

## CURRICULUM VITAE

**Bradley J. Thomson**      *Assistant Professor*

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### EDUCATION

- Ph.D.* Geological Sciences, Brown University, 2006  
Dissertation title: *Recognizing impact glass on Mars using surface texture, mechanical properties, and mid-infrared spectroscopic properties*  
Advisor: Peter H. Schultz
- M.Sc.* Geological Sciences, Brown University, 2001  
Thesis title: *Utopia Basin, Mars: Origin and evolution of basin internal structure*  
Advisor: James W. Head III
- B.S.* Harvey Mudd College, 1999, Geology major at Pomona College  
Thesis title: *Thickness of basalts in Mare Imbrium*  
Advisor: Eric B. Grosfils

### PROFESSIONAL EXPERIENCE

Assistant Professor, Department of Earth and Planetary Sciences (EPS), University of Tennessee, Knoxville TN, 2020–present

Research Associate Professor, Department of Earth and Planetary Sciences (EPS), University of Tennessee, Knoxville TN, 2016–2020

Senior Research Scientist, Boston University Center for Remote Sensing, 2011–2016

Co-Investigator, Mini-RF radar on the Lunar Reconnaissance Orbiter, 2009–present

Co-Investigator, Mini-SAR radar on Chandrayaan-1, 2008–2009

Senior Staff Scientist, JHU Applied Physics Lab, 2008–2011

NASA Postdoctoral Program Fellow, Jet Propulsion Lab, 2006–2008

Science Theme Lead for mass wasting processes HiRISE camera on Mars Reconnaissance Orbiter, 2007–2010

Postdoctoral Fellow, Lunar and Planetary Institute, 2005–2006

Participant, Planetary Science Summer School, Jet Propulsion Lab, 2006

Sheridan Center Graduate Fellow for the Sciences, Brown University, 2002–2004

NASA SpaceGrant Graduate Fellow, Brown University, 2001

Student Researcher, Brown University NASA ARC Program, 2001

Graduate Teaching Assistant, Brown University, 1999–2002

Undergraduate Teaching Assistant, Pomona College, 1997

Summer Research Intern, Lunar and Planetary Institute, 1997

### EXTERNAL FUNDING

NASA Mars Fundamental Research Program Grant, “Extracting science from Rock Abrasion

Tool (RAT) Grinds," NNX09AV83G, FY08–FY14. Role: PI. Total funding: \$330K.

NASA Mars Fundamental Research Program Grant, "Investigations of phyllosilicate and sulfate layering in intraplaya deposits, analogs for martian layered deposits," NNX12AH98G, FY12–FY15, Role: Co-I (PI Alice Baldridge, St. Mary's College). Co-I Funding total: \$71K.

NASA Mars Data Analysis Program Grant, "Cut craters on Mars: A study of impact structures exposed in cross-section," NNX11AN01G, FY11–FY16. Role: PI. Total funding: \$290K.

NASA Planetary Mission Data Analysis Program Grant, "Venusian shield fields as recorders of stress," NNX12AQ72G, FY12–FY14. Role: PI. Total funding: \$101K.

NASA HQ, JHU Applied Physics Lab, Mini-RF Science Team, FY11–14; FY18–FY20. Role: Co-I

NASA Mars Data Analysis Program Grant, "Gale crater: The lithologic, stratigraphic, and mineralogic relationships between Mt. Sharp substrate and unconformable deposits," NNX14AM23G, FY14–FY17, Role: PI. Total funding: \$416K.

NASA Planetary Data Archiving, Restoration, and Tools, "A 1:5M scale geologic map of the Mahuea Tholus (V-49) quadrangle, Venus," NNX15AJ45G, FY15–FY18, Role: Co-I (PI Nicholas Lang, Mercyhurst Univ.). Co-I funding total: \$55K.

NASA Mars Data Analysis Program Grant, "Geologic Mapping and Stratigraphic Analyses of Northwestern Aeolis Mons, Gale crater, Mars," FY16–FY19, Role: Co-I (PI Lauren Edgar, USGS). Co-I funding total: \$112K.

