

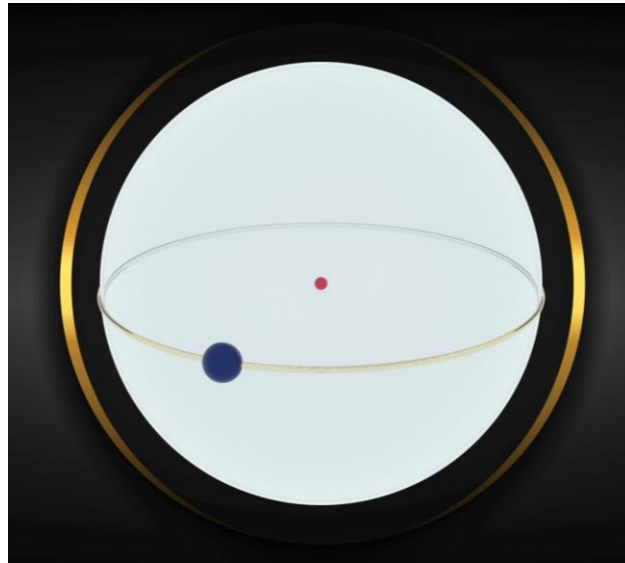
# New Discovery About the Helical Motion of Electrons in the Universe

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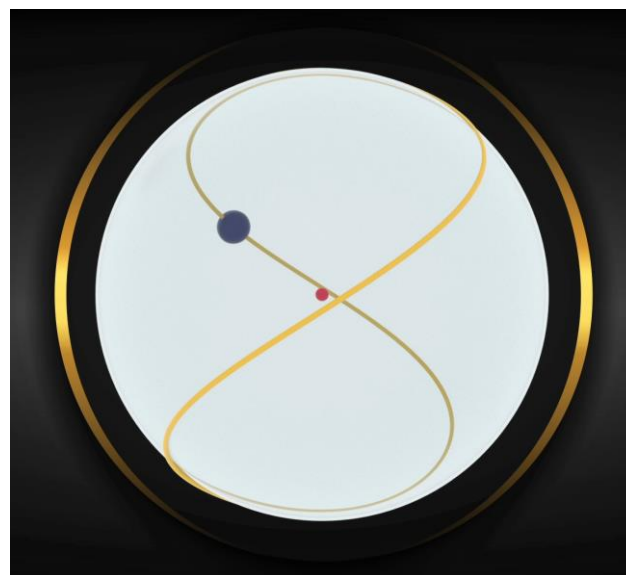
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As explained in previous articles, an Electron's orbital structure within an atom is a result of the combination of three possible types of motion paths.

**I. Planet-Like Motion:** The electron orbits around the nucleus like a planet. This is a simple motion, and Newtonian laws govern it.



**II. Closed Helical Path Motion:** As previously stated, "each electron revolves around itself at a speed close to the speed of light." This motion causes curvature in the path of the solar motion of the electron, transforming its path around the nucleus into a closed helix. Note that this motion is a back-and-forth movement.



**III. Spherical Motion Around the Nucleus:** Atomic nuclei carry a positive charge, while electrons carry a negative charge. It can be said that atomic nuclei affect electrons. On the other hand, atomic nuclei rotate around themselves at a speed close to the speed of light. This rotation causes an additional rotational motion to be added to the helical path of electron motion. Consequently, the electron is rotating around the nucleus and sweeping the entire surface of a sphere with an atomic radius.

According to the combination of the first and second paths, it becomes evident that the electron follows a helical path in its orbit. This helical path begins on one side of a spherical orbit with a radius equal to the atomic radius, moves towards the opposite side of the sphere, and then symmetrically continues back to the starting point.

In fact, each electron has a helical returning path in its possible motion paths. However, it can be said that the resultant effect of various forces and movements causes the electrons to have a closed helical motion around the nuclei. However, concerning the emitted electrons from their atoms, it should be noted that they traverse their helical paths with different frequencies.

