

Abstract Submitted
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Modeling Line Emission During the Epoch of Reionization¹ DARIANNETTE VALENTIN, Arizona State University, NICHOLAS BATTAGLIA², ANIRBAN ROY, Cornell University, ALEXANDER VAN ENGELEN, Arizona State University, CCAT-PRIME COLLABORATION — We simulate various emission lines in the large-scale structure (LSS) of the universe during the late stages of the Epoch of Reionization (EoR) to trace galaxy formation. The chosen emission lines are tied to star-formation activity, including CII, OIII, and various transitions of CO utilizing the UNIVERSEMACHINE halo catalogues. We compare the emission lines halo masses in a base-10 logarithmic scale for 80 x 80 Mpc scale patches for specific redshifts. If the simulations are correct, we aim to perform cross-correlations with the kSZ effect and other complementary tracers as well as power spectra analysis.

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