NEHOP'25 - New Horizons in Primordial Black Hole Physics



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21cm constraints on PBHs

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The 21cm signal, soon to be probed by upcoming experiments, is a powerful late-time cosmological tool for constraining Primordial Black Holes (PBHs). Some of the most stringent limits on PBH abundance in the solar mass range are derived using 21cm forecasts. In this talk, I will critically re-examine these forecasts, highlighting the impact of astrophysical uncertainties on the derived constraints. In particular, I will focus on uncertainties in the modelling of reionisation and stellar astrophysics, as well as those affecting PBH accretion. By reassessing these factors, I will explore the robustness of 21cm-based PBH forecasts.

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