NASA’s Solar System Exploration Research Virtual Institute: Building Collaboration Through International Partnerships

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Abstract

The NASA Solar System Exploration Research Virtual Institute (SSERVI) is a virtual institute focused on research at the intersection of science and exploration, training the next generation of lunar scientists, and community development. As part of the SSERVI mission, we act as a hub for opportunities that engage the larger scientific and exploration communities in order to form new interdisciplinary, research-focused collaborations. This talk will describe the international partnership program, research efforts and how we are engaging the international science and exploration communities through workshops, conferences, online seminars and classes, student exchange programs and internships.

1. Introduction

NASA’s Solar System Exploration Research Virtual Institute (SSERVI) represents a close collaboration between science, technology and exploration that will enable deeper understanding of the Moon and other airless bodies as we move further out of low-Earth orbit. The Institute is centered on the scientific aspects of exploration as they pertain to the Moon, Near Earth Asteroids (NEAs) and the moons of Mars. The Institute focuses on interdisciplinary, exploration-related science centered around all airless bodies targeted as potential human destinations. Areas of study reported here will represent the broad spectrum of lunar, NEA, and Martian moon sciences encompassing investigations of the surface, interior, exosphere, and near-space environments as well as science uniquely enabled from these bodies.

We will provide a detailed look at research being conducted by our ten international partners. In addition, we will discuss the process for developing international partnerships with SSERVI.

2. Summary and Conclusions

As the Institute’s teams continue their proposed research, new opportunities for both domestic and international partnerships are being generated that are producing exciting new results and generating new ideas for scientific and exploration endeavours. SSERVI enhances the widening knowledgebase of planetary research by acting as a bridge between several different groups and bringing together researchers from: 1) scientific and exploration communities, 2) multiple disciplines.

Acknowledgements

The authors would like to thank the hard work and dedication to all SSERVI Team members and International Partners that work diligently to create an innovative and collaborative Institute.