

Coupled dark energy: a dynamical analysis with complex scalar field

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Summary

The dynamical analysis for coupled dark energy with dark matter is presented, where a complex scalar field is taken into account and it is considered in the presence of a barotropic fluid. We consider three dark-energy candidates: quintessence, phantom, and tachyon. The critical points are found and their stabilities analyzed, leading to the three cosmological eras (radiation, matter, and dark energy), for a generic potential. The results presented here extend the previous analyses found in the literature.

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Primary author: LANDIM, Ricardo (University of Sao Paulo)

Presenter: LANDIM, Ricardo (University of Sao Paulo)

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