

JOHN GLENN DISTINGUISHED LECTURE

..... Welcomes Dr. Erik Klemetti

*“ Before, during and after the eruption:
Using mineral ages and compositions
to read the history of magmatism in
Cascade Range (USA) volcanoes ”*

Although most of us can picture a volcanic eruption, not many know all that happens inside volcanoes before, during and after an eruption. I will discuss what we know about the processes that get volcanoes ready to erupt (or not erupt), focusing on the Cascade Range of Oregon and California. My students and I have analyzed zircon ages and compositions from Mt. Hood and the Tumalo Volcanic Center (TVC) in Oregon along with the Lassen Volcanic Center (LVC) in California. These zircon crystals are a record of changes in magma stored beneath these potentially active volcanoes. Across all these volcanoes, a story of rapid reheating and mobilization of a “mush” of crystals and magma stored for hundreds to over ten thousand years. However, Mt. Hood appears to be tapping very young “mush” while the TVC and LVC are both tapping long-lived “mushes”. This may be one of the most important factors for why composition of lava and ash erupted from Mt. Hood is different than what erupted from the TVC and LVC.

WHEN

Tuesday, October
3, 2023

WHERE

Boyd Hall
Room 343

TIME

4 PM

ABOUT THE SPEAKER



Dr. Erik Klemetti

Erik is an associate professor of Earth & Environmental Sciences and volcanologist at Denison University. He works on volcanoes all over the planet, from Chile to New Zealand to the Cascades of Oregon and California. His research focuses on how crystals record the events inside a volcano before and between eruptions. For the past 13 years, he’s been teaching all the “hard rock” classes at Denison. He also writes for Discover Magazine. His blog, Rocky Planet, has been running since Fall 2017. Before that, he wrote Eruptions, a blog about volcanoes, for Wired Science for 9 years. You can also find him on social media variously writing about volcanoes, baseball (mostly Red Sox and Mariners) and his love of punk.

MUSKINGUM

U N I V E R S I T Y