

CURRICULUM VITAE

Matthew F. Chojnacki

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EDUCATION:

Ph.D. in **Planetary Geology and Remote Sensing**, *University of Tennessee*, Knoxville, TN. *Dissertation*: [Martian Dune Fields: Aeolian Activity, Morphology, Sediment Pathways, and Provenance](#) (2013)

Advisers: Devon Burr and Jeffrey Moersch

B.A. in **Physics**, *University of Colorado*, Boulder, CO. (2004)

B.A. in **Planetary Science** (*Magna Cum Laude*), *University of Colorado*, Boulder, CO. *Thesis*: Surficial Properties of Ophir Chasma, Mars: Integration of Remote-Sensing Data (2004)

Advisers: Bruce Jakosky and Brian Hynek

PROFILE:

Dr. Matthew Chojnacki is a Lunar and Planetary Laboratory Associate Staff Scientist working with the [High Resolution Imaging Science Experiment](#) (HiRISE) mission at the University of Arizona. He is a planetary geologist who has been involved with the scientific exploration of Mars for over a decade. His recent research has focused on the geologic, morphologic, and climatic evolutions of Mars, particularly: aeolian transport and sand dune dynamics, the thermophysical and spectral properties of the martian surface, aqueous alteration and weathering of planetary crusts, and terrestrial analog studies. He has participated and led several focused studies and grants, which involve geologic mapping and constraining contemporary dynamic surface processes (Recurring Slope Linea (RSL), active sand dunes). At the HiRISE Operations Center (HiROC) Matt co-manages the photogrammetry lab, participates in HiRISE-related targeting and Uplink, and initial science assessments of data products. Most recently he has joined the Origins, Spectral Interpretation, Resource Identification, Security, Regolith Explorer ([OSIRIS-REx](#)) mission team by leading stereo photogrammetry Digital Terrain Model (DTM) preparation and production.

RESEARCH INTERESTS:

- Surface composition, thermal properties, and geology of planetary crusts
- Thermophysical and spectral properties of the Martian surface
- Surface morphology gained from DTM-derived topography

- Remote and laboratory reflectance and emission spectroscopy
- Aqueous alteration and weathering of planetary crusts
- Active surficial processes and their role in landscape evolution
- Aeolian transport and induration processes, dune dynamics and morphology
- Terrestrial analog studies and comparative planetology

GRANTS/AWARDS/HONORS:

- 2019 NASA Mars Data Analysis Program (*Pending*), Characterizing the Dynamic Activity of Martian Mega-ripples and Transverse Aeolian Ridges (PI Chojnacki) – PI (2020-2023)
- 2019 NASA Solar System Workings (*Under Review*), Sediment Transport Analogs using River Valley Eolian Dunefields (STARVED) (PI Joel B. Sankey) – Co-I (2019-2021)
- 2016 NASA Mars Data Analysis Program, The Distribution, Properties, and Implications of Ancient Paleo-Bedforms on Mars – PI (2017-2021)
- 2016 NASA Mars Data Analysis Program, Martian Dust Devil Tracks in HiRISE and CRISM (PI Ingrid Daubar) – Co-I (2017-2020)
- 2016 NASA Mars Data Analysis Program, Characterization of Layered Deposits at the Valles Marineris Plateau (PI Isaac Smith) – Co-I (2017-2020)
- 2015 NASA Mars Data Analysis Program, Studies of Dune Dynamics and Temporal Flux Variations on Mars (PI Nathan Bridges) – Co-I (2016-2019) – Completed 2019.
- 2014 NASA Mars Data Analysis Program, Characterizing Global Sand Flux for Martian Bedform Construction Times and Erosion Rates – PI (2015-2019)
- 2013 NASA Planetary Geology and Geophysics Program, Geologic Map of the Coprates Chasma, Valles Marineris, Mars (PI Brian Hynek) – Co-I (2015-2017) – Completed 2018.
- 2012 NASA Mars Data Analysis Program, Characterizing the Current Aeolian Transport Environment for Sediment in Greater Meridiani Planum (PI Tim Michaels) – Co-I (2014-2016) – Completed 2016.
- 2017 NASA Group Achievement Award – MER Operations and Science
- 2013 NASA Group Achievement Award – OSIRIS-REx
- Honorable Mention for Planetary Geology Division of the Geological Society of America Stephen E. Dworkin Planetary Geoscience Student Paper Award (Graduate Oral) at the 2013 Lunar and Planetary Science Conference.
- Tennessee Space Grant Fellowship 2008-2012
- Winner of the 2010 and 2012 Mars Exploration Program Mars Student Travel Award
- Winner of the 2011 [Mayo Foundation Educational Scholarship](#)
- Winner of the [2010 Third Lunar Planetary Institute Career Development Award](#)
- Winner of the 2006 AGU Editor's Choice award for "[Surface Processes](#)"

