1.0 Abstract

In "The Aether Found, Discrete Calculations of Charge and Gravity with Planck Spinning Spheres and Kaluza Spinning Spheres" (1), it was shown that spinning spheres can unite the gravitational and electromagnetic force with spinning spheres. The equation 4, developed in "The Aether Found, Discrete Calculations of Charge and Gravity with Planck Spinning Spheres and Kaluza Spinning Spheres" can be used to predict a value of the fine structure constant constant. The following paper shows a predicted fine structure constant using the Codata values for the fundamental physical constants at each publication since 1969. As the data for the fundamental physical constants has become more accurate, the prediction for the fine structure constant has been trending for a precise number difference.

2.0 The Equation for Charge

Equation 2.0 (1) $q^2 = T\pi^3 hc\varepsilon(Me)/2Mn$

Where q=elementary charge, h=Planck's constant, Ɛ=dielectric permittivity, c=speed of light, Me=Mass of the Electron, Mp=Mass of Proton, and Mn=Mass of Neutron, and T is defined below.

Equation 2.1 $T^2 = \frac{((Mp-Me)^2 + Mn^2 + Mn^2)}{Mn^2}$ (1)

Equation 2.0 can be rearranged to calculate two different methods for the fine structure constant. Equation 4.0 from "The Aether Found, Discrete Calculations of Charge and Gravity with Planck Spinning Spheres and Kaluza Spinning Spheres" (1), is shown below for the two methods for calculating the fine structure constant. Each portion of the equation in brackets gives the two methods for approximating the fine structure constant.

Equation 4.0 (1) $\left[(\boldsymbol{e^2}) * \frac{\boldsymbol{1}}{\boldsymbol{h*c*2*\varepsilon}}\right] / \left[\boldsymbol{T} * (\boldsymbol{\pi^3}) * \frac{\boldsymbol{Me}}{\boldsymbol{4*M}}\right] = \boldsymbol{1}$

We will be using Equation 2.2 for approximating the fine structure constant with the Codata constants since 1969.

Equation 2.2 Fine structure constant= $\sigma = T\pi^3 \frac{Me}{4Mn}$

Where q=elementary charge, h=Planck's constant, Ɛ=dielectric permittivity, c=speed of light, Me=Mass of the Electron, Mp=Mass of Proton, and Mn=Mass of Neutron, and T is defined below.

Equation 2.1 $T^2 = \frac{((Mp-Me)^2 + Mn^2 + Mn^2)}{Mn^2}$ (1)

3.0 Calculation of Fine Structure Constant

Codata year	Inverse Fine Structure Constant Equation 2.2	Inverse Fine Structure Constant Codata(2)	Ratio of Equation 2.2 to Codata value
1969	1.37032772109E+02	1.3703608(20) E+02	1.00002413942.E+00
1973	1.37035937319.E+02	1.3703612(15) E+02	1.00000133309.E+00
1986	1.37035999593.E+02	1.370359895(61) E+02	9.99999926345.E-01
1998	1.37036001127.E+02	1.3703599976(50) E+02	9.99999990023.E-01
2002	1.37036001470.E+02	1.3703599911(46) E+02	9.99999982781.E-01
2006	1.37036001547.E+02	1.37035999679(94)E+02	9.99999986369.E-01
2010	1.37036001541.E+02	1.37035999074(44)E+02	9.99999982000.E-01
2014	1.37036001616.E+02	1.37035999139(31)E+02	9.99999981919.E-01

Table 2.0 Fine Structure constant table.

Note☺ All values calculated above for Fine Structure Constant Equation 2.2 are taken from (2) Codata.

4.0 Discussion

The predicted values of Fine Structure are close to the limits of the Codata value. Although this does not prove that equation 2.2 is correct, the values predicted leave open the possibility that the equation could be correct.

Note that as time goes on the prediction of equation 2.2 becomes more precise. After 1998 the preciseness maxes out, perhaps indicating that there is another factor is necessary to improve preciseness. It is likely that there is a 2nd order affect, for Equation 2.2, that is necessary to improve the calculated fine structure constant.

Please note, that in "Mathematical Geometric Origin of Masses of Particles Proton and Electron" (3), the prediction of the proton/neutron mass ratio is within 0.999999983.

Section 1 Proton/Neutron Mass Ratio

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

Where y~~0.998623461644084 and y~~0.00137653835591585

One can notice that the first y=0.998623461644084 is very close to the Codata Value of the ratio of the mass of the proton to the mass of the neutron of 0.998623478. Within 0.999999983.

This appears to be very close to the ratios of the calculated vs measured fine structure constant above in Table 2.0. 2002 (0.999999982781), 2006 (0.999999986369), 2010(0.999999982), and 2014 (0.99999991919)

5.0 References

1 http://vixra.org/pdf/1403.0502v6.pdf
2 http://physics.nist.gov/cuu/Constants/index.html
3 http://vixra.org/pdf/1502.0193v2.pdf