NASA Lunar Data Analysis Program, "High resolution topography and radar observations of lunar craters and cratered surfaces," NNX16AN57G, FY16–FY19, Role: Co-I (PI Caleb Fassett, NASA Marshall). Co-I funding total: \$120K.

NASA Mars Data Analysis Program Grant, "Mapping and Analysis of Sulfates at Gale Crater from Orbital Data Sets and Preparing for Future Rover Exploration," FY20–FY23, Role: Co-I (PI Caty Weitz, PSI). Co-I funding total: \$189K.

NASA Planetary Data, Analysis, Restoration, and Tools (PDART) program, "Improved georectification of Mini-RF radar data of the Moon: A window beneath the regolith," FY20–FY23, Role: PI. Total funding: \$393K.

NSF Petrology and Geochemistry Program, "Collaborative research: Expanding the tephrochronologic record of the Northern Lesser Antilles Arc: Rapid identification of cryptotephra using multiple methods," EAR-1347868, FY14–FY17. Role: Co-PI. Total funding: \$306K.

## **HONORS AND AWARDS**

Outstanding Faculty Award, UT GeoClub, 2020–2021

NASA RHG Exceptional Achievement for Science: The LRO Science Mission Team, 2013

ScienceDirect among top five most downloaded articles from the journal *Icarus* in 2012

NASA Group Achievement Award: The LRO Mission Operations Team, 2011

NASA Group Achievement Award: The MRO HiRISE Science Team, 2011

NASA Group Achievement Award: The Lunar Reconnaissance Orbiter (LRO) Team, 2010

NASA Postdoctoral Program Fellowship, 2006 to 2008

Sheridan Center Teaching Certificate III: Professional Development Seminar, 2004

GSA Stephen E. Dwornik Student Award for best oral presentation at the 34<sup>th</sup> annual Lunar and Planetary Science Conference, 2003

Field research grant, Bevan and Mary-Hill French Fund for Meteorite Impact Studies, 2003  
Sigma Xi member, 2003  
Sheridan Center Teaching Certificate II: Classroom Tools, 2003  
NASA SpaceGrant Fellowship, 2001  
Sheridan Center Teaching Certificate, Spring 2000  
Serbian Benevolent Society Scholarship, San Francisco, CA, 1994 to 1998  
Dean List, Harvey Mudd College, Fall 1996, Fall 1997  
Rotary Scholarship, Alameda, CA, 1994 to 1996

### **SERVICE TO THE COMMUNITY**

Technical consultant for children's book: *The Sun and the Moon*, by C. C. DeCristofano, illustrated by T. Morley, Harper Collins Publishers, 22 pp., 2016.  
Editor, *Journal of Geophysical Research–Planets*, American Geophysical Union, 2020 to present.  
Vice Chair, NASA Mapping and Planetary Spatial Infrastructure Team (MAPSIT), 2015 to present  
Chair—Planetary Geology Division of the Geological Society of America, 2017 to 2018 (elected position)  
1st Vice Chair—Planetary Geology Division of the Geological Society of America, 2016 to 2017 (elected position)  
2<sup>nd</sup> Vice Chair—Planetary Geology Division of the Geological Society of America, 2015 to 2016 (elected position)  
Secretary/Treasurer—Planetary Geology Division of the Geological Society of America, 2014 to 2015 (elected position)  
Advisory panel, NASA Tennessee Spacegrant Program, University of Tennessee, 2017 to 2019  
Council of Institutions Representative from the University of Tennessee, Universities Space Research Association (USRA), 2017 to present  
Member, NASA's Mars Next Orbiter Science Analysis Group (NEX-SAG), 2015  
Member, USGS Planetary Cartography and Geologic Mapping Review Panel, 2014 to 2015  
Reviewer, various roles since 2006—NASA Earth and Space Science Fellowship Program (NESSF), NASA Geology and Geophysics Program (PG&G), NASA Lunar Advanced Science and Exploration Research Program (LASER), NASA Mars Data Analysis Program (MDAP), NASA Mars Fundamental Research Program (MRF), NASA Cassini Data Analysis Program (CDAP), NASA Planetary Instrument Concepts for the Advancement of Solar System Observations (PICASSO), NASA Planetary Science and Technology from Analog Research (PSTAR), NASA Solar System Working (SSW) Program  
Member, Science Advisory & Technology Council—Jet Propulsion Lab, 2007 to 2008  
Member, Program Committee—Lunar and Planetary Science Conference, 2006, 2014–2016  
Student presentation judge—Lunar and Planetary Science Conference, since 2006  
Science fair judge—Clear Lake Middle School, Clear Lake, TX, Fall 2005

