

**Preliminary Program**  
**SOLAR SYSTEM REMOTE SENSING SYMPOSIUM**  
**September 20–21, 2002**  
**The University Club at The University of Pittsburgh, Pittsburgh, Pennsylvania**

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**Friday, September 20, 2002**  
**WELCOME AND ANNOUNCEMENTS**  
**8:30 a.m.**

- 8:30 *Welcoming Address*  
 8:45 *Logistics and Introduction*

**PHOTOMETRIC THEORY AND SPECTROSCOPIC MODELING**  
**9:00 a.m.**

**Chair: J. F. Mustard**

- 9:00 Shkuratov Yu. G. \* [INVITED]  
*Interpreting Photometry of Planetary Regoliths: Progress and Problems as Seen from Kharkov* [#4011]
- 9:30 Zubko E. S. \* Shkuratov Yu. G.  
*Negative Polarization of Light Scattered by Cometary Dust and Planetary Regolith: Two Different Mechanisms* [#4002]
- 9:45 Grynko Ye. \* Shkuratov Yu.  
*Backscatter Effects of Particles with Perfect and Irregular Shapes: Geometric Optics Approach* [#4009]
- 10:00 Grundy W. M. \* Schmitt B. Doute S.  
*Toward an Improved Single-Particle Model for Large, Irregular Grains* [#4026]
- 10:15 Helfenstein P. \*  
*A New Method for Estimating the Single Scattering Phase Functions of Regolith Grains* [#4042]
- 10:30 BREAK
- 10:45 Stankevich D. Shkuratov Yu. \* Pinet P. Cord A.  
*Light Scatter by Particulate Surfaces with Different Topography* [#4010]
- 11:00 Hale A. S. \* Hapke B. W.  
*Thermal Modeling of Planetary Regoliths* [#4018]
- 11:15 Akiyama H. Sasaki S. \*  
*Effects of Rock Coating on Reflectance Spectra of Rock Samples* [#4022]
- 11:30 Zorn N. V. \* Ramsey M. S.  
*Automated Blind End-Member Spectral Deconvolution Algorithm* [#4025]
- 11:45 Sunshine J. M. \* Clark B. E. Lucey P. G.  
*Combining the MGM and Hapke Theory: Two Models are Better than One* [#4035]
- 12:00 LUNCH

\* Designates speaker; [ ] Abstract number

**Friday, September 20, 2002**  
**LABORATORY WORK**  
**1:30 p.m.**

**Chair: C. M. Pieters**

- 1:30 Nelson R. M. \* [INVITED]  
*The Opposition Effect: A Very Unusual Case* [#4014]
- 2:00 Muinonen K. \*  
*Coherent Backscattering by Random Particulate Media in the Solar System* [#4047]
- 2:15 Shepard M. K. \*  
*Initial Results from the Bloomsburg University Goniometer Laboratory* [#4004]
- 2:30 Schmitt B. \* Bonnefoy N. Brissaud O. Douté S.  
*Dependence of the Spectral BRDF of Sulfur Surfaces with Material Texture: Laboratory Measurements with the Spectrophoto-Goniometer at LPG* [#4041]
- 2:45 Cord A. \* Pinet P. Daydou Y. Stankevich D. Shkuratov Yu.  
*Planetary Regolith Surface Analogs and Mesoscale Topography: Optimized Determination of Hapke Parameters Using Multi-Angular Spectro-Imaging Laboratory Data* [#4013]
- 3:00 Mustard J. F. \*  
*Small Particles and Cemented Textures: Two Challenges for Remote Compositional Analysis* [#4036]
- 3:15 Piatek J. L. \* Hapke B. Nelson R. M. Hale A. S. Smythe W. D.  
*Size-dependent Scattering Properties of Planetary Regolith Analogs* [#4028]
- 3:30 BREAK

**Friday, September 20, 2002**  
**COLD, ICY PLACES (SOUNDS LIKE MILLER TIME)**  
**3:45 p.m.**

**Chair: D. L. Domingue**

- 3:45 Carlson R. W. \* [INVITED]  
*The Diverse Surface Compositions of the Galilean Satellites* [#4019]
- 4:15 Roush T. L. \*  
*Compositional Remote Sensing of Icy Planets and Satellites Beyond Jupiter* [#4017]
- 4:30 Hendrix A. R. \* Domingue D. L.  
*Ultraviolet Surface Properties of the Icy Galilean Satellites from Phase Curve Analysis* [#4007]
- 4:45 Buratti B. J. \* Hicks M. D. Soderblom L. A. Hillier J. K. Britt D.  
*Photometric Modeling of a Cometary Nucleus: Taking Hapke Modeling to the Limit* [#4008]
- 5:00 Verbiscer A. \* French R. McGhee C.  
*Hubble Space Telescope Photometry of Mimas, Enceladus, Tethys, Dione, and Rhea* [#4049]
- 5:15 MEETING ADJOURNS FOR THE DAY
- 6:30 BANQUET AT THE UNIVERSITY CLUB

