

Program
41st LUNAR AND PLANETARY
SCIENCE CONFERENCE
March 1–5, 2010

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Sunday Evening, February 28, 5:00 p.m.

Waterway Ballroom Reception/Registration
Prefunction Area

Monday Morning, March 1, 8:30 a.m.

Waterway Ballroom 1 [Parent Cloud and Solar Nebula](#)
Waterway Ballroom 4 [Martian Alteration Processes: In the Laboratory, from Orbit, and *In Situ*](#)
Waterway Ballroom 5 [Planetary Differentiation Throughout the Solar System](#)
Waterway Ballroom 6 [SPECIAL SESSION: A New Moon: Lunar Reconnaissance Orbiter Results](#)

Monday Afternoon, March 1, 1:30 p.m.

Waterway Ballroom 4 [PLENARY SESSION: Masursky Lecture and Dwornik Award Presentations](#)

Monday Afternoon, March 1, 2:30 p.m.

Waterway Ballroom 1 [Formation of First Solar System Solids](#)
Waterway Ballroom 4 [Experimental Constraints on Martian Alteration Processes](#)
Waterway Ballroom 5 [Venus](#)
Waterway Ballroom 6 [SPECIAL SESSION: Water in the Solar System: Incorporation into
Primitive Bodies and Evolution](#)

Monday Evening, March 1, 5:30 p.m.

Waterway Ballroom 4 NASA Headquarters Briefing

Immediately followed by

Montgomery Ballroom Student/Scientist Reception

Tuesday Morning, March 2, 8:30 a.m.

Waterway Ballroom 1	<u>Radionuclides and Early Solar System Chronology</u>
Waterway Ballroom 4	<u>Terrestrial Planet Cryospheres: Ice Tables, Glaciers, and Periglacial Landforms</u>
Waterway Ballroom 5	<u>Ground Truth Galore: Terrestrial Impact Craters</u>
Waterway Ballroom 6	<u>SPECIAL SESSION: A New Moon: LCROSS, Chandrayaan and Chang'E-1</u>

Tuesday Afternoon, March 2, 1:30 p.m.

Waterway Ballroom 1	<u>Ureilite Asteroids: Insights from Almahata Sitta</u> followed at 3:15 p.m. by <u>Vesta and Dawn</u>
Waterway Ballroom 4	<u>Mars Polar Processes: Seasonal Ice and Polar Layered Deposits</u> followed at 3:15 p.m. by <u>Planetary Aeolian Processes: Dunes, Dust, and Devils</u>
Waterway Ballroom 5	<u>Impact Models, Experiments, and Impact Deposits</u>
Waterway Ballroom 6	<u>SPECIAL SESSION: Water in the Solar System: Moon</u>
Montgomery Ballroom	<u>Mercury After MESSENGER's Third Flyby</u>

Tuesday Evening, March 2, 7:00 p.m.

Town Center Exhibit Area	Poster Session I <u>Parent Cloud and Protoplanetary Disk Processes</u> <u>Radionuclides and Early Solar System Chronology</u> <u>Isotopes and REEs</u> <u>Laboratory Instruments and Samples</u> <u>Formation of First Solar System Solids</u> <u>Ureilites</u> <u>Achondrites</u> <u>Iron and Stony Iron Meteorites</u> <u>Education and Public Outreach: Meteorites</u> <u>Planetary Differentiation Throughout the Solar System</u> <u>Cosmic-Ray Exposure Dating</u> <u>Main Belt: Sources and Sinks</u> <u>Small Body Missions</u> <u>Impact Ejecta and Other Deposits</u> <u>Impactite Petrology and Ages</u> <u>Impact Experiments</u> <u>Impacts Modeling</u> <u>Impact Craters Remote Sensing and Structural Geology</u>
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Tuesday Evening, March 2, 7:00 p.m. (continued)

[Education and Public Outreach: Impacts](#)

[Lunar Meteorites](#)

[Lunar Petrology and Geochemistry](#)

[Lunar Origins and Chronology](#)

[A New Moon: Volatile Species Around the Moon](#)

[A New Moon: LCROSS](#)

[A New Moon: Geologic Processes on the Moon](#)

[Education and Public Outreach: Moon](#)

[Martian Alteration Processes: Experimental, Observational, and Theoretical](#)

[Planetary Aeolian Processes: Dunes, Dust, and Devils](#)

[Martian Polar Processes: Seasonal Ice and Polar Layered Deposits](#)

[Mars Ice In and Around Craters](#)

[Terrestrial Planet Cryospheres: Ice Table, Glaciers, and
Periglacial Landforms](#)

[Mercury](#)

[Venus](#)

[Material Analogs: What Planet Did That Come From?](#)

[Spacecraft Instruments](#)

[Mission Plans and Concepts](#)

[Education and Public Outreach: Mission Plans and Concepts](#)

[Data and Image Systems: PDS, GIS, Web Tools, etc.](#)

[Education and Public Outreach: Professional Development](#)

Wednesday Morning, March 3, 8:30 a.m.

