Milo Wolff's wave density formula in blue below **Originally taken from Geoff's http://www.spaceandmotion.com/Cosmology but I see Geoff has now changed things.**

**"To examine this requirement we first make a quantitative assumption, similar to Mach's Principle, which establishes the density of space (ether or vacuum). Then we will examine the density formula seeking a means of interaction. The Space Density assumption is:**

***Assume that the mass (wave frequency) and propagation speed of an SR wave in space depends on the sum of all SR wave intensities in that space; a superposition of the intensities of waves from all particles inside the Hubble (H) Sphere of radius R = c/H, including the intensity of a particle's own waves.***

$$mc^2 = hw = k' \text{ SUM OF:}\{(AMP_n)^2 \times (1/r_n{}^2)\} \quad (4)$$

**In other words, the frequency w or mass m of a particle depends on the sum of amplitudes squared of all waves $AMP_n$, from the N particles in the universe, whose (**number of pairs**) -- (which is the same as intensity) -- decrease inversely with range squared. That is, waves from all particles in the universe combine their intensities to form the total density of 'space'. This density determines the electron's wave frequency. This space corresponds to Einstein's 'aether' or quantum theory's 'vacuum.'"**

**And then as you scroll further down:**

**"If an electron's own waves can create a denser region near its center, then the intensity I of those waves at some radius of non-linearity $r_o$, must be comparable to the intensity of waves from all other N particles in the Universe. This requirement is written:**

**Intensity I = $AMP_o^2/r_o^2$ = SUM { $AMP_n^2/r_n^2$ } = N/V x INTEGRAL OF:{ $AMP_o/r_o\}^2$ 4 pi r $^2$dr**

**where V is the volume inside the Hubble Sphere and R its radius. The integral, from r = 0 to R = cT = c/H, extends over a sphere whose expanding radius R depends on the age T of the particle. Thus T is the maximum range of the particle's spherical waves. This reduces to**

$$r_o^2 = R^2/3N \quad (5)$$

**Inserting values from astronomy measures, R = $10^{26}$ meters and N = $10^{80}$ particles, the critical radius $r_o$ equals 6 x $10^{-15}$ meter. If the assumption is right, this should approximate the classical radius $r_c = e^2/mc^2$ of an electron, which is 2.8 x $10^{-15}$ meters. The two values almost match, so the prediction is verified. Apparently dense wave centers do exist, and**

$$e^2 / mc^2 = R / \text{SQUARE ROOT OF: } \{3N\} \quad (6)$$

**Equation (5) is a relation between the size $r_o$ of an electron and the size R of the Hubble Universe.**

**You must understand this if you want to understand the scalar wave aspect of it all.**

***DPFJr***

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