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Registration is required at kiss.caltech.edu

The Keck Institute for Space Studies presents the following webinar:

Robotic Exploration of Titan with DRAGONFLY

An Overview of the Lander Mobility System

Dr. Doug Adams
Johns Hopkins Applied Physics Laboratory (APL)

September 2, 2020
5:00 PM Lecture

Dragonfly is a rotorcraft lander mission that will embark on a journey to Saturn's moon Titan in 2026. Selected as part of NASA's New Frontiers Program, Dragonfly will explore Titan's surface employing autonomous navigation with ground control providing only high-level waypoint and flight plan information. Carrying a suite of instruments, this robotic explorer will sample materials and determine surface composition in different geologic settings in order to characterize the habitability of Titan's environment.

This talk with present a brief overview of the Dragonfly mission, and focus specifically on the Lander Mobility System. Utilizing Terrain Relative Navigation (TRN) and lidar-based hazard avoidance techniques, Dragonfly will safely traverse several kilometers in a single Titan day. This talk will give an overview of the lander computing architecture and discuss the sensors and data processing used for mobility.