Overview of Electrogravitation As A Unified Field Theory by Jerry E. Bayles

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When conversing online with others concerning my theory I sometimes use derived terms in the discussions that are not understood by those unfamiliar with my theory. Although my derivation of constants related to my theory is fully covered in my book, "Electrogravitation As A Unified Field Theory," there is evidently a need for a much condensed form for those who either have not read it or have difficulty understanding what they read of it. Therefore, it is my hope that this brief overview will serve to explain the basics of my theory for now and in the future when needed.

My approach to solving the puzzle of the gravitational action began by considering energy or a perturbation of energy state as fundamental to the gravitational action. Further, that at a minimum, two 'systems' of energy were required for the interaction to occur at all. These could be any type of energy; heat, kinetic, potential, electromagnetic, electric field, magnetic field and so on.

I also reasoned that there would be a need to unite both the local relativistic frames of reference and the non local quantum realm of action. My first successful result was involving the energy of a change of energy state that creates a photon as in a laser type action.

The absolute magnitude of the result was required to be very close to the result obtained by the classical Newtonian formula: $Fn = G(m1)(m2) / r^2$, where G is the standard accepted gravitational constant, m1 and m2 are each equal to the electron rest mass constant and r^2 is the variable distance between the points of the electron locations.

The electrogravitational equation that was first developed was: $Feg = [h(f) (uo) h(f)] / r^2$. h is Plank's standard constant and uo is the permeability of free space. I then solved for (f) that would yield an absolute magnitude equal to Fn. The frequency is what I call the least quantum electrogravitational frequency fLM. This may represent not a detectable radiated frequency in the normal sense of electromagnetic radiation but a least quantum energy related uncertainty of frequency by $E = h(f)$ associated with the electron field energy jitter even when the electron motion could be slowed to very near absolute zero at near zero degrees kelvin.

The energy associated with $E = h(f)$ has an equivalent kinetic energy $Ek = m(v^2)$. Solving for v, we obtain what I call in my book the least quantum electrogravitational velocity vLM. In chapter one of my book I developed what I called the five cases of field forces in a quadset. That is, each force is shown as being derivable with four types of energy. There may be more.

Next, I reasoned that since the force associated with gravity appears to be one of attraction, the energy involved can be considered to be negative. This results in and imaginary velocity i(vLM) that I postulate as existing below what we consider as zero velocity in normal (real) space. (The i is the square root of -1.) It is of no small interest that the absolute value of that field velocity is equal to the magnitude of the square root of the standard fine structure constant. To me, this suggests another space apart from ours but in a very slight way connected and in the process causes the gravitational action energy in our space. I suggest our space may be the cause for gravitational action in a space above ours, above the speed of light in the same manner. The fine structure constant times the rest mass energy of the electron yields the field energy at the compton radius of the electron for example. This negative energy may even be the so-called dark energy or missing mass in our universe.

Associated with the least quantum electrogravitational frequency and velocity there exists as a least quantum current $ILM = q(fLM)$ where q is the standard basic unit of electron charge. Also is the least quantum electrogravitational wavelength $lambdaLM = h / m(vLM)$. These derived electrogravitational terms are developed in much more detail in my book.

I have been told that my theory can be considered as a new science. Perhaps a new science is what we need to solve the riddle of what the gravitational action really is. I have combined newton's instantaneous action at a distance (via non local quantum space) with Einstein's local space reaction through observable's (photons) to create the most likely mechanism for gravitational action. The units in my theory work out to be energy/distance times the permeability of free space times energy/distance. This agrees with the observed $1 / r^2$ action.

Richard Feynman, in his book, "Feynman Lectures on Gravitation," suggested that the gravitational constant G was perhaps a barrier to a successful description of a unified gravitational action theory in that the units may need to be modified. My theory does just that so that G is in henry/meter or (uo) times vLM^4 or (meters/sec) ^4. In absolute units, this is equivalent to multiplying the permeability of free space times the square of the fine structure constant. This is also of no small interest.

In conclusion, this is a new science and thus has terms associated with its theoretical aspects that are unfamiliar to mainstream physics. Therefore, this document will be made available now and in the future to anyone who desires the 'short version' of my theory of electrogravitation as the occasion demands.

My ebook "Electrogravitation As A Unified Field Theory" in Adobe Acrobat format is available from the below URL and help in downloading may be obtained from myself at the below email addresses.

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