## 1.0 Abstract

What is the Ultimate Answer to Life the Universe and Everything? According to the "Hitchhiker's Guide to the Galaxy" an advanced race of beings invented a supercomputer called Deep Thought, which after 7.5 million years came up with the answer of 42.

The real answer, to this question, could very well be related to 42. Sphere Theory is a theory where the universe is made of spheres, which are made of spheres etc. It is also a theory where perfection and imperfection are in competition, where perfect packing is cuboctahedron packing and imperfect packing is spheres packed around spheres. This imperfect packing always results in the imperfect amount of packing is nearly equal to the outer layer of spheres, which is likely related to the holographic principle. This paper shows that this spherical structure of nature is followed until the structure becomes a cuboctahedron with an outer layer of 42 spheres. The Hubble Sphere was found to have a surface area 1.0471\*10^80 Planck spheres. The Planck Spheres were found to have a surface area of 6.57014\*10^40 Kaluza spheres. This paper works to help explain where these quantities come from. We find that this Sphere Theory may be related to a Bremsstrahlung type of radiation and an Entangled Universe

## 2.0 Calculations

It was found in "Proton Electron Universe"(3) that the amount of Kaluza Spheres on the outer layer of the Planck Sphere is 6.57014\*10^40 and in "New Evidence for the Eddington Number, and the Large Number Hypothesis, and the Number of Particles in the Universe"(1), that the amount of Planck Spheres on the surface of the Hubble



Sphere is 1.0471\*10^80. See image below for sphere made of sphere.

Please see the image below for a sphere, first layer cuboctahedron, and second layer cuboctahedron made of spheres.



(5) Sphere cuboctahedron

First layer cuboctahedron

Second layer

Formula for calculating the quantity of spheres on the surface layer of cuboctahedron surface.

$$N = 10 * L^2 + 2$$
 where L is the layer number. [1]

In this paper we use a Gravitational constant of  $6.67401 \times 10^{-11} \frac{m^3}{kg \times s^2}$  instead of the

CODATA value of  $6.67408 \times 10^{-11} \frac{m^3}{kg \times s^2}$  which yields a slightly altered number of N shown in Equation 2.1, below. This ends up being a prediction of the Gravitational Constant of  $6.67401 \times 10^{-11} \frac{m^3}{kg \times s^2}$ .

Equation 2.1 
$$N = \frac{2Mp\pi^3hc}{GMn^3} = 6.57014 * 10^{40}$$
 (3) outer layer components of the Planck

Sphere

In Sphere Theory, Planck Spheres, make up the universe, attracted gravitationally to form one giant, Hubble Sphere. Kaluza Spheres are packed with a deeper force to form one sphere, which is what this author calls the Planck Sphere. Kaluza spheres end up having Planck sized dimensions. This paper is about determining the relation between the quantities of spheres for each layer.

In "How can the Particles and Universe be Modeled as a Hollow Sphere" (2) it was show that the amount of discontinuities in packing for a sphere packed with spheres would be as shown in Equation 1b as follows.

$$Sd = 4pi(x^2 + x)$$
<sup>[2]</sup>

It is proposed here that the equation for finding the outer surface layer of each sphere made of sphere is as follows. Where Mp= proton mass, Mn=neutron mass, and Me=electron mass, G=gravitational constant, h=Planck's constant, and c=speed of light in a vacuum.

$$\frac{4}{3^{0.5}} * N * \frac{1}{\frac{Mp}{Mn} - \frac{Me}{Mn}} = X^2 + X$$
[3]

The equation is empirical, however it is believed that the  $\frac{4}{3^5}$ , or  $2\frac{2}{3^5}$  derives from a derivative of Bremsstrahlung or Cherenkov radiation factor as presumed in A Resonance of Cherenkov Radiation Angles with Bremsstrahlung-Parallel Bremsstrahlung Ratio (8) with factor  $\frac{2}{3^5}$  and the value 2 might be due to an entangled particle.

