



**SDI FINAL EVALUATION FORM 1.1**

**PART 1:**

Journal Name:	<a href="#">Physical Science International Journal</a>
Manuscript Number:	Ms_PSIJ_54745
Title of the Manuscript:	Consequent Quantum Mechanics by Applying 8-Dimensional Spinors in the Dirac equation
Type of Article:	an original research article

**PART 2:**

FINAL EVALUATOR'S comments on revised paper (if any)	Authors' response to final evaluator's comments
<p>In the revised version a new paragraph is added to Conclusions. Its content is related to the remarks in the referee report. But answers to the main points of the report are not satisfactory in the revised version. Instead the author tried to justify his approach in his response to the comments. In this response only the statement about unimportance of eigenvectors of the charge operator might be counted satisfactory. Two other important point are not clarified. Namely,</p> <p>1) Mass and spin of an elementary particle are known to correspond to Casimir operators of the Poincare group. In the new paragraph at the end of the revised version the author just mention Casimir invariants in context of future studies of color charges. But the invariants are already relevant for the present work.</p> <p>2) The author is right when he is saying that concrete masses of neutrino are not known. That is correct. But the differences of neutrino masses are measured with the precision high enough to exclude the possibility of massless neutrino at the confidence level extremely close to 100%. The Nobel Prize in Physics 2015 was awarded jointly to Takaaki Kajita and Arthur B. McDonald "for the discovery of neutrino oscillations, which shows that neutrinos have mass." (it is a quotation of the official statement).</p> <p>For these reasons I do not recommend the article for publication.</p>	<ol style="list-style-type: none"> <li>1. The Casimir formalism can decompose the product basis of multi fermion configurations into irreducible representations. In the paper only single fermions are investigated where the matrices are decomposed into Pauli matrices. Since the Pauli matrices are already irreducible representations of the Lie algebra, the application of Casimir formalism is not necessary. For multi fermion configurations the application of Casimir operators can be useful.</li> <li>2. In the suggested formalism the neutrino masses are represented by two dimensional matrices where only the diagonal elements are zero in the applied basis, but they have non-zero off diagonal elements. Diagonalisation of the mass matrices can offer non-zero mass eigenvalues for the different neutrinos which is in full agreement with the very important results of Kajita T and McDonald AB, who discovered the neutrino oscillation. See additional remark in the conclusion.</li> </ol>

**PART 3: Objective Evaluation:**

Guideline	MARKS for this REVISED manuscript
<p>Give OVERALL MARKS you want to give to this REVISED manuscript ( Highest: 10 Lowest: 0 )</p> <p><b>Guideline:</b> Accept (8-10) Revision required: (4-8) Rejected: (0-4)</p>	2