

Magnetized strange quark model with Big Rip singularity in $f(R, T)$ gravity

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Abstract: LRS (Locally Rotationally symmetric) Bianchi type-I magnetized strange quark matter cosmological model have been studied based on $f(R, T)$ gravity. The exact solutions of the field equations are derived with linearly time varying deceleration parameter which is consistent with observational data (from SNIa, BAO and CMB) of standard cosmology. It is observed that the model start with big bang and ends with a Big Rip. The transition of deceleration parameter from decelerating phase to accelerating phase with respect to redshift obtained in our model fits with the recent observational data obtained by Farook et al. in 2017. The well known Hubble parameter $H(z)$ and distance modulus $\mu(z)$ are discussed with redshift.

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Keywords:Bianchi type-I metric; $f(R, T)$ gravity; Big Rip singularity

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