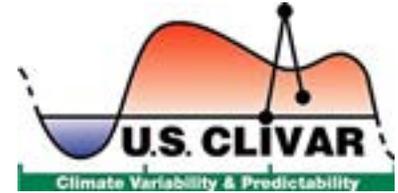


# October 2013 U.S. CLIVAR Newsgram



Please forward to interested colleagues. To include an announcement in our next issue, contact [Jennifer Mays](#).

## Calendar of Upcoming Events

### Announcements

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3. **Upcoming Meetings for MJO Research**
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5. **Annual Meeting of Association of American Geographers 2014 Meeting - Call for Papers in Hydro-climatology and Synoptic Climatology**

### Positions Announcements

1. **NSF Section Head, Atmosphere Section, Arlington, VA**
2. **Director of the National Institute for Undersea Science and Technology, University of Mississippi**
3. **Director, Earth Science and Observation Center, CIRES, UC, Boulder**
4. **Tenure Track Faculty Position, Climate Based Physical Oceanography, CIRES, UC, Boulder**
5. **Two Faculty Positions in Climate/Weather Impacts and Risk Assessments, University of Illinois**
6. **Tenure Track Assistant Professor, Ocean Carbon Cycle Modeling, UC, Santa Barbara**
7. **Tenure-Track Assistant Professor, Ecohydrology, University of Kansas, Lawrence, KS**
8. **Three Tenure Track Faculty Positions, Oceanography, University of Rhode Island**
9. **Tenure Track Assistant/Associate Professor, Physical Oceanography, Old Dominion University**
10. **Tenure Track Assistant Professor, Chemical Oceanography, University of California, Santa Cruz**
11. **Two Tenure Track Research Faculty Positions, Atmospheric Science, University at Albany, SUNY**
12. **Tenure Track Faculty Position, Atmospheric/Ocean Theory, University of Toronto, Canada**
13. **Tenure Track Faculty Position, Experimental Climate Physics, University of Toronto, Canada**
14. **Assistant Professor, Coastal Physical Oceanography, Montclair State University**
15. **Tenure Track Assistant Professor, Atmospheric Sciences, University of Virginia**

cont.

16. **Faculty Position, Climate Science & Global Environmental Change, Northern Arizona University**
17. **Research Scientists, CASCADE and iESM, Lawrence Berkeley National Laboratory**
18. **Postdoc, Clouds and Aerosols Research, Lawrence Livermore National Laboratory**
19. **Postdoc, Sea Ice Modeling, Los Alamos National Laboratory, Los Alamos, NM**
20. **Postdoc, Atmospheric Chemistry/Aerosol Modeler, North Carolina State University**
21. **Postdoc, Land Surface Modeling, Pacific Northwest National Laboratory, Richland, WA**
22. **Research Associate, Cloud Dataset Development and Analysis, CICS, University of Maryland**
23. **Graduate Studentship, Global Ocean-Climate Change & Marine Calcification, Northeastern University**
24. **Graduate Studentship, Climate Variations and Change, University of California, Santa Barbara**
25. **Graduate Studentships, Arctic Sea Ice Variability & Greenland Ice Sheet Surface Mass Balance, Rutgers University, Rutgers, NJ; City College of New York, NYC**

## **Calendar of Upcoming Events**

also see [our online calendar](#)

### **NOAA's 38th Climate Diagnostics and Prediction Workshop**

October 21-25, 2013  
College Park, MD

### **CLIVAR Tropical Atlantic Variability (TAV) Prediction and Research Moored Array in the Tropical Atlantic (PIRATA) Meeting**

October 22-25, 2013  
Ca' Foscari University, Venice, Italy

### **WCRP/CLIVAR 13th Session of the Asian-Australian Monsoon Panel (AAMP13)**

October 26-27, 2013  
Macao, China

### **GEWEX Scientific Steering Group (SSG-26)**

October 28-31, 2013  
NCAR Mesa Lab, Boulder, CO

### **GODAE OceanView Symposium 2013**

**"International Operational Oceanography: 5 years on from GODAE - where are we now?"**  
November 4-6, 2013  
NOAA/NCWCP, Washington, DC

### **International Conference on Regional Climate - CORDEX 2013, A partnership between WCRP, the European Commission and IPCC**

