

Knowledge Transfer to Climate Modeling and NWP Centers: KT Area of the CMMAP Website

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KT Area of CMMAP website

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KT Theme

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Knowledge Transfer

CMMAP engages in two-way knowledge transfer that benefits the Center, the public, and the academic and research communities. This will occur through the transfer of the modeling technology to other modeling centers, and through the creation of new publications channels for work on global environmental modeling.

- [Short Papers](#) - Short papers and visualization on CMMAP research topics
- [Student Section](#) - Opportunities at the graduate, postdoc and faculty levels within CMMAP and its partner academic institutions
- [KT Partners](#) - Government Centers, Climate and NWP Centers, Industry Partners
- Publication Projects
 - [Book](#) - Book Project link for Authors
 - [Journal](#) - Demonstration version of CMMAP's online, open access journal, JAMES!
- [CMMAP Research Groups](#) - List of CMMAP research groups on the 'Student Section'
- [Calendar](#) - Link to the CMMAP calendar. Also, see the list of specific KT activities below.
- [Past Conference & Workshop Photos](#)

Quick link to KT Themes and Blog :
[KT to Climate Modeling and NWP Centers](#) | [Book & Journal](#)

Objective Collaboration Wiki (coming soon)

KNOWLEDGE TRANSFER CALENDAR

- **KT Telecon**
Monday, July 30, 11:30am MDT
We will present an update on the CMMAP Book and Journal Projects, and take a look at KT material related to student involvement at Climate and NWP centers for presentation at the August STM.
The call in number for the meeting is 970-491-2601. Rodger will send out materials for discussion in advance of the call.
- **Summer Graduate Colloquium**
August 6-13
 - Atmospheric Science, Colorado State University, Ft Collins
 - More information and registration may be found [here](#).
- **Outreach activities with University Corporation for Atmospheric Research (UCAR)**
CMMAP has an active partnership with UCAR to disseminate CMMAP science results to a range of audiences through their [Windows to the Universe website](#). All of this material is delivered in three different levels, in both Spanish and English. The site serves over 1 million unique users per month.

Student Section (1)

CMMAP

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Student Section - This section provides information about student opportunities within CMMAP and its partner institutions. Partners in this section are academic institutions affiliated with CMMAP. This page is aimed towards students at the undergraduate and graduate levels. However, resources at the post graduate and faculty levels can also be found here. Please contact the CMMAP [KT group](#) if you would like to add or update the student information at your institution.

Internships, Scholarships, and General Information for Students

- Internships
 - SOARS [Education, Outreach and Diversity Opportunities](#)
- Scholarships
 - Minority Scholarships [Education, Outreach and Diversity Opportunities](#)
- Institutes and workshops
 - July 2007 Summer Course for Teachers: [Post-Course Resources](#)
 - August 2007 [Graduate Colloquium](#)
- Academic institutions involved in CMMAP
 - [Academic Research Groups](#)
- Government Centers, Climate and NWP Centers, Industry Partners
 - [KT Partnerships](#)
- KT to Climate Modeling and NWP Centers [Blog](#)

Opportunities by Student Level

- Under Graduate
 - [CMMAP Research Groups](#)
 - Opportunities at CUNY for GIS related work
- Graduate
 - NCAR Advanced Study Program - Graduate Visitor Program www.asp.ucar.edu
- Post Doc
 - NCAR Advanced Study Program - Postdoctoral Fellowships www.asp.ucar.edu
 - Princeton Atmospheric and Oceanic Sciences www.aos.princeton.edu/PostDoc.html
- Research scientist and faculty positions
 - NCAR Advanced Study Program - Faculty Fellowship Program www.asp.ucar.edu

Current Activities

- University of Utah PhD student (with Steve Krueger) to NCEP, summer 2008
- CSU Mentoring through SOARS


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Institution	Department	Name	Role in CMMAP	CMMAP Students
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Student Section (2)

