

Third Workshop on Current Challenges in Cosmology



Contribution ID: 46

Type: **not specified**

Robustness of the Geometrical Trinity of Gravity.

Wednesday 25 October 2023 10:15 (1 hour)

The equivalence principle naturally provides gravity with a geometrical character. However, the precise geometry we employ to describe it admits a certain flexibility. In particular, within a metric-affine framework, Einstein's gravity can be equivalently ascribed to the three independent objects that characterise a connection, i.e., curvature, torsion and non-metricity. After reviewing these three alternative descriptions of gravity, I will uncover a general teleparallel description of GR and how pathologies generally arise beyond the GR equivalents. Finally, I will discuss the inclusion of matter couplings within these frameworks.

Presenter: BELTRÁN JIMÉNEZ, José (Universidad de Salamanca)