

Topology dependent background connection in gravitation: Motivations and consequences for cosmology

jeudi 26 juin 2025 11:00 (1 heure)

General relativity (GR) is equipped with one connection: the Levi-Civita connection of the Lorentzian metric. I will present a (parameter-free) modification of GR where a second affine connection dependent on the topology of the Universe is introduced. The presentation will be an overview of the motivations and consequences for cosmology of this framework. In particular, I will discuss the Galilean and Carrollian limits, definitions of mass, curved inflationary models, Bianchi models and observational tests.

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