Institution	Department	Name	Role in CMMAP	CMMAP Students
Colorado State University	Atmospheric Science	Alan Scott Denning	Associate Directory for Education and Outreach; Use of MMFs to study the carbon cycle	Anna Harper ZiZi Searkss (SOARS) Parker Kraus (UGrad Intern)
		Marat Khairoutdinov	Development of CSRMs and MMFs	
		Sonia Kreidenweis	Use of MMFs with aerosol and cloud microphysics parameterizations	
		David Randall	CMMAP Principal Investigator; further development of the MMF	Rachel McCrary Melissa Burt Todd Jones Maike Ahlgrimm Jim Henedict
		Christian Kummerow	Liaison to TRMM and GPM; use of these datasets for model evaluation	Greg Elsaesser
		Wayne Schubert	Associate Director for Knowledge Transfer; further development of the MMF with an emphasis on the choice of governing equations	Alex Gonzalez (SOARS)
		Graeme Stephens	Model evaluation based on CloudSat data	Rachel Storer
	Dave Thompson		Claudette Ojo (UGrad Intern)	
	Jeffrey Collett		Beth Beckel (UGrad Intern)	
	Sociology	Mike Lacey		Matt Aronson
Psychology	Sylvia Canetto		Samantha Farro Aki Hosoi	
University of California, Los Angeles	Atmospheric and Ocean Sciences	Akio Arakawa	Development of improved GCMs and cloud parameterizations	Chien-Ming Wu
		Bjorn Stevens	Development of conventional parameterizations	
University of California, San Diego	Supercomputer Center	John Helly	Associate Director for Computation, and liaison to SDSC	
	Scripps Institution of Oceanography,	Richard Somerville	Development of cloud-radiation parameterizations	Mike Pritchard
University of Washington	JISAO	Thomas Ackerman	Model evaluation using ARM data	
	Atmospheric Sciences	Christopher Bretherton	Development of improved cloud parameterizations	
University of Maryland	Atmospheric and Ocean Science	Antonio Busalacchi	Use of satellite data to evaluate MMF results	
UC Berkeley	Lawrence Berkeley Labs	William Collins	Developer of radiative transfer parameterizations; Liaison to CCSM	
University of Utah	Meteorology	Steven Krueger	Development of improved MMFs	Peter Bogenschutz
University of Tokyo	Center for Climate Systems Research	Masahide Kimoto	Scientific participant in CMMAP Workshops; development of improved MMFs	
Hampton University	Center for Atmospheric Science	Patrick McCormick	Use of satellite data to evaluate MMF results	Two incoming students
University of Colorado	CIRES Climate Diagnostics Center	Robert Pincus	Development of cloud parameterizations	
City College of New York	Electrical Engineering	William Rossow: CUNY NASA/GISS	Model evaluation, especially using ISCCP data	

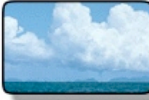
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Knowledge Transfer

Knowledge Transfer Partners - This section provides information about activities within CMMAP and the Center's partner institutions. Partners included in this section are primarily Climate and NWP centers affiliated with the Center. The information available here is aimed at scientists at the post graduate, faculty, and research scientist levels. If you would like to post opportunities at your organization please contact the [KT group](#).

Partnerships




- Visiting Scientists
 - Dr. H. Miura from [FRCGC](#)
- Government sponsored centers
 - [Partners](#)
- Climate and NWP Centers
 - [Partners](#)
- Academic partners
 - [Student Section](#) - Link to the Student Resources page
- KT to Climate Modeling and NWP Centers - [Blog](#)

Internships and employment opportunities






- Graduate and Post Doc
 - NCAR Advanced Study Program - Graduate Visitor Program and Postdoctoral Fellowships [www.asp.ucar.edu](#)
 - Princeton Atmospheric and Oceanic Sciences [www.aos.princeton.edu/PostDoc.html](#)
- Research scientist and faculty positions
- Industry

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Government Centers			
Partners	Existing Two-Way Communication	Plans	
PNNL (Pacific Northwest National Laboratory)	T.Ackerman has left PNNL for U.W.	S. Ghan will interact with CMMAP scientists on aerosols and cloud microphysics in climate modeling.	
NASA/LaRC (Langley Research Center)	K.-M. Xu, B. Wielicki collaborate on turbulence parameterizations and the use of satellite data for model evaluation.	No change.	
NASA/GSFC (Goddard Space Flight Center)	W.-K.Tao collaborates on the development of improved MMFs and on data assimilation.	No change.	
Climate and NWP Centers			
Partners	Existing Two-Way Communication	Plans	

