

# SHANNON CURRY

*Associate Professor*

---

University of Colorado, Boulder  
3665 Discovery Drive, Boulder, Colorado 80303  
[shannon.curry@colorado.edu](mailto:shannon.curry@colorado.edu)

## RESEARCH EXPERIENCE AND INTERESTS

---

Dr. Shannon Curry is an Associate Professor in the Astrophysics and Planetary Sciences (APS) Department at the University of Colorado, Boulder and is currently the Principal Investigator of the NASA Mars Atmosphere and Volatile Evolution (MAVEN) mission. Prior to this, she served as the Assistant Deputy Director of Planetary Science at the Space Sciences Laboratory at the University of California, Berkeley. Her research focus is on the evolution of planetary atmospheres with respect to the sun's radiation environment, solar wind and solar activity. She is also involved in mission concepts, mission design and instrument development for future flight missions to other bodies in the solar system. She is currently a science team member on NASA's Parker Solar Probe (PSP) mission, Project Scientist for NASA's ESCAPE mission (phase D), and a collaborator on NASA's Nexus for Exoplanet System Science (NESS) program. She also serves on NASA's Planetary Advisory Committee (PAC).

## EDUCATION

---

**Mar 2013** Ph.D. *Atmospheric and Space Physics*, University of Michigan  
**May 2010** M.S. *Atmospheric and Space Physics*, University of Michigan  
**May 2004** B.S. *Astrophysics, (minor in Art History)* Tufts University

## PROFESSIONAL EMPLOYMENT

---

**2024-present** University of Colorado, Boulder / LASP (Boulder, CO)

- 2024-present Associate Professor of Astrophysical & Planetary Sciences

**2013-2024** UC Berkeley: Space Sciences Laboratory (SSL) (Berkeley, CA)

- 2018-present Deputy Assistant Director of Planetary Science at SSL
- 2015-present Assistant Research Scientist VI.V
- 2013-2015 Postdoctoral scholar

**2010-2013** NASA Goddard Space Flight Center

- NASA Graduate Student Research Program Fellowship (Greenbelt, MD)

**2008-2013** University of Michigan (Ann Arbor, MI)

- Doctoral student in the Atmospheric, Oceanic & Space Sciences Department

**2005-2007** Lockheed Martin MS2 (Burlington, MA)

- Systems Engineer - SECRET Clearance

**2003-2004** Yale University, Department of Astronomy (New Haven, CT)

- Research Assistant in the Astronomy and Astrophysics Department

**2001-2003** Harvard-Smithsonian Center for Astrophysics (CFA) (Cambridge, MA)

- Research Assistant in the high-energy division on the Chandra mission

## HONORS, FELLOWSHIPS AND AWARDS

---

- 2023** *NASA Group Achievement Award – Parker Solar Probe Team*  
**2021** *Nelson P. Jackson Aerospace Award – Parker Solar Probe Team*  
**2019** *NASA Silver Medal Group Achievement Award- Parker Solar Probe Team*  
**2017** *NASA Early Career Fellowship – NASA Planetary Science Division*  
**2016** *NASA Group Achievement Award – MAVEN Science Team, June 2016*  
**2016** *Robert H. Goddard Exceptional Achievement for Science Award, as part of the MAVEN Science Team, March 2016*  
**2013** *AGU Outstanding Student Paper Award, Spring 2013: Planetary Sciences*  
**2010-2013** *NASA Graduate Student Research Program Fellowship*  
**2011** *AGU Outstanding Student Paper Award, Fall 2011: Space Physics & Aeronomy*  
**2008-2010** *Deans' Fellowship of the College of Engineering, University of Michigan*

## SELECTED MISSIONS, GRANTS and FUNDED WORKSHOPS

---

- 2021-present** Principal Investigator, NASA Mars Scout MAVEN  
**2019-present** Project Scientist, ESCAPEDE (NASA Small Innovative Missions for Planetary Exploration, SIMPLEx-II)  
**2018-present** Parker Solar Probe Science Team Member  
**2023-present** Co-I, Keck Institute for Space Studies Workshop  
**2023-2024** Co-I, International Space Science Institute Workshop – Bern, Switzerland  
**2021-2024** Co-I, NASA Guest Investigator, Parker Solar Probe  
**2018-2022** Co-I, NASA Planetary Data Archiving, Restoration & Tools (PDART)  
**2019-2020** Co-I, MOSAIC (Mars), NASA Planetary Mission Concept Study (PMCS)  
**2019-2020** Co-I, Venus Flagship (Venus), NASA Planetary Mission Concept Study (PMCS)  
**2017-2019** PI, NASA Early Career Fellowship in Planetary Science  
**2017-2018** Co-I, MISEN, NASA Planetary Science Deep Space SmallSat Studies (PSDS3)  
**2017-2020** PI, NASA Mars Data Analysis Program (MDAP)  
**2017-2020** PI, NASA Solar System Workings (SSW)  
**2017-2020** Collaborator, Living Breathing Planet, Nexus for Exoplanet System Science (NExSS)  
**2013-2021** MAVEN Science Team Member  
**2012-2014** Co-I, International Space Science Institute Workshop – Bern, Switzerland  
**2010-2013** NASA Graduate Student Research Program (GSRP) Fellowship

## MISSION AND INSTRUMENT PROPOSALS

---

- 2022-present** Co-I, *M-MATISSE*, European Space Agency M7 Class Phase 2 Mars mission  
**2019-2020** PI, *VEMAP*, TDO CubeSat proposal for Veritas mission  
**2018-2019** PI, *Pandora*, ISRO AO proposal for Space-Based Experiments to Study Venus

## SELECTED PRESS AND PODCASTS

---

- Dec 16, 2023:** **Washington Post**, Here's what happens when the sun's 'wind' disappears near Earth and Mars, [<https://www.washingtonpost.com/climate-environment/2023/12/16/solar-wind-mars-earth-water/>]  
**Dec 13, 2023:** **Space.com**, Mars' atmosphere swelled like a balloon when solar wind stopped blowing. Scientists are thrilled. [<https://www.space.com/mars-atmosphere-unexpected-solar-wind-disappearance>]

