

# **19th CMMAP Team Meeting & NSF Site Review**

**August 4-6, 2015**



## 2015 Site Visit Team

Anantha Aiyer  
Marine, Earth & Atmospheric Sciences  
North Carolina State University  
Raleigh, NC

Rong Fu  
Jackson School of Geosciences  
University of Texas at Austin  
Austin, TX

Tracy Holloway  
Center for Sustainability and the Global Environment  
University of Wisconsin - Madison  
Madison, WI

Ben Kirtman (Chair)  
Rosensteil School of Marine and Atmospheric Science  
University of Miami  
Miami, FL

Var Limpasuvan  
Department of Chemistry and Physics  
Coastal Carolina University  
Conway, SC

## From NSF

Eric DeWeaver  
Program Director  
Climate and Large Scale Dynamics Program Division of Atmospheric and Geospace Sciences  
Directorate for Geosciences  
National Science Foundation

Dragana Brzakovic  
Senior Staff Associate  
Office of Integrative Activities (OD/OIA)  
National Science Foundation

John Cherniavsky  
Senior Advisor for Research  
Division of Research on Learning in Formal and Informal Settings (DRL)  
Directorate for Education and Human Resources  
National Science Foundation

# Members of CMMAP's External Advisory Panel



**Brian Mapes, Chair**



**Mike Wehner**

# Introductions

Nathan Arnold - NASA GSFC

Joseph Balsells - Yale University & CIRES CU

Elizabeth Barnes, CSU ATS faculty member

Andrea Clements - CSU ATS Collett Research Group

Jeff Collett - CSU ATS Department Head

Paul DeMott - CSU ATS Kreidenweis Research Group

Nolan Doesken - CSU - Colorado's State Climatologist

Emily Fisher - CSU ATS faculty member

Arsineh Hecobian - CSU ATS Collett Research Group

Thomas Hill - CSU ATS Kreidenweis Research Group

Patrick Kennedy - CSU CHILL

Pat Keys - Stockholm University

Lixin Lu - CSU CIRA

Peter Marinescu - CSU ATS van den Heever & Kreidenweis Research Groups

Tom McKee - MAC Foundation & former CSU ATS Department Head

Hiroaki Miura - Faculty member, University of Tokyo

Kate Musgrave - CSU CIRA

Rob Nelson - CSU ATS O'Dell Research Group

Keith Oleson - NCAR

Ned Patton - NCAR

Jeff Pierce - CSU ATS faculty member

Ravi Ravishankara - CSU ATS faculty member (joint with Chemistry)

Steve Rutledge - CSU ATS faculty member

Chris Slocum - CSU ATS Schubert Research Group

Tamaki Suematsu - University of Tokyo

Amy Sullivan - CSU ATS Collett Research Group

Tak Yamaguchi, CIRES

# CMMAP 2015 Summer Interns



# 19th CMMAP Team Meeting & NSF Site Review

## August 4-6, 2015

Tuesday, August 4, 2015 — Scott Bioengineering Building		
8:00	David Randall	Welcome, Introductions, and Overview of Agenda
8:15	Nathan Arnold	Convective Self-Aggregation and the Madden-Julian Oscillation
9:15	David Randall	Chaotic Clouds
9:35	Emily Fischer	Make it Happen: Developing Deliberate Mentoring Approaches to Increase the Recruitment and Persistence of Women in the Geosciences
10:00	<i>Break in Atrium</i>	
10:15	Peter Blossey	Cloud Feedbacks in Shallow Cumulus Clouds
10:35	Marat Khairoutdinov	ECMWF IFS with Super-Parameterization: Preliminary Results
10:55	Joon-Hee Jung	Progress towards a global Q3D MMF
11:15	Morgan Phillips	Extreme Precipitation in a Multi-Scale Modeling Framework
11:35	Cristina Stan	Projection of Summer Precipitation over the Southeastern U.S.
<i>Group photo in the Scott Building Atrium as we break for lunch.</i>		
12:00	<i>Lunch on your own</i>	

