

Cosmic Microwave Background Measurements with the South Pole Telescope

The South Pole Telescope (SPT) is a millimeter-wavelength telescope surveying the cosmic microwave background (CMB). The SPT measures both the temperature and polarization of the CMB with a large aperture, resulting in high-resolution maps sensitive to signals across a wide range of angular scales on the sky. With these capabilities, the SPT has the potential to constrain inflationary gravitational waves as well as the effect of massive neutrinos on large-scale structure formation. I will present recent highlights from the SPT surveys, including measurements of the polarized power spectra. Recently, the SPT was upgraded with a new receiver. I will briefly describe this receiver and discuss how it will open a new regime in multi-band polarized observations of the CMB.

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