

A Singularity Free Cosmological Model in General Relativity

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A singularity free cosmological model is obtained in a homogeneous and isotropic background with a specific form of the Hubble parameter in the presence of an interacting dark energy represented by a time-varying cosmological constant in general relativity. Different cases so arose have extensively been studied for different values of curvature parameter. Some interesting results have been found with this form of Hubble parameter to meet the possible negative value of the deceleration parameter ($-\frac{1}{3} \leq q < 0$) as the current observations reveal. For some particular values of these parameters, the model reduces to Berman's model.

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