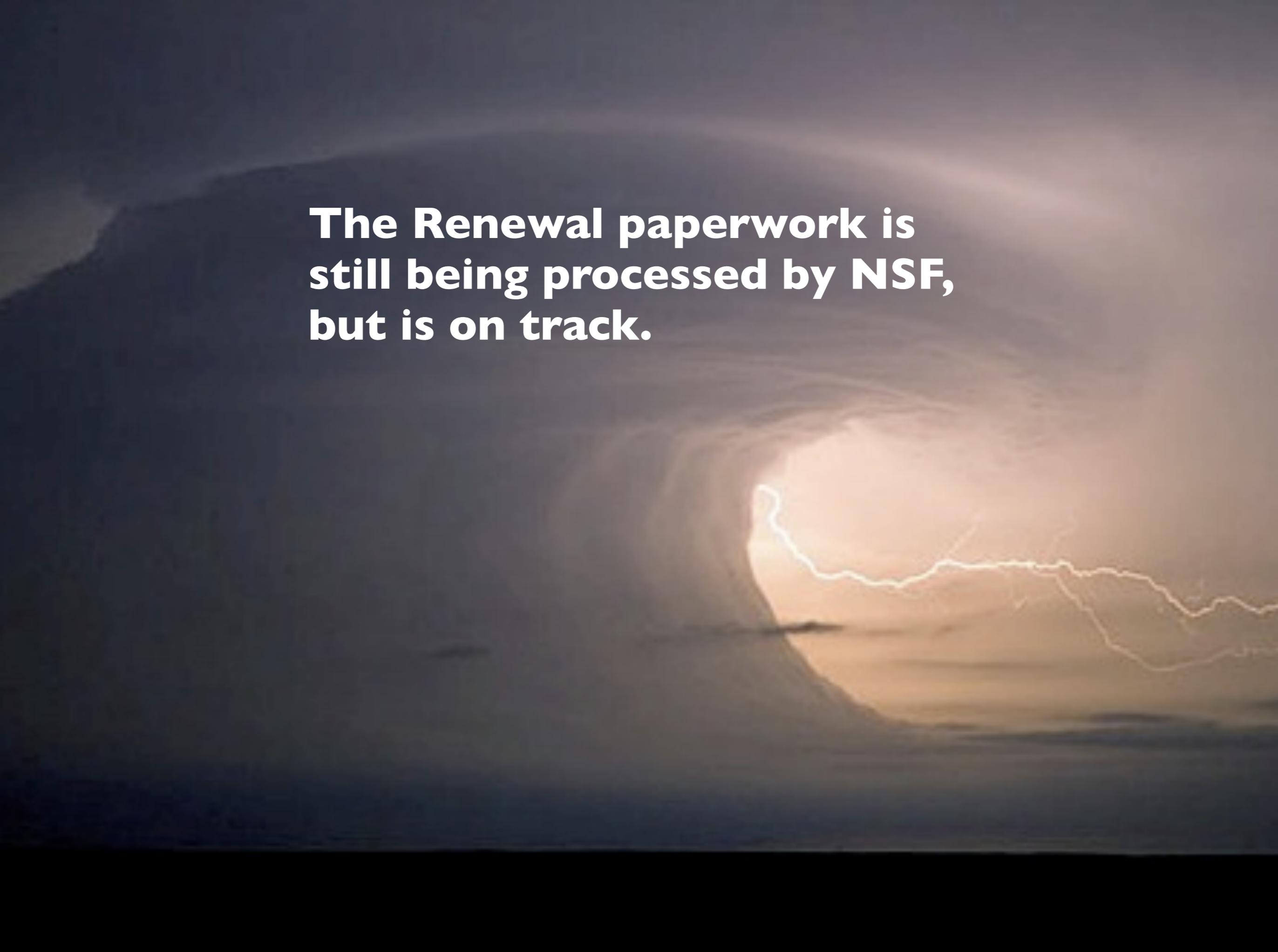


11th CMMAP Team Meeting

August 9-11, 2011





The Renewal paperwork is still being processed by NSF, but is on track.

