

Is Simultaneity Conventional Despite Malament's Result?

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Abstract

Many take Malament's result that the standard Einstein simultaneity relation is uniquely definable from the causal structure of Minkowski space-time to be tantamount to a refutation of the claim that simultaneity in the special theory of relativity (STR) is a matter of convention. I call into question this inference by examining concrete alternatives and suggest that what has been overlooked is why it should be assumed that in STR simultaneity must be relative only to a frame of reference (or an inertial observer) and not to other parameters as well.

Keywords: simultaneity, convention, special relativity

Subjects: [Specific Sciences: Physics: Relativity Theory](#)

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