BUENAVENTURA AEROSPACE AND ELECTRONIC SYSTEMS SOCIETY

Cassini-Huygens Mission: Understanding Saturn and its moons

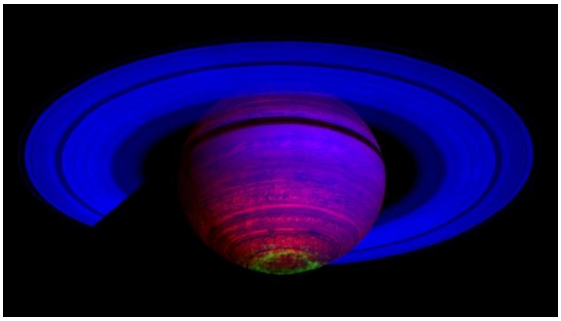
Dr. Morgan L. Cable

Thursday October 19, 2017 at 6:30 pm

CLU's Gilbert Sports Center, Room 254
130 Overton Court, Thousand Oaks, CA
Meetings are free and open to the public
Register here

Cassini-Huygens, a mission that concluded after 13 years of fascinating discoveries of the outer solar system, employed sensors that took accurate measurements and detailed images in a variety of atmospheric conditions and light spectra.

The spacecraft was launched with two elements: the Cassini orbiter and the Huygens probe. Cassini-Huygens reached Saturn and its moons in July 2004, beaming home valuable data that transformed our understanding of the Saturnian system. Huygens entered the murky atmosphere of Titan, Saturn's biggest moon, and descended via parachute onto its surface - the most distant spacecraft landing to date.



Cassini-Huygens was a three-axis stabilized spacecraft equipped for 27 diverse science investigations. The remote sensing in instruments included both optical and microwave sensing instruments such as cameras, spectrometers, radar and radio. The fields and particles instruments took "in situ" (on site) direct sensing measurements of the electromagnetic fields and dust particles around the spacecraft.

Dr. Morgan Cable will talk about the Cassini-Huygens mission, the instruments on board the Cassini spacecraft, and the discoveries made it made before diving into Saturn.

Dr. Morgan Cable is a Technologist in the Instrument Systems Implementation and Concepts Section at the NASA Jet
Propulsion Laboratory in Pasadena, California. She served as the Assistant Project Science Systems Engineer for the Cassini Mission.

Dr. Cable has designed receptor sites for the detection of bacterial spores, the toughest form of life. She has performed laboratory experiments to study the liquid hydrocarbon lakes of Titan, a moon of Saturn. She has been involved in several studies led by the Keck Institute for Space Studies, the most recent of which was to explore what kinds of life could survive or even thrive in exotic solvents (other than liquid water). Morgan has also explored the extreme environments that serve as analogs for other places in the solar system, such as Mars. She was involved in research expeditions to the driest desert in the world, the Atacama Desert in Chile, to the summit of Mt. Kilimanjaro in Tanzania, and lava fields in Iceland.

Dr. Cable's research interests include searching for undiscovered forms of life, prebiotic chemistry, planetary science and remote sensing.

Location: California Lutheran University
Gilbert Sports and Fitness Center,
2nd floor, Rooms 254
130 Overton Court,
Thousand Oaks, CA 91360

Pizza/networking starts at 6:30 pm
Talk starts at 7:00 pm

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