CMMAP's 2011 Summer Interns



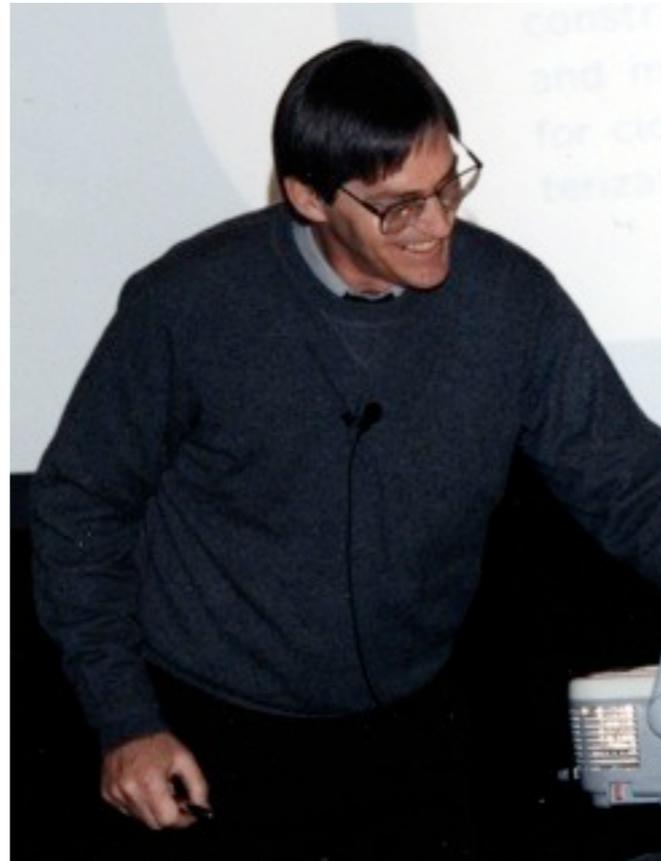
External Advisory Panel



Larissa Back
Tony DelGenio
George Kiladis, outgoing Chair
Brian Mapes, incoming Chair
Marco Molinaro
Stephanie Rivale
Mike Wehner



