

Timekeepers of the Universe: The recent gravitational wave observation and Primordial black holes

Thursday, 16 May 2024 11:47 (5 minutes)

Primordial black holes (PBHs) are currently in the spotlight as they may solve several open questions in astrophysics and cosmology.

We describe an exact formalism for the computation of the abundance of PBHs in the presence of local non-gaussianity (NG).

Then, we describe the phenomenological relevance of our results for the connection between the abundance of PBHs and the

stochastic gravitational wave (GW) background related to their formation. As NGs modify the amplitude of perturbations necessary to produce a given PBHs abundance, modelling these effects is crucial to connect the PBH scenario to its signatures at current and future GWs experiments such as the recent data release by PTA collaborations

Would you be interested in presenting a poster? (this will not impact the decision on your talk)

no

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