# LORI K. FENTON

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## EDUCATION

Ph.D. Planetary Science, *California Institute of Technology* *2003*
B. S. Astronomy and Physics with High Honors, *University of Maryland, College Park* *1996*

## PROFESSIONAL EXPERIENCE

Planetary Exploration Research Thrust Vice Chair, *SETI Institute* *2015 – present*
Senior Research Scientist, *Carl Sagan Center at the SETI Institute* *2015 – present*
Research Scientist, *Carl Sagan Center at the SETI Institute* *2006 – 2015*
Postdoctoral Research Associate, *Arizona State University* *2003 – 2006*
Geologist, *United States Geological Survey, Flagstaff, AZ* *2000 – 2002*
Graduate Research Assistant, *California Institute of Technology* *1996 – 2003*
Research Assistant, *NASA Goddard Space Flight Center* *1994 – 1996*

## RESEARCH INTERESTS

Recent climate change on Earth, Mars, Venus, and Titan, with a focus on aeolian processes. Atmospheric modeling of near-surface wind conditions using global climate models, mesoscale models, and large eddy simulations. Morphological studies of ripples, dunes, dune fields, yardangs, and dust devils to determine sediment sources as well as past and present wind circulation patterns.

## CONFERENCE ORGANIZATION

- 4th International Planetary Dunes Workshop, *Organizing Committee* *2015*
- American Geophysical Union Fall Meeting, *Session Co-convener and Chair* *2012*
- 3rd International Planetary Dunes Workshop, *Organizing Committee* *2012*
- 2nd International Planetary Dunes Workshop, *Organizing Committee* *2010*
- Lunar and Planetary Science Conference Program Committee, *Organizing Committee* *2009*
- Planetary Dunes Workshop: A Record of Climate Change, *Organizing Committee* *2008*
- Workshop on Martian Gullies: Theories and Tests, *Organizing Committee* *2008*
- American Geophysical Union Fall Meeting, *Session Co-convener and Chair* *2004*

## PEER REVIEW

- NASA Solar Systems Working Program, *Review Panel Member* *2014*
- Geomorphology Special Issue, Volume 121, *Guest Editor* *2010*
- NASA Mars Fundamental Research Program, *Review Panel Member* *2008*
- Reviewer for international journals: *Nature, Nature Communications, Geology, Journal of Geophysical Research, Icarus, Geomorphology, Space Science Reviews, Physical Review Letters, Advances in Space Research, Geophysical Research Letters, Aeolian Research, The International Journal of Mars Science and Exploration*

- External reviewer for NASA Office of Space Science programs: *Mars Data Analysis, Mars Fundamental Research, Outer Planets Research, Planetary Geology and Geophysics, Mars Odyssey Participating Scientist Program*

## INVITED LECTURES

- Foothill College, Silicon Valley Astronomy Lecture Series: "Being a Mars Rover: What It's Like on the Surface of Mars" *2013*
- University of California, Santa Cruz, Earth and Planetary Sciences Centers Seminar: "Using Dune Fields as Weather Stations Across the Solar System" *2012*
- SETI Institute Colloquium: "Sand Seas of the Solar System" *2011*

## EDUCATIONAL AND PUBLIC OUTREACH

- *HiRISE Aeolian blog*: A Piece of Mars *2012 – present*
- *Assistant administrator:* Planetary Landscapes *2013 – present*
- *Quoted*: "Sandy ripples point to Mars's past", doi:10.1126/science.aaf9851 *2016*
- *Interviewee*: Big Picture Science radio show "Solar System Vacation" *2015*
- *Interviewee*: CONTENT magazine, Issue 7.2 *2015*
- *Guest blogger:* The Planetary Society, "Sand Waves in the Desert" *2014*
- *Mars weather expert:* Strip the Cosmos TV series, "Expedition Mars" *2014*
- *Writer:* Image captions for HiRISE: ESP_027834_1755, ESP_036397_1785 *2014*
- *Lecturer*: Astrobiology Summer Science Experience for Teachers (ASSET) *2012 – 2013*
- *Magazine article*: "What it's like to be on the surface of Mars", *Astronomy Beat*, 95 *2012*
- *Interviewee:* ScienceBlogs/The Huffington Post: "Life at the SETI Institute" *2011*
- *Judge:* Stephen E. Dwornik Student Award *2009*
- *Lesson Plan:* "Sand Dunes and Deserts" for UC Berkeley course "The Planet Earth" *2008*
- *Mars Dunes Booth:* SETI Institute "Celebrating Science" Open House *2008*
- *Presenter and Discussion Leader:* SETI Girl Scout Astrobiology Adventure *2008*
- *IAG Planet. Geomorph. Work. Grp. Image of the Month:* Yardangs on Earth and Mars *2008*

