

Predicting the Gravitational Constant from the New Physics of a Rotating Universe

1.0 Abstract

Granular Spacetime Sphere Theory predicts that our universe is a sphere made of spheres. This theory is taken down to its roots and shows that the universe starts with what could be labeled a quasi-point particle and builds it up to a multiverse. The theory can now be used to predict a gravitational constant of $G = 6.674379282299 * 10^{-11} \frac{m^3}{kg * s^2}$

This is in line with the low sigma measurements of $6.674184 * 10^{-11}$ [6]

$6.674484 * 10^{-11} \frac{m^3}{kg * s^2}$ [6] $6.67433 * 10^{-11} \frac{m^3}{kg * s^2}$ [7] and the UZur-06 measurement of

$6.67425 * 10^{-11} \frac{m^3}{kg * s^2}$

This value obtained in this paper affirms the values shown in the Nature Article “Measurements of the gravitational constant using two independent methods” and it affirms that there really was no big bang and the universe is actually rotating and the size is limited by the outer edge not being able to move faster than the speed of light.

2.0 Calculations

If one starts with a point and call this point one, it would in a sense, be a zero-dimensional spot. If this spot were spinning it would have an angular momentum. One finds that the angular momentum in quantum physics to be as follows.

$$|S| = \hbar(s(s+1))^{0.5} \quad [1]$$

If we square both sides of the Equation 1, we end up with

$$s_2 = \frac{|S|^2}{\hbar^2} = s(s+1) \quad [2]$$

If we say that the original value of s is 1, which is our point there is no spin that can be associated with one point since there is no reference to a difference. Therefore spin only makes sense when there are two particles. Note that two particles make a line and thus we have a one dimensional object.

When s=1 then $\frac{|S|^2}{\hbar^2} = 2$ a dimensionless number. If this value of $\frac{|S|^2}{\hbar^2} = 2 = s_2$ and we substitute

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$$s_3 = \frac{|S_2|^2}{\hbar^2} = s_2(s_2 + 1) \quad [3]$$

this new value of s_2 into equation 2 then we obtain a new value of $s_3 = \frac{|S_2|^2}{\hbar^2} = 6$

this value of $s_3 = 6$ could be a 6-sided ring with a particle in the middle for a total of 7 particles and therefore be a unit two-dimensional object.

If we take this equation 2 and substitute the value of $s_3 = 6$

$$s_4 = \frac{|S_3|^2}{\hbar^2} = s_3(s_3 + 1) \quad [4]$$

this new value of s_3 into equation 2 then we obtain a new value of $s_4 = \frac{|S_3|^2}{\hbar^2} = 42$

this value of $s_4 = 42$ could be a 42-piece exterior to a cuboctahedron packed spheres with a total of 55 spheres or particles and therefore be a unit three-dimensional object.

At this point it appears that there is, in a sense, a phase change. Instead of continuing to be packed perfectly these points are packed into a spherical structure being constrained by a gravitational field, yet wanting to be packed efficiently as cuboctahedrons.

It was shown in “The Holographic Principle and How can the Particles and Universe be Modeled as a Hollow Sphere”[1] that when packing spheres into a spherical structure that the amount of discontinuities made would be equivalent to the amount of spheres on the outer layer of the sphere. The equation for this.

$$s_d = 4\pi(n+1)n \quad [5]$$

Which is very close to the equation 1 for the angular spin momentum squared of a quantum particle. This seems unlikely to be a coincidence.

It was found in “The Answer to the Universe, the Life and Everything is Still 42” [2]

That the values of outer layers of the next layers of the construction of the universe is as follows.

$S_{10} = 1.8654150388941 * 10^{81}$ Number of Planck Spheres on the outside of the Hubble Sphere Universe

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$A = \pi * (1.3195909052 * 10^{-15})^2$ Cross Section of the Planck Sphere, which is the Compton Wavelength of the Neutron squared and multiplied by pi.

$P = \frac{\pi}{12^5}$ = The packing density of a single layer of spheres

$\frac{M_p}{M_n} = 0.99862347844$ = The mass ratio of the proton to the neutron

T = Travel Distance from the center of the Universe to the outside of the Universe in meters.

$E = (\pi^2 + \pi^2 + 1^2)^{0.5} = 4.554032147688$ = Expansion ratio of the next increment of a sphere.

$$T = E \frac{3}{\pi} \left[\frac{\frac{M_p}{M_n} S_{10} * A}{P 4\pi} \right]^{0.5} = 1.3745514 \text{ billion light years} \quad [6]$$

The actual radius of the universe would then be

$$\frac{T}{4.554032147688} = 3.01832 * 10^9 \text{ billion light years.}$$

$$N = \left[\frac{E}{\pi} \right]^2 \left[\frac{M_p}{M_n} \left(\frac{12^5}{\pi} \right) \right] (X^2 + X) \quad [7]$$

$$N = \left[\frac{4.554032147688}{\pi} \right]^2 \left[0.99862347844 \left(\frac{12^5}{\pi} \right) \right] (X^2 + X)$$

$$N = [2.3138487212054] (X^2 + X) \quad [8]$$

We can put this equation into the form of Equation 2 where $N = \frac{|S_4|^2}{\hbar^2}$

$$s_5 = \left[\frac{4.554032147688}{\pi} \right]^2 \left[0.99862347844 \left(\frac{12^5}{\pi} \right) \right] s_4 (s_4 + 1)$$

