

Christian Klimczak, Assistant Professor

Department of Geology
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Education

Carnegie Institution of Washington, Washington, DC; Department of Terrestrial Magnetism, May 2011 – March 2014; MESSENGER Postdoctoral Fellowship
University of Nevada, Reno, NV; Department of Geological Sciences and Engineering, Fall 2007 – Spring 2011; Doctor of Philosophy
Freie Universität Berlin, Germany; Fachbereich Geowissenschaften, Summer 2001 – Winter 2006/2007; Diplom (M.S. equivalent)

Research Interests

- Fault and fracture growth
- Tectonic and volcanic evolution of the terrestrial planets
- Brittle deformation of sands and soils
- Fluid flow through fractures

Industry Experience

- MPH Consulting; Senior field geologist (Uranium exploration), June–August 2007
- Pinnacle, a Halliburton Service; Summer intern (Hydrofracturing), June–August 2009

Languages

- German (mother tongue)
- English (proficient)
- French (basic communication skills)
- Spanish (basic communication skills)

Professional Memberships

- American Association of Petroleum Geologists (2007– present)
- American Geophysical Union (2008 – present)
- Geological Society of America (2009 – present)
- American Association for the Advancement of Science (2011 – 2014)
- Association of Environmental & Engineering Geologists (2016 – present)

Honors

- Marie Curie Summer School 2008, Porous and Aqueous Materials (\$500)
- Outstanding International Graduate Student 2009, University of Nevada, Reno (\$1500)
- Viola Vestal Coulter Graduate Scholarship 2009/2010, University of Nevada, Reno (\$1500)

- R. D. Call Scholarship 2010, Call & Nicolas, Inc. (\$2000)
- Outstanding Ph.D. graduate in geosciences 2011, University of Nevada, Reno

Course Instruction

- GEOL 100 Earthquakes, Volcanoes, and Natural Disasters, teaching assistant at UNR, fall 2007.
- GPH 333 Plate Tectonics and Earth Physics, teaching assistant at UNR, spring 2008, 2010, 2011.
- GEOL 332 Structural Geology, teaching assistant at UNR, fall 2009, 2010.
- GEOL 1121 Earth Processes and Environments, instructor of record at UGA, fall 2015, 2016, 2017.
- GEOL 4060/6060 Structural Geology, instructor of record at UGA, spring 2015, 2016, 2017.
- GEOL 4360/6360 Introduction to Geomechanics, instructor of record at UGA, spring 2016 and fall 2017.
- GEOL 4490 Research in Structure/Tectonics (directed study).
- GEOL 8090 Advanced Topics in Structural Geology (directed study).

Course Evaluations:

Course	Semester	Enrollment	Evaluations	Overall Rating Instructor*	Overall Rating Course*
GEOL 4060	Spring 2015	22	17	3.1	3.2
GEOL 4060	Spring 2016	26	16	4.2	4.4
GEOL 4060	Spring 2017	21	11	4.1	4.4
GEOL 1121	Fall 2015	75	44	3.5	3.8
GEOL 1121	Fall 2016	73	42	4.2	4.2
GEOL 4360	Spring 2016	7	5	4.8	4.6
GEOL 6360	Spring 2016	7	2	4.5	4.5

*Ratings are averaged on a scale from 1 (strongly disagree) to 5 (strongly agree)

Grant Support

- Three-dimensional Scaling of Large Thrust Faults on Mars, NASA Mars Data Analysis Program; Period: October 1, 2014 to September 30, 2018; Role: PI, Amount: \$ 157,581
- Characterizing the Geomorphology of Lunar Grabens, NASA Lunar Data Analysis Program; Period: January 1, 2016 to December 31, 2018; Role: PI, Amount: \$ 150,338
- The Architecture of Wrinkle Ridges in the Northern Volcanic Plains of Mercury, NASA Discovery Data Analysis Program, August 1, 2016 to July 31, 2018, Role: Co-PI, Amount: \$ 67,299
- Searching for Deep-seated Thrust Faults on the Moon, NASA Lunar Data Analysis Program, July 1, 2017 to June 30, 2019, Role: Co-PI, Amount: \$ 213,998

Graduate Committees

- Corbin L. Kling, M.S. 2016 (UGA); Role: Main Advisor
- E. Quentin Anlian, M.S. 2017 (UGA); Role: Main Advisor
- Erik Alberts, M.S. 2017 (UGA); Role: UGA Committee Member
- Devon N. Verellen, M.S., expected graduation 2017 (UGA); Role: UGA Committee Member
- Kelsey T. Crane, Ph. D., expected graduation 2019 (UGA); Role: Main Advisor

- Melanie B. Callihan, Ph.D., expected graduation 2019 (UGA); Role: Main Advisor
- Rachel Rotz, Ph.D., in progress (UGA); Role: UGA Committee Member
- Laura Fackrell, Ph.D., in progress (UGA); Role: UGA Committee Member
- Rose M. Borden, M.S. (UT Knoxville); Role: External Committee Member

Undergraduate Research Mentoring and Senior Theses

- Iona Summerson, B.S. 2012 (Université II Montpellier) Deformation Bands in the Orange Quarry, Provence, France
- Mya A. Habermann, B.S. 2015 (UGA) Pyroclastic Volcanism on Mercury
- Benjamin M. Forkner, B.S. 2017 (UGA) Impact Crater Shapes on Mercury
- Anthony Moraes, B.S. 2017 (UGA) Impact Crater Shapes on the Moon
- Patrick Doherty, B.S. expected 2017 (UGA) Impact Crater Shapes on Mars
- Anthony Arbise, B.S. expected 2018 (UGA) Tectonics on Venus

Community Involvement

- NASA Review Panels
- Reviewer for peer-review journals (Journal of Geophysical Research, Geophysical Research Letters, Icarus, Hydrogeology, Meteoritics and Planetary Science)

Development, Service, and Outreach

- UGA Sustainability Across the Curriculum Teaching Workshop 2017
- AAPG UGA student chapter mentor (2015 – 2016)
- AEG UGA student chapter mentor (2016 – present)
- Student Spaceflight Experiment Program; Review Board Missions 2 and 3

Peer-reviewed Publications

In progress

33. Byrne, P. K., **Klimczak, C.**, and Şengör, A. M. C., 10. The Tectonic Character of Mercury, in Solomon, S. C., Nittler, L. R., and Anderson, B. J. (eds.) Mercury: The View after MESSENGER, *Cambridge University Press*, 2017. *Book in production with Cambridge University Press*
32. Byrne, P. K., Whitten, J. L., **Klimczak, C.**, McCubbin, F. M., Denevi B. W., and Ostrach, L. R., 11. The Volcanic Character of Mercury, in Solomon, S. C., Nittler, L. R., and Anderson, B. J. (eds.) Mercury: The View after MESSENGER, *Cambridge University Press*, 2017. *Book in production with Cambridge University Press*
31. **Klimczak, C.**, Kling, C. L., and Byrne P. K.: Topographic Expressions of Large Thrust Faults on Mars. *Submitted to JGR Planets*.
30. **Klimczak, C.**, Habermann, M. A., Crane, K. T., and Byrne P. K.: Tectonic controls of Pyroclastic Volcanism on Mercury. *Revised Manuscript submitted to Icarus*.

