

Nonseparability, Classical and Quantum

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Abstract

This paper examines the implications of the holonomy interpretation of classical electromagnetism. As has been argued by Richard Healey and Gordon Belot, classical electromagnetism on this interpretation evinces a form of nonseparability, something that otherwise might have been thought of as confined to non-classical physics. Consideration of the differences between this classical nonseparability and quantum nonseparability shows that the nonseparability exhibited by classical electromagnetism on the holonomy interpretation is closer to separability than might at first appear.

Keywords: Electromagnetism; holonomy; gauge theories; separability; locality; Humean supervenience; pointillisme.

Subjects: [Specific Sciences: Physics: Classical Physics](#)
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