

Edwin Kite

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U.S. permanent resident, U.K. citizen.

Appointments:

University of Chicago: January 2015 –
Assistant Professor.

Princeton University: January 2014 – December 2014
Harry Hess Fellow. Joint postdoc, Astrophysics and Geoscience departments.

California Institute of Technology: January 2012 – January 2014
O.K. Earl Fellow (Divisional fellowship), Division of Geological & Planetary Sciences

Education:

M.Sci & B.A. **Cambridge University: June 2007**
M.Sci Natural Sciences Tripos (Geological Sciences). First Class.
B.A. Natural Sciences Tripos (Geological Sciences). First Class.

Ph.D. **University of California, Berkeley: December 2011**
Berkeley Fellowship.

Awards and Distinctions:

National Academy of Sciences - Committee on Astrobiology and Planetary Science 2017-
American Geophysical Union - Greeley Early Career Award in Planetary Science 2016.
AGU Editor's Citation for Excellence in Refereeing for *JGR-Planets* 2017.
National Academy of Sciences - CAS Forum for New Leaders in Space Science 2015-2016.
Caltech O.K. Earl Postdoctoral Fellowship 2012-2013 (Division-wide fellowship).
AAAS Newcomb Cleveland Prize 2009 (most outstanding *Science* paper; shared).
High-school leaving examination results (A-levels) among the top five in England.

Papers

— = *mentee*

44. de Kleer, K., Nimmo, F., & **Kite, E.S.** “Variability in Io’s volcanism on timescales of periodic orbital changes,” submitted.
43. **Kite, E.S.**, & Melwani Daswani, M., “Geochemistry constrains global hydrology on Early Mars,” in review.
42. **Kite, E.S.**, Mayer, D.P., Wilson, S.A., Davis, J.M., Lucas, A.S., & Stucky de Quay, G., “Persistence of intense, climate-driven runoff late in Mars history,” *Science Advances*, in press.
41. Holo, S.J., & **Kite, E.S.**, “Dynamics of Mars lake-overflow valley incision,” in review.
40. **Kite, E.S.**, “Geologic constraints on Early Mars climate,” *Space Science Reviews*, in press.
39. **Kite, E.S.**, & Ford, E., 2018, “Habitability of exoplanet waterworlds,” *Astrophysical Journal*, 864, 75, 28 pp, doi.org/10.3847/1538-4357/aad6e0.
38. Holo, S.J., **Kite, E.S.**, & Robbins, S.J., 2018, “Mars obliquity history constrained by elliptic crater orientations,” *Earth & Planetary Science Letters*, 496, 206-218.
37. **Kite, E.S.**, Gaidos, E., & Onstott, T.C., 2018, “Valuing life detection missions,” *Astrobiology*, 18, 834-840.
36. Mansfield, M., **Kite, E.S.**, & Mischna, M., 2018, “Effect of Mars atmospheric loss on snow melt potential in a 3.5-Gyr climate evolution model,” arXiv:1802.10422, *Journal of Geophysical Research – Planets*, doi:10.1002/2017JE005422.
35. Gabasova, L., & **Kite, E.S.**, 2018. “Compaction and sedimentary basin analysis on Mars,” *Planetary & Space Science*, 152, 86-106, doi:10.1016/j.pss.2017.12.021.
34. Seybold, H.J., **Kite, E.S.**, & Kirchner, J., 2018, “Branching geometry of valley networks on Mars and Earth and its implications for early Martian climate,” *Science Advances*, 4(6), eaar6692, doi:10.1126/sciadv.aar6692.

