

Universe at zero second and the creation process of the first particle from the absolute void

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Abstract

In this study, we discuss the dimensions of absolute void space or the universe at zero seconds, and how these dimensions play a vital role in creating a mechanism in which the very first particle gets created simultaneously everywhere and we find the limit in which when the absolute void volume reaches will lead to the collapse that leads to the creation of the first particle. These dimensions are four, three spatial dimensions (X, Y, and Z) and the Void resistant. This discussion is made following to the elementary dimensions theory study that was peer-reviewed at the end of 2020, everything in the universe is made from four elementary dimensions.

I. Introduction

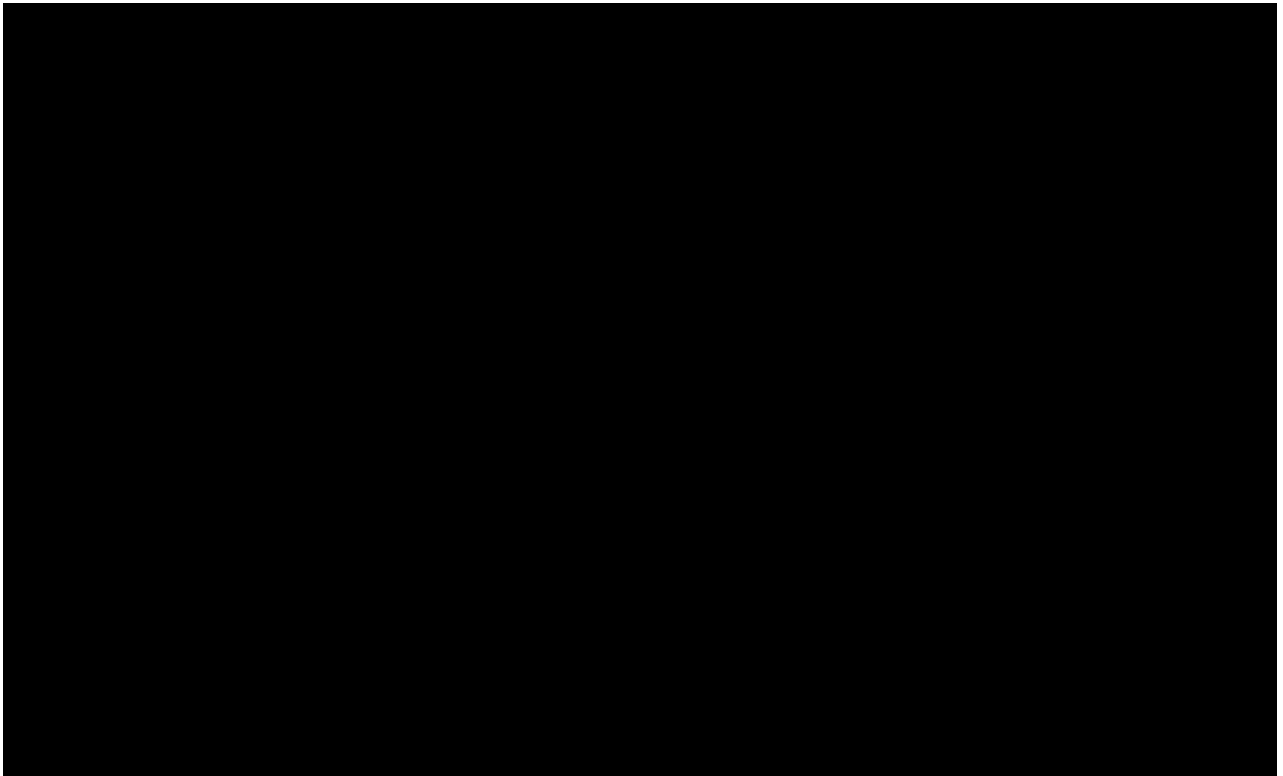


Figure 1(universe at time=0 sec)

Universe at zero second (as shown in figure 1), the space was completely devoid of all sorts of particles and radiations, the absolute zero temperature was reached naturally, due to the absence of all sources of heat. This space is called absolute void (Sirdy, 2020).

Creating absolute void in the laboratory is quite challenging as the removal of all sorts of matter and radiation for the creation of absolute zero temperature is extremely difficult.