## AWARDS

- NASA Carl Sagan Fellowship for Early Career Researchers *2005*

## PREVIOUS AND CURRENT GRANTS AS PRINCIPAL INVESTIGATOR

- "Unraveling the Sedimentary History of Gypsum Sand in the Northern Polar Sand Seas of Mars", *NASA Planetary Geology and Geophysics Program* *2011-2014*
- "Aeolian Activity in the Last 400 ka Driven by Insolation Changes: Can Global and Mesoscale Atmospheric Modeling Explain When and How Meridiani Planum Ripples Last Migrated?", *NASA Mars Fundamental Research Program* *2011-2013*
- "The Astrobiology Summer Science Experience for Teachers (ASSET) at the SETI Institute", *NASA Supplemental Education Awards for ROSES Investigators* *2011-2014*
- "Dune Morphology and Atmospheric Models: Implications for Present-Day Martian Aeolian Activity", *NASA Mars Data Analysis Program* *2010-2013*
- "Characterizing Daytime Aeolian Erosion Potential on Mars Using a Turbulence-Resolving Atmospheric Model", *NASA Mars Fundamental Research Program* *2008-2011*
- "Recent Climate Shifts, Circulation Patterns, and Climate-driven Erosion *2008-2012*

Recorded in the Morphology of Southern Hemisphere Sand Dunes", *NASA Mars Data Analysis Program (original PI: Philip Christensen, ASU)*

## PREVIOUS AND CURRENT GRANTS AS FUNDED CO-INVESTIGATOR

- "Material Properties of Dune Fields in the Southern Highlands of Mars from Thermophysical Observations and Modeling", *NASA Planetary Geology and Geophysics Program, PI: Nathaniel Putzig (Southwest Research Inst.)* *2014-2016*
- "Mars Dune Field Mineral Composition – A Global Assessment of Sediment Composition", *NASA Planetary Geology and Geophysics Program, PI: Timothy N. Titus (USGS)* *2014-2017*
- "Characterizing the Current Aeolian Transport Environment for Sediment in Greater Meridiani Planum", *NASA Mars Data Analysis Program, PI: Timothy Michaels (SETI Institute)* *2013-2015*
- "Imaging Data of Slope Streaks on Mars: Changes, Fading, Resurfacing, and Dust Transport", *NASA Mars Data Analysis Program, PI: Cynthia Phillips (SETI Institute)* *2010-2011*
- "Survey of Mars Dunes: A Global View of Climatic and Sedimentary Processes", *NASA Planetary Geology and Geophysics Program, PI: Timothy N. Titus (USGS)* *2008-2012*

## ADVISING AND MENTORING

### Postdoctoral Associate

- Simone Silvestro, *SETI Institute* *2011-2014*

### Undergraduate Students

- Gabriel Garcia, *University of Texas – Pan American* *summer 2013*
- Ian Szumila, *Rensselaer Polytechnic Institute* *summer 2012*
- Tracy Mandel, *Cornell University* *summer 2011*
- Amber Butcher, *California Polytechnic University, Pomona* *summer 2010*
- William Myers, *Earlham College* *summer 2010*
- Sky Beard, *Purdue University* *summer 2009*
- Ben Stanley, *Oberlin College* *summer 2004*

### High School Student

- Helen Carson *2015-2016*

## PROFESSIONAL ORGANIZATIONS AND AFFILIATIONS

- International Society for Aeolian Research *2009 – present*
- American Geophysical Union *2001 – present*
- Geological Society of America *2007 – present*

## PUBLICATIONS (>600 citations, *h*-index of 15, *g*-index of 24, i10-index of 19)

Reiss, D., **Fenton, L.**, Neakrase, L., Zimmerman, M., Statella, T., Whelley, P., Rossi, A. P., Balme, M. Dust devil tracks, submitted to *Space Science Reviews*.

Chojnacki, M., Urso, A., **Fenton, L.**, Michaels, T. (2016) Aeolian dune sediment flux heterogeneity in Meridiani Planum, Mars, *Aeolian Research*, doi:10.1016/j.aeolia.2016.07.004.

