

Review of: "Hyperbolic Einstein: Towards Tachyonic Relativity"

Quentin Ansel¹

¹ Université de Bourgogne

Potential competing interests: No potential competing interests to declare.

In its present form, this paper is extremely hard to understand. There is no introduction that gives the motivation of this study. This looks a very important thing because it is widely assumed that tachyons do not exist, or if it is, it shall not be able to interact with other fields, due to causality violation. With this kind of study, it is necessary to take a lot of caution regarding the motivations of the work, such that at the end the reader may be convinced (a minimum) that the idea is somehow related to the real world, and it is not pure science fiction coming from a mathematical artifact of a theory.

The notations and the concepts are not explained at all. I'm sure that most of the reader with knowledge in general relativity are not able to follow the first paragraph. For example, what is a "5-tuple hyperbolic generator" ? I googled these keywords and I did not obtain any relevant result. There is absolutely no direct relation with standard general relativity, except the relation $\mu = mc^2[1 - v^2/c^2]^{(-1/2)}$, which by the way, comes from nowhere in the text.

Figures, equations, and paragraphs are plugged nearby without links with each other. Figures do not have caption and explanations, they are not cited in the main text.

Because of all of this, it is not possible to discuss in detail the scientific content of the paper, nor the relevance of this study.

One last comment on the conclusion:

When you write : "General theory of Relativity can be violated by means of an alternative form.." If your starting point is a theory different from general relativity, as it looks like, it is obvious that the final result is different and that general relativity is violated... Since general relativity is very well verified by experiments, you shall prove in which case your theory is equivalent, and in which case it is not, and how this can be experimentally tested.

To conclude, I do not recommend this paper in this present form.