2017

29. Crane K. T., and **Klimczak, C.**: Timing and rate of Global Contraction on Mercury. *Geophysical Research Letters* 44, 3082–3089, 2017. doi: 10.1002/2017GL072711.

2016

28. Byrne, P. K., Ostrach, L. R., Fassett, C. I., Chapman, C. R., Denevi, B. W., Evans, A. J., **Klimczak, C.**, Banks, M. E., Head, J. W., and Solomon, S. C.: Widespread effusive volcanism on Mercury likely ended by about 3.5 Ga. *Geophysical Research Letters* 43, 7408–7416, 2016. doi:10.1002/2016GL069412.
27. Weider, S. Z., Nittler, L. R., Murchie, S. L., Peplowski, P. N., McCoy, T. J., Kerber, L., **Klimczak, C.**, Ernst, C. M., Goudge, T. A., Starr, R. D., Izenberg, N. R., Klima, R. L., and Solomon, S. C.: Evidence from MESSENGER for sulfur- and carbon-driven explosive volcanism on Mercury. *Geophysical Research Letters* 43, 3653–3661, 2016. doi:10.1002/2016GL068325.

2015

26. Banks, M. E., Xiao, Z., Watters, T. R., Strom, R. G., Braden, S. E., Chapman, C. R., Solomon, S. C., **Klimczak, C.**, and Byrne, P. K.: Duration of Activity on Lobate-Scarp Thrust Faults on Mercury. *Journal of Geophysical Research (Planets)* 120, 1751–1762, 2015. doi:10.1002/2015JE004828.
25. Byrne, P. K., **Klimczak, C.**, McGovern, P. J., Mazarico, E., James, P. B., Neumann, G. A., Zuber, M. T., and Solomon, S. C.: Deep-seated reverse faults bound the Mare Crisium lunar mascon. *Earth and Planetary Science Letters* 427, 183–190, 2015. doi:10.1016/j.epsl.2015.06.022
24. Ernst, C. M., Denevi, B. W., Barnouin, O. S., **Klimczak, C.**, Chabot, N. L., Head, J. W., Murchie, S. L., Neumann, G. A., Prockter, L. M., Robinson, M. S., Solomon, S. C., Watters, T. R.: Volcanic Plains in Caloris Basin: Thickness, Timing, and What Lies Beneath. *Icarus* 250, 413–429, 2015. doi:10.1016/j.icarus.2014.11.003
23. Ferrari, S., Massironi, M., Marchi, S., Byrne, P. K., **Klimczak, C.**, Martellato, E., and Cremonese, G.: Age relations of the Rembrandt basin and associated scarp system, Mercury. In: Platz, T., Massironi, M., Byrne, P. K. & Hiesinger, H. (eds) *Volcanism and Tectonism Across the Inner Solar System. Geological Society, London, Special Publications* 401, 159–172, 2015. doi:10.1144/SP401.20.
22. **Klimczak, C.**, Byrne, P. K., and Solomon, S. C.: A rock-mechanical assessment of Mercury's global tectonic fabric. *Earth and Planetary Science Letters* 416, 82–90, 2015. doi:10.1016/j.epsl.2015.02.003
21. **Klimczak, C.**: Brittle strength of planetary lithospheres undergoing global contraction. *Journal of Geophysical Research (Planets)* 120, 2135–2151, 2015. doi: 10.1002/2015JE004851.

2014

20. Byrne, P. K., **Klimczak, C.**, Şengör, A. M. C., Solomon, S. C., Watters, T. R., and Hauck II, S. A.: Mercury's global contraction much greater than earlier estimates. *Nature Geoscience* 7, 301–307, 2014. doi:10.1038/NNGEO2097.
19. **Klimczak, C.**: Geomorphology of Lunar Grabens Requires Igneous Dikes at Depth. *Geology* 42, 963–966, 2014. doi:10.1130/G35984.1.
18. Xiao, Z., Strom, R. G., Chapman, C. R., Head, J. W., **Klimczak, C.**, Ostrach, L. R., Helbert, J., and D'Incecco, P.: Controlling factors in impact excavation processes: Insights from comparisons

of fresh complex impact craters on Mercury and the Moon. *Icarus* 228, 260–275, 2014. doi:10.1016/j.icarus.2013.10.002.

2013

17. Blair, D. M., Freed, A. M., Watters, T. R., Byrne, P. K., **Klimczak, C.**, Prockter, L. M., Ernst, C. M., Solomon, S. C., Melosh, H. J., and Zuber, M. T.: The origin of graben and ridges in Rachmaninoff, Raditladi, and Mozart basins, Mercury. *Journal of Geophysical Research (Planets)* 118, 47–58, 2013. doi:10.1029/2012JE004198.
16. Byrne, P. K., **Klimczak, C.**, Williams D. A., Hurwitz, D. M., Solomon, S. C., Head, J. W., Preusker, F., and Oberst, J.: An Assemblage of Lava Flow Features on Mercury. *Journal of Geophysical Research (Planets)* 118, 1303–1322, 2013. doi:10.1002/jgre.20052.
15. Denevi, B. W., Ernst, C. M., Meyer, H. M., Robinson, M. S., Murchie, S. L., Whitten, J. L., Head, J. W., Watters, T. R., Solomon, S. C., Ostrach, L. R., Chapman, C. R., Byrne, P. K., **Klimczak, C.**, and Peplowski, P. N.: The Distribution and Origin of Smooth Plains on Mercury. *Journal of Geophysical Research (Planets)* 118, 891–907, 2013. doi:10.1002/jgre.20075.
14. **Klimczak, C.**, Ernst, C. M., Byrne, P. K., Solomon, S. C., Watters, T. R., Murchie, S. L., Preusker, F., and Balcerski, J. A.: Insights into the subsurface structure of the Caloris basin, Mercury, from assessments of mechanical layering and changes in long-wavelength topography. *Journal of Geophysical Research (Planets)* 118, 2030–2044, 2013. doi:10.1002/jgre.20157.
13. **Klimczak, C.**, and Schultz, R. A.: Shear-enhanced compaction in dilating granular materials. *International Journal of Rock Mechanics and Mining Sciences* 64, 139–147, 2013. doi:10.1016/j.ijrmms.2013.08.012.
12. **Klimczak, C.**, and Schultz, R. A.: Fault damage zone origin of the Teufelsmauer, Subhercynian Cretaceous Basin, Germany. *International Journal of Earth Sciences/Geologische Rundschau* 102, 121–138, 2013. doi:10.1007/s00531-012-0794-z.
11. Schultz, R. A., **Klimczak, C.**, Fossen, H., Olson, J. E., Exner, U., Reeves, D. M., and Soliva, R.: Statistical tests of scaling relationships for geologic structures. *Journal of Structural Geology* 48, 85–94, 2013. doi:10.1016/j.jsg.2012.12.005.

