# Gravitational Wave Probes of Physics Beyond Standard Model 2

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## Cosmological collider physics: recent progress and challenges

Thursday 01 Dec 2022 at 15:30 (00h30')

**Content** :

Heavy particles can be produced on shell during inflation and leave distinct signals in the correlations of density fluctuations. These so-called cosmological collider signals can be searched for in the future CMB/LSS/21cm observations. In this talk I will introduce the basics of the cosmological collider program. I will then talk about our current understanding of the signal structure and the underlying particle physics models. I'll also talk about the theory challenges and recent efforts in computing inflation correlators.

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