# The Critical Zone Observatory Guide to University of Arizona's Earth Week 2015 Student Symposium

#### **ORAL PRESENTATIONS**

### Wednesday April 8th (El Dia)

North Ballroom, Student Union

11:00 am - 11:20 am Impacts of wildfire on throughfall and stemflow precipitation chemistry and flux, Alissa White

11:40 am – 12:00 pm Lava lamp to flow in fracture-water to fracture-porous media: Unity in physics but diversity in implications, Ravindra Dwivedi

### Thursday April 9th (SWESx)

Catalina Room, Student Union

9:15 am – 9:30 am Three-dimensional prediction of soil physical, chemical, and hydrological properties in a forested catchment of the Santa Catalina CZO, Chris Shepard

10:30 am - 10:45 am Geochemical modeling of mineral transformations from porewater geochemistry and sensor data during incipient weathering of granular basalt in the LEO hillslope, Michael Pohlmann

# Thursday April 9th (Geodaze)

North Ballroom, Student Union

2:30 pm - 2:45 pm Topographic controls on soil and regolith thickness from shallow-seismic refraction constraints across upland hillslopes in the Valles Caldera, NM, Jared Olyphant

#### **ORAL PRESENTATIONS (continued)**

## Friday April 10th (Plenary Session)

North Ballroom, Student Union

2:15 pm – 2:30 pm On the importance of the monsoon rainfall for Ponderosa Pine growth throughout the US Southwest, Paul Szejner

3:00 pm – 3:15 pm Impacts of wildfire on throughfall and stemflow precipitation chemistry and flux, Alissa White

#### POSTER PRESENTATIONS

### Wednesday April 8th (SNRE)

Tucson Room, Student Union 9 am – 12 pm

- Using stable water isotopes to evaluate plant water use in a snowdependent subalpine mixed conifer ecosystem, James Garlant
- An experimental two-layer approach to understanding semiarid shrub water use, Matthew Rotunno
- Using stable water isotopes in a twolayer soil moisture conceptual framework to understand transpiration dynamics in a semiarid shrubland, Daphne Szutu
- Long-term precipitation trends of two uniquely water-limited ecosystems: implications for future soil moisture dynamics, Rachel Wehr
- Using terrestrial LiDAR to assess understory growth dynamics following high severity burn in a mixed-conifer forest, Daniel Wilcox

#### POSTER PRESENTATIONS (continued)

### Wednesday April 8th (El Dia)

North Ballroom, Student Union 10 – 11am <u>and</u> 2:30 – 3:30 pm

- Similarities & differences between transport of a solute and water age mass: Why the picture is so blurry, Ravindra Dwivedi
- Quantifying the response of dissolved organic matter to wildfire, Brianna McClure
- Spatial and temporal influence of Redondo Peak headwaters in the East Fork Jemez river using a principal component analysis approach, Valles Caldera, NM, Andres R. Sanchez-Romero
- An experimental two-layer approach to understanding semiarid shrub water use, Matthew Rotunno
- Using stable water isotopes in a twolayer soil moisture conceptual framework to understand transpiration dynamics in a semiarid shrubland, Daphne Szutu

#### Friday April 10th (SWESx)

South Ballroom, Student Union 12 – 2 pm

- Scaling microbial carbon metabolism to ecosystem carbon emissions in thawing permafrost, Kristine de Leon
- Measuring and modeling soil microbial communities in the Jemez River Basin critical zone, Dawson Fairbanks
- Importance of root architecture on rocks weathering over time, Kexin Li
- Using stable water isotopes to evaluate plant water use in a snowdependent subalpine mixed conifer ecosystem, James Garlant

#### **POSTER PRESENTATIONS (continued)**

## Friday April 10th (SWESx continued)

South Ballroom, Student Union 12 – 2 pm

- Impact of wildfire on microbial abundance in the Jemez River Basin Critical Zone Observatory, Margretta Murphy
- Long-term precipitation trends of two uniquely water-limited ecosystems: implications for future soil moisture dynamics, Rachel Wehr
- Using terrestrial LiDAR to assess understory growth dynamics following high severity burn in a mixed-conifer forest, Daniel Wilcox

# Friday April 10th (Plenary Session)

South Ballroom, Student Union 1– 2:30 pm

Plenary Poster Session for Earth Week ALL POSTERS REPEATED HERE