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The Keck Institute for Space Studies presents an open lecture:

Building the Giant Magellan Telescope

Dr. James FansonGMTO Corporation

Monday, July 17, 2017

4:30 PM Refreshments 5:00 PM Lecture

Lees-Kubota Lecture Hall Guggenheim Building California Institute of Technology

The Giant Magellan Telescope is one of three extremely large telescopes now taking shape across the globe. Its primary light collecting surface comprises seven 8.4-meter diameter mirror segments, among the largest mirrors ever manufactured. Located in Chile's Atacama Desert the Giant Magellan Telescope will offer powerful new scientific capabilities to advance our understanding of the heavens. The telescope's unique doubly-segmented optical design incorporates deformable mirrors that will compensate for the atmosphere's blurring effects, giving the Giant Magellan Telescope ten times the resolving power of the Hubble Space Telescope.

Many challenges must be overcome to achieve such an undertaking. How does one manufacture an 8.4-meter mirror? How do you protect them from damage in a region that experiences some of the world's most powerful earthquakes? How do you defeat the atmosphere to produce sharp images? How does one manage an engineering effort on this scale? The project manager will discuss these and other challenges on the road to building the Giant Magellan Telescope.

Seating is limited and is available on a first come, first served basis.