

The Keck Institute for Space Studies presents an open lecture:

To Boldly Go... Well, You Know: NASA's Dawn Mission to the Asteroid Belt

Dr. Marc RaymanDawn Mission Director/Chief Engineer

Monday, September 11, 2017

4:30 PM Refreshments 5:00 PM Lecture

Lees-Kubota Lecture Hall Guggenheim Building California Institute of Technology

The ambitious and exciting Dawn mission is one of NASA's most remarkable ventures into the solar system. The spacecraft completed a spectacular exploration of Vesta in 2011-2012 and arrived in orbit around Ceres in 2015. These were among the last uncharted worlds in the inner solar system prior to Dawn. They are the two largest residents of the main asteroid belt, that vast collection of bodies between Mars and Jupiter. Ceres is so large that it is included in the category of dwarf planets, along with Pluto. The alien landscapes Dawn reveals provide humankind with a new perspective on the solar system. Remnants from the time that planets were formed, Ceres and Vesta hold clues that will help scientists understand the dawn of the solar system.

Dawn is the only spacecraft ever to orbit a dwarf planet and is the only one ever to orbit any two extraterrestrial destinations. It has also maneuvered extensively in orbit to optimize its observations. Such a mission would be impossible without the use of ion propulsion, a technology that has largely been in the domain of science fiction.