

New Horizons in Primordial Black Hole physics (NEHOP)



Contribution ID: 56

Type: **Talk**

Constraining primordial black holes from observation of stars in dwarf galaxies

Monday, 19 June 2023 17:40 (20 minutes)

We will discuss constraints on the abundance of primordial black holes of masses around 10^{20} g that may result from their capture by main sequence stars in dwarf galaxies, with subsequent destruction of the infected stars. We show that capture of PBH at the stage of star formation is efficient and may significantly affect the star population in some of the observed dwarf galaxies – those having higher dark matter density and lower velocity dispersion. We identify Triangulum II as one of the best candidates which may exclude 100% of dark matter composed of PBH with masses around 10^{20} g.

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Session Classification: Session 4