**Saturday, September 21, 2002**  
**MOON AND SPACE WEATHERING**  
**8:00 a.m.**

**Chair: L. A. Taylor**

- 8:00 Pieters C. M. \* [INVITED]  
*Lessons Learned from Lunar Exploration: The Moon Continues to Surprise Us* [#4034]
- 8:30 Tompkins S. \* [INVITED]  
*Spectral and Spatial Views of the Moon* [#4040]
- 9:00 Lucey P. G. \*  
*A Complete First Order Hapke Model of the Near-Infrared Spectral Reflectance of the Moon* [#4044]
- 9:15 Hendrix A. R. \*  
*The Lunar Phase Curve in the Near Ultraviolet* [#4006]
- 9:30 Omelchenko V. V. \* Kaydash V. G. Shkuratov Yu. G.  
*New Estimates of Lunar Opposition Spike Characteristics with Clementine Data* [#4015]
- 9:45 Hunten D. M. \* Sprague A. L.  
*Using the Hapke Rough Reflectance Factor for Calibration of Atmospheric Emissions at Mercury and the Moon* [#4030]
- 10:00 Clark P. E. \* Curtis S. A. Rilee M. L.  
*ANTS: Applying a New Paradigm to Lunar and Planetary Exploration* [#4037]
- 10:15 BREAK
- 10:30 Keller L. P. \* [INVITED]  
*Microstructural Studies of Space Weathering Effects in Lunar Materials* [#4031]
- 11:00 Taylor L. A. \*  
*Origin of Surface-correlated and Agglutinitic Nanophase FeO: A Bedtime Story for Bruce* [#4003]
- 11:15 Sasaki S. \* Kurahashi E. Nakamura K. Hiroi T. Yamanaka C.  
*Simulation of Space Weathering by Nanosecond Pulse Laser Irradiation: Spectral Change and TEM-ESR Confirmation of Nanophase Iron Particles* [#4020]
- 11:30 Noble S. K. \* Pieters C. M.  
*Space Weathering Processes on Mercury* [#4005]
- 11:45 Chapman C. R. \*  
*Evolving Perspectives on Space Weathering of Asteroids* [#4048]
- 12:00 Clark B. E. \* Lucey P. Helfenstein P.  
*The Nature of Space Weathering Effects on Asteroid 433 Eros* [#4032]
- 12:15 LUNCH

**Saturday, September 21, 2002**  
**ASTEROIDS, MARS, AND MERCURY**  
**1:30 p.m.**

**Chair: F. Vilas**

- 1:30 Ostro S. J. \* [INVITED]  
*Groundbased Radar Investigations of Asteroids and Planetary Satellites* [#4001]
- 2:00 Righini S. \* Poppi S. Montebugnoli S. Di Martino M. Saba L. Delbo' M. Ostro S. Monari J.  
Poloni M. Orlati A. Zaitsev A.  
*Intercontinental Bistatic Radar Test Observation of Asteroid 1998 WT24* [#4023]
- 2:15 Haldemann A. F. \* Jurgens R. F. Larsen K. W. Arvidson R. E. Slade M. A.  
*Mars Radar Observations with the Goldstone Solar System Radar* [#4039]
- 2:30 Larsen K. W. \* Haldemann A. F. Jurgens R. F. Arvidson R. E. Slade M. A.  
*Four Station Interferometric Radar Observations of Mars* [#4038]
- 2:45 Johnson J. R. \* Grundy W. M. Lemmon M. T.  
*Dust Coatings at the Mars Pathfinder Landing Site* [#4016]
- 3:00 Arvidson R. E. \* Christensen P. R. Garvin J. Mellon M.  
*On the Distribution and Implications of Mantled and Exhumed Terrains on Mars* [#4024]
- 3:15 BREAK
- 3:30 Seelos F. P. IV\* Arvidson R. E.  
*Remote Sensing Analysis of the Terra Meridiani Region, Mars* [#4029]
- 3:45 Wright S. P. \* Ramsey M. S.  
*End Member Analyses of Spaceborne Thermal Infrared Data of Meteor Crater, Arizona and Application to Future Mars Data Sets* [#4027]
- 4:00 Murchie S. \* Arvidson R. Barnouin-Jha O. Beisser K. Bibring J.-P. Bishop J. Bold J. Choo T.  
Clancy R. T. Darlington E. H. Des Marais D. Fort D. Green R. Hayes J. Lees J. Malaret E.  
Mehoke D. Morris R. Mustard J. Peacock K. Robinson M. Roush T. Schaefer E.  
Silverglate P. Smith M. Thompson P. Tossman B.  
*CRISM: Compact Reconnaissance Imaging Spectrometer for Mars on the Mars Reconnaissance Orbiter* [#4046]
- 4:15 Sprague A. L. \*  
*Mercury's Surface Composition from Surface Spectroscopy* [#4033]
- 4:30 Holin I. V. \*  
*Evidence for Global Radar Speckle Pattern Displacement to Measure Mercury's Obliquity and Librations* [#4021]
- 4:45 Holin I. V. \*  
*Earth-based Radar Speckle Displacement Interferometry to Study the Spin-Vector of Venus* [#4012]
- 5:00 MEETING ADJOURNS