

*It is great to discover new facts of nature and formulate Theory; but to discover falsity in current theories and prove it so, through a broader and comprehensive alternate theory, is greater.*

*Notes on the spatial reality and property of vacuum*

With the discovery of the electron by the end of 19<sup>th</sup> century, and the space substratum of fluid ether to transmit light-wave, natural philosophers worked on ether vortex for the atom and also for the electron.

Questions on the property of ether were not pinpointed then. Critics of ether argued that contradictory properties like density, elasticity, were being assigned to ether.

Additionally, the smoke rings experiments of Lord Kelvin and Joseph Larmor showed dilation of the smoke rings and eventual diffusion of the same.

While researches on ether vortex were still continuing, it is accepted generally that Einstein's paper on special relativity (1905) was a setback to the ether researches.

Departing from the ongoing trend and treating "empty space" to be the same as "vacuum without matter and field," the absolute properties of "mass-less", continuous, incompressible, "viscosity less" were assigned to Vacuum by this writer. Also, transmission of fields and flow velocity of the vacuum were assigned with the limiting velocity as speed of light relative to the vacuum. Further, a limiting velocity gradient at which the vacuum in vortex circulation breaks down is also the additional absolute property in the first hypotheses on Space Vortex Theory (SVT) formulated in 1974.

# Universal Principles of Space Vortex Theory

## Universal Principle 1

*The space (absolute vacuum) of the universe is an eternally existent, nonmaterial, continuous, isotropic, and a fluid substratum.*

## Universal Principle 2

*The space (absolute vacuum) has a limiting speed of flow equal to the speed of light relative to the absolute vacuum; and a limiting angular velocity, when in a state of circulating vortex motion.*

## Universal Principle 3

*The universal space is eternally inherent with motion.*

## **Electron structure**

With the above absolute properties of the vacuum and its circulation as shown below, a stable electron vortex is created. Within the interface of circulating vacuum a spherical void is enclosed. The volume integral of the circulating velocity field within the void before the void 's creation is shown proportional to the mass of the electron; the surface integral of the velocity at the interface is shown proportional to the charge of the electron. (Universal Principles of Space and Matter; [www.tewari.org](http://www.tewari.org)).

With this relationship it is seen in Fig, 2-2 below that the angular velocity  $\omega$  is also the limiting *velocity gradient*,  $c / r_e$  (At point  $P_z$  Fig.2-2  $c / r_e = \omega$  ). At each point of the spherical interface, common between the void and space (hereafter referred as 'interface').

Angular velocity of rotation about the axis Y-Y' has the same limiting value  $\omega$  and limiting velocity gradient (Fig.2-2), whereas, as stated earlier, the limiting velocity of space,  $c$ , is only in the diametrical plane at right angles to the axis of rotation, tangential at each point of the circle at the interface cut by the plane at right angles to Y-Z plane. The circulation velocity of space, varying from zero at point  $P_y$  at the

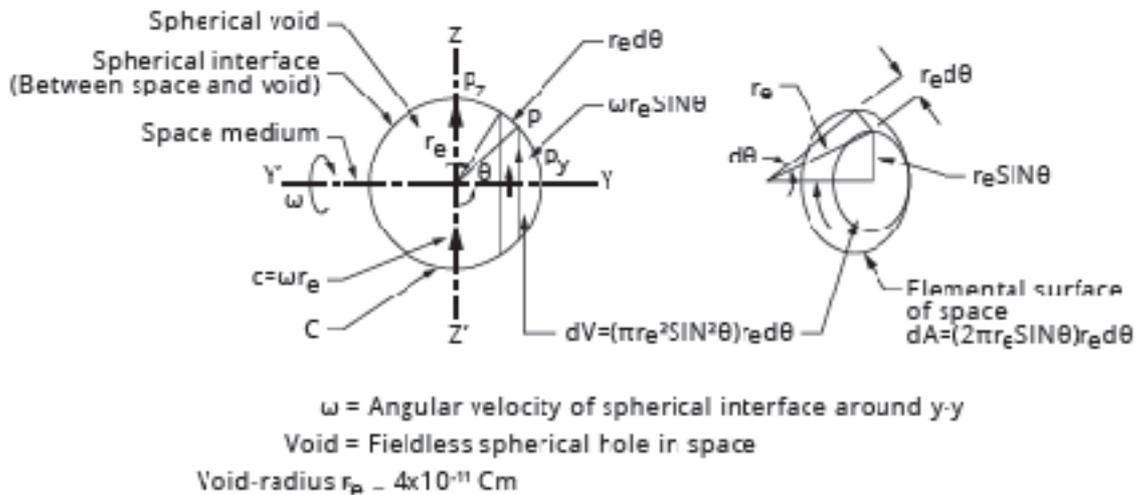
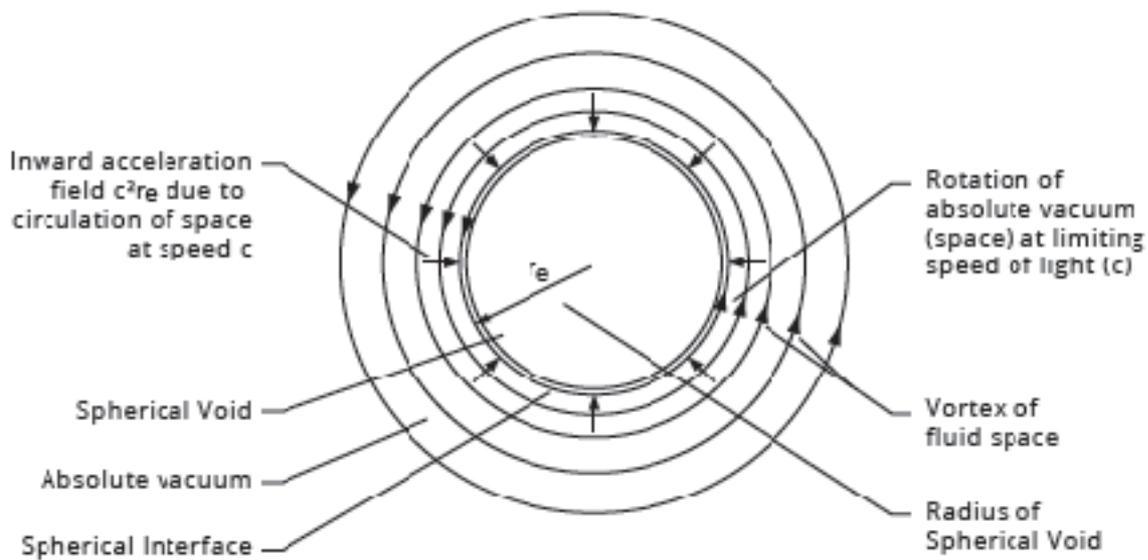


