



SDI Review Form 1.6

Journal Name:	Physical Science International Journal
Manuscript Number:	Ms_PSIJ_30140
Title of the Manuscript:	ON THE GRAVITATIONAL SHIELDING PHENOMENON
Type of the Article	Original Research 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:

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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)
<u>Compulsory</u> REVISION comments	<p>In this paper the author revisits Allais effect on the context of the gravitational shielding hypothesis. The paper provides a, relatively, up-to-date review of the problem but, in my opinion, the author fails to provide any explanation of his/her own.</p> <p>On paragraphs from line 61 to 82 and 98 to 113 a vague reference to a "Casimir effect" interpretation of gravity, developed in papers [9] and [10] of the bibliography, is given but I do not see how this interpretation could lead to an explanation of "Allais effect". I think the author should develop these ideas in greater detail (qualitatively and quantitatively) in order to this paper to be acceptable in this journal.</p>	
<u>Minor</u> REVISION comments	<p>The author cites the experiment of Wang et al. as recent evidence on the reality of the effect. However, there have been other measurements: Kuusela et al. <i>Phys. Rev. D.</i> 74, 122004 (2006) in which no trace of the anomaly has been found. Adding to the contradictory evidence there is other paper in which a correlation of torsion balances during an eclipse is claimed: A. F. Pugach and D. Olenici, <i>Advances in Astronomy</i>, vol. 2012, Article ID 263818. I think the author should comment these papers too to broaden the context of the exposition.</p>	



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<u>Optional/General</u> comments	<p>In my opinion the evidence on the Allais effect is very controversial and the possible conventional explanations (mainly the one by T. van Flandern and X. S. Yang, Phys. Rev. D 67, 022002 (2003)) have not been analyzed in sufficient detail. On the other hand the decrease of g_n in Wang's observation is so small (5-7 μgal) that it would suffice an increase of the solid tide around 3 cm (3 cm/Radius Earth = $5 \cdot 10^{-9}$) during the alignment of the Sun and the Moon, to explain away the phenomenon. (About solid tides see, for example: http://www.navipedia.net/index.php/Solid_Tides). A discussion about this in Section 3 would also be welcome.</p>	
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