November 4, 2013 to November 7, 2013  
Brussels, Belgium

### **PMIP Ocean Workshop 2013**

December 4-6, 2013  
Corvallis, OR

### **AGU 2013 Fall Meeting**

December 9-13, 2013  
San Francisco, CA

### **CLIVAR Town Hall at AGU**

December 9, 2013, 12:30-1:30 PM  
2005 Moscone West, San Francisco, CA

### **SPARC 2014 General Assembly**

January 12-17, 2014  
Queenstown, New Zealand

### **94th AMS Annual Meeting:**

**"Extreme Weather - Climate and the Built Environment: New Perspectives Opportunities, and Tools"**  
February 2-6, 2014  
Atlanta, GA

## Announcements

### 1. New U.S. CLIVAR Project Office Location

We've moved! The U.S. CLIVAR Project Office is now located at 1201 New York Ave NW, 4th Floor, Rooms 4002-4004, Washington, DC 20005. Our new phone number is 202.787.1682. We're co-located with members of the **UCAR Washington Office** at the **Consortium for Ocean Leadership**. We're looking forward to working with these colleagues in our new office space. Feel free to stop by and say hello if you're in the Washington area.

### 2. NOAA Releases Five Year Research and Development Plan

NOAA announces the release of their Five Year Research and Development (R&D) Plan. The plan, the third of its kind at NOAA and the first to include 'development,' will help guide our R&D portfolio from 2013 – 2017. NOAA has released the plan in an online, interactive and accessible format at <http://nrc.noaa.gov/CouncilProducts/ResearchPlans/5YearRDPlan.aspx>. A PDF of the plan can also be found on the website.

NOAA R&D continues to evolve with the needs of the nation and is directed to increase the understanding of the oceans, coasts, climate and weather. This Five Year R&D Plan will:

- Guide the management of R&D projects by providing a basis for planning, tracking and evaluating result
- Promote collaboration with partners inside and outside the federal government to further serve society through NOAA's R&D enterprise

NOAA's goal for Climate Adaptation and Mitigation is an informed society anticipating and responding to climate and its impacts. To achieve this goal, R&D will be directed to answer the following questions:

- What is the state of the climate system and how is it evolving?
- What causes climate variability and change on global to regional scales?
- What improvements in global and regional climate predictions are possible?
- How can NOAA best inform and support the Nation's efforts to adapt to the impacts of climate variability and change?

### 3. Updated Time Series of the AMOC Observed at 26°N Now Available

The time series of the Atlantic Meridional Overturning Circulation (AMOC) at 26°N has recently been extended up to October 2012. The AMOC has been observed continuously at 26°N since April 2004 and following the latest update eight-and-a-half years of data are now available. The AMOC times series is freely available online and the project investigators encourage its use by others

About one petawatt of heat carried by the AMOC is released to the atmosphere between 26°N and 50°N and has important impacts on the climate of the North Atlantic region. The first observational estimates of the basin-wide AMOC were based on transatlantic hydrographic sections. These observations provided important information about the structure and magnitude of the AMOC, but, with only a handful of

these ‘snapshots’, insight into the variability was limited, and so in the early 2000’s a dedicated observing system was proposed to make continuous measurements of the variability of the AMOC at 26°N.

The AMOC and its component parts are monitored by combining a transatlantic array of moored instruments with submarine-cable based measurements of the Gulf Stream and satellite derived Ekman transport. Details and results of the program are given in a number of papers the most recent of which describes the multi-year changes revealed by the recent data [www.ocean-sci-discuss.net/10/1619/2013/osd-10-1619-2013.html](http://www.ocean-sci-discuss.net/10/1619/2013/osd-10-1619-2013.html)

The 26°N array is a collaboration between the National Oceanography Centre UK, the University of Miami USA and the NOAA Atlantic Oceanographic and Meteorological Laboratory USA. Data for the AMOC volume transport is available from [www.rapid.ac.uk/rapidmoc](http://www.rapid.ac.uk/rapidmoc), the corresponding heat transport (up to 2011) is available from [www.rsmas.miami.edu/users/mocha](http://www.rsmas.miami.edu/users/mocha) and Florida Current transports estimates are available from [www.aoml.noaa.gov/phod/floridacurrent](http://www.aoml.noaa.gov/phod/floridacurrent).

#### **4. NMME Forecasts for Nov. 2013 - May 2014 Now Available**

The seasonal and monthly mean forecasts for November, 2013 to May, 2014 are now available at [www.cpc.ncep.noaa.gov/products/NMME/](http://www.cpc.ncep.noaa.gov/products/NMME/). Due to the partial Federal Government shutdown, two contributing models were unavailable this month. The NMME forecasts therefore comprise four models: NCEP CFSv2, CMC’s CanCM3 and CanCM4, and GFDL’s CM2.2. If the other models become available at a later date, the NMME will be revised.