Absolute void is four-dimensional (space dimensions in the x, y, and z axis and the Void resistant). The Void resistant is the factor of change among the four dimensions (Sirdy, 2020) which plays a vital factor in creating the first particle. Those four are the elementary dimensions. In the previous study the Void resistant was named Force field, however since it was creating confusion with the force known in physics it was changed to Void resistant.

Time is a hypothetical concept (Craig, William Lane, 2010), that corresponds to changes during certain events compared to a constant change rate event (Sirdy, 2020). Therefore, time itself wasn't considered as the fourth dimension.

Therefore, every function that will be used in the EDs (the elementary dimensions) theory, are time invariant function (Oppenheim, Alan; Willsky, Alan (1997)).

The Void resistant or the factor of change was identified through experiment, Owing to

lack of resources, a 10 ml syringe was used to identify the fourth elementary dimensions of the void. The syringe head was closed, and the bottom part was pulled by using weights to create the void in the syringe. (Shown in figure 2)

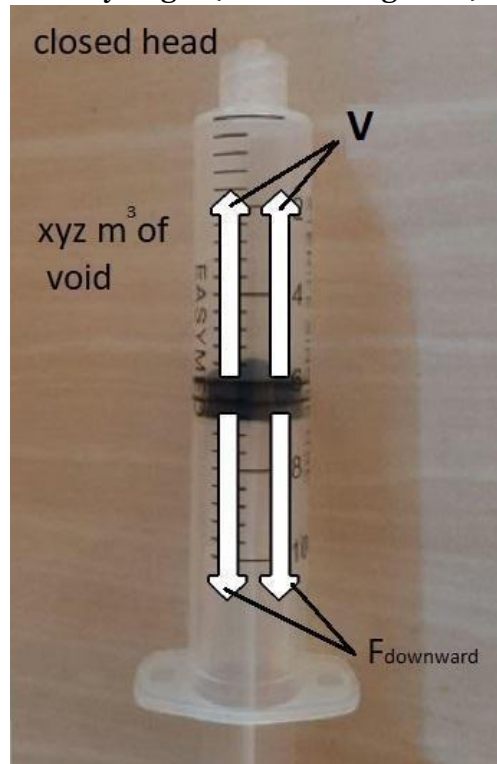


Figure 2 identification of the fourth dimension

The resistant force developed inside the syringe due to lack of matter was called Void resistant or just V for simplifications

Through classical physics, the summation of forces on the vertical axes equals zero

$$\sum F_y = 0, V + F_{\text{downward}} = 0 \dots (1)$$

Where F_{downward} is the force needed to pull the matter downward to create $xyz \text{ m}^3$ of void, and V is the void resistant sourced from the void to resist the lack of matter.

$$V + F_{\text{downward}} = 0, F_V = F_{\text{downward}} \dots (2)$$

Therefore, the force V corresponds to the factor of change

II. Void resistant patterns

The figure 3 and 4 shows the Void resistant pattern direction of an absolute void in a confined and an open system, respectively.

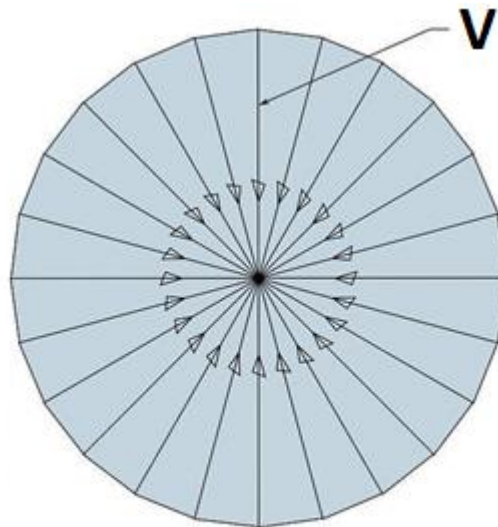


Figure 3

In Figure 3 the Void resistant acts to prevent the formation of the void by trying to crush the parameter of the surroundings toward the centre; the direction of V is pointing toward the centre of the void.

