Note on New Angular Momentum Equation for the Helium Atom

Martin Alexander Jones
mars44consulting@gmail.com
(336) 207 - 9643

December 7, 2018

Abstract

Using equations from previous papers by the authors, the fractal nature of gravity is shown for a universal system, the Hydrogen atom, Helium atom, the solar system, the galaxy, etc... It is shown using a perfected compression[1] that a new more accurate angular momentum of the Helium Atom is derived using equations derived by Dr. Martin Alexander Jones[2,3,4]

[1]Compressions, The Hydrogen Atom,and Phase Conjugation. Dan Winter, et. al. The General Science Journal. February 19, 2013.

[2]A Newton's Second Law Extension: A Semi-Classical Approach With DFT Implications. Martin Jones. The General Science Journal. November 7, 2018.

[3]A Note On Many-Body: Newton's Fifth Law. Martin Jones. The General Science Journal. November 22, 2018

[4]Fractality: The Cause of Gravity. The General Science Journal. December 3, 2018.

1 The Derivation

Using a sign convention, we take the negative sign away from the force in the following equation:

$$m_e r_n \times a_n = C_\phi \frac{v_n}{r_n^2} \tag{1}$$

$$m_e r_n \times a_n = m_e \frac{v_n^2}{r_n} \tag{2}$$

Setting the two equations equal we get that the angular momenutm $m_e v_n r_n = C_\phi = n\pi\hbar + q\pi\hbar\phi^{n-q}$, where n and q are the respective quantum numbers of the two electrons in the Helium atom (See footnote 4). Note that when $n = q$ the angular momentum reduces to the Bohr model angular momentum of the Hydrogen atom.

2 Conclusion

So we have shown a quick and easy derivation of the new angular momentum of the Helium atom using previous work by Martin Alexander Jones.