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I. Abstract

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."(2) 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.

II. 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.

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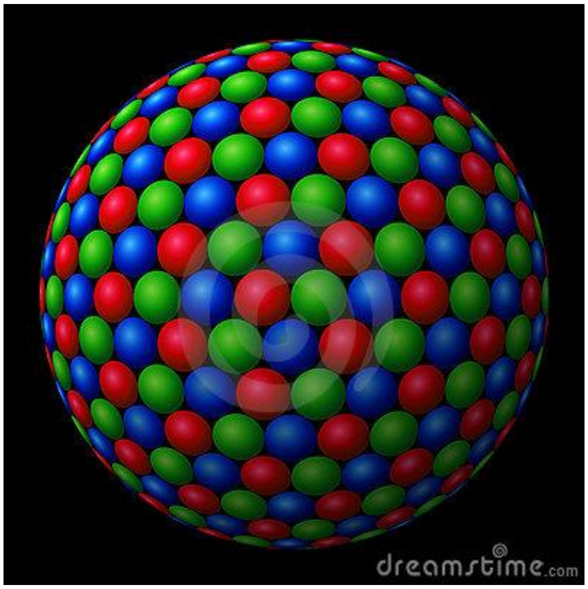

Further imagine attempting to place another layer of spheres around this sphere. Initially, the inner spheres have a high percentage of discontinuities, but when one gets to the billionith, billionith, billionith layer, the percentage of discontinuities get very small. How does one figure out the amount 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 $Discontinuitiesbetweenadjacentlayers = 4pi*x^2 - 4pi*(x-1)^2$ 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 $Discontinuitiesbetweenadjacentlayers = 4pi*(x+1)^2 - 4pi*x^2$ from 0 to x

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

Integrating Equation 2

Equation 2 $Discontinuitiesbetweenadjacentlayers = 4pi*x^2 - 4pi*(x-1)^2$ 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.

III. Conclusion

The model above of a sphere made of spheres shows how a solid sphere can be modeled as a hollow sphere, when it is the discontinuities of trying to pack concentric layers of spheres. In the case of the neutron, the amount of discontinuities ends up being on the order of 10^{41}. The

calculation is where the value of $x = N = 6.57943*10^{40}$ where N is determined by the equation 3 $N = 2\pi^3 hc / G(Mn)^2$ (1) from "Discrete Calculations of Charge and Gravity with Planck Spinning Spheres and Kaluza Spinning Spheres".
It should be noted that since the, "Hubble Spinning Sphere" ie. The universe, and the Planck Spinning Sphere are formed from the discontinuities within the Spinning Spheres, that the properties of Gravity, Charge and Magnetism are properties of the discontinuities within and although the properties of gravity charge can be modeled as shown in equation 2 and 3 of "Discrete Calculations of Charge and Gravity with Planck Spinning Spheres and Kaluza Spinning Spheres" (1) it should not be assumed that gravity comes from the universe rather than the Planck Spinning Sphere, or Charge comes from the Planck Spinning Sphere instead of the Kaluza sphere.
While charge can be modeled, with some degree of sense, with the Planck Spinning Sphere, it will require using the properties of the Kaluza Spinning Spheres, to portray the magnetic moment.
Clearly, the discontinuity formation, is a volume of discontinuity. It does leave room for some looseness in the fabric of space. This looseness then results in rearrangement of the structure of the sphere that causes almost all areas of the sphere to be packed in a cuboctahedron structure. In the case of our Hubble Sphere Universe, the areas of cuboctahedron packing would be the areas without any matter, or very little baryons or leptons. The spaces between the galaxies, or between the stars. Even the areas around atoms would be mostly cuboctahedron packing, but then the discontinuities would be forced into tiny areas that then result in all the, interesting, and imperfect, world of matter. Remember in our Universe, the imperfections are only about one part in $6.57943*10^{40}$. We live in a very perfect Universe, but looking deeper, into the smaller levels of the Universe, the Planck Spinning Sphere, the Kaluza Spinning Sphere, the Klein Spinning Sphere, and deeper, it becomes more and more imperfect. Without the imperfections, we would have basically nothing interesting, and no one to notice. Nor, could even the levels be built up without the imperfections, since it is the, discontinuities, imperfections, that initiate the forces, that hold everything together. So we see that the amount of bounded states is almost the surface of a sphere.

Appendix A

Fundamental Physical Constants

1. c=2.99792458 * 10 Exp 8 m/s
2. h=6.626 06957(33) x 10^{-34} J s
3. Mass of Neutron = Mn= 1.674 927 351(74) x 10^{-27} kg

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4. Mass of Proton = Mp= 1.672 621 777(74) x 10^{-27} kg
5. Mass of Electron = Me = 9.109 382 91(40) x 10^{-31} kg.
6. G= 6.67384(80) x 10^{-11} m^3 kg^{-1} s^{-2}

References

1) http://vixra.org/pdf/1403.0502v5.pdf
2) http://backreaction.blogspot.com/2015/09/no-loop-quantum-gravity-has-not-been.html?spref=tw