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Economy of Time and Space

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Abstract: If the energy was not always there as time, then nothing would exist to ask how everything came into existence. With this in mind, timeless energy and cause of action is explained outside the realm of time where light speed is infinite (standing) relative to time. Magnetic field waves are light and gravity forces on the electric field and are curved from mass in general relativity. Gravity forces at the antinodes in the magnetic field effect mass energy in the electric field at constant light speed. Electromagnetic waves are infinite from open-ended standing wave energy moving toward the static equilibrium.

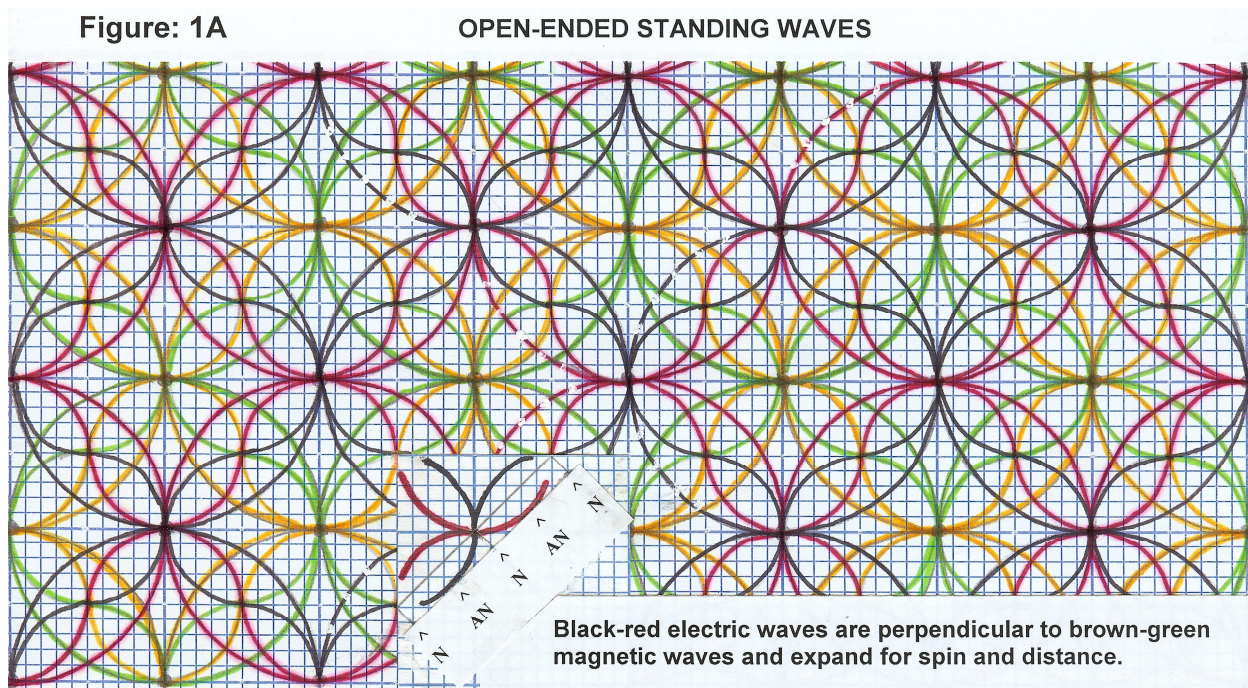
Keywords: Economy of Time, Cosmological Time, Space-Time.

1. Introduction

Finite energy is mass energy linked to light and gravity from open-ended standing waves. In effect, time does not exist outside of finite energy. Space energy moving in time is mass moving in the electric field with light and gravity in the magnetic field. Photons in the magnetic field pack a punch as particles with wave-particle function from Planck's constant, $E = hf$. This brief report with illustrations should be printed out for a better understanding of open-ended standing wave energy without time.

