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The Extended Baryon Oscillation Spectroscopic Survey: Cosmology Results Using BAO Distances and Structure Growth¹ KYLE DAWSON, University of Utah, EBOSS COLLABORATION — The extended baryon oscillation spectroscopic survey (eBOSS) concluded observations of baryon acoustic oscillations (bao) and redshift-space distortions (RSD) in February, 2019. When combined with the prior samples of galaxy and lyman-alpha forest spectroscopic data within the Sloan Digital Sky Survey, eBOSS allows an exploration of the cosmic distance scale and the growth of structure out to a redshift of z=3.5. I will present an overview of the eBOSS experiment and the final BAO and RSD measurements. I will then demonstrate the advances by the stage-III BOSS and eBOSS dark energy experiments for modeling dark energy, gravity, and massive neutrino.

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