

A non-canonical scalar model of Dark Energy

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In this work we have studied the dynamics of accelerating scenario within the framework of scalar field models possessing a non-canonical kinetic term. In this toy model, the scalar field is allowed to interact with the dark matter component through a source term. We have assumed a specific form for the coupling term and then have studied the dynamics of the scalar field having a constant equation of state parameter. We have also carried out the dynamical system study of such interacting non-canonical scalar field models for power law potentials for some physically relevant specific values of the model parameters. It has been found that the only for two particular stable fixed points of the system, an accelerating solution is possible and the universe will settle down to a Λ CDM universe in future and thus there is no future singularity in this model.

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