Bennett, K. A., **Fenton, L.**, Bell, J. F. III. (2016) The albedo of martian dunes: Insights into aeolian activity and dust devil formation, *Aeolian Research*, doi:10.1016/j.aeolia.2016.08.009.

Geissler, P. E., **Fenton, L. K.**, Enga, M.-T., Mukherjee, P. (2016) Orbital monitoring of martian surface changes, *Icarus, 278*, 279-300, doi:10.1016/j.icarus.2016.05.023.

**Fenton, L. K.**, Bishop, J. L., King, S., Lafuente, B., Horgan, B., Bustos, D., Sarrazin, P. (2016) Sedimentary differentiation of aeolian grains at the White Sands National Monument, New Mexico, USA, in press at *Aeolian Research*, doi:10.1016/j.aeolia.2016.05.001.

**Fenton, L. K.**, Reiss, D., Lemmon, M., Marticorena, B., Lewis, S., Cantor, B. (2016) Orbital observations of dust lofted by daytime convective turbulence, in press at *Space Science Reviews*, doi:10.1007/s11214-016-0243-6.

Vaz, D. A., Sarmento, P. T. K., Barata, M. T., **Fenton, L. K.**, Michaels, T. I. (2015) Object-based dune analysis: Automated dune mapping and pattern characterization for Ganges Chasma and Gale crater, Mars, *Geomorphology, 250*, 128-139, doi:1016/j.geomorph.2015.08.021.

**Fenton, L. K.**, Lorenz, R. (2015) Dust devil height and spacing with relation to the martian planetary boundary layer thickness, *Icarus, 260*, 246-262, doi:10.1016/j.icarus.2015.07.028.

**Fenton, L. K.**, Michaels, T. I., Chojnacki, M. (2015) Late Amazonian aeolian features, gradation, wind regimes, and sediment state in the vicinity of the Mars Exploration Rover Opportunity, Meridiani Planum, Mars, *Aeolian Research*, *16*, 75-99, doi: 10.1016/j.aeolia.2014.11.004.

Chojnacki, M., Johnson, J. R., Moersch, J. E., **Fenton, L. K.**, Michaels, T. I., Bell III, J. F. (2015) Persistent aeolian activity at Endeavour crater, Meridiani Planum, Mars: New observations from orbit and the surface, *Icarus, 251*, doi:10.1016/j.icarus.2014.04.044.

Cabrol, N. A., Herkenhoff, K., Knoll, A. H., Farmer, J., Arvison, R., Grin, E., Li, R., **Fenton, L.**, Cohen, B., Bell, J. F. III, Yingst, R. A. (2014) Sands at Gusev crater, Mars, *J. Geophys. Res. Planets, 119*, 941-967, doi:10.1002/2013JE004535.

**Fenton, L. K.**, Michaels, T. I., Chojnacki, M., Beyer, R. A. (2014), Inverse maximum bedform-normal transport 2: Application to a dune field in Ganges Chasma, Mars and comparison with HiRISE repeat imagery and MRAMS, *Icarus*, *230*, 47-63, doi:10.1016/j.icarus.2013.07.009.

Hayward, R. K., **Fenton, L. K.**, Titus, T. N. (2014), Mars Global Digital Dune Database ($MGD^3$): Global dune distribution and wind pattern observations, *Icarus*, *230*, 38-46, doi:10.1016/j.icarus.2013.04.011.

**Fenton, L. K.**, Michaels, T. I., Beyer, R. A. (2014), Inverse maximum bedform-normal transport 1: How to determine a dune-constructing wind regime using only imagery, *Icarus*, *230*, 5-14, doi:10.1016/j.icarus.2013.04.001.

Silvestro, S., Vaz, D. A., Ewing, R. C., Rossi, A. P., **Fenton, L. K.**, Michaels, T. I., Flahaut, J., Geissler, P. E. (2013), Pervasive aeolian activity along rover Curiosity's traverse in Gale crater, Mars. *Geology*, *41*, 483-486, doi:10.1130/G34162.1.

Geissler, P. E., Stantzos, N. W., Bridges, N. T., Bourke, M. C., Silvestro, S., **Fenton, L. K.** (2013), Shifting sands on Mars: Insights from tropical intra-crater dunes, *Earth Surface Processes and Landforms*, *38*(4), 407-412, doi:10.1002/esp.3331.

