

Session Title:

Facing and Understanding Particle Radiation in Expanding Human Access to Space

Session Description:

Human access to space is expanding in a new realm of deep space exploration, space tourism and the society's increasing reliance on rapid and reliable aviation. Particle radiation poses significant hazards for astronauts, satellites, aviators and passengers as well as produces affects on planetary bodies.

Increasing galactic cosmic ray fluxes near successive solar minima highlight the increasing radiation hazard. Radiation weathers the regolith of the Moon, the two moons of Mars, other airless bodies, and contributes to chemical evolution of atmospheres at Earth, Mars, Venus, Titan, and Pluto. Radiation remains a factor that we must face through improved understanding and innovation of methodologies for prediction. We invite abstracts on research including the origin of SEPs from coronal mass ejections, propagation of events through the solar system during the anomalously weak solar cycle 24 and important examples of radiation interactions for Earth, other planets and airless bodies such as the Moon.

Session Viewer Link: <https://agu.confex.com/agu/fm17/preliminaryview.cgi/Session24863>

Primary Convener:

Nathan Schwadron, University of New Hampshire Main Campus, Space Science Center, Durham, NH, United States

Conveners:

William M Farrell, NASA Goddard SFC, Greenbelt, MD, United States, **Madhulika**

Guhathakurta, NASA Headquarters/NASA Ames Research Center, Mountain View, CA, United States and **W Kent Tobiska**, Space Environment Technologies, Pacific Palisades, CA, United States

Invited Speakers:

Harlan Spence (U. New Hampshire), **Chris Mertens** (NASA Langley Research Center)