Measurement-Induced Non-locality in an $n$-partite quantum state

PRAMOD JOAG, Professor, Department of Physics, University of Pune, ALI HASSAN, Associate Professor Department of Physics, University of Amran — We generalize the concept of measurement-induced non-locality (MiN) to $n$-partite quantum states. We get exact analytical expressions for MiN in an $n$-partite pure and $n$-qubit mixed state. We obtain the conditions under which MiN equals geometric quantum discord in an $n$-partite pure state and an $n$-qubit mixed state. We obtain an exact (computable) relation between MiN and entanglement (concurrence) for a bipartite pure state.

Pramod Joag
Professor, Department of Physics, University of Pune

Date submitted: 29 Oct 2012

Electronic form version 1.4