**Fenton, L. K.**, Hayward, R. K., Horgan, B. H. N., Rubin, D. M., Titus, T. N., Bishop, M. A., Burr, D. M., Chojnacki, M., Dinwiddie, C. L., Kerber, L., Le Gall, A., Michaels, T. I., Neakrase, L. D. V., Newman, C. E., Tirsch, D., Yizhaq, H., Zimbelman, J. R. (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*, 29-38, doi:10.1016/j.aeolia.2012.10.006.

**Fenton, L. K.**, Ewing, R. C., Bridges, N.T., Lorenz, R. (2013), Extraterrestrial Aeolian Landscapes. In: Shroder, J. (Editor in Chief), Lancaster, N., Sherman, D. J., Baas,

A. C. W. (Eds.), *Treatise on Geomorphology*, Academic Press, San Diego, CA, vol. 11, Aeolian Geomorphology, pp. 287-312, doi:10.1016/B978-0-12-374739-6.00308-0.

Hayward, R. K., **Fenton, L. K.**, Titus, T. N., Colaprete, A., and Christensen, P. R. (2012) Mars global digital dune database: MC-30: U.S. Geological Survey Open-File Report 2012-1259, scale 1:20,000,000, http://pubs.usgs.gov/of/2012/1259/.

Balme, M. R., Pathare, A., Metzger, S. M., Towner, M. C., Lewis, S. R., Spiga, A., **Fenton, L. K.**, Renno, N. O., Elliot, H. M., Saca, F. A., Michaels, T. I., Russell, P., Verdasca, J. (2012), Field measurements of horizontal forward motion velocities of terrestrial dust devils: Towards a proxy for ambient winds on Mars and Earth, *Icarus, 221*, 632-645, doi:10.1016/j.icarus.2012.08.021.

Silvestro, S., **Fenton, L.,** Michaels, T., Valdez, A., Ori, G. G. (2012), Interpretation of the complex dune morphology on Mars: Dune activity, modelling and a terrestrial analogue, *Earth Surface Processes and Landforms, 37*, 1424-1436, doi:10.1002/esp.3286.

Silvestro, S., Vaz, D. A., **Fenton, L. K.,** Geissler, P. E. (2011), Active aeolian processes on Mars: A regional study in Arabia and Meridiani Terrae, *Geophysical Research Letters, 38*, L20201, doi:10.1029/2011GL048955.

Hayward, R. K., **Fenton, L. K.**, Tanaka, K. L., Titus, T. N., Colaprete, A., and Christensen, P. R. (2010), Mars Global Digital Dune Database; MC-1: U.S. Geological Survey Open-File Report 2010-1170, http://pubs.usgs.gov/of/2010/1170/.

**Fenton, L. K.**, Bishop, M. A., Bourke, M. C., Bristow, C. S., Hayward, R. K., Horgan, B. H., Lancaster, N., Michaels, T. I., Tirsch, D., Titus, T. N., Valdez, A. (2010), Summary of the Second International Planetary Dunes Workshop: Planetary analogs – integrating models, remote sensing, and field data, Alamosa, Colorado, USA, May 18-21, 2010, *Aeolian Research, 2*(2-3), 173-178, doi:10.1016/j.aeolia.2010.09.001.

Silvestro, S., **Fenton, L. K.**, Vaz, D. A., Bridges, N. T., Ori, G. G. (2010), Ripple migration and dune activity on Mars: Evidence for dynamic wind processes, *Geophysical Research Letters, 37*, L20203, doi:10.1029/2010GL044743.

**Fenton, L. K.,** Michaels, T. I. (2010), Characterizing the sensitivity of daytime turbulent activity on Mars with the MRAMS LES: Early results. *Mars, 5*, 159-171, doi:10.1555/mars.2010.0007.

Bourke, M. C., Lancaster, N., **Fenton, L. K.**, Parteli, E. J., Zimbelman, J. R., Radebaugh, J. (2010), Extraterrestrial dunes: An introduction to the special issue on planetary dune systems, *Geomorphology, 121*, 1-14, doi:10.1016/j.geomorph.2010.04.007.

**Fenton, L. K.**, Hayward, R. K. (2010), Southern high latitude dune fields on Mars: Morphology, aeolian inactivity, and climate change. *Geomorphology, 121*, 98-121, doi:10.1016/j.geomorph.2009.11.006.

Hayward, R. K., Titus, T. N., Michaels, T. I., **Fenton, L. K.**, Colaprete, A., Christensen, P. R. (2009), Aeolian dunes as ground truth for atmospheric modeling on Mars. *Journal of Geophysical Research – Planets, 114*, E11012, doi:10.1029/2009JE003428.

