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Particle Physics at LPTHE

Mardi 15 Décembre 2020, 14 :00
LPTHE, https ://zoom.us/j/95314583699
Domaines : hep-ph

Titre : *Exploring the early universe with the stochastic background of induced gravitational waves*

Orateur : **Guillem Domenech (INFN Sezione di Padova)**

Résumé : *Primordial black hole formation is always accompanied by a large amount of secondary gravitational waves. The so-called induced gravitational waves are in principle observable by future gravitational waves detectors. In this talk, I will present how we can use the spectrum of induced gravitational waves to tell apart the evolution of the universe prior to Big Bang nucleosynthesis. As a practical example, I will use the latest NANOGrav results on the stochastic background of nanohertz gravitational waves to constrain the equation of state parameter of the early universe and the mass of the associated primordial black holes.*
