

Canadian Journal of Physics

Remark on creation and dis-creation processes related to origination of charge and matter

| Journal: | Canadian Journal of Physics |
|---|---|
| Manuscript ID | Draft |
| Manuscript Type: | Research Note |
| Date Submitted by the Author: | n/a |
| Complete List of Authors: | Christianto, Victor; Institut Pertanian Malang, Forestry Smarandachey, Florentin; University of New Mexico - Gallup, Mathematics and Sciences Boyd, Robert ; Princeton BioMedtech Corp, Information Physics Research |
| Keyword: | Kelvin-Helmholtz electron vortex theory, origination of charge, renewable energy, matter creation, Kolmogorov theory of turbulence |
| Is the invited manuscript for consideration in a Special Issue? : | Not applicable (regular submission) |
| | |



Remark on creation and dis-creation processes related to origination of charge and matter

Victor Christianto^{*1} & Florentin Smarandache² & Robert N. Boyd³

¹Malang Institute of Agriculture, Indonesia

²Dept. Math. & Sci., Univ. of New Mexico, USA. Email: smarand@unm.edu

³ Consulting physicist for Princeton Biotechnology Corporation, Dept. Information Physics Research. Email: rnboydphd@comcast.net

*Email: victorchristianto@gmail.com. URL: http://researchgate.net/profile/Victor_Christianto

Abstract

In this article, we discuss shortly on creation and dis-creation processes related to origination of charge and matter by the production of any force you like, especially from Kelvin-Helmholtz electron vortex theory. Both processes, creation and dis-creation, can produce excess electrical energy, so we think such an investigation is worthy to continue. When the matter creation process is deeply investigated and technologies arise from the studies, we will be able to make any amount of any kinds of atoms we like. Later, after deeper investigations, we will be able to make "designer atoms" which will have physical properties, as desired by us, perfectly suited for the selected specific application.

Introduction

The origination of charge is a creation process. Infra-atomic reactors (cf. G. Le Bon) are based on dis-creation processes. Both these things are happening all the time, everywhere. Matter is both created and destroyed all the time, everywhere. This has already been proved by experiment and instrumented observations. Therefore, now it appears worthy to discuss how these processes may be related to origination of charge and matter.

^{*}Correspondence: Victor Christianto, Independent Researcher. Email: victorchristianto@gmail.com

That is the topic of this short communication.

Section 1. KH electron vortex and turbulence theory

Turbulence origination of Kelvin-Helmholtz electron vortex from classical perspective (see also [1],[2])

For a non-viscous fluid, pressure exerts a force of -grad p per unit volume. (There is also a gravitational aether force, ρg per unit volume.) The aether fluid obeys Newton's law of motion, so $\rho dv/dt = -grad p$, as the equation of motion. (This is used to determine fluid pressure when the flow is known.) A vorticity field is $\omega(x,y,z,t)$ in magnitude and direction, at any point. Lines drawn parallel to ω are called vortex lines, and their density can express the strength of the rotation, just as streamlines define the velocity field, and magnetic field lines define a magnetic field. (Such lines are not real, but greatly aid in visualization).

The line integral of the component of velocity, tangent to a closed curve, is called "circulation", and clearly measures the amount of rotation in the vortex. Let's take a small circle surrounding an area $A = \pi r^2$ as the path of integration. If the angular velocity is ω , then the circulation will be $2\pi r \propto \omega r = 2\pi \omega r^2 = 2\omega a$. Thus, the circulation of the fluid, per unit area, is directly proportional to the angular velocity of rotation.

Stokes's Theorem states that the circulation of a vector about any curve C, is the surface integral of the curl (del cross) of the vector over the area enclosed by C. If this is applied to the present case, we find that curl $v = 2\omega$, so that the rotation of the vortex is half the curl of the velocity. Since the divergence of the curl of a vector is identically zero, div $\omega = 0$. This means that if we consider a tube whose walls are parallel to ω , called a vortex tube, then this tube has the same "strength" (the product of the area and ω), at any point. This means that the vortex tube cannot end within the fluid, and must either close into a ring, or go to a boundary.