### **PUBLICATIONS**

*Peer-Reviewed Articles* (\*indicates student advisee)

- Nypaver, C., T. Watters, **B. J. Thomson**, A. Bramson, J. Cahill, J. Clark, C. Elder, C. Fassett, G. Morgan, and T. Powell (2024), Lunar Boulder Fields as Indicators of Recent Tectonic Activity, *The Planetary Science Journal*, 5(3), 77.
- Fassett, C. I., A. M. Bramson, J. T. Cahill, C. P. Harris, G. A. Morgan, C. D. Neish, C. A. Nypaver, G. W. Patterson, E. Rivera-Valentin, P. A. Taylor, **B. J. Thomson**, and the Mini-RF Team (2024), Improved Orthorectification and Empirical Reduction of Topographic Effects in Monostatic Mini-RF S-band Observations of the Moon, *The Planetary Science Journal*, 5(1), 4.
- Fassett, C., R. A. Beyer, A. N. Deutsch, M. Hirabayashi, C. J. Leight, P. Mahanti, C. A. Nypaver, **B. J. Thomson**, and D. A. Minton. Topographic Diffusion Revisited: Small Crater Lifetime on the Moon and Implications for Volatile Exploration. *Journal of Geophysical Research-Planets*, 127(12), 12 pages. doi:10.1029/2022JE007510, 2022.
- \*Nypaver, C. A., & **B. J. Thomson** New Observations of Recently Active Wrinkle Ridges in the Lunar Mare: Implications for the Timing and Origin of Lunar Tectonics. *Geophysical Research Letters*, 49(17), 10 pages. doi:10.1029/2022GL098975, 2022.
- Leight, C. J., M. C. McCanta, T. D. Glotch, **B. J. Thomson**, C. Ye, & M. D. Dyar. Characterization of tephra deposits using VNIR and MIR spectroscopy: A comprehensive terrestrial tephra spectral library. *Remote Sensing of Environment*, 273. doi:10.1016/j.rse.2022.112965, 2022.
- Weitz, C. M., K. W. Lewis, J. L. Bishop, **B. J. Thomson**, R. E. Arvidson, J. A. Grant, and I. Ettenborough. Orbital Observations of a Marker Horizon at Gale Crater. *Journal Of Geophysical Research-Planets*, 127(4), 23 pages. doi:10.1029/2022JE007211, 2022.
- Vanga, S., C. Fassett, M. Zanetti, C. Nypaver, C., **B. J. Thomson**, & M. Hirabayashi. Rock Abundance on the Lunar Mare on Surfaces of Different Age: Implications for Regolith Evolution and Thickness. *Geophysical Research Letters*, 49(4), 9 pages. doi:10.1029/2021GL096710, 2022.
- \*Nypaver, C. A., **B. J. Thomson**, C. Fassett, E. G. Rivera-Valentin, & G. W. Patterson. Prolonged Rock Exhumation at the Rims of Kilometer-Scale Lunar Craters. *Journal of Geophysical Research-Planets*, 126(7), 12 pages. doi:10.1029/2021JE006897, 2021.
- Heggy, E., E. M. Palmer, T. W. Thompson, **B. J. Thomson**, & G. W. Patterson. Bulk composition of regolith fines on lunar crater floors: Initial investigation by LRO/Mini-RF. *Earth and Planetary Science Letters*, 541, 10 pages. doi:10.1016/j.epsl.2020.116274, 2020.
- Thomson, B. J.**, D. L. Buczkowski, L. S. Crumpler, K. D. Seelos, and C. I. Fassett, How much of the sediment in Gale crater's central mound was fluviially transported? *Geophysical Research Letters*, 46, 5092–5099, doi:10.1029/2018GL081727, 2019.
- Fassett, C. I., I. R. King, C. A. Nypaver, and **B. J. Thomson**, Temporal evolution of S-band circular polarization ratio of kilometer-scale craters on the lunar maria, *Journal of Geophysical Research*, 123, 3133–3143. doi:10.1029/2018JE005741, 2018.
- \*Nypaver, C., N. P. Lang, and **B. J. Thomson**, Geologic mapping, morphometric characterization, and statistical analyses of six venusian shield fields: Insights into the processes related to their formation, in *Field Volcanology: A Tribute to the Distinguished Career of Don Swanson*, edited by M. P. Poland, et al., GSA Special Publication 538, doi:10.1130/2018.2538(20), 2018.