33. Steele, L., **Kite, E.S.**, & Michaels, T.I., 2018. “Crater mound formation by wind erosion on Mars,” *Journal of Geophysical Research – Planets*, 123, 113-130.
32. **Kite, E.S.**, Gao, P., Goldblatt, C., Mischna, M., Mayer, D.P., & Yung, Y., 2017. “Methane bursts as a trigger for intermittent lake-forming climates on post-Noachian Mars,” *Nature Geoscience*, 10, 737-740.
31. Spencer, J., Nimmo, F., Ingersoll, A., Hurford, T.A., **Kite, E.S.**, Rhoden, A., Schmidt, J., & Howett, C.J.A., 2018, “Plume origins and plumbing (ocean to surface),” accepted for publication in: Schenk, P., et al., eds., *Enceladus and the Icy Moons of Saturn*, University of Arizona Press.
30. **Kite, E.S.**, Mischna, M., Gao, P., & Yung, Y., “Mars climate optimum initiated by atmospheric collapse,” in revision, arXiv:1709.08302.
29. Archer, D., **Kite, E.S.**, & Lusk, G., “The ultimate social cost of carbon,” in review.
28. **Kite, E.S.**, Sneed, J., Mayer, D.P., & Wilson, S.A., 2017. “Persistent or repeated surface habitability on Mars,” *Geophysical Research Letters*, 44, 3991-3999, doi:10.1002/2017GL072660.
27. **Kite, E.S.**, & Mayer, D.P., 2017. “Mars sedimentary rock erosion rates constrained using crater counts, with applications to organic-matter preservation and to the global dust cycle,” *Icarus*, 286, 212-222, doi:10.1016/j.icarus.2016.10.010.
26. Melwani Daswani, M., & **Kite, E.S.**, 2017. “Paleohydrology on Mars constrained by mass balance and mineralogy of pre-Amazonian sodium chloride lakes: Deep groundwater not required”, *Journal of Geophysical Research – Planets*, 122, 1802-1823, doi:10.1002/2017JE005319.
25. **Kite, E.S.**, Sneed, J., Mayer, D.P., Lewis, K.W., Michaels, T.I., Hore, A., & Rafkin, S.C.R., 2016. “Evolution of major sedimentary mounds on Mars,” *Journal of Geophysical Research – Planets*, 121, 2282-2324, doi:10.1002/2016JE005135
24. **Kite, E.S.**, Fegley, B., Schaefer, L., & Gaidos, E., 2016. “Atmosphere-interior exchange on hot rocky exoplanets,” *Astrophysical Journal*, 828, 80, 20 pp, doi:10.3847/0004-637X/828/2/80
23. **Kite, E.S.**, & Rubin, A., 2016. “Sustained eruptions on Enceladus explained by turbulent dissipation in tiger stripes,” *Proceedings of the National Academy of Sciences*, 113, 3972-3975, doi:10.1073/pnas.1520507113.
22. Richter, F., Chaussidon, M., Mendybaev, R., & **Kite, E.S.**, 2016. “Reassessing the cooling rate and geologic setting of Martian nakhlite meteorites, with special emphasis on MIL 03346 and NWA 817,” *Geochimica et Cosmochimica Acta*, 182, 1-23, doi:10.1016/j.gca.2016.02.020
21. Ehlmann, B., and 46 others including **Kite, E.S.**, 2016. “The Sustainability of Habitability on Terrestrial Planets: Insights, Questions, and Needed Measurements from Mars for Understanding the Evolution of Earth-like Worlds,” *Journal of Geophysical Research – Planets*, doi: 10.1002/2016JE005134.
20. **Kite, E.S.**, Howard, A., Lucas, A., & Lewis, K.W., 2015. “Resolving the era of river-forming climates on Mars using stratigraphic logs of river-deposit dimensions,” *Earth & Planetary Science Letters*, 420, 55-65, doi:10.1016/j.epsl.2015.03.019
19. **Kite, E.S.**, Howard, A., Lucas, A., Armstrong, J.C., Aharonson, O., & Lamb, M.P., 2015. “Stratigraphy of Aeolis Dorsa, Mars: stratigraphic context of the great river deposits,” *Icarus*, 253, 223-242.
18. Borlina, C., Ehlmann, B.L., & **Kite, E.S.**, 2015. “Modeling the thermal and physical evolution of Mount Sharp’s sedimentary rocks, Gale Crater, Mars,” *Journal of Geophysical Research – Planets*, doi:10.1002/2015JE004799.

