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Classical memoryless noise-induced maximally discordant mixed separable steady states ARZU KURT, FERDI ALTINTAS, RESUL ERYIGIT, Department of Physics, Abant Izzet Baysal University, Bolu, Turkey. — Noise is, generally, detrimental to quantum correlations. For some initial states, it has been shown that back-action of the environment or the memory in environment-system interactions can create and/or sustain some of the quantum correlations in the system. In the present study, we have investigated the dynamics of quantum discord and entanglement for two qubits subject to independent global transverse and/or longitudinal memoryless noisy classical fields and have shown that a classical memoryless noise can lead to maximally discordant mixed separable states. Moreover, two independent noises in the system are found to enhance both the steady state randomness and quantum discord in the absence of entanglement for some initial states.

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