Contribution ID: **81** Type: **Parallel oral presentation**

Diffeomorphism breaking and background fields in modified gravity

Tuesday 15 November 2022 15:30 (15 minutes)

We present the Hamiltonian formulation of the gravitational sector of the Standard-Model-Extension, which introduces the breaking of diffeomorphism symmetry through explicit background fields. The modified gravity theory is shown to require an extension of the Gibbons-Hawking-York boundary term and to produce Hamilton-Jacobi equations of motion that are equivalent to the projected modified Einstein equation of motion, according to the foliation of spacetime and the ADM decomposition. We discuss further studies that may have consequences for the study of cosmology and black hole physics.

Poster fallback option for rejected abstracts for parallel oral presentations

No

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