17. **Kite, E.S.**, Williams, J.-P., Lucas, A., & Aharonson, O., 2014. “Low palaeopressure of the Martian atmosphere estimated from the size distribution of ancient craters,” *Nature Geoscience*, 7, 335-339.
16. **Kite, E.S.**, Lewis, K.W., Lamb, M.P., Newman, C.E., & Richardson, M.I., 2013. “Growth and form of the mound in Gale Crater, Mars: Slope-wind enhanced erosion and transport,” *Geology*, 41, 543-546, doi:10.1130/G3309.1 (Science “Highlight of the Meeting”: Science, 338, 1522).
15. **Kite, E.S.**, Halevy, I., Kahre, M.A., Manga, M., & Wolff, M., 2013a. “Seasonal melting and the formation of sedimentary rocks on Mars,” *Icarus*, 223, 181-210, doi:10.1016/j.icarus.2012.11.034
14. **Kite, E.S.**, Lucas, A., & C.I. Fassett, 2013. “Pacing Early Mars river activity,” *Icarus*, 225, 850-855.
13. Šrámek, O., McDonough, W., **Kite, E.S.**, Lekić, V., Zhong, S.T., & Dye, W.F., 2013, “Geophysical and geochemical constraints on geoneutrino fluxes from Earth’s mantle,” *Earth & Planetary Science Letters*, doi:10.1016/j.epsl.2012.11.001. (Nature Geoscience “Research Highlight”: Nature Geoscience, 4, 580).
12. Manga, M., Patel, A., Dufek, J., & **Kite, E.S.**, 2012. “Wet surface and dense atmosphere on early Mars inferred from the bomb sag at Home Plate, Mars,” *Geophysical Research Letters*, doi:10.1029/2011GL050192
11. Mangold, N., **Kite, E.S.**, Kleinhans, M., Newsom, H.E., Ansan, V., Hauber, E., Kraal, E., Quantin-Nataf, C. & K. Tanaka, 2012. “The origin and timing of fluvial activity at Eberswalde Crater, Mars,” *Icarus*, 220, 530-551, doi:10.1016/j.icarus.2012.05.026.
10. Rappaport, S., Levine, A., Chiang, E., El Mellah, I., Jenkin, J., Kalomeni, B., **Kite, E.S.**, Kotsen, M., Nelson, L., Rousseau-Nepton, & Tran, K., 2012. “Possible disintegrating short-period Super-Mercury orbiting KIC 12557548,” *Astrophysical Journal*, 752.
9. **Kite, E.S.**, Rafkin, S.C.R., Michaels, T.I., Dietrich, W.E., & Manga, M., 2011b. “Chaos terrain, storms, and past climate on Mars,” *Journal of Geophysical Research – Planets*, 116, E10002, 26 pp., doi:10.1029/2010JE003792 (“Research Highlight” at Nature Geoscience).
8. **Kite, E.S.**, Michaels, T.I., Rafkin, S.C.R., Manga, M., & W.E. Dietrich, 2011a. “Localized precipitation and runoff on Mars,” *Journal of Geophysical Research – Planets*, 116, E07002, 20 pp. doi:10.1029/2010JE003783. (Reported by “New Scientist”).
7. **Kite, E.S.**, Gaidos, E. & M. Manga, 2011. “Climate instability on tidally locked exoplanets,” *Astrophysical Journal*, 743, 41, 12 pp, doi:10.1088/0004-637X/743/1/
6. Chiang, E., **Kite, E.**, Kalas, P., Graham, J. R., & Clampin, M., 2009. “Fomalhaut’s Debris Disk and Planet: Constraining the Mass and Orbit of Fomalhaut b Using Disk Morphology,” *Astrophysical Journal*, 693, 734-749, doi:10.1088/0004-637X/693/1/734
5. **Kite, E.S.**, Matsuyama, I., Manga, M., Perron, J.T., & Mitrovica, J.X., 2009. “True polar wander driven by late-stage volcanism and the distribution of paleopolar deposits on Mars,” *Earth Planet. Sci. Lett*, 280, 254–267, doi:10.1016/j.epsl.2009.01.040.
4. **Kite, E.S.**, Manga, M., & Gaidos, E., 2009. “Geodynamics and rate of volcanism on massive Earth-like planets,” *Astrophysical Journal*, 700, 1732-1749, doi:10.1088/0004-637X/700/2/1732.

