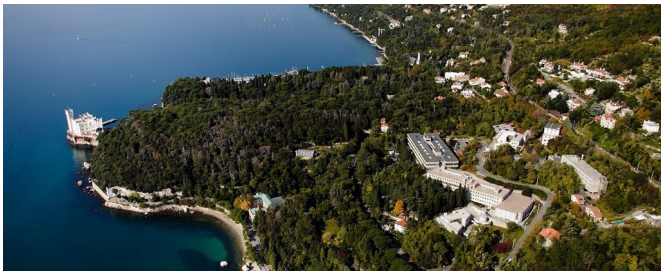

Contribution ID: **103** Type: **not specified**

Dark matter astroparticle constraints from high-z galaxies

Tuesday 29 August 2023 15:00 (25 minutes)

Understanding the properties of Dark Matter is one of the most demanding challenges in modern Astrophysics and Cosmology. The Cold Dark Matter paradigm is at variance with some aspects of the observed sub-galactic scale phenomenology, hence several non-standard Dark Matter particle candidates have been considered to solve these issues. In this talk, I present a novel way to constrain and possibly rule out different Dark Matter models based on the recent determination of the cosmic star formation rate density at high redshifts (z>4). I will also showcase how such constraints will be further strengthened by upcoming refined estimates of the cosmic star formation rate density if the early data on the UV luminosity function at z > 10 from the James Webb Space Telescope (JWST) will be confirmed down to ultra-faint magnitudes.

Presenter: GANDOLFI, Giovanni

Session Classification: Parallel