Date and Time: Monday, June 26th, 2017, 6:30PM

Location : Skyworks Solutions,
Conference Room,
649 Lawrence Drive,
Newbury Park, CA 91320
(Intersection of West Hillcrest Drive and Lawrence Drive.)
Agenda: 6:30PM Reception & Networking
(Free Pizza & Soda will be served)
7PM Presentation
Presenter : Dr. Andres Plazas
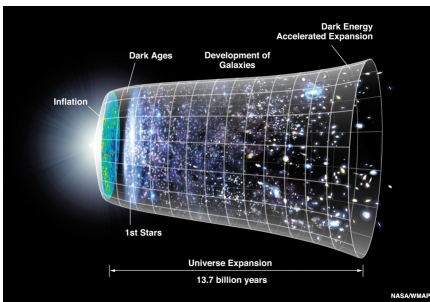
Gravitational lensing for future astronomical surveys

Dr. Andrés Plazas
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Astrophysics and Space Sciences Section
NASA Jet Propulsion Laboratory https://science.jpl.nasa.gov/people/Malagon/

Topic: Cosmology is defined as the scientific study of the universe as a whole. In this talk, I will introduce the basic theoretical notions of modern cosmology and discuss the experimental evidence that supports the current standard model of cosmology. Despite its numerous successes, this model introduces two unknown components that make up 95% of the total content of the universe—known as dark matter and dark energy—to explain observations. Finding more about this "dark sector" of our universe is one of the most important goals of modern science. I will explain how gravitational lensing is a powerful tool towards achieving this goal, and I will show examples of current and future astronomical surveys (and the role of JPL in them) that aim to shed light on these two problems
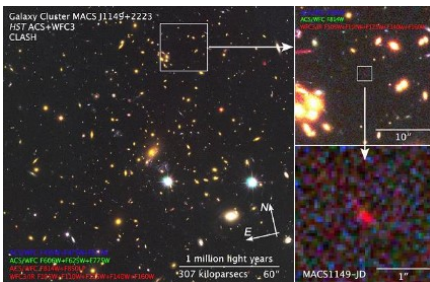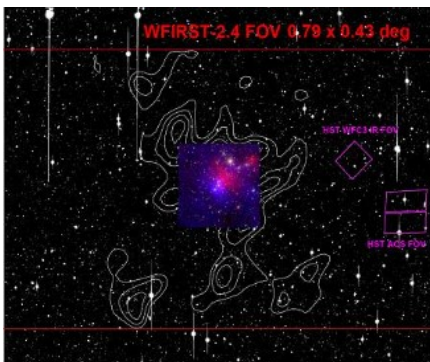
Bio: Plazas obtained his degree in physics at Universidad de los Andes in Bogotá, Colombia. He subsequently moved to the University of Pennsylvania to obtain a doctoral degree in physics and astronomy. At Penn, he received the "Zaccheus Daniel Foundation for Astronomical Science" award. He also became part of the Dark Energy Survey (DES) working on weak gravitational lensing and testing the detectors of the Dark Energy Camera used by DES at the Fermi National Accelerator Laboratory. He continued his work on weak lensing as a research associate at Brookhaven National Laboratory, where he became part of the Dark Energy Science Collaboration of the Large Synoptic Survey Telescope project. For his work in characterizing systematic errors in weak gravitational lensing he received in 2016 the "Fundación Alejandro Ángel Escobar" national prize in Natural Sciences, one of the highest scientific recognitions in his native Colombia. He is currently a Caltech Postdoctoral Scholar at JPL, working on understating systematic errors in weak lensing from the infrared detectors that will be used by the wide field imager of NASA's WFIRST observatory.