3. Kalas, P., Graham, J. R., Chiang, E., Fitzgerald, M. P., Clampin, M., **Kite, E. S.**, Stapelfeldt, K., Marois, C., & Krist, J., 2008. "Optical Images of a Planet 25 Light Years from Earth," *Science*, 322, 1345-1348, doi:10.1126/science.1166609. (*Science* #2 "Breakthrough of the Year").
2. **Kite, E.S.**, & R.C.A. Hindmarsh, 2007. "Did ice streams shape the largest channels on Mars?," *Geophysical Research Letters*, 34, L19202, doi:10.1029/2007GL030530.
1. **Kite, E.S.**, 2004. "Jupiter exploration: high risks and high rewards," *EoS: Trans. AGU*, 85(50), 544

In preparation

- **Kite, E.S.**, Steele, L.J., & Mischna, M.A., "Aridity enables warm climates on Mars."
- **Kite, E.S.**, & Fegley, B., "Origin of the atmospheres of Super-Earths and sub-Neptunes."
- Stucky de Quay, G., **Kite, E.S.**, & Mayer, D.P., "Formation and evolution of crater rim alcoves and alluvial fans on Mars."
- Mansfield, M., & **Kite, E.S.**, "Small planet atmosphere detection."
- Deng, M.Y., Yin, A., **Kite, E.S.**, & Day, M.D., "Formation mechanisms of the honeycomb terrain on Mars."
- **Kite, E.S.**, Robbins, S.J., & Holo, S., "The bombardment compass for Mars."

Advising

PhD program: advisor for Samuel Holo (UChicago, 2021-anticipated), Alexandra (Sasha) Warren (UChicago, 2023-anticipated) & Megan Barnett (UChicago, 2023-anticipated: advising jointly with F. Ciesla).
 PhD thesis advisory committee for Predrag Popovic (UChicago, 2019-anticipated), Megan Mansfield (UChicago, 2021-anticipated), Jennika Greer (UChicago, 2021-anticipated), Jade Checlair (UChicago, 2021-anticipated), Adrien Sy (UChicago, 2022-anticipated) & Andrew Malone (UChicago, 2017). MSci thesis advisory committee for Matous Ptacek (UChicago, 2018-anticipated) & Nathan Baskin (UChicago, 2015-2016).
 Visiting graduate student advisor for Martin Turbet (U. Paris) (9/2018-12/2018; advising jointly with D. Abbot) & Gaia Stucky de Quay (Imperial College London) (3/2018 - 9/2018). Summer project advisor for Leila Gabasova (University of Paris) (2015) & Bowen Fan (Peking University) (2017).
 Postdoctoral advisor for Mohit Melwani Daswani (UChicago, Jun 2015 - Apr 2017) & Liam Steele (UChicago, Jan 2017 - Aug 2018).

Former lab members and former visitors:

Now at NASA Jet Propulsion Laboratory:
 Mohit Melwani Daswani, postdoc Jun 2015 - Mar 2017.
 Liam Steele, postdoc Feb 2017 - Aug 2018.

Now in the Planetary Science PhD program at UCLA:
 Jonathan Sneed, full-time Mars research assistant 2016 - 2018.

