Hannah C.M. Susorney
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Department of Earth and Planetary Science
Johns Hopkins University
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EDUCATION

Graduate Student, Earth and Planetary Science — September 2013-Present
Johns Hopkins University, Baltimore, MD
Advisors: Dr. Olivier S. Barnouin and Dr. Darrell F. Strobel

Masters of Art, Earth and Planetary Science — May 2015
Johns Hopkins University, Baltimore, MD

Bachelor of Science, Earth Science-Geology — May 2013
Montana State University, Bozeman, MT
Minor: Mathematics

RESEARCH EXPERIENCE

Johns Hopkins University Baltimore, MD and JHU Applied Physics Lab — September 2013-Present
Laurel, MD
Graduate Research Assistant
Advisor: Dr. Olivier Barnouin and Dr. Darrell Strobell

- The Global Surface Roughness of Mercury
- The Surface Roughness In and Around Complex Craters on Mercury

The Johns Hopkins University Applied Physics Lab/NASA Internship — June-August, 2012, 2013
Laurel, MD
Advisor: Dr. Carolyn Ernst and Dr. Nancy Chabot

- Exploring the Morphology of Simple Craters that Host Polar Deposits on Mercury: Implications for the Source and Stability of Water Ice
- Investigating Mercury's Geology with the Mercury Dual Imaging System (MDIS)

Field Assistant — July-August 2011
Robertson Glacier, Alberta
Advisor: Dr. Mark Skidmore (Montana State University)
- Microbiology of Robertson Glacier Basal Runoff

NSF International Research Experience for Students (IRES) — May-June 2011
Hangzhou, China
Advisor: Dr. Frankie Jackson (Montana State University)
- Morphology and Associated Sedimentology of Cretaceous Egg Clutches

PROFESSIONAL ACTIVITES

Geological Society of America Student Advisory Council, *Chair*	2015-2016
NASA Review Panel, *Student Member* Executive Secretary	2015
Local Organizing Committee for the Geological Society of America Annual Meeting, *Student Member*	2015
Lunar Planetary Institute's Meteor Crater Field Camp, *Participant*	2014
Geological Society of America Planetary Geology Division, *Student Representative*	2014-2016

TEACHING EXPERIENCE

Johns Hopkins University

Guest Lecture Planetary Surface Processes (1 lecture)	Fall 2015
Guest Lecture Tour of the Solar System (1 lecture)	Spring 2015

Montana State University

Undergraduate Teaching Assistant for Honors Earth System Science	Fall 2011, 2012

OUTREACH ACTIVITES

Roots and Branches Elementary School West Baltimore, MD — May 2015

- Presented on asteroids and impact craters to 200 elementary age children.

The Johns Hopkins University Applied Physics Lab Laurel, MD — Summer 2012, 2013

- Produced Images of the Day for the MESSENGER Public Website
- Assisted in responding to the public's question about Mercury and the MESSENGER mission

Father Marquette Middle School Marquette, MI — May 2012

- Presented an hour long talk to two 6th grade classes (approximentley 30 students each) about my experience study science in college and recent research activities I was involved in

HONORS

Dwornik Award Best Graduate Student Poster	2015
Johns Hopkins Applied Physics Laboratory Graduate Student Fellowship	2014-present
Johns Hopkins University Earth and Planetary Science Department Best 30 minute Journal Club Graduate Student Presentation	2014
National Science Foundation Graduate Research Fellowship *Honorable Mention*	2014
Montana State University Top Geology Undergraduate	2013
Montana Space Grant Consortium Best Undergraduate Poster	2013
Montana State University Undergraduate Scholars Program Research Grant	2011, 2012
Montana State University Earth Science Colloquium Best Undergraduate Poster	2012

PUBLICATIONS

2. **Susorney, H.C.M.**, Barnouin, O.S., Ernst, C.M., Johnson, C.L. Impact Crater Morphology on Mercury from MESSENGER Altimetry and Imaging (2016). Icarus, 271, 180-193.
1. **Susorney, H.C.M.**, Barnouin, O.S., Ernst, C.M. Surface Roughness from the Mercury Laser Altimeter (in prep.)

