Abstract Submitted
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A Model of Interacting Dark Energy and the Cosmic Coincidence Problem[1] HAMED SHOJAEI, DACEN WATERS, Arkansas Tech University — We will study the behavior of different parts of the cosmic inventory in the presence of interaction between the dark energy and dark matter. Interacting dark energy models have been used primarily to resolve the cosmic coincidence problem. These models still suffer from some stability issues and the degeneracy has to be addressed. However, they can give us a better understanding of the nature of dark energy. In this work we will study the behavior of density parameters for dark energy and dark matter. An interaction will be introduced and the differential equations will be solved numerically. After observing the behavior of the density parameters, we will compare the results of the model with observed data collected by WMAP team. We will also explore the possibility of using our model to describe the history of universe.

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Hamed Shojaei
Arkansas Tech University

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