Now at US Geological Survey (USGS) Astrogeology Program, Flagstaff, AZ:
 David Mayer, planetary GIS/data specialist 2015 - 2017.

Now a postdoc at the JSG, University of Texas at Austin:
 Gaia Stucky de Quay, visiting graduate student Mar - Sep 2018.

Now a PhD student at Institut de Planétologie et Astrophysique de Grenoble:
 Leila Gabasova, 2015 summer student.

Teaching:

As instructor: GEOS 38600. Earth and Planetary Surface Processes. (University of Chicago: Winter 2017; Fall 2018). New class.

GEOS 32060 / GEOS 22060 / ASTR 45900, What makes a planet habitable? (University of Chicago: Winter 2016; Spring 2018). Entirely revamped class.

Other: Instructor at Rossbypalooza 2018 (climate science summer school). Published 6 introductory-level science outreach / education articles in *Astronomy Now*, *Chemistry Review*, *Earth Space Review*, and *Spaceflight Now*. Invited speaker at public events for University of Chicago Physical Science Division, student science societies, Adler Planetarium.

Invited talks Penn State (4/2018); U. T. Austin (6/2018, 10/2012); University of Minnesota (4/2018); University of Bern (4/2017); AGU Fall Meeting (12/2016); Enceladus Focus Group (Berkeley, 6/2016); Arizona State University (2/2016); McGill University (10/2015); NIU (9/2015); University of Washington (5/2015); Planetary and Space Sciences Research Institute (UK) (2/2015); Kavli Institute of Theoretical Physics (2/2015); University of Illinois (1/2015); NOAA GFDL (12/2014); Rice University (9/2014); Columbia University / Earth Institute (3/2014); Weizmann Institute of Science (Israel) (6/2013); University of Arizona (4/2013); Princeton (3/2013); Johns Hopkins (3/2013); University of Chicago (3/2013); UCLA (11/2012); iPLEX (10/2012); JPL Science Division (7/2012); Purdue (4/2012); UC Santa Cruz (10/2011); Space Sciences Laboratory (11/2010); JPL Mars Exploration Directorate (11/2010); AGU Fall Meeting (12/2009); SETI Institute (5/2009); UC Santa Cruz (5/2009).

Major external grant support:

PI, NASA Solar System Workings grant (geomorphology), 2015-2019.

PI, NASA Exoplanet Research Program grant (water-rock reactions), 2016-2019.

PI, NASA Mars Data Analysis Program grant, 2016-2019.

PI, NASA Solar System Workings grant (climate science), 2016-2019.

(Full text of all Kite-led proposals: geosci.uchicago.edu/~kite/proposals)

Co-I, NASA Mars Data Analysis Program grant, 2016-2019.

Co-I, NASA Mars Data Analysis Program grant, 2018-2022.

Telescope experience:

Hubble Space Telescope: Co-I on GO/DD Program 11818 (PI: Paul Kalas).

Spitzer Space Telescope: Warm IRAC phase curves of exoplanet HAT-P-7b (PI: Heather Knutson).

+ assisted with observing at Shane Telescope, Mt. Hamilton Observatory.

Field experience:

Greece, SE Spain, England, Scotland, California, Hawaii (fieldwork, mapping courses). NW Spain (independent mapping project, 6 weeks). Central India, NW Australia (Precambrian field workshops). Utah (GSI for Professor W. Alvarez; and terrestrial-analog fieldwork).

