

Abstract Submitted
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Precision Measurements of the Cosmic Microwave Background Polarization from the POLARBEAR experiment BRYAN STEINBACH, UC Berkeley, POLARBEAR COLLABORATION — We present status and results from the first season of observations of the POLARBEAR experiment. POLARBEAR is measuring the Cosmic Microwave Background (CMB) polarization anisotropies to constrain neutrino mass, inflation, dark energy, and cosmic birefringence. Since early 2012 POLARBEAR has been performing a deep search in 30 square degrees of sky to find odd parity B modes in the CMB polarization anisotropies induced by gravitational lensing. POLARBEAR observes with 1000 single mode 150GHz detectors with 3.5' FWHM beams from an off axis Gregorian Dragone 3m telescope in the Atacama Desert in Chile.

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