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Signs of Primordial Black Holes in the 21 cm Signal

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The temperature of baryons at the end of the cosmic dark ages can be measured using the 21-cm hyperfine transition of neutral hydrogen. Any energy injection from the dark sector can potentially be constrained through these measurements. Exotic compact objects, such as PBHs, can alter the temperature by transferring heat to the gas through dynamical friction (DF). In this study, we compute the prospects for constraining PBHs with future 21 cm observations.

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