ID de la contribución : **1** Tipo : **no especificado**

Primordial Black Holes as Cosmic Expansion Accelerators

jueves, 17 de septiembre de 2026 17:00 (25)

In this seminar, I will present a novel mechanism for cosmic acceleration driven by primordial black holes with effective repulsive behavior. Using a new Swiss Cheese cosmological framework, I will discuss four black hole spacetimes—Hayward, Bardeen, Dymnikova, and de Sitter-Schwarzschild—to show that this acceleration emerges naturally from the geometry itself. The results suggest that ultra-light PBHs could drive inflation without requiring an inflaton, while PBHs with masses $m \sim 10^{12}\mathrm{g}$ and abundances $0.107 < \Omega_{\mathrm{PBH}}^{\mathrm{eq}} < 0.5$, slightly before matter-radiation equality, can produce a substantial amount of early dark energy, helping to alleviate the Hubble tension.

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Clasificación de la sesión : Afternoon Session (Thursday)