



PHYSICS AND ASTRONOMY COLLOQUIUM

Dr. Alina Kiessling

Jet Propulsion Laboratory

“Measuring the Geometry of the Universe with Euclid”

Abstract

The Euclid mission is a European Space Agency (ESA) led space telescope with significant contributions from NASA (and now Canada!). Euclid will use two complementary probes to study the dark sector of the Universe. The concordance model of cosmology holds that 95% percent of the Universe is made up of dark matter and dark energy, yet we understand very little about these phenomena. I will discuss both weak gravitational lensing and galaxy clustering (including Baryon Acoustic Oscillations and Redshift Space Distortions), the probes Euclid will use to understand both the expansion history of the Universe and the growth of cosmic structures. I will give an overview of Euclid's hardware and schedule, and highlight two areas of Euclid science preparation that I have contributed to.

Wednesday, January 18, 2017

3:00 p.m.

Elliott Building

Room 167