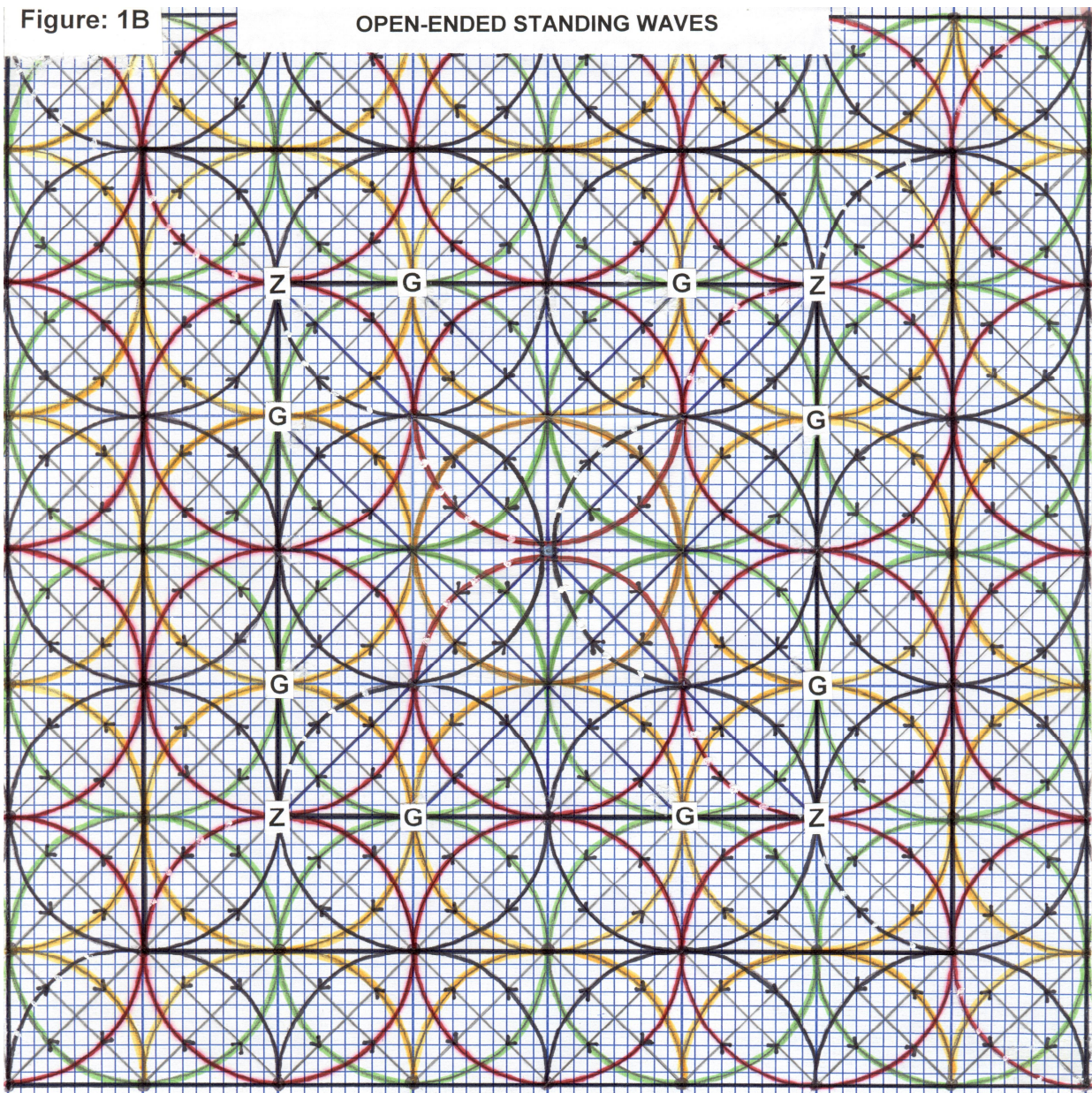
2. Report and Figures

From Figure 1A below, energy is formed into half wavelengths at ultra high frequency standing waves. The black-red (dark) electric waves are transverse waves in the expansion process and are perpendicular to the brown-green (light) magnetic waves. Half waves are open-ended where antinodes are in the middle and nodes at the ends such that each half wave keeps multiplying indefinitely completing whole wavelengths. Each half wave cell in a spiral is equivalent to two smaller half wave cells within it completing whole wavelengths where light speed is constant relative to mass in the electromagnetic field, $C = f\lambda$.



