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Scalar-Tensor Gravity at the First Loop

Thursday, 15 June 2023 14:20 (20 minutes)

Possible implementations of perturbative quantum gravity for scalar tensor models are discussed. In particular, the perturbative approach generates new non-minimal couplings between a scalar field and gravity, and provides a way to calculate the one-loop scalar field effective potential. A brief overview of the perturbative approach is given. We show how the theory generates non-minimal kinetic couplings, beyond the Horndeski coupling, and effective potentials. The role of these results in the context of cosmology is discussed.

Secondary category for the parallel session (optional)

Cosmology

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