Fig. 2-2 Velocity Field on Interface

axis of rotation to  $c$  on the interface-circle mentioned above in the diametrical plane, produces maximum radial and inward acceleration,  $c^2 / r_e$ , on each point of this circle; and of lesser magnitude on other points. The interface, though constituted of spinning fluid-space, on account of the constancy of  $\omega$  on each of its points, rotates similar to a surface of a rigid spherical shell of negligible wall thickness.

The stability of the void is due to the following two factors: Considering the section of the interface with the diametrical plane (Fig.2-3) below where the angular velocity ( $\omega$ ) is also the velocity gained  $c / r_e$ . If the void shrinks to smaller radius, the value of  $\omega$  increases; which is not possible as per the Principle 2; the void thus enlarges back to the original size. In case the void tends to grow to larger size, then the value of  $\omega$  decreases which is not possible due to the Postulate 2. The *inward* acceleration field  $c^2 / r_e$  opposes this increase; also, any increase in  $r_e$  decreases the velocity gradient  $\omega$  to lesser magnitude, which is no more sufficient to sustain the void. The sphere of the void is thus reduced to its original size. The other factor is the property of non-viscosity of space, which maintains the space-vortex eternally, except for its annihilation on meeting a similar vortex, of positron with oppositely oriented velocity field.



Absolute vacuum possesses non material properties of incompressibility, zero-viscosity, continuity & mass-lessness of an ideal fluid; fieldless & energyless spherical-void is created due to limiting rotation & breakdown of absolute vacuum.

Fig. 2-3 Vortex in electron structure

Further, the energy-less void being a region of negative potential, the acceleration field,  $c^2 / r_e$ , on the interface has inward direction and, therefore, prevents dilation of streamlines, thereby, preventing dissipation of space-circulation away from the interface. Thus, the void is seen to be dynamically stable—its volume being regulated due to the constancy of  $\omega$  and, consequently, the constancy of  $c$  and  $r_e$ , dictated by the absolute<sup>1</sup> properties of the medium of space.

Creation of the void reverses the direction of the out ward acceleration field<sup>2</sup> that created the void, because, the sphere of the void (without any energy within it) relative to the circulating space around it, is at negative potential. The acceleration field is shown

<sup>1</sup> Properties of space, being non-material in nature, are defined to be absolute; unaffected by various conditions of temperature and pressure as applicable to material media.

<sup>2</sup> Acceleration of fluid space at a point is termed acceleration field.

inward in Fig. 2-3, which is another diametrical cross section of the spherical void.

As outlined above, the radius of the void,  $r_e$ , is determined by the postulate of the constancy of  $\omega$  and, consequently, the constancy of  $c$  and  $r_e$ , dictated by the absolute<sup>3</sup> properties of the space and the constancy of the limiting velocity gradient.

Thus, the void is seen to be dynamically stable—its volume being regulated due to the constancy of  $c$  and  $r_e$ , dictated by the absolute properties of the space

## **Conclusion**

The electron vortex with opposite spin is the positron. The void-center of the electron has no particle in it. Any speculation that the electron is a composite particle is meaningless.

Electrons and Positrons in stable assembly build neutrons. Neutron when enclosed within a vacuum vortex shows charge property and becomes a proton. Neutrons and protons in dynamic assembly within vacuum vortices form the nuclei of all atoms.

Thus, electrons and positrons are the fundamental particles that nature has produced to assemble all cosmic matter in the universe.

Quantum theory failed to discover the inward forces on the nuclei to prevent splitting of the nucleus. Also, it does not recognize that the orbital electrons in the atom are not accelerating and losing energy. As per SVT, the overall vacuum vortex enclosing the nuclei carries the orbital electrons and also provides the inward force. In the absence of these forces many elementary particles as below are accepted. Most of these are founded on false premises.

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<sup>3</sup> Properties of space, being non-material in nature, are defined to be absolute; unaffected by various conditions of temperature and pressure as applicable to material media.

As per [Elementary particle - Wikipedia](https://en.wikipedia.org/wiki/Elementary_particle): [https://en.wikipedia.org/wiki/Elementary\\_particle](https://en.wikipedia.org/wiki/Elementary_particle)

Known **elementary particles** include the **fundamental** fermions (quarks, leptons, antiquarks, and antileptons), which generally are "**matter particles**" and "**antimatter particles**", as well as the **fundamental** bosons (gauge bosons and the Higgs boson), which generally are "**force particles**" that mediate interactions among ...

*The earth and all planets are rotated on their axes by the vacuum vortices enclosing them. Similarly, all stars and galaxies are rotated on their axes by the vacuum vortices enclosing them.*

Nature exhibits uniformity in her great design right from the micro to the macro entities!