Center for Earth and Planetary Studies (CEPS)
Scientific Papers, Articles, and Blogs
2015

CEPS employees' names are highlighted

SCIENTIFIC PAPERS PRESENTED

CEPS First Author	Authors	Title	Conference
Yes	B. A. Campbell, G. A. Morgan, N. E. Putzig, J. L. Whitten, J. W. Holt, and R. J. Phillips	Enhanced Radar Visualization of the Structure in the South Polar Deposits of Mars	46th Lunar and Planetary Science Conference
No	C. Quantin-Nataf, R. A. Craddock, F. Dubuffet, L. Lozac'h, and M. Martinot	Estimates of the Erosion Rates on Mars over Time and Their Implications for the Evolution of the Atmopshere	46th Lunar and Planetary Science Conference
No	C. W. Hamilton, S. P. Scheidt, J. E. Bleacher, R. P. Irwin III, and W. B. Garry	"Fill and spill" Lava Emplacement Associated with the December 1974 Flow on Kilauea Volcano, Hawaii, USA	46th Lunar and Planetary Science Conference
No	D. W. Ming, D. W. Mittlefehldt, R. Gellert, T. Peretyazhko, B. C. Clark, R. V. Morris, A. S. Yen, R. E. Arvidson, L. S. Crumpler, W. H. Farrand, J. A. Grant, B. L. Jolliff, T. J. Parker, and the Athena Science Team	Iron-Manganese Redox Reactions in Endeavour Crater Rim Apron Rocks	46th Lunar and Planetary Science Conference
No	D. W. Mittlefehldt, R. Gellert, D. W. Ming, R. V. Morris, C. Schroder, A. S. Yen, W. H. Farrand, R. E. Arvidson, B. J. Franklin, J. A. Grant, K. E. Herkenhoff, B. L. Jolliff, and the Athena Science Team	Noachian Impact Ejecta on Murray Ridge and Pre-Impact Rocks on Wdowiak Ridge, Endeavour Crater, Mars: Opportunity Observations	46th Lunar and Planetary Science Conference

No	E. J. Whallon, R. A. Craddock, D. Crowe, and T. Rose	Analyses Of Basaltic Sediments Subjected To Wave Erosion And Their Implications For Past Martian Coastal Processes	46th Lunar and Planetary Science Conference
No	E. K. Ebinger and J. R. Zimbelman	Geospatial Classification of Transverse Aeolian Ridges on Mars	46th Lunar and Planetary Science Conference
Yes	E. S. Martin, T. R. Watters, and D. A, Patthoff	Ancient Ridges and Troughs on Enceladus	46th Lunar and Planetary Science Conference
Yes	G. A. Morgan, B. A. Campbell, B. R. Hawke, and D. B. Campbell	Earth-Based Radar Prespective of Mare Imbrium: Understanding Volcanic Unit Boundaries and Stratigraphy	46th Lunar and Planetary Science Conference
No	H. Hargitai, M. Gede, J. Zimbelman, Cs. Kőszeghy, D. Sirály, L. Marinangeli, T. Barata, I. López, A. Szakács, K. Dębniak, and T. Feuillet	Planetary Map Series for Children	46th Lunar and Planetary Science Conference
No	I. J. Daubar, M. P. Golombek, A. S. McEwen, S. Byrne, M. Kreslavsky, N. C. Schmerr, M. E. Banks, P. Lognonne, T. Kawamura, and F. Karakostas.	Measurements of the Current Martian Cratering Size Frequency Distribution, Predictions for and Expected Improvements from insight	46th Lunar and Planetary Science Conference
Yes	J. A. Grant and S. A. Wilson	Aqueous Deposits Related to Formation of Hale Crater in southern Margaritifer Terra	46th Lunar and Planetary Science Conference
Yes	J. A. Grant, L. S. Crumpler, T. J. Parker, M. P. Golombek, S. A. Wilson and D. W. Mittlefehldt	Degradation of Endeavour Crater, Mars	46th Lunar and Planetary Science Conference
No	J. L. Dickson, J. W. Head, J. S. Levy, and G. A. Morgan	Concentrating Ice in Polar Deserts: Lessons for Mars from Punctuated Gully incision in the McMurdo Dry Valleys	46th Lunar and Planetary Science Conference