The Kelvin-Helmholtz theorem, states that the substantial derivative of the circulation about any curve C, in a fluid of zero viscosity, vanishes. This applies to any curve C on the walls of a vortex tube, or on any surface parallel to the vorticity, and implies that vortex lines are carried with the fluid, and that the "strength" at any point remains constant.

If the initial state of a fluid to which the KH theorem applies, has no rotation, that is, curl v = 0 everywhere, the fluid will remain irrotational as it moves. This also means that if rotation exists in the vortex, it will persist for all time. The stream function in a fluid or gas is analogous to the use of the vector potential of the magnetic fields of electric currents. From this, the foundational basis of electromagnetism is actually a description of fluidic flows in the aether. Consider a vector field A = kA(x,y). (A(x,y) may also vary with the time, but we will consider that later.) Suppose that v is derived from A by the rule v = curl A. Writing this out: v = $i(\partial A/\partial y) - j(\partial A/\partial x)$, so that vx = $\partial A/\partial y$ and vy = $-\partial A/\partial x$.

Now, writing out the continuity equation of div v = 0, it is automatically satisfied for any function A. To find the relationship between A and the vorticity, we write out the z-component of curl v, to find that $2\omega = \frac{\partial vy}{\partial x} - \frac{\partial vx}{\partial y}$ -div grad A.

In considering two-dimensional motions, the vorticity of the aether fluid can only be parallel to the z-axis, since the velocity must lie in the x y-plane and is independent of z. (The vector potential of a magnetic field satisfies the same equation, where the current takes the place of fluidic vorticity.) The above, is Helmholtz's equation. The one scalar function A, thus allows us to find two interrelated components of the fluid velocity.

If the aether flow is irrotational, then A will satisfy Laplace's equation, and solve the problem as well as the velocity potential φ . In fact, A and φ are conjugate functions. In two dimensions, they are the real and imaginary parts of a complex analytic function. The streamlines A = constant, are orthogonal to the equipotentials φ = constant, again pointing to the direct relation between fluidic aether flows and the Maxwell equations.

Vortex lines have been postulated to study fluid dynamics. A vortex line has a finite strength (vorticity times area), but zero area, similar to the understanding that a dipole has zero length. The resulting vortex lines tend to propagate at infinite velocity, unless the lines remain absolutely straight. This would be the 5th aether phase state in *Mishin's 5-phase aetherdynamics*.¹ See figure 1 below.

He introduced the superluminal and instantaneous physics

http://fs.unm.edu/SuperluminalPhysics.htm

¹ In Figure 1, there is reference to phase 5: Intergalactic superluminal. A few additional note: Based on a 1972 manuscript, when he was a student in Rm. Valcea, he published in 1982 the hypothesis that 'there is no speed barrier in the universe and one can construct any speed', (

http://scienceworld.wolfram.com/physics/SmarandacheHypothesis.html). This hypothesis was partially validated on September 22, 2011, when researchers at CERN experimentally proved that the muon neutrino particles travel with a speed greater than the speed of light.

There is no Speed Barrier in the Universe, by F. Smarandache, Bull. Pure & APiPl. Science, Vol. 17D (Physics), No. 1, p. 61, 1998; updated). http://fs.unm.edu/NoSpLim.htm

⁽domains that study the physical laws at superluminal and respectively instantaneous velocities), and the neutrosophic physics that describes collections of objects or states that are individually characterized by opposite properties, or are characterized neither by a property nor by the opposite of the property. Such objects or states are called neutrosophic entities.



Figure 1. Mishin's 5-phase aetherdynamics.

Now we are beginning to discover the origin of the various types of turbulences in the ambient aether flows which eventually manifest as KH electron vortices. The aether flows around an already existing, but non-motional, electron vortex in a streaming aether fluid flow, sheds vortex pairs which are rotating in opposite directions, alternately from the two sides of the KH vortex, resulting in lines made of vortices, called a vortex "street" (also called a "*von Kármán street*"), behind it. These "streets" are seen on all scales, from flows in brooks, to the atmosphere, to the fluidic aether in which KH electron vortices eventually come into existence.