Reviewer for: *Science*, *Nature*, *Proceedings of the National Academy of Sciences*, *Nature Geoscience*, *Astrophysical Journal Letters*, *Earth & Planetary Science Letters*, *Geology*, *Geophysical Research Letters*, *Journal of Geophysical Research – Planets*, *Icarus*, *Physics of the Earth & Planetary Interiors*, *Meteoritics & Planetary Science*, *Planetary & Space Science*, *Geochemistry Geophysics Geosystems*, *Earth and Space Science*, *Aeolian Research*, *Astrobiology*, *Journal of Maps*, *Intl. Journal of Astrobiology*, Austrian Science Fund, Hungarian Science Agency, Polish National Science Center, European Research Council, Science and Technology Facilities Council (United Kingdom), Oxford University Press, Fonds de recherche du Québec, NASA (HEOMD; NPP; NAI; NASA SMD panelist for HW+EW+MDAP; e.t.c.).

AGU Editor's Citation for Excellence in Refereeing for *JGR-Planets*, 2017

Service: Committee for Astrobiology and Planetary Science, National Academy of Sciences
Time Allocation Committee, Research Computing Center, University of Chicago
Admissions Committee, Summer Science Program

Session co-convenor, Abscon 2019

≥230 images acquired based on my suggestions, Mars Reconnaissance Orbiter HiRISE

+ departmental committees as assigned (Admissions; Chair of Chamberlin Fellowship committee, e.t.c.)

Selected research or mission design experience at locations other than college or graduate school:

Visiting Associate at JPL (2012-2015): Multiple projects.
Weizmann Institute, Israel (2013): Visiting scholar.
JPL Planetary Science Summer School (2010): PI in mission design exercise (Io Explorer).
Carl Sagan Center, SETI Institute, Mountain View (2010): Stereo topography.
Kavli Institute for Theoretical Physics (2008): Deep Earth Summer School.
Summer Science Program (2001): Asteroid orbit determination. Ojai campus.

First-authored presentations at conferences, workshops, e.t.c.:

Kite, E.S., Steele, L., & Mischna, M.A., “Aridity enables warm climates on Mars,” *for presentation at 50th Lunar and Planetary Science Conference.*

Kite, E.S., Fegley, B., & Ford, E.B., “The fate of H on mini-Neptunes and Super-Earths,” *for presentation at 50th Lunar and Planetary Science Conference.*

Kite, E.S., Steele, L., & Mischna, M.A., 2018, “The Cirrus Cloud Greenhouse on Early Mars: An Explanation, The Explanation, or No Explanation for Rivers and Lakes?,” *AGU Fall Meeting.*

Kite, E.S., “Key parameters for Early Mars climate research,” 2018, talk, *49th Lunar and Planetary Science Conference.*

Kite, E.S., Mayer, D.P., Duncan, C.J., & Edward, D., 2018, “A new global database of Mars river dimensions,” *49th Lunar and Planetary Science Conference.*

Kite, E.S., 2017, “Geologic Tests for Snowmelt Runoff on Early Mars” (invited), *AGU Fall Meeting.*

Kite, E.S., 2017, “Cycle-independent planetary habitability: how volatile delivery loads the dice,” *Workshop on The Origins of Volatiles in Habitable Planets: The Solar System and Beyond.*

Kite, E.S., “An ice-and-snow hypothesis for Early Mars, and the runoff-production test,” talk, *Fourth International Conference on Early Mars.*

Kite, E.S., Gao, P., Mischna, M., Mayer, D.P., Goldblatt, C., & Yung, Y., “Methane burst climate scenarios for Early Mars rivers and lakes,” *Fourth International Conference on Early Mars.*

Kite, E.S., Mischna, M., Gao, P., & Yung, Y., 2017, “Climate optimum on Mars initiated by atmospheric collapse?,” talk, *48th Lunar and Planetary Science Conference.*

Kite, E.S., Sneed, J., Mayer, D.P., Wilson, S., 2016, “Mars alluvial fan formation during the Amazonian and Late Hesperian spanned >10 Myr,” *48th Lunar and Planetary Science Conference.*

Kite, E.S., Sneed, J., Mayer, D.P., Lewis, K.W., Michaels, T.I., Hore, A., & Rafkin, S.C.R., 2016, “Making major mounds on Mars: shaping by wind-terrain feedbacks,” invited talk, *AGU Fall Meeting.*

Kite, E.S., Goldblatt, C., Gao, P., Mayer, D.P., Sneed, J., & Wilson, S.A., 2016, “A Narrowing Target for Early Mars Climate: Which Models Survive the Confrontation with Improved Hydrology Constraints?,” talk, *AGU Fall Meeting*.

