

Induction in the Dragged Dirac Sea of Particles-Antiparticles, Producing the Known E/M Waves, with Velocity C, with Respect to it

Panos T. Pappas¹, Theocharis P. Pappas² & Eleftherios P. Pappas²

¹ Retired Professor, Athens, Greece

² Department of Physics, University of Athens

Correspondance: Panos T. Pappas, 26 Markopoulioti Str., 11744, Athens, Greece. E-mail: ppappas@papimi.com

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Abstract

In this paper we specify the velocities involved in the Ampere absolute force, with absence of a single paradox, contrary to the multiple paradox theory of S. Relativity.

The energy of a pair production of particles-antiparticles by a photon from the Dirac sea proves that this sea, which may be called an Eather, is comoving or dragged along with the motion of the Earth. Moreover, this Eather is always the basis with respect to which all the magnetic forces or better the Ampere forces, that all the correct magnetic forces originate from, should be defined with.

Keywords: Dirac sea, Ampere force, Lorentz force, velocity of light, illusions of Relativity, E/M waves.

1. Introduction

The first paper (Einstein, 1905) of Einstein of Special Relativity of 1905 was published with the title: "*On the electrodynamics of moving bodies*". About 20 years later, Einstein renames it to "*Special Relativity*".

Indeed, the urgent and burning problem in 1905 was the Forces on two static or moving charges.

The Earth is known to move in space around the Sun and around itself, so the static charges in a sense were not static, but moving. The velocity was not constant, but varying between a minimum velocity to a maximum velocity depending on the position of the Earth around the sun and the time of the day. So, to the Coulomb force between two static charges; in the same sense, a magnetic force should be added together. According to the TROUTON-NOBLE (Trouton–Noble experiment, 2015; Trouton & Noble, 1903; Trouton & Noble, 1904) experiment of the suspended charged capacitor (Dirac sea, 2015), no magnetic force was involved to turn the capacitor, in any way. This experiment was considered in agreement with Special Relativity under the Lorentz transformations framework, but as we shall see here, it is a trivial and a direct consequence of the Ampere Force. The absolute Ampere force is:

$$F_{12} = -k r_{12} I_1 I_2 r_{12}^{-3} \{ 2 ds_2 \cdot ds_1 - 3 r_{12}^{-2} ds_2 \cdot r_{12} ds_1 \cdot r_{12} \} : \text{thus } F_{12} = -F_{21}. \quad (1)$$

2. The Energy Transferred from the Dirac Sea:

The energy transfer to electron and positron in pair production interactions (Ferlic, 2015; Pair production, 2015) is:

$$E_{tr} + E_{recoil} = h\nu - 2mc^2, E_{tr} > 0, E_{recoil} > 0, \quad (2)$$

where h is Planck's constant, ν is the frequency of the photon and the $2m$ is the combined mass of the electron-positron. The electron and positron can be emitted with different kinetic energies. However, if $h\nu - 2mc^2 \rightarrow +0$ in (2), the transferred energy E_{tr} to the particles and the recoil energy E_{recoil} , are both: $E_{tr} \rightarrow +0$, $E_{recoil} \rightarrow +0$. E_{tr} is equal to the kinetic energy of the pair, of the sea of particles-antiparticles, However, the Earth is moving with various velocities. Therefore, the sea of particles-antiparticles, the Dirac sea (Dirac sea, 2015), is dragged along Earth, with no relative velocity $v=0$, for its contained particles with respect to the Earth, no matter whatever is the velocity of Earth.

Thus, we discover a concept of an equivalent dragged Eather of Stokes (P. T. Pappas, L. P. Pappas, & T. P. Pappas, 2014)- that is the Dirac sea (Dirac sea, 2015), in which light is locally and Universally transmitted.

The similar mechanism happens in vacuum with the Dirac sea (Dirac sea, 2015). Consider a real stationary axis S_2 that carries an AC. Suppose the axis S_1 is imaginary vacuum full of particles-antiparticles of opposite charges (i.e.

electron and positrons, etc.), then the AC of the real axis S_2 will induce an opposite current by moving the pairs opposite particles in opposite directions. Thus producing a second opposite current, corresponding to an opposite magnetic field in vacuum to the initial magnetic field of the real axis S_2 . Thus, now, via the secondary magnetic field, a third magnetic field will be induced, and so on, making a propagating magnetic field in the vacuum by the dragged Dirac sea by the dominant gravitational field:

THE MOST GENERAL FORCES FOR CHARGES (SI units):

$$F_{12} = 1/(4\pi\epsilon) dq_1 dq_2 (r_{12}/r_{12}^3) \{1/\epsilon - \mu_0 \epsilon_0 [2V_2 \cdot V_1 - (3/r_{12}^2) \{V_2 \cdot r_{12} V_1 \cdot r_{12}\}]\}, \quad V_2, V_1, \text{ WITH RESPECT}$$