PROFESSIONAL EXPERIENCE:

- [HiRISE](#) Operations Center (HiROC), [Lunar and Planetary Laboratory](#), University of Arizona (Associate Staff Scientist), 7/2015 – present
 - HiROC Photogrammetry Lab Co-manager and DTM Validator

- [Aeolian](#) – Science Theme Lead (STL) 8/2017 – present
 - [Composition & Photometry](#) – Science Theme Lead (STL), 3/2014 – 8/2017
- University of Arizona ([HiRISE](#) Postdoctoral Research Associate), advised by Alfred McEwen, 1/2013 – 6/2015
- OSIRIS-REx [OSIRIS-REx CAMera Suite](#) (OCAMS) team (stereo photogrammetry DTM production lead), 1/2015 – present
- [Department of Earth and Planetary Sciences](#), University of Tennessee (Graduate Teaching and Research Assistant), 8/2007 – 5/2013
- [Laboratory for Atmospheric and Space Physics](#), University of Colorado (Professional Research Assistant), 5/2004 – 6/2007
- NASA's 24th Annual [Planetary Science Summer School](#), 2012
- Lunar and Planetary Institute: [Field Training and Research Program at Meteor Crater](#), 2010
- USGS/NASA [Planetary Photogrammetry Guest Facility](#) (participant), 2009-2012
- NASA Volcanology Field Workshop (Hawaii), 2005
- U.S. Olympic Team, 1998; U.S. Ski Team, 1995-2001
- U.S. World Championship Team, 1995, 1997 & 1999
- Argentinean Olympic Ski Team Coach, 2002
- [Flying Ace Production](#) at the [Utah Olympic Park](#), Performer, 1998–2014

PROFESSIONAL ORGANIZATIONS:

- American Astronomical Society / Division for Planetary Sciences, 2012 – present
 - Federal Relations Subcommittee, 2012 – present
- American Geophysical Union, 2006 – present
- Planetary Society, 1997 – present

SCIENTIFIC COLLABORATORS IN THE PAST 2 YEARS:

Maria Banks (NASA Goddard), Ingrid Daubar (JPL), Dani DellaGiustina (Uni. of Arizona), (Serina Diniega (JPL), Colin Dundas (U.S.G.S.), Lori Fenton (SETI Institute), Brian Hynek (University of Colorado, Boulder), Alfred McEwen (Uni. of Arizona), Lujun Ojha (APL), Isaac Smith (York University/PSI), Livio Tornabene (Uni. of W. Ontario), James Wray (Georgia Institute of Technology).

TECHNICAL SKILLS:

- Computer experience includes: extensive experience with ENVI/IDL, ESRI ArcMap, stereo processing with SOCET SET (®BAE Systems) photogrammetry software, Integrated Software for Imagers and Spectrometers (ISIS), JMARS, Google Earth, ISIS, Adobe Photoshop/Illustrator, Word, Excel, with both Macintosh and PC. Programming writing experience with IDL, Perl, and ISIS.
- Remote geologic mapping using multiple data sets (visible-wavelength images, composition, thermophysical, topography), thermophysical modeling (TES and THEMIS), and standard data processing (Mars: MOC, MOLA, TES, THEMIS, PanCam, HRSC, HiRISE, CTX, and CRISM; Earth: AVIRIS, MASTER, SRTM).

- Geology field work: Experience with stratigraphic, geologic, and morphologic field mapping, Differential Global Positioning System (DGPS) mapping, and high-resolution LIDAR (light detection and ranging) survey equipment.