2012

10. Fassett, C. I., Head, J. W., Baker, D. M., Zuber, M. T., Smith, D. E., Neumann, G. A., Solomon, S. C., **Klimczak, C.**, Strom, R. G., Chapman, C. R., Prockter, L. M., Phillips, R. J., Oberst J., and Preusker, F.: Large impact basins on Mercury: Global distribution, characteristics, and modification history from MESSENGER orbital data. *Journal of Geophysical Research (Planets)* 117, E00L08, 2012. doi:10.1029/2012JE004154.
9. Freed, A. M., Blair, D. M., Watters, T. R., **Klimczak, C.**, Byrne, P. K., Solomon, S. C., Zuber, M. T., and Melosh, H. J.: On the Origin of Graben and Ridges within and near Volcanically Buried Craters and Basins in Mercury's Northern Plains. *Journal of Geophysical Research (Planets)* 117, E00L06, 2012. doi:10.1029/2012JE004119.
8. **Klimczak, C.**, Watters, T. R., Ernst, C. M., Freed, A. M., Byrne, P. K., Solomon S. C., Blair, D. M., and Head, J. W.: Deformation associated with ghost craters and basins in volcanic smooth plains on Mercury: Strain analysis and implications for plains evolution. *Journal of Geophysical Research (Planets)* 117, E00L03, 2012. doi:10.1029/2012JE004100.

7. Watters, T. R., Solomon S. C., **Klimczak, C.**, Freed, A. M., Head, J. W., Ernst, C. M., Blair, D. M., Goudge, T. A., and Byrne, P. K.: Extension and Contraction within Volcanically Buried Impact Craters and Basins on Mercury. *Geology* 40, 1123–1126, 2012. doi:10.1130/G33725.1.
6. Zuber, M. T., Smith, D. E., Phillips, R. J., Solomon, S. C., Neumann, G. A., Hauck II, S. A., Peale, S. J., Barnouin, O. S., Head, J. W., Johnson, C. L., Lemoine, F. G., Mazarico, E., Sun, X., Torrence, M. H., Freed, A. M., **Klimczak, C.**, Margot, J.-L., Oberst, J., Perry, M. E., McNutt, R. L., Jr., Balcerski, J. A., Michel, N., Talpe, M. J., and Yang, D.: Topography of the Northern Hemisphere of Mercury from MESSENGER Laser Altimetry. *Science* 336, 217–220, 2012. doi:10.1126/science.1218805.

2011

5. Head, J. W., Chapman, C. R., Strom, R. G., Fassett, C. I., Denevi, B. W., Blewett, D. T., Ernst, C. M., Watters, T. R., Solomon, S. C., Murchie, S. L., Prockter, L. M., Chabot, N. L., Gillis-Davis, J. J., Whitten, J., Goudge, T. A., Baker, D. M., Hurwitz, D. M., Ostrach, L. R., Xiao, Z., Merline, W. J., Kerber, L. A., Dickson, J. L., Oberst, J., Byrne, P. K., **Klimczak, C.**, and Nittler, L. R.: Flood Volcanism in the Northern High Latitudes of Mercury Revealed by MESSENGER. *Science* 333, 1853–1856, 2011. doi:10.1126/science.1211997.
4. **Klimczak, C.**, Soliva, R., Schultz, R. A., and Chery, J.: Sequential growth of deformation bands in a multilayer sequence. *Journal of Geophysical Research (Solid Earth)* 116, B09209, 2011. doi:10.1029/2011JB008365.

2010

3. **Klimczak, C.**, Schultz R. A., Parashar, R., and Reeves, D. M.: Cubic Law with correlated aperture to length and implications for network scale fluid flow. *Hydrogeology Journal* 18, 851-862, 2010. doi:10.1007/s10040-009-0572-6.
2. **Klimczak, C.**, Schultz, R. A., and Nahm, A. L.: Evaluation of the origin hypotheses of Pantheon Fossae, central Caloris basin, Mercury. *Icarus* 209, 262–270, 2010. doi:10.1016/j.icarus.2010.04.014.

2007

1. **Klimczak, C.**, Wittek, A., Doman, D., and Riller, U.: Fold origin of the NE-lobe of the Sudbury Basin, Canada: Evidence from heterogeneous fabric development in the Onaping Formation and the Sudbury Igneous Complex. *Journal of Structural Geology* 29, 1744–1756, 2007. doi:10.1016/j.jsg.2007.09.003.

Abstracts and Conference Contributions

2017

91. Byrne P. K., and **Klimczak, C.**: The East Kaibab Monocline is a Lobate Scarp on Earth. *European Geosciences Union General Assembly*, 2017, # EGU2017-122, Vienna, Austria.

