High Energy Physics - Theory

Massive 3D Gravity Big-Bounce

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(Submitted on 20 Jan 2010 (v1), last revised 28 Jan 2010 (this version, v2))

The properties of an extension of the New Massive 3D Gravity by scalar matter with Higgs-like self-interaction are investigated. Its perturbative unitarity consistency is verified for a family of cosmological Bounce solutions found by the superpotential method. They correspond to the lower bound ${\lambda = -1}$ of the BHT unitarity window and describe eternally accelerated 3D Universe between two initial/final stable dS_3 vacua states.

Submission history

From: Galen Sotkov [view email]

[v1] Wed, 20 Jan 2010 18:45:43 GMT (15kb)

[v2] Thu, 28 Jan 2010 20:52:55 GMT (16kb)

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