Program

All sessions and discussions will be in the Guggenheim Auditorium

Tuesday, May 28th

Afternoon: Check-in

6:00 PM - 7:00 PM: Reception - Carriage House

7:00 PM - 8:00 PM: Dinner - Carriage House. Dessert and coffee at Stonecrop back terrace.

Wednesday, May 29th

7:15 AM - 8:15 AM: Breakfast - Carriage House

8:30 AM - 10:00 AM: Session 1: Monsoons and Madden-Julian Oscillation, Chair: Olivier Pauluis

- Mechanisms of growth and propagation of monsoon synoptic vortices - Bill Boos
- Onset of East Asian subtropical summer monsoon and the impact of MJO - Fuqing Zhang
- The Madden-Julian Oscillation and global atmospheric predictability - Kyle MacRitchie
- Composite analysis of zonally narrow components of the MJO - Paul Roundy
- Radiative feedbacks and the MJO - Adam Sobel

10:00 AM - 10:30 AM: Break

10:30 AM - 11:30 AM: Discussion of Monsoons and MJO

12:00 PM - 1:00 PM: Lunch - Carriage House

1:15 PM - 2:45 PM: Session 2: Convection, Chair: Paul Roundy

- Island precipitation enhancement and the diurnal cycle in radiative-convective equilibrium - Tim Cronin
- Physical mechanisms controlling self-organization of convection in idealized numerical modeling simulations - Allison Wing
- Clarifying the amount effect - Mary Moore
- Probing responses of moist convection to large-scale temperature and moisture perturbations using a Lagrangian particle dispersion model - Yang Tian
- The role of in-cloud heterogeneity in nonlinear chemistry - Jie Nie

2:45 PM - 3:15 PM: Break

3:15 PM - 4:30 PM: Session 3: General Circulation, Chair: Lance Bosart

- Isentropic analysis applied to radiative-convective equilibrium circulation - Olivier Pauluis
- Isentropic analysis applied to the Walker circulation - Joanna Slawinska
- An investigation of the connections between convection, clouds, and climate in a Global Climate Model - Ming Zhao
- The effect of greenhouse-gas-induced changes in SST on the seasonality of tropical precipitation - John Dwyer

4:30 PM - 4:45 PM: Break

4:45 PM - 5:45 PM: Discussion of Convection and General Circulation

6:00 PM - 7:00 PM: Reception and Poster Session A - Guggenheim Master Seminar Room

7:00 PM - 8:00 PM: Dinner - Carriage House

Thursday, May 30th

7:15 AM - 8:15 AM: Breakfast - Carriage House

8:30 AM - 10:00 AM: Session 4: Tropical Cyclones and Climate, Chair: John Molinari

- CMIP5-based projections of tropical cyclone activity - Kerry Emanuel
- Global and regional aspects of tropical cyclone activity in the CMIP5 models - Suzana Camargo
- Environmental control of tropical cyclones in global climate models: a ventilation perspective - Brian Tang
- Dynamical downscaling of tropical cyclone activity: an update on the use of the GFDL hurricane model in multiple basins - Tom Knutson
- The sensitivity of hurricane frequency to ITCZ changes and radiatively forced warming in aquaplanet simulations - Tim Merlis

10:00 AM - 10:30 AM: Break

10:30 AM - 11:30 AM: Discussion of Tropical Cyclones and Climate

12:00 PM - 1:00 PM: Lunch - Carriage House

1:15 PM - 2:30 PM: Session 5: Tropical Cyclogenesis, Chair: Kerry Emanuel

- Upper-level precursors associated with subtropical cyclone formation in the North Atlantic Basin - Alicia Bentley
- A climatology of Central American gyres - Philippe Papin
- Evolution of African Easterly Waves from Africa to cyclogenesis - Alan Brammer
- A climatological study of pouch formation - Ali Asaadi

2:30 PM - 3:00 PM: Break

3:00 PM - 4:15 PM: Session 6: Tropical Cyclone Structure, Chair: Tom Knutson

- Characteristics of tropical cyclones in high-resolution models of the present climate - Daniel Shaevitz
- Isentropic analysis applied to hurricane circulation - Aga Mrowiec
- Equilibrium tropical cyclone size in radiative-convective equilibrim - Dan Chavas
- The tropical cyclone diurnal cycle - Jason Dunion

4:15 PM - 4:30 PM: Break

4:30 PM - 5:30 PM: Discussion of Tropical Cyclogenesis and Tropical Cyclone Structure