SERVICE:

- Aeolian Research *Special Issue for the Fourth International Planetary Dunes Workshop* (Lead Guest Editor): 2015 – 2016
- Journal of Geophysical Research – Planets special Issue for the *Investigations of the Bagnold Dune Field, Gale Crater* (Associate Editor): 2016 – 2017
- NASA R&A Panel (Subpanel member; Chief*): 2015*, 2016*, 2017, 2018*, 2019*
- NASA Mission Instrument Panel (Subpanel member): 2015
- Peer Review Service (Icarus, JGR-Planets, Aeolian Research, Science): 2009 - present
- American Astronomical Society / Division for Planetary Sciences, 2012 – 2014
 - Federal Relations Subcommittee, 2012 – 2014

TEACHING COMPETENCIES:

- Photogrammetry Lab Co-manager and DTM Validator GTA for several different introductory Earth and planetary geology courses (2007–2012)
- *Spring and Fall 2010*: GTA for *Process Geomorphology* (designed and led lab exercises for Undergraduate/Graduate students)
- *Fall 2010 and Fall 2011*: guest lecturer at Univ. Tennessee for GEO 380 *Geomorphology*
- *Spring 2011*: guest lecturer at Univ. Tennessee for GEO 102 (Earth, Life, and Time)
- *Spring 2012*: guest lecturer at Univ. Tennessee for GEO 104 (Exploring the planets)
- *Fall 2007 – 2012*: volunteer at McClung Museum teaching basic concepts of geology to local primary/high schools

PEER-REVIEWED PUBLICATIONS:

Hynek, M. B. and **M. Chojnacki** (*Under Review with the USGS*). Geologic Map of the Coprates Quadrangle, Mars (MTM – 15057).

Chojnacki, M., M. E. Banks, L. K. Fenton, & A. C. Urso (2019). Boundary condition controls on the high-sand-flux regions of Mars. *Geology*.
<https://doi.org/10.1130/G45793.1>.

Safi, E., Telling, J., Parnell, J., **M. Chojnacki**, Patel, M. R., Realff, J., et al. (2019). Aeolian abrasion of rocks as a mechanism to produce methane in the Martian atmosphere. *Scientific Reports*. <https://doi.org/10.1038/s41598-019-44616-2>

Chojnacki, M., M. E. Banks, & A. C. Urso (2018). Wind-driven erosion and exposure potential at Mars 2020 Rover candidate landing sites. *J. Geophys. Res.-Planet*.
<https://doi.org/10.1002/2017JE005460>