Figure 2. Illustration of von Karman street (source: [7], see also [8])

Alternating transverse forces can act on a cylinder, for example a telephone wire, which can make it vibrate. This is the reason why wires "sing" in the wind. The wire cylinder is stationary in a stream of moving media. Behind the cylinder is a turbulent wake of slowed air. Two vortex sheets are formed on each side of the wake, and their instability results in the vortex streets (streams of vortices). Vortices are formed in a Kelvin-Helmholtz instability in the same way. Analogous effects occur in aether flows which pass around an existing electron sphere, but in this situation the resulting "street" of vortices form into rings, which are exactly many newly formed KH vortices.

Vortex "shedding" produces resonances with the object that impeded the flow. In this case, the vortices are resonant with the existing electron. This means the positron could be viewed as an "anti-resonant" particle. Resonance at this level will constrain the vortices in the "street" to form duplicates that are the same as the original forms, in terms of "aether mass" (constrained aether forms). This also implies that positrons can be the basis for the formation of new electrons, in the parallel aether stream. See figure 7.



Figure 3. alternating electron-positron, alternating rotation directions (After RN Boyd)



Figure 4. alternating electron-positron (After RN Boyd)

The above figure 8 is an alternative version of Figure 7. This raises a number of questions: Does this imply that both positive and negative charges already both exist, internal to the aether which comprises the aether winds? This implies that behaviors of obstructed aether flows are the origination of the **cause** of the distinct <u>charges</u> of electrons and positrons, and of electrons and protons.

The KH vortex model of the electron is simultaneously a sphere, surrounding a nest of concentric smaller vortices, which have a vortex ring at the middle of the concentric aether flows which comprise the particle. So the ring model is only partially valid.

Section 2: KH electron vortex and origination of charge and matter

Vortex lines have been postulated to study fluid dynamics. A vortex line has a finite "strength" (vorticity times area), but a zero area, similar to the understanding that a dipole has zero length. Vortex lines tend to propagate at infinite velocity, unless the lines remain absolutely straight. (This would be the 5th aether phase state in Mishin's 5-phase aether dynamics. See diagram no. 5)

Importantly, the instant a vortex line departs from an absolutely straight line of propagation, **charge develops** in all the vortex lines that are bent. According to the direction of the bend, away from a perfectly straight line, a positive or a negative charge develops.

Parity (handedness) is directly involved in the development of charge. Parity determines the sign of the charge. The internal quantum numbers of electrons are opposite to those of positrons, which is just a restatement of the handedness (parity) of the internal aether circulation directions. The involvement of superluminal SQ infinitesimals in the formation of electrons and positrons, and superluminal internal circulations of the aether constituents of electrons and positrons, eliminates Lorentz "invariance" from consideration.

Lorentz "invariance" is only valid for a **single absolute value of c**, which value was experimentally proven to vary by as much as plus and minus 3000 meters per second, as recorded in the handwritten log-books associated with the hundreds of repetitions of the Michelson-Morely experiments during the last century. In addition, Lorentz "invariance" has nothing to do with electrons, positrons, and so on, due to the fact that "invariance" is only valid for exact specific-velocity <u>photons</u>, which are **not identical** to electrons, contrary to the expressions of Heisenberg in his first book on quantum theory.

Vortex lines circulating internal to electrons or positrons are **always** bent away from a straight line, so the vortex lines circulating internal to electrons and positrons are **always creating charge**. This is **the origination of charge** and the reason charge never ceases, as long as the charged particle exists.

In addition, the electron-positron pairs are forming in aether-connected chains, which chains are responsible for the creations of atoms, as well as protons and neutrons, in a manner which depends on how long is the "street" of connected electron-positron pairs, which in turn, become parts of the nucleus of the new atom, in terms of the atomic number of the nucleus of the atom, in an *e-p* pair model of the composition of, and the construction of, the protons and neutrons which comprise the nuclear particles of atoms.

