

CMB and 21cm constraints on Primordial Black Holes

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Post-recombination cosmological probes offer some of the most stringent constraints on the properties of Dark Matter. The Cosmic Microwave Background (CMB), within the Λ CDM framework, has provided precise measurements of the Dark Matter density and its properties. Similarly, with upcoming 21cm experiments, the 21cm signal is a promising late-time cosmological probe, particularly sensitive to exotic energy injections during the Cosmic Dawn. In this talk, I will discuss the constraints imposed on solar mass and heavier primordial black holes by these probes, addressing in detail the combined effects of radiation feedback in accretion and Dark Matter mini-halos on the bound. I will use this example to explain how cosmological probes can be used generically to constrain exotic energy injections from various Dark Matter candidates.

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