Abstract Submitted
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The Dark Energy Spectroscopic Instrument Survey[1] PAUL MARTINI, Ohio State University, DARK ENERGY SPECTROSCOPIC INSTRUMENT COLLABORATION — The Dark Energy Spectroscopic Instrument (DESI) will measure the history of cosmic acceleration from the present to beyond redshift three with an unprecedented new spectroscopic survey. Over the course of five years starting in 2019, DESI plans to measure spectroscopic redshifts for over 35 million galaxies and quasars across 14000 square degrees. These data will be used by the collaboration to measure the rate of cosmic expansion and the growth of structure with the Baryon Acoustic Oscillation technique and Redshift Space Distortions. DESI will also use the these data to test modified gravity models, inflation, and the measure the sum of neutrino masses. DESI will accomplish these ambitious goals with substantial new instrumentation for the 4-m Mayall telescope at the Kitt Peak National Observatory. I will present an overview of the DESI survey design and forecasts for cosmological and other physical constraints.

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