- Dec 11, 2023:** NASA web release, NASA's MAVEN Observes the Disappearing Solar Wind, [<https://www.nasa.gov/missions/maven/nasas-maven-observes-the-disappearing-solar-wind/>]
- **AGU press release:** <https://www.youtube.com/watch?v=8Jo71P8q65w>
- Oct 18, 2023:** **Smithsonian Magazine**, The Seven Most Amazing Discoveries We've Made by Exploring Mars, [<https://www.smithsonianmag.com/science-nature/the-seven-most-amazing-discoveries-weve-made-by-exploring-mars-180983078/>]
- Aug 24, 2023:** **Space Futures Live**, Experts come together at ASU Space Futures event to discuss prospects, challenges of humans in space, [<https://news.asu.edu/20230825-solutions-how-can-positive-space-future-be-secured>]
- June 22, 2023:** **NASA web release**, NASA's MAVEN Spacecraft Stuns with Ultraviolet Views of Red Planet, [<https://www.nasa.gov/solar-system/nasas-maven-spacecraft-stuns-with-ultraviolet-views-of-red-planet/>]
- Nov 9, 2022:** **NASA web release**, NASA's MAVEN Observes Martian Light Show Caused by Major Solar Storm, [<https://mars.nasa.gov/news/9299/nasas-maven-observes-martian-light-show-caused-by-major-solar-storm/>]
- Aug 31, 2022:** **NASA web release**, MAVEN and EMM Make First Observations of Patchy Proton Aurora at Mars, [<https://www.nasa.gov/feature/goddard/2022/maven-emm-proton-aurora/>]
- June 1, 2022:** **NASA web release**, NASA's MAVEN Spacecraft Resumes Science & Operations, Exits Safe Mode, [<https://mars.nasa.gov/news/9200/nasas-maven-spacecraft-resumes-science-operations-exits-safe-mode/>]
- June 1, 2022:** **Space.com**, NASA's Mars MAVEN spacecraft spent 3 months on the brink of disaster, [<https://www.space.com/nasa-mars-spacecraft-maven-nearly-lost/>]
- Apr 25, 2022:** **NASA web release**, NASA Extends Exploration for 8 Planetary Science Missions, [<https://mars.nasa.gov/news/9175/nasa-extends-exploration-for-8-planetary-science-missions/>]
- Apr 12, 2022:** **NASA web release**, NASA, UAE Mars Missions Agree to Share Science Data, [<https://mars.nasa.gov/news/9167/nasa-uae-mars-missions-agree-to-share-science-data/>]
- Sept 16, 2022:** **Women in Planetary Science**, Dr. Shannon Curry: If you like learning every day, run a spacecraft Mission! [<https://womeninplanetaryscience.wordpress.com/2022/09/16/dr-shannon-curry-if-you-like-learning-everyday-run-a-spacecraft-mission/>]
- June 8, 2022:** **Bloomberg Technology Summit**, Space Odyssey with Shannon Curry and Peter Beck [<https://events.bloomberglive.com/bloomberg-technology-summit-2022/home>]
- Feb 4, 2022:** **WeMartians Podcast Interview** [<https://podcasts.apple.com/us/podcast/114-new-beginnings-for-maven-feat-shannon-curry/id1097402685?i=1000550446609>]
- Sept 9, 2021:** **NASA web release**, "NASA Mars Mission Begins a New Chapter of Science with a New Leader" [<https://mars.nasa.gov/news/9035/nasa-mars-mission-begins-a-new-chapter-of-science-with-a-new-leader/>]
- Aug 24, 2021:** **KQED NPR Interview**, ESCAPEDE Mission to Mars
- Aug 23, 2021:** **KCBS Radio Interview**, ESCAPEDE Mission to Mars
- Aug 20, 2021:** **KRON 4 Interview**, ESCAPEDE Mission to Mars

- Sept 15, 2021:** **The Daily Californian**, Shannon Curry appointed principal investigator of a NASA Mars project, [<https://www.dailycal.org/2021/09/15/shannon-curry-appointed-principal-investigator-of-a-nasa-mars-project/>]
- May 20, 2021:** **Space.com**: Venus views from NASA sun probe show potential of hitchhiking science instruments, [<https://www.space.com/venus-observations-parker-solar-probe-future-missions/>]
- Dec 28, 2020:** **National Geographic**: Does lightning strike on Venus? Mysterious flash may help solve puzzle, [<https://www.nationalgeographic.com/science/article/does-lightning-strike-on-venus-mysterious-flash-help-solve-puzzle/>]
- Nov 2020:** **Sky & Telescope**: To the Sun Via Venus [<https://skyandtelescope.org/wp-content/uploads/To-Touch-The-Sun.pdf>]
- July 10, 2020:** **Space.com**, NASA's Parker Solar Probe swings through Venus 'tail' in flyby today, [<https://www.space.com/parker-solar-probe-venus-tail-flyby.html>]
- Dec 26, 2019:** **Space.com**, Hello, Venus! Parker Solar Probe Makes Second Planetary Flyby, [<https://www.space.com/parker-solar-probe-venus-flyby-observations-december-2019.html>]
- July 5, 2016:** **Space.com**, Sun-Stripped Mars Can Help NASA's MAVEN Provide Exoplanet Insights, [<https://www.space.com/33314-sun-stripped-mars-nasa-maven-exoplanet-insights.html>]

## COMMITTEE REPORTS & MISSION CONCEPTS

---

### NASA-Sponsored Reports

- 2022-11:** Science Objectives for Human Exploration of Mars Final Report [Org. Committee]
- 2022-11:** Low-Cost Science Mission Concepts for Mars Exploration Final Report [Co-Chair]
- 2022-01:** Planetary Mission Senior Review, MAVEN Extended Mission 5, FY23-FY25 [PI]
- 2021-10:** Mars Exploration Program / Delta-Program Implementation Review [Panel member]
- 2020-11:** NASA Mars Architecture Strategy Working Group, *Mars, the Nearest Habitable World – A Comprehensive Program for Future Mars Exploration* [Panel member]

### NASA Planetary Mission Concept Studies

- 2019-08:** Mars Orbiters for Surface-Atmosphere-Ionosphere Connections (MOSAIC), *Planetary Mission Concept Studies* [Magnetospheric lead]
- 2019-09:** Venus Flagship Mission Study, *Planetary Mission Concept Studies* [Twin-sat lead]

