

New Horizons in Primordial Black Hole physics (NEHOP)



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Beyond perturbative non-Gaussianity for primordial black holes

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Primordial black holes (PBHs) may form from large density fluctuations in the early universe. These fluctuations are rare, and so lie in the tail of the probability distribution function. Non-Gaussianity may enhance this tail, and will have a significant impact on PBH formation. The typical perturbative treatment of non-Gaussianity is insufficient for strong deviations from Gaussianity in the far tail. I will present a non-perturbative treatment of far-tail non-Gaussianities and discuss the impact on PBH formation.

Presenter: Dr GOW, Andrew (Institute of Cosmology & Gravitation, University of Portsmouth)

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