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From illustration Figure 1B below, moving two steps in any direction from mass (center) and squaring, there are four complete green (light) circles in the square. On three steps from center and squaring, there are nine complete brown (light) circles in the outer square and so on in the square of the distance from mass. Light and gravity waves propagate in the magnetic field at the square of the distance to mass (center). The black-red electric waves and brown-green magnetic waves oscillate perpendicular to each other as circular and sinusoidal waves with electric energy propagating in the direction Z and magnetic energy propagating in direction G. This is likened to placing the palm of the right hand edgewise on a table with the thumb up; then place the left palm facing down between the fingers of the right hand with the thumb extended out. The thumb on the right hand is the E vector oscillation for electric field and thumb on left hand is the B vector oscillation for the magnetic field. Propagation of electric energy is in direction of fingers on right hand and propagation of magnetic energy in direction of fingers on left hand. For the next increase in electric wave amplitude moving in direction Z, the magnetic wave amplitude will be center at the antinodes. Magnetic energy is circular as brown-green circles around mass (center) where a change in one field will make a change in the other. Open ended mass energy in direction Z in conjunction with open ended photon energy in direction G as light and gravity provides the Pythagorean Theorem and square distance. Holding the illustration up diagonally at eye level show how the electric wave nodes are in a straight line when the magnetic waves are at the antinodes. Mass is from all four corners of the electric field in direction Z going into infinity without time.



Electric and magnetic wavelets displace into larger wavelets from the antinodes of standing waves at twice the amplitude of the smaller wavelet giving distance to the field. The waves need to be visualized as a spectrum of different size wavelengths increasing in size moving outwardly. The multi source pattern of the waves is energy left in the field spectrum after mass and gravity are condensed into finite energy. Gravity forces are from the brown-green magnetic waves inside the black-red electric waves Figure 1B (center) and an inward attraction force at the antinodes that conserve energy. Gravity magnetic forces are at the antinodes when mass electric forces are at the nodes and visa versa. In Figure 1B, the black electric and brown magnetic are outward/inward circular waves respectively while the red electric and green magnetic are expanding/contracting sine waves respectively. Quarks deep in the cone apex include the black electric circular waves, the black electric sine waves and green magnetic sine waves as the proton while the brown magnetic circular waves, the brown magnetic sine waves and red electric sine waves are the neutron. Gluons are the amplitude of the wavelets like the e coupling constant but are much stronger in the cone apex holding protons and neutrons together. Beta decay is the interaction of the black-red sine waves between the neutrons and protons. Electrons at the base of the quantum cone are the red-brown coupling waves and positrons are the black-green coupling waves. Electron(s) as a mass particle continue outwardly to interact with photon waves at the base of the quantum cone which is amplitude of the e coupling constant. The e coupling constant, about 137.03597 is the amplitude for a real electron to emit or absorb a real photon. Finite energy is subject to frequency and wavelength where past, present and future are like motion pictures on screen. In essence, time does not exist at the nodes because each energy cell is a complete wavelength with two smaller cells within where $C = f \lambda$. Finite energy equal MC^2 because light speed is constant relative to mass from point A to B; otherwise, light speed is infinite without existing mass. Why is light speed not twice as fast ?, or for that matter half as fast; it can only be that light speed as a constant is related to mass energy moving out of time and into infinity.

3. Conclusion

Left Side Right Side

Extended Equation: $E = C = \infty = ZG^2$ Where ZG^2 is infinite wave energy including space with time.

Open-ended standing wave energy is infinite on both sides of the equation. Mass in the electric field already includes part of the magnetic field as subatomic forces; the remaining magnetic field spectrum is light and gravity on mass. A star is formed when a large amount of gas (mostly hydrogen) starts to collapse in on itself due to its gravitational attraction. Mass as finite energy is receding as a result of the different gravity levels in the field evidenced by the redshift and distance. Wave propagation in direction Z has the inverse square distance of light and gravity to mass. Mass energy is space and movement in direction Z is the arrow of time; hence, space-time. Thus, light speed is standing having velocity only when mass is relative to it which is finite energy in the form of curved space-time. Space-time in general relativity is not flat but curved by the distribution of mass and energy in it. Religion and science are compatible because religion is a belief in an infinite creator without time while matter having finite energy cannot be created or destroyed within itself. In summary, the difference between finite energy relative to mass and open-ended standing wave energy relative to infinity is that of space with time and space without time. Pi is due to the circles never closing in the mass composition and are infinite from open-ended standing wave energy where open-ended is space without time. Since space can exist without time, there is no need for the Big Bang to establish a beginning because infinite space is connected to finite space via the stored matter from standing waves and transfer of energy as time.

References

- [1] Feynman, R.P. (1988). *QED The Strange Theory of Light and Matter*, Princeton University Press, p129.
- [2] Hawking, S. (1996). *The Illustrated A Brief History of Time*, Bantam Books, p105.
- [3] Ibid, pp 40-42. Note: Background field General Relativity Fig.2.16 p41 is similar to the Quantum Field in Fig.1B above.