## INVITED SEMINARS (✦) & PUBLIC OUTREACH (✦)

---

- ✦ **Jan 2024:** “Space Futures Convening for Impact”, ASU Interplanetary Initiative, Scottsdale, AZ
- ✦ **Aug 2023:** “Space Futures Live”, ASU Interplanetary Initiative, Scottsdale, AZ
- ✦ **July 2023:** “PI Launchpad”, University of Michigan, Ann Arbor
- ✦ **Nov 2022:** “EMM - MAVEN science: past, present and future”, EMM Fall Science Meeting, Dubai, UAE
- ✦ **Sept 2022:** “Parker Solar Probe Venus Flyby Campaign”, Department of Astrophysical and Planetary Sciences seminar, University of Colorado Boulder

- ◆ **March 2022:** “Mars: Past, Present and Future with the MAVEN mission”, Center for Integrative Planetary Science (CIPS)
- ✦ **June 2022:** “MAVEN and the Path to PI”, University of Colorado, Boulder, Research Experience for Undergraduates Program seminar series
- ◆ **March 2022:** “Solar System Studies of Atmospheric Escape”, Exoplanet Exploration Program Analysis Group (ExoPAG) seminar series
- ◆ **Feb 2022:** “Mars: Past, Present and Future”, University of California Berkeley CIPS
- ◆ **July 2021:** “Parker Solar Probe: Lessons Learned”, BepiColombo Science team meeting
- ◆ **June 2021:** “Big data & computational techniques for the Mars-solar wind interaction”, Eddy Symposium
- ◆ **Sept 2021:** “Observing Venus from Space: Past, Present and Future”, University of Minnesota
- ◆ **Jan 2020:** “Atmospheric escape at Mars and Venus: Past, Present and Future”, Southwest Research Institute
- ◆ **Dec 2020:** “Parker Solar Probe Observations of the First Three Venus Flybys”, Solar Orbiter Science team
- ◆ **July 2019:** “Mars, Venus and Exoplanets”, Laney College
- ◆ **Jan 2018:** *Invited talk:* “Women in math, science: life at NASA”, Ethical Culture Fieldston School
- ◆ **Sept 2017:** “Observing Extreme Atmospheric Escape at Mars with MAVEN”, University of Arizona
- ✦ **May 2017:** “Mars and Venus: Terrestrial Analogues for Exoplanets”, *MAVEN Public Outreach Webinar*
- ✦ **Nov 2016:** Endless, Inc. professional invited speaker series: “Earth, Mars and where we go next”, San Francisco, CA
- ◆ **Aug 2016:** “Observing atmospheric escape at Mars with MAVEN”, NASA Ames Research Center
- ◆ **June 2016:** MAVEN Observations of Atmospheric Loss at Mars, *AAS Spring Meeting*, San Diego, CA
- ◆ **March 2016:** “Space weather at Mars: MAVEN observations and models of ICMEs”, University of California, Santa Cruz
- ✦ **Nov 2015:** Seven Hills School Honorary Guest Speaker: “Water in the Universe, what we still have to learn”, Cincinnati, OH
- ✦ **Feb 2015:** Berkeley Kindergarten class Guest Speaker: “Planets and Colors”
- ◆ **May 2014:** LATMOS (CNRS: Centre National de la Recherche Scientifique, UVSQ: University of Versailles Saint Quentin and UPMC: University of Pierre et Marie Curie), Paris, France
- ◆ **Feb 2014:** “Atmospheric Escape on Mars: The Mars Atmosphere and Volatile Evolution Mission (MAVEN)”, Tufts Physics Seminar
- ◆ **Sept 2013:** International Space Science Institute, Bern, Switzerland

## SELECTED PRESENTATIONS AND MEETINGS

---

2023.....

- **Curry, S. M.**, Understanding the Physical Processes that Control the Magnetotail Structure and Dynamics within Unmagnetized and Hybrid Magnetospheres, *ISSI Workshop*, Bern, Switzerland, Nov 2023

- **Curry, S. M.**, Planetary signatures of the solar wind, *KISS Workshop: Blazing Paths to Observing Stellar and Exoplanet Particle Environments*, Pasadena, CA, Nov 2023
- **Curry, S. M.** et al., Parker Solar Probe Venus Flyby: status update, *VEXAG*, Albuquerque, NM, November 2023 (invited)
- **Curry, S. M.** et al., Could Venus be magnetized and could we detect it? *Venus Surface and Atmosphere Conference*, Boulder, CO, Jan 2023 (oral)
- Lillis, R., **Curry, S. M.** et al., ESCAPE: Mars' first smallsat science mission: challenges and opportunities, *International Mars Exploration Working Group (IMWEWG)*, virtual, Jan 2023 (oral)

## 2022

- **Curry, S. M.**, MAVEN Mission Status Update, *Mars Exploration Program Assessment Group (MEPAG)*, Feb 2022
- **Curry, S. M.**, Mars: Past, Present and Future with the MAVEN mission, *Center for Integrative Planetary Science (CIPS)*, March 2022 (invited)
- **Curry, S. M.**, Solar System Studies of Atmospheric Escape, *Exoplanet Exploration Program Analysis Group (ExoPAG) seminar series*, March 2022 (invited)
- **Co-Chair**, Low-Cost Science Mission Concepts for Mars Exploration Workshop, Pasadena CA, March 2022
- **Curry, S. M.**, MAVEN Mission Status Update, *Mars Upper Atmosphere Network meeting (MUAN)*, May 2022
- **Science Organizing Committee**, Science Objectives for Human Exploration of Mars Workshop, Denver CO, May 2022
- **Curry, S. M.**, MAVEN Mission Status Update, *MEX/TGO mission meeting*, May 2022
- **Curry, S. M.**, MAVEN Science: Atmospheric inputs from the mud to the sun, *MAMO 2022*, Paris, France, June 2022 (oral)
- **Curry, S. M.** et al., Observations of Solar Activity and Atmospheric Erosion at Mars: past, present and future, *COSPAR 2022*, Athens, Greece, July 2022 (oral)
- **Curry, S. M.** et al., Parker Solar Probe Venus flybys: new science and results, *COSPAR 2022*, Athens, Greece, July 2022 (oral)
- **Curry, S. M.** et al., Could crustal remanent magnetism be detected at Venus from orbital magnetometer measurements? *IPPW*, Palo Alto, CA, 2022 (oral)
- **Curry, S. M.** et al., Parker Solar Probe Venus Flyby Campaign, *Department of Astrophysical and Planetary Sciences seminar, University of Colorado Boulder*, Sept 2022 (invited)
- **Curry, S. M.** et al., The influence of the present and early sun on Mars and Venus, *Exoplanets in our Backyard, LPI*, Albuquerque, NM, November 2022 (oral)
- **Curry, S. M.** et al., Parker Solar Probe Venus Flyby: status update, *VEXAG*, Albuquerque, NM, November 2022 (invited)
- **Curry, S. M.**, MAVEN Mission Status Update, *MEX/TGO mission meeting*, Nov 2022
- **Curry, S. M.**, MAVEN Mission Status Update, *EMM mission / science meeting*, Nov 2022
- **Curry, S. M.** et al., The influence of space weather on atmospheric escape at Mars: past and present, *American Geophysical Union Fall Meeting*, Chicago, IL, December 2022, (oral)

