



SDI Review Form 1.6

Journal Name:	<u>Physical Science International Journal</u>
Manuscript Number:	Ms_PSIJ_33792
Title of the Manuscript:	"Uncertainty relations" in the group-theoretic scheme of quantum mechanics
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:

(<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		No comments
Minor REVISION comments	<p>1) I suggest the following title: Uncertainty principle in the scheme of groups theory in quantum mechanics</p> <p>2) I suggest the following abstract: In this paper, Non-commutativity and uncertainty relation in quantum mechanics are considered from the point of view of groups theory in quantum mechanics. It is shown that uncertainty principle is connected with one of unit vector of orthogonal basis of spinor transformations space. The scheme of groups theory also demonstrates existence of relationship between noncommutativity and irreversibility</p> <p>3) I suggest the following keywords: quantum mechanics; group theory; Uncertainty principle; Non-commutativity</p>	<p>1) Using quotes, I would like to show that this term would be considered as unfortunate. This correlates with "probability" concept in quantum mechanics, which is the consequence of unfortunate use of only two the Stokes parameters instead of all four of them, forming the complete set of observables. "Probability probably hides perpetuum mobile" (cited from ref. "Nobody..." Why?). Besides, the set of axioms, defining "group", does not contain any kind of "uncertainty", therefore they seem to be incompatible. The group theory contains conservation laws accordingly to the Noether theorems, at the same time. Taking this into account, I do not see determining reasons to change the title.</p> <p>2) I said about "relation" in the abstract. It seems that any "principle" can not be connected with any unit vector of any basis. Such term seems to be more relevant in discussion or conclusion, as a result of investigation.</p> <p>3) The role of Noether in fundamental</p>



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		physical theories is evaluated insufficiently up to now. The famous authors of well known books on QM, von Neumann and Landau, had not mentioned her theorems there, it is quite enough. Of course, I may agree with this set of keywords, but including Noether.
<u>Optional/General</u> comments		No comments