- Fassett, C. I., M. C. Crowley, C. Leight, M. D. Dyar, D. A. Minton, M. Hirabayashi, **B. J. Thomson**, and W. A. Watters, Evidence for rapid topographic evolution and crater degradation on Mercury from simple crater morphometry, *Geophysical Research Letters*, *44*, 5326-5335, doi:10.1002/2017GL073769, 2017.
- McCanta, M. C., M. D. Dyar, M. J. Rutherford, A. Lanzirotti, S. R. Sutton, and **B. J. Thomson**, In situ measurement of ferric iron in lunar glass beads using Fe-XAS, *Icarus*, *285*, 95-102, doi: 10.1016/j.icarus.2016.12.029, 2017.
- Patterson, G. W., A. M. Stickle, F. S. Turner, J. R. Jensen, D. B. J. Bussey, P. Spudis, R. C. Espiritu, R. C. Schulze, D. A. Yocky, D. E. Wahl, M. Zimmerman, J. T. S. Cahill, M. Nolan, L. Carter, C. D. Neish, R. K. Raney, **B. J. Thomson**, R. Kirk, T. W. Thompson, B. L. Tise, I. A. Erteza, C.V. Jakowatz, Bistatic radar observations of the Moon using Mini-RF on LRO and the Arecibo Observatory, *Icarus*, *283*, 2-19, doi:10.1016/j.icarus.2016.05.017, 2017.
- Denevi, B. W., A. W. Beck, E. I. Coman, **B. J. Thomson**, D. T. Blewett, M. C. De Sanctis, E. Ammannito, C. A. Raymond, C. T. Russell, Global variations in regolith properties on Asteroid Vesta from Dawn's low-altitude mapping orbit, *Meteoritics and Planetary Science*, *51*(12), 2366–2386, doi:10.1111/maps.12729, 2016.
- Thomson, B. J.** and N. P. Lang, Volcanic edifice alignment detection software in MATLAB: Test data and preliminary results for shield fields on Venus, *Computers & Geosciences*, *93*, 1–11, doi:10.1016/j.cageo.2016.04.012, 2016.
- McCanta, M. C., R. G. Hatfield, **B. J. Thomson**, and S. J. Hook, Identifying cryptotephra units using correlated rapid, non-destructive methods: VSWIR spectroscopy, X-ray fluorescence, and magnetic susceptibility, *Geochemistry, Geophysics, Geosystems*, *16*(12), 4029-4056, doi:10.1002/2015GC005913, 2015.
- Cahill, J. T. S., **B. J. Thomson**, G. W. Patterson, D. B. J. Bussey, C. D. Neish, N. R. Lopez, F. Scott Turner, \*T. Aldridge, M. McAdam, H.M. Meyer, R. K. Raney, L. M. Carter, P. D. Spudis, H. Hiesinger, J. H. Pasckert, The Miniature Radio Frequency instrument's (Mini-RF) global observations of Earth's Moon, *Icarus*, *243*, 173-190, doi:10.1016/j.icarus.2014.07.018, 2014.
- Fassett, C. I. and **B. J. Thomson**, Crater degradation on the lunar maria: Topographic diffusion and the rate of erosion on the Moon, *Journal of Geophysical Research*, *119*(10), 2255-2271, doi:10.1002/2014JE004698, 2014.
- Thomson, B. J.**, and F. El-Baz, Future Mars rovers: The next places to direct our curiosity, *Eos Transactions*, *95*(35), 313-314, doi:10.1002/2014EO350001, 2014.
- Thomson, B. J.**, J. A. Hurowitz, L. L. Baker, N. T. Bridges, A. Lennon, G. Paulsen, and K. Zacny, The effects of weathering on the strength and chemistry of Columbia River Basalts and their implications for Mars Exploration Rover Rock Abrasion Tool (RAT) results, *Earth and Planetary Science Letters*, *400*, 130-144, 2014.
- Spudis, P. D., D. B. J. Bussey, S. M. Baloga, J. T. S. Cahill, L. S. Glaze, G. W. Patterson, R. K. Raney, T. W. Thompson, **B. J. Thomson**, and E. A. Ustinov, Evidence for water ice on the moon: results for anomalous polar craters from the LRO Mini-RF imaging radar, *Journal of Geophysical Research*, *118*, 2016-2029, doi:10.1002/jgre.20156, 2013.