6:00 PM - 7:00 PM: Reception and Poster Session B - Guggenheim Master Seminar Room

7:00 PM - 8:00 PM: Dinner - Carriage House

Friday, May 31th

7:15 AM - 8:15 AM: Breakfast - Carriage House

8:30 AM - 9:45 AM: Session 7: Tropical Cyclone - Environmental Interactions, Chair: Kristen Corbosiero

- Tropical cyclones' influence on the ocean: from event scale process to climate scale consequences - Emmanuel Vincent
- Impacts of western North Pacific tropical cyclones on the atmospheric moisture content of their large-scale environment - Ben Schenkel
- The Extreme Precipitation Index (EPI) and its applications to extratropical transition - John Gyakum
- Intensification of an asymmetric, sheared tropical cyclone in a WRF simulation - Leon Nguyen

9:45 AM - 10:15 AM: Break

10:15 AM - 11:30 AM: Session 8: Tropical Cyclone Intensity and Predictability, Chair: Brian Tang

- On the origin and impact of asymmetric polygonal eyewall and mesovortices in the rapid intensification of Hurricane Wilma (2005) - Konstantinos Menelaou
- Linking lightning activity to intensity changes in tropical cyclones: a case study of Hurricane Earl (2010) - Stephanie Stevenson
- Dynamical Analysis of the PSU WRF/EnkF real-time ensemble simulation of Hurricane Sandy (2012) - Erin Munsell
- Effects of vertical wind shear on the predictability of tropical cyclones - Dandan Tao

11:30 AM - 12:30 PM: Discussion of Tropical Cyclone - Environmental Interactions and Tropical Cyclone Intensity and Predictability

12:30 PM - 1:30 PM: Lunch - Carriage House

1:30 PM: Workshop concludes.

Alternate Wednesday Schedule (if weather is favorable)

Morning is unchanged

12:00 PM -1:00 PM: Lunch- Carriage House

1:15 PM - 2:45 PM: Session 2: Convection

2:45PM - 3:15 PM: Discussion of Convection

3:15PM - 6:00 PM: Recreation

6:00 PM - 7:00 PM: Reception and Poster Session A - Guggenheim Master Seminar Room

7:00 PM - 8:00 PM: Dinner - Carriage House

8:30 PM - 9:30 PM: Session 3: General Circulation

9:30 AM - 10:00 PM: Discussion of General Circulation

Poster Session A

The posters may be on display throughout the entire workshop, but poster session A presenters should be present at their poster on Wednesday from 6:00 PM to 7:00 PM.

- Composite analysis of tropical convective systems prior to tropical cyclogenesis - Chip Helms
- Investigating the factors responsible for secondary eyewall formation in an ensemble of high-resolution hurricane simulations - Kristen Corbosiero
- Low bulk Richardson number in the tropical cyclone outflow layer - John Molinari
- Moisture cycle of the Madden-Julian Oscillation, convectively coupled Kelvin waves, and a subset of waves in between - Jennifer Gahtan
- The role of moist static energy and its sources in the Madden-Julian oscillation - Nicholas Mykins
- The intensity and extent of subtropical dry regions under global climate change: an idealized study - Xavier Levine
- A case study of apparent coupling between atmospheric convection and an oceanic Kelvin wave - Bob Setzenfand

Poster Session B

The posters may be on display throughout the entire workshop, but poster session B presenters should be present at their poster on Thursday from 6:00 PM to 7:00 PM.

- Tropical cyclone trains - Christina Carrasco
- Tropical cyclone simulation and response to CO_2 doubling in GFDL CM2.5 high-resolution coupled global model - Hyeong-Seog Kim
- High resolution "dry" thermally forced simulations and the problems of hurricane intensification and secondary eyewall - Kostantinos Menelaou
- Precipitation modulation by the Saint Lawrence River Valley in association with transitioning tropical cyclones - Shawn Milrad
- The role of multi-scale interactions on the observed zonally averaged zonal wind variability associated with the Madden-Julian Oscillation - Naoko Sakaeda
- Modulation of extratropical circulations by intraseasonal tropical convection as a function of phase speed - Nicholas Schiraldi
- Assessing the associations between convectively coupled equatorial wave modes and the polar stratospheric circulation - Larry Gloeckler
- Parameter study of tropical cyclones in rotating radiative-convective equilibrium with meso-scale resolution - Wenyu Zhou