KT Partners (2)

Climate and NWP Centers			
Partners	Existing Two-Way Communication	Plans	
CCSM (Community Climate System Model user group)	C.-H. Moeng (CMMAP Deputy Director), M. Moncrieff, and W. Grabowski of NCAR/MMM play a crucial role in research interactions on the boundary layer, the MJO, and the MMF. W. Collins and J. Hack of NCAR/CGD are important collaborators on radiative transfer and on the CAM.	Enhance interaction with CAM (Community Atmosphere Model) scientists.	
FRCGC (Frontier Research Center for Global Change)	H. Miura, T. Nasuno, and M. Satoh collaborate on GCRMs.	H. Miura will be a visiting scientist at CSU for one year, working on GCRM development.	
ECMWF (European Center for Medium Range Forecasts)	M. Miller interacts with CMMAP scientists on medium range forecasting, model evaluation through NWP	Work to engage additional ECMWF scientists.	
BMRC (Bureau of Meteorology Research Center)	C. Jakob collaborates in the evaluation of global cloudiness simulations. Model evaluation, especially based on ARM data.	C. Jakob has left BMRC for Monash University. We plan to initiate interactions with H. Hendon of BMRC.	
NCEP (National Centers for Environmental Prediction)	S. Lord, L. Uccellini are interacting with CMMAP scientists on the potential of MMFs and GCRMS to improve operational weather forecasting.	S. Lord will present an invited talk at the August Team Meeting on the use of MMF in future operational forecasting models.	
GFDL (Geophysical Fluid Dynamics Laboratory)	L. Donner, our point of contact with GFDL, collaborates on the development of improved MMFs and improved conventional parameterizations.	No change.	
LLNL (Lawrence Livermore National Laboratory)	P. Duffy was involved in the development of the CMMAP proposal, but has since become inactive.	Future interactions with PNNL will center on D. Bader.	
CCSR (Center for Climate System Research)	A. Sumi, T. Nakajima of Tokyo University collaborate on the development of MMFs and improved climate simulations.	No change.	
Met. Service of Canada	H. Barker collaborates in the testing of new radiation parameterizations.	No change.	
LBNL (Lawrence Berkeley National Laboratory)	None	We plan to develop interactions with M. Wehner and W. Collins who has recently move to LBNL	
Industry			
Partners	Existing Two-Way Communication	Plans	
International Business Machines	James Abeles acts as liaison to International Business Machines		
Apple Computer	Josh Thompson acts as liaison to Apple Computer		

JAMES

Journal of Advances in Modeling Earth Systems

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Journal of Advances in Modeling Earth Systems

The Journal of Advances in Modeling Earth Systems (JAMES) is an international, open-access, scientific journal for the publication of original and updated research. JAMES serves the general circulation and global modeling communities by integrating research articles across all aspects of earth systems modeling. JAMES maintains high standards of formal peer review and supports an interactive discussion forum for published articles. By providing open access, research published in JAMES is readily accessible to the global modeling community. JAMES is committed to removing publication barriers and offers low page charges to submitting authors.

Reviews



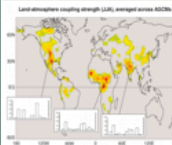
Scientific reviews of the present state of selected aspects of climate research

Short Topics



Shorter research contributions of four or less journal pages on new advances in earth system modeling and climate science.

Research Articles



Research articles on a wide range of topics in climate science, including atmospheric and ocean flows on multiple scales, cloud parameterizations, and numerical methods.

Public Interest



Articles directed to science educators, policy makers, and members of the informed public interested in climate science.

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CMMAP STM, August 2007

Sign Up Sheets

See *KT in CMMAP* poster

- KT opportunities - indicate opportunities/resources available to students/post docs/research scientists/faculty at your institution
- Short papers – one to two page papers on research highlights or your area of research interest
- Possible submissions to JAMES - Research Articles; Short Topics; Review Articles; Policy and Science Education