

Energy-Time and Space-Time.

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ABSTRACT

This report will show why photons have duality as a wave and as a particle and will show the origin of atoms, the cause of gravity, and offer a solution in graphic form that otherwise has remained a mystery. The theory is based on scientific deduction and deemed valid conceptually as outlined in the illustrations giving an understanding of Pi and infinity as it relates to mass in the electromagnetic and gravitational field.

(Keywords: electromagnetic field, photons, gravity, gravitational force, theoretical physics)

INTRODUCTION

The electromagnetic field is comprised of electromagnetic waves occurring in the opposite direction, resulting in standing waves where direction is relative to the source of energy as the waves are without end. The wave duality provides for both the electromagnetic and gravitational forces.

A photon is a standing wavelet focused like a particle where the speed of light is relative to infinity and mass is part of infinity. A photon has duality as a wave and as a particle [1]. Energy is equal to frequency of the photons based on Planck's constant.

REPORT OF FINDINGS

Electro and magnetic wavelets expand into larger wavelets from the antinodes (displacement) energy of standing waves at twice the wave amplitude of the smaller wave giving distance to the field. The wavelets increase in amplitude to a level causing stress energy from expansion resulting in a coupling link of electro photons to fuse having a strong nuclear force in an open atom with a nuclei and electron(s).

The electro field coupling is perpendicular to the inside magnetic field coupling, therefore, the electro link will fuse as the weaker of the two from energy expansion. Atom identity is determined by the life cycle duration of the electro coupling that became mass. Like the life cycle of a star [2], a field coupling having a longer duration to expand will fuse as a lighter atom such as a hydrogen atom. Direction of energy is relative to the source energy of mass and field energy. The field expands in wavelets from the displacement energy of standing waves and the energy from mass propagates on the wavelets.

From the field illustration Figure 1A the black-red lines (dark color) are the electro wavelets perpendicular to the page and the brown-green lines (light color) are the magnetic wavelets on the same plane as the page. The atom is depicted at center when an electro field coupling link fused from expansion. The coupling link between the open circles is the e coupling constant, like 137.0359 [3].

Moving two steps from center and squaring, there are four complete light color circles to the square. On three steps from center and squaring, there are nine complete light color circles to the square and so forth in the inverse-square distance of the magnetic field where the hypotenuse of each square alternates between the electro and magnetic wavelets.

Energy is fused to form matter from an open electro coupling link giving a point center to the magnetic circle of photons where the ratio of the diameter in the magnetic circle to its circumference is infinite. Gravity forces come from the magnetic wavelets around the atom (Figure 1A) which is an inward attraction force at the nodes that help conserve the energy (Figure 1B). Gravity will adjust vibratory forces for any kind of atom as the field tends to restore the coupling that became mass to its original state.

