

Amanda Stadermann

acs@lpl.arizona.edu
(314) 625-4171

255 N Granada Ave., #11204
Tucson, AZ 85701

Education:

The University of Arizona (Tucson, AZ)

Graduate Assistant

Major: Planetary Sciences

Minor: Geosciences

Cumulative GPA: 3.67/4.00

Relevant Coursework:

Intro to Geochemistry, Principles of Planetary Physics, Planetary Global Tectonics, Mars, Chemistry of the Solar System, Atmospheres and Remote Sensing, Inverse Problems in Geophysics, Evolution of Planetary Surfaces, Cosmochemistry*, Geochronology and Thermochemistry*

Washington University in St. Louis (St. Louis, MO)

Bachelor of Arts, May 2016

Major: Earth and Planetary Sciences, with a concentration in Geophysics

Minors: Physics, German

Cumulative GPA: 3.53/4.00

Relevant Coursework:

Introduction to Astrophysics, Earth Materials (introductory mineralogy), Earth Forces (introductory geophysics), Geodynamics, Introduction to Geochemistry, Computer Science 1, Remote Sensing, Interior of the Earth, Introduction to Structural Geology, Introduction to Petrology, Planetary Geology

Work Experience:

University of Arizona Lunar and Planetary Laboratory

Graduate Research Assistant (August 2017 – present)

Investigating impact melts on the Moon, creating a geologic map of the impact melt around lunar crater Giordano Bruno, using an electron microprobe to investigate experimental samples, writing papers on research topics.

Graduate Teaching Assistant (August 2016 – December 2017)

Assisting in the teaching of PTYS 170B2 *The Universe and Humanity: Origin and Destiny*, PTYS 214 *Astrobiology* and PTYS 206 *Our Golden Age of Planetary Exploration*. Duties include grading homework, proctor exams, hold office hours, hold review sessions, and guest lecture.

Washington University Department of Earth and Planetary Science (St. Louis, MO)

Undergraduate Research Assistant (September 2013 – May 2016)

Identifying and counting craters on the Moon in ArcGIS, assisting in finding the crater density as well as the age of the surface based on crater size and distribution. Determined the age of the youngest mare basalts on the Moon, located south of Aristarchus Plateau.

Undergraduate Teaching Assistant (January 2015 – May 2015; January 2016 – May 2016)

Assisting in the teaching of EPS 118A *Geology of National Parks* for the Spring 2015 and Spring 2016 semesters, helping grade homework, proctor exams, and held office hours.

Washington University Department of Physics (St. Louis, MO)

Undergraduate Teaching Assistant (August 2015 – December 2015)

Assisted in grading quizzes and homework for *Solar System Astronomy* for the Fall 2015 semester.

Johns Hopkins University Applied Physics Laboratory (Laurel, MD)

NASA Summer Intern (June 2015 – August 2015)

Analyzed MESSENGER MDIS images of Mercury's limb on planet's night side in attempt to positively identify Mercury's exosphere. Results were analyzed using USGS' ISIS, IDL, and ENVI.

NASA Summer Intern (June 2014 - August 2014)

Examined Mercury's surface using MESSENGER images using USGS' ISIS and ReACT to identify hollows. Analyzed results using IDL, ENVI, and MATLAB to see size and location distribution.

Publications:

Stadermann, A., M. Krawczynski, B. Jolliff, and C. Hamilton (in prep). Analysis and Experimental Investigation of Apollo Sample 12032,366-18, a Chemically Evolved Basalt from the Moon. *Geochimica et Cosmochimica Acta*.

Stadermann, A., M. Zanetti, B. Jolliff, H. Hiesinger, C. van der Bogert, and C. Hamilton (in revision). The Age of Lunar Mare Basalts South of the Aristarchus Plateau and Effects of Secondary Craters formed by the Aristarchus Event. *Icarus*.

Zanetti, M., **A. Stadermann**, B. Jolliff, H. Hiesinger, C. van der Bogert, and J. Plescia (2017). Evidence for Self-secondary Cratering of Copernican-Age Continuous Ejecta Deposits on the Moon. *Icarus*, 298 64-77, doi: 10.1016/j.icarus.2017.01.030

Blewett, D., **A. Stadermann**, H. Susorney, C. Ernst, Z. Xiao, N. Chabot, B. Denevi, S. Murchie, F. McCubbin, M. Kinczyk, J. Gillis-Davis, and S. Solomon (2016). Analysis of *MESSENGER* high-resolution images of Mercury's hollows and implications for hollow formation. *JGR-Planets*, 121: 9, 1798–1813, doi:10.1002/2016JE005070

Conference Abstracts:

Stadermann, A., C. Hamilton, and C. Neish (2017). Mapping Lunar Impact Melt Around Giordano Bruno Crater. *IAVCEI* # 1122.