Kite, E.S., Goldblatt, C., & Gao, P., 2016, “Cadence and cause of lake-forming climates on Mars,” *American Astronomical Society Division for Planetary Sciences / European Planetary Science Congress*, Pasadena, California.

Kite, E.S., 2016, “Sustained Eruptions on Enceladus Explained by Turbulent Dissipation in Tiger Stripes,” talk, *Conference on Enceladus and the Icy Moons of Saturn*, Boulder, Colorado.

Kite, E.S., 2016, “Sustaining cryovolcanic eruptions via turbulence on Enceladus,” talk, *Enceladus Focus Group*, Berkeley, California.

Kite, E.S., Armstrong, J.C., Goldblatt, C., Gao, P., & Mayer, D.P., 2016, “Cadence and cause of lake-forming climates on Mars,” talk, *47th Lunar and Planetary Science Conference*, abstract #1312.

Kite, E.S., Fegley, B., Schaefer, L., & Gaidos, E., 2016, “Volcanism on Magma Planets: Extreme Volcanism is Regulated by Planet Mass, Temperature, and Initial Composition,” *47th Lunar and Planetary Science Conference*, abstract #1601.

Kite, E.S., “Sustaining cryovolcanic eruptions via turbulence on Enceladus,” talk, *National Academy of Science - Chinese Academy of Science Forum for New Leaders in Space Science*, Shanghai, China.

Kite, E.S., “Crater count constraints on radiolysis of complex organic matter at 2020 candidate sites,” talk, *2nd Landing Site Selection Workshop for the Mars 2020 Rover Mission*, Pasadena, CA

Kite, E.S., 2015, “Unscrambling Noachian crater erosion on Mars,” talk, *Workshop on Issues in Crater Studies and the Dating of Planetary Surfaces*, Laurel, MD.

Kite, E.S., 2015, “Extending the reach of Mars rover drills by targeting high-erosion-rate sites identified using orbiter imagery and wind-erosion models,” talk, *Astrobiology Science Conference 2015*, Chicago, IL.

Kite, E.S., Armstrong, J.C., Wordsworth, R., & Forget, F., 2015, “Late bursts of habitability on Mars-like planets,” talk, *46th Lunar and Planetary Science Conference*, abstract #2674.

Kite, E.S., Rubin, A., 2015, “Sustained eruptions on Enceladus explained by turbulent dissipation in tiger stripes,” talk, *46th Lunar and Planetary Science Conference*, abstract #1247.

Kite, E.S., Lucas, A., Howard, A.D., Armstrong, J.C., & Lamb, M.P., 2014, “Characterizing and modeling late episodes of surface liquid water on Mars,” *Binghamton Workshop on Planetary Geomorphology*.

Kite, E.S., Lucas, A., Armstrong, J.C., Aharonson, O., & Lamb, M.P., 2014, “Resolving the era of river-forming climates on Mars,” talk, *8th International Conference on Mars*, abstract no. 1148.

Kite, E.S., Lucas, A., Armstrong, J.C., Aharonson, O., & Lamb, M.P., 2014, “Resolving the great drying of Mars: paleo-climate versus time from river deposits in Aeolis Dorsa,” talk, *45th Lunar and Planetary Science Conference*.

Kite, E.S., Lucas, A., Armstrong, J., & Aharonson, O., 2013, “Resolving the great drying of Mars: sequence stratigraphy of the Aeolis-Zephyria trough,” talk, *Annual Meeting of the American Astronomical Society Division for Planetary Sciences*.