If the parallel aether flows which are forming chains of *e-p* pairs are short-lived, we will only see hydrogen, or perhaps the occasional helium atom being generated. Longer *e-p* chains result in larger atoms. The local density of types of atoms and alignments of atoms, may give an indication of the frequency of aether wind streamlines, in that region. Proper instrumentation of vortex-line (SQ infinitesimals) resultant behaviors can be used to map astronomical space, comprising an infinite range observation capability, due to the fact that vortex lines propagate with infinite velocity.

Section 3: Creation and dis-creation process

The origination of charge is a creation process. Infra-atomic reactors (cf G. Le Bon) are based on dis-creation processes. Both these things are happening all the time, everywhere. Matter is both created and destroyed all the time, everywhere. This has already been proved by experiment and instrumented observations. The infinite volume universe has creation and dis-creation events going on everywhere all the time. Creation is ubiquitous and unending. Everything and everybody participates in creation processes. Thermodynamics is not valid, in general, except that topological thermodynamics has some important merit. The late Prof. R.M. Kiehn never investigated the creation processes, nor the dis-creation processes, very deeply. He did as well as can be done, from his curtailed information base which considered that the way things are at this location and time, are universally valid, for all time. Not so.

He did, however, make excursions into Pfaff dimension 4, so that is to be highly commended. However, Pfaff dimension 4 is not the upper limit of the Pfaff dimensions, which are based on the graded Grassman algebra. Think about what higher order Pfaff dimension investigations might be capable of, when you get around to it.

Such an electron creation process does not make sense from the von Karman vortex "street" perspective, which results in electron-positron chains, which can form nuclear particles if the chain is long enough, then into entire atoms, if the chain of alternating electrons and protons is long enough.

However, the physical extent of subatomic particles such as the electron, proton, and neutron, have been measured by experiment. The stability and longevity of subatomic particles is fairly well documented. The life span of subatomic particles is incorrect though, as the proton is calculated, without physical evidence, to live for billions of years. They do not. Proton life-span is considerably shorter than that, on average, when universally ubiquitous gamma ray dissociations of atoms are included in considerations of the average life of a proton.

It is possible that when an electron captures a photon, the mass and the size of the electron increase for a short time.

This helical form of EM ties into the KH electron, during photon capture events, The captured photon causes an energetic imbalance in the desired and required stability of the electron, which causes the photon to be ejected in a short while.

Perhaps the formation of the electron during a creation incident causes the aether which is involved in the electron, to change its phase-state towards being a "solid". This might account somewhat for the physical properties and behaviors of the electron. Does the electron change form in any way, while it is involved with an atom? Atoms are all about aether motion, ultimately.²

The fact that an atoms are the same sizes as gamma rays, causes a resonancebreakdown, when a gamma ray, exactly the same size as the given atom, passes somewhere close to that atom, causing the entire of the atom to dissociate into the aether from whence it came. Poof! Gone.

If the gamma ray which causes atomic dissociation is not exactly the perfect wavelength for the given atom, the atom will break down in showers of multitudes of subatomic particles, rushing away from the former location of the atom.

Some of these particles cannot be observed during collider experiments, which are as primitive as throwing rocks at other rocks from a large distance, and then studying the small bits of rock and dust, resulting from the collision. ("Look! This bit has some red in it!", all excited about the discovery.) There is a limit to what can be produced by colliders, based on the angles of intersection during the occasional collisions, and according to what is colliding with what.

There have been very few collider experiments involving atoms, by the way. I wonder why? I think it is because they don't want people to know what happens to **atoms** during collider experiments. Nuclear "enrichment" by

² Remark by RNB: I need to find out more about the solid phase of the aether. I have a sense that it the entire atom is a mixture of solid-phase stability and fluid-phase motions.

neutron bombardment is the only collider-type event that they will allow the public to hear about.

T.T. Brown made apparatus which involved a linear accelerator bombarding gold mine refuse, which was slowly passing through the accelerator output, on a conveyor belt. Brown's apparatus made prolific quantities of gold in the refuse, as the gold "seed atoms" proliferated into larger and larger numbers of gold atoms, eventually forming into gold crystals, connected to the "seed atom". The process was quite profitable, even considering the expenses of the equipment.

