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Dynamical Stability Analysis of Accelerating f(T) Gravity Models

Monday 22 August 2022 17:10 (20 minutes)

In this paper, we have emphasized the stability analysis of the accelerating cosmological models obtained in $f(T)$ gravity theory. The behaviour of the models based on the evolution of the equation of state parameter shows phantom-like behaviour at the present epoch. The scalar perturbation technique is used to create the perturbed evolution equations, and the stability of the models has been demonstrated. Also, we have performed the dynamical system analysis for both the models. In the two specific $f(T)$ gravity models, three critical points are obtained in each model. In each model, at least one critical point has been observed to be stable.

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