



Contribution ID: 154

Type: **Talk**

Daniele Gaggero (GRAPPA, Amsterdam): Primordial black holes as Dark Matter candidates?

Thursday 22 February 2018 09:04 (14 minutes)

The idea that primordial black holes (PBHs) of $O(10)$ solar mass can account for all the dark matter has been recently reconsidered after the discovery of a gravitational wave signal. We present a robust bound on this scenario based on a novel approach: We model in a conservative way the accretion of gas and the subsequent radio and X-ray emission originating by a population of PBHs in our Galaxy, exploiting well established empirical relations confirmed by current astronomical observations. We find a more reliable bound compared to the ones based on CMB spectrum and anisotropies, competitive with the dynamical ones. We discuss in detail future developments of our study, aimed at searching either a subdominant population of PBHs that contribute to a fraction of the DM, or a population of astrophysical black holes, and the role of the forthcoming radio facilities data in this context

Presenter: GAGGERO, Daniele

Session Classification: Session 5