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 2, 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 potentially more accurate value of Planck's constant. The following paper shows a predicted range of Planck's constant at one sigma for Planck's constant using the Codata values for the fundamental physical constants at each publication since 1969.

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.

Originally, the value T was calculated as shown below.

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

It was shown in "Relativistic Equation for the Fine-Structure Constant Using the Polynested Spinning Spheres Theory of the Cuboctahedron"(3) that T **Could be calculated as follows in Equation 2.1a**

Equation 2.1.a $T^2 = \left(\frac{1}{\sqrt{1-\left(\frac{\pi Me}{3*3Mn}\right)^2}}\frac{Mp-Me}{Mn}\right)^2 + \left(\frac{1}{\sqrt{1-\left(\frac{\pi Me}{3*3Mn}\right)^2}}Mn/Mn\right)^2 + \left(\frac{1}{\sqrt{1-\left(\frac{\pi Me}{3*3Mn}\right)^2}}Mn/Mn\right)^2$

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Equation 2.0 can be solved for Planck's constant "h"

Equation 2.2 $h = \frac{2Mnq^2}{T\pi^3 c\varepsilon(Me)}$

3.0 Calculation of Planck's Constant

Using Equation 2.2 and 2.1.a for calculating the Planck Constant, using the Codata for the years in which Codata was published, we obtain the following values.

Codata year	Planck Constant Equation 2.0	Planck Constant Codata(3)	Ratio of Equation 4.0 to Codata value
year			
1969	6.62602630.E-34	6.626186(57)E-34	1.00002410170
1973	6.62615774.E-34	6.626167(38)E-34	1.00000275511
1986	6.62607581.E-34	6.6260755(40)E-34	.999999953446
1998	6.62606870.E-34	6.62606876(52)E-34	1.00000000859
2002	6.62606928.E-34	6.6260693(11)E-34	1.00000000270
2006	6.626068930.E-34	6.62606896(33)E-34	1.00000000450
2010	6.6260695751.E-34	6.62606957(29)E-34	.999999999235
2014	6.6260700402.E-34	6.626070040(81)E-34	.999999999965

Table 3.0 Note☺ All values calculated above for Planck Constant Equation 2.2 are taken from (2) Codata.

4.0 Discussion

The predicted values of Planck's constant using equation 2.1a and 2.2, in Table 3.0, always predict a value that is within one sigma of the Codata value, for each year, except 1969, which was still within three sigma. 1969 and 1973, years were clearly seen to have electron masses, in Codata, that were very nearly not within three sigma of their published values, as shown by later years. Although this does not prove that equation 2.0, 2.1a and 2.2 are correct, the values predicted leave open the possibility that the equation could be correct. It does seem that the values for Planck's constant calculated from equation 2.0, 2.1a and 2.2 leads the way to the next more accurate number for Planck's constant.

Note that as time goes on the prediction of equation 2.1.a and 2.2 becomes more precise. In each year, additionally, the Planck constant is predicted accurately with Equation 2.1.a and 2.2, an equation, that only uses the ratios of the masses of the electron, proton, and neutron, the equation for a vector, and the Lorentz transformation. This clearly shows that the ratios of these masses are clearly related to a fraction of the speed of light.

5.0 References

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