

The Field Robotics Center

Seminar Series

Monday 23th April

GHC 2109 11am - 12noon

Pizza will be served



Heather Jones

Field Robotics Center

Carnegie Mellon University

Complementary Flyover and Rover Sensing for Modeling of Planetary Features

Abstract: This talk presents complementary flyover and surface exploration for reconnaissance of planetary point destinations, like skylights and polar crater rims, where local 3D detail matters. Recent breakthroughs in precise, safe landing enable spacecraft to touchdown within a few hundred meters of target destinations. These precision trajectories provide unprecedented access to birds-eye views of the target site and enable a paradigm shift in terrain modeling and path planning. High-angle flyover views penetrate deep into concave features while low-angle rover perspectives provide detailed views of areas that cannot be seen in flight. Combining these views improves coverage and reduces rover trajectory length. Simulation results for modeling a Lunar skylight are presented.

Speaker Bio: Heather Jones is a PhD student at the Robotics Institute. Before coming to Carnegie Mellon, she earned bachelors degrees in engineering and computer science from Swarthmore College and worked for nearly three years at NASA's Johnson Space Center.



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