Yes	J. L. Whitten and J. W. Head	Rembrandt Impact Basin on Mercury: Determining the Origin of Low- and High-Albedo Smooth Plains	46th Lunar and Planetary Science Conference
Yes	J. L. Whitten and B. A. Campbell	Distribution of Venusian Impact Crater Ejecta within Tessera	46th Lunar and Planetary Science Conference
Yes	J. R. Zimbelman and M. B. Johnson	Surface Slope Effects for Ripple Orientations on Sand Dunes in Lopez Crater, Terra Tyrrhena Region, Mars	46th Lunar and Planetary Science Conference
No	L. M. Carter, R. Orosei, T. R. Watters, B. A. Campbell, J. J. Plaut, G. A. Morgan, M. C. Nolan, and R. J. Phillips	Stratigraphy and Physical Properties of Southeastern Amazonis Planitia and the Eastern Medusae Fossae Formation	46th Lunar and Planetary Science Conference
No	L. S. Crumpler, R. E. Arvidson, W. H. Farrand, M. P. Golombek, J. A. Grant, D. W. Ming, D. W. Mittlefehldt, and T. J. Parker	Opportunity In Situ Geologic Context of Aqueous Alteration Along Offsets in the Rim of Endeavour Crater	46th Lunar and Planetary Science Conference
Yes	M. B. Johnson and J. R. Zimbelman	Ripple Orientations as an Indication of Recent Winds on Martian Dunes.	46th Lunar and Planetary Science Conference
Yes	M. E. Banks, I. J. Daubar, N. C. Schmerr, and M. P. Golombek	Predicted Seismic Signatures of Recent Dated Martian Impact Events: implications for the insight Lander	46th Lunar and Planetary Science Conference
No	M. P. Golombek, J. A. Grant, K. A. Farley, and A. Chen	Science Objectives, Engineering Constraints, and Landing Sites Proposed for the Mars 2020 Rover Mission	46th Lunar and Planetary Science Conference
No	M. P. Milazzo, K. Herkenhoff, K. Becker, P. Russell, A. Delamere, A. S. McEwen	MRO/HiRise Radiometric Calibration Update	46th Lunar and Planetary Science Conference

No	M. T. Mellon, C. P. McKay, and J. A. Grant	The Thermal Conducitivity of Soils with Bimodal Grain-Sizes at Mars Pressures	46th Lunar and Planetary Science Conference
No	N. E. Putzig, R. J. Phillips, I. B. Smith, C. J. Thomason, M. T. Mellon, B. A. Campbell, and S. E. Wood	Low Radar Reflectivity in Planum Australe Points to Past Episodes of Martian Atmospheric Collapse	46th Lunar and Planetary Science Conference
No	N. T. Bridges, M. G. Spagnuolo, S. L. de Silva, J. R. Zimbelman, and E. M. Neely	Formation and Stabilization of Coarse Grain-Mantled Megaripples on Earth and Mars: Insights From the Argentinean Puna and Wind Tunnel Experiments	46th Lunar and Planetary Science Conference
Yes	R. A. Craddock and T. Rose	Characteristics Of Basaltic Particles Transported By Different Geologic Processes.	46th Lunar and Planetary Science Conference
No	R. C. Montesi and J. R. Zimbelman	Inflated Pahohoe in CTX Images in Tharsis Region	46th Lunar and Planetary Science Conference
Yes	R. P. Irwin III	Development of Intercrater Plains on Mars	46th Lunar and Planetary Science Conference
No	R. Sullivan and J. R. Zimbelman	Megaripples and Their Sedimentary Deposits on Earth and Mars.	46th Lunar and Planetary Science Conference
Yes	S. A. Wilson, J. A. Grant, D. L. Buczkowski, and C. M. Weitz	Geologic Mapping and the Gradational History of Southern Margaritifer Terra on Mars	46th Lunar and Planetary Science Conference
No	S. P. Scheidt and J. R. Zimbelman	Gravel-mantled Aeolian Bedforms from Mono-Inyo Domes, California, USA: Morphology, Characteristics and Relevance to Mars	46th Lunar and Planetary Science Conference

Yes	T. R. Watters, S. C. Solomon, K. E. Daud, M. E. Banks, M. M. Selvans, M. S. Robinson, S. L. Murchie, N. L. Chabot, B. W. Denevi, C. M. Ernst, C. R. Chapman, C. I. Fassett, C. Klimczak, P. K. Byrne, and D. T. Blewett	Small Thrust Fault Scarps on Mercury Revealed in Low-Altitude MESSENGER Images	46th Lunar and Planetary Science Conference
No	D. Y. Sumner, R. M. E. Williams, J. Schieber, M. Palucis, D. Z. Oehler, N. Mangold, L. C. Kah, S. Gupta, J. P. Grotzinger, J. A. Grant, L. A. Edgar, and W. E. Dietrich	Fluvial to Lacustrine Facies Transitions in Gale Crater, Mars	AGU Chapman Conference
Yes	A. K. Johnston	District of Columbia urban tree cover variability and neighborhood dynamics.	Association of American Geographers Meeting
Yes	M. B. Johnson and J. R. Zimbelman	Mapping Winds over Martian Sand Dunes from Ripples and Digital Terrain Models	Fourth International Planetary Dunes Workshop
No	R. K. Hayward, T. N. Titus, and J. R. Zimbelman	Mars Aeolian Analog: Instrument Evaluation	Fourth International Planetary Dunes Workshop
No	T. N. Titus, R. K. Hayward, R. Bogle, and J. R. Zimbelman	Sediment Flux Measurements at a Mars Analog Site	Fourth International Planetary Dunes Workshop
No	C. A. Wishard and J. R. Zimbelman	Wind patterns on the southern end of the Bruneau sand dunes in comparison to data taken from the Remote Automated Weather Station at Mountain Home Air Force Base, Idaho	Fourth International Planetary Dunes Workshop
No	A. D. Jessar, J. R. Zimbelman, and L. A. Hennig.	TARs on Mars: A study of the spatial variability and physical characteristics of Martian Transverse Aeolian Ridges	Fourth International Planetary Dunes Workshop
Yes	J. R. Zimbelman	Field Trip to the Bruneau Sand Dunes and the Snake River Plains Basalts	Fourth International Planetary Dunes

