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**Cosmology at Low Redshift with the Dark Energy Spectroscopic Instrument**[1] SEGEV BENZVI, University of Rochester, ANTONELLA PALMESE, Fermi National Accelerator Laboratory, DESI COLLABORATION — During the next five years, the Dark Energy Spectroscopic Instrument (DESI) will produce a detailed 3D map of the universe, with 25 million galaxies, quasars, and Lyman-alpha quasars observed at redshifts between 0.4 and 3. These data will enable unprecedented measurements of the expansion history of the universe using baryon acoustic oscillations, as well as the growth of structure using redshift space distortions. During bright time, DESI will also carry out an extensive survey of 10 million galaxies at $z < 0.4$ down to a magnitude of $r < 19.5$. DESI's low-redshift bright galaxy survey, when combined with transient catalogs from photometric and multimessenger observatories, will provide precision measurements of the growth of structure and the late-time expansion of the universe. In this contribution we describe the prospects for low-$z$ cosmology with DESI and the synergies possible with the next generation of imaging and multimessenger detectors.

[1]DOE, Office of Science, Office of High Energy Physics

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