$$s_5 = \left[\frac{4.554032147688}{\pi} \right]^2 \left[0.99862347844 \left(\frac{12^5}{\pi} \right) \right] 42(42 + 1)$$

$$s_5 = 780.517750987266$$

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$$s_6 = \left[\frac{4.554032147688}{\pi} \right]^2 \left[0.99862347844 \left(\frac{12^{.5}}{\pi} \right) \right] s_5 (s_5 + 1)$$

$$s_6 = \left[\frac{4.554032147688}{\pi} \right]^2 \left[0.99862347844 \left(\frac{12^{.5}}{\pi} \right) \right] 780.517750987266 (780.517750987266 + 1)$$

$$s_6 = 263625.046774636688$$

$$s_7 = \left[\frac{4.554032147688}{\pi} \right]^2 \left[0.99862347844 \left(\frac{12^{.5}}{\pi} \right) \right] s_6 (s_6 + 1)$$

$$s_7 = \left[\frac{4.554032147688}{\pi} \right]^2 \left[0.99862347844 \left(\frac{12^{.5}}{\pi} \right) \right] 263625.046774636688 (263625.046774636688 + 1)$$

$$s_7 = 30035856828.08638$$

$$s_8 = \left[\frac{4.554032147688}{\pi} \right]^2 \left[0.99862347844 \left(\frac{12^{.5}}{\pi} \right) \right] s_7 (s_7 + 1)$$

$$s_8 = \left[\frac{4.554032147688}{\pi} \right]^2 \left[0.99862347844 \left(\frac{12^{.5}}{\pi} \right) \right] 30035856828.08638 (30035856828.08638 + 1)$$

$$s_8 = 3.898926870886194 * 10^{20}$$

$$s_9 = \left[\frac{4.554032147688}{\pi} \right]^2 \left[0.99862347844 \left(\frac{12^{.5}}{\pi} \right) \right] s_8 (s_8 + 1)$$

$$s_9 = \left[\frac{4.554032147688}{\pi} \right]^2 \left[0.99862347844 \left(\frac{12^{.5}}{\pi} \right) \right] 3.898926870886194 * 10^{20} (3.898926870886194 * 10^{20} + 1)$$

$$s_9 = 6.5698464230622286 * 10^{40}$$

$$s_{10} = \left[\frac{4.554032147688}{\pi} \right]^2 \left[0.99862347844 \left(\frac{12^{.5}}{\pi} \right) \right] s_9 (s_9 + 1)$$

$$s_{10} = \left[\frac{4.554032147688}{\pi} \right]^2 \left[0.99862347844 \left(\frac{12^{.5}}{\pi} \right) \right] 6.5698464230622286 * 10^{40} (6.5698464230622286 * 10^{40} + 1)$$

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$$s_{10} = 1.8654150388941 * 10^{81}$$

From this value $s_9 = 6.5698464230622286 * 10^{40}$ we can determine the exact value of the gravitational constant. From the “Proton Electron Universe” [5] we found the following relationship, which is the amount of spheres on the outside of the Planck Sphere, which the author defines as the sphere that builds our universe and has the size of the Compton Wavelength of the Neutron. One issue is that we cannot measure the value of the Gravitational Constant accurately or because there are so many varied measurements it is difficult to figure out which method is correct for measuring the gravitational constant. In the exercise we substitute the value of $s_9 = 6.5698464230622286 * 10^{40}$ into the following equation.

$$N = S_9 = 6.5698464230622286 * 10^{40} = 2Mp\pi^3 \frac{hc}{G(Mn)^3} \quad [9]$$

Where $\frac{M_p}{M_n} = 0.99862347844 =$ Mass ratio of the proton to the neutron

Where $h = 6.62607004 * 10^{-34} =$ Planck’s constant

Where $M_n = 1.674927471 * 10^{-27} =$ Mass of Neutron

Where $c = 299792458 =$ Speed of light

Solving for the gravitational constant, we obtain.

$$G = 6.674379282299 * 10^{-11} \frac{m^3}{kg * s^2}$$

2.0 Discussion

The value predicted for the gravitational constant in this paper is

$$G = 6.674379282299 * 10^{-11} \frac{m^3}{kg * s^2}. \text{ These equations used to predict the gravitational}$$

constant seem to be the most accurate, and the first confirmation that the universe is spinning and that light is curved in space, probably like a spiral to the edge of the universe. The universe is much denser and smaller than originally thought. In other calculations for the levels of the universe, the value of $N = \frac{Mp - Me}{Mn} \frac{3^5}{4} (X^2 + X)$ was

used, but this appears to be in error. The real value is

$$N = \left[\frac{E}{pi} \right]^2 \left[\frac{M_p}{M_n} \left(\frac{12^5}{pi} \right) \right] (X^2 + X) \text{ This was not discovered until realizing that the}$$

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universe is spinning and not expanding and thus calculating an equilibrium density of the universe. New equations will need to be calculated for an equilibrium density of the spinning universe as the authors first attempt to calculate an equilibrium density was an approximation. The size of the universe is really controlled by the speed of light.

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References

- 1) <http://vixra.org/pdf/1601.0103v1.pdf>
- 2) <http://vixra.org/pdf/1804.0043v1.pdf>
- 3) <http://vixra.org/pdf/1601.0234v6.pdf>
- 4) <http://vixra.org/pdf/1612.0302v3.pdf>
- 5) <http://vixra.org/pdf/1804.0033v1.pdf>
- 6) <https://www.nature.com/articles/s41586-018-0431-5>
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