



**SDI Review Form 1.6**

Journal Name:	<a href="#">Physical Science International Journal</a>
Manuscript Number:	<b>Ms_PSIJ_26365</b>
Title of the Manuscript:	<b>Geodetic Precession under the Paradigm of a Cosmic Membrane</b>
Type of the Article	<b>Original Research Article</b>

**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.

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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)
<b>Compulsory</b> REVISION comments	<p>The authors suggest an alternative explanation for the geodetic and, perhaps, frame-dragging effects of General Relativity. Their approach is sober and in the context of a model developed previously by them (Cosmic Membrane Theory). I think the paper is interesting and discloses some problems in the interpretation of the results for Gravity Probe B experiment.</p> <p>Some remarks:</p> <p>1) The change of velocity of the speed of light in a gravitational field is a concept already used in some alternative models to GR. Even Einstein played with it before proposing GR in its final form. I suggest that the authors should check:</p> <p>R. H. Dicke, "Gravitation without a principle of equivalence", Rev. Mod. Phys. 29, 363-376 (1957)</p> <p>And</p> <p>H. E. Puthoff, "Polarizable-Vacuum approach to GR", Found. of Physics, 32 (6) , 2002.</p> <p>for a theory based on the spatial variations of the vacuum electric and magnetic</p>	<p>We checked Dickey's paper and mention his invention</p> <p>We cite this paper at different positions of the revised text, because it is an important theoretical base and a support for our calculations. We have had Puthoff's paper in our background reference list and are grateful for the advice.</p>



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	<p><b>permeabilities.</b></p> <p><b>These works should be cited.</b></p> <p><b>In the last section a contribution to the East-West precession is discloses as the geodetic effect caused by the Sun.</b></p> <p><b>Does the authors think than an enhanced geodetic effect in their model could fit the experimental data for GPB both for the North-South and East-West observed precessions within the error bars ?</b></p> <p><b>Perhaps using a slightly different parameter K in the CM model. Add some discussion on this topic.</b></p>	<p>Yes, we think. The equations of the geodetic precession of the CM and the GR do not differ. Numerical differences are simply a consequence of our imprecise knowledge of the exact orbital parameters of the GPB experiment.</p> <p>The question is <math>K=2</math> as we used in our paper or <math>K=3</math>. But <math>K=3</math> leads to another result of the geodetic precession, different to the GR. Therefore we used <math>K=2</math>.</p>
<b><u>Minor</u></b> REVISION comments	<p>I think the authors should use E (capital E) for energy and G for the gravitational constant instead of "e" and "gamma". Their notation may be confusing for some readers because, usually, "e" stands for the unit of charge and "gamma" for the Lorentz factor.</p>	<p>We follow the advice. The gamma for the gravitational constant is an old German use. The English and American literature uses G. The use of 'E' instead of 'e' makes sense.</p>
<b><u>Optional/General</u></b> comments		