Wayne Schubert



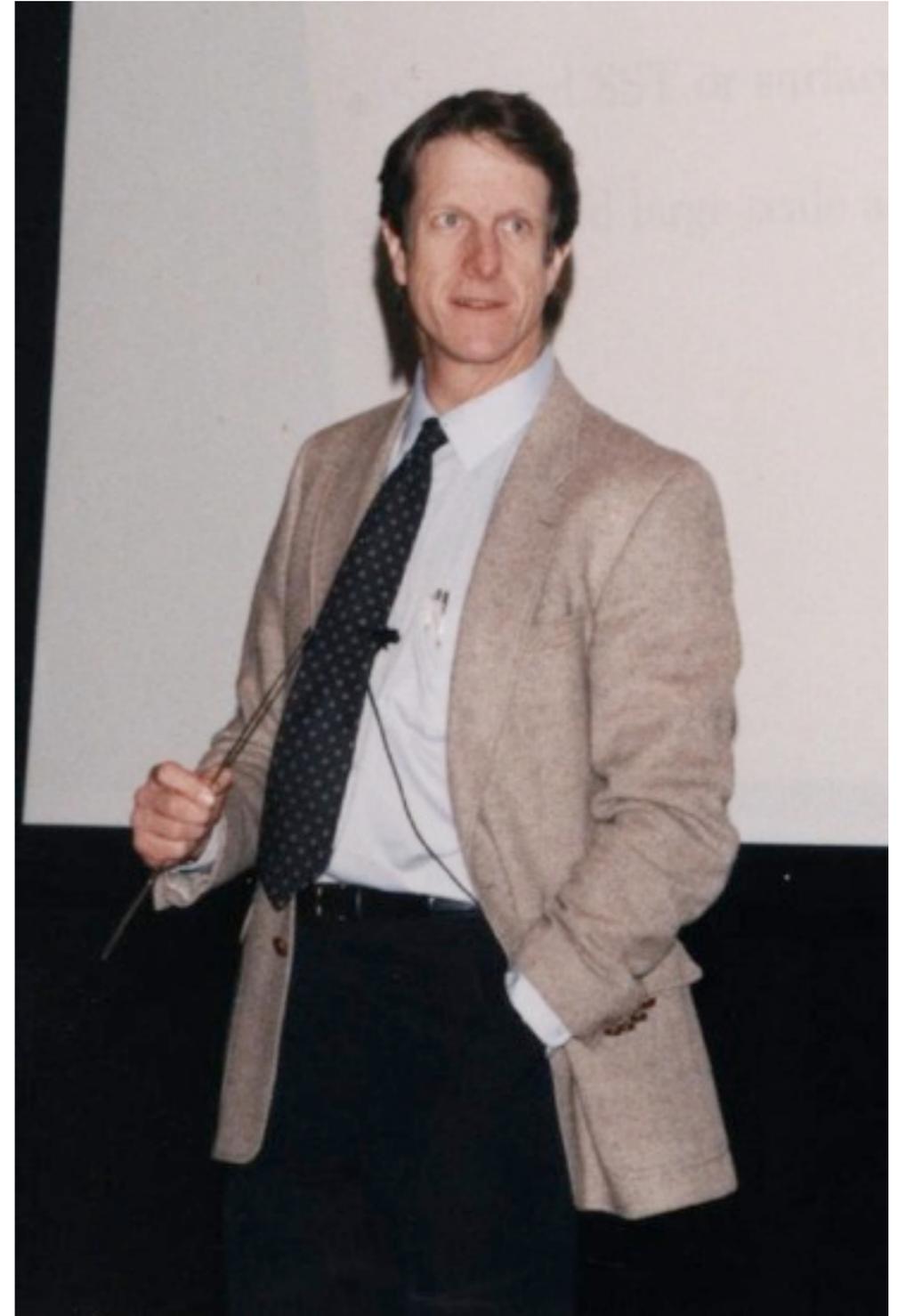
New Director for Knowledge Transfer

**Professor of Atmospheric Sciences
University of Utah**

Model builder

**Pioneer with cloud-resolving models
during the 1980s**

**Close ties to the U.S. National
Centers for Environmental Prediction**



People

People



Eli Tziperman

People



Eli Tziperman



Bjorn Stevens

People



Eli Tziperman



Bjorn Stevens



Katherine Straub

People



Eli Tziperman



Bjorn Stevens



Katherine Straub



Jay Fein

Education & Diversity Retreat, Yesterday



E&D Retreat

- “What’s up with the hexagons?”
- Climate videos for grownups:
“College-level content, primer-level clarity”
- Why atmospheric science:
Academic research on gender diversity
- Recruiting: internships, undergrad inst. visits
- NSF Opportunity: Informal Science Ed

E&D Retreat

- The very very simple climate model (VVSCM)
- High School climate conference 2011
- LSOP Brainstorming on waves and scale
- *ClimateSense* magazine
- NSF Opportunity: Undergrad education

Announcements

Marcia Donnelson





JANUARY 2012 CMMAP TEAM MEETING UPDATE

Been wondering where we're headed next?

Fort Lauderdale, Florida

Fort Lauderdale, Florida



Our Venue:

Hilton Fort Lauderdale Marina

Our Venue:
Hilton Fort Lauderdale Marina



Education and Diversity Retreat

Monday January 9, 2012

CMMAP Team Meeting

Tuesday January 10 - Thursday January 12, 2012

A few fun facts...

- **Average temps in Fort Lauderdale in January: High 77° F , Low 58° F**
- **Drive-time from the airport to the Hilton is 10 minutes**
- **The Hilton is on the Intracoastal Waterway, 1.5 miles from the beach**
- **Water Taxi stop on-property, and Sun Trolley shuttle stop across the street - both will take you to Fort Lauderdale beaches and restaurants**

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More details to follow!

Questions?

Feel free to call or email any time:

970-491-8478

clairefleming@atmos.colostate.edu

2011 Site Visit

Excerpts from the report

CMMAP continues to perform as a well integrated team of dedicated and talented scientists, educators and administrators. The scientific research conducted on the role of clouds in weather and climate has been exemplary and has already achieved, and in some cases, exceeded, many of the proposed research objectives of the Center. Research planned over the next five years builds upon and extends these commendable accomplishments.

The education, diversity and outreach accomplishments have been outstanding and have far exceeded many of the original objectives, goals and expectations. Already, at the halfway point of the Center's lifetime, an education, diversity and outreach legacy is emerging. The education, diversity and outreach partnerships created by CMMAP are extraordinarily well integrated.