90. Byrne P. K., Ghail, R., Şengör, A. M. C., **Klimczak, C.**, and Solomon, S. C.: Plate Tectonic-like Motion on Venus. *American Geophysical Union, Fall Meeting*, 2017, New Orleans, LA, USA.
89. Byrne, P. K., Regensburger, P. V., **Klimczak, C.**, Bohnenstiel, D.R., Dombard, A. J., and Hauck, S. A.: An assessment of geological conditions at icy satellite ocean floors. *Geological Society of America, Annual Meeting*, 2017, vol. 49, no. 6, #146-15, Seattle, WA, USA.
88. Byrne P. K., Ghail, R., Şengör, A. M. C., **Klimczak, C.**, and Solomon, S. C.: Block tectonic motion on Venus. *15th Meeting of the Venus Exploration and Analysis Group (VEXAG)*, 2017, Applied Physics Laboratory, Laurel, MD, USA.
87. Byrne P. K., Ghail, R., Şengör, A. M. C., **Klimczak, C.**, and Solomon, S. C.: Lateral Motion of Crustal Blocks has been Widespread on Venus. *48th Lunar and Planetary Science Conference*, 2017, #2708, Houston, TX, USA.
86. Callihan M. B., and **Klimczak, C.**: Growth strategies and fault rock evolution of lunar graben. *Geological Society of America, Annual Meeting*, 2017, vol. 49, no. 6, #25-9, Seattle, WA, USA.
85. Crane, K. T., and **Klimczak, C.**: Tectonic patterns of shortening landforms in Mercury's northern smooth plains. *Geological Society of America, Annual Meeting*, 2017, vol. 49, no. 6, #25-8, Seattle, WA, USA.
84. **Klimczak, C.**, Crane, K. T., Habermann, M.A., and Byrne P. K.: A statistical investigation into the spatial distribution of Mercury's pyroclastic activity. *Geological Society of America, Annual Meeting*, 2017, vol. 49, no. 6, #25-8, Seattle, WA, USA.
83. **Klimczak, C.**, and Byrne P. K., Pit Crater Chains in Craters of the Moon National Monument and Preserve, Idaho, USA. *48th Lunar and Planetary Science Conference*, 2017, #1013, Houston, TX, USA.

2016

82. Anlian, E. Q., **Klimczak, C.**, and Crowe, D. E.: Laramide Thrust Fault-Related Folding Accommodated by Slipped Deformation Bands in Dakota Group Sandstones, Canon City Embayment, Colorado. *Geological Society of America, Annual Meeting*, 2016, vol. 48, no. 7, #25-2, Denver, CO, USA.
81. Byrne P. K., Şengör, A. M. C., Ghail, R., **Klimczak, C.**, and Solomon, S. C.: Substantial Lateral Motions Accompany Tectonic Deformation on Venus. *American Geophysical Union, Fall Meeting*, 2016, P44B-03, San Francisco, CA, USA.
80. Byrne P. K., and **Klimczak, C.**: The East Kaibab Monocline as a Lobate Scarp on Earth. *Geological Society of America, Annual Meeting*, 2016, vol. 48, no. 7, #21-9, Denver, CO, USA.
79. Byrne P. K., **Klimczak, C.**, Şengör, A. M. C., and Solomon, S. C.: Similarities in large-scale tectonic deformation on Venus and Earth. *International Venus Conference*, 2016, Oxford, UK.
78. Byrne P. K., **Klimczak, C.**, and LaFond, J. K.: The East Kaibab Monocline: A Terran Lobate Scarp? *47th Lunar and Planetary Science Conference*, 2016, #1022, Houston, TX, USA.
77. Byrne P.K., Fassett, C. I., **Klimczak, C.**, Ostrach, L. R., Chapman, C. R., Denevi, B. W., Şengör, A. M. C., Hauck, S. A., Evans, A. J., Banks, M. E., Watters, T. R., Head, J. W., and Solomon, S. C.: The interplay between volcanism and tectonism on Mercury. *47th Lunar and Planetary Science Conference*, 2016, #1227, Houston, TX, USA.
76. Callihan M. B., and **Klimczak, C.**: Topographic Expressions of Lunar Graben. *Geological Society of America, Annual Meeting*, 2016, vol. 48, no. 7, #21-10, Denver, CO, USA.
75. Crane, K. T., and **Klimczak, C.**: Timing and Rate of Mercury's Global Contraction. *Geological Society of America, Annual Meeting*, 2016, vol. 48, no. 7, #21-14. 851, Denver, CO, USA.

74. Crane, K. T., and **Klimczak C.**: Testing the timing and rate of global contraction on Mercury against its cratering record. *47th Lunar and Planetary Science Conference*, 2016, #1023, Houston, TX, USA.
73. John, D. L., Walker, S. E., and **Klimczak, C.**: Diagenesis of Exceptionally Preserved Trilobites from the Wheeler Shale. *Geological Society of America, Annual Meeting*, 2016, vol. 48, no. 7, #162-58, Denver, CO, USA.
72. Kling, C. L., and **Klimczak C.**: Displacement-length scaling relationships of large thrust faults on Mars. *47th Lunar and Planetary Science Conference*, 2016, #2888, Houston, TX, USA.
71. Şengör, A. M. C., Acar, D., Özeren, M. S., Ülgen, S. C., Önsel, İ. E., Öner, A. T., Byrne, P. K., **Klimczak, C.**, and Solomon, S. C.: Valles Marineris and the Martian Chasmata as Thermokarstic Poljes. *47th Lunar and Planetary Science Conference*, 2016, #2257, Houston, TX, USA.

2015

70. Banks, M. E., Barlow, N., **Klimczak, C.**, Xiao, Z., Watters, T. R., and Chapman, C. R.: Duration Of Activity On Lobate-Scarp Thrust Faults On Mercury. *6th Planetary Crater Consortium Meeting*, 2015, #1513, Flagstaff, AZ, USA.
69. Byrne P. K., **Klimczak, C.**, Şengör, A. M. C., Hauck, S. A., and Solomon, S. C.: Understanding the Interior Evolution of Mercury from Its Tectonic History, *American Geophysical Union, Fall Meeting*, 2015, P51D-02, San Francisco, CA, USA.
68. Byrne, P. K., Ostrach, L. R., Fassett, C. I., Chapman, C. R., Evans, A. J., **Klimczak, C.**, Banks, M. E., Head, J. W., and Solomon, S. C.: Widespread Plains Volcanism on Mercury Ended by 3.6 Ga, *American Geophysical Union, Fall Meeting*, 2015, P53A-2100, San Francisco, CA, USA.
67. Byrne, P. K., Ostrach, L. R., Denevi, B. W., Chapman, C. R., Fassett, C. I., Whitten, J. L., **Klimczak, C.**, Mazarico, E., Hauck, S. A., Head, J. W., and Solomon, S. C.: Planet-wide cessation of major effusive volcanism on Mercury. *European Planetary Science Congress*, 2015, p. 909, Nantes, France.
66. Byrne, P. K., Ostrach, L. R., Denevi, B. W., Chapman, C. R., Fassett, C. I., Whitten, J. L., **Klimczak, C.**, Mazarico, E., Hauck, S. A., Head, J. W., and Solomon, S. C.: Near-synchronous end to global-scale effusive volcanism on Mercury. *46th Lunar and Planetary Science Conference*, 2015, #1731, Houston, TX, USA.
65. Habermann, M. A., and **Klimczak, C.**: Tectonic controls on pyroclastic volcanism on Mercury, *American Geophysical Union, Fall Meeting*, 2015, P53A-2101, San Francisco, CA, USA.
64. **Klimczak, C.**, and Byrne, P. K.: Bimodality of pure compaction bands, Buckskin Gulch, Utah, *American Geophysical Union, Fall Meeting*, 2015, MR41D-2679, San Francisco, CA, USA.
63. **Klimczak, C.**, Byrne, P. K., Banks, M. E., and Solomon, S. C.: Amount, timing, and rate of global contraction on Mercury, *American Geophysical Union, Fall Meeting*, 2015, P41F-06, San Francisco, CA, USA.
62. **Klimczak, C.**, and Byrne, P. K.: Depth of jointing and the transition to normal faulting in the lithospheres of solid Solar System bodies. *46th Lunar and Planetary Science Conference*, 2015, #1430, Houston, TX, USA.
61. Kling, C. L., and **Klimczak, C.**: Thrust fault displacement distributions at the Phlegra Montes lobate scarp system, Mars. *46th Lunar and Planetary Science Conference*, 2015, #1557, Houston, TX, USA.

