

## **Ilic: "Cosmology of the Galileon extension of the TeVeS theory"**

*Friday, 29 September 2017 16:20 (25 minutes)*

For more than a decade, many attempts have been made at developing a fully relativistic theory with Milgrom's MOND-like phenomenology. Many of these theories have a similar ambiguity in that all possess a function in the Lagrangian that must be chosen by hand. Babichev et al. (2011) proposed a model that avoids the use of such an unspecified function : this theory uses Bekenstein's TeVeS theory as basis but extends it with the addition of a Galileon-type term (generating a convenient Vainshtein screening in high-curvature environment such as the solar system) and the removal of the free function. However, the viability of the theory in a cosmological context has yet to be proven. In this talk, I will present the results of a recent work where we tested this theory both at the level of the cosmological background evolution as well as the perturbed sector, using constraints from the latest cosmological microwave background observations.