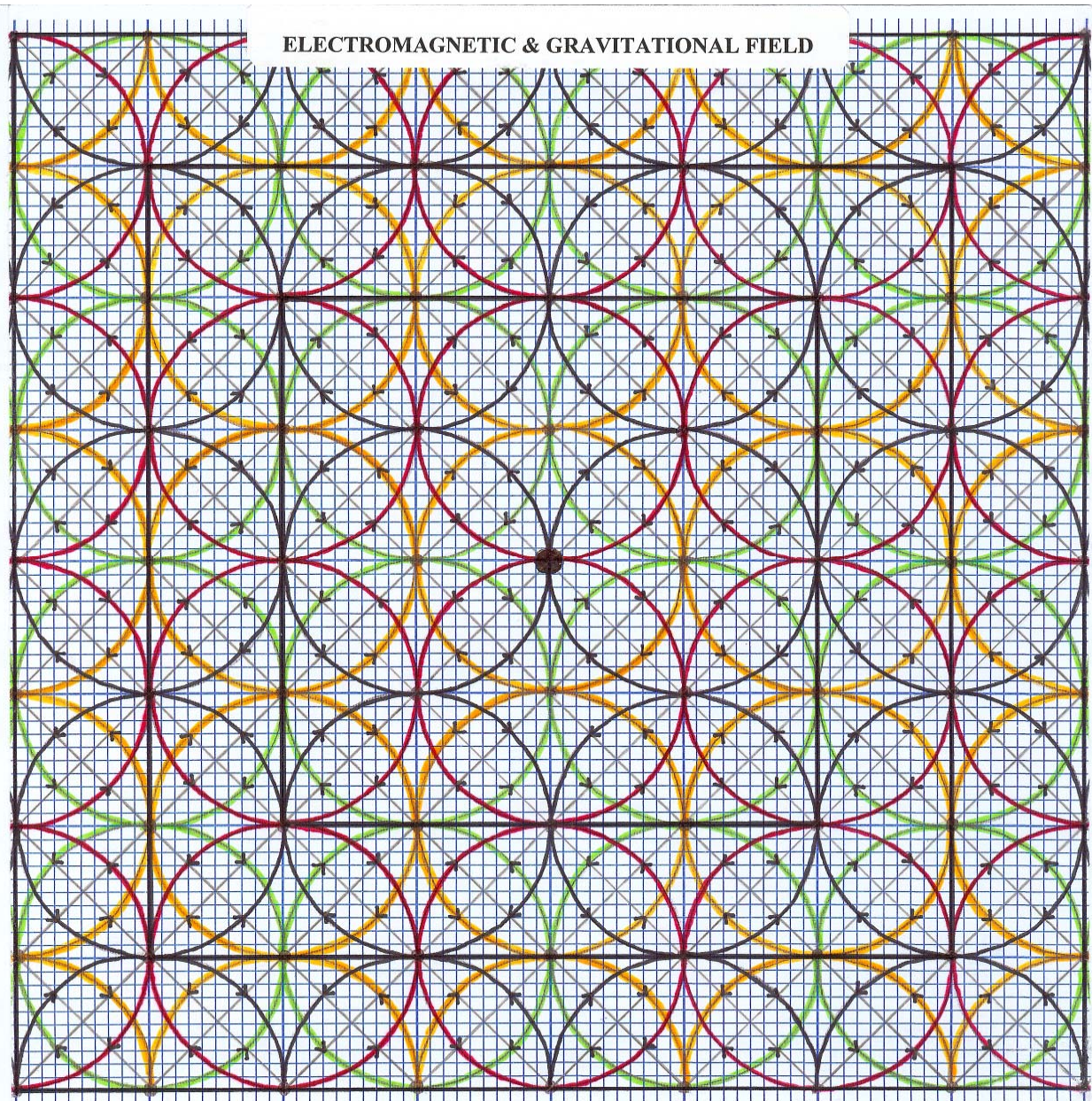


Figure 1A: Electromagnetic and Gravity Field.

The atom and gravity are united and comply with the inverse-square distance and the constant G.

It follows that accumulation of mass includes accumulation of gravity as the photon wavelets interact with other field electrons via constructive and destructive wavelet interference from the wavelength spectrum.

CONCLUSIONS

<u>Left Side</u>	<u>Right Side</u>
Einstein's Equation: E	$= MC^2$
Expanded Equation: $E = C = \infty = \textit{Open Circle}$	$= MC^2$

