

# EGS Abstract for Nice, France, April 2000

## FIDO: ENABLING MARS ROVER SCIENCE OPERATIONS

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The Field Integrated Design and Operations (FIDO) rover, is an operations testing prototype (<http://robotics.jpl.nasa.gov/tasks/etrover/homepage.html>) for Mars Sample Return rovers and their associated Athena payload (<http://fidoinstruments.jpl.nasa.gov> <http://athena.cornell.edu>) used in Mars analog settings. Scenarios require: (a) finding, characterizing, obtaining, caching, and returning samples to the lander, and (b) exploring after sample delivery. FIDO's mast houses: (a) Pancam, for stereo science imaging; (b) Navcam, for rover traverses; and (c) Infrared Point Spectrometer (IPS). FIDO uses hazard avoidance to get to targets designated within the data. An arm carries a color microscopic imager. A drilling system can acquire a rock core. Mössbauer spectroscopic observations of the same samples require overnight runs. Field testing took place in the Mojave Desert in April and October 1999 (<http://wufs.wustl.edu/rover/>). Remote sensing data provide context for the field tests. A blind field test is planned in May 2000.

**Abstracts to be submitted on or before December 15, 1999 to**

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