



Contribution ID: 168

Type: talk

Searching for Primordial Black Holes: The Role of 3rd Generation Gravitational Wave Detectors

Monday, 17 May 2021 06:40 (15 minutes)

Primordial black holes form in the early universe and can give rise to mergers at high redshift. This distinctive feature can be exploited by 3G detectors to distinguish primordial binaries from the ones generated by other astrophysical formation channels. By considering a primordial black hole population compatible with current gravitational wave data, we show that 3G detectors such as the Einstein Telescope and Cosmic Explorer could observe up to hundreds of mergers from primordial black hole binaries at redshift larger than 30, where there is no astrophysical contamination.

Primary author: FRANCIOLINI, Gabriele (University of Geneva)

Presenter: FRANCIOLINI, Gabriele (University of Geneva)

Session Classification: Recorded talks: GW Physics

Track Classification: Physics: Gravitational wave perspective