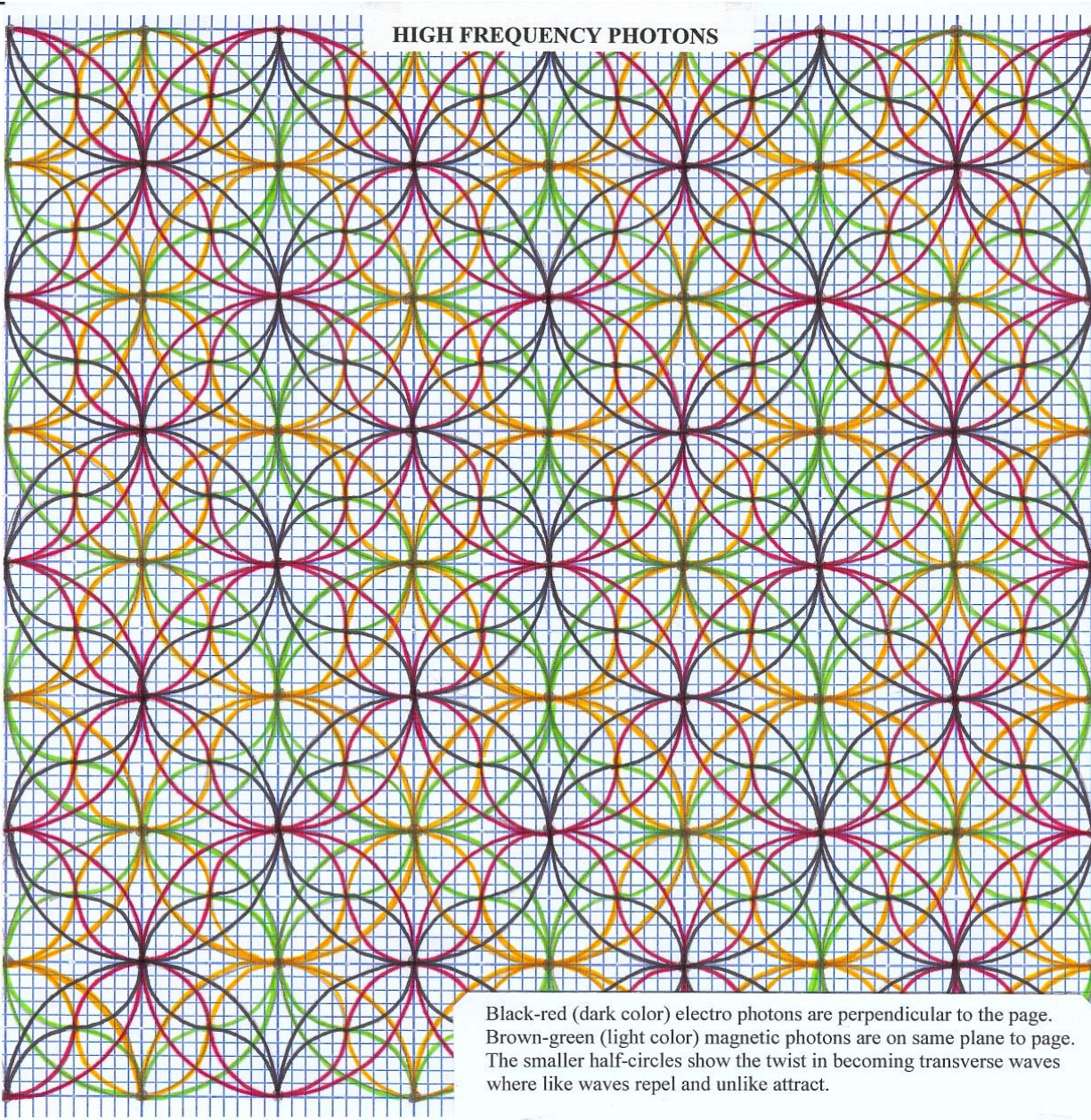


Figure 1B: High Frequency Photons.

Zero times anything equal zero given mass on the right side of the equation. Zero does not apply on the left side of the equation because there is no mass. As follows:

With Mass $0 \times \text{Mass} = 0$ (right side of equation)
 With Mass $0 \times C = 0$ (right side of equation)

Without Mass $0 \times C = \infty$ (left side of equation, since zero does not apply)

Without Mass $E = \infty$ (left side of equation, since zero does not apply)

Therefore, $E = C = \infty$ (left side of equation)

Infinity is the field without mass Figure 1B. Infinity is the open circle without mass Figure 1B. Infinity is on the left side of the equation because it's not a number.

Mathematics has no application on the left side of the equation because there is nothing to measure or count. Photons are counted on the right side of the equation with mass because C is finite (general relativity). Photons are not counted on the left side of the equation because C is infinite (no relativity).

In essence, the speed of light is relative to infinity because the speed of light is coming from the same energy. The idea of speed is related to getting from point A to B. If there was no point A and B, the waves would be fixed or standing relative to infinity. Getting from point A to B is the propagation of the standing waves at the value of C relative to mass. C^2 is the offset to the inverse square distance of the field. If there was no mass, there would be no need for C^2 and E would equal hf or C. If there was no mass, there would be no circle center for a diameter as a ratio to the open circumference.

Time is relative only when mass is created where C is finite. Time is without mass in the form of photons always moving. Time is the act of joining the three spatial dimensions together as part of time itself. An observer is part of time and part of infinity from the same source of energy where the speed of light is the same for all observers. General Relativity indicates that everything is connected within the context of curved space-time and motion of mass [4].

Energy-time is the expansion process of energy that creates mass and gravity. Energy-time is a dimension in the medium of photon wavelets. Energy-time is a universal constant for time, mass and gravity in a changing field of photons. From the universal constant of energy-time, the vacuum in free space is part of infinity. From this it can be concluded that energy in the form of photons is responsible for time, mass, and gravity where energy is equal to the reality of forming mass in infinite time. Infinite time is the rejuvenation of energy in the form of photons.

REFERENCES

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2. *Ibid*. 105.
3. Feynman, R.P. 1988. *QED The Strange Theory of Light and Matter*. Princeton University Press: Princeton, NJ. 129.
4. *Ibid* Hawking. 40.

ABOUT THE AUTHOR

Linus O'Sullivan, BBA. Upon retiring from the business world, he studied physics over time and determined that the electromagnetic waves have duality, the same as photons, opening up a new different way of thinking about the universe. His interest is to pursue photon energy as it applies to General Relativity and infinity.

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