60. Watters, T. R., Solomon, S. C., Daud, K. E., Banks, M. E., Selvans, M. M., Robinson, M. S., Murchie, S. L., Chabot, N. L., Denevi, B. W., Ernst, C. M., Chapman, C. R., Fassett, C. I., **Klimczak, C.**, Byrne, P. K., and Blewett, D. T.: Small Fault Scarps on Mercury Revealed in Low-Altitude MESSENGER Images. *46th Lunar and Planetary Science Conference*, 2015, #2240, Houston, TX, USA.

2014

59. Banks, M. E., **Klimczak, C.**, Xiao, Z., Watters, T. R., Strom, R. G., Braden, S. E., Chapman, C. R., Solomon, S. C., and Byrne, P. K.: Duration of activity on lobate scarp thrust faults on Mercury. *45th Lunar and Planetary Science Conference*, 2014, #2722, Houston, TX, USA.
58. Byrne, P. K., **Klimczak, C.**, Solomon, S. C., Mazarico, E., Neumann, G. A., and Zuber, M. T.: Deep-Seated Contractional Tectonics in Mare Crisium, the Moon. *45th Lunar and Planetary Science Conference*, 2014, #2396, Houston, TX, USA.
57. Byrne, P. K., **Klimczak, C.**, Şengör, A. M. C., Solomon, S. C., Watters, T. R., Hauck S. A.: The Global Contraction of Mercury. *45th Lunar and Planetary Science Conference*, 2014, #2525, Houston, TX, USA.
56. Byrne, P. K., **Klimczak, C.**, McGovern, P. J., Mazarico, E., James, P. B., Neumann, G. A., Zuber, M. T., and Solomon, S. C.: Deep-seated reverse faults in Mare Crisium, the Moon. *American Geophysical Union, Fall Meeting*, 2014, P34C-04, San Francisco, CA, USA.
55. **Klimczak, C.**, Byrne, P. K., and Solomon, S. C.: Limits on the Brittle Strength of Planetary Lithospheres Undergoing Global Contraction. *45th Lunar and Planetary Science Conference*, 2014, #1542, Houston, TX, USA.
54. **Klimczak, C.**, Byrne, P. K., and Solomon, S. C.: Mercury's global fabric of thrust faults. *American Geophysical Union, Fall Meeting*, 2014, P21C-3940 San Francisco, CA, USA.
53. Watters, T. R., Solomon, S. C., Daud, K. E., Banks, M. E., Selvans, M. M., Robinson, M. S., Murchie, S. L., Chabot, N. L., Denevi, B. W., Ernst, C. M., Chapman, C. R., Fassett, C. I., **Klimczak, C.**, Byrne, P. K., and Blewett, D. T.: Small Fault Scarps on Mercury Detected in Low-Altitude MESSENGER Images. *American Geophysical Union, Fall Meeting*, 2014, P21C-3942, San Francisco, CA, USA.

2013

52. Balcerski, J. A., Hauck, S. A., Sun, P., **Klimczak, C.**, Byrne, P. K., Phillips, R. J., and Solomon, S. C.: New Constraints on Timing and Mechanisms of Regional Tectonism from Mercury's Tilted Craters. *44th Lunar and Planetary Science Conference*, 2013, p. 2444, Houston, TX, USA.
51. Banks, M. E., Watters, T. R., Robinson, M. S., Williams, N. R., Walsh, L. S., Daud, K., **Klimczak, C.**, Burns, K., Mattson, S., Ojha, L., and Gizzi, N.: Displacement-Length Relationship of Thrust Faults Associated with Lobate Scarps on the Moon. *44th Lunar and Planetary Science Conference*, 2013, p. 3042, Houston, TX, USA.
50. Byrne, P. K., **Klimczak, C.**, Blair, D. M., Ferrari, S., Solomon, S. C., Freed, A. M., Watters, T. R., and Murchie, S. L.: Tectonic Complexity Within Volcanically Infilled Craters and Basins on Mercury. *44th Lunar and Planetary Science Conference*, 2013, p. 1261, Houston, TX, USA.

