

Lauren Schwartz, The University of Texas at San Antonio, San Antonio, Texas, USA for their project: *Integrated Lab and Numerical Modeling Study of Chilean Torta Domes*.

Lauren Schwartz is a volcanology PhD candidate at the University of Texas at San Antonio working with Dr. Alan Whittington. She has a Bachelor of Science in physics from the University of Texas at Austin and a Master of Science in geoscience from the University of Texas at San Antonio.

Her research is interested in the formation of the circular, steep-sided dome morphology, particularly for the Venusian pancake domes. Lacking spectroscopic data or chemical analyses for the pancake domes, she is utilizing lava domes from the Atacama region of northern Chile as analogs due to morphology similarities with the pancake domes. The physical, chemical, thermal, and rheological properties of the Chilean lava domes were measured from field samples. These measured properties are being used to build computational models of the Chilean lavas to test how various emplacement conditions impact the dome's morphology. The Chilean dome emplacement model, within a terrestrial atmosphere, will later be adapted for Venusian surface conditions (temperature, pressure, gravity, etc.). Lauren will test various inputs (composition, crystallinity, and temperature dependent rheology, effusion rate, vesicularity, etc.) with the goal of constraining which combinations of inputs can reproduce the circular, steep-sided morphology of the pancake domes.

