Sixteenth Marcel Grossmann Meeting



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Type: Talk in the parallel session

Alleviating H0 and sigma8 tensions with f(T) gravity, using the effective field theory approach

Thursday, 8 July 2021 17:33 (19 minutes)

We report how to alleviate both the H0 and sigma8 tensions simultaneously within torsional gravity from the perspective of effective field theory. Following these observations, we construct concrete models of Lagrangians of torsional gravity. Specifically, we consider a novel f(T) parametrization where two out of the three parameters are independent. This modified gravity model can efficiently fit observations alleviating the two tensions simultaneously, hence offering an additional argument in favor of gravitational modification.

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Session Classification: Status of the H_0 and Sigma_8 Tensions: Theoretical Models and Model-

Independent Constraints

Track Classification: Cosmic Microwave Background: Status of the H_0 and sigma_8 tensions: theoretical models and model-independent constraints