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

Romulus Breban

Potential competing interests: No potential competing interests to declare.

The manuscript is very low quality. It is quite unclear what is new in the material presented by the author. The author makes no attempt to link the manuscript to the previous literature on S(p,q)-physics. The few references at the end of the manuscript are very far from making justice. Furthermore, the text is abundant in typos and hard to read. A few specific comments follow:

1. Title: Apparently, the motivation of the author is image processing. However, these two words appear only in the title. It is unclear what the paper is about. Are the generalizations in the paper motivated by image processing? If so, the discussion is lacking.
2. The introduction contains no reference to previous physics literature, which is very vast. It thus appears that the topics are developed here for the very first time. This is quite unfair to the reader.
3. The author presents the topics in a shallow fashion, at his convenience, where key issues are simply ignored. For example:
    1. It is not sufficient to state that each S(p,q) group has a minimal cover. One should also discuss representations of such covers.
    2. The author states that field equations and geodesic equations should be solved together and stops there. Well, many physicists have addressed this problem, and a number of key results have been obtained. There is much discussion that followed and led to new physics.
    3. The discussion of Green's functions is very poor compared to the existent literature in physics and mathematics.
    4. Why not discuss the general case of radiation by accelerating charges in (p, q) dimensional space-times? This may be much more interesting than the (1, n-1) case.
4. Section 8 on the electromagnetic field in curved geometry is strange. The author makes a number of assumptions about the metric in order to develop a perturbative approach. However, they are not needed to obtain a theory of the electromagnetic field in curved manifolds. Again, the reference to previously published literature is completely missing. It is unclear how all this applies to image processing.