

Gravitational Geometry and Dynamics Group Seminar

Wed., Nov. 22nd, 2023, at 16h00.

Online, Zoom ID: 989 6252 0928 (Password: [contact graposo@ua.pt](mailto:contact_graposo@ua.pt))

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Black Holes from Inflation: recent challenges and opportunities in the GW era

Primordial black holes (PBHs) might form in the early universe and could comprise a significant fraction of the dark matter.

If they are generated due to enhanced scalar perturbations at small scales, their formation is inevitably accompanied by the emission of gravitational waves (GWs) that could be seen by current and future GW experiments.

We will review some recent progress on the characterization of such a signal and focus on the constraints recent Pulsar Timing Array observations set on this scenario, as well as on the inflationary dynamics underlying these formation models.