



Contribution ID: 406

Type: **not specified**

## Detecting primordial black hole as dark matter by induced gravitational waves

*Monday, 23 August 2021 10:55 (20 minutes)*

Primordial black holes (PBHs) may form when the high peaks of the primordial density perturbation re-enter the Hubble horizon, while at the same time gravitational waves induced by the density perturbation at second order are generated. Currently observational constraints make it possible for asteroid-mass PBHs to be all dark matter, whose concomitant induced GWs are in the millihertz band. I will show that if all or a large portion of the PBHs are composed of dark matter, the corresponding induced gravitational wave energy spectrum must be detectable by space-borne interferometers like LISA, irrespective of linear local non-Gaussianity of the scalar perturbation.

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**Session Classification:** Gravitational Waves as Probes for New Physics

**Track Classification:** Gravitational Waves as Probes for New Physics