			Workshop
No	D. A. Patthoff, R. T. Pappalardo, E. S. Martin, T. R. Watters, H. T. Chilton, P. T. Thomas, and P. Schenk	Geologic Evidence for the Long-Term Potential of Enceladus' subsurface liquid layer	AbSciCon
Yes	S. A. Wilson, J. A. Grant, D. L. Buczkowski, and C. M. Weitz	Geologic mapping in southern Margaritifer Terra on Mars: Constraining the timing and origin of fluvial activity	Planetary Geology Mappers
No	C. M. Weitz, S. A. Wilson, R. P. Irwin III, and J. A. Grant	Geologic mapping to constrain the sources and timing of fluvial activity in western Ladon basin, Mars	Planetary Geology Mappers
No	L. Bruzzone, J. J. Plaut, G. Alberti, D. D. Blankenship, F. Bovolo, B. A. Campbell, D. Castelletti, Y.Gim, A. M. Ilisei,W. Kofman, G. Komatsu, W. McKinnon, G. Mitri, A. Moussessian, R. Orosei, G. W. Patterson, and D. Plettemeier	JUipter ICy moon Explorer (JUICE): Advances in the Design of the Radar for Icy Moons	International Geoscience and Remote Sensing Symposium
Yes	M. B. Johnson and J. R. Zimbelman	Martian Dune Ripples as Indicators of Recent Surface Winds	AGU Fall Meeting
Yes	J. R. Zimbelman and M. B. Johnson	Use of Digital Terrain Models of Martian Sand Dunes to Assess Wind Flow Patterns	GSA Annual Meeting
No	T. K. P. Gregg and J. R. Zimbelman	The Medusae Fossae Formation on Mars: How big was it?	GSA Annual Meeting
Yes	B. A. Campbell	Comparison of MAVEN Topside Ionosphere Observations with MRO/SHARAD Total Electron Content Morphologies	AGU Fall Meeting
Yes	B. A. Campbell	Detection of Crater Ejecta in Venus Tessera Terrain using Magellan SAR Data	AGU Fall Meeting
Yes	B. A. Campbell	Lunar Crater Interiors with High Circular Polarization Signatures	AGU Fall Meeting
Yes	B. A. Campbell	Mapping the Near-Subsurface Structure of Lunar Pyroclastic Deposits	AGU Fall Meeting

Yes	B. A. Campbell	Surface Reflectometry and Ionosphere Sounding from the Radar for Europa Assessment and Sounding: Ocean to Near-surface (REASON)	AGU Fall Meeting
Yes	J. A. Grant, T. Parker, L. S. Crumpler, S. Wilson, M. P. Golombek, D. W. Mittlefehldt and B. Jolliff	The Degradational History of Endeavour Crater, Mars	GSA Annual Meeting
Yes	S. A. Wilson, A. D. Howard, J. M. Moore and J. A. Grant	Fresh Shallow Valleys in Northern Arabia Terra: Evidence for a Late, Widespread Period of Aqueous Activity on Mars	AGU Fall Meeting
Yes	A. Morgan, A. Howard and J. Moore	Constraints on Environmental Conditions on Mars during Periods of Alluvial Fan Formation: Results from Landform Evolution Modeling	AGU Fall Meeting
Yes	J. L. Whitten and B. A. Campbell	Detection of Crater Ejecta in Venus Tessera Terrain using Magellan SAR Data	AGU Fall Meeting
No	L. Prockter, J. Head, P. Byrne, B. Denevi, M. Kinczyk, C. Fassett, J. L. Whitten, R. Thomas, and C. Ernst	The First Global Geological Map of Mercury	AGU Fall Meeting

ARTICLES AND BLOGS

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