

**Caltech**  
**Astro**

**STARGAZING &  
LECTURE SERIES**

**Cosmic Cartography:  
A Billion Stars in Six Dimensions  
and the Gaia Revolution**

A Lecture by Erik Petigura

Friday, September 14th, 8:00PM

Cahill Center for Astronomy and Astrophysics  
California Institute of Technology

A million miles from Earth, there is a peculiar point in space called "L2," where the gravity from the Sun and Earth strike a special balance. There, a spacecraft called Gaia is slowly rotating, once every six hours. As it rolls, its two telescopes scan the sky making the most precise map of the cosmos ever created. This talk will be an overview of the science of mapping the heavens, stretching back to the ancient Greeks and extending to the ongoing Gaia mission. I will share some of the ways that Gaia is revolutionizing all aspects of astronomy from quasars to stars to exoplanets.

These are free lectures at a public level followed by guided stargazing with telescopes (weather permitting). All events are held at the Cahill Center for Astronomy and Astrophysics at Caltech. No reservations are needed. Lectures are 30 minutes, stargazing lasts 90 minutes. Stay only as long as you want.

For directions, weather updates, and more information, please visit:

<http://outreach.astro.caltech.edu>