There is also a huge cover-up of photonuclear reactions, where inquiries are flooded with vast numbers of papers, articles, and discussions, that are completely irrelevant to the facts, with a small number of relevant items found, when one is determined enough in their searches. (Months, not minutes.)

Infra-atomic interactions (resonant gamma rays and atoms) are vastly more interesting. While exact resonance will result in the entire of the atom being converted back into aether, and vanishing, by controlling the exact frequency of gamma radiation relative to a given atom, when the impacting ray is gauged to varying, small frequency deviations from exact resonance with the given atom, when the atom-gamma ray interaction occurs, not only are there showers of subatomic particles, but specific forces of any selected kind, will arise from the reaction site.

Heat, light, cold, attractive force, repulsive force, gravity, anti-gravity, magnetism, electric fields, anti-electric fields, propulsive force, whatever kind of force you would like, will be radiated from the infra-atomic interaction site, directly controlled by the gamma ray frequency offset, relative to the given atomic element. Since this is not exact resonance, some subatomic particle effluvia will result, and must be accounted for, for safety reasons, in the local environment surrounding the reactor.

Section 4. Concluding note: Practical and potential implications of the proposed view

In this article, we discuss shortly on creation and dis-creation processes related to origination of charge and matter by the production of any force you like, especially from Kelvin-Helmholtz electron vortex theory. Both processes, creation and dis-creation, can produce excess electrical energy, so we think such an investigation is worthy to continue.

When the matter creation process is deeply investigated and technologies arise from the studies, we will be able to make any amount of any kinds of atoms we like.

Later, after deeper investigations, we will be able to make "designer atoms" which will have physical properties, as desired by us, perfectly suited for the selected specific application.

For example, Gustave Le Bon made an "infra-atomic" reactor, which he designed to produce electricity. Le Bon stated that any kind of atom could be used as fuel. His reactor was so efficient, he stated that after 100 years of continuous operation, at 500 kilowatts, the atomic material he used would be measured to have lost approximately 1 gram of weight, the lost matter having reverted into the aether.[3]

Using the same principles as outlined above, when sufficient control of atom parameters becomes available, we could produce a version of the metal lead with atoms which do not melt until 2000 C temperature is exceeded. (This example has already been accomplished by T.T. Brown, during the 1950s.) There will be limits regarding what parameters can be controlled, and to what extent the physical properties of the given atomic element can be changed, which will be specific to that kind of atom.

However, tailored combinations of tailored atoms can manufacture new kinds of materials, and new kinds of custom-tailored alloys, with amazing physical properties.

In the sequence of new technology developments related to matter-creation processes, we will eventually be able to make complicated large objects, such as extraordinarily capable automobiles, on an atom-by atom basis.

Soon after that stage is reached, we will be able to mass produce anything we choose, on an atomic basis, at no cost for the materials, and no cost for the automated assembly. The item can be made an integral whole, with no bolts or rivets or welds or adhesives required to assemble the unit on an atom-by-atom basis.

Eventually, making new cars on an atomic basis, will be as easy and convenient as printing a page out of your computer.

VC, FS, RNB

3

References:

[1] Victor Christianto, Florentin Smarandache, & Robert N. Boyd. Electron Model Based on Helmholtz's Electron Vortex Theory & Kolmogorov's Theory of Turbulence. Prespacetime Journal, January 2019, Volume 10 | Issue 1 | pp. 139-148. url: www.prespacetime.com

[2] E. Charpentier, A. Lesne N. Nikolski. Kolmogorov heritage in mathematics. Heidelberg: Springer-Verlag Berlin Heidelberg, 2007, p. 25

[3] https://www.nuenergy.org/intra-atomic-energy-and-the-forces-derived-therefrom/

[4] J. Vranjes. Tripolar vortex in plasma flow. Planetary and Space Science 47 (1999) 1531-1535

[5] M.N. Nishino et al., A case study of Kelvin-Helmholtz vortices on both flanks of the Earth's magnetotail. Planetary and Space Science 59 (2011).

• • •

Document history:

ver. 1.0: 25/01/2019

ver. 1.1: 28/01/2019

ver. 1.2: 3 feb/02/2019