

# Research Ignite Presentations

**TUESDAY, NOVEMBER 14 | 4 – 7 p.m.**

**Lory Student Center Ballroom D**

## [Presentation Abstracts](#)

### **4 – 4:42 p.m.      Climate Change**

- “Advancing US GHG Inventory by Incorporating Survey Data Using Machine-Learning Techniques”  
Cody Alsaker, Stephen Ogle and F. Jay Breidt
- “Culturing Sustainability – or – How I Stopped Worrying and Learned to Love the Anthropocene”  
Trevor Lee Even
- “Biochar Soil Amendments: A Sustainable Solution for Colorado Agriculture?”  
Matt Ramlow and M. Francesca Cotrufo
- “Participatory Scenarios Analyses in Mountain Social-Ecological Systems: A Critical Comparative Synthesis Review”  
Jessica Thorn, Claudia Capitani, Roman Seidl, Cara Steger, Robin Reid, Catherine Tucker, Anne Nolin and Julia Klein
- “Bayesian Calibration of Process-Based Models and Estimating Uncertainties”  
Ram B. Gurung, F. Jay Breidt and Stephen Ogle
- “Fire Consistently Reduces Biomass, Abundance, and Diversity of Belowground Communities”  
Yamina Pressler, John Moore and Francesca Cotrufo
- “Can Clouds Be Detected Through Solar Radiation Measurements?”  
Melina Zempila, Wei Gao, John Davis, Chen Maosi and Sun Zhibin

### **4:42 – 4:47 p.m.      Questions and comments**

### **4:47 – 4:57 p.m.      Break**

### **4:57 – 5:27 p.m.      Ecosystem and Wildlife Management**

- “Community Biomass Stoichiometry – One Cell at a Time”  
Michael Manzella and Ed Hall
- “High-Resolution Multi-Objective Optimization of Feedstock Landscape Design for Hybrid First and Second Generation Biorefineries”  
Trung Nguyen, Julien Granger, Deval Pandya and Keith Paustian
- “Know The Flow: Crowd Sourcing Observations of Streamflow Intermittence”  
Kira Punttenney, Stephanie Kampf, Michael Lefsky, Greg Newman, John Hammond and Ry Weber
- “Using Public Grazing Records to Model Greater Sage-Grouse Responses to Livestock at Broad Scales”  
Adrian P. Monroe, Cameron L. Aldridge, Timothy J. Assal, Kari E. Veblen, David A. Pyke and Michael L. Casazza

- “Greater Sage-Grouse Population Trends Across Wyoming Management Areas”  
David R. Edmunds, Cameron L. Aldridge, Michael S. O’Donnel and Adrian P. Monroe

**5:27 – 5:32 p.m. Questions and comments**

**5:32 – 5:55 p.m. Ecosystem Science Literacy and Food & Water Security**

- “Continuous Outreach and Education: Providing Support for the Users of the COMET-Tools”  
Matthew Stermer, Keith Paustian, Mark Easter, Amy Swan and Kevin Brown
- “Filling in the Gaps: Mapping the Missing Agroforestry Features of the United States”  
Nycole Echeverria
- “Crop Domestication and Breeding Impacts on Microbially-Mediated Plant Health”  
Megan Machmuller, Amélie Gaudin and Matthew Wallenstein
- “The Mystery of Moisture: DIY Soil Water Monitoring”  
Erika J Foster, William Gallo, Jay Ham and Francesca Cotrufo

**5:55 – 6 p.m. Questions and comments**