- Urso, A., **M. Chojnacki**, & D. A. Vaz (2018). Dune-Yardang Interactions in Becquerel Crater, Mars: Dune-Yardang Interactions in Becquerel Crater, Mars. *Journal of Geophysical Research: Planets*. <https://doi.org/10.1002/2017JE005465>
- DellaGiustina, D. N., Bennett, C. A., Becker, K., Golish, D. R., Le Corre, L., Cook, D. A., M, **M. Chojnacki**, et al. (2018). Overcoming the Challenges Associated with Image-Based Mapping of Small Bodies in Preparation for the OSIRIS-REx Mission to (101955) Bennu. *Earth and Space Science*, 5(12), 929–949. <https://doi.org/10.1029/2018EA000382>
- Banks, M.E., Fenton, L.K., Bridges, N.T., Geissler, P.E., **Chojnacki, M.**, Runyon, K.D., Silvestro, S., and Zimbelman, J.R. (2018), Patterns in Mobility and Modification of Middle- and High-Latitude Southern Hemisphere Dunes on Mars: *Journal of Geophysical Research: Planets*, doi:10.1029/2018JE005747.
- Chojnacki, M.**, and L. Fenton (2017), The geologic exploration of the Bagnold dune field at Gale crater by the Curiosity Rover, *J. Geophys. Res.*, doi.org/10.1002/2017JE005455.
- Dundas, C. M., A. S. McEwen, **M. Chojnacki**, and four other authors (2017), Granular flows at recurring slope lineae on Mars indicate a limited role for liquid water, *Nature Geosci.*, [doi:10.1038/s41561-017-0012-5](https://doi.org/10.1038/s41561-017-0012-5).
- Dienga, S, C. J. Hansen, A. Allen, N. Grigsby, Zheyu Li, T. Perez, **M. Chojnacki**. (2017), Dune-slope activity due to frost and wind, throughout the north polar erg, Mars, *GSL Special Publication*
- Tornabene, L. L., L. Ojha, **M. Chojnacki**, and 22 other authors (*In Revision*), Image simulation and assessment of the colour and spatial capabilities of the Colour and Stereo Surface Imaging System (CaSSIS) on the ExoMars Trace Gas Orbiter, *Space Science Reviews*.
- Ojha L., **M. Chojnacki**, A. Toigo, A. S. McEwen, J. J. Wray, and K. Ferrier (2017), Seasonal Slumps in Juventae Chasma, Mars, *J. Geophys. Res.*, doi.org/10.1002/2017JE005375.
- Chojnacki, M.**, A. Urso, L. Fenton, and T. Michaels, (2017), Aeolian dune sediment flux heterogeneity in Meridiani Planum, Mars, *Mars, Aeolian Research*, doi.org/10.1016/j.aeolia.2016.07.004.
- Chojnacki, M.**, and M. Telfer (2017), Editorial Introduction: Fourth Planetary Dunes Workshop Special Issue, *Aeolian Research*, doi.org/10.1016/j.aeolia.2017.05.003.
- Chojnacki, M.**, A. S. McEwen, C. M. Dundas, L. Ojha, A. Urso and S. S. Sutton, (2016), Geologic Context of Recurring Slope Lineae in Melas and Coprates Chasmata, Mars, *J. Geophys. Res.*, [doi: 10.1002/2015JE004991](https://doi.org/10.1002/2015JE004991).
- Wray, J. J., S. L. Murchie, J. L. Bishop, B. L. Ehlmann, R. E. Milliken, M. B. Wilhelm, K. Seelos, and **M. Chojnacki** (2016), Orbital evidence for more widespread carbonate-bearing rocks on Mars, *J. Geophys. Res.*, 116, E01001, [doi:10.1002/2015JE004972](https://doi.org/10.1002/2015JE004972).

- Daubar, I. J., C. M. Dundas, S. Byrne, P. Geissler, G. Bart, A. S. McEwen, P. S. Russell, **M. Chojnacki**, (2016), Changes in Blast Zone Albedo Patterns Around New Martian Impact Craters, *Icarus*, [doi:10.1016/j.icarus.2015.11.032](https://doi.org/10.1016/j.icarus.2015.11.032).
- Diot, X, M.R. El-Maarry, F. Schlunegger, K.P. Norton, N. Thomas, P.M. Grindrod, and **M. Chojnacki** (2016), Complex geomorphologic assemblage of terrains in association with the banded terrain in Hellas basin, Mars, *Icarus*, [doi:10.1016/j.pss.2015.12.003](https://doi.org/10.1016/j.pss.2015.12.003).
- Ojha L., M. B. Wilhelm, S. Murchie, A. S. McEwen, J. J. Wray, J. Hanley, M. Masse, **M. Chojnacki** (2015), Spectral Evidence for Hydrated Salts in Seasonal Brine Flows on Mars, *Nature Geosci.* [doi:10.1038/ngeo2546](https://doi.org/10.1038/ngeo2546).
- Chojnacki, M.**, J. R. Johnson, J. E. Moersch, L. K. Fenton, T. I. Michaels, and J. F. Bell III (2015), Persistent aeolian activity at Endeavour crater, Meridiani Planum, Mars; New observations from orbit and the surface, *Icarus*, [doi:10.1016/j.icarus.2014.04.044](https://doi.org/10.1016/j.icarus.2014.04.044).
- Fenton, L. K., T. I. Michaels, and **M. Chojnacki** (2015), Late Amazonian Aeolian Features, Gradation, Wind Regimes, and Sediment State in the Vicinity of the Mars Rover Opportunity, Aeolian Morphology and Trends in the Greater Meridiani Planum Region, *Aeolian Research*, **16**, 75–99, doi.org/10.1016/j.aeolia.2014.11.004.
- Ding, N., V. J. Bray, A. S. McEwen, S. S. Mattson, C. H. Okubo, **M. Chojnacki**, and L. L. Tornabene (2015), The central uplift of Ritchey crater, Mars, *Icarus*, *252*(0), 255–270, [doi:10.1016/j.icarus.2014.11.001](https://doi.org/10.1016/j.icarus.2014.11.001).
- McEwen, A. S., C. M. Dundas, S. S. Mattson, A. D. Toigo, L. Ojha, J. J. Wray, **M. Chojnacki**, and 3 other authors (2014), Recurring Slope Lineae in Valles Marineris, Mars, *Nature Geosci.*, *7*(1), 53–58, [doi:10.1038/ngeo2014](https://doi.org/10.1038/ngeo2014).
- Chojnacki, M.**, J. E. Moersch, D. M. Burr, and J. J. Wray (2014), Valles Marineris Dune Fields: Sediment Pathways and Provenance, *Icarus*, *232*(0), 187–219, [doi:10.1016/j.icarus.2014.01.011](https://doi.org/10.1016/j.icarus.2014.01.011).
- Chojnacki, M.**, D. M. Burr, and J. E. Moersch (2014), Valles Marineris Dune Fields as Compared With Other Martian Populations: Diversity of Dune Compositions, Morphologies, and Thermophysical Properties, *Icarus*, *230*(0), 96–142, [doi:10.1016/j.icarus.2013.08.018](https://doi.org/10.1016/j.icarus.2013.08.018).
- Fenton, L. K., T. I Michaels, **M. Chojnacki**, and R. A. Beyer (2014), Inverse Maximum Gross Bedform-Normal Transport 2: Application to a Dune Field in Ganges Chasma, Mars and Comparison with HiRISE Repeat Imagery and MRAMS, *Icarus*, *230*(0), 47–63, [doi:10.1016/j.icarus.2013.07.009](https://doi.org/10.1016/j.icarus.2013.07.009).
- Fenton, L. K., **M. Chojnacki**, and 15 other authors (2013), Summary of the Third International Planetary Dunes Workshop: Remote Sensing and Image Analysis of Planetary Dunes, Flagstaff, Arizona, USA, June 12-15, 2012, *Aeolian Research*, **8**, doi.org/10.1016/j.aeolia.2012.10.006.