TO THE DOMINANT GRAVITATIONAL FIELD.

$$\text{COPARE WITH } F_{12} = I_1 I_2 \{2ds_2 \cdot ds_1 - ds_2 \cdot r_{12} ds_1 \cdot r_{12}\},$$

$$V_2 \sim ds_2, V_1 \sim ds_1, I_1 \sim dq_1, I_2 \sim dq_2. V \text{ for current in a wire} \approx 258.000 \text{ Km/s.}$$

IF ONE VELOCITT BELONGS TO ONE SYSTEM WITH A RELATIVE COMPOSITE VELOCITY FROM THE REST SYSTEM, THAT VELOCITY SHOULD BE CONSIDERED, WITH

RESPECT ALWAYS TO THE DOMINANT GRAVITATIONAL FIELD.

IN GENERAL EQUIVALENT RELATIVE VELOCITIES WITH RESPECT TO THE DOMINANT GRAVITATIONAL FIELD.

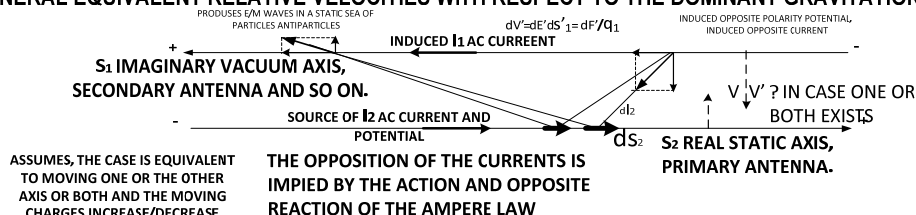


Figure 1. The most general forces for charges

We have a new traveling (waving) +/- electrodynamic force, if we take into account an AC traveling with finite speed that increases and unavoidable decreases source current, and which does not make a closed current and that produces an induction in Dirac Sea, and thus, a delayed propagation with the result of an extra field wave.

Thus, E/M waves are produced in the dragged by earth, Dirac Sea of particles-antiparticles. There is no what is known as absolute vacuum. A traveling isolated or an accelerating/ de-accelerating (in a series of electrons or not) electron might be considered a pulse or a spike current. Thus, the particular electron should always radiate in this way.

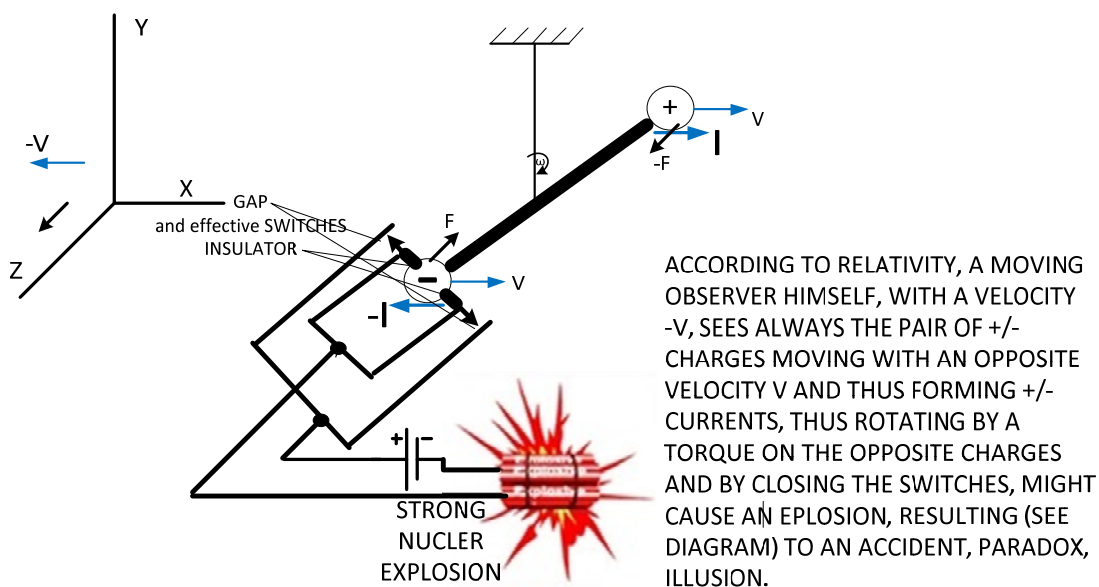


Figure 2. A passing by observer, as causing telepathy to the pair of opposite charges, makes them to rotate, closing one of the two switches, resulting to a strong nuclear explosion that might have destroyed the Earth, according to the Special Relativity of Einstein, unless this theory produces only illusions

