

APR14-2013-000085

Abstract for an Invited Paper
for the APR14 Meeting of
the American Physical Society

Reaching the Planck Scale with CMB Polarization

DANIEL GREEN, Stanford

Over the next decade, a number of groups will provide increasingly precise maps of the polarization of the cosmic microwave background (CMB). These maps will offer a new window into the initial conditions of our universe, most significantly through their sensitivity to primordial gravitational waves. I will review the implications of these measurements to the theory of inflation (and its alternatives). I will emphasize the unique capability of CMB polarization to distinguish qualitatively different models of physics at the Planck scale.