- Thomson, B. J.**, N. T. Bridges, J. Cohen, J. A. Hurowitz, A. Lennon, G. Paulsen, K. Zacny, Estimating rock compressive strength from Rock Abrasion Tool (RAT) grinds, *Journal of Geophysical Research*, 18, 1233–1244, doi:10.1002/jgre.20061, 2013.
- \*Bell, S. W., **B. J. Thomson**, M. D. Dyar, C. D. Neish, J. T. S. Cahill, and D. B. J. Bussey, Dating fresh lunar craters with Mini-RF, *Journal of Geophysical Research*, 117, E00H30, doi:10.1029/2011JE004007, 2012.
- Bridges, N. T., M. C. Bourke, P. E. Geissler, M. E. Banks, C. Colon, S. Diniega, M. P. Golombek, C. J. Hansen, S. Mattson, A. S. McEwen, M. T. Mellon, N. Stantzos, and **B. J. Thomson**, Planet-wide sand motion on Mars, *Geology*, 40(1), 31–34, doi:10.1130/G32373.1, 2012.
- Thomson, B. J.**, D. B. J. Bussey, C. D. Neish, J. T. S. Cahill, E. Heggy, R. L. Kirk, G. W. Patterson, R. K. Raney, P. D. Spudis, T. W. Thompson, and E. A. Ustinov, An upper limit for ice in Shackleton crater as revealed by LRO Mini-RF orbital radar, *Geophysical Research Letters*, 39, L14201, doi:10.1029/2012GL052119, 2012.
- Neish, C. D., D. T. Blewett, D. B. J. Bussey, S. J. Lawrence, M. Mechtley, **B. J. Thomson**, and the Mini-RF Team, The surficial nature of lunar swirls as revealed by the Mini-RF instrument, *Icarus*, 215(1), 186-196, doi:10.1016/j.icarus.2011.06.037, 2011a.
- Neish, C. D., D. B. J. Bussey, P. Spudis, W. Marshall, **B. J. Thomson**, B. G. W. Patterson, L. M. Carter, The nature of lunar volatiles as revealed by Mini-RF observations of the LCROSS impact site, *Journal of Geophysical Research*, 116(E1), E01005, doi:10.1029/2010JE003647, 2011b.
- Thomson, B. J.**, N. T. Bridges, R. Milliken, A. Baldridge, S. J. Hook, J. K. Crowley, G. M. Marion, C. R. de Souza Filho, A. J. Brown, and C. M. Weitz, Constraints on the origin and evolution of the layered mound in Gale Crater, Mars using Mars Reconnaissance Orbiter data, *Icarus*, 214(2), 413-432, doi:10.1016/j.icarus.2011.05.002, 2011.
- Bridges, N. T., M. E. Banks, R. A. Beyer, F. C. Chuang, E. Z. Noe Dobrea, K. E. Herkenhoff, L. P. Keszthelyi, K. E. Fishbaugh, A. S. McEwen, T. I. Michaels, **B. J. Thomson**, and J. J. Wray, Aeolian bedforms, yardangs, and indurated surfaces in the Tharsis Montes as seen by the HiRISE Camera: Evidence for dust aggregates, *Icarus*, 205(1), 165-182, doi:10.1016/j.icarus.2009.05.017, 2010.
- Brown, A. J., S. J. Hook, A. M. Baldridge, J. K. Crowley, N. T. Bridges, **B. J. Thomson**, G. M. Marion, C. R. de Souza Filho, J. L. Bishop, Hydrothermal formation of clay-carbonate alteration assemblages in the Nili Fossae region of Mars, *Earth and Planetary Science Letters*, 297(1-2), 174-182, doi:10.1016/j.epsl.2010.06.018, 2010.
- McEwen, A. S, 63 others, **B. J. Thomson**, L. L. Tornabene, C. van Houten, C. Verba, C. M. Weitz, and J. J. Wray, The High Resolution Imaging Science Experiment (HiRISE) during MRO's Primary Science Phase (PSP), *Icarus*, 205(1), 2-37, doi:10.1016/j.icarus.2009.04.023, 2010.
- Milliken, R. E., J. P. Grotzinger, and **B. J. Thomson**, Paleoclimate of Mars as captured by the stratigraphic record in Gale Crater, *Geophysical Research Letters*, 37(4), doi: 10.1029/2009GL041870, 2010.