## 2021

- **Curry, S.M.**, Parker Solar Probe Lessons Learned, BepiColombo Team meeting, June 2021 (invited)

- **Curry, S.M.**, Big data & computational techniques for the Mars-solar wind interaction, Eddy Symposium invited speaker, June 2021
- **Curry, S.M.**, Venus: Past, Present and Future, University of Minnesota Seminar Series, (invited), September 2021
- *Invited Plenary Speaker*, **Curry, S.M.**, Mars: Past, Present and Future with the MAVEN mission, (invited), October 2021, *Division of Planetary Sciences meeting*
- **Curry, S. M.**, et al., Parker Solar Probe Venus Flyby: status update, *VEXAG*, virtual, November 2021 (invited)
- **Curry, S. M.**, et al., Parker Solar Probe observations of the Venus flybys: foreshocks, shocks and particle acceleration, *American Geophysical Union Fall Meeting*, virtual, December 2021, (invited)

#### 2020

- **Curry, S. M.**, et al., Parker Solar Probe observations of the first three Venus flybys: foreshocks, shocks and particle acceleration, *American Geophysical Union Fall Meeting*, virtual, December 2020, (invited)
- **Curry, S. M.**, et al., Parker Solar Probe Venus Flyby: status update, *National Academies Planetary Decadal Survey*, virtual, December 2020 (invited)
- **Curry, S. M.**, et al., Parker Solar Probe Venus Flyby: status update, *VEXAG*, virtual, November 2020 (invited)
- **Curry, S. M.**, et al., Parker Solar Probe Venus flybys, *Venus Today*, virtual, October 2020, (oral)
- **Curry, S. M.**, et al., Atmospheric escape at Mars and Venus: past, present and future, *Exoplanets in our Backyard*, LPI, Houston, TX, February 2020 (invited)
- **Curry, S. M.**, et al, Atmospheric escape at Mars and Venus: past, present and future, *Southwest Research Institute Seminar*, San Antonio, TX, January 2020 (invited)

#### 2019

- **Curry, S. M.**, et al., Parker Solar Probe observations of the first Venus gravity assist, *American Geophysical Union Fall Meeting*, San Francisco, CA, December 2019 (oral)
- **Curry, S. M.**, et al., Sputtering at Mars and Venus: models and observations of heavy ion precipitation, *Asia Oceania Geosciences Society*, Singapore, August 2019 (oral)
- **Curry, S. M.**, et al., Parker Solar Probe Venus Flyby, *VEXAG*, Boulder, CO, Nov 6-8<sup>th</sup>, 2019 (invited)
- **Curry, S. M.**, et al, Parker Solar Probe observations of the first Venus flyby, *Spring meeting*, AAS, Honolulu, HI, July 2019 (invited)
- **Curry, S. M.**, et al, Multi-sat orbit planning for science objectives, *NASA Goddard Planetary CubeSats/SmallSats Symposium*, Greenbelt, MD June 2019 (oral)
- **Curry, S. M.**, et al, The impact of the early Sun and space weather events on the Martian atmosphere, *Harvard Smithsonian Center for Astrophysics Seminar*, Cambridge, MA, 2020 (invited)
- **Curry, S. M.**, et al, The Venusian magnetosphere: past, present and future, *European Planetary Science Committee meeting*, Geneva Switzerland, 2019 (oral, convener)

#### 2018

- **Curry, S. M.**, et al., Observations of ICMEs at Mars: past and present, *American Geophysical Union Fall Meeting*, December 2018, Washington, DC (oral)

- **Curry, S. M.**, et al, The Impact of SIRs on Mars Upper Atmosphere: Past and Present, *Division of Planetary Sciences meeting, AAS*, Knoxville, TN, 2018
- **Curry, S. M.**, et al, The influence of Mars' magnetic topology on atmospheric escape, *Asia-Oceanic Geophysical Union meeting*, Honolulu, Hawaii, June 2018
- **Curry, S. M.**, et al, Magnetic topology during quiet and extreme conditions at Mars, *ESLAB Aeronomy Conference*, Nordwijk, Netherlands, May 2018
- **Curry, S. M.**, et al, The influence of SIRs and CMEs on Mars atmosphere, *Triennial-Earth-Sun Summit*, Leesburg, VA, May 2018
- **Curry, S. M.**, et al, The evolution of Mars' atmosphere with space weather, *NEXSS Space Weather-Exoplanets meeting*, Greenbelt, MD, Goddard Space Flight Center, April 2018

#### 2017

- **Curry, S. M.**, et al., The influence of Mars' magnetic topology on atmospheric escape, *American Geophysical Union Fall Meeting*, December 2017, New Orleans, LA (oral)
- **Curry, S. M.**, et al., Space weather events at Mars: atmospheric erosion during solar cycle 24, *AAS DPS Conference*, Provo, Utah, October 2017 (session chair / oral)
- **Curry, S. M.**, Nexus for Exoplanet System Science (NEXSS): Living, Breathing Planet Workshop, National Institute of Aerospace, October 26<sup>th</sup>-27<sup>th</sup>, 2017 (invited)
- **Curry, S.M.** et al., The early and active Sun: the implications of EUV and space weather events on the Martian atmosphere, *International Conference on Mars Aeronomy*, 15-19 May 2017. Boulder, Colorado (oral)
- **Curry, S. M.** et al., The impact of the early Sun and space weather events on the Martian atmosphere, *European Geophysical Union Spring Meeting*, April 2017, Vienna, Austria (oral)
- Invited, Planetary Science Vision 2050 Workshop, Washington DC, February 2017