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Tuesday, August 4, 2015 — Scott Bioengineering Building		
1:15	Emily Fischer	Fresh Insights into the Sources and Distribution of Peroxyacetyl Nitrate (PAN) from New Satellite and In Situ Observations
2:15	Hugh Morrison	Advection of Coupled Hydrometeor Quantities in Microphysics Schemes
2:35	Sonia Kreidenweis	Modeling Aerosol Impacts on Two MC3E MCSs
2:55	<i>Break in Atrium</i>	
3:15	<i>Session for CMMAP Interns on Communicating Your Science — Scott Room 231</i>	
CMMAP's Contributions to Understanding the MJO		
3:15	Jim Benedict	The MJO in SP-CAM
3:30	Charlotte DeMott	Air-Sea Coupling and the MJO
3:45	Minoru Chikira	A Weak Temperature Gradient Framework for MJO Diagnosis
4:00	Brandon Wolding	Objective Diagnostics of the MJO Applied to Reanalysis and SP-CCSM
4:15	Tamaki Suematsu and Hiroaki Miura	Dependence of the MJO Propagation Speed on SST and its Reproducibility on NICAM-AMIP Run
4:45	Eric Maloney	Synthesis of CMMAP's Contribution to Advancing the State of Knowledge of the MJO
5:00	Discussion time & adjourn	
6:30	<i>CMMAP EC &amp; NSF working dinner at El Monte Grill (1611 S. College Ave., easy walk from Hilton)</i>	

# 19th CMMAP Team Meeting & NSF Site Review

## August 4-6, 2015

Wednesday, August 5, 2015 — Scott Bioengineering Building

### NSF Site Review of CMMAP

8:30	Welcome & Introductions	
8:45	David Randall	CMMAP's Research Legacy
10:00	<i>Break in Atrium</i>	
10:15	Steve Krueger	CMMAP's Knowledge Transfer Legacy
11:00	Scott Denning, Melissa Burt, & Brian Jones	CMMAP's Education & Diversity Legacy
11:45	Discussion	
12:00	<i>Lunch on your own</i>	
<i>NSF Site Review Team prepares questions for CMMAP EC.</i>		

# 19th CMMAP Team Meeting & NSF Site Review

## August 4-6, 2015

Wednesday, August 5, 2015 — Scott Bioengineering Building		
Recognition of CMMAP Contributions		
1:30	David Randall	Welcome
1:40	Alan Rudolph, CSU Vice President for Research	
1:45	David McLean, CSU Dean of College of Engineering	
1:50	Jeff Collett, Head, CSU Department of Atmospheric Science	
2:00	Mary Ontiveros, CSU Vice President for Diversity	
2:05	Thomas Windham, CMMAP Diversity Consultant	
2:10	Tammi Vacha-Haase, Associate Dean of CSU's Graduate School	
2:15	Jan Nerger, CSU Dean of College of Natural Sciences	
2:20	Scott Denning, CMMAP's cross-campus reach	
2:30	Wayne Schubert, CMMAP Knowledge Transfer	
2:40	Wade Troxell, Mayor of Fort Collins	
2:45	David Randall, CMMAP Center Director	
3:00	<b>Reception in Atrium, with hands-on science demonstrations by CSU's Little Shop of Physics</b>	
4:30	<i>CMMAP EC meets with NSF Site Review Team to receive questions</i>	
5:30	<b>Dinner at David and Mary Kay Randall's home</b>	
8:30	<i>CMMAP EC prepares responses to Site Review questions</i>	

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## August 4-6, 2015

Thursday, August 6, 2015 — Morning in Scott Bioengineering Building / Afternoon at Hilton		
8:00	<i>CMMAP EC responds to NSF Site Review Team at Hilton in Rams Room</i>	
8:15	<i>Optional Activity: CSU Weather Station Open House hosted by Don Dazlich</i>	
9:15	Wojciech Grabowski	Towards Global Large Eddy Simulation: Super-Parameterization Revisited
10:15	<i>Break in Atrium</i>	
10:30	Todd Jones	Aqua Planet Simulations with SP-NIM
10:50	Celal Konor	Curl Curl
11:10	Takanobu Yamaguchi	Improving Simulated Low Clouds in CSRM/GCM with Dual Vertical Resolution Framework
11:30	Marat Khairoutdinov	Near-Global Simulations of Aquaplanet with SAM
12:00	<i>CMMAP EC meet with NSF Site Review Team at Hilton in Rams Room for Site Visit report briefing</i>	
<b>Travel to Hilton Fort Collins for afternoon poster session and lunch.</b>		
12:30	<i>Poster Session &amp; Reception in Hilton Fort Collins Ballroom — Food will be provided.</i>	
2:30	Meeting adjourns	

# Nathan Arnold

