

The Keck Institute for Space Studies presents an open lecture:

Parker Solar Probe

Exploring the Plasma Physics of the Solar Corona and Inner Heliosphere

Professor Marco Velli UCLA /JPL

Thursday, July 19, 2018

4:30 PM Refreshments 5:00 PM Lecture

Lees-Kubota Lecture Hall Guggenheim Building California Institute of Technology

On August 4th, 2018, the Parker Solar Probe will launch to carry out the first in situ exploration of the outer solar corona and deep inner heliosphere. Direct measurements of the plasma in the closest atmosphere of our star should lead to a new understanding of the questions of coronal heating, solar wind acceleration, and the generation, acceleration, and propagation of solar energetic particles.

Prof. Velli will start with a non-specialist introduction to our present knowledge of the magnetized solar corona and wind before describing this mission's scientific objectives, orbit, and instruments. Emphasis will be on the potential new discoveries stemming from the first exploration of the space inside the orbit of Mercury. He will also discuss how synergies with Solar Orbiter might lead us to accurately understand the state of the solar wind all the way from the corona into interplanetary space, elucidating like never before the role and dynamics of active magnetized plasmas throughout the universe.