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# Primordial Black Holes with a Spectator Field

*Thursday, 20 June 2024 11:30 (20 minutes)*

This presentation introduces a cosmological mechanism featuring a spectator field and investigates its connection to the formation of primordial black holes (PBHs) and dark matter. By considering fluctuations during inflation, we study a natural PBH formation process that doesn't rely on exotic physics in the potential and the fine-tuning issue can be avoided. Observational constraints demonstrate the mechanism's ability to reproduce PBH abundance and mass distribution. This mechanism can be applied in a variety of theoretical framework and it can give us remarkable results.

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