

**Wednesday, March 9, 2011**  
**SPECIAL SESSION:**  
**COMET HARTLEY 2 AND RELATED BODIES, IN SITU AND REMOTE II**  
**1:30 p.m. Waterway Ballroom 5**

**Chairs: Jessica Sunshine**  
**Matthew Knight**

- 1:30 p.m. Belton M. J. S. \* Thomas P. Li J.-Y. Carcich B. A'Hearn M. F. McLaughlin S. Williams J. Farnham T. McFadden L. Lisse C. Collins S. Besse S. Klaasen K. Sunshine J. Meech K. J. Lindler D. DIXI Imaging Science Team  
[\*The Spin of 103P/Hartley 2 and Its Evolution During the EPOXI/DIXI Encounter.\*](#) [#1607]  
 We present evidence from the EPOXI/DIXI for an excited spin state for comet 103P. The results of our analysis of this data and the details our proposed spin state and its orientation in space are presented.
- 1:45 p.m. Meech K. J. \* EPOXI Earth-Based Team EPOXI/DIXI Science Team  
[\*The EPOXI Earth-Based Observing Campaign\*](#) [#1991]  
 We report the results from the large Earth-based observing campaign coordinated for the EPOXI mission to characterize the target comet nucleus pre-encounter, and to cover timescales, wavelength regimes, and instruments not accessible *in situ*.
- 2:00 p.m. Mueller B. E. A. \* Samarasinha N. H. A'Hearn M. F. Farnham T. L. Gersch A.  
[\*CN Coma Morphology of Comet 103P/Hartley 2 During the 2010 Apparition\*](#) [#2116]  
 We report on the CN coma morphology of comet 103P/Hartley 2 based on our ground-based observations taken between September and December 2010. Implications of the CN coma morphology for the rotation state will be discussed.
- 2:15 p.m. Farnham T. L. \* Besse S. Feaga L. M. Sunshine J. M. A'Hearn M. F. Lindler D. Bodewits D. Lisse C. M. Belton M. J. S. DIXI Team  
[\*Jet Activity in Comet 103P/Hartley 2 as Observed by the Deep Impact Spacecraft\*](#) [#2160]  
 We will present an analysis of the coma and jet activity in Comet Hartley 2, as observed during the approach, flyby and departure of the Deep Impact spacecraft.
- 2:30 p.m. Knight M. M. \* Schleicher D. G.  
[\*CN Morphology of Comet 103P/Hartley 2\*](#) [#2634]  
 We report on CN coma morphology of Comet 103P/Hartley 2 observed from August–December 2010 at Lowell Observatory.
- 2:45 p.m. Dello Russo N. \* Vervack R. J. Jr. Weaver H. A. Lisse C. M. Kawakita H. Kobayashi H. Cochran A. L. Harris W. M. McKay A. J. DiSanti M. A.  
[\*The Volatile Chemistry of 103P/Hartley 2 Determined from Ground-Based Infrared Measurements During the EPOXI Closest Approach\*](#) [#1854]  
 We report the volatile chemistry of 103P/Hartley 2 on UT 4 November 2010, the night of closest approach for the EPOXI spacecraft, obtained using ground-based infrared spectroscopy.
- 3:00 p.m. Bonev B. P. \* Villanueva G. L. Keane J. DiSanti M. A. Gibb E. L. Paganini L. Blake G. A. Ellis R. S. Magee-Sauer K. Combi M. Boehnhardt H. Lippi M. Meech K. Mumma M. J.  
[\*Comet 103P/Hartley-2: Rotational and Spin Temperatures of H<sub>2</sub>O and Evolution of Water Production Rate During the 2010 Apparition\*](#) [#2419]  
 We will present results on rotational temperatures, spin temperatures, and the evolution of the water production rate of Comet 103P/Hartley-2 during the 2010 apparition.

- 3:15 p.m. Mumma M. J. \* DiSanti M. A. Bonev B. P. Paganini L. Villanueva G. L. Gibb E. L. Keane J. Blake G. A. Ellis R. S. Magee-Sauer K. Combi M. Boehnhardt H. Lippi M. Meech K.  
[Primary Volatiles During the 2010 Apparition of Comet 103P/Hartley-2 as Revealed at Infrared Wavelengths: Production Rates and Spatial Profiles](#) [#2428]  
We will present the mixing ratios for trace volatiles ( $C_2H_6$ , HCN,  $CH_3OH$ , etc.), their rotational temperatures, and their spatial distributions in the coma both along the polar jet (UT 19.5 October) and nearly orthogonal to the jet (UT 22.5 October).
- 3:30 p.m. Bodewits D. \* Farnham T. L. Li J.-Y. Williams J. L. McFadden L. A. Sunshine J. M. A'Hearn M. F. Meech K. J. Lisse C. M. DIXI Team  
[Hartley 2's Puzzling Gas Anomaly](#) [#2138]  
Between 9 and 17 Sept. 2010 Hartley 2's outgassing of CN, increased by a factor of 7 and then slowly decreased. There was no apparent change in the reflected continuum. We will discuss the nature and probable causes of this anomaly.
- 3:45 p.m. Milam S. N. \* Charnley S. B. Chuang Y.-L. Kuan Y. -J. Coulson I. M. Remijan A. R.  
[Ground-Based Centimeter, Millimeter and Submillimeter Observations of Comet 103P/Hartley 2](#) [#1847]  
Observations have been conducted towards Comet 103P/Hartley 2 in support of NASA's EPOXI mission. Data was obtained for numerous species, including isotopologues, complimentary to the mission, previous studies, and other observations for this comet.
- 4:00 p.m. McKay A. J. \* Chanover N. J. Dello Russo N. Cochran A. L. Harris W. M. Morgenthaler J. P.  
[High Resolution Optical Spectroscopy of Comet 103P/ Hartley on UT Nov 4](#) [#1621]  
We present preliminary analysis of high resolution optical spectroscopy of Comet 103P/ Hartley on UT Nov 4, just hours before the DIXI flyby of the nucleus. We report the detection of CN, CH,  $C_3$ ,  $C_2$ , and  $NH_2$  in the coma of 103P/ Hartley.
- 4:15 p.m. Bauer J. \* Walker R. Mainzer A. Masiero J. Grav T. Curti R. Dailey J. McMillan R. Lisse C. M. Fernandez Y. R. Meech K. J. Pittichova J. Tholen D. DeBaun E. Hand E. Blauvelt E. Wright E. L. WISE Team  
[WISE Observations of Comets, Centaurs, and Scattered Disk Objects](#) [#1222]  
The Wide-Field Infrared Survey Explorer (WISE) was launched on December 14, 2009, and imaged more than 99% of the sky in the mid-IR. WISE observed over 120 comets and 20 SDOs and Centaurs; we will review the preliminary results from these observations.
- 4:30 p.m. Walker R. G. \* Bauer J. M. Cutri R. Masci F. Mainzer A. K. Wright E. L. WISE Team  
[Wide-Field Infrared Survey Explorer \(WISE\) Observations of Comet 65P/Gunn](#) [#2799]  
This paper discusses observations of the short period comet 65P/Gunn. The comet exhibits a bright coma and tail structure, and a narrow trail of debris both leading and following it in its orbit.