

Monday, June 16, 2014
POSTER SESSION: CROSS CUTTING TECHNOLOGIES
6:30 p.m. Dabney

Nyago J. J. Jr.

[*Enhancement of Knowledge and Skills of University Educators, Research and Application Scientists in Both the Physical and Natural Sciences as Well as in Analytical Disciplines*](#) [#8003]

In Uganda, due to the information gap created by the current education curricula and the lack of interest in research, interest and practicability in this Space Technological areas of study.

Kuznetsova D. Bouquet A. Gritsevich M. Baratoux D. Vaubaillon J. Mimoun D.
Mousis O. Bouley S.

[*A Model for Meteoroid Atmospheric Entry and its Application to Simulate the Capabilities of an Orbiter for Meteors Monitoring*](#) [#8049]

We evaluate performance of an orbiting system for monitoring the meteor events in the atmosphere. A numerical tool has been created which uses a theoretical model of meteoroid entry developed by the authors and simulates the rates of meteor detection.

Sunday C. M. Murdoch N. Mimoun D.

[*Surface-Lander Interactions on Small Bodies*](#) [#8069]

The objective of this work is to present an experiment on low-velocity, low-gravity collisions into granular asteroid surfaces. The experiment measures the amount of energy lost during impact via a projectile's coefficient of restitution.

Gonzales G.

[*Thermal Testing of Woven TPS Materials in Extreme Entry Environments*](#) [#8089]

Some recent thermal tests of woven TPS have been used to help develop and qualify the capabilities of the NASA's IHF and AEDC's H3 arcjet facilities and this woven material. These tests have benefited both the facilities and woven teams.

Straub J.

[*Autonomous Control for Space Solar Power for a Planetary Science Mission*](#) [#8115]

This paper presents an overview of an autonomous control (decision making) algorithm for a space solar power transmitting spacecraft suitable for use for a deep space planetary science mission.

Straub J.

[*Towards Autonomy for Planetary Science: Scientist Characteristics and Autonomy Acceptance*](#) [#8117]

Attitudes of planetary scientists towards mission autonomy technologies have been previously characterized. This paper presents a characterization segmented by research focus area, assessing where autonomy may be more and less likely to be accepted.

Bergsrud C. M. Straub J.

[*A Deep Space Multi-Hop Power Grid Infrastructure Using Space Solar Power Satellites*](#) [#8009]

A system utilizing multiple space solar power satellites to support a tortile-style orbit highway from the Earth to the Moon and/or Mars is presented. This reduces spacecraft mass and volume via removing large solar panels lowering mission costs.