- Spudis, P. D., D. B. J. Bussey, S. M. Baloga, B. J. Butler, D. Carl, L. M. Carter, M. Chakraborty, R. C. Elphic, J. J. Gillis-Davis, J. N. Goswami, E. Heggy, M. Hillyard, R. Jensen, R. L. Kirk, D. LaVallee, P. McKerracher, C.D. Neish, S. Nozette, S. Nylund, M. Palsetia, W. Patterson, M. S. Robinson, R. K. Raney, R. C. Schulze, H. Sequeira, J. Skura, T. W. Thompson, **B. J. Thomson**, E. A. Ustinov, and H. L. Winters, Initial results for the north pole of the Moon from Mini-SAR, Chandrayaan-1 mission, *Geophysical Research Letters*, 37(6), L06204, doi:10.1029/2009GL042259, 2010.
- Weitz, C. M., R. E. Milliken, J. A. Grant, A. S. McEwen, R. M. E. Williams, J. L. Bishop, and **B. J. Thomson**, Mars Reconnaissance Orbiter observations of light-toned layered deposits and associated fluvial landforms on the plateaus adjacent to Valles Marineris, *Icarus*, 205(1), 73-102, doi:10.1016/j.icarus.2009.04.017, 2010.
- Baldrige, A. M., S. J. Hook, J. K. Crowley, G. M. Marion, J. S. Kargel, J. L. Michalski, **B. J. Thomson**, C. R. de Souza Filho, N. T. Bridges, and A. J. Brown, Contemporaneous deposition of phyllosilicates and sulfates: Using Australian acidic saline lake deposits to describe geochemical variability on Mars, *Geophysical Research Letters*, 36(19), doi: 10.1029/2009GL040069, 2009
- Han, G., M. B. Dusseault, E. Detournay, **B. J. Thomson**, and K. Zacny, Principles of Drilling and Excavation, in *Drilling in Extreme Environments*, edited by Y. Bar-Cohen and K. Zacny, Wiley-VCH, pp. 31-140, doi:10.1002/9783527626625, 2009.
- Marion, G. M., J. K. Crowley, **B. J. Thomson**, J. S. Kargel, N. T. Bridges, S. J. Hook, A. Baldrige, A. J. Brown, B. Ribeiro da Luz, C. R. de Souza Filho, Modeling aluminum-silicon chemistries and application to Australian acidic playa lakes as analogues for Mars, *Geochimica et Cosmochimica Acta*, 73(11), 3493-3511, doi:10.1016/j.gca.2009.03.013, 2009.
- Thomson, B. J.**, E. B. Grosfils, D. B. J. Bussey, and P. Spudis, Thickness of basalts in Mare Imbrium, *Geophysical Research Letters*, 36, L12201, doi: 10.1029/2009GL037600, 2009.
- Zacny, K., Y. Bar-Cohen, K. Davis, P. Coste, G. Paulsen, S. Sherrit, J. George, B. Derkowski, S. Gorevan, D. Boucher, J. Guerrero, T. Kubota, **B. J. Thomson**, S. Stanley, P. Thomas, N. Lan, C. McKay, T. C. Onstot, C. Stoker, B. Glass, S. Wakabayashi, L. Whyte, G. Visentin, E. Re, L. Richter, M. Badescu, X. Bao, R. Fincher, T. Hoshino, P. Magnani, and C. Menon, Extraterrestrial Drilling and Excavation, in *Drilling in Extreme Environments*, edited by Y. Bar-Cohen and K. Zacny, Wiley-VCH, pp. 347-557, doi:10.1002/9783527626625, 2009.
- Bridges, N. T., S. J. Hook, J. K. Crowley, C. Roberto de Souza Filho, J. B. Macambira, G. de Lima Pereira Silva, and **B. J. Thomson**, The Carajas, Brazil Archean Banded Iron Formation: A possible analog for ancient Martian marine and biologic environments, *Eos Transactions*, 89(36), doi:10.1029/2008EO360001, 2008.
- Grant, J. A., R. P. Irwin, III, J. P. Grotzinger, R. E. Milliken, L. L. Tornabene, A. S. McEwen, C. M. Weitz, S. W. Squyres, T. D. Glotch, and **B. J. Thomson**, HiRISE imaging of impact megabreccia and sub-meter aqueous strata in Holden Crater, Mars, *Geology*, 36(3), 195-198, doi:10.1130/G24340A.1, 2008.
- Thomson, B. J.**, N. T. Bridges, and R. Greeley, Rock abrasion features in the Columbia Hills, Mars, *Journal of Geophysical Research*, 113, E08010, doi: 10.1029/2007JE003018, 2008a.