CMMAP's knowledge transfer activities and accomplishments have also been excellent. Accomplishments include the publication of the book, *The Development of Atmospheric General Circulation Models*, and the conception and creation of the *Journal of Advances in Modeling Earth Systems (JAMES)*, recently adopted by the American Geophysical Union.

The Next Five Years



Research

- 1. Further development of global models with diverse representations of cloud processes.**
- 2. Further development and testing of improved parameterizations of microphysics, turbulence, and radiation.**
- 3. Application of CMAP models to study multiscale interactions of the atmosphere and land-surface.**
- 4. Application of CMAP models to study the coupled climate system.**
- 5. Community-based evaluation of results produced by CMAP models, through the use of diverse observations.**
- 6. Management, analysis and visualization of very large model output datasets -- creation of infrastructure.**

New Working Group on Coupled Models & Climate Change



Cristiana Stan



Charlotte DeMott

Education

- 1. Enhance K-12 science education.**
- 2. Improve undergraduate climate education.**
- 3. Train the next generation of climate scientists.**
- 4. Engage the larger culture regarding climate.**

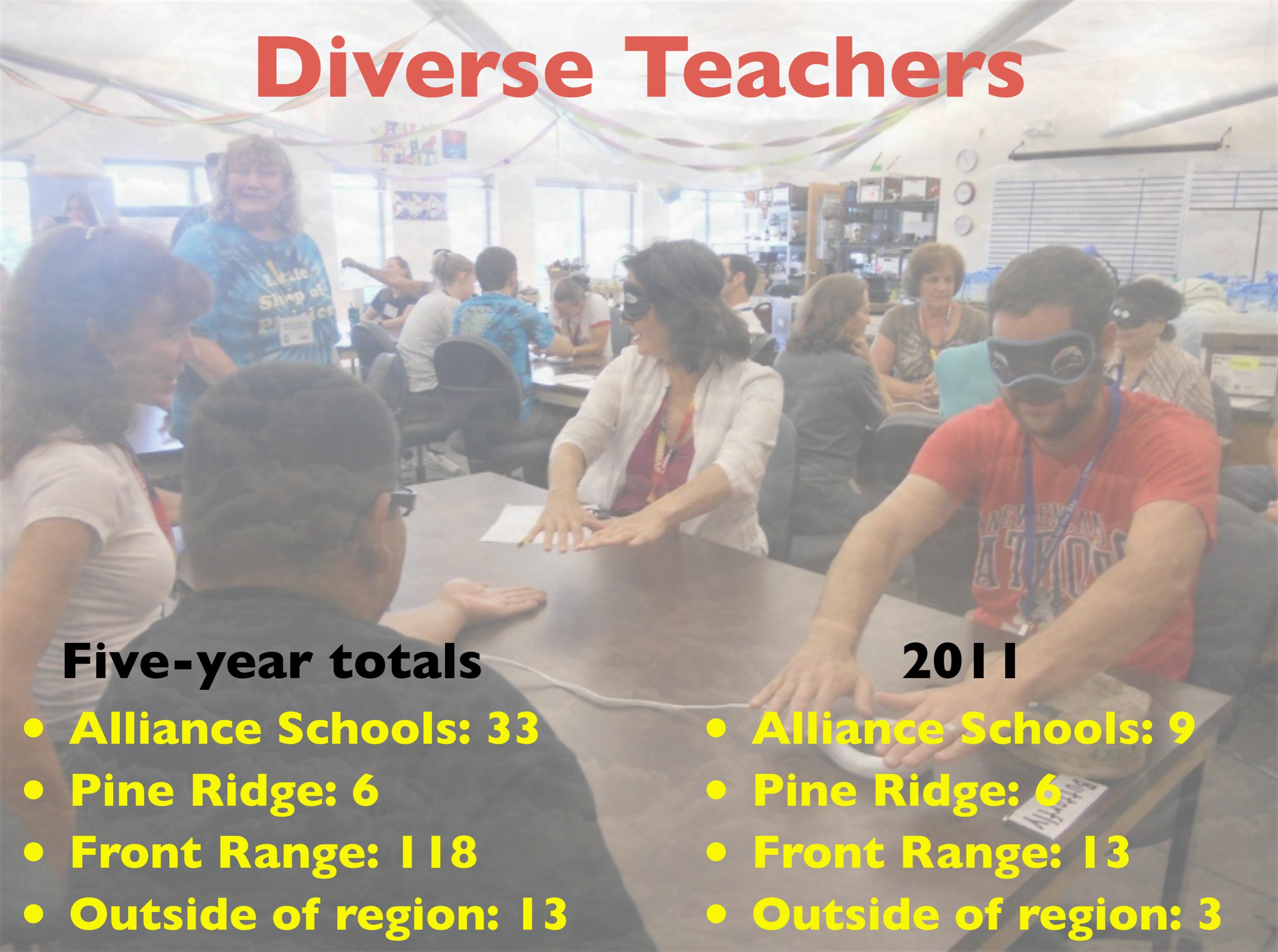
REACH



Diversity

- 1. Recruit and support undergraduate and graduate students from underrepresented groups.**
- 2. Implement programs that encourage retention of women, minorities and the underrepresented in the science pipeline.**
- 3. Study diversity problems and solutions, and disseminate results.**
- 4. Engage diverse communities in conversations about climate.**

Diverse Teachers



Five-year totals

- Alliance Schools: 33
- Pine Ridge: 6
- Front Range: 118
- Outside of region: 13

2011

- Alliance Schools: 9
- Pine Ridge: 6
- Front Range: 13
- Outside of region: 3

Knowledge Transfer

- 1. Collaborate with CCSM on climate change simulations.**
- 2. Collaborate on global atmospheric model development.**
- 3. Create a national training resource for global modelers.**
- 4. Foster JAMES, and wean it from CMMAP.**
