1.0 Abstract

It was shown in "Mathematical Geometric Origin of Masses of Particles Proton and Electron" (1), that the mass ratio of the proton to neutron and electron to neutron could be well approximated with an integrated polynomial equation. This equation could predict the mass ratio of the proton to the neutron within 8 digits. The mass ratio of the electron to the neutron was only accurate to 5 digits. In this paper it is shown that the mass ratio of the electron can be improved to 9 digits and within the Codata one sigma limits by proposing that the electron is contained within 6 equal units and including a relativistic component and using the Lorentz transformation.

2.0 Calculations Electron Neutron

2.1 Electron/Neutron Mass Ratio

In "Mathematical Geometric Origin of Masses of Particles Proton and Electron" (1) the following equation was used to model a mass ratio of the Proton to the Neutron.

Equation 1 $P(1-P) = \sqrt{3}/2 \int_0^1 x^4 (1-x)^4 dx$ (1)

This yields the following two solutions.

Where P_x~~0.998623461644084 and P_y~~0.00137653835591585

Compared to the Codata proton neutron mass ratio of

proton-neutron mass ratio m_p/m_n	
Value	**0.998 623 478 44**
Standard uncertainty	**0.000 000 000 51**
Relative standard uncertainty	**5.1 x 10^{-10}**
Concise form	**0.998 623 478 44(51)**

(2)

In Bergman's "Observations of the Properties of Physical Entities Part 2 —Shape & Size of Electron, Proton & Neutron"(3) shows references to shapes of particles from his calculations. Although the magnetic moment shows that the size of the electron toroid proposed by Bergman, in "Spinning Charge Ring Model of Elementary Particles," (4) , it is also well known that this size electron toroid, on the order of 10^{-12} meters, requires the electron to be spinning faster than the speed of light. It will be shown in the future that the magnetic moment of the electron can also be achieved by summing many components of the electron at Planck length and Planck frequency scales. Regardless, Bergman's toroid shape, could have significance.

If we use the second solution to equation (1) P_y=0.001376538355591585 above, calculate a Lorentz transformation, and some dimensional corrections, we have the following Lorentz transformation.

Equation 2 $$\frac{1}{(1-(\frac{\pi * Py}{12^{0.5}})^2)^{0.5}} = \alpha = 1.00000077922996619330$$

If we use the first solution to the equation (1) of y=0.998623461644084 and the Lorentz transformation in equation 2 above of 1.00000077922996619330 we can develop the following equation.

Equation 3 $$(E)(1-E) = \frac{\alpha}{6Px}((\sqrt{2})^8) / (\sqrt{3})^7 \int_0^1 x^4(1-x)^4 dx$$

Equation 3 gives the solutions for z of

E_x= 0.00009064455742846868 67 and E_y= 0.999909355442571531

If we propose that the electron is contained in six structures of
E_x=0.00009064455742846868 67
Then we can multiply E_x by 6 in Equation 4

Equation 4 $$Ex * 6 = \frac{Me}{Mn} = 0.00009064455742846868 67 * 6 = 0.00054386734446$$

$$\frac{Me}{Mn} = 5.4386734446 * 10^{-4}$$

Compare this to Codata Electron/Neutron mass ratio of

electron-neutron mass ratio m_e/m_n	
Value	**5.438 673 4428 x 10^{-4}**
Standard uncertainty	**0.000 000 0027 x 10^{-4}**
Relative standard uncertainty	**4.9 x 10^{-10}**
Concise form	**5.438 673 4428(27) x 10^{-4}**

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2.2 Neutron-Electron/Neutron Mass ratios

One can also use the other result from equation 3.0 of E_y= 0.999909355442571531 to calculate a mass ratio of the (Neutron Mass-Electron Mass)/Neutron Mass. If one uses the following equation

Equation 2.2.1 Using Equation 3 results.

$$\frac{Mn-Me}{Mn}=1-(1-Ey)*6=1-(1-0.999909355442571531)*6=0.999456132655$$

Equation 2.2.2 Using Codata values

$$1-\frac{Me}{Mn}=1-5.4386734428(27)*10^{-4}=0.999456132655$$

Note that both Methods give identical results to 12 digits

3.0 Discussion

It is clear that the Value of $=5.4386734446*10^{-4}$ for the mass ratio of the electron-neutron is within one sigma of the codata value of the electron-neutron mass ratio. This does not prove that equation 1 or equation 3 is correct, but it does show that it is building on a possible model for the aether. It is the only model, of which I am aware, that can use a consistent idea to predict ratios of masses of elementary particles. Apparently string theory has ideas of how this might be done, but, I believe, there are more calabi-yau possibilities than there are particles of mass in the universe. It is likely that String Theory, M-Theory, Super String Theory, Quantum Foam Theory, are all shadows of the Aether. The Polynested Spinning Sphere Aether, is beginning to become much less shadowy.

It appears that the electron, possibly being made of a Toroidal shape of 6 containment spheres, may be emerging. That Equation 2.2.1 gives a mass ratio of the mass ratio of the mass of the neutron minus the mass of electron all over the mass of the neutron indicates that this may be an important number in quantum mechanics as well.

References

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4) David L. Bergman, "Spinning Charge Ring Model of Elementary Particles," Galilean Electrodynamics, Volume 2, Number 2 (March/April 1991).
5) http://physics.stackexchange.com/questions/126986/where-does-the-electron-get-its-high-magnetic-moment-from
6) http://physics.nist.gov/cgi-bin/cuu/Value?mesmn|search_for=electron+neutron+mass+ratio