

Abstract Submitted
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A recipe for seeds: Growing SMBHs from PBHs JAMES CHISHOLM, Southern Utah University — In models of the early universe where a spectrum of large density perturbations are produced in the radiation dominated era (such as some models of inflation), primordial black holes (PBHs) are generically produced if the perturbation is sufficiently large. Due to the spatial clustering properties of the underlying density perturbation, the PBHs possess increased clustering and evolve to form gravitationally bound clusters. Under certain conditions, these clusters undergo core collapse to form a more massive, central black hole. In this talk I will examine the possibility that these collapsed PBH clusters may serve as the seeds of Supermassive Black Holes found at the centers of galaxies today, as well as observational signatures that distinguish it from other methods of creating SMBH seeds.

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