

Review of: "On n-Dimensional Maxwell and Dirac Equations in Curved Space-Time and Its Applications in $SO(P,Q)$ Group Theoretic Image Processing"

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Potential competing interests: No potential competing interests to declare.

I read the article and enjoyed it very much. Also, I saw comments from other reviewers and accept some of them which are very important and critical to improvement, so I do not point to them here. In fact, from the mathematical point of view and the application of symmetries, it is very well written, but from the physical and written points of view, it can be criticized, which I will state as follows, and to improve the article, I suggest that by answering them, the respected author will attract more readers to his work.

1- The importance and necessity of space-time development as two or more time directions has not been stated correctly. In other words, where in the physical world and in which experiment do we encounter a problem that the invention of multiple times (multiple time coordinates) can solve? This should be clearly stated in the introduction or another appropriate place in the article.

2- Since the issue of generalizing Maxwell's electromagnetic theory and Dirac fields in higher dimensions is used in Friedman's cosmology, I suggest that its effect on the inflation rate and its compatibility with experimental observations be further investigated. Particularly, the effects of several time components in the presence of the inevitable cosmic magnetic field should be examined. For instance, the author of the published paper (M. S. Turner, 'Inflation-produced, large-scale magnetic fields', Phys. Rev. D 37, 2743 (1988)) investigated many exotic Einstein-Maxwell gravity models to study whether the cosmic magnetic field could be dominant instead of unknown dark matter/energy in the production of cosmic inflation.

3- It is necessary to review and correct the English in the entire article; for example, see section 5, lines 20 and 27. See part 8 after formula A, and so on.

4- Some references are not fully addressed; for example, references 5, 6, 8, and 14 do not have publication years.

Sincerely yours,

H. Ghaffarnejad