

The 2014 Workshop at MOISST: Advancing Soil Moisture Science and Applications

Wednesday-Thursday, June 4-5, 2014

Jones Seminar Room, ConocoPhillips OSU Alumni Center

Oklahoma State University, Stillwater, Oklahoma

Name	Institution	Presentation Title	Time
Welcome Session			
Tyson Ochsner	Oklahoma State University	Welcome and orientation	8:30 a.m.
Jim Wicksted	Oklahoma State University	Oklahoma NSF EPSCoR Research Infrastructure Improvement Award	8:40 a.m.
Mike Cosh	USDA-ARS Beltsville, MD	A brief history of MOISST	8:50 a.m.
Advances in Soil Moisture Monitoring			
M. Can Vuran	University of Nebraska	Wireless underground sensor networks for obstruction-free and permanent soil moisture monitoring	9:00 a.m.
Trenton Franz	University of Nebraska	Understanding the cosmic-ray neutron probe petrophysical transform	9:30 a.m.
Steve Evett	USDA-ARS Bushland, TX	Precipitation, irrigation and crop growth Signals in COSMOS Data	10:00 a.m.
<i>Mid-morning break (snacks and beverages provided)</i>			
Susan Steele-Dunne and Jianzhi Dong	Delft Technical University	Soil moisture estimation using passive DTS: Theory development and field application	11:00 a.m.
Chadi Sayde	Oregon State University	Soil moisture estimation using active DTS at MOISST	11:30 p.m.
<i>Lunch break (lunch on your own off site)</i>			
Innovative Applications of Soil Moisture Data			
Steven Quiring	Texas A&M University	The North American Soil Moisture Database: its development and applications	1:30 p.m.
Trent Ford	Texas A&M University	Understanding the relationships between near-surface and root zone soil moisture	2:00 p.m.
Todd Caldwell	University of Texas	Soil moisture, drought and water resources in Texas	2:30 p.m.

<i>Mid-afternoon break (snacks and beverages provided)</i>			
J.D. Carlson and Erik Krueger	Oklahoma State University	Weather and soil moisture impacts on large Oklahoma wildfires from 2000-2012	3:30 p.m.
Briana Sallee	Oklahoma State University	Estimating groundwater recharge using soil moisture data	4:00 p.m.
Tyson Ochsner	Oklahoma State University	Group discussion, wrap-up for the day, and a look ahead	4:30 p.m.
Group dinner at Tokyo Pot, 108 W. 10th Ave., 6:00 p.m.			

Thursday, June 5

Understanding Soil Moisture Spatial Variability			
Andres Patrignani	Oklahoma State University	Model-data synthesis for predicting soil moisture under cropland	8:30 a.m.
Duncan Wilson	Oklahoma State University	Soil moisture dynamics in a semi-humid grassland to forest transition zone	8:50 a.m.
Evan Coopersmith	USDA-ARS Beltsville, MD	Multi-scale soil moisture model calibration and validation	9:10 a.m.

Mid-morning break

MOISST-related Progress and Plans			
Mike Cosh	USDA-ARS Beltsville, MD	In situ sensor comparisons at MOISST	10:00 a.m.
Jeff Basara and Pradeep Wagle	University of Oklahoma	Integrated Grassland Observation Systems (iGOS) at Marena and El Reno	10:20 a.m.
Patrick Starks	USDA-ARS El Reno, OK	USDA-ARS soil moisture monitoring in Oklahoma	10:40 a.m.

Lunch break (lunch on your own off site)

Field Trip to the MOISST Site			
Depart for MOISST site (vans available or bring your own vehicle)			12:00 p.m.
Walking tour of the site including: the Marena Mesonet station, the active DTS installation, a COSMOS rover, and MOISST core site A			12:30 p.m.
Sensor Challenge: A soil pit with a “challenging” clay soil will be provided. Standard soil moisture vs. depth will be determined by the thermo-gravimetric method the preceding day, but not revealed until the end. Bring your best (or worst) soil moisture sensor; try one we have on hand; or even try soil moisture by feel. Prize to the person whose estimated soil moisture profile is closest to the standard.			1:00 p.m.
Adjourn			