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Journal Name:	Physical Science International Journal
Manuscript Number:	2014_PSIJ_11129
Title of the Manuscript:	ELECTRO-GRAVITATIONAL TECHNOLOGY VIA CHRONON FIELD
Type of the Article	

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	<p>The exposition is realized through the field observable and nothing is said of the sources, that is to say, the quantum sources that can produce the gravity or anti-gravity effects through electromagnetic fields.</p> <p>For example, a fermionic Fock space that involves the organized transformation to create and destruct particles or anti-particles could be a process that takes in consideration the mentioned and explains the sources that produces the different effects.</p> <p>In the paper, is mentioned a Hilbert-Einstein action to produce change of sign, but is very classical.</p> <p>The paper is a good exercise to study the electro-gravity through the observables, but to design a machine that produces these effects is very far of the goal. There not are reasons from the quantum electrodynamics point of view that prove the wanted.</p> <p>What happen with the torsion (observable intimately related with the electro-fields in the space-time)?</p> <p>The time and the space are one if we consider one correct QFT. The asymmetry can be viewed in the corresponding Weyl curvature and brackets of creation and destruction of particles.</p>	<p>The sources of the field are now said to be the Vaknin's Chronon field.</p> <p>The Hilbert Einstein action is presented as a limit of summation of superposition as $P = \tau \Psi$ and Ψ represents the material observer. Second order terms of the metric tensor appear also in the curvature action that describes matter. It is in that side of the equation that coupling of τ with an observer weight scalar Ψ is seen to yield new physics.</p> <p>“but to design a machine that produces these effects is very far of the goal” By Hector Luis Serrano's experiments it is incorrect. But not only electro-gravity can be revealed. Solar wind involves almost 100% ionized gas. Anomalies in ions speed should exist. If for example, anomalous acceleration is observed in positive ions then it could indicate that the non Inertial acceleration field $A(i,j)$ accelerates from plus to minus and is stronger than other interactions. Solar wind analysis can't be found because it</p>



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		<p>has been hardly investigated.</p> <p>“What happen with the torsion”. It exists but as the Tzvi Scarr and Yaakov Friedman matrix representation of an acceleration field as a sum of 3 Quaternion matrices. Please note that while acceleration is 4-vector, an acceleration field is an anti-symmetric rotation and scaling matrix. <u>More of this subject was added to the paper.</u></p> <p>Tzvi Scarr and Yaakov Friedman’s paper is a very important contribution although the author does not agree with all of their points.</p> <p>“The time and the space are one if we consider one correct QFT” There is an additional explanation that P and P^* are dictated by the Euler Lagrange equations. Another argument is that the curvature vector along with the normalized $\text{Grad}(\Psi)/N$ (N is the Minkowsky “norm”) Define an acceleration matrix that accelerates any rest mass, i.e. any particle that can measure proper time even uncharged particles !!! It is a very small acceleration, about $1/500$ g for 1000000 Volts over 1mm. It is claimed that interactions increasing or decreasing this field is what we call electro-magnetic interactions. The curvature vector $U(i)$ is</p>
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		<p>not the electro-magnetic field. It is the underlying mechanism that causes the electro-magnetic fields.</p> <p>There is a problem that the author does not hide. For separation of P to Ψ and τ, it is required that an additional integral constraint will be possible otherwise the theory can't be extended to Quantum Mechanics as the Euler Lagrange equations for τ and Ψ are the same, except that Ψ is complex. The set of all events with the same τ $M(\tau)$ is not a 3D sub-manifold because as more than one curve can measure τ, τ is not a coordinate and therefore the local submersion theorem does not hold. Integration of $\Psi \Psi^*$ on $M(\tau)$ can be 1. If $M(\tau)$ can be seen as a unification of a countable set of 3D sub-manifolds. This is a problem that has to be solved by a deep theorem in Differential or Algebraic Topology.</p> <p>Corrections to the manuscript include better explanations and descriptions of the acceleration field.</p>
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<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		