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### The Teleparallel version of Horndeski gravity

*Wednesday, September 23, 2020 10:10 AM (20 minutes)*

Horndeski gravity is the most general scalar tensor theory, with a single scalar field, leading to second-order field equations and after the GW170817 it has been severely constrained. In this talk, I will present an analog of Horndeski's theory in the Teleparallel Gravity framework where gravity is mediated through torsion instead of curvature. It will be shown that, even though, many terms are the same as in the curvature case, we have much richer phenomenology in the teleparallel setting because of the nature of the torsion tensor. After this, I will show that by performing tensorial perturbations in this theory in a flat cosmological background, one is able to restore the severely constrained terms in standard Horndeski, creating an interesting way to revive Horndeski gravity. I will finalize my talk explaining about the PPN analysis of this model.

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