49. Byrne, P. K., **Klimczak, C.**, Blair, D. M., Balcerski, J. A., Solomon, S. C., Denevi, B. W., Hauck II, S. A., and Perry, M. E.: The origin of Mercury's northern volcanic plains. *Geological Society of America, Annual Meeting*, 2013, vol. 45, no. 7, p. 851, Denver, CO, USA.
48. Byrne, P. K., **Klimczak, C.**, and Solomon, S. C.: Investigating the Tectonics of Mare Crisium with Topographic Data. *American Geophysical Union, Fall Meeting*, 2013, P23E-1832, San Francisco, CA, USA.
47. Byrne, P. K.; **Klimczak, C.**; Blair, D. M., Ferrari, S.; Solomon, S. C., Freed, A. M., Watters, T. R., and Murchie, S. L.: Tectonic Complexity within Volcanically Infilled Impact Features on Mercury. *European Geosciences Union, General Assembly*, 2013, p. 2173, Vienna, Austria.
46. Ernst, C. M., Denevi, B. W., Murchie, S. L., Barnouin, O. S., Chabot, N. L., Head, J. W., **Klimczak, C.**, Neumann, G. A., Prockter, L. M., Robinson, M. S., Solomon, S. C., and Watters, T. R.: Volcanic Plains in Caloris Basin: Thickness, Timing, and What Lies Beneath. *Lunar and Planetary Science Conference*, 2013, p. 2364, Houston, TX, USA.
45. Ferrari, S., Massironi, M., Marchi, S., Byrne, P. K., **Klimczak, C.**, and Cremonese, G.: Age Relations of the Rembrandt Basin and Scarp System, Mercury. *44th Lunar and Planetary Science Conference*, 2013, p. 2102, Houston, TX, USA.
44. Ferrari, S., Massironi, M., Marchi, S., Byrne, P. K., **Klimczak, C.**, and Cremonese, G.: MPF model ages of the Rembrandt basin and scarp system, Mercury. *European Geosciences Union, General Assembly*, 2013, p. 13175, Vienna, Austria.
43. **Klimczak, C.**: Igneous dikes on the Moon: Evidence from Lunar Orbiter Laser Altimeter topography. *44th Lunar and Planetary Science Conference*, 2013, #1391, Houston, TX, USA.
42. **Klimczak, C.**, Byrne, P. K., Solomon, S. C., Nimmo, F., Watters, T. R., Denevi, B. W., Ernst, C. M., and Banks, M. E.: The role of thrust faults as conduits for volatiles on Mercury. *44th Lunar and Planetary Science Conference*, 2013, #1390, Houston, TX, USA.
41. **Klimczak, C.** and Schultz, R. A.: Regional joints and the occurrence of oriented arches in Arches National Park, Utah. *Geological Society of America, Annual Meeting*, 2013, vol. 45, no. 7, p.546, Denver, CO, USA.
40. **Klimczak, C.**, Byrne, P. K., Banks, M. E., Solomon, S. C., Fassett, C. I., Ostrach, L. R., Ferrari, S., Denevi, B. W., Ernst, C. M., and Preusker, F.: The relative timing of global contraction and plains volcanism on Mercury. Invited presentation at the *Geological Society of America, Annual Meeting*, 2013, vol. 45, no. 7, p.295, Denver, CO, USA.
39. **Klimczak, C.**, Byrne, P. K., and Solomon, S. C.: Flood volcanism on a contracting planet: Insights from Mercury and the Moon. *American Geophysical Union, Fall Meeting*, 2013, P13A-1738, San Francisco, CA, USA.
38. **Klimczak, C.**, and Byrne, P. K.: The prospect of diking on the Moon and Mercury. Invited presentation at the *American Geophysical Union, Fall Meeting*, 2013, P23B-03, San Francisco, CA, USA.
37. Solomon, S. C., Byrne, P. K., **Klimczak, C.**, Şengör, A. M. C., Watters, T. R., and Hauck II, S. A.: Geological Evidence that Mercury Contracted by more than Previously Recognized. *American Geophysical Union, Fall Meeting*, 2013, P11A-08, San Francisco, CA, USA.
36. Watters, T. R., Solomon, S. C., **Klimczak, C.**, Selvans, M. M., Walsh, L. S., Banks, M. E., Byrne, P. K., Denevi, B. W., Ernst, C. M., Murchie, S. L., Oberst, J., Preusker, F., Hauck, S. A., Zuber, M. T., and Phillips, R. J.: Distribution of Prominent Lobate Scarps on Mercury: Contribution to Global Radial Contraction. *44th Lunar and Planetary Science Conference*, 2013, p. 2213, Houston, TX, USA.

2012

35. Byrne, P. K., Denevi, B. W., **Klimczak, C.**, Prockter, L. M., Solomon, S. C., Whitten, J. L., and Head, J. W.: Older smooth plains on Mercury obscured by impact features. *American Geophysical Union, Fall Meeting*, 2012, P33B-1943, San Francisco, CA, USA.
34. Byrne, P. K., **Klimczak, C.**, Solomon, S. C., Watters, T. R., and Murchie, S. L.: Tectonic structural complexity in Caloris basin, Mercury. *European Planetary Science Congress*, 2012, p. 765, Madrid, Spain.
33. Byrne, P. K., Watters, T. R., Murchie, S. L., **Klimczak, C.**, Solomon, S. C., Prockter, L. M., and Freed, A. M.: A tectonic survey of the Caloris basin, Mercury, *43rd Lunar and Planetary Science Conference*, 2012, p. 1722, Houston, TX, USA.
32. Byrne, P. K., Şengör, A. M. C., **Klimczak, C.**, Solomon, S. C., and Watters, T. R.: Large-scale crustal deformation on Mercury. *43rd Lunar and Planetary Science Conference*, 2012, p. 2118, Houston, TX, USA.
31. Balcerski, J. A., Hauck, II, S. A., Sun, P., **Klimczak, C.**, Byrne, P. K., Dombard, A. J., Barnouin, O. S., Zuber, M. T., Phillips, R. J., and Solomon, S. C.: Tilted crater floors: Recording the history of Mercury's long-wavelength deformation. *43rd Lunar and Planetary Science Conference*, 2012, p. 1850, Houston, TX, USA.
30. Blair, D. M., Freed, A. M., Byrne, P. K., **Klimczak, C.**, Solomon, S. C., Watters, T. R., Prockter, L. M., Melosh, H. J., and Zuber, M. T.: Thermally induced graben in peak-ring basins and ghost craters on Mercury. *43rd Lunar and Planetary Science Conference*, p. 2501, Houston, TX, USA.
29. Ferrari, S., Massironi, M., **Klimczak, C.**, Byrne, P. K., Cremonese, G., and Solomon, S. C.: Complex history of the Rembrandt basin and scarp system, Mercury. *European Planetary Science Congress*, 2012, p. 874, Madrid, Spain.
28. Head, J. W., Solomon, S. C., Fassett, C. I., Murchie, S. L., Prockter, L. M., Robinson, M. S., Blewett, D. T., Denevi, B. W., Watters, T. R., Whitten, J. L., Goudge, T. A., Baker, D. M., Hurwitz, D. M., Byrne, P. K., and **Klimczak, C.**: Effusive volcanism on Mercury from MESSENGER mission data: Nature and significance for lithospheric stress state and mantle convection. *43rd Lunar and Planetary Science Conference*, 2012, p. 1451, Houston, TX, USA.
27. **Klimczak, C.**, Ernst, C. M., Byrne, P. K., Solomon, S. C., and Watters, T. R.: Fault Restriction in the Caloris Smooth Plains: Implications for Mechanical Stratigraphy. *43rd Lunar and Planetary Science Conference*, 2012, #1659, Houston, TX, USA.
26. **Klimczak, C.**, Byrne, P. K., Solomon, S. C., Ernst, C. M., and Watters, T. R.: Long-wavelength topographic change in the Caloris basin, Mercury. *European Planetary Science Congress*, 2012, #751, Madrid, Spain.
25. **Klimczak, C.**, Byrne, P. K., Solomon, S. C., Ernst, C. M., and Watters, T. R., Murchie, S. L., Preusker, F., and Oberst, J.: Long-wavelength Folding on Mercury: Lithospheric Boudinage in the Caloris Basin? *American Geophysical Union, Fall Meeting*, 2012, P33B-1944, San Francisco, CA, USA.
24. Solomon, S. C., **Klimczak, C.**, Byrne, P. K., Hauck, II, S. A., Balcerski, J. A., Dombard, A. J., Zuber, M. T., Smith, D. E., Phillips, R. J., Head, J. W., and Watters, T. R.: Long-wavelength topographic change on Mercury: Evidence and mechanisms. *43rd Lunar and Planetary Science Conference*, 2012, p. 1578, Houston, TX, USA.

