

Abstract Submitted
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Our Current Concept of Locality May be Incomplete ARMIN NIKKHAH SHIRAZI, University of Michigan, Ann Arbor — The predictions of Bell's inequalities, and their subsequent experimental verification in the form of correlations between spacelike separated events have led to the prevailing current view that 'nature is non-local'. Here we examine the possibility that our current concept of locality may at present not be sufficiently differentiated, and that by using 'nature' synonymously with 'spacetime' we may have missed an implication of special relativity which by rendering a more complete conception of locality permits such quantum correlations without either hidden variables or violations of locality.

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