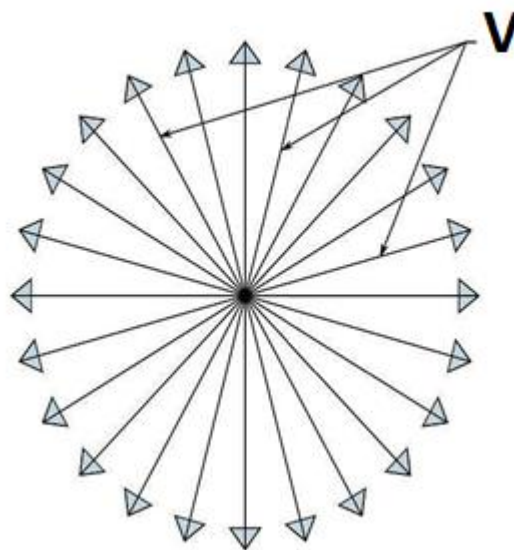


Figure 4

However, absolute void is considered an open system, if it exists in a free form. At any point of it the Void resistant is pointing outward, as depicted in Figure 4.

Any point of absolute in a confined system acts as absolute void in an open system, which means that Void resistant is pointing outwards (see Figure 5).

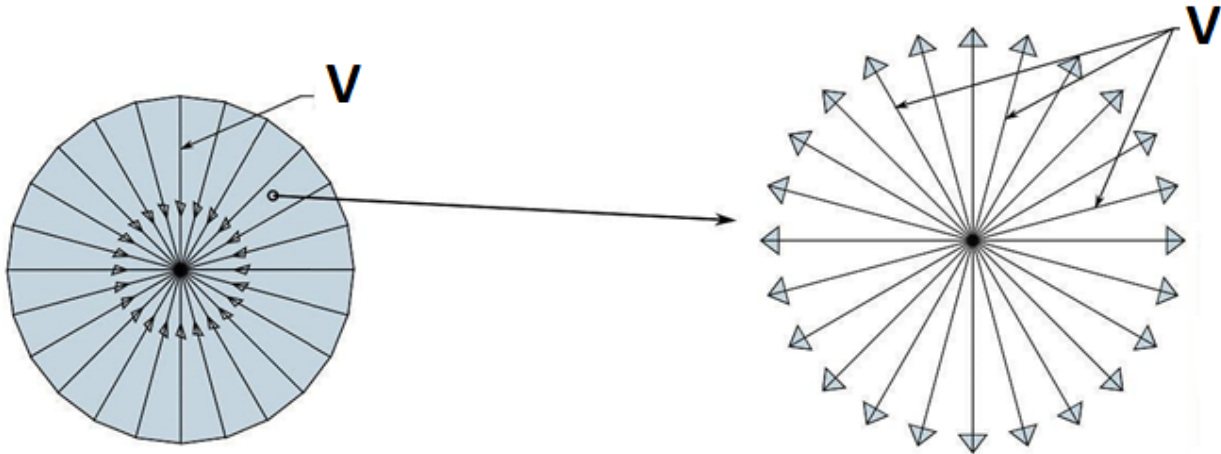


Figure 5

The Void resistant (V) has a positive relation with the spatial dimensions (X, Y and Z), meaning the Void resistant increases with the increase of the absolute void's volume V_v .

$$V \propto V_v \dots (1)$$

$$V = C_v * V_v \dots (2)$$

Where C_v is the void constant that was assumed, here we will again assume that it's equal to 1 with SI base units of $\text{Kg.m}^{-2}.\text{sec}^{-2}$

$$V_v = \frac{4}{3} \pi (R^3) \dots (3), \quad \text{the volume of sphere}$$

$$V = \frac{4}{3} \pi (R^3) C_v \dots (4)$$

V will have the units of force N (Newton), excluding the time effect completely, as this will be as well a time invariant function.

III. Creation of the first particle through the elementary dimensions

According to the elementary dimensions EDs theory, the absolute void and its four elementary dimensions are the predecessor of particles (Sirdy, 2020), and the elementary dimensions makes up everything in the universe. **Contrarily to the current theories, according to the EDs theory a dot particle (or a one dimensional particle) is impossible to exist due to the mathematical impossibility and the absence of an existing actual physical limit determining the smallest mathematical and physical size. Therefore, every particle no matter how tiny it's, it must be having the three spatial**

dimensions (X, Y , and Z) and according to the EDs theory it also has the fourth dimension (the factor of change or the Void resistant).