#### 2016

- **Curry, S. M.**, et al., Atmospheric escape at Mars during ICMEs, *American Geophysical Union Fall Meeting*, December, San Francisco, CA, 2016 (oral)
- **Curry, S. M.**, Impact of Exoplanetary Space Weather On Climate and Habitability, NASA's Nexus for Exoplanet System Science (NEXSS) Workshop Without Walls, New Orleans, Nov 2016 (invited)
- **Curry, S. M.**, et al. Sputtering at Mars: MAVEN observations of heavy ion precipitation, *DPS / EPSC Conference*, Pasadena CA, November 2016 (session chair/oral)
- **Curry, S. M.**, MAVEN Plasma and Fields (PFP) Workshop, Toulouse, France, July 5<sup>th</sup>-8<sup>th</sup>, 2016 (oral)
- Invited Plenary speaker: **Curry, S. M.**, MAVEN Observations of Atmospheric Loss at Mars, *AAS Spring Meeting*, San Diego, CA, June 2016 (oral)
- **Curry, S. M.**, et al. MAVEN Observations of Atmospheric Loss at Mars, *Invited speaker at UC Berkeley Physics Seminar*, Berkeley CA, May 2016 (oral)
- **Curry, S.**, et al., ICME events at Mars: MAVEN observations and models, *European Geophysical Union Spring Meeting 2016*, April 18-22, 2016, Vienna, Austria

#### 2015

- **Curry, S. M.**, et al., Consequences of simulated ion precipitation and sputtering during extreme conditions at Mars: comparison to MAVEN observations, *American Geophysical Union Fall Meeting*, December 2015, San Francisco, CA



- **Curry, S. M.**, et al., MAVEN data-model comparison of the response of heavy pick-up ions during extreme conditions at Mars, *AAS Division of Planetary Science (DPS) Conference*, Washington DC, November 2015 (oral)
- **Curry, S. M.**, et al., ICME effects - Data-model comparison with high energy heavy ions, *Mars Upper Atmosphere Network (MUAN) meeting*, Lancaster, UK, September 2015 (oral)
- **Curry, S. M.**, et al., Data-Model Comparisons of Planetary Ions at Mars, *European Planetary Science Committee meeting*, Nantes, France, September 2015 (session chair)
- **Curry, S. M.**, et al., Maven Data-Model Comparisons of Planetary Ions, *Lunar and Planetary Science Conference*, March, 2015, The Woodlands, Texas, (oral / session chair)

## REFEREED PUBLICATIONS

---

1. Stevens, M. H., et al. (2024). MAVEN/IUVS observations of OH prompt emission: Daytime water vapor in the thermosphere of Mars. *Journal of Geophysical Research: Planets*, 129, e2023JE007982. <https://doi.org/10.1029/2023JE007982>
2. Halekas, J. S., et al. (2023). The day the solar wind disappeared at Mars. *Journal of Geophysical Research: Space Physics*, 128, e2023JA031935. <https://doi.org/10.1029/2023JA031935>
3. Johnston, B. J., et al. (2023). Discrete aurora at Mars: Insights into the role of magnetic reconnection. *Geophysical Research Letters*, 50, e2023GL104198. <https://doi.org/10.1029/2023GL104198>
4. Azari, A. R., et al. (2023). Magnetic field draping in induced magnetospheres: Evidence from the MAVEN mission to Mars. *Journal of Geophysical Research: Space Physics*, 128, e2023JA031546. <https://doi.org/10.1029/2023JA031546>
5. Mayyasi, M., et al. (2023). Interplanetary hydrogen properties observed from Mars. *Journal of Geophysical Research: Space Physics*, 128, e2023JA031447. <https://doi.org/10.1029/2023JA031447>
6. Braude, A. S., et al. (2023). Seasonal, latitudinal, and longitudinal trends in nighttime ozone vertical structure on Mars from MAVEN/IUVS stellar occultations. *Journal of Geophysical Research: Planets*, 128, e2022JE007697. <https://doi.org/10.1029/2022JE007697>
7. Fang, X. et al., (2023) Mars Global Distribution of the External Magnetic Field and Its Variability: MAVEN Observation and MHD Prediction, *Journal of Geophysical Research: Space Physics*, 128, e2023JA031588
8. George, H. et al., (2023), Non-Lightning-Generated Whistler Waves in Near-Venus Space, *Geophysical Research Letters: Space Physics*, 128, e2023GL105426
9. Xu, S. et al, (2023), Open Magnetic Fields in the Martian Magnetosphere Revealing Dipole-like Intrinsic Magnetic Fields at Mars, *Astrophysical Journal Letters*, **957** L29
10. Mayyasi, M. et al., (2023) Upgrades to the MAVEN Echelle Data Reduction Pipeline: New Calibration Standard and Improved Faint Emission Detection Algorithm at Lyman- $\alpha$ , *Earth and Space Science*, 10, e2022EA002602
11. Braude, A. S., et al., Seasonal, Latitudinal, and Longitudinal Trends in Nighttime Ozone Vertical Structure on Mars From MAVEN/IUVS Stellar Occultations, *Journal of Geophysical Research: Planets*, 128, e2022JE007697
12. **Curry, S.M.**, (2023), MAVEN Mission Perspectives and Approaches to Inclusion, *Frontiers in Astronomy and Space*, Volume 10-2023

