Sixteenth Marcel Grossmann Meeting



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Emergent Planck mass and dark energy from ane gravity

We introduce a novel model of affine gravity, which implements the no-scale scenario. Namely, in our model the Planck mass and Hubble constant emerge dynamically, through the mechanism of spontaneous breaking of scale invariance. This naturally gives rise to the inflation, thus introducing a new inflationary mechanism. Moreover, the time direction and non-degenerate metric emerge dynamically as well. We show that our model is phenomenologically viable, both from the perspective of the direct tests of gravity and cosmological evolution.

Primary author: KHARUK, Ivan (INR RAS & MIPT)

Presenter: KHARUK, Ivan (INR RAS & MIPT)

Session Classification: Theories of Gravity: Alternatives to the Cosmological and Particle Standard Models

Track Classification: Alternative Theories: Theories of gravity: alternatives to the cosmological and particle standard models