Both NMME and International MME (IMME) forecasts can be accessed from the homepage. Forecasts are presented for the following fields:

- 2-meter surface temperature (global and North America)
- Precipitation rate (global and North America)
- Sea-surface temperature (global and Nino3.4-region)

Mean spatial anomaly forecasts and probability forecasts can both be accessed from the homepage.

The 38th annual Climate Diagnostics and Prediction Workshop will be held in College Park, MD, October 21-24, 2013. There will be a special section on NMME at the workshop. More information here: <http://www.cpc.ncep.noaa.gov/products/outreach/CDPW38.shtml>.

#### **5. AGU Ocean Sciences Executive Committee Search: Graduate Student Representative Needed**

The Ocean Sciences section solicits nominations for a graduate student representative for its Executive Committee. The term will be for January 2014 to December 2015, thus including participation in two AGU Fall Meetings and one Ocean Science Meeting.

**Eligibility:** This student must be in the second year or more of Ph.D. studies. Interested students can apply with a one-page supporting letter from a faculty advisor.

**Requirements:** This student member will attend meetings of the Ocean Science Section Executive Committee held during the AGU Fall Meeting and the Ocean Sciences Meeting and. He/she will be expected to

contribute the student perspective to its activities. The student will be involved in the Ocean Science Meeting organizing committee. The Ocean Science Section will offer travel reimbursement for travel and two nights of hotel stay for these meetings (up to \$1,000 each).

Submission deadline: Nominations should be sent to James Murray, [jmurray@u.washington.edu](mailto:jmurray@u.washington.edu), President of the Ocean Science Section by **December 2, 2013**. Selection will be made by the Ocean Science section's Honors and Recognition Committee.

## Meetings and Workshops

### 1. AMS 31st Conference on Hurricanes and Tropical Meteorology - Call for Papers San Diego, CA March 31–April 4, 2014

The 31st Conference on Hurricanes and Tropical Meteorology sponsored by the American Meteorological Society and organized by the AMS Committee on Tropical Meteorology and Tropical Cyclones will be held March 31 - April 4, 2014 at the Town and Country Resort and Conference Center, 500 Hotel Circle North, San Diego, California. Preliminary programs and registration details will be posted on the AMS website in early November 2013. General information on hotel accommodations will soon be available on the AMS website.

Papers are solicited on all aspects of tropical meteorology and oceanography, including convection, tropical waves, tropical cyclones, extratropical transition, intraseasonal variability, large scale circulation, monsoons, air-sea interaction, climate, observing systems and strategies, data assimilation, numerical modeling, operational forecasting, storm surge, and hazard communication.

In particular, papers relevant to ongoing and recently completed programs, such as the NASA Hurricane and Severe Storm Sentinel Project (HS3), the Dynamics of the Madden-Julian Oscillation (DYNAMO), the Cooperative Indian Ocean Experiment on Intraseasonal Variability in 2011 (CINDY2011), the NOAA Intensity Forecast Experiment (IFEX) and Hurricane Forecast Improvement Project (HFIP) are all encouraged. A special session on the forecasting, predictability, and dynamical evolution of Hurricane Sandy is also planned. Requests for additional special sessions should be addressed to the program chairperson. **There is a "US CLIVAR Working Group on Hurricanes and Climate" topic to select when submitting abstracts.**

Please submit your abstract electronically via the AMS website by **November 22, 2013**; see the website for instructions. An abstract fee of \$95 (payable by credit card or purchase order) is charged at the time of submission (refundable only if abstract is not accepted). The \$95 abstract fee includes the submission of your abstract, the posting of your extended abstract, and the uploading and recording of your presentation that will be archived on the AMS Web site. We will no longer be producing a CD-ROM, allowing us to extend the deadline date for extended abstracts.

Authors of accepted presentations will be notified via e-mail by early-January 2014. Instructions for formatting extended abstracts will be posted on the AMS website. Extended manuscripts (file size up to 3 MB) must be submitted electronically by **May 5, 2014**. All abstracts, extended abstracts, and presentations will be made available on the AMS website.

For further program information please contact the program chairperson, Michael Brennan, National Hurricane Center, 11691 SW 17th Street, Miami, Florida 33165-2149 (email: [Michael.J.Brennan@noaa.gov](mailto:Michael.J.Brennan@noaa.gov)).

