



Earth Systems Modeling Graduate Student Symposium

Location: Research Hall 163

Date: April 11, 2019

9:00am Introduction to Symposium & Logistics

9:10am Keynote Lecture 1 (Jagadish Shukla, GMU)

9:45am-10:30am Climate Change Session 1

9:45am: *Tyler Lemburg (University of Nebraska, Lincoln)*
Examining the Influence of Greenland Ice Sheet Melting and Atlantic Meridional Shutdown on the Climate of Scandinavia and the British Isles

10:00am: *Matthew Gropp (UNC, Chapel Hill)*
Storm Scale Impacts of 'Business as Usual' Climate Change on Supercell Thunderstorms

10:15am: *Alexa Zabaske (Texas A&M)*
The Seasonality of Surface Temperature Warming Rates: A Robust Comparison of Models and Observations.

10:30am-11:15am Coffee Break & Poster Session 1

11:15am-12:15pm Climate Change Session 2

11:15am: *Austin Abbott (Old Dominion University)*
Using High Resolution Satellite Imagery to Classify Arctic Sea Ice and Determine Light Transmission

11:30am: *Alberth Nahas (North Carolina State University)*
Estimating Global Ammonia and Nitrous Oxide Emissions from Agricultural Soils in a Changing Climate

11:45am: *Laura McBride (UMD, College Park)*
Overview of the Empirical Model of Global Climate and Probability of Limiting Future Warming to 1.5 and 2.0°C for the Various Shared Socioeconomic Pathways

12:00pm: *Austin Hope (UMD, College Park)*
Considerations of Uncertainties, Feedbacks, and Nonlinearities in the Empirical Model of Global Climate, a Multiple Linear Regression Energy Balance Model

12:15pm-1:10pm Lunch



1:10pm Keynote Lecture 2 (Ben Zaitchik, JHU)

1:50pm Seasonal to Subseasonal Intro (Cristiana Stan, GMU)

2:00pm-2:45pm Seasonal to Subseasonal Session 1

2:00pm: Eli Dennis (UMD, College Park)

Simulating Regional Climate: What is the Role of Soil Texture?

2:15pm: Ralph Getzandanner (GMU)

Are Euro-Atlantic Circulation Regimes Transitions Tropically Forced?
Results from Observations and the Metis ECMWF/COLA/NCAR
Forecast Project

2:30pm: Eviatar Bach (UMD, College Park)

Global Patterns of Local Atmosphere and Ocean Subseasonal
Predictability

2:45pm: Keri Kodoma (GMU)

Assessing the Skill of an Adjusted Wind Power Index for Predicting
ENSO

3:00pm-3:45pm Coffee Break & Poster Session 2

3:45pm-4:30pm Seasonal to Subseasonal Session 2

3:45pm: Marybeth Arcodia (University of Miami)

The Madden-Julian Oscillation and Effects on Northern Midlatitude
Rainfall

4:00pm: Aman Vashisht (JHU)

Do Global Climate Models (GCMs) Capture ENSO Teleconnections
to East African Summer Rainfall?

4:15pm: Paul Buchmann (GMU)

Week 3-4 Predictions Using Machine Learning Techniques

4:30pm Closing Remarks & Adjournment



Poster Presentations

The Comparison of Two Onset Indexes and their Thermodynamic Aspects for North American Monsoon
Shanru Tian (University of Delaware)

Budyko-Sellers One-dimensional Energy Balance Modeling with Accurate Mean Annual Insolation
Christian Taubenberger (GMU)

Parcel Based Economic Impacts of Coastal Flooding and Sea Level Rise in Long Beach, California
Katherine Rainone (Scripps)

Assessing Climate States in Different SST/SSS Restoring Timescales Using NCAR CESM2.0
Qiuying Zhang (Texas A&M)

A New Method of Conducting Decadal Climate Prediction Using Machine Learning
Qinxue Gu (Penn State)

Energy Budget Analysis of TRACMIP Model Simulations Using Machine Learning Method and MERRA-2 Satellite Datasets to Forecast the Solar Energy Potential Under Different Weather Conditions in Ethiopia
Guangyuan Yang (GMU)

Linking the Madden-Julian Oscillation, Tropical Cyclones and Westerly Wind Bursts as Part of El Niño Development
Yu Liang (Yale)

Do CMIP5 Climate Models Agree on Warming of the Atmosphere with Latitude and Height?
Nicholas Golden (UNC, Chapel Hill)

Land-Cover Dependent Relationships Between Fire and Soil Moisture
Alexander Schaefer (UNC, Charlotte)

Identifying Multi-Decadal Variability in Global Ocean Sea Level
Lauren Sommers (Old Dominion University)