

K-Essence Field In Fractal Framework

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Abstract:

After recent cosmological evidences, it has been concluded that the dark energy-matter distribution is responsible for the speedy expansion of the universe. In this work, making use of the non-flat fractal Friedmann-Robertson-Walker space-time model containing dark matter interacting with dark energy, we have studied how the fractal contribution affects the dynamics of k-essence scalar field dark energy model. The other aim of this investigation is to extend the previous studies given in literature one step further.

Keywords: Cosmology; Dark Matter; Scalar Field