Titus, T. M., Lancaster, N., Hayward, R., **Fenton, L.**, Bourke, M. (2008), Priorities for future research on planetary dunes, *Eos Transactions American Geophysical Union*, *89*(45), 447-448, doi:10.1029/2008EO450003.

Hayward, R. K., Mullins, K. F., **Fenton, L. K.**, Hare, T. M., Titus, T. N., Bourke, M. C., Colaprete, A., and Christensen, P. R. (2007), Mars Global Digital Dune Database: MC2 - MC29: U.S. Geological Survey Open-File Report 2007-1158, http://pubs.usgs.gov/of/2007/1158/.

Hayward, R. K., Mullins, K. F., **Fenton, L. K.**, Hare, T. M., Titus, T. N., Bourke, M. C., Colaprete, A., Christensen, P. R. (2007), Mars Global Digital Dune Database and initial science results, *Journal of Geophysical Research – Planets, 112*, E11007, doi:10.1029/2007JE002943.

**Fenton, L. K.**, Geissler, P.E., Haberle, R. M. (2007), Global warming and climate forcing by recent albedo changes on Mars, *Nature, 446*, doi:10.1038/nature05718.

**Fenton, L. K.** (2006), Dune migration and slip face advancement in the Rabe Crater dune field, Mars, *Geophysical Research Letters, 33,* L20201, doi:10.1029/2006GL027133.

**Fenton, L. K.,** Mellon, M. T. (2006), Thermal properties of sand from Thermal Emission Spectrometer (TES) and Thermal Emission Imaging System (THEMIS): Spatial variations within the Proctor Crater dune field on Mars, *Journal of Geophysical Research – Planets, 111,* E06014, doi:10.1029/2004JE002363.

**Fenton, L. K.** (2005), Potential sand sources for the dune fields in Noachis Terra, Mars, *Journal of Geophysical Research – Planets, 110,* E11004, doi:10.1029/2005JE002436.

**Fenton, L. K.**, Toigo, A. D., Richardson, M. I. (2005), Aeolian processes in Proctor Crater on Mars: Mesoscale modeling of dune-forming winds, *Journal of Geophysical Research – Planets, 110,* E06005, doi:10.1029/2004JE002309.

**Fenton, L. K.**, Ward, A. W., Bandfield J. L. (2003), Aeolian processes in Proctor Crater on Mars: Sedimentary history as analyzed from multiple data sets, *Journal of Geophysical Research – Planets, 108*(E12), 5129, doi:10.1029/2002JE002015.

**Fenton, L. K.**, Richardson, M.I. (2001), Martian surface winds: Insensitivity to orbital changes and implications for aeolian processes, *Journal of Geophysical Research – Planets, 106*(E12), 32,885-32,902, doi:10.1029/2000JE001407.

**Fenton, L. K.,** Herkenhoff, K. E. (2000), Topography and stratigraphy of the northern Martian layered deposits using photoclinometry, stereogrammetry, and MOLA altimetry, *Icarus, 147*(2), 433-443, doi:10.1006/icar.2000.6459.

**Fenton, L. K.**, Pearl, J. C., Martin, T. Z. (1997), Mapping Mariner 9 dust opacities, *Icarus, 130*(1), 115-124, doi:10.1006/icar.1997.5810.