13. Hadnian, H. et al, (2023), Transient Foreshock Structures Upstream of Mars: Implications of the Small Martian Bow Shock, *Geophysical Research Letters: Space Physics*, 50, e2022GL101734
14. Xu, S. et al., (2023), Photoelectron boundary: the top of the dayside ionosphere at Mars, *Journal of Geophysical Research: Space Physics*, 128, e2023JA031353
15. Mayyasi, M. et al., (2023) Interplanetary Hydrogen Properties Observed From Mars, *Journal of Geophysical Research: Space Physics*, 128, e2023JA031353
16. Evans, J. S. et al., Dayside temperature maps of the upper mesosphere and lower thermosphere of Mars retrieved from MAVEN IUVS observations of O I 297.2 nm emission, *Journal of Geophysical Research: Planets*, 128, e2022JE007325
17. Jolitz, R. D. et al. (2023). Energy input of EUV, solar wind, and SEPs at Mars: MAVEN observations during solar minimum. *Journal of Geophysical Research: Space Physics*, 128, e2022JA030884
18. Crismani, M. M. J., et al. (2023). Martian meteoric Mg<sup>+</sup>: Atmospheric distribution and variability from MAVEN/IUVS. *Journal of Geophysical Research: Planets*, 128, e2022JE007315
19. **Curry, S.M.**, Tatum, P., Mitchell, D., Luhmann, J.G., McFadden, J., Ruhunusiri, S., DiBraccio, G., Ramstad, R. and Xu, S. (2022). Ion acceleration in Mars' twisted magnetotail. *Monthly Notices of the Royal Astronomical Society: Letters*, 517(1), L121-L125.
20. Fowler, C. et al., A MAVEN case study of radial IMF at Mars: Impacts on the dayside ionosphere, *Journal of Geophysical Research – Space Physics*, 127, e2022JA030726.
21. Gupta, S. et al., Thermal Structure of the Martian Upper Mesosphere/Lower Thermosphere from MAVEN/IUVS Stellar Occultations, *Journal of Geophysical Research – Planets*, 127, e2022JE007534
22. Xu, S., et al., Nightside Auroral Electrons at Mars: Upstream Drivers and Ionospheric Impact. *Journal of Geophysical Research: Space Physics*, 127(9), e2022JA030801. (2022)
23. Chaffin, M.S., Fowler, C.M., Deighan, J., Jain, S., Holsclaw, G., Hughes, A., Ramstad, R., Dong, Y., Brain, D., Al Mazmi, H., S. M. **Curry** and Chirakkil, K. (2022), Patchy Proton Aurora at Mars: A Global View of Solar Wind Precipitation Across the Martian Dayside From EMM/EMUS. *Geophysical Research Letters*, 49(17), e2022GL099881.
24. Hanley, K. G., Fowler, C. M., McFadden, J. P., Mitchell, D. L., & **Curry, S.** (2022). MAVEN-STATIC Observations of Ion Temperature and Initial Ion Acceleration in the Martian Ionosphere. *Geophysical Research Letters*, e2022GL100182.
25. Evans, J.S., Correia, J., Deighan, J., Jain, S., Al Matroushi, H., Al Mazmi, H., Chaffin, M., **Curry, S.**, England, S., Eparvier, F. and Fillingim, M., 2022. Retrieval of CO relative column abundance in the Martian thermosphere from FUV disk observations by EMM EMUS. *Geophysical Research Letters*, e2022GL099615.
26. Fowler, C. M., McFadden, J., Hanley, K. G., Mitchell, D. L., **Curry, S.**, & Jakosky, B. (2022). In-Situ Measurements of Ion Density in the Martian Ionosphere: Underlying Structure and Variability Observed by the MAVEN-STATIC Instrument. *Journal of Geophysical Research: Space Physics*, 127(8), e2022JA030352.
27. Chaffin, M. S., Deighan, J., Jain, S., Holsclaw, G., AlMazmi, H., Chirakkil, K., ... & AlMatroushi, H. (2022). Combined Analysis of Hydrogen and Oxygen 102.6 nm Emission at Mars. *Geophysical Research Letters*, 49(16), e2022GL099851.

28. Lillis, R. J., Deighan, J., Brain, D., Fillingim, M., Jain, S., Chaffin, M., ... & **Curry, S.** (2022). First Synoptic Images of FUV Discrete Aurora and Discovery of Sinuous Aurora at Mars by EMM EMUS. *Geophysical Research Letters*, 49(16), e2022GL099820.
29. DiBraccio, G. A., Romanelli, N., Bowers, C. F., Gruesbeck, J. R., Halekas, J. S., Ruhunusiri, S., ... & **Curry, S. M.** (2022). A statistical Investigation of Factors Influencing the Magnetotail Twist at Mars. *Geophysical Research Letters*, 49(12), e2022GL098007.
30. Fang, X., Forbes, J. M., Benna, M., Montabone, L., **Curry, S.**, & Jakosky, B. (2022). Origins of Long-Term Variability in Martian Upper Atmospheric Densities. *Journal of Geophysical Research: Space Physics*, 127(3), e2021JA030145.
31. Fang, X., Ma, Y., Schneider, N., Girazian, Z., Luhmann, J., Milby, Z., Jain, S., Dong, Y., **Curry, S.** and Jakosky, B. (2022). Discrete Aurora on the Nightside of Mars: Occurrence Location and Probability. *Journal of Geophysical Research: Space Physics*, 127(3), e2021JA029716.
32. Goodrich, K. A., Bonnell, J. W., **Curry, S.**, Livi, R., Whittlesey, P., Mozer, F., et al. (2021). Evidence of subproton-scale magnetic holes in the Venusian magnetosheath. *Geophysical Research Letters*, 48, e2020GL090329.
33. Bowen, T. A., Bale, S. D., Bandyopadhyay, R., Bonnell, J. W., Case, A., Chasapis, A., et al. (2021). Kinetic-scale turbulence in the Venusian magnetosheath. *Geophysical Research Letters*, 48, e2020GL090783.
34. Pulupa, M., Bale, S. D., **Curry, S. M.**, Farrell, W. M., Goodrich, K. A., Goetz, K., et al. (2021). Non-detection of lightning during the second Parker Solar Probe Venus gravity assist. *Geophysical Research Letters*, 48, e2020GL091751.
35. Jolitz, R. D., Dong, C. F., Rahmati, A., Brain, D. A., Lee, C. O., Lillis, R. J., et al. (2021). Test particle model predictions of SEP electron transport and precipitation at Mars. *Journal of Geophysical Research: Space Physics*, 126, e2021JA029132.
36. Lillis, R., et al., MOSAIC: A Satellite Constellation to Enable Groundbreaking Mars Climate System Science and Prepare for Human Exploration, *The Planetary Science Journal*, Volume 2, Number 5, 2021
37. Gruesbeck, J. R., Espley, J. R., Lee, C. O., & **Curry, S. M.** (2021). A generalized Magnetospheric Disturbance Index: Initial application to Mars using MAVEN observations. *Journal of Geophysical Research: Space Physics*, 126, e2021JA029479.
38. Martinez, A., Modolo, R., Leblanc, F., Chaufray, J. Y., Witasse, O., Romanelli, N., et al. (2020). Influence of the solar wind dynamic pressure on the ion precipitation: MAVEN observations and simulation results. *Journal of Geophysical Research: Space Physics*, 125, e2020JA028183.
39. Malaspina et al, Plasma Double Layers at the Boundary Between Venus and the Solar Wind, *Geophysical Research Letters*, Vol. 47, Issue 20, 2020
40. Gronoff et al., Atmospheric Escape Processes and Planetary Atmospheric Evolution, *Journal of Geophysical Research: Space Physics*, Volume 125, Issue 8, 2020
41. Xu, S. et al., Characterizing Mars's Magnetotail Topology With Respect to the Upstream Interplanetary Magnetic Field, *Journal of Geophysical Research: Space Physics*, Volume 125, Issue 3, 2020
42. Xu, S. **Curry, S.M.**, Mitchell, D. L., Luhmann, J. G., Lillis, R. Dong, C.F., Superthermal Electron Deposition on the Mars Nightside During ICMEs, *Journal of Geophysical Research: Space Physics*, Volume 125, Issue 10, 2020

