



Solvable K-essence Cosmologies and Modified Chaplygin Gas Unified Models of Dark Energy and Dark Matter

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This paper is devoted to the investigation of modified Chaplygin gas model in the context of solvable k-essence cosmologies. For this purpose, we construct equations of state parameter of this model for some particular values of the parameter n . The graphical behavior of these equations are also discussed by using power law form of potential. The relationship between k-essence and modified Chaplygin gas model shows viable results in the dark energy scenario. We conclude that the universe behaves as a cosmological constant, quintessence phase or phantom phase depending upon n .

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