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Gravity as entropic force and its effects on the singularities of the Friedmann equations

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Abstract

Interpretation of gravity as entropic force makes some corrections in Friedmann equations. According to calculations of Easson, Frampton and Smooth, the entropic force adds correction terms to Friedmann equations. It's shown that these corrections change the second type of singularity to the third one in Friedmann equations. Considering Friedmann equations, even without entropic force at least one of the energy conditions is violated in the third kind of singularity. Adding the correction terms, the violated energy condition will change.

Keywords: cosmology, singularity, entropic force

For full article, refer to the Persian section