1.0 Abstract

The standard model predicts there should be equal parts of matter and antimatter. This paper proposes a simple mathematical solution to this problem. It basically proposes that the universe is built from the ground up, and antimatter is just a temporary state created by tearing the universe up a little and then reconstructing. It. In "The Ultimate Answer to Life, the Universe, and Everything is an Entangled 42", (1) we found that the smallest realm in the universe was spheres packed in a cuboctahedron of 3 layers. In the first realm of the cuboctahedron there was a perfect 42 spheres on the outside of 3 layer cuboctahedron. When one looks at the equation of breaking up a layer, there are positive and negative real solutions.

In addition

2.0 Calculations

If we look at equation 5 below. And assume that one of the solutions is a negative number, we find negative 389903228337536073310 spheres. If the universe is built up from the 3rd order cuboctahedron, which has 42 outer spheres, there would never be a negative number. But if one breaks up a basic unit, there are two real solutions to this breakup. One of which is negative. This negative number ends up producing antimatter. Antimatter quickly finds matter and the two self-destruct. So the basic structure of the universe is built from the ground up, but one can temporarily create extra matter and antimatter. Thus, a simple explanation for the lack equal amounts of matter and antimatter in the universe. The negative number could mean a Schottky type defect, which is an absence of a particle, or lattice vacancy defect.

$$(0.998623478 \frac{4}{3^{0.5}} 6.57927 * 10^{40} \frac{1}{0.99807961} = X^2 + X$$
[5]

 $Layer5 = \pm 389903228337536073310$ spheres

It was found in "Evidence for Granular Spacetime"(3) that the amount of Kaluza Spheres on the outer layer of the Planck Sphere is 6.57920*10⁴⁰ and in "New Evidence for the Eddington Number, and the Large Number Hypothesis, and the Number of Particles in the Universe"(4), 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 First layer cuboctahedron Second layer

cuboctahedron

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 $6.67401*10^{-11} \frac{m^3}{kgs^2}$ instead of the

CODATA value of $6.67408 \times 10^{-11} \frac{m^3}{kgs^2}$ 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 $6.67401 \times 10^{-11} \frac{m^3}{kgs^2}$.

Equation 2.1 $N = \frac{2\pi^3 hc}{GMn^2} = 6.57927 * 10^{40}$ (3) outer layer components of the Planck Sphere

 $M = particles of the discontinuities of the Hubble Sphere Universe = \frac{3h^2c^2\pi^3}{G^2Mn^4} = 1.0471 \times 10^{80}.$

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.

$$Sd = 4\,pi(x^2 + x) \tag{2}$$

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]

except for the Planck Sphere layer, which is as follows

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

Note that the values of $\frac{Mp}{Mn}$ and $\frac{Me}{Mn}$ are already squares of the Beta calculations as shown in (6)&(7) for the calculation of the mass ratios of the proton to the neutron and the electron and the neutron respectively. These look very similar to orbital like calculations for the electron around the nucleus.

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

$$(0.998623478 \frac{4}{3^{0.5}} 6.57927 * 10^{40} \frac{1}{0.99807961} = X^2 + X$$
[5]

Layer5 = 389903228337536073310 spheres

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

 $Layer4 = 3.0036235850449 \times 10^{10}$ spheres

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

*Layer*3 = 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 Discontinuities in the universe

Sabine Hossenfelder states, "The Holographic Principle requires that the number of different states inside a volume is bounded by the surface of the volume. That sounds like a rather innocuous and academic constraint, but once you start thinking about it it's totally mindboggling."(6)This theory proposes a theory of why the Universe and particles can be modeled as a hollow spheres but still not be a hollow sphere, but rather a sphere with very few discontinuities in relation to the spheres overall size. It also proposes why a diameter can be different when calculation a charge radius or energy radius or mass radius and why the spheres in this theory must be rotating. Further, it paints a picture of the structure of the levels of the Universe and its properties. It gives a mechanism of why the Holographic Principle is true.

