

## Reports on 040809A:

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### **The First Report:** April 15, 2009

Thank you for inviting me as a reviewer. Paper deals with an analysis about the shortcomings, contradictions, and mistakes present in the special (SRT) and general theory of relativity (GRT). Firstly, let's establish and agree that a principle, or an axiom, is understood to be an assumption completely demonstrated as valid. I think about this work that:

1st shortcoming. Certainly SRT is based in the speed of light as a universal constant for any observer. This was product of a very big discussion in the previous two centuries introduced mainly by Maxwell equations, which indicated that the speed of any electromagnetic wave has a constant speed, only depending on characteristics of empty (or filled) space. The process of solving or resuming this discussion was done with the collaboration of many scientists since the days of Galileo to the first years of twentieth century, and with the help of many experimental measurements. Einstein was the lucky person that gave a complete explanation of all the implications of this discussion in his seminal 1905-paper. One thing that is clear and currently used for synchronization in satellite communications engineering is the exact expression of time dilation given by the SRT. So, this is a weak criticism to the SRT which comes from the consideration of such principle. The other complementary principle, the principle of relativity, comes from Galileo, which has been experimentally corroborated until satiety.

2nd shortcoming. Author does not shows why these principles are not generally correct. He only gives the statement without any explanation!

3rd shortcoming. Math is only a tool for checking physical assumptions and quantify results. Author's argument for obtaining results in physics, about who is who in science, is not solid.

Contradictions. Author asks "As deriving the Lorentz transformation, why only the principle of invariance of light speed was used? Why didn't consider the principle of invariance of other speed?". As indicated earlier, it was product of a long scientific discussion on the electromagnetic waves, which ended with the famous Michelson&Morley experiment and with the very precise measurements done also by Michelson. The contradictions indicated by author for SRT and GRT, are not demonstrated as being actually contradictions.

Mistakes. Author does not demonstrate any mistake inside STR or GRT from a physical or mathematical point of view.

As a consequence of these weak arguments, author proposes (he thinks..) as a unique principle for developing a new theory to replace SRT and GRT: the conservation of energy, but he does not develop the theory (?).

Although I agree that Lorentz Transformations, SRT, GRT has some flaws to correct, as a conclusion of this review, my recommendation is that this paper should be reworked and re-elaborated, because as it is, it should not be published in this magazine.

Sincerely,

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**The Second Report:**

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**The Third Report:**