

Poster

The SPT-SZ Survey for CMB Anisotropy and Clusters of Galaxies

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The recently completed SPT-SZ survey has observed 2500 square degrees of sky with an unprecedented combination of depth and angular resolution at mm-wavelengths. The SPT-SZ focal plane consists of 960 photon noise limited transition edge sensor (TES) spiderweb bolometers, horn-coupled to light in three-bands at 3, 2, and 1.4 mm wavelength, and readout by a frequency domain SQUID multiplexer. I will give an overview of the SPT-SZ experimental design, describe the characterization of the bolometer thermal circuit and stability, and discuss lessons learned during our attempt to optimize each. Finally, I will summarize the results of the SPT-SZ survey, including cosmological constraints from the galaxy cluster survey and measurements of CMB temperature anisotropy.