Stadermann, A., M. Krawczynski, B. Jolliff, and C. Hamilton (2017). Analysis and Experimental Investigation of Apollo Basalt Sample 12032,366-18. *Lunar Planet. Sci. Conf. 48*, # 2883.

Blewett, D., **A. Stadermann**, N. Chabot, B. Denevi, C. Ernst, Z. Xiao, and S. Solomon (2015). Mercury's Hollows: Depths, Estimation of Formation Rates, and the Nature of the Bright Haloes. *AGU Fall Meeting 2015*, P53A-2096.

Stadermann, A., M. Zanetti, B. Jolliff, and H. Hiesinger (2015). Revisiting the Youngest Mare Basalts on the Moon: Analysis of Primary and Secondary Crater Distributions in the Region South of Aristarchus Crater. *Lunar Planet. Sci. Conf. 46*, # 1269.

Zanetti, M., **A. Stadermann**, B. Jolliff, C. van der Bogert, H. Hiesinger, and J. Plescia (2015). Auto-Secondary Cratering vs. Target Property effects on Ejecta Blankets of Copernican Craters: What are the Implications of Age-Dating using Small-Diameter Crater Statistics? *Lunar Planet. Sci. Conf. 46*, # 1209.

Jolliff, B., S. Lawrence, N. Petro, R. Clegg, **A. Stadermann**, and M. Zanetti (2015). Science Priorities for Lunar Exploration Missions and Value of Continued LRO Operations for Future Lunar Geoscience. *Lunar Planet. Sci. Conf. 46*, # 2616.

Zanetti, M., **A. Stadermann**, B. Jolliff, H. Hiesinger, and C. H. van der Bogert (2015). The Case for Auto-Secondary Craters of Ejecta Blankets using Crater Statistics of Young Lunar Craters. *Workshop on Issues in Crater Studies and the Dating of Planetary Surfaces* # 9041.

Blewett, D., **A. Stadermann**, N. Chabot, B. Denevi, C. Ernst, and P. Peplowski (2014). Mercury's Hollows: New Information on Distribution and Morphology from MESSENGER Observations at Low Altitude. *AGU Fall Meeting 2014*, P13F-07.

Zanetti, M., **A. Stadermann**, T. Krüger, C. van der Bogert, H. Hiesinger, and B. Jolliff (2014). Mapping Crater Density Variation on Copernican Ejecta Blankets: Evidence for Auto-Secondary Cratering at Tycho and Aristarchus. *Lunar Planet. Sci. Conf. 45*, # 1528.

Skills:

ArcGIS, USGS' ISIS, IDL, ENVI, Microsoft Excel, Microsoft Word, Microsoft PowerPoint, Unix, Adobe Photoshop, Adobe Illustrator, Java, MATLAB, Python, LaTeX

Activities and Honors:

Shirley D. Curson Education Plus Fund in Planetary Sciences and LPL (2017)

Attended the International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI)

Stephen E. Dwornik Planetary Geosciences Student Paper Award (2015)

Honorable Mention Undergraduate Poster for *Stadermann, A., M. Zanetti, B. Jolliff, and H. Hiesinger (2015) Revisiting the Youngest Mare Basalts on the Moon: Analysis of Primary and Secondary Crater Distributions in the Region South of Aristarchus Crater. Lunar Planet. Sci. Conf. 46, # 1269.*

Harold Levin Undergraduate Teaching Assistant Award (2015)

Department of Earth and Planetary Sciences, Washington University in St. Louis

Geology of National Parks (Spring 2015)

Washington University Varsity Swim Team (September 2012 – March 2016)

Captain (2015-16 season)

School record holder (200 yard butterfly, 100 yard butterfly)

All-American (100 yard butterfly, 2016; 200 yard butterfly, 2016)

Honorable Mention All-American (200 yard butterfly, 2014; 400 yard medley relay, 2016)

National Champion (200 yard butterfly, 2016)

William H. and Elizabeth Danforth Distinguished Athlete Award (2016)

Washington University Dean's List (Fall 2012, Fall 2013)

Volunteer Work

St. Louis Food Bank, Highway Trash Pickup, Habitat for Humanity, Youth Learning Center