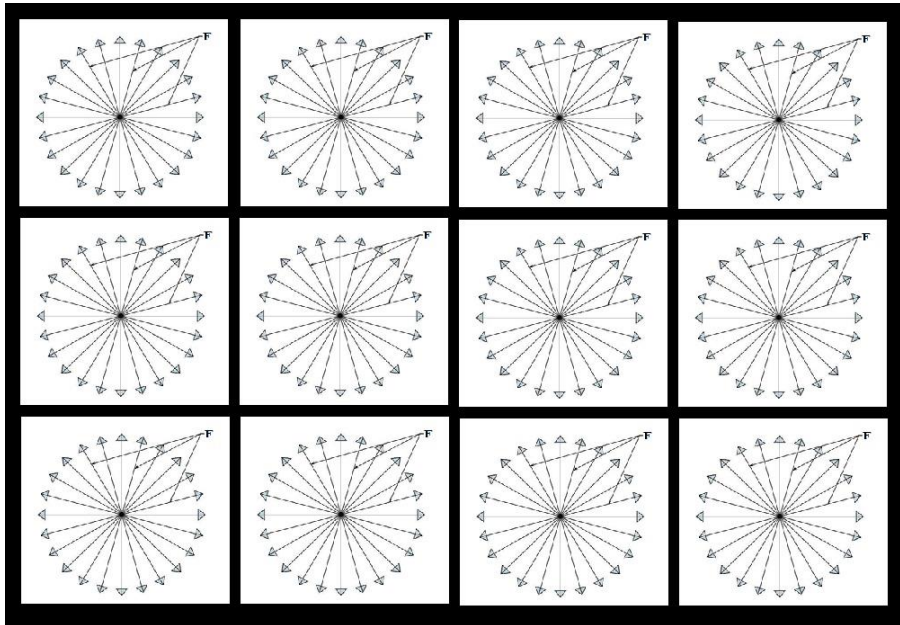


Figure 6 Universe at zero second with radius of X

With the increase of the absolute void's volume, the outward Void resistant increases, and the space loses equilibrium more and more due to the presence of only one directional Void resistant. When the outward Void resistant reaches a certain limit, the system reaches the highest level of instability. The outward Void resistant has to collapse inward to restore equilibrium in the space (see Figure 7).

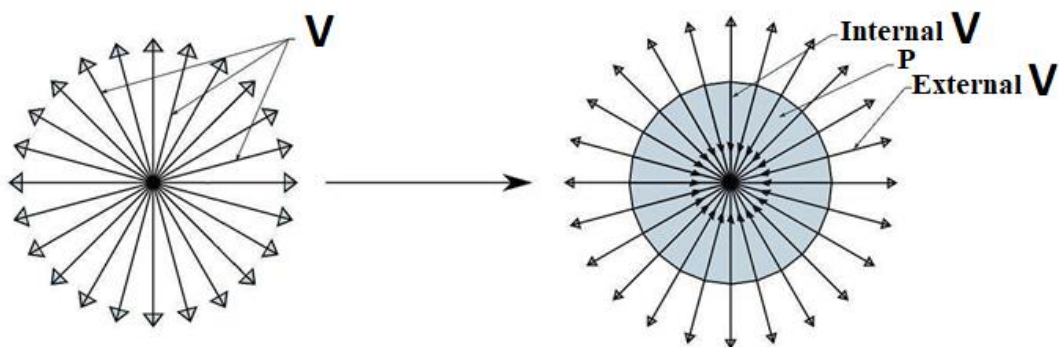


Figure 7

The absolute void has turned from an open to a confined system, with the collapse energy was created from the Void resistant pointed toward the centre, **the energy**

stays conserved at all phases. However, due to the collapse the energy density increases with the decrease of the spatial dimensions (see figure 8).

