



Contribution ID: 10

Type: not specified

Primordial black holes: how to produce and probe them [Chair: Notari]

Wednesday, 29 May 2024 14:30 (1h 30m)

Observational constraints have closed off all but one mass-window for primordial black holes making up all of the dark matter, and there are some specific conditions required for their production in the first place. However, they remain a tantalising dark matter candidate because they require no new beyond the standard model particles and they would additionally provide a lot of information about the very early universe, particularly about inflation, if found. I will review the most plausible mechanisms for producing primordial black holes as well as highlight the difficulty of not over-producing them. I will also emphasise why it's worth checking every last window for signatures of their existence, and how, with a focus on future gravitational wave experiments, we can probe the remaining viable space in a consistent way.

Are you interested in publishing a 2-4 pages proceeding at the MDPI Journal?

No

Primary author: COLE, Philippa (University of Milan-Bicocca)

Presenter: COLE, Philippa (University of Milan-Bicocca)