

Abstract Submitted
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Constraining Dark Matter Mass with Dark Energy Coupling Bound and COSMOMC KEVIN LUDWICK, LaGrange College, SHREYASHI CHAKDAR, College of the Holy Cross — Quantum field theory considerations of a light dark energy scalar field coupled to a heavier dark matter field restrict the coupling to be small in general in order to control for radiative stability and long-range forces. We consider different types of possible fields and couplings for dark energy and dark matter, and we use cosmological data and COSMOMC to get bounds on the dark matter mass.

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