

Searching for patchy reionization from the cosmic microwave background

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Reionization is a unique epoch in Cosmology and studies of the epoch of reionization (EoR) can tell us important information about ionization history, first luminous objects, and structure formation in the early Universe. However, the EoR is still poorly understood so far. At millimeter wavelengths, next-generation cosmic microwave background (CMB) experiments could detect the EoR signatures, which were produced by scattering between CMB photons and free electrons stripped from neutral hydrogen atoms by ultraviolet radiation. In this talk, I will show a few newly developed techniques for detecting the EoR signatures using CMB fluctuations.

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