43. Martinez et al, Influence of the Solar Wind Dynamic Pressure on the Ion Precipitation: MAVEN Observations and Simulation Results, *Journal of Geophysical Research: Space Physics*, Volume 125, 2020
44. Leblanc et al., First In Situ Evidence of Mars Nonthermal Exosphere, *Geophysical Research Letters*, Volume 46, Issue 8, 2019
45. Soobiah, Y., et al, MAVEN case studies of plasma dynamics in low-altitude crustal magnetic field at Mars 1: Dayside ion spikes associated with radial crustal magnetic fields. *Journal of Geophysical Research: Space Physics*, 124, 2019
46. Martinez et al., Variability of precipitating ion fluxes during the September 2017 event at Mars. *Journal of Geophysical Research: Space Physics*, 124, 2019
47. Xu, S., **Curry, S. M.**, Mitchell, D. L., Luhmann, J. G., Lillis, R. J., & Dong, C., Magnetic topology response to the 2003 Halloween ICME event at Mars. *Journal of Geophysical Research: Space Physics*, 124, 2019
48. Jakosky, B. M. et al., Loss of the Martian atmosphere to space: Present-day loss rates determined from MAVEN observations and integrated loss through time, *Icarus*, Volume 315, p. 146-157, 2018
49. Thiemann, E. M., et al, The Mars Topside Ionosphere Response to the X8.2 Solar Flare of 10 September 2017, *Geophysical Research Letters*, Vol. 45, Issue 16, 2018
50. Elrod, M., **Curry, S.M.**, Thiemann, E., Jain, S., September 2017 Solar Flare Event: Rapid Heating of the Martian Neutral Thermosphere from the X-class flare as observed by MAVEN, *Geophysical Research Letters*, Vol. 45, Issue 17, 2018
51. Xu, S., et al., Investigation of Martian Magnetic Topology Response to 2017 September ICME, *Geophysical Research Letters*, Volume 45, Issue 15, pp. 7337-7346. 2018
52. Leblanc F., et al., On Mars's Atmospheric Sputtering After MAVEN's First Martian Year of Measurements, *Geophysical Research Letters*, Volume 45, Issue 10, pp. 4685-4691, 2018
53. DiBraccio, G. A., Luhmann, J., **Curry, S. M.**, and 14 coauthors, The Twisted Configuration of the Martian Magnetotail: MAVEN Observations, *Geophysical Research Letters*, Volume 45, Issue 10, pp. 4559-4568, 2018
54. Dong, C. F., et al, Modeling Martian Atmospheric Losses over Time: Implications for Exoplanetary Climate Evolution and Habitability, *The Astrophysical Journal Letters*, Volume 859, Issue 1, article id. L14, 5, 2018
55. Modolo, R., et al, The LatHyS database for planetary plasma environment investigations: Overview and a case study of data/model comparisons, *Planetary and Space Science*, Volume 150, p. 13-21, 2018
56. Hara, T. et al., Evidence for crustal magnetic field control of ions precipitating into the upper atmosphere of Mars, *Journal of Geophysical Research (Space Physics)*, 123, 8572–8586, 2018
57. Leblanc, F., et al., On the Origins of Mars' Exospheric Nonthermal Oxygen Component as Observed by MAVEN and Modeled by HELIOSARES, *Journal of Geophysical Research: Planets*, Volume 122, Issue 12, pp. 2401-2428, 2018
58. Luhmann, J. G., and 13 colleagues 2017. Martian magnetic storms. *Journal of Geophysical Research (Space Physics)* 122, 6185-6209.
59. Leblanc, F., et al., On the Origins of Mars' Exospheric Nonthermal Oxygen Component as Observed by MAVEN and Modeled by HELIOSARES, *Journal of Geophysical Research*, 122, 12, 2017
60. Jolitz, R. et al., A Monte Carlo model of crustal field influences on solar energetic particle precipitation into the Martian atmosphere, *Journal of Geophysical Research*, 122, 5, 2017
61. Hara, T., et al., MAVEN observations on a hemispheric asymmetry of precipitating ions toward the Martian upper atmosphere according to the upstream solar wind electric field, *Journal of*

