

2013 Young Scientist Symposium on Atmospheric Research *Schedule of Events*

Hosted by:
CSU AAAR Student Chapter &
FORTCAST AMS Local Chapter

September 20, 2013
Department of Atmospheric Science
Colorado State University
Fort Collins, Colorado

9:00	Sign-In and Refreshments	ATS Main Room 100
9:20	Welcome and Opening Remarks <i>Christina McCluskey and Aaron Piña</i>	ATS Main Room 101
Session 1	Air Quality <i>Chair: Walter Hannah</i>	ATS Main Room 101
9:30	Measuring commuter exposure to multiple airborne pollutants <i>Nicholas Good, Colorado State University</i>	
9:45	Measurements of hydrogen sulfide from oil and natural gas production in the Uintah Basin, Utah using PTR-MS <i>Rui Li, University of Colorado at Boulder/ATOC/NOAA/ESRL CSD</i>	
10:00	Evaluation of an Atmospheric Tracer Method at an Airfield for Use in Quantifying Natural Gas Well Development and Completion Emissions <i>Brad Wells, Colorado State University</i>	
10:15	Convective transport of pollutants from eastern Colorado concentrated animal feeding operations into the Rocky Mountains <i>Aaron Piña, Colorado State University</i>	
10:30	Refreshment Break	
Session 2	Chemistry Modeling <i>Chair: Aaron Piña</i>	ATS Main Room 101
10:45	Quantifying Radiative Forcing of Aerosol and Aerosol Precursor Scenarios with the GEOS-Chem Adjoint Model <i>Forrest Lacey, University of Colorado at Boulder</i>	
11:00	The Contribution of Sub-Grid, Plume-Scale Nucleation to Global and Regional Aerosol and CCN Concentrations <i>Robin Stevens, Dalhousie University</i>	
11:15	Automated source parameter and low level wind estimation for atmospheric transport and dispersion applications <i>Jake Zaragoza, Colorado State University</i>	

12:00	Lunch and Weather Discussion	ATS Main Room 100
12:30	Poster Session	ATS West Room 121
13:45	Weather Balloon Launch	ATS Main Outside
Session 3	Large Scale Atmospheric Dynamics <i>Chair: Jeremiah Sjoberg</i>	ATS Main Room 101
14:15	The Moist Static Energy Budget in DYNAMO Hindcasts <i>Walter Hannah, Colorado State University</i>	
14:30	The Diurnal Cycle of Moistening by Shallow Convection during DYNAMO <i>James Ruppert, Colorado State University</i>	
14:45	The Intraseasonal Variability of North African Energy Budgets <i>Ghassan Alaka, Colorado State University</i>	
15:00	Changes to the gradient flow due to shock-like structures in the tropical boundary layer <i>Christopher Slocum, Colorado State University</i>	
15:15	Refreshment Break	
Session 4	Organic Aerosol <i>Chair: Alexandra Boris</i>	ATS Main Room 101
15:30	Understanding and constraining global secondary organic aerosol amount and size-resolved condensational behavior <i>Stephen D'Andrea, Colorado State University/Dalhousie University</i>	
15:45	The Influence of Chemical Composition and Relative Humidity on the Optical Properties of Aerosols During the Southern Oxidant and Aerosol (SOAS) <i>Alexis Attwood, NOAA</i>	
16:00	Aerosol Loading in the Southeastern US <i>Bonne Ford, Colorado State University</i>	
16:15	Biomass burning plume evolution from prescribed burns during aircraft flights over South Carolina <i>Andy May, Colorado State University</i>	
16:45	The Social Event	ATS West Room 121

Poster Presentations

Cloud Processing of Organics: Differences between Simulated and Real Cloud Matrices

Alexandra Boris, Colorado State University

Quantification of Formic Acid and In-Field Instrument Development During the 2013 SOAS Field Campaign

Patrick Brophy, Colorado State University

Spatial and Vertical Variability of Ammonia in Northern Colorado, United State

Yi Li, Colorado State University

Aircraft measurement of glyoxal (CHOCHO) over southeast U.S. during SENEX 2013

Kyung-Eun Min, NOAA/CIRES

Cloud resolving simulation of AIE over Northern India

Chandan Sarangi, NCAR/ITT Kanpur

Improved parameterization of heterogeneous ice nucleation by natural dust and soot in the Community Atmospheric Model version 5

Yong Wang, University of Wyoming

Metal Concentrations in Fine Particulate Matter from the Light Rail System in Denver Metro

Benton Cartledge, University of Denver

Seasonal cycles of fluorescent biological aerosol particles in boreal and semi-arid forests of Finland and Colorado

Carolyn Schumacher, University of Denver

Characterization of Atmospheric Aerosols in Tropical Premontane Cloud Forest

Emily Guffin, Colorado College

Natural emissions in the Brazilian Amazon rainforest: impact on the oxidative capacity of the atmosphere

Fernando Cavalcante dos Santos, National Institute for Space Research – INPE/Brazil

Aerosol and climate sensitivity to cookstove emissions

Jack Kodros, Colorado State University

Microphysical simulation of biomass-burning aerosol size distributions from BORTAS 2011

Kimiko Sakamoto, Colorado State University

Understanding the Effects of Human-Generated Aerosols on Precipitation

Landan MacDonald, Colorado State University

Reactive Nitrogen Partitioning and its Relationship to Winter Ozone Events in Utah

Robert Wild, University of Colorado at Boulder/NOAA

Symposium Attendees and Affiliations

University of Colorado at Boulder

Ariel Morrison
Forrest Lacey
Rui Li (ATOC/NOAA/ESRL CSD)

Colorado College

Emily Guffin

Colorado State University

Aaron Pina
Alex Goodman
Alex Naegele
Alexander Boris
Andy May
Annareli Morales
Aryeh Drager
Ashleigh Kayne (ERHS)
Ashely Evanoski-Cole
Bob Tournay
Bonne Ford
Brad Wells
Brett Basarab
Brody Fuchs
Chengji Liu
Christina McCluskey
Christopher Slocum
David Duncan
Elliott Foust
Erik Nielsen
Erin Dagg
Ezra Levin
Ghassan Alaka
Jack Kodros
Jake Zaragoza
James Ruppert
Jeremiah Sjoberg
Jianbo Liu
Kimiko Sakamoto
Landan MacDonald
Leah Grant
Leah Lindsey
Laura McHale (Mech. Eng.)
Lauren Potter

Marie McGraw
Morgan Phillips
Nicholas Good (ERHS)
Nick Geyer
Noel Hilliard
Patrick Brophy (Chemistry)
Peter Marinescu
Robert Nelson
Samantha Wills
Vandana Jha
Walter Hannah
Yi Li
Zitely Tzompa

Dalhousie University

Robin Stevens
Stephen D'Andrea (CSU)

University of Denver

Benton Cartledge
Carolyn Shumacher
Jixiao Li
Kyra Whitworth
Rachel Hottor-Raguindin

University of Wyoming

Yong Wang

NCAR

Chandan Sarangi (IIT Kanpur)

NOAA

Alexis Attwood
Kyung-Eun Min (CIRES)
Robert Wild (UC- Boulder)

National Institute for Space Research – INPE/Brazil

Fernando Cavalcante dos Santos