SAMANTHA MORUZZI

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EDUCATION

Lunar and Planetary Laboratory, University of Arizona, Tucson, AZ — Expected 2025
PhD, Planetary Science

Cornell University, College of Agriculture and Life Sciences, Ithaca, NY
Bachelor of Science in Earth and Atmospheric Science & Italian Minor — May 2020

PAPERS

Reath, K., Pritchard, M. E., **Moruzzi, S**., Alcott, A., Coppola, D., & Pieri, D. (2019). The AVTOD (ASTER Volcanic Thermal Output Database) Latin America archive. *Journal of Volcanology and Geothermal Research*.

Reath, K.A., Pritchard, M., Poland, M., **et al**. (2019). "Thermal, deformation, and degassing remote sensing time series (CE 2000–2017) at the 47 most active volcanoes in Latin America: Implications for volcanic systems*," Journal of Geophysical Research-Solid Earth*, 124

HONORS/ AWARDS

NSF GRFP Honorable Mention • Earth and Atmospheric Science Michael Mitchell Scholarship Award • Cornell Engineering Learning Initiatives Research Student Grant • Society of Exploration Geophysicists/Landmark Scholarship • Society of Exploration Geophysicists/Anadarko Scholarship

RESEARCH EXPERIENCE

Graduate Research Assistant — August 2020-Present
Lunar and Planetary Laboratory, University of Arizona, Tucson, AZ
Numerical modeling of Sputnik Planum Basin on Pluto to determine its compensation state and crustal ice shell thickness. Re-evaluating the existence of a subsurface ocean.

Undergraduate Research Assistant — September 2018-May 2020
Department of Astronomy, Cornell University, Ithaca NY
Characterizing morphologies on Comet 67P/Churyumov-Gerasimenko to better understand their surface properties evolution, as well as to constrain erosional processes across the surface.

2019 LPI Summer Intern
The Lunar and Planetary Institute, Houston, TX — June 2019-August 2019
Performed elastic dislocation modeling of thrust faulting along the Vedma Dorsa Ridge Belt on Venus in order to constrain faulting parameters such as fault displacement, faulted layer thickness and fault dip angle, aiming to improve our understanding of the lithospheric properties and conditions under which the ridge belt formed.

Undergraduate Research Assistant — January 2017-August 2018
Department of Earth and Atmospheric Science, Cornell University, Ithaca, NY
Created a database of temperature time series for ~300 volcanoes in Latin America using thermal images from the NASA/Japan funded ASTER (Advanced Spaceborne Thermal Emission Reflection Radiometer) mission. Explored thermal anomalies as precursors to eruptions and comparing the manual detection to the algorithmic detection by JPL created and run AVA (Aster Volcano Archive).

OTHER EXPERIENCE

Teaching Assistant — Fall 2017- Fall 2020
Introduction to Oceanography, Cornell University, Ithaca, NY
Facilitated weekly laboratory sections, graded labs and homework, and proctored examinations. Worked with other teaching assistants and professor to develop projects and newsletters to engage students' interest in the course material.

ADDITIONAL SKILLS

Web-Based Programming/Software: Environment for Visualizing Images (ENVI); USGS Earth Explorer; USGS Global Visualization Viewer (GLOVIS); Python; MATLAB; Coulomb 3.3