

DES in 10 Minutes

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Between 2013 and 2019, the Dark Energy Survey collaboration spent 758 nights on the Blanco Telescope to conduct a comprehensive survey of galaxies, collecting data from more than 300 million galaxies billions of light years away. The survey imaged approximately 4,300 square degrees of the southern sky using five optical filters to carefully characterize individual galaxies. Correlations between the positions and shapes of these galaxies were measured and used to statistically infer the composition and evolution of the late-time universe. In combination with measurements of supernovae observations and external data sets, such as those from cosmic microwave background experiments, we now have stringent cosmological constraints that allow us to place our standard cosmological model under rigorous testing. In this talk, I will describe the various statistical measurements carried out by DES and how they have helped us gain a better understanding of the universe we live in.

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