- Geophysical Research*, 122, 1, 2017
62. Modolo, R., et al., The LatHyS database for planetary plasma environment investigations: Overview and a case study of data/model comparisons, *Planetary and Space Science*, 150, 13-31, 2017
  63. **Curry, S. M.**, et. al., Space weather events at Mars: atmospheric erosion during solar cycle 24, *Division of Planetary Sciences*, 2017
  64. Lee, C. O., and 13 colleagues 2017. MAVEN observations of the solar cycle 24 space weather conditions at Mars. *Journal of Geophysical Research* 122, 2768- 2794.
  65. Stevenson, K. B., and 51 colleagues 2016. Transiting Exoplanet Studies and Community Targets for JWST's Early Release Science Program. *Publications of the Astronomical Society of the Pacific* 128, 094401.
  66. Poppe, A. R., **Curry, S. M.**, Fatemi, S. 2016. The Phobos neutral and ionized torus. *Journal of Geophysical Research (Planets)* 121, 770-783.
  67. Withers, P., and 19 colleagues 2016. The morphology of the topside ionosphere of Mars under different solar wind conditions: Results of a multi-instrument observing campaign by Mars Express in 2010. *Planetary and Space Science* 120, 24-34.
  68. Lillis, R. J., and 26 colleagues 2015. Characterizing Atmospheric Escape from Mars Today and Through Time, with MAVEN. *Space Science Reviews* 195, 357-422.
  69. Bougher, S., and 93 colleagues 2015. Early MAVEN Deep Dip campaign reveals thermo- sphere and ionosphere variability. *Science* 350, 0459.
  70. Jakosky, B. M., and 93 colleagues 2015. MAVEN observations of the response of Mars to an interplanetary coronal mass ejection. *Science* 350, 0210.
  71. Brain, D. A., and 19 colleagues 2015. The spatial distribution of planetary ion fluxes near Mars observed by MAVEN. *Geophysical Research Letters* 42, 9142-9148.
  72. Leblanc, F., and 12 colleagues 2015. Mars heavy ion precipitating flux as measured by Mars Atmosphere and Volatile Evolution. *Geophysical Research Letters* 42, 9135-9141.
  73. Dong, C., and 19 colleagues 2015. Multi-fluid MHD study of the solar wind interaction with Mars' upper atmosphere during the 2015 March 8th ICME event. *Geophysical Research Letters* 42, 9103-9112.
  74. **Curry, S. M.**, and 16 colleagues 2015. Response of Mars O<sup>+</sup> pickup ions to the 8 March 2015 ICME: Inferences from MAVEN data-based models. *Geophysical Research Letters* 42, 9095-9102.
  75. Luhmann, J. G., and 10 colleagues 2015. Implications of MAVEN Mars near-wake measurements and models. *Geophysical Research Letters* 42, 9087-9094.
  76. **Curry, S. M.**, et al. 2015. Comparative pick-up ion distributions at Mars and Venus: Consequences for atmospheric deposition and escape. *Planetary & Space Science* 115, 35-47.
  77. Poppe, A. R., **Curry, S. M.**, 2014. Martian planetary heavy ion sputtering of Phobos. *Geophysical Research Letters* 41, 6335-6341.
  78. **Curry, S. M.**, Liemohn, M., Fang, X., Ma, Y., Slavin, J., Espley, J., Bougher, S., Dong, C. F. 2014. Test particle comparison of heavy atomic and molecular ion distributions at Mars. *Journal of Geophysical Research (Space Physics)* 119, 2328-2344.
  79. Liemohn, M. W., **Curry, S. M.**, Fang, X., Ma, Y. 2013. Comparison of high-altitude production and ionospheric outflow contributions to O<sup>+</sup> loss at Mars. *Journal of Geophysical Research (Space Physics)* 118, 4093-4107.
  80. **Curry, S. M.**, Liemohn, M., Fang, X., Brain, D., Ma, Y. 2013. Simulated kinetic effects of the corona and solar cycle on high altitude ion transport at Mars. *Journal of Geophysical Research (Space Physics)* 118, 3700-3711.
  81. **Curry, S. M.**, Liemohn, M., Fang, X., Ma, Y., Espley, J. 2013. The influence of production mechanisms on pick-up ion loss at Mars. *Journal of Geophysical Research* 118, 554-569.

82. **Curry, S.**, Misra, S., Puckett, J., Elliot, H., Ahlers, M., Gross, S., McKague, D., Ruf, C., K-Band Radio Frequency Interference Survey of Southeastern Michigan, *IGARSS 2010 Symposium*, (2010)
83. Di Stefano, R., and 11 colleagues 2004. Supersoft X-Ray Sources in M31. I. A Chandra Survey and an Extension to Quasi-soft Sources. *The Astrophysical Journal* 610, 247-260.

## RECENT SCIENTIFIC and COMMUNITY SERVICE

---

- **June 2022- present:** *NASA Planetary Advisory Committee (PAC)*
- **Feb 2020- present:** *DPS Subcommittee on Federal Relations, AAS*
- **July 2024:** *Organizing Committee, NASA's Tenth International Conference on Mars*
- **June 2023:** *Organizing Committee, Know Before You Go- Humans to Mars Workshop*
- **May 2022:** *Organizing Committee, Science for Human Exploration Mars Workshop*
- **March 2022:** *Co-Chair, Low Cost Science Mission Concepts for Mars Exploration Workshop*
- **Oct 2021:** *Reviewer, Mars Exploration Program / Delta-Program Implementation*
- **May 2020:** *Organizing Committee, Habitable Worlds 2 Science*
- **Oct 2019- Oct 2020:** *Member, Mars Architecture Strategy Working Group (MASWG)*
- **Sept 2014 – 2018:** *AAS Astronomy Ambassador (DPS)*
- **June 18-19, 2012:** *Delegate, AAS Communicating with Washington*
- **Sept 2012 - present:** *Journal reviewer*
  - *Journal of Geophysical Research*
  - *Geophysical Research Letters*
  - *Planetary & Space Science*
  - *Icarus*
  - *Nature*
- **NASA Headquarters Proposal Review Panel: Chair and panel member**
  - *Cassini / New Horizons Data Analysis Program (C/NH DAP)*
  - *Emerging Worlds, Planetary Data, Archiving*
  - *Restoration and Tools (PDART)*
  - *Planetary Instrument Concepts for Advancement of Solar System Observations (PICASSO)*
  - *Mars Data Analysis Program (MDAP)*
  - *NASA Earth and Space Science Fellowship (NESSF)*
  - *Astrobiology Science and Technology for Instrument Development (ASTID)*
  - *Planetary Instrument Definition and Development Program (PIDDP)*
  - *Mars Fundamental Research Program (MFRP)*
  - *Solar System Workings (SSW)*

## TEACHING

---

- *Preparing Future Faculty (PFF) Certificate:* CRLT, University of Michigan, May 7, 2013- June 6, 2013 (nationally recognized seminar certificate program)
- Guest Lecturer, Berkeley City College ASTRO 101: Intro. To Astronomy, 2015
- Lecturer/Grader University of Michigan
  - AOSS 370 Solar Terrestrial Relation
  - 101 Rocket Science

- 105 Our Changing Atmosphere
- 323 Earth System Analysis

## **PROFESSIONAL SOCIETIES AND AFFILIATIONS**

---

- **AAS** (*American Astronomical Society*)
- **AGU** (*American Geophysical Union*)
- **SWE** (*Society of Women Engineers*)

## **COMPUTER SKILLS**

---

- **Languages and Software**  
IDL, MATLAB, C++, Fortran, TecPlot, Maple, ClearCase, MPI (Message Passing Interface), Perl, AWK, Latex, CIAO-Chandra Interactive Analysis of Observations, DS9, SM (Super Mongo), Microsoft Windows software, Adobe Illustrator and Photoshop, EndNote
- **Operating Systems**  
UNIX, LINUX, Windows, Mac OS, IRAF (Image Reduction Analysis Facility)

## **HOBBIES**

---

- Running (trails and road), Golden Gate Running Club, San Francisco, CA
- Rock climbing
- The Great British Baking Show
- Baby hippos (namely Fiona at the Cincinnati Zoo)