Wilson T. L.  Lee K. T.  
*Photon Luminescence of the Moon* [#1918]

The space-radiation-induced photon luminescence existing on the Moon is derived from SEP and GCR sources. Its spectrum is present in the upper X-ray and lower $\gamma$-ray portion of the electromagnetic spectrum. Dose mitigation measures are addressed.

Petro N. E.  Bleacher J. E.  Clark P. E.  Mest S. C.  Lewis R.  
*Optimizing Lunar Surface Science: Comparison of Shackleton Base Scenario and Sortie Surface Scenarios at the Nectaris Basin, Marius Hills, and Olivine Hill* [#2206]

The work reported here responds to the need to provide the Constellation program with science requirements for a surface system architecture and metrics for surface operations. We compare surface scenarios for an outpost at Shackleton to three sorties.

*Traverse Planning for Robotic Recon and Human Exploration of Hadley Rille* [#1233]

We recently conducted a lunar traverse planning exercise at NASA Ames. The objective was to plan an EVA traverse for a hypothetical, manned mission to the Apollo 15 region and then identify where ground-level data (acquired by robotic scouting) would help refine the plan.

Ruberg R.  Wood C. A.  Reese D. D.  Lightfritz C.  Harrison A.  
*MoonWorld: Virtual Fieldwork in Second Life* [#2229]

MoonWorld is a Second Life simulation that models the Moon as a tool for learning lunar science through virtual fieldwork. Avatars climb into craters to collect samples and observe structure to understand crater formation.

*Buildings of Great Inner Space Created with Low Asset Requirement and High Efficiency for the Moon* [#2458]

For constructing lunar base buildings of great inner space we propose a plan, architectural concept, and building technology of using local materials by various technologies, baking, bagging and moving of the regolith to cover the building.