

Galaxy-galaxy lensing for cosmology in the Dark Energy Survey

Tuesday, 20 June 2017 11:50 (20 minutes)

The Dark Energy Survey (DES) is an ongoing photometric survey that will cover 5000 sq deg of the Southern sky over five years with the aim of determining the origin of cosmic acceleration. Two of the key probes involved in achieving this goal are the large scale clustering of galaxies and weak gravitational lensing, which are more powerful when taken in combination, since the dependence on galaxy bias can be broken in both probes. Using the red galaxies identified in the Science Verification area in DES, we have measured the angular clustering and tangential shear from galaxy-galaxy lensing using red sequence selected galaxies. In this talk, I will present constraints on the dark energy equation of state and the amplitude of clustering from a joint analysis of these probes.

Primary author: Dr KWAN, Juliana (University of Tokyo)

Presenter: Dr KWAN, Juliana (University of Tokyo)

Session Classification: Working Group: Astroparticle physics and cosmology

Track Classification: Astroparticle Physics and Cosmology Working Group