



Contribution ID: 1

Type: **not specified**

Gravitational impact of Supernovae in Ultra-light Axion Dark Matter halos

Wednesday, 29 March 2023 09:40 (20 minutes)

One of the viable dark matter models is the Ultra-light Scalar field Dark Matter where it assumes an ultra-light axion-like particle of mass 10^{-22} eV. Current cosmological (dark matter only) simulations reveal that the dark matter halos formed in this model have a unique wave-like structure and a characteristic soliton at their centers. In this talk, I will discuss how these inner solitons are modified when we account for some violent baryonic feedback effects using a semi-analytical model to describe Supernovae feedback. I will then show how constraints from local dwarf galaxy observations may be affected.

Presenter: H. ROBLES, Victor

Session Classification: Morning session-1