

Newton's Universal Attraction Law Analyzed

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“Newton's law does not work” I told once an associate at my work. A few days later said associate posted on a board an application of Newton's law. He had calculated the Earth's force of attraction on his 85 kg body.

I made the above comment based on having done some astronomical data correlations and found new relations. Newton's Law being considered Universal with the “force” of attraction decreasing with the distance squared, it can't explain why the Planets orbital velocity decreases with the square root of the distance. Pluto, at a 104 times greater distance than Mercury, its orbital velocity is only 10 times smaller than Mercury's. With Newton's formula, at such distance increase, the “force” will decrease by over ten thousand times (10,000). For more details on this, see my article “Orbitomotive Constancy” on this link:

http://www.mayanmajix.com/Nakovs_Law_Part_1.pdf

It did not occur to me that we need a formula to tell us that Earth's “force” of attraction on a mass is equal to its weight. My associate's posting turned out to be a great gift for

me. I wasn't going to go through all that mathematics. Below are the calculations, not my favorite pastime, but it's worth the effort. It demonstrates that Newton's Big "G" indeed is the "Corner Stone" of his formula, as quoted by many.

Here is the force of attraction formula:

$$F_g = G \frac{m_1 m_2}{r^2}$$

$G = 6.67384 \times 10^{-11} \text{ N} \frac{\text{m}^2}{\text{kg}^2}$ is Newton's constant;

m_1 is Earth's mass of $5.98 \times 10^{24} \text{ kg}$ rounded off to $6 \times 10^{24} \text{ kg}$;

m_2 is the 85 kg of our associate's body weight,

$r = 6,353,000 \text{ m}$ is the distance to Earth's center.

If we are to substitute the values from above in the formula

$$F_g = 6.67384 \times 10^{-11} \frac{6 \times 10^{24}}{40.36 \times 10^{12}} \times 85,$$

In the calculations the units of measure are omitted. The constant contains units which eliminate one of the mass units and the square of the distance. Why put something into a formula if you are to eliminate it?

No need to concern one self with the illogical and abstract notions of masses' produce over a squared distance.

If next we are to do only the produce of the constant to Earth's mass

$$Fg = \frac{40.04 \times 10^{12}}{40.36 \times 10^{12}} \times 85,$$

Leaving the 85 kg alone, one can (**hopefully**) see the ingenious selection of constant's value and magnitude. The constant's generates a numerator just about the same magnitude as the denominator. The Earth's force of attraction on our associates is

$$Fg = .992 \times 85 = 84.32 \text{ kg.}$$

By some Newton is considered to having discovered Gravity. Since the late 1990's many authors have voiced the need of revising the laws of gravity. I do not see it coming soon. Not until we stop being in denial and politically/scientifically correct.

A good recent example is the March 2009 Astronomy magazine issue. The main cover title reads "*Is there something we don't know about **GRAVITY?***" Below

this, *“Spacecraft flybys aren’t following predictions. Why? p.22. To the right of this titles, in very small print “Scientists have rewritten the theory of gravity numerous times, and they may do it again.”* If this isn’t comical we can go to page 22 to the main article. On top of the page one reads: **“Gravity behaving badly”**

It ain't what you don't know that gets you into trouble. It's what you know for sure that just ain't so. [Mark Twain](#)

Newton was borne the year Galileo died. Galileo demonstrated that two balls of same size and different weight dropped from the tower of Pizza came to ground in the same time. Galileo did not devise a “gravitational” formula. Newton did. He was a mathematician. He had two years to think, during University’s closure due to the plague, and write his theory.

“If theories cannot be tested, than to me they are not science, they are just religious beliefs, and they hold no interest to me” Giovani Amelino-Camelia

“Give us a free miracle and we can explain everything” Terence McKenna

Newton's law was such a miracle. It has become the base for calculating planetary masses, acceleration, satellite trajectories. See link and pasted text below:

http://en.wikipedia.org/wiki/Planetary_mass

"The mass of a planet within the Solar System is an adjusted parameter in the preparation of ephemerides. There are two basic procedures for measurement:

- If the planet has natural satellites, its mass can be calculated from Newton's law of universal gravitation (with use of Kepler's third law to simplify calculations changing an elliptical orbit by circle one). The same procedure can be used for data from space probes such as the Voyager probes to the outer planets and the MESSENGER spacecraft to Mercury.*
- The mass of a planet can also be inferred from its effect on the orbits of other planets.*

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