

## The Dark Energy Spectroscopic Instrument

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2021/11/02(Tuesday)/14:20~15:20

Google Meet: <https://meet.google.com/tgv-wzqv-ayp>

**Abstract:** I will give a high-level overview of the design, mission and current status of DESI, the Dark Energy Spectroscopic Instrument. DESI is an ambitious galaxy redshift survey project using the 4-m Mayall telescope in Arizona, funded by the US Department of Energy and involving more than 500 researchers at 80 institutions worldwide (including my group at NTHU). It is the first of a new generation of highly efficient survey telescopes set to play an important role in astronomy in the next decade. Over its 5 year mission, DESI will measure the dynamical effect of dark energy on the expansion of the Universe by observing 40 million distant galaxies. We will also use DESI to observe several million stars in our home galaxy, the Milky Way, in order to constrain its growth history and dark matter content. The main DESI survey began earlier this year after almost 10 years of planning and construction. I will try to explain why astronomers and cosmologists are excited about DESI and the scientific questions it will help to answer.