

## **Mars Missions: Sociological and Technical Systems Engineering Challenges**

Bringing people to Mars and returning them safely is an enormous system of systems challenge. Program “churn”, manifested through restarts (Ares, Constellation) and technical challenges, has slowed development and delivery of the first system (a heavy lift launcher) required to get humans to Mars. Similar risks of resets lie ahead if technical challenges are not overcome and systems delivery commitments cost and schedule targets are not satisfied. Dr. Goldberg will highlight the sociotechnical systems engineering challenges associated with this mission to Mars and the progress made to-date by the community in overcoming them.