It is believed that the value  $\frac{Mp}{Mn} - \frac{Me}{Mn}$  is from a force on one X, Y, Z axis which gravity may be a force only along one axis, but charge may be a force summed over 3 axes as shown in Equation 10 later used for charge.

$$T = \sqrt{\frac{1}{\sqrt{1 - (2^{0.5} \frac{\pi Me}{3*3Mn})^2}} [(\frac{Mp - Me}{Mn})^2 + (\frac{Mn}{Mn})^2 + (\frac{Mn}{Mn})^2]}.$$
 [10]

The calculations are shown below for finding the quantity of spheres on the 2-layer, Cuboctahedron of the Spacetime construction.

$$\frac{Mp}{Mn} - \frac{Me}{Mn}$$
[4]

$$\frac{4}{3^{0.5}} 6.57014 * 10^{40} \frac{1}{0.99807961} = X^2 + X$$
[5]

Layer5 = 389903228337536073310 spheres

$$\left(\frac{4}{3^{0.5}} * 389903228337536073310 \frac{1}{0.99807961} = X^2 + X\right)$$
 [6]

*Layer*4 =  $3.0036235850449 \times 10^{10}$  spheres

$$\left(\frac{4}{3^{0.5}}3.0036235850449\times10^{10}\,\frac{1}{0.99807961}=X^2+X\right)$$
[7]

Layer3 = 263626.4731024 spheres

$$\left(\frac{4}{3^{0.5}} * 263626.4731024 \frac{1}{0.99807961} = X^2 + X\right)$$
[8]

Layer2 = 780.519161640 spheres

$$\left(\frac{4}{3^{0.5}} * 780.519161640 \frac{1}{0.99807961} = X^2 + X\right)$$
[9]

Layer1 = 42.000000196 spheres

Where X=42 exactly with a tiny adjustment to the value of the gravitational constant.

## 3.0 Discussion

This Calculation shows that the ultimate answer to the universe, life, and everything could be related to 42. It also predicts a more accurate value for the Gravitational Constant, which could be predicted to the same accuracy of the mass of the

neutron. For this paper it is only predicted to the value of  $6.67401*10^{-11} \frac{m^3}{kgs^2}$ .

42 is the number of spheres on the 2<sup>nd</sup> layer of a cuboctahedron, further suggesting that the universe is cuboctahedral packing of spheres which is suggested in the paper "Underlying Cuboctahedron Packing of Planck Spinning Spheres Structure of the Hubble Universe correlation with Higgs, W boson, Z boson, bottom Quark and top Quark Masses a structure like Buckminster Fuller's Vector Equilibrium (4). It may be that the value  $3^{0.5}$  may, actually, be related to the fine structure constant mass ratios *T* as defined in Equation 2.1 "Evidence for Granular Spacetime" (3)

$$T = \sqrt{\frac{1}{\sqrt{1 - (2^{0.5} \frac{\pi Me}{3*3Mn})^2}} [(\frac{Mp - Me}{Mn})^2 + (\frac{Mn}{Mn})^2 + (\frac{Mn}{Mn})^2]}$$
[10]

This will be work for further study and may help with a derivation for the number 42 found in this paper.

The value

 $\frac{Mp}{Mn} - \frac{Me}{Mn}$  is also used in equation 10 above, which is part of the calculation for the

fine structure constant. Although for calculating the layers of the universe it is a vector in one direction, but in the fine structure constant it appears to be part of the addition of 3 perpendicular vectors.

This may imply that particles are related to Bremsstrahlung and or Cherenkov radiation and Universes may be entangled.

## 4.0 References

- 1. <u>http://vixra.org/pdf/1408.0177v4.pdf</u>
- 2. http://vixra.org/pdf/1601.0103v1.pdf
- 3. http://vixra.org/pdf/1804.0033v1.pdf
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- 6. http://vixra.org/pdf/1612.0302v3.pdf
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