

NANOGrav 12.5-yr result and induced gravitational waves

mercredi 19 mai 2021 14:00 (30 minutes)

I will briefly review the properties of SGWB induced by the scalar perturbation, as well as its connection to the primordial black holes (PBHs). NANOGrav reported the discovery of a common-spectrum process of the time residuals in their 12.5-yr data set of pulsar timing array, which might be the first detection of nano-hertz SGWB. Based on the recent developments on the spectral shape of SGWB, I will show that this signal could be connected to the planet-mass PBH candidates found by OGLE recently, if there is a dust-like stage prior to the radiation dominated era.

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