23. Watters, T. R., Solomon, S. C., Robinson, M. S., Head, J. W., Strom, R. G., **Klimczak, C.**, Byrne, P. K., Enns, A. C., Ernst, C. M., Prockter, L. M., Murchie, S. L., Oberst, J., Preusker, F., Zuber, M. T., Hauck, II, S. A., and Phillips, R. J.: Tectonic features on Mercury: An orbital view with MESSENGER. *43rd Lunar and Planetary Science Conference*, 2012, p. 2121, Houston, TX, USA.

2011

22. Byrne, P. K., **Klimczak, C.**, Denevi, B. W., Solomon, S. C., Nittler, L. R., Watters, T. R., Enns, A. C., Head, J. W., Hurwitz, D. M., and Baker, D. M.: Analysis of surface volcanism on Mercury. *American Geophysical Union, Fall Meeting*, 2011, P41A-1590, San Francisco, CA, USA.
21. Byrne, P. K., **Klimczak, C.**, Denevi, B. W., Watters, T. R., Solomon, S. C., Enns, A. C., Head, J. W., Hurwitz, D. M., and Baker, D. M.: Surface lava flow features on Mercury. *Geological Society of America, Annual Meeting*, 2011, vol. 43, no. 5, p.358, Minneapolis, MN, USA.
20. Ernst, C. M., Murchie, S. L., Barnouin, O. S., Chabot, N. L., Denevi, B. W., Head, J. W., **Klimczak, C.**, Prockter, L. M., Solomon, S. C., and Watters, T. R.: Assessing the Crustal Stratigraphy of Mercury: Results from MESSENGER Orbital Observations. *American Geophysical Union, Fall Meeting*, 2011, P43E-08, San Francisco, CA, USA.
19. Fassett, C. I., Denevi, B. W., Whitten, J. L., Goudge, T. A., Baker, D. M., Hurwitz, D. M., Ostrach, L. R., Xiao, Z., Byrne, P. K., and **Klimczak, C.**: Widespread and voluminous flood volcanism in the northern lowlands of Mercury revealed by MESSENGER. *Geological Society of America, Annual Meeting*, 2011, vol. 43, no. 5, p. 358, Minneapolis, MN, USA.
18. Head, J. W., III, Solomon, S. C., Fassett, C. I., Murchie, S. L., Prockter, L. M., Blewett, D. T., Denevi, B. W., Watters, T. R., Strom, R. G., Chapman, C. R., Gillis-Davis, J. J., Zuber, M. T., Smith, D. E., Oberst, J., Gwinner, K., Ernst, C. M., Ostrach, L. R., Byrne, P. K., **Klimczak, C.**, and Xiao, Z.: Effusive and Explosive Volcanism on Mercury from MESSENGER Orbital Observations, *European Geosciences Union, General Assembly*, 2011, p. 9925, Vienna, Austria.
17. Head, J. W., Chapman, C. R., Strom, R. G., Fassett, C. I., Denevi, B. W., Blewett, D. T., Ernst, C. M., Watters, T. R., Solomon, S. C., Murchie, S. L., Prockter, L. M., Chabot, N. L., Gillis-Davis, J. J., Whitten, J. L., Goudge, T. A., Baker, D. M., Hurwitz, D. M., Ostrach, L. R., Xiao, Z., Merline, W. J., Kerber, L. A., Dickson, J. L., Oberst, J., Byrne, P. K., **Klimczak, C.**, and Nittler, L. R.: Widespread and voluminous flood volcanism in the northern high latitudes of Mercury revealed by MESSENGER: Relation to global volcanic processes. *American Geophysical Union, Fall Meeting*, 2011, P43E-10, San Francisco, CA, USA.
16. Hurwitz, D. M., Head, J. W., Zuber, M. T., Smith, D. E., Neumann, G. A., Strom, R. G., Fassett, C. I., Denevi, B. W., Blewett, D. T., Ernst, C. M., Watters, T. R., Solomon, S. C., Byrne, P. K., **Klimczak, C.**, Murchie, S. L., Prockter, L. M., Chabot, N. L., Gillis-Davis, J. J., Whitten, J. L., Goudge, T. A., Baker, D. M., Ostrach, L. R., Xiao, Z., Merline, W. J., Dickson, J. L., Oberst, J., and Nittler, L. R.: Lava erosion on Mercury: Model results using new observations from MESSENGER. *American Geophysical Union, Fall Meeting*, 2011, P41A-1591, San Francisco, CA, USA.
15. **Klimczak, C.**, Soliva, R., Schultz, R. A., and Chery, J.: Growth of deformation bands in a multilayer sequence: Orange quarry, France. *European Geosciences Union, General Assembly*, 2011, #EGU2011-4872, Vienna, Austria.

14. **Klimczak, C.**, Watters, T. R., Byrne, P. K., Ernst, C. M., Solomon, S. C., Goudge, T. A., Head, J. W., and Xiao, Z.: Strain analysis of extension in volcanically flooded impact craters on Mercury. *Geological Society of America, Annual Meeting*, 2011, vol. 43, no. 5, p. 359, Minneapolis, MN, USA.
13. **Klimczak, C.** and Schultz, R. A.: Compactional shear bands in dilational sands and soils. *American Geophysical Union, Fall Meeting*, 2011, T33C-2426, San Francisco, CA, USA.
12. Watters, T. R., Solomon, S. C., Head, J. W., Ernst, C. M., Denevi, B. W., Robinson, M. S., **Klimczak, C.**, and Goudge, T. A.: Extension in the northern plains of Mercury. *Geological Society of America, Annual Meeting*, 2011, vol. 43, no. 5, p. 358, Minneapolis, MN, USA.
11. Watters, T. R., Byrne, P. K., **Klimczak, C.**, Enns, A. C., Banks, M. E., Walsh, L. S., Ernst, C. M., Robinson, M. S., Gillis-Davis, J. J., Solomon, S. C., Strom, R. G., and Gwinner, K.: The Tectonics of Mercury: The View from Orbit. *American Geophysical Union, Fall Meeting*, 2011, P41A-1593, San Francisco, CA, USA.