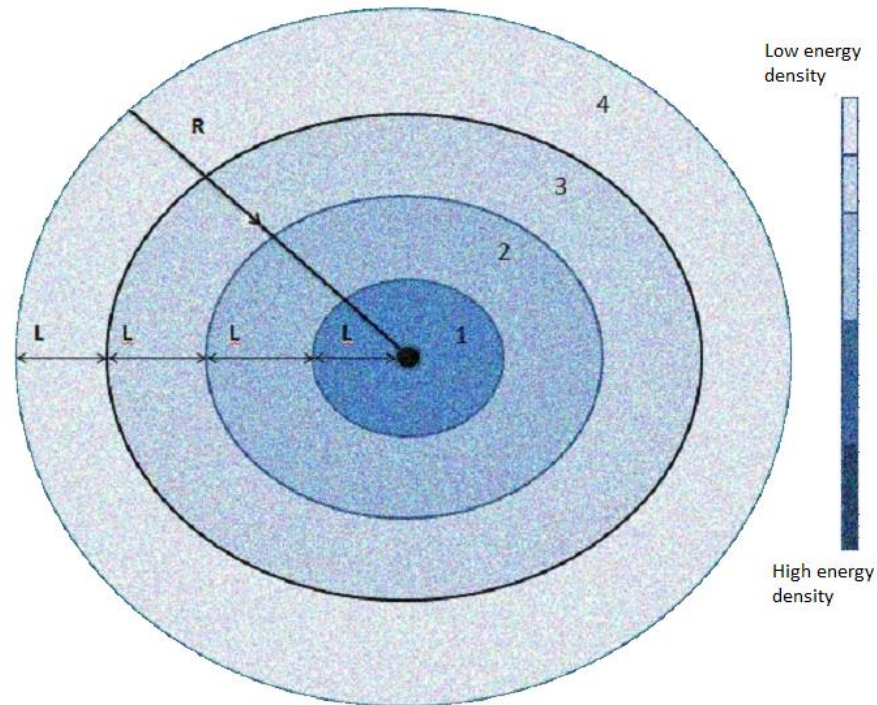


Figure 8

At the final stage the energy is concentrated forming a solid shape of energy. In which, this shape of energy is a first particle that was ever created from the elementary dimensions. This particle was created to decrease the instability in the space to achieve equilibrium that the universe at time zero second was lacking.

This particle is managed by two forces:

- a. Internal Void resistant V_i , which originates from the absolute void inside the particle, just like void in a confined system, and is directed toward the centre.
- b. External Void resistant V_e , originates from the absolute void outside the created particle.

The Void resistant V_i causes the source to collapse, while the Void resistant V_e is the counter factor. The particle collapses until equilibrium is achieved between the internal and external Void resistant. In case, more than one source-like entity are exists near each other relatively, the equilibrium process is among all of them.

At time zero second, infinite spatial dimensions of absolute void existed. Therefore, unlimited numbers of particles were created (see figure 9).

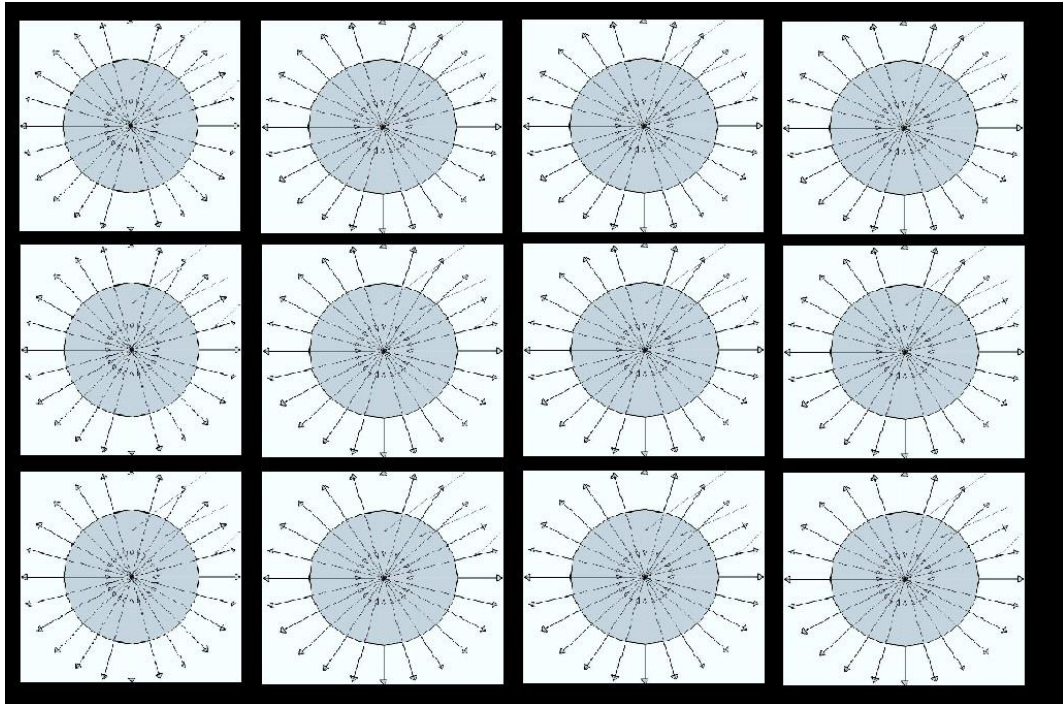


Figure 9 (infinity numbers of particles created from the elementary dimensions)

The limit in which the system collapses might be the same limit that leads to the creation of the black holes, where it's already known that for large stars above the Landau/Tolman-Oppenheimer-Volkoff limit (Wheeler, J. C.; Grossan, B; Pooley, D.; Kumar, P.; (2018-05-31)) (around two solar masses), when the star dies the forms of particles cannot provide the force needed to balance gravitational field. There is nothing to stop the collapse forming a black hole.