- Chojnacki, M.**, D. M. Burr, J. E. Moersch, and T. I. Michaels (2011), Orbital Observations of Contemporary Dune Activity in Endeavour Crater, Meridiani Planum, Mars, *J. Geophys. Res.*, 116, E00F19, [doi:10.1029/2010JE003675](https://doi.org/10.1029/2010JE003675).
- Chojnacki, M.**, J. E. Moersch, and D. M. Burr (2010), Climbing and Falling Dunes in Valles Marineris, Mars, *Geophys. Res. Lett.*, 37, L08201, [doi:10.1029/2009GL042263](https://doi.org/10.1029/2009GL042263).
- Wray, J. J., R. E. Milliken, C. M. Dundas, G. A. Swayze, J. C. Andrews-Hanna, A. M. Baldridge, **M. Chojnacki**, R. N. Clark, S. L. Murchie, B. L. Ehlmann, J. L. Bishop, F. P. Seelos, L. L. Tornabene, and S. W. Squyres (2011), Columbus Crater and Other Possible Groundwater-fed Paleolakes of Terra Sirenum, Mars, *J. Geophys. Res.*, 116, E01001, [doi:10.1029/2010JE003694](https://doi.org/10.1029/2010JE003694).
- Williams, R. M. E., D. A. Rogers, **M. Chojnacki**, J. B. Boyce, K. D. Seelos, C. Hardgrove, F. Chuang (2011), Evidence For Episodic alluvial Fan Formation In Far Western Terra Tyrrhena, Mars, *Icarus*, 211, [doi:10.1016/j.icarus.2010.10.001](https://doi.org/10.1016/j.icarus.2010.10.001).
- Arvidson, R.E., J. W. Ashley, J.F. Bell III, **M. Chojnacki**, and 29 other authors (2011), Opportunity Mars Rover Mission: Overview and Selected Results from Purgatory Ripple to Traverses to Endeavour Crater, *J. Geophys. Res.*, 116, E00F15, [doi:10.1029/2010JE003746](https://doi.org/10.1029/2010JE003746).
- Burr, D. M., R. M. E. Williams, K. D. Wendell, **M. Chojnacki**, and J. P. Emery (2010), Inverted fluvial features in the Aeolis/Zephyria Plana region, Mars: Formation mechanism and initial paleodischarge estimates, *J. Geophys. Res.*, 115, E07011, [doi:10.1029/2009JE003496](https://doi.org/10.1029/2009JE003496).
- Chojnacki, M.**, and B. M. Hynek (2008), Geological context of water-altered minerals in Valles Marineris, Mars, *Journal of Geophysical Research*, 113, E12005, [doi:10.1029/2007JE003070](https://doi.org/10.1029/2007JE003070).
- Chojnacki, M.**, B. M. Jakosky, and B. M. Hynek (2006), Surficial properties of landslides and surrounding units in Ophir Chasma, Mars, *Journal of Geophysical Research*, 111, [doi:10.1029/2005JE002601](https://doi.org/10.1029/2005JE002601).