TALKS

- **Susorney, H.C.M.**, and Barnouin, O.S. (2014) Surface Roughness using a Range of MLA Baselines. 32nd MESSENGER Science Team Meeting
- **Susorney, H.C.M.**, Chabot, N.L., Ernst, C.M., and Barnouin, O.S. (2013) Exploring the Morphology of Simple Craters that Host Polar Deposits on Mercury: Implications for the Source and Stability of Water Ice. 31st MESSENGER Science Team Meeting

CONFERENCE ABSTRACTS

- **Susorney, H.C.M.** Barnouin, O.S., Ernst, C.M., and Neumann, G.A. (2015) The Distribution of Surface Roughness Around Complex Craters on Mercury. Geological Society of America Annual Meeting. Abstract 100-4.
- **Susorney, H.C.M.**, Barnouin, O.S., and Ernst, C.M. (2015) The Surface Roughness of Mercury: Investigating the Effects of Impact Cratering, Volcanism and Tectonics. 46th Annual Lunar and Planetary Science Conference. Abstract 2088.
- Barnouin, O.S., Ernst, C.M., **Susorney, H.C.** (2015). The Remarkable Hokusai Crater, Mercury. 46th Lunar and Planetary Science Conference. Abstract 2672.
- Kring, D. A. ...**Susorney, H.C.M.** (2015) Distribution of Kaibab Ejecta North of Meteor Crater, Arizona. 46th Lunar and Planetary Science Conference. Abstract 1186.
- **Susorney, H.C.M.**, Barnouin, O.S., and Ernst, C.M. (2014) Investigating the Surface Roughness of Mercury. American Geophysical Union Fall Meeting. Abstract P34C-08*
- **Susorney, H.C.M.**, Barnouin, O.S., and Ernst, C.M. (2014) The Role of Target Properties and Projectile Velocity on Final Crater Morphology of Craters on Mercury. 45th Lunar and Planetary Science Conference. Abstract 1276.
- Ernst, C. M., Chabot, N. L., **Susorney, H.C.M.**, Barnouin, O. S., Harmon, J. K., and Paige, D. A. (2014) Exploring the Morphology of Simple Craters that Host Polar Deposits on Mercury: Implications for the Source and Stability of Water Ice. 45th Lunar and Planetary Science Conference. Abstract 1238.
- Ernst, C.M., Chabot, N.L., **Susorney, H.C.**, and Barnouin, O.S. (2013) Exploring the Morphology of Simple Craters that Host Polar Deposits on Mercury: Implications for the Source and Stability of Water Ice. Geological Society of America Annual Meeting. Abstract 383-10.
- **Susorney, H.C.**, Barnouin, O.S., Ernst, C.M., and Head, J.W. (2013) Impact Crater Morphometry on Mercury from MESSENGER Observations. 44th Annual Lunar and Planetary Science Conference. Abstract 1650.
- Barnouin, O.S., Ernst, C.M., **Susorney, H.C.**, Neumann, G.A., Johnson, C.L., Balckerski, J and Hauck, S.A. (2012). Impact Velocity as a Source of Variations in Crater Depth on Mercury, American Geophysical Union Fall Meeting. Abstract P33B-1941.
- Barnouin, O.S. Runyon, K.D., **Susorney, H.**, Ernst, C.M., and Wada, K. (2012). Experimental Investigation of Ejecta Emplacement. Geological Society of America Annual Meeting. Abstract 202-9.

* denotes oral presentation

COMPUTING SKILLS

IDL, ISIS, Mathematica, R, GMT, MATLAB, LaTeX

MEMBERSHIPS

American Geophysical Union, Planetary Sciences Section, 2011-present
Geological Society of America, Planetary Geology Division, 2010-present AAS Division of Planetary Science, 2015-present