

Is There an Independent Principle of Causality in Physics? A Comment on Matthias Frisch, " Causal Reasoning in Physics."

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Abstract

Matthias Frisch has argued that the requirement that electromagnetic dispersion processes are causal adds empirical content not found in electrodynamic theory. I urge that this attempt to reconstitute a local principle of causality in physics fails. An independent principle is not needed to recover the results of dispersion theory. The use of " causality conditions" prove to be either an exercise in relabeling an already presumed fact; or, if one seeks a broader, independently formulated grounding for the conditions, that grounding either fails or dissolves into vagueness and ambiguity, as has traditionally been the fate of candidate principles of causality.

Keywords: causality causation dispersion scattering

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