MANUSCRIPTS IN PREPARATION/REVIEW/REVISION:

- Williams, J., M. Rice, **M. Chojnacki**, and M. Day (*Submitted*), Ongoing Exhumation and Recent Exposure of Sedimentary Outcrops on Mars, *Icarus*.
- Chojnacki, M.**, A. Urso (*Submitted*), Sand Flux Results and Aeolian Activity for Aeolian Dunes at Mars 2020 Rover Candidate Landing Sites, *Icarus*
- A. Urso, **Chojnacki, M.**, and M. Banks (*Submitted*), Dune-yardang interactions in Becquerel crater, Mars, *Icarus*.
- Chojnacki, M.**, B. M. Hynek, S. R. Black, R. Hoover, J. R. Martin (*In Prep*), Geologic Mapping of the Coprates Chasma (MTM -15057), Mars, *Maps*.

Manheim, R. M., **M. Chojnacki**, and 10 others (*In Prep*), High Resolution Regional Digital Elevation Models and Derived Products From Messenger MDIS NAC Images, *TBD*.

Watkins, J. A., L. Ojha, **M. Chojnacki**, and An Yin (*In Prep*), Recurring slope lineae on Mars formed through structurally controlled fluid flow, *Nature Geosci.*

Banks, M. E., P. E. Geissler, N. T. Bridges, P. Russell, S. Silvestro, **M. Chojnacki**, W. A. Delamere, and J. R. Zimbelman (*In Prep*), Emerging Global Trends in Aeolian Bedform Mobility On Mars, *TBD*.

RECENT CONTRIBUTIONS TO BOOKS:

Chojnacki, M., H. Hargitai and A. Kereszturi, (2015), *Encyclopedia of Planetary Landforms*, edited by H. Hargitai and A. Kereszturi, Springer-Verlag, New York. (Text and Figures)

Lucchitta, B. K. (2010), 5 - Lakes in Valles Marineris, in *Lakes on Mars*, edited by N. A. Cabrol and E. A. Grin, pp. 111–161, Elsevier, Amsterdam. (Figure)

FIRST-AUTHOR CONFERENCE ABSTRACTS AND PRESENTATIONS:

Chojnacki, M., A. C. Urso, T. I. Michaels, L. K. Fenton (2016), Aeolian Dune Sediment Flux Heterogeneity in Meridiani Planum, Mars, *Lunar Planet. Sci.*, *XLVII*, abstract [2091](#).

Chojnacki, M., B. M. Hynek, S. R. Black, R. Hoover, J. R. Martin (2016), Geologic Mapping of the Coprates Chasma (MTM -15057), Mars: Year 2, *Lunar Planet. Sci.*, *XLVII*, abstract [2828](#).

Chojnacki, M., A. Urso, and W. Yingling (2015), Sand Flux Results for Aeolian Dunes at Current and Candidate Landing Sites on Mars, *Eos Trans. AGU*, Fall Meet. Suppl., abstract [63857](#).

Chojnacki, M., T. I. Michaels, L. K. Fenton, and M. E. Banks (2015), Widespread Dune Migration in Meridiani Planum, Mars, *Planetary Dunes Workshop IV*, abstract [8030](#).