I. Calculations

This theory begins with the assumption that the Universe is a spinning sphere made of spinning spheres. Also the neutron, proton, electron, light etc are spinning spheres made of spinning spheres. Indeed, the spinning spheres never change location, but rather the change in the spin is what is translated from place to place. In the case of matter, the change in spin is translated, as well as the discontinuity is translated from one place to another. The easiest way to pack spheres, in an efficient method is to pack in a cuboctahedron structure. However, with gravity, there is a tiny force that causes each sphere to a center and thus results in a thin spherical layers of packing. The problem with thin spherical shell packing is that each next larger thin spherical shell has more spheres than the interior sphere. For example, a sphere as shown below, looks like it has a radius of about four smaller spheres. This would yield an outer surface of 64*pi spheres. The next layer would have a radius of 5 resulting in 100 pi spheres. This creates some discontinuity in the packing. When starting from the first few layers, the concentration of discontinuities is high. As one works out to a very large radius, the percentage of discontinuities drops dramatically. How does one add up the discontinuities? After the image this is explained easily.

Where is the Antimatter



Further imagine attempting to place another layer of spheres around this sphere. Initially, the inner spheres have a high percentage of discontinuities, but when one gets to the billionith, billionith, billionith layer, the percentage of discontinuities get very small. How does one figure out the amount of discontinuities? A simple integration can solve this problem! Each layer has $4*\pi*x^2$. So if we use the Equation 3, below, we can find out the total amount of discontinuities. Discontinuities between layers would be

Equation 1 *Discontinuitiesbetweenadjacentlayers* = $4pi*(x+1)^2 - 4pi*x^2$ from 0 to x

Or

Equation 2 Discontinuities between adjacent layers = $4pi^*x^2 - 4pi^*(x-1)^2$ from 1 to x

Integrate Equation 1 from 0 to x Or Integrate Equation 2 from 1 to x

Let Sd= Sum of Discontinuities between adjacent layers of concentrically packed sphere made of spheres

Integrating Equation 1

Equation 1 Discontinuities between adjacent layers = $4pi^{*}(x+1)^{2} - 4pi^{*}x^{2}$ from 0 to x

Equation 1a $Sd = \int_0^x 4pi^*(x+1)^2 - 4pi^*x^2dx$. Therefore Equation 1b $Sd = 4pi(x^2 + x)$

Integrating Equation 2

Equation 2 Discontinuities between adjacent layers = $4pi * x^2 - 4pi * (x-1)^2$ from 1 to x

Equation 2a
$$Sd = \int_{1}^{x} 4pi * x^{2} - 4pi * (x-1)^{2} - dx$$
.

Therefore

Equation 2b $Sd = 4pi(x^2 - x)$

Please note that, as x becomes very large, only x^2 dwarfs x or -x

And then the equation becomes

Equation 3 $Sd = 4pi(x^2)$

Note that equation 3 is the equation for the outer surface area of a sphere and note that all the discontinuities of packing sphere upon sphere in a spherical fashion, all adds up to the surface area of the outer layer of spheres, even though all the discontinuities are distributed throughout the sphere.

Now lets say that the sphere is spinning. The velocity of all points within the sphere is some fraction of the radius of the larger sphere. Therefore, if one were to add up the momentum, charge, energy, and acceleration of the sphere as a whole the sphere could look different depending on what one was measuring. One could have a momentum radius, a charge radius, an energy radius, and an acceleration radius.

It can be shown that the momentum radius, charge radius, and acceleration radius is 2/3 of actual radius, and the energy radius is ½ of the actual radius.

4.0 Discussion

We see from the beginning of section 2, that the lack of antimatter in the universe may be due to the universe being constructed from the ground up, creating matter, antimatter would just be a temporary state.

5.0 References

- 1. <u>http://vixra.org/pdf/1804.0043v1.pdf</u>
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- 3. http://vixra.org/pdf/1601.0234v6.pdf
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