

**Monday, March 10, 2008**  
**SPECIAL SESSION: MESSENGER AT MERCURY II**  
**2:30 p.m. Crystal Ballroom A**

**Chairs: F. Vilas**

**C. R. Chapman**

- 2:30 p.m. Strom R. G. \* Banks M. E. Chapman C. R. Domingue D. L. Hawkins S. E. III Head J. W. III McClintock W. E. Merline W. J. Murchie S. L. Prockter L. M. Robinson M. S. Watters T. R. Blewett D. T. Gillis-Davis J. J. Solomon S. C. MESSENGER Team  
*The Size Distribution of Impact Craters on Mercury: A Perspective After the First MESSENGER Flyby* [#1219]  
 The first flyby of Mercury by MESSENGER provided images of half the hemisphere not viewed by Mariner 10 and allowed crater counts on new terrain. It may answer whether or not there are surfaces younger than the Late Heavy Bombardment.
- 2:45 p.m. Chapman C. R. \* Blewett D. T. Head J. W. III Merline W. J. Robinson M. S. Strom R. G. Watters T. R.  
*Processes of Formation and Degradation of Impact Craters Inferred from MESSENGER's First Flyby of Mercury* [#1121]  
 Craters and crater populations imaged during MESSENGER's first flyby of Mercury are analyzed in terms of morphological and statistical properties for clues about their origins and processes of degradation.
- 3:00 p.m. Murchie S. L. \* Prockter L. M. Robinson M. S. Laslo N. R. Kang H. K. Hawkins S. E. III Harch A. P. Vaughan R. M. Blewett D. T. Head J. W. III Watters T. R. Solomon S. C. MESSENGER Team  
*MESSENGER Observations of the Caloris Basin* [#1421]  
 MDIS images of the Caloris basin complement Mariner 10, by covering central and western regions at higher resolution, stereo geometries, and in more wavelengths for spectral analysis. We here present new results on color and geomorphology.
- 3:15 p.m. Domingue D. L. \* Denevi B. W. Holsclaw G. M. Izenberg N. R. Kang H. K. Laslo N. R. McClintock W. E. Murchie S. L. Prockter L. M. Robinson M. S. Vaughan R. M.  
*Color Photometry of Mercury's Surface Based on MESSENGER's First Mercury Encounter* [#1298]  
 During MESSENGER's first flyby of Mercury there is a dedicated photometry imaging observation set that will be examined which will contribute to our understanding of Mercury's surface properties.
- 3:30 p.m. Holsclaw G. M. \* McClintock W. E. Robinson M. S. Blewett D. T. Domingue D. L. Gillis-Davis J. J. Izenberg N. R. Jensen E. A. Koche M. C. Lankton M. R. Murchie S. L. Sprague A. L. Vilas F.  
*Integration of Surface Spectra and Multispectral Imaging During the First MESSENGER Flyby of Mercury* [#1339]  
 On January 14, 2008, the MESSENGER spacecraft conducted a flyby maneuver past the planet Mercury. Here we detail the relevant observation sequences and the complementary results from surface reflectance spectra and multispectral imaging.
- 3:45 p.m. Izenberg N. R. \* McClintock W. E. Holsclaw G. M. Blewett D. T. Domingue D. L. Donaldson Hanna K. L. Head J. W. III Jensen E. A. Koche M. C. Lankton M. R. Murchie S. L. Robinson M. S. Solomon S. C. Sprague A. L. Vilas F. MESSENGER Team  
*High-Spatial-Resolution Visible to Near-Infrared Reflectance of Mercury's Surface Obtained During the First MESSENGER Flyby* [#1276]  
 We present an initial analysis of the first resolved visible to near-infrared (320–1550 nm) surface spectra of Mercury obtained by the Mercury Atmospheric and Surface Composition Spectrometer (MASCS) during MESSENGER's first flyby.

- 4:00 p.m. Killen R. M. \* McClintock W. E. Potter A. E. Bradley E. T. Izenberg N. R. Kochte M. C. Lankton M. R. Mouawad N. Sprague A. L. Vervack R. J. Jr.  
*Comparison of Ground-based Observations to Observations of Mercury's Exosphere with MESSENGER During the First Mercury Flyby [#1452]*  
Observations of the sodium exosphere taken at the McMath-Pierce Solar Telescope at Kitt Peak, Arizona, are compared with concurrent observations with the Ultraviolet and Visible Spectrometer onboard the MESSENGER spacecraft during the first flyby, January 14, 2008.
- 4:15 p.m. Bradley E. T. \* McClintock W. E. Izenberg N. R. Killen R. M. Vervack R. J. Jr. Sprague A. L. Kochte M. C. Lankton M. R. Mouawad N.  
*Mercury Atmospheric and Surface Composition Spectrometer Observations of the Tail-Region Exospheric Species of Mercury During the First MESSENGER Flyby [#1432]*  
MESSENGER flew by Mercury for the first time on January 14, 2008, giving opportunity to observe the tail region. Observations of sodium, hydrogen, calcium, potassium, and sulfur were planned.
- 4:30 p.m. Vervack R. J. Jr.\* McClintock W. E. Bradley E. T. Izenberg N. R. Killen R. M. Kochte M. C. Lankton M. R. Mouawad N. Sprague A. L.  
*Observations of H Lyman Alpha by the Mercury Atmospheric and Surface Composition Spectrometer During MESSENGER's First Mercury Flyby and Comparison to Mariner 10 Measurements [#1710]*  
Observations of H Lyman  $\alpha$  by the Mercury Atmospheric and Surface Composition Spectrometer onboard MESSENGER are compared to Mariner 10 measurements to understand outstanding questions about the hydrogen distribution in Mercury's exosphere.