

# Sphere Theory Explains Cosmic Expansion Increase Five Billion Years Ago

## 1.0 Abstract

Sphere Theory has shown that Planck Pressure(1) is the gravitational force between two Hubble Universes on Planck Area. This paper shows that the perceived change in acceleration of the universe, at about 5 billion light years, can be explained by the gravity between two universes. The acceleration of gravity, of our Hubble Sphere universe, increases as we get farther from the center of our Hubble Sphere universe linearly, the gravity from our adjacent Hubble Sphere universes decreases by the square of the distance from the center of that Hubble Sphere universe. The point at which these two accelerations, of gravity, become equal, is at 5.27 billion light years from the center of the universe. It is hypothesized here, that if the observed change in the rate of expansion of the universe occurs at exactly 5.27 billion light years from earth, that the earth is near the center of the universe, that there are multiple equal sized universes, and the boundary of the universe is the Hubble sphere at approximately 13.8 billion light years in radius. Since there will be 12 spheres surrounding the one sphere, there should actually be some spherical shape to the appearance of a rate of expansion with dimples and points. It should be pointed out that there should be other mechanisms that are much larger contributors to the appearance of a rate of expansion to the universe, but as more data is gathered the shape of the change in rate of expansion, from the external universes, should become evident.

## 2.0 Calculations

We define the gravitational force of a symmetrical, uniformly dense sphere, to be 1 at its surface. As we move towards the center of the sphere, the gravitational force decreases linearly to zero at the center. As we move out from the sphere the gravitational force decreases by the inverse of the radius.

If we have two spheres adjacent at what point does the gravitational force from one sphere, as it decreases by the inverse of the radius, be equal and opposite to the linear decrease to the center of the other sphere. The fraction at which this occurs is calculated as follows.

$$x = \left[ \frac{1}{1+1-x} \right]^2$$

There are three solutions.

$$x = 0.381966011250105$$

$$x = 1$$

$$x = 2.61803398874989$$

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If we take the value of  $x = 0.381966011250105$  and multiply by the diameter of the Hubble Sphere, we obtain  $13.8 \text{ billion light years} * 0.381966011250105 = 5.27 \text{ billion light years}$

### 3.0 Discussion

It is conjectured that, at 5.27 billion light years, is the observed point, where the expansion of the universe appears to change. It is currently thought that this occurred about 5 billion years ago. (2) In Sphere Theory, the universe has an actual size of the Hubble Sphere, or very near this value, within approximately 0.1 percent. The Universe has no age, beginning or end. Therefor the value of 5.27 billion light years would actually be a distance from the center of the universe at which the red shifting changes from one apparent Hubble constant to another Hubble constant. Therefor the conclusion of this proposal, is that if the change in the observed expansion does occur at 5.27 billion light years from earth, then it would be evidence that the size of the universe would be approximately, or exactly the size of the Hubble Sphere, that the earth is near the center of the Universe, there are many more Hubble Sphere universes.

### 4.0 References

- 1) <http://vixra.org/pdf/1404.0055v3.pdf>
- 2) <https://www.scientificamerican.com/article/expanding-universe-slows-then-speeds/>