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Entanglement Dynamics of Two-Atom Jaynes-Cummings Model under Phase Telegraph Noise HUSEYIN KARACALI, RESUL ERYIGIT, Abant Izzet Baysal University — We have analyzed the entanglement dynamics in a two atom one-field mode Jaynes-Cummings model with stochastic atom-field interactions. The phase of the interaction term is subject to a two level telegraph noise which is characterized by a dwell time and jump magnitude. We have investigated the effect of noise characteristics on the entanglement between the field and the atom as well as atom1 and atom2. The field-atom entanglement is found to be damped to zero because of the noise, as expected. However,the noise is found to be cooperative for the atom entanglement, as it approaches 0.25 in the long time limit independent of the characteristics of the noise.

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