NEHOP'25 - New Horizons in Primordial Black Hole Physics



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Quantum Quiddity and Correlation Characteristics

Tuesday 20 May 2025 09:20 (20 minutes)

In the first part of my talk, I will discuss how recent advances in our understanding of quantum effects in black holes impact PBHs. On the one hand, this concerns deviations from Hawking radiation in the form of the memory-burden effect. On the other hand, I will discuss vorticity, which we recently conjectured to be a new characteristic of (near-extremally rotating) black holes. In the second part of my talk, I will present novel results on large-scale simulations of spatially-correlated random fields, being able to resolve events as rare as one in 10^13, and discuss their application to PBHs.

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