



SDI Review Form 1.6

Journal Name:	Physical Science International Journal
Manuscript Number:	Ms_PSIJ_50248
Title of the Manuscript:	Dilation of Time and Newton's Absolute Time
Type of the Article	

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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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 author in the end of paper must write a list of abbreviators and their meaning used along the paper.</p> <p>-The author must enlarge the conclusions, describing with more precision the possible light clock or interferometer to prove the conjecture.</p>	<p>We thank you very much for your contribution</p> <p>-The author in the end of paper must write a list of abbreviators and their meaning used along the paper.</p> <p>PSIJ does not demand such a list</p> <p>We agree with you in following points:</p> <p>No abbreviations if less than 5 occurrences of the term</p> <p>No abbreviation at the beginning of a sentence</p> <p>No abbreviation in the abstract</p> <p>Only the first occurrence doubly, then only the abbreviation</p> <p>-The author must enlarge the conclusions, describing with more precision the possible light clock or interferometer to prove the conjecture (Vermutung, Hypothese).</p> <p>New text:</p> <p>A light clock of special construction perhaps could indicate Newton's absolute time t_0 nearly precisely. In the CM the light path remains constant between two fixed mirrors independently of speed and orientation in space [9].</p> <p>Therefore, a Fabry-Pérot etalon will not change its frequency pattern, also if speed and orientation changes. A cryogenic frequency standard with a precision of a few mHz [26] combined with a frequency comb [36] are a promising approach. The frequency comb delivers the wished frequency, whereas the Fabry-Pérot etalon secures the stability. With other words, one needs to select a constant wave length at the output of the laser of the frequency comb by the use of a Fabry-Pérot etalon. The frequency of light is too high to use it as input for a digital counter. One needs a second clock of the same construction, but with a slightly changed frequency. Then, by interference between the output of the two clocks, one obtains a countable signal. This type of clock avoids the influence of the dilation of time which controls the atomic sources of the laser light. Otherwise, the line width of the atomic source inside the laser should not be smaller than the annual change in frequency. This condition ensures that the cryogenic frequency standard and the frequency comb are supplied with light energy throughout the year. One of the remaining sources of errors is the acceleration and rotation of the cryogenic frequency standard caused by the motion of the Earth and its rotation. Based on Einstein's results [37], acceleration has the same effect as gravitation. Rotation also changes the frequency as the experiment of Sagnac [38] has shown. Another question is: Does it make sense, Newton's absolute time? It is correct only for a point without gravity and without any movement in absolute space.</p>
Minor REVISION comments		



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Optional/General comments		
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PART 2:

	Reviewer's comment	Author's comment <i>(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)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	