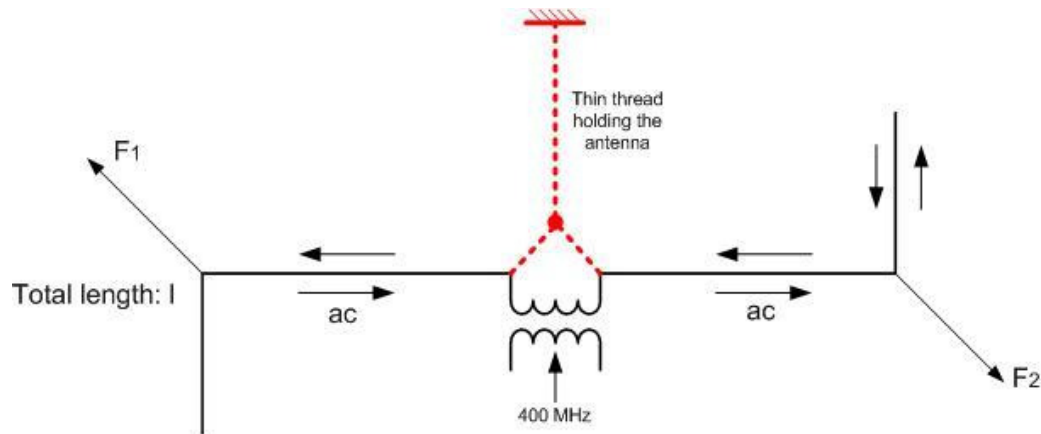


Figure 3. The P. Pappas and T. Vaughn experiment carried in 1990, in California, U.S.A., near San Francisco, in Modesto, with the help of the Physicist T. Vaughn (Pappas & Vaughan, 1990)

Falsifying the Relativistic law of Lorentz. Since then, for the first time of his life, P.T.P. ceased being a relativist.

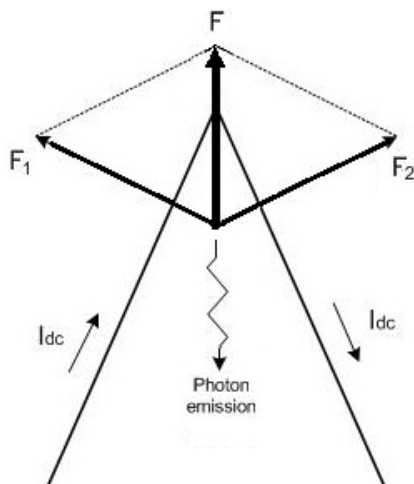


Figure 4. Forces between the two sections, according to Relativistic force of Lorentz, producing, the paradoxical self-propulsion of the system, violating momentum, never observed

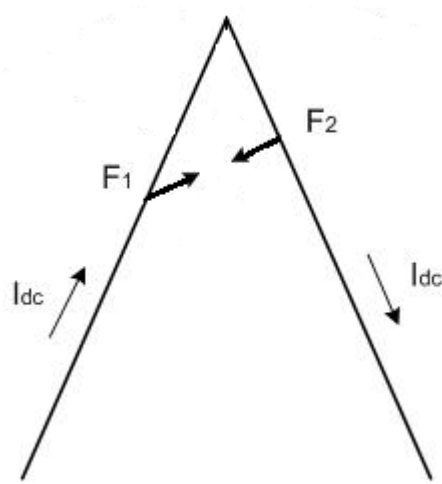


Figure 5. Forces between the two sections, according to Absolute Ampere Force. No resultant, as $F_1 = -F_2$, thus no self-propulsion, contrary to Figure 4

3. Conclusion

All the experiments that established the Special Relativity of Einstein are surpassed by the present Theory, descending from the hidden for one century and half from all textbooks and papers of the literature, particularly after 1905, the year of birth of S.P.. The Hidden Force Law of Ampere, first time published in 2014 after one century and a half of censorship by P. T. Pappas, L. P. Pappas, & T. P. Pappas (2014).

E/M waves travel in a medium (the Dirac sea of particles-antiparticles) which is always dragged by a body's dominant gravitational field (always relative velocity to it, is $v=0$), as we had promised to explain in Ref. 5, for the absolute (non-relativistic invariant) Ampere Force, in the particular form:

$F_{12} = -\mu_0 4\pi r_{12} r_{12}^{-3} dq_1 dq_2 \{2V_1 \cdot V_2 - 3r_{12}^{-2} V_2 \cdot r_{12} V_1 \cdot r_{12}\}$, with V_1, V_2 , always to be taken with respect to the said dominant gravitational field, which thus, the velocities (and including the Force F_{12}) become unique and absolute, and not to use the arbitrary Relativistic velocities of the charges q_1 and q_2 with respect to an arbitrary moving observer, preserving thus, the absolute character of the above Ampere Force F_{12} .

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