Waterway Ballroom 1	<u>Stardust Mission to Comet Wild 2</u>
Waterway Ballroom 4	<u>Exploring the Martian Crust: Geology, Mineralogy, and Geochemistry</u>
Waterway Ballroom 5	<u>Planetary Dynamics and Tectonics</u>
Waterway Ballroom 6	<u>Nature of the Lunar Regolith</u>

Wednesday Afternoon, March 3, 1:30 p.m.

Waterway Ballroom 1	<u>Origins of Presolar Grains</u>
Waterway Ballroom 4	<u>Differentiated Meteorites</u>
Waterway Ballroom 5	<u>Impacts on the Moon, Mars, and Beyond</u>
Waterway Ballroom 6	<u>SPECIAL SESSION: A New Moon: Spectral Constraints on Lunar Crustal Composition</u>
Montgomery Ballroom	<u>Planetary Atmospheres</u>

Thursday Morning, March 4, 8:30 a.m.

Waterway Ballroom 1	Solar Wind, Volatile Elements, and Organics
Waterway Ballroom 4	Mars: Fluvial Geomorphology and Processes
Waterway Ballroom 5	Igneous and Volcanic Processes on Terrestrial Bodies in the Solar System
Waterway Ballroom 6	Large Impact Basins on the Moon

Thursday Afternoon, March 4, 1:30 p.m.

Waterway Ballroom 1	Cosmic Dust and Cometary Matter
	followed at 3:15 p.m. by
	Rocks, Life, and Biosignatures
Waterway Ballroom 4	SPECIAL SESSION: Characterizing Near-Earth Objects
Waterway Ballroom 5	Several Species of Variously Sized Icy Chunks Gathered Together Around Giant Planets and Evolving Over Time
Waterway Ballroom 6	SPECIAL SESSION: A New Moon: Lunar Volcanism and Impact

Thursday Evening, March 4, 7:00 p.m.

Town Center Exhibit Area Poster Session II

[*Ice and Dust*](#)

[*Stardust Mission to Comet Wild 2*](#)

[*Cosmic Dust and Cometary Matter*](#)

[*Origins of Presolar Grains*](#)

[*Solar Wind, Volatile Elements, and Organics*](#)

[*Formation of the Building Blocks of Planetary Bodies*](#)

[*Chondrites*](#)

[*Thermal and Aqueous Processes on Chondrite Parent Bodies*](#)

[*Near-Earth Objects*](#)

[*BOOM! High-Energy Impacts*](#)

[*Lunar Dust*](#)

[*Lunar Regolith*](#)

[*Lunar Radiation*](#)

[*Lunar Geophysics*](#)

[*A New Moon: Spectral Constraints on Lunar Crustal Composition*](#)

[*Lunar Cartography, Stereogrammetry, and Imaging Systems*](#)

[*Once and Future Moon: Missions and Instruments*](#)

[*Planetary Atmospheres*](#)

[*Mars Remote Sensing: Technique Development*](#)

[*Education and Public Outreach: Mars Remote Sensing*](#)

Thursday Evening, March 4, 7:00 p.m. (continued)

[Mars: Geologic, Geomorphic, and Landing Site Mapping](#)

[Spirit: Digging Up the Dirt](#)

[Mars: Fluvial Geomorphology and Processes](#)

[Mars: Gullies and Slope Streaks](#)

[Exploring the Martian Crust: Geology, Mineralogy, and Geochemistry](#)

[Mars: The Sedimentary Rock Record](#)

[Mars Craters: Impacts, Demagnetization, Counts, and Catalogs](#)

[Martian Meteorites and Igneous Processes](#)

[Environments for Life and Its Preservation, Fossils, and Look-Alikes](#)

[Satellites and Their Planets](#)

[Planetary Dynamics and Tectonics](#)

[Igneous and Volcanic Processes on Terrestrial Bodies in the Solar System](#)

[Environmental Analogs: What Planet Are You On?](#)

[Education and Public Outreach: Environmental Analogs](#)

[Education and Public Outreach: Miscellaneous](#)

Friday Morning, March 5, 8:30 a.m.

Waterway Ballroom 1

[Thermal and Aqueous Processes on Chondrite Parent Bodies](#)

Waterway Ballroom 4

[Mars: Deposition and Erosion of the Stratigraphic Record](#)

Waterway Ballroom 5

[Martian Igneous Processes](#)

Waterway Ballroom 6

[Interior of the Moon](#)

Friday Afternoon, March 5, 1:30 p.m.

Waterway Ballroom 1

[Formation of the Building Blocks of Planetary Bodies](#)

Waterway Ballroom 4

[Mars: Timing of Recent and Older Geologic Processes](#)

Waterway Ballroom 5

[Small Body Origin, Evolution, and Composition](#)

Waterway Ballroom 6

[Petrologic Characterization of the Moon](#)

Print-Only Presentations

[Solar and Presolar Dust](#)

[Moon](#)

[Cosmochemical Origins](#)

[Planetary Differentiation, Dynamics, and Tectonics](#)

[Differentiated Bodies](#)

[Mars](#)

[Small Bodies](#)

[Exobiology](#)

[Satellites and Rings](#)

[Environmental and Material Analogs](#)

[Planetary Atmospheres](#)

[Education and Public Outreach](#)

[Mercury](#)

[Data and Image Systems](#)

[Impacts](#)

[Spacecraft Concepts](#)