Kite, E.S., Lewis, K.W., Lamb, M.P., Newman, C.E., & Richardson, M.I., 2013, “Possible role for slope winds in forming Gale Crater’s mound (and other sediment mounds on Mars): the Slope Wind Enhanced Erosion and Transport hypothesis,” Mars, talk, *44th Lunar and Planetary Science Conference*.

Kite, E.S., 2013, “Mass balance constraints on the sustainability of Mars’ Recurrent Slope Lineae: should RSL be an astrobiology priority?,” talk, *Conference on the Present-Day Habitability of Mars*.

Kite, E.S., and Manga, M., 2012, “Seasonal snowmelt versus impact-triggered runoff in Mars’ geologic record of surface liquid water,” talk, *Third International Conference on Early Mars*.

Kite, E.S., 2012, “Evidence for melt-fed meandering rivers in the Gale-Aeolis-Zephyria region,” Mars, talk, *43rd Lunar and Planetary Science Conference*.

Kite, E.S., Gaidos, E., Manga, M., and Halevy, I., 2012, “(1) Climate instability on planets with large day-night temperature contrasts. (2) Magma planets,” talk, *Exoclimes 2*.

Kite, E.S., Gaidos, E., & Manga, M., 2011, “Climate destabilization on tidally locked exoplanets,” talk, *AGU Fall Meeting*, P23F-03

Kite, E.S., Manga, M., Halevy, I., & Kahre, M.A., 2012, “Gale as a preferred site for snowmelt-limited induration of atmospherically transported sediment,” talk, *5th MSL Landing Site Selection Workshop*.

Kite, E.S., 2012, “Net assessment of the impact hypothesis for fluvial activity at Eberswalde and tests with MSL,” talk, *5th MSL Landing Site Selection Workshop*.

Kite, E. S., Manga, M., & Halevy, I., 2011. “Snowmelt model of formation and distribution of sedimentary rocks on Mars: Thick atmosphere not required?,” talk, *42nd Lunar and Planetary Science Conference*.

Kite, E. S., Manga, M., & Halevy, I., 2010. “Inevitability of melting at low latitudes on Mars: implications for the sedimentary rock record,” *AGU Fall Meeting*, EP43C-0762

Kite, E. S., 2010. “Two new approaches to the Early Mars climate problem,” *Jet Propulsion Laboratory*, seminar.

Kite, E.S., Rafkin, S.C.R., Michaels, T.I., Manga, M., & Dietrich, W.E., 2010. “Localized precipitation and channel formation on Mars: Under what conditions can one landing site be a proxy for global environments?” *4th MSL Landing Site Selection Workshop*.

Kite, E.S., Rafkin, S.C.R., Michaels, T.I., & M. Manga, 2010. “Mesoscale simulation of atmospheric response to chaos formation,” talk, 41st Lunar and Planetary Science Conference, abstract #1171.

Kite, E.S., Manga, M., & Gaidos, E., 2009. “Magmatic activity on Super-Earths: What do we expect to see?,” invited talk, *AGU Fall Meeting*, V21H-07.

Kite, E.S., Rafkin, S.C.R., Michaels, T.I., & M. Manga, 2010. “The snows of Juventae: Mesoscale simulation of atmospheric response to chaos formation,” *AGU Fall Meeting*, EP53F-02.

Kite, E.S., 2009, “True Polar Wander and Climate on Late Hesperian/Amazonian Mars”, SETI Institute Colloquium. <http://bit.ly/bHwoZv>

Kite, E.S., Manga, M. & J.T. Perron, 2009, ‘Evidence for past kilometer-scale overturn(s) in deformed, layered terrain near the deepest point on Mars’, 40th Lunar and Planetary Science Conference, abstract #1248.

Kite, E.S., Manga, M., & E. Gaidos, 2008, “Geodynamics and rate of volcanism on massive Earth-like planets”, *AGU Fall Meeting*, P13C-1327

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