The Sphere Discontinuity Theory of the Universe and a Physical Model for the Lorentz Transformation in the Aether Medium

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I.   Abstract

The Sphere Discontinuity Theory of the Universe proposes that the Universe is a sphere made of spheres, that again is made of spheres. 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. Further, it paints a picture of the structure of the levels of the Universe and its properties. To further extend the Sphere Discontinuity Theory it will be shown how the discontinuities can account for the Lorentz Transformations.

II.   Calculations

The Sphere Discontinuity Theory begins with the assumption that the Universe is a spinning sphere made of spinning spheres.   Below is a picture of spheres made of spheres.
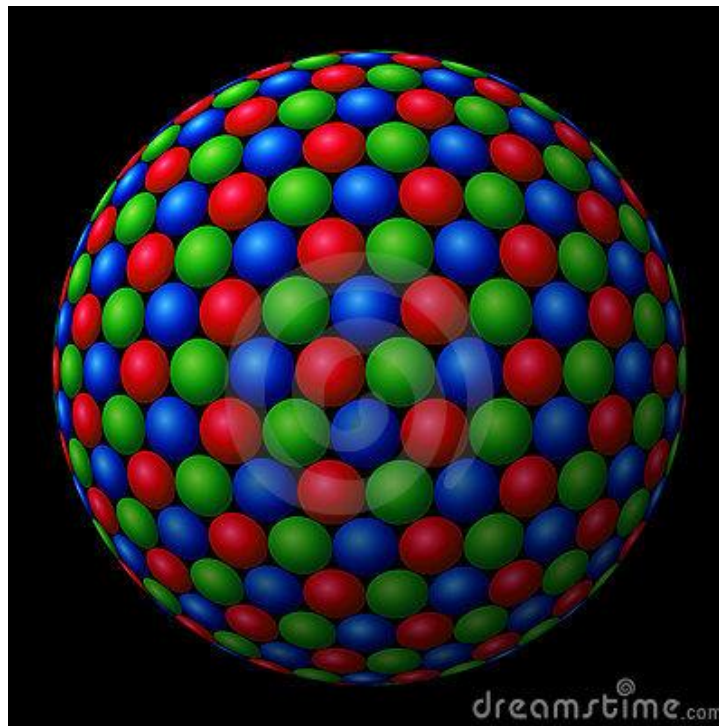
The easiest way to pack spheres, in an efficient method is to pack in a cuboctahedron structure. However, with gravity, there is a tiny force that

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causes each sphere to a center and thus results in a thin spherical layers of packing. The interesting phenomena 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 above, 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. The billionith, billionith, billionith layer, the percentage of discontinuities get very small as a percentage. So one ends up with areas of cuboctahedron perfect packing and then boundaries like grain boundaries in materials.

How does one figure out the amount of discontinuities? A simple integration can solve this problem! Each layer has $4*\pi*x^2$. Whre x is the radius of the sphere in spheres. So if we use the Equation 3, below, we can find out the total amount of discontinuities. Discontinuities between layers would be

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

If we integrate this from 0 to x

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

$$Sd = \int_0^x 4pi*(x+1)^2 - 4pi*x^2 dx$$

We obtain

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

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

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And then the equation becomes

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

> Note that equation 4 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.
>
> The Lorentz Transformation is as follows.

Equation 5 $\lambda = \dfrac{1}{\sqrt{(1-\dfrac{v^2}{c^2})}}$.

If one proposes that there is a relation between the discontinuities and the Lorentz Transformation, what relationship would be consistent with the Lorentz Transformation. Lets propose that the fraction of the speed of light is "A". If this fraction of the speed of light is equivalent to a fraction of the discontinuities in the sphere packed sphere.

Then the fraction of the speed of light would have the following equivalent of discontinuities within the sphere of spheres from Equation 4 $SdA = 4pi((Ax)^2)$. Further, the whole hollow sphere would have the following amount of spheres $Sd = 4pi((x)^2)$ from equation 4. If one then calculates a radius of these discontinuities using Equation 4 again one gets the following radius.

Equation 6 $\sqrt{(4pi(x^2)-4pi((Ax)^2)/4pi)}$

If one then takes x and divides by Equation 6.   This becomes

Equation 7 $\dfrac{x}{\sqrt{(4pi(x^2)-4pi((Ax)^2)/4pi)}}$

Which simplifies to the Lorentz Transformation.

Equation 8 $\lambda = \dfrac{1}{\sqrt{1-A^2}}$ where A is the fraction of the speed of light

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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. The Sphere Discontinuity Theory of the universe shows a potential physical interpretation of the Lorentz transformation has been modeled with this sphere.

References

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