



# Summer Soil INSTITUTE

Colorado State University June 17-30, 2018 Fort Collins, Colorado



*Gain an integrated perspective on soil ecology and biogeochemistry with world-renowned faculty to address critical questions using up-to-date field and laboratory analytical techniques and models.*

*Designed for graduate students, post-docs, professionals, faculty, and K-12 teachers.*

**Pedology:** Field characterization of soil profiles in grasslands and forest environments.

**Soil Biogeochemistry:** Greenhouse gas flux measurements, Soil organic matter physical fractionation,  $^{13}\text{C}$  and  $^{15}\text{N}$  Isotope techniques.

**Soil Microbiology:** DNA extraction, quantitative PCR, DNA fingerprinting, extracellular enzyme activity assays.

**Soil Ecology:** Extraction and identification (microscopy and molecular) of nematodes, protozoa, rotifers, tardigrades, arthropods, and earthworms.

**Modeling:** Application of equation and agent-based models of soil food web dynamics, biogeochemical cycling, and soil and organic matter formation.

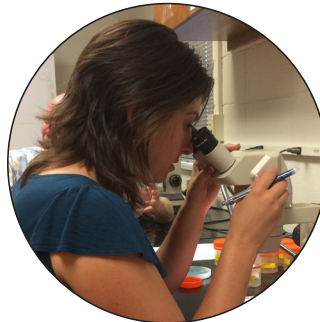


## 2018 Instructors

M. Francesca Cotrufo  
Steven Fonte  
John Moore  
Keith Paustian  
Cathy Stewart  
Joe von Fischer  
Matthew Wallenstein

Keynote address by Noah Fierer

For more information:  
<http://soil institute.nrel.colostate.edu>



Participants in the two-week course gain hands-on experience in soil sampling, analytical techniques, and most importantly, a holistic understanding of soil systems formalized through model development.



Interactive lectures and vibrant discussions are brought to life with field site visits to Colorado natural grassland and forest ecosystems and a research farm, where participants study and collect diverse soils.



## Colorado State University