- 5. Create an online magazine for public outreach.**



Governor's
Energy Office



Jay Fein

CMMAP 11th Team Meeting

August 9-11, 2011

Tuesday, August 9, 2011		
8:30	David Randall & others	Opening remarks, Agenda, Logistics, and Updates
9:15	Eli Tziperman	Coupled Models and Climate Change
10:15	Break	
10:30	Marat Khairoutdinov	Tropical Cyclones
11:15	Scott Denning	Colorado Energy Office
12:00	Group Photo, followed by Lunch on your own	
1:30	Rodger - Marcia	REACH
1:50	Coupled Models - Salon 4, KT - Salon 3	Breakout Session # 1 - Coupled Models and Climate Change and Knowledge Transfer
3:00	Break	
3:15		Breakout Session # 1 - Continues
5:30	Team Dinner - Dave Randall's House	

CMMAP 11th Team Meeting

August 9-11, 2011

Wednesday, August 10, 2011		
8:30	Bjorn Stevens	TBD
9:15	Physical Processes- Salon 4, Cyber Infrastructure - Salon 3	Breakout Session #2 (Cyber Infrastructure and Physical Processes)
10:15	Break	
10:30		Breakout Session #2 Continues
12:00	Lunch on your own	
1:30	Jack Fellows	Creation of the USGCRP - The Inside Story
2:10	Raj Pandya	UCAR E & O New Strategy Plan
2:20	Dynamical Framework - Salon 4, ED - Salon 3	Breakout Session #3 (ED and Dynamical Framework)
3:00	Break	
3:15		Breakout Session #3 continues
5:15	Adjourn for Short Break Prior to Poster Session	
5:30	Poster Session and Reception at the Hilton	

CMMAP 11th Team Meeting

August 9-11, 2011

Thursday, August 11, 2011		
8:30	Wayne Schubert	Tropical Challenges for GCMs
9:15	Multiscale Land Surface - Salon 4, Cloud Feedback - Salon 3	Breakout Session #4 (Cloud Feedback and Multiscale Land Surface)
10:15	Break	
10:30		Breakout Session #4 continues
11:30	Lunch on your own	
1:00		Reports from Breakout Sessions
2:30	David Randall	Wrap-Up
3:00	Adjourn	

CMMAP 11th Team Meeting

August 9-11, 2011

List of Breakout Sessions:

	Breakout Session #1 Tuesday PM	Breakout Session #2 Wednesday AM	Breakout Session #3 Wednesday PM	Breakout Session #4 Thursday AM
Main Meeting Room	Coupled Models and Climate Change	Cyber Infrastructure	Education & Diversity	Cloud Feedbacks
Breakout Room	Knowledge Transfer	Physical Processes	Dynamical Frameworks	Multiscale Land Surface





Ellesmere Island
80 °N
50 MYA
1200 ppmv CO₂