A black hole is similar to the origin particle or the source (Sirdy, 2020).

The limit could be a radius of 8.7713×10^8 meters of absolute void in a sphere shape, using a value of 3.98×10^{30} Kg (two solar masses) with density of 1408 (kg/m³), the same density of our sun.

Using mass density equation:

$$\text{Density} = \frac{\text{two solar masses}}{\text{Volume of the star}} \dots (5)$$

$$1408 = \frac{3.98 \times 10^{30} \text{Kg}}{\frac{4}{3} \pi (R^3)}$$

We get the value of a radius 8.7713×10^8 meters of absolute void,

Using the Void resistant equation:

$$V = \frac{4}{3}\pi(R^3) C_v$$

$$V = 2.82671 \times 10^{27} \text{ N}$$

Meaning when the absolute void's Void resistant reaches this value, the space inside the sphere will be at its highest level of instability, the only way for it to achieve equilibrium is to collapse inward.

The spatial dimensions of the two solar masses its radius equivaless to its Schwarzschild radius, Meaning the open system radius is equivalent to its closed system radius

Radius of two solar masses=Its Schwarzschild radius* equivalent

$$8.7713 \times 10^8 = 5.9 \times 10^3 * \text{Radius equivalent}$$

$$\text{Radius Equivalent} = 148666.1$$

Meaning:

$$\text{Open system radius} = 148666.1 * \text{closed system radius}$$

Open system is the external void

Closed system is the internal void

Hydrogen radius

$$\text{Atom radius} = 148666.1 * \text{Proton radius}$$

$$= 148666.1 * 0.85 \times 10^{-15} = 200.5422 \times 10^{-12} \text{ meter} = 126.3662 \text{ picometer}$$

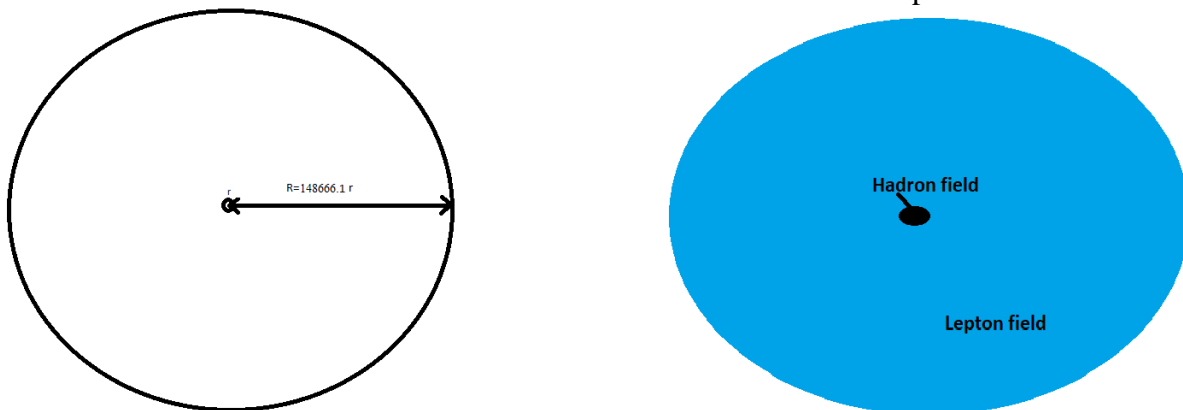


Figure 10 Hydrogen atom sample analysed using the external and internal Void resistant ratios

IV. Conclusion

In the universe at zero second only absolute void existed, absolute void is made from elementary dimension. When the sphere volume of absolute void reaches a radius of 8.7713×10^8 meters, the space inside the sphere will be at its highest level of instability, the only way for it to achieve equilibrium is to collapse inward, creating the first particle.

Acknowledgments

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References

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