- Thomson, B. J.**, P. H. Schultz, and N. T. Bridges, Extracting scientific results from robotic arm support operations: A technique for estimating the density and composition of rocks on Mars, *The Mars Journal*, 4, 27-32, doi:10.1555/mars.2008.0003, 2008b.
- Bridges, N. T., P. E. Geissler, A. S. McEwen, **B. J. Thomson**, F. C. Chuang, K. E. Herkenhoff, L. P. Keszthelyi, S. E. Martínez-Alonso, Windy Mars: A dynamic planet as seen by the HiRISE camera, *Geophysical Research Letters*, 34, L23205, doi:10.1029/2007GL031445, 2007.
- Chuang, F. C., R. A. Beyer, A. S. McEwen, and **B. J. Thomson**, HiRISE observation of slope streaks on Mars, *Geophysical Research Letters*, 34, L20204, doi:10.1029/2007GL031111, 2007.
- McEwen, A. S., C. J. Hansen, W. A. Delamere, E. M. Eliason, K. E. Herkenhoff, L. Keszthelyi, V. C. Gulick, R. L. Kirk, M. T. Mellon, J. A. Grant, N. Thomas, C. M. Weitz, S. W. Squyres, N. T. Bridges, S. L. Murchie, F. Seelos, K. Seelos, C. H. Okubo, M. P. Milazzo, L. L. Tornabene, W. L. Jaeger, S. Byrne, P. S. Russell, J. L. Griffes, S. Martínez-Alonso, A. Davatzes, F. C. Chuang, **B. J. Thomson**, K. E. Fishbaugh, C. M. Dundas, K. J. Kolb, M. E. Banks, and J. J. Wray, A closer look at water-related geologic activity on Mars, *Science*, 317, 1706-1709, doi:10.1126/science.1143987, 2007.
- Thomson, B. J.** and P. H. Schultz, The geology of the Viking Lander 2 site revisited, *Icarus*, 191, 505-523, doi:10.1016/j.icarus.2007.05.011, 2007.
- Thomson, B. J.** and J. W. Head, Utopia Basin, Mars: Characterization of topography and morphology and assessment of the origin and evolution of basin internal structure, *Journal of Geophysical Research*, 106, 23,209-23,230, doi:10.1029/2000JE001355, 2001.
- Head, J. W., H. Hiesinger, M. A. Ivanov, M. A. Kreslavsky, S. Pratt, and **B. J. Thomson**, Possible ancient oceans on Mars: Evidence from Mars Orbiter Laser Altimeter data, *Science*, 286, 2134-2137, doi:10.1126/science.286.5447.2134, 1999.

*Selected Conference Proceedings (\*indicates student-led contribution)*

**2023**

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