Chojnacki, M., A. McEwen, C. Dundas, and L. J. Ojha (2015), *Widespread Recurring Slope Lineae of Valles Marineris*, *Lunar Planet. Sci.*, *XLVI*, abstract [2537](#).

Chojnacki, M., A. McEwen, C. Dundas, and L. J. Ojha, and J. Wray (2015), Active Slopes of Valles Marineris – Wind, Water, and Gravity, *Lunar Planet. Sci.*, *XLVI*, abstract [2752](#).

Chojnacki, M., A. McEwen, C. Dundas, C. Hamilton, S. Mattson, and the HiRISE Team S. (2014), Active Processes In Valles Marineris, *International Conference on Mars*, *VIII*, abstract [1417](#).

Chojnacki, M., A. McEwen, C. Dundas, S. Mattson, L. J. Ojha, and J. Wray (2014), Geologic Context of Recurring Slope Lineae in Coprates Chasma, *Lunar Planet. Sci.*, *XLV*, abstract [2701](#).

- Chojnacki, M.**, J. Johnson, T. I. Michaels, and L. K. Fenton, and J. E. Moersch (2014), Persistent Aeolian Activity at Endeavour Crater, Meridiani Planum, Mars; New Observations from Orbit and the Surface, *Lunar Planet. Sci.*, XLV, abstract [2775](#).
- Chojnacki, M.**, T. I. Michaels, and L. K. Fenton (2013), Persistent Aeolian Activity at Endeavour Crater, Mars, *Eos Trans. AGU*, Fall Meet. Suppl., abstract [P41A-1903](#).
- Chojnacki, M.**, D. M. Burr, and J. E. Moersch (2013), Local Sourcing and Aeolian Fractionation as Factors for Compositional Heterogeneity of Martian Aeolian Bedform Sand, *Lunar Planet. Sci.*, XLIV, abstract [3031](#).
- 2013 THEMIS Team Meeting (oral presentation), Constraints on Aeolian Bedform Induration From THEMIS and HiRISE.
- Chojnacki, M.**, J. R. Johnson, J. E. Moersch, and J. F. Bell III (2012) (poster presentations), Surface and Orbital Monitoring of the “Greeley Dune Field” in Endeavour Crater, Meridiani Planum, Mars., *Planetary Dunes Workshop III*, abstract [7038](#).
- Chojnacki, M.**, J. E. Moersch, D. M. Burr and J. J. Wray (2012) (oral presentations), Potential Sediment Sources and Pathways in Valles Marineris Dune Fields: Implications for Martian Aeolian Systems, *Planetary Dunes Workshop III*, abstract [7040](#).
- Chojnacki, M.**, J. E. Moersch, D. M. Burr, and J. J. Wray (2012), Valles Marineris Dune Fields: Sediment Pathways and Provenance, *Lunar Planet. Sci.*, XLIII, abstract [2444](#).
- 2011 THEMIS Team Meeting (oral presentation), Valles Marineris dune fields: Landscape evolution and sediment provenance.
- Chojnacki, M.**, J. E. Moersch, and D. M. Burr (2011) (oral presentations), Variable scale surface change of Valles Marineris dune fields and adjacent terrains, *EPSC-DPS*, 6, abstract [1529](#).
- Chojnacki, M.**, J. E. Moersch, and J. J. Wray (2011), HiRISE Analysis of the Western Rim of Endeavour Crater, Meridiani Planum, Mars: Morphology, Composition and Topography, *Lunar Planet. Sci.*, XLII, abstract [2272](#).
- Chojnacki, M.**, D. M. Burr and J. E. Moersch (2010) (oral presentations), Evidence of Bed Form Deflation, Modification and Transport at Endeavour Crater, Meridiani Planum, Mars, From Orbital Observations, *Planetary Dunes Workshop II*, abstract [2028](#).
- 2010 THEMIS and MER Team Meetings (oral presentations), Stratigraphy, Composition, Thermophysical Properties and Aeolian Activity of Endeavour Crater, Meridiani Planum, as seen from THEMIS and MRO.
- Chojnacki, M.**, D. M. Burr and J. E. Moersch (2010) (oral presentations), Recent Dune Changes at Endeavour Crater, Meridiani Planum, Mars, from Orbital Observations, *Lunar Planet. Sci.*, XLI, abstract [2326](#).

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