

Aerospace Seminar



Michael Furlong

NASA Ames IRG Researcher

Autonomous Prospecting for Lunar Operations

Wednesday, April 10, 2019 | DLC | 12:00 P.M.

Abstract: NASA has a mission to explore the universe, which drives robots to ever more distant locations. One task robots will have to accomplish is prospecting for resources—searching the environment to identify and localize quantities of interest to overarching missions. In this talk we take the search for subsurface water on the Moon as a motivating problem for automating prospecting. We use change detecting methods to determine when to deploy maneuvers which gather more information about areas of interest, which sets the stage for greater autonomy during exploration.

Bio: Michael's background is in field robotics, he has over ten years experience in field robotics, first at Carnegie Mellon University and now as a part of NASA Ames' Intelligent Robotics Group. Michael's Ph.D. thesis research was on automating aspects of science exploration missions, which he has continued to develop at NASA. As a part of the Intelligent Robotics Group, Michael has deployed robots to the Mojave and Atacama deserts. Currently Michael is the autonomy lead on the ICICLES project, which attempts to select scientifically interesting landing sites during descent for future missions to icy moons like Europa.



Smead Aerospace
UNIVERSITY OF COLORADO BOULDER

Be Boulder.