

Abstract Submitted
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Measuring Dark Energy with CHIME LAURA NEWBURGH, University of Toronto, CHIME COLLABORATION — The Canadian Hydrogen Intensity Mapping Experiment (CHIME) is a new radio transit interferometer currently being built at the Dominion Radio Astrophysical Observatory (DRAO) in Penticton, BC, Canada. We will use the 21cm emission line of neutral hydrogen to map baryon acoustic oscillations between 400-800MHz across 3/4 of the sky. These measurements will yield sensitive constraints on the dark energy equation of state between redshifts 0.8 – 2.5, a fascinating but poorly probed era corresponding to when dark energy began to impact the expansion history of the Universe. I will describe the CHIME instrument, the analysis challenges, the calibration requirements, and current status.

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