Daniella Rempe

Graduate Institution: University of California-Berkeley

Graduate Discipline: Earth and Planetary Science

Hometown: Austin, TX

Relevant SC Research: Basic Energy Sciences

Research Interest:

Environmental Geophysics: Advancing geophysical tools to characterize and monitor properties and processes that control water and solute movement in the shallow subsurface.

Fractured Rock Hydrogeology: Developing a mechanistic understanding of subsurface flow processes in heterogeneous media by integrating point hydrologic measurements, geophysical data, and numerical methods.

Critical Zone Evolution: Improved understanding of the creation and evolution of the weathered subsurface that actively transmits water to develop a theoretical basis for predicting subsurface hydraulic properties.

About Me:

As an earth scientist, it is no surprise that I enjoy spending my time outdoors. When I'm not collecting data, I'm rock climbing, bouldering, or hiking with my dog, Duke Skywalker. After studying geosystems engineering and hydrogeology at The University of Texas at Austin as an undergraduate, I realized how critical geophysical methods are to solving near-surface environmental problems. Eager to apply petroleum industry advancements to environmental issues, I decided to pursue graduate studies in environmental engineering at UC Berkeley. Once I completed my masters, I began PhD research aimed at advancing hydrogeophysical techniques used to characterize and monitor water flow in the shallow subsurface. Using geophysical techniques, I'm currently working on developing a mechanistic understanding of field-scale flow processes in fractured rock systems to try to understand how flow and weathering processes might influence the evolution of hydraulic properties in weathered rock. I'm excited to apply what I am exploring now to a career as a professional researcher and educator.