## **2. WCRP Conference for Latin America and the Caribbean: Developing, linking, and applying climate knowledge (WRCPLAC)**

**Laboratorio Tecnológico de Uruguay (LATU), Montevideo, Uruguay**

**March 17-21, 2014**

This WCRP conference is aimed at identifying gaps and ways to overcome limitations in the chain of knowledge going from basic to applied climate science and to informing policy and decisions that are particularly relevant for LAC. This will imply building interdisciplinary capacity, fostering the participation of decision and policy makers, climate and social scientists, and key intermediary institutions.

The WCRP-LAC should aid in defining the research agenda needed to contribute to the provision of effective, problem-oriented and demand-driven climate services. This will necessarily require a balance between (i) research focused in improving climate monitoring and predictions at regional and local scales; (ii) research oriented by the demands of socio-economic sectors sensitive to climate, and (iii) research on the process of informing policy and decision-making in the different socioeconomic sectors.

The specific objectives underlying these main research strategies are to:

- Identify research themes critical to improve our understanding of sources and intrinsic levels of predictability on intraseasonal, interannual, decadal and longer time scales
- Identify strategies to narrow the gap between current predictive capabilities in the region and estimated limits of predictability
- Improve understanding and assess predictability of climate extreme events, and evaluate their impacts on key environmental services and on society
- Assess regional capabilities for monitoring the climate system and extreme climate events, including those of natural and anthropogenic origin.
- Discuss and plan how to establish a research framework oriented to identify climate-related information, products and tools needed in the different socioeconomic sectors, and to explore communication strategies to improve the flow of knowledge throughout the information networks and contribute to the establishment of a “system of knowledge”
- Promote discussions across WCRP emerging initiatives relevant to LAC such as grand challenge on regional climate, grand challenge on water availability, and CLIVAR Monsoon activities
- Contribute to the identification of knowledge needed to establish relevant regional climate services with the advances in the above research topics

Deadline Abstract Submission for Those Requesting Travel Support: **October 21, 2013**

Deadline Abstract Submission for All: **November 15, 2013**

See the conference website for more information: <http://www.cima.fcen.uba.ar/WCRP/>

## **3. Upcoming Meetings for MJO Research**

There are a number of upcoming meetings relevant to current MJO research. For the complete list of meetings, please visit the [NCAR/EOL/DYNAMO webpage](#).

### **Symposium of Progress of the MJO Research through the Field Campaigns**

**JAMSTEC Yokohama Institute, Yokohama, Japan**

**July 23-25, 2014**

This symposium will review the progress on the MJO research since the recent field campaign CINDY/DYNAMO/AMIE/LASP as well as relevant projects such as HARIMAU. It is also expected to discuss future direction on this field.

**Asia-Oceania Geosciences Society 2014 Meeting**  
**Royton Sapporo Hotel, Sapporo, Hokkaido, Japan**  
**July 28-August 1, 2014**

There will be a special session on MJO research including a call for papers at the AOGS 2014 meeting. Future details are forthcoming.

**4. WCRP VAMOS/CORDEX Second Workshop on Latin-America and Caribbean - CORDEX LAC: Phase II - The Caribbean**  
**Santo Domingo, Dominican Republic**  
**April 7-9, 2014**

The CORDEX LACII Workshop builds on the experience of the First VAMOS/CORDEX Workshop on Latin-America and Caribbean, CORDEX LAC: Phase I held during 11-13 September, 2013 in Lima, Peru. The Workshop aims to foster collaboration among participants focusing on already identified Vulnerability Impact and Adaptation (VIA) needs for the region.

The Workshop is open to both new participants and those who attended the first Workshop. The primary workshop focus will be on training the participants on assessing and interpreting model results and climate data critically. Participants will develop a mini-policy document relevant to decision-makers and based on these climate data.

The on-line call for abstracts, financial support applications and registration are now open, <http://www.cima.fcen.uba.ar/LACII-CORDEX/>

Important dates:

- Oct 8, 2013 Call for abstracts, financial support and registration
- Nov 15, 2013 Deadline for abstract submission and support applications
- Feb 10, 2014 Notification to participants and applicants

**5. Annual Meeting of Association of American Geographers 2014 Meeting - Call for Papers in Hydroclimatology and Synoptic Climatology**  
**Tampa, FL**  
**April 8-12, 2014**

Texas A&M University Department of Geography Faculty are organizing a number of hydroclimatology sessions for the 2014 Annual Meeting of the Association of American Geographers. They welcome papers focusing on any aspect of hydroclimatology, including measurement/observation, analysis, modeling, and remote sensing of various aspects of precipitation (both rain and snow), soil moisture, evapotranspiration, runoff, and stream flow. Papers that address advances in monitoring, modeling, or predicting extreme hydrologic events (e.g., droughts and floods) are also of interest. These sessions will be sponsored by the Climate, and Water Resources Specialty Groups.

