

Open Global Community NEO Workshop

Session 4: NEO Characteristics for Safe and Meaningful Human Exploration

Discussion of the known physical characteristics of Near-Earth Objects (NEOs) obtained from spacecraft and ground-based observation to identify an optimum set of NEO characteristics (spin rate, internal structure, size, composition, etc.) most desirable for safe and meaningful human exploration. Additional discussion will focus on: How best to determine the physical characteristics of candidate NEO targets necessary prior to human exploration (via ground-based and/or space-based assets); What methods, measurements, and instruments are required to provide the necessary data for target selection and qualification, and; When should these data be obtained so as to best inform scientists and engineers designing and planning future human NEO exploration missions.

Chairs

Andy Rivkin, JHU Applied Physics Laboratory

Paul Abell, NASA Johnson Space Center

Panel

- 📄 **Patrick Michel, Cote d'Azur Observatory; *"Physical Properties of NEOs: Current Knowledge from Observations, Simulations, and Their Possible Influence for the Design of a Human Mission"***
- 📄 **Lance Benner, Jet Propulsion Laboratory; *"Arecibo and Goldstone Radar Characterization of NEO Mission Targets"***
 - 📄 **Joe Nuth, NASA Goddard SFC; *"Do we Really Understand the Rocks that Astronauts Might be Visiting?"***
 - 📄 **Dan Scheeres, University of Colorado; *"The Asteroid Surface Environment, Knowns and Unknowns"***
- 📄 **Mike Hess, NASA Johnson Space Center; *"Extravehicular Activity Considerations for Near-Earth Object Operations"***