

Speaker: Vidotto, F.

Title: A new look at remnants as dark matter

Abstract:

The end of a black-hole life is governed by quantum gravity: a quantum process could produce the transition of the black hole to a remnant phase, that is expected to be stable. In particular, Planckian remnants of primordial black holes can be present in the universe with an abundance compatible with the observed dark matter. I will discuss this possibility in different cosmological scenarios, including a bouncing cosmology where the primordial black holes originated in the pre-bounce phase.

References:

1. **Small black/white hole stability and dark matter**
Carlo Rovelli, Francesca Vidotto
Universe 2018, 4(11), 127 [arXiv:1805.03872]
2. **Pre-big-bang black-hole remnants and the past low entropy**
Carlo Rovelli, Francesca Vidotto
Universe 2018, 4(11), 129 [arXiv:1805.03224]