

Abstract Submitted
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Decontaminating the Cosmological 21cm Background¹ PAUL GEBHART, ASANTHA COORAY, University of California, Irvine — This experiment is to determine what results can be expected for the 21cm line experiments planned for the radio telescopes Square Kilometre Array and Low Frequency Array. A simulation of the cosmological signal in the relevant frequency range, about 50 to 200 MHz, was constructed from simulated data of a 21cm line model, interpolated data of Milky Way synchrotron, a simulated map of extragalactic radio sources, and Gaussian noise based on the parameters of SKA and LOFAR. We are attempting to determine how to separate the 21cm signal from the foreground signal and whether the residual after removal is too noisy to degrade the matter power spectrum of the cosmological 21cm line signal.

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