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The Dark Energy Spectroscopic Instrument: Exploring Dark Energy, Dark Matter and the Cosmos¹
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Astronomical observations provide one of the best ways of improving our understanding of two key mysteries: the nature of dark energy and dark matter. The Dark Energy Spectroscopic Instrument (DESI) project will, over the course of its 5-year mission, measure the redshifts of approximately 40 million astronomical sources, provide detailed measurements of the expansion history of the universe, and deliver sub-percent precision constraints on the equation of state of dark energy. Since DESI is carrying out the largest spectroscopic survey of the universe ever undertaken, its dataset will additionally bear on many key areas in astrophysics. I will present the status of the experiment, describe its current mission, its impact on astrophysics and cosmology, and its possible future roles in expanding our understanding of cosmology and dark matter.

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