

Abstract Submitted  
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**Constraints from Planck and Other Experiments on Big Bang Nucleosynthesis** MARIUS MILLEA, University of California, Davis, PLANCK COLLABORATION — The Cosmic Microwave Background (CMB) is our most powerful tool for probing cosmological parameters. By the time of the meeting, results from Planck will be released which will provide the tightest constraints obtained from temperature anisotropies to-date on the physics of Big Bang Nucleosynthesis (BBN). We will present these constraints from Planck on BBN parameters like the baryon-to-photon ratio, the number of neutrino species, and the primordial helium fraction, and compare these to constraints from other sources, for example more direct measurements of primordial helium and deuterium. These comparisons provide a powerful tool to test the validity of the standard BBN model. Finally, we forecast the improvement in constraints expected from future measurements of CMB polarization.

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