Review of: "The Electric Field as a form of Acceleration"

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Potential competing interests: I have no potential competing interests to declare.

Review of: The Electric Field as a form of Acceleration

Author : Moshe Segal

I've read this interesting paper that states that the electric field is a form of acceleration because Coulomb's law and Newton's law have the same mathematical form. Which is correct.

However, in Newton's laws the mass of the bodies cannot be omitted, and it is the factor that links the gravity field to acceleration. But in Coulomb's law, although there is a force and bodies, their mass is missing, whatever the mass Coulomb's force will be the same provided that the electric charge is the same. According to Newton, the resulting acceleration due to the electrical attraction force and also to gravitational forces will depend on the masses.

The author states that in practice gravitational forces can be quite smaller than electrical forces and thus Coulomb will usually dominate.

Thus, in order to prove that his proposal of electric field being a form of acceleration, the author would like to build an experiment where it would be demonstrated that Newton's law is weaker than Coulomb's and consequently should be modified : whatever their masses two bodies accelerating towards each other due to electrical charges, would have the same measured acceleration independent of their masses.

If this experiment would be successful, then, not only all mechanics and physics since Galilea would have to be changed but also all experiments implying charged particles would be wrong.

I think that, by removing the part about the experiment, the rest of this paper is an interesting discussion on what is possible to drive from purely formal physical laws provided adding the conclusion that whether it comes to denying well known physics, it should be taken as a kind of intellectual play.

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