2010

10. **Klimczak, C.**, Soliva, R., Schultz, R. A., Chery, J., and Summerson, I.: Growth of deformation bands in a multilayer sequence. *American Geophysical Union Fall Meeting*, 2010, T41B-2130, San Francisco, CA, USA.

2009

9. **Klimczak, C.**, Nahm, A. L., and Schultz, R. A.: Evaluation of the Origin Hypotheses of Panthenon Fossae, Mercury. *40th Lunar and Planetary Science Conference*, 2009, #1251, Houston, TX, USA.
8. **Klimczak, C.** and Schultz, R. A.: Strain localization in porous sandstone associated with the Northern Harz Mountains Border Fault, Germany. *American Geophysical Union Fall Meeting*, 2009, T43A-2050, San Francisco, CA, USA.

2008

7. **Klimczak, C.**, Wittek, A., Doman, D., and Riller, U.: Heterogeneous fabric development in the Onaping Formation and the Sudbury Igneous Complex as indications for a fold origin of the NE-lobe of the Sudbury basin, Canada. *39th Lunar and Planetary Science Conference*, 2008, #1391, Houston, TX, USA.
6. **Klimczak, C.** and Schultz, R. A.: Cubic law for fluid flow becomes quintic: An extension of the parallel plate model to natural fracture sets. *Marie Curie Summer School – Knowledge Based Materials (Aqueous and Porous Materials)*, 2008, Třešt, Czech Republic.
5. **Klimczak, C.**, Schultz R. A., Parasar, R., and Reeves, D. M.: The Cubic Law Re-evaluated: Quintic Law for Joint Sets. *American Geophysical Union Fall Meeting*, 2008, H31B-0832, San Francisco, CA, USA.

2007 and before

4. **Klimczak, C.** and Riller, U.: Deformation of the Onaping Formation in the NE-lobe of the Sudbury Igneous Complex, Canada: Evidence for fold adjustment flow in the core of a km-scale fold. *11. Symposium "Tektonik, Struktur- und Kristallingeologie"*, 2006, Göttingen, Germany.
3. **Klimczak, C.** and Riller, U.: Fold-origin of the Sudbury Igneous Complex, Canada: Fold-adjustment flow in the core of its NE-lobe. IODP-ICDP Kolloquium, 2006, Greifswald, Germany.
2. **Klimczak, C.**, Wittek, A., Doman D., and Riller, U.: Deformation of the Onaping Formation: Mechanisms of orogenic folding of the central Sudbury Impact Structure, Canada. *Impact craters as indicators for planetary environmental evolution and astrobiology conference*, 2006, Lockne, Sweden.
1. Grieve, R., Riller U., and **Klimczak, C.**: Potential new constraints on deformation at the Sudbury Structure, Canada. *15th Deformation Mechanisms, Rheology and Tectonics*, 2005, Zurich, Switzerland.

Invited Lectures

2016

19. The Tectonics of Mercury. December 2016, *Invited seminar* at the University of South Carolina, Columbia, SC.

2015

18. Tectonic geomorphology as a tool to understand the structural geologic history of the Moon. November 2015, *Invited seminar* at the University of Illinois at Chicago, Chicago, IL.
17. The surface Geology on Mercury. June 2015, *Invited Presentation* at the 5th MESSENGER-BepiColombo Joint Science Meeting, Berlin, Germany.
16. Tectonic geomorphology as a tool to understand the structural geologic history of the Moon. June 2015, *Invited seminar* at the Lunar and Planetary Institute, Houston, TX.
15. The MESSENGER mission to Mercury: The geology of the innermost planet as seen after 4 years of orbital observations. April 2015, *Invited seminar* at Tulane University, New Orleans, LA.
14. Thrust Fault Tectonics on Rocky Planets. March 2015, *Invited seminar* at the University of Tennessee, Knoxville, TN.
13. The MESSENGER mission to Mercury: The geology of the innermost planet as seen after 4 years of orbital observations. March 2015, *Brownbag talk* at the University of Tennessee, Knoxville, TN.

2014

12. The MESSENGER mission to Mercury: The geology of the innermost planet as seen after almost 4 years of orbital observations. November 2014, *Invited seminar* at the Georgia Institute of Technology, Atlanta, GA.
11. Nature and relative timing of tectonics and volcanism on Mercury. June 2014, *Invited seminar* at the German Aerospace Center (DLR), Berlin, Germany.
10. Thrust Fault Tectonics on Earth and Mercury. March 2014, *Invited Seminar* at the University of Georgia, Athens, GA.
9. Thrust Fault Tectonics on Earth and Mercury. February 2014, *Invited Seminar* at the University of Missouri, Columbia, MO.

2013

8. Mercury: Tectonic Processes on a Contracting Planet. December 2013, *Invited Seminar* at the University of California Los Angeles, Los Angeles, CA.
7. Tectonic Controls of Volcanism on One-Plate Planets. November 2013, *Invited Seminar* at the University of Colorado, Boulder, CO.
6. Igneous Dikes on the Moon and Mercury. September 2013, *Invited Seminar* at the Goddard Space and Flight Center, Greenbelt, MD.
5. Long-wavelength topographic changes on Mercury. April 2013, *Contributed Presentation* at the 4th MESSENGER-BepiColombo Joint Science Meeting, Chicago, IL.
4. Large-scale lithospheric deformation on Mercury. March 2013, *Invited Seminar* at the Virginia Polytechnic Institute, Blacksburg, VA.

2012 and before

3. Faults and Folds on Mercury. May 2012, *Invited seminar* at the Lunar and Planetary Institute, Houston, TX.
2. Fracturing behavior of geological materials during volumetric, brittle deformation. September 2011, *Seminar* at the Carnegie Institution of Washington, Washington, DC.
1. Deformation bands in sandstone: An example from the Subhercynian Cretaceous Basin, Germany. January 2010, *Invited lecture* at Geoforschungszentrum (GFZ) Potsdam, Germany.