

Abstract Submitted
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ACTPol: Status and preliminary CMB polarization results from the Atacama Cosmology Telescope BRIAN KOOPMAN, Cornell University, ACTPOL COLLABORATION — The Atacama Cosmology Telescope Polarimeter (ACTPol) is a polarization sensitive upgrade for the Atacama Cosmology Telescope, located at an elevation of 5190 m on Cerro Toco in Chile. In summer 2013, ACTPol achieved first light with one third of the final detector configuration. The remaining two thirds of the detector array will be installed during spring 2014, enabling full sensitivity, high resolution, observations at both 90 GHz and 150 GHz. Using approximately 3,000 transition-edge sensor bolometers, ACTPol will enable measurements of small angular scale polarization anisotropies in the Cosmic Microwave Background (CMB). I will present a status update for the ACTPol receiver and some preliminary results. ACTPol measurements will allow us to probe the spectral index of inflation as well as to constrain early dark energy and the sum of neutrino masses.

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