## SELECTED CONFERENCE PROCEEDINGS, 2015 - 2016

18. Courville, S. W., Putzig, N. E., Hoover, R., **Fenton, L. K.** (2016) Thermophysical variation within dune fields in the southern hemisphere, Abstract P21A-2073 presented at the 2016 American Geophysical Union Fall Meeting, San Francisco, USA, December 12-16.
17. Yung-Chun Liu, Z., Zimbelman, J. R., Fenton, L. K. (2016) Wind regimes from martian large ripples: Implications for long-term and short-term wind dynamics, Abstract EP21A-0853 presented at the 2016 American Geophysical Union Fall Meeting, San Francisco, USA, December 12-16.
16. Banks, M. E., **Fenton, L. K.**, Bridges, N. T., Geissler, P. E., Chojnacki, M., Silvestro, S., Zimbelman, J. R. (2016) Mobility in middle and high southern latitude dune fields, Abstract 140-6 presented at the *2016 Geological Society of America Annual Meeting*, Denver, CO, USA, September 25-28, doi:10.1130/abs/2016AM-287342.
15. Chojnacki, M., Urso, A.C., Michaels, M.I., **Fenton, L.K.** (2016) Aeolian dune sediment flux heterogeneity in Meridiani Planum, Mars, *Lunar and Planetary Science Conference XLVII*, March 21-25, The Woodlands, TX, USA, Abst. #2091.
14. **Fenton, L.K.**, Bishop, J.L., King, S., Lafuente, B. (2016) Aeolian transport in Olympia Undae, based on a field study at White Sands National Monument, New Mexico, USA, *Lunar and Planetary Science Conference XLVII,* March 21-25, The Woodlands, TX, USA, Abst. #2183. http://www.hou.usra.edu/meetings/lpsc2016/eposter/2183.pdf
13. Bennett, K.A., **Fenton, L.**, Bell, J.F. III (2016) The albedo of martian dunes: insights into dune migration and wind regimes, *Lunar and Planetary Science Conference XLVII,* March 21-25, The Woodlands, TX, USA, Abst. #2389.
12. Van Kooten, S.J., Putzig, N.E., O'Shea, P.M., **Fenton, L.K.** (2016) Investigating the poleward trend of southern dune field stabilization on Mars using thermophysical observations, *Lunar and Planetary Science Conference XLVII,* March 21-25, The Woodlands, TX, USA, Abst. #2528.

11. Charles, H.R., Titus, T.N., Hayward, R.K., **Fenton, L.K.** (2016) Mars Global Digital Dune Database: adding mineral composition to the mix, *Lunar and Planetary Science Conference XLVII*, March 21-25, The Woodlands, TX, USA, Abst. #2769.
10. **Fenton, L. K.**, Michaels, T. I., Hinson, D. P. (2015) Seeing the unseen: Using dust devils to probe the structure of the convective boundary layer. *Dust devils on Mars and Earth*, Feb. 16-20, Bern, Switzerland.
9. **Fenton, L. K.**, Bishop, J. L., King, S., Lafuente, B. (2015) Dunes creating an abrupt increase in gypsum grain concentration along a transport pathway at White Sands National Monument, NM, USA. *4th Int'l. Planetary Dunes Wkshp.*, May 19-22, Boise, ID, Abst. #8017.
8. **Fenton, L. K.**, Michaels, T. I., Chojnacki, M. (2015) The sediment state of Meridiani Planum, Mars. *4th Int'l. Planetary Dunes Wkshp.*, May 19-22, Boise, ID, Abst. #8020.
7. Chojnacki, M., Michaels, T. I., **Fenton, L. K.**, Banks, M. E. (2015) Widespread dune migration in Meridiani Planum, Mars. *4th Int'l. Planetary Dunes Wkshp.*, May 19-22, Boise, ID, Abst. #8030.
6. Michaels, T. I. and **Fenton, L. K.** (2015) A tale of two wind paradigms: Unraveling a paradox in Meridiani Planum, Mars. *4th Int'l. Planetary Dunes Wkshp.*, May 19-22, Boise, ID, Abst. #8032.
5. Bennett, K. A., **Fenton, L.**, Bell III, J. F. (2015) Correlating albedo with dune movement on Mars. *4th Int'l. Planetary Dunes Wkshp.*, May 19-22, Boise, ID, Abst. #8038.
4. Lorenz, R. D., **Fenton, L.**, Lancaster, N. (2015) The tallest dunes in the Solar System? Dune heights on Earth, Mars, Titan and Venus. *4th Int'l. Planetary Dunes Wkshp.*, May 19-22, Boise, ID, Abst. #8031.
3. Vaz, D. A., Sarmento, P. T. K., **Fenton, L. K.**, Barata, M. T., Michaels, T. I. (2015) Object-based dune mapping and characterization on Mars: Data comparison and accuracy assessment. *4th Int'l. Planetary Dunes Wkshp.*, May 19-22, Boise, ID, Abst. #8045.
2. Van Kooten, S. J., Putzig, N. E., **Fenton, L. K.** (2015) Investigating the poleward trend of southern dune field stabilization on Mars using thermophysical observations. *4th Int'l. Planetary Dunes Wkshp.*, May 19-22, Boise, ID, Abst. #8052.
1. O'Shea, P., Putzig, N., Van Kooten, S., **Fenton, L.** (2015) The effects of dune slopes and material heterogeneity on the thermal behavior of dune fields in Mars' Southern Hemisphere, Abstract P43A-2092, presented at the 2015 Fall Meeting, AGU, San Francisco, Calif., 7-11 Dec.