



Quantum Physics

Quantum Axiomatics: Topological and Classical Properties of State Property Systems

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The definition of 'classical state', and how it was used in earlier work to prove a decomposition theorem internally in the language of State Property Systems, presupposes as an additional datum an orthocomplementation on the property lattice of a physical system. In this paper we argue on the basis of the epsilon-model on the Poincare sphere that a notion of 'topologicity' for states can be seen as an alternative (operationally foundable) classicality notion in the absence of an orthocomplementation, and compare it to the known and operationally founded concept of classicality.

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