

Jennifer W. Telling

Postdoctoral Research Assistant

Geological and Mining Engineering and Sciences
Michigan Technological University
jwtellin@mtu.edu

630 Dow
1400 Townsend Drive
Houghton, MI, 49931

Education

Georgia Institute of Technology, Atlanta, GA
Doctor of Science in Geophysics, August 2013
Masters of Science in Geophysics, May 2011

Colgate University, Hamilton, NY
Bachelor of Arts in Astrogeophysics with Honors, May 2008
Dean's Award for Academic Excellence- 3 semesters
Honors Thesis: Aeolian Geomorphology on Mars as viewed from
HiRISE and THEMIS

St Andrews University, St Andrews, Scotland, Spring 2007

Research Interests

Geophysics
Multiphase Flow

Remote Sensing
Martian Geomorphology

Volcanology
Explosive Eruption Dynamics

Selected Presentations

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| American Geophysical Union, V53H-08
<i>Experimental Evaluation of Ash Aggregation Across a Range of Eruptive Conditions</i> | Fall 2012 |
| Colgate University, Department of Physics and Astronomy and Department of Geology
<i>Ash Aggregation in Explosive Volcanic Eruptions</i> | March 2010 |
| Georgia Institute of Technology, Department of Earth and Atmospheric Sciences
<i>Experimental Analysis of Volcanic Ash Aggregation</i> | October 2009 |
| Colgate University, Department of Geology
<i>Aeolian Geomorphology on Mars as viewed from HiRISE and THEMIS</i> | December 2007 |
| Colgate University, Department of Astronomy and Physics
<i>Aeolian Surface Deformation on Mars</i> | September 2007 |

Publications

- Telling, J., J. Dufek, A. Shaikh (2013). Ash aggregation in explosive volcanic eruptions. *Geophysical Research Letters* 40, DOI: 10.1002/grl.50376.
- Telling, J., J. Dufek (2012). An experimental evaluation of ash aggregation in explosive volcanic eruptions. *Journal of Volcanology and Geothermal Research* 209, 1-8.
- Telling, J.W., J. Dufek (2010). Volcanic ash aggregation in eruptive plumes, *Eos Trans. Am. Geophys. Union*, Fall Meeting Suppl., Abstract NG23A-1370.
- Telling, J.W., J. Dufek (2010). Volcanic ash aggregation in eruptive plumes, 2nd Symposium on Aerosol-cloud climate interactions, 90th American Meteorological Society Annual Meeting, Atlanta, GA, 17-21 Jan., 2010.

Telling, J.W., J. Dufek (2009). Volcanic ash aggregation in eruptive plumes, *Eos Trans. Am. Geophys. Union*, 90(52), Fall Meeting Suppl., Abstract V13D-2064.

Telling, J.W., J.R. Zimbelman, and S.H. Williams (2007). Large ripples and small dunes on the floor of Gamboa impact crater on Mars, *Eos Trans. Am. Geophys. Union*, 88(117), Fall Meeting Suppl., Abstract P31B-0427.

Experience

Postdoctoral Research Assistant

January 2014 to present

Michigan Technological University, GMES

- Examining global SO₂ missions from volcanic sources using satellite remote sensing data

Editor

Spring, Summer 2013

American Journal Experts

- Grammar and language editor for non-native English speakers submitting scientific research papers.

Graduate Research and Teaching Assistant

2008-2013

Georgia Institute of Technology, Department of Earth and Atmospheric Sciences

- Conduct independent research in the field of volcanology
- Develop experiments to simulate microscale ash dynamics in a volcanic eruption and tested a wide variety of conditions
- Created a Particle Image Velocimetry code in Matlab that has been used in data analysis in an array of geophysical applications
- Mentor undergraduate and graduate students in conducting their own research
- Teach introductory Earth Sciences including atmospheric science, geophysics, astrophysics, planetary dynamics and ecology

Research Assistant

2007-2008

Colgate University, Department of Geology

- Conducted independent research at Colgate University in the fields of geology and astrophysics by designing a project to examine aeolian features on the surface of Mars for recent activity. Using the HiRise and THEMIS remote sensing platforms, I was able to characterize currently active regions of the Martian surface.
- Aided in the teaching an undergraduate course on Martian geomorphology and assisted in leading lab sections

Intern

Summer 2007

National Air and Space Museum, Center for Earth and Planetary Studies

- Worked with Jim Zimbelman in characterizing surface features of Mars as data was returned by the high resolution orbiting camera, HiRise
- Cataloged over 500 features for further study
- Initiated a project focused on finding regions of current activity on the Martian surface, which led to my Honors thesis work at Colgate University

College Freshman Internship Program

Summer 2005

Goddard Flight Center, Greenbelt, MD

- Worked as part of a team that shadowed the Mission Design Lab; responsible for designing the orbital dynamics and energy budget