On Observer-Dependent Description of Quantum State on Identical Particles

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The setup of the Einstein-Podolsky-Rosen (EPR) paradox leads to provide the observer-depedent description of the quantum state from quantum information perspectives. While this problem is based on the single-particle system, the problem can be extended to the many identical particle system. We provide the experimental proposal to clarify the quantum state description to the identical particle. This experimental proposal is used in the three-particles Aharonov Bohm effect.

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