|-----------------------|-----------------------|----------------------|----------------------|-------------------------|------------------------|------------------------|-------------------------|-----------------------|
| Mass (10^{24} kg) | 0.330 | 4.87 | 5.97 | 0.073 | 0.642 | 1898 | 568 | 86.8 | 102 | 0.0146 |
| Diameter (km) | 4879 | 12,104 | 12,756 | 3475 | 6792 | 142,984 | 120,536 | 51,118 | 49,528 | 2370 |
| Density (kg/m ³) | 5427 | 5243 | 5514 | 3340 | 3933 | 1326 | 687 | 1271 | 1638 | 2095 |
| Gravity (m/s ²) | 3.7 | 8.9 | 9.8 | 1.6 | 3.7 | 23.1 | 9.0 | 8.7 | 11.0 | 0.7 |
| Escape Velocity (km/s) | 4.3 | 10.4 | 11.2 | 2.4 | 5.0 | 59.5 | 35.5 | 21.3 | 23.5 | 1.3 |
| Rotation Period (hours) | 1407.6 | -5832.5 | 23.9 | 655.7 | 24.6 | 9.9 | 10.7 | -17.2 | 16.1 | -153.3 |
| Length of Day (hours) | 4222.6 | 2802.0 | 24.0 | 708.7 | 24.7 | 9.9 | 10.7 | 17.2 | 16.1 | 153.3 |
| Distance from Sun (10^6 km) | 57.9 | 108.2 | 149.6 | 0.384* | 227.9 | 778.6 | 1433.5 | 2872.5 | 4495.1 | 5906.4 |
| Perihelion (10^6 km) | 46.0 | 107.5 | 147.1 | 0.363* | 206.6 | 740.5 | 1352.6 | 2741.3 | 4444.5 | 4436.8 |
| Aphelion (10^6 km) | 69.8 | 108.9 | 152.1 | 0.406* | 249.2 | 816.6 | 1514.5 | 3003.6 | 4545.7 | 7375.9 |
| Orbital Period (days) | 88.0 | 224.7 | 365.2 | 27.3 | 687.0 | 4331 | 10,747 | 30,589 | 59,800 | 90,560 |
| Orbital Velocity (km/s) | 47.4 | 35.0 | 29.8 | 1.0 | 24.1 | 13.1 | 9.7 | 6.8 | 5.4 | 4.7 |
| Orbital Inclination (degrees) | 7.0 | 3.4 | 0.0 | 5.1 | 1.9 | 1.3 | 2.5 | 0.8 | 1.8 | 17.2 |
| Orbital Eccentricity | 0.205 | 0.007 | 0.017 | 0.055 | 0.094 | 0.049 | 0.057 | 0.046 | 0.011 | 0.244 |
| Obliquity to Orbit (degrees) | 0.034 | 177.4 | 23.4 | 6.7 | 25.2 | 3.1 | 26.7 | 97.8 | 28.3 | 122.5 |
| Mean Temperature (C) | 167 | 464 | 15 | -20 | -65 | -110 | -140 | -195 | -200 | -225 |
| Surface Pressure (bars) | 0 | 92 | 1 | 0 | 0.01 | Unknown* | Unknown* | Unknown* | Unknown* | 0.00001 |
| Number of Moons | 0 | 0 | 1 | 0 | 2 | 67 | 62 | 27 | 14 | 5 |
| Ring System? | No | No | No | No | No | Yes | Yes | Yes | Yes | No |
| Global Magnetic Field? | Yes | No | Yes | No | No | Yes | Yes | Yes | Yes | Unknown |
| | MERCURY | VENUS | EARTH | MOON | MARS | JUPITER | SATURN | URANUS | NEPTUNE | PLUTO |

Introduction:

Our paper is guided by the divine vision of G.F. Twadrous [1-5]. We cite from [5] the main principle that underlies these investigations.

- [...] problem is resulted from the wrong vision We see wrongly the solar system geometrical description! As Einstein learnt us, the particle curve or straight trajectory depends on the observer situation, means the direct observation is not enough to define the particle trajectory, but we need to analyze each particle motion to see its truth trajectory explanation... Let's consider one example to explain, What's the darkness? Someone said it's the absence of light! No light = darkness! Is it true? What we have learnt from Young Experiment (double slit Experiment) The light coherence can produce bright and Dark fringes (spots).. So the darkness can be produced by the light coherence.... This information is told even by Newton before.... But Can we claim that all darkness around us is found by the light coherence or there's another way to create the darkness? I'm trying to explain that, **The Wrong Vision Is Our Problem** (G.F. Twadrous [5])

Inspired by the main insight

(Gerges Francis Equation)

$$D = A R^2 \Pi^n$$

we undertook massive investigation of the solar system. We hereby confirm G.F. Twadrous main idea that solar system is in harmony, guided by numbers and the Lord, and hereby confirm arithmetic truth that guides the heavens. However, there is one discrepancy, offensive to the senses and the Lord, that is the following

- "Gerges Francis Twadrous Equation"

$$D = R \times (109)^2 \times \Pi^n$$

Where D: is the distance between the planet to the sun or to another planet

R : is the planet diameter or radius

n=0 for planets (Mercury – Earth- Mars- Saturn-Jupiter- Pluto-Neptune)

n=2 for planets (Venus – Uranus)

one exception: Neptune uses $(109)^3$ (from [5])

The main question: why 109^3 ?

Main Results:

In undertaking the study, guided by the Lord, we found MASSIVE confluence in structure. MASSIVE. Numbers from are taken from scientific NASA Table and confirms that the heavens move in circles and perfect arrangements. As discussed by G.F. Twadrous

- "In "the Earth moves with the light velocity relative to the sun" (G.F. Twadrous [4])

The FIRST main result (in the name of the Lord)

- $- \text{Mass Of Mercury} + \text{Mass of Venus} - \text{Mass of Earth} + 2 * \text{Mass of Moon} + 2 * \text{Mars} = 0!$

This can be verified by appealing to scientific NASA database in this document. We see that indeed, praise to the Lord,

- $-0.33 + 4.87 - 5.97 + 2 * 0.073 + 2 * 0.642 = 0.$

The SECOND main result (in the name of the Lord)

- $-3 * \text{diameter of venus} + \text{diameter of Earth} + 3 * \text{diameter of mars} + 2 * \text{diameter of uranus} - 2 * \text{diameter of neptune} = 0$

This can be verified by appealing to scientific NASA database in this document. We see that indeed, praise to the Lord,

- $-3 * 12104 + 12756 + 3 * 6792 + 2 * 51118 - 2 * 49528 = 0$

The THIRD main result (in the name of the Lord)

- escape velocities of Venus, Earth, Moon and Saturn added up = escape velocity of Jupiter

This can be verified by appealing to scientific NASA database in this document. We see that indeed, praise to the Lord,

- $10.4 + 11.2 + 2.4 + 35.5 = 59.5$

As Twadrous: IN THE ALMIGHTY GOD NAME
Through the Mother of God mediation
I do this research

Conclusion:

The **Twadrous** Geometry of the Solar System [1-5] has opened up new branch of astrophysical science that merges Geometry, Arithmetic and Astronomy. We note that N-Body Problem is unsolved yet the celestial bodies are aligned by the golden rules of Arithmetic. Like Pythagoras, Twadrous has opened new eyes for new people on new science. We call our THREE LAWS the **FUGATO** LAWS.

It also seems justified to rename the basic principle

- "In "the Earth moves with the light velocity relative to the sun"

equals to the **FUGATO** principle.

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