

# Review of: "Circuits, Currents, Kirchhoff, and Maxwell"

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Hi

Interesting perspective on Kirchhoff's and Maxwell's sets of eqs.

I am still analyzing the paper, but I have some preliminary suggestions:

1. The concept of "electricity flowing" somewhere may be deceptive. Maybe it is better to use the concept of "electrical energy"
2. Actually,  $J$  is composed of two different terms, conduction current and convection current. Only the second one is associated to a flow of mass. In some points in the article, this concept is not so clear
3. Actually, in space *there are* a current associated to mass flow. An example is the solar wind. Please, take into account this!
4. The curl of  $B$ , used by the author, is not mathematically sound.  $B$  must be integrated on surfaces, while the correct quantity to apply curl on is the magnetic field  $H$ . Please, reformulate equations in a more sound way!

I'll be back on this paper later on