Detailed information regarding registration, abstract submission, and other pertinent items can be found on the web page of the Association of American Geographers: <http://www.aag.org>. For those wishing to participate in the Hydroclimatology sessions, please submit a copy of your abstract and your presenter identification number (PIN) no later than **November 22** to: Trent Ford, Department of Geography, Texas A&M University, College Station, TX 77843-3147, Email: [twford@tamu.edu](mailto:twford@tamu.edu), Phone: (309) 397-2096.

Synoptic Climatology Session at AAG 2014: Kent State University Faculty are organizing a session on Synoptic Climatology sponsored by the Association of American Geographers Climate Specialty Group for the 2014 AAG Annual Meeting and are soliciting others interested in participating. All aspects and applications of synoptic climatology are welcomed, including methodological developments and unique results as they relate to climate variability and change. If interested in participating or have questions, please contact Tom Ballinger ([tballin1@kent.edu](mailto:tballin1@kent.edu)).

## Position Announcements

### 1. NSF Section Head, Atmosphere Section Arlington, VA

Serves as a member of the Division leadership team and as the Directorate's principal spokesperson in the area of lower atmosphere research. Responsible to the Director, Division of Atmospheric and Geospace Sciences, for the overall planning, management and commitment of budgeted funds for the Section, which includes programs in Atmospheric Chemistry, Climate and Large-scale Dynamics, Physical and Dynamic Meteorology, and Paleoclimate. The incumbent also serves as the Division's primary source of guidance concerning research priorities and program development.

Essential requirements:

- Ph.D. or equivalent professional experience, or a combination of education and equivalent experience in atmospheric sciences.
- Substantial research contributions and strong evidence of scholarship and leadership in the atmospheric sciences, as evidenced in publications and other professional contributions.
- Demonstrated broad knowledge of diverse fields of atmospheric sciences.
- Knowledge of grant and contract administration, fiscal management, and budget preparation with experience in scientific research support.

You must submit all required information by **November 15, 2013**. If materials are not received, your application will be evaluated solely on the information available and you may not receive full consideration or may not be considered eligible. To apply, see more details here: <https://www.usajobs.gov/GetJob/ViewDetails/349768600>.

### 2. Director of the National Institute for Undersea Science and Technology University of Mississippi, Oxford, MS

The Director is responsible for the administration and supervision of activities within NIUST, including: fiscal management and budgeting, strategic planning, identifying scientific priorities and direction, establishing research and operations policies, identifying resources for research support, and enhancing the research environment and reputation of NIUST.

The Director will represent NIUST on the campuses of The University of Mississippi in Oxford and the University of Southern Mississippi in Hattiesburg, at the Stennis Space Center, in the scientific community, and among other research administrators including our partners at NOAA, and is expected to promote NIUST before legislative bodies and other public and private constituencies. The Director will foster collaborations between NIUST scientists and scientists within the ocean research communities.

Ph.D. is required in any discipline related to the mission of the program; including, but not limited to Oceanography, Geology, Engineering, Chemistry, or Physics. Demonstrated experience with multi-disciplinary research, strategic planning and programming, research excellence and productivity, and a general understanding of intellectual property issues is required.

Applications must be submitted online at <https://jobs.olemiss.edu/postings/4041> and include a letter of interest stating how the applicant meets the qualifications, a curriculum vitae, and the names, addresses, and phone numbers of three references (who will not be contacted until the later stages of the search). Evaluation of applications will begin immediately and continue until an adequate applicant pool is achieved. For more information, please contact: Stephanie Otts, Senior Research Counsel, MS Law Research Institute and Director, Sea Grant Law Program; Phone: 662.915.7775 ; [sshowalt@olemiss.edu](mailto:sshowalt@olemiss.edu)

### **3. Director, Earth Science and Observation Center Cooperative Institute for Research in Environmental Sciences, University of Colorado, Boulder**

The Cooperative Institute for Research in Environmental Sciences (CIRES, [cires.colorado.edu](http://cires.colorado.edu)), an interdisciplinary research institute within the University of Colorado Boulder, seeks to appoint a mid-career tenure-track faculty member to serve as director of its Earth Science and Observation Center (ESOC, [cires.colorado.edu/esoc](http://cires.colorado.edu/esoc)), a multidisciplinary research center that focuses on understanding the Earth primarily through the use of remote sensing techniques, often combined with in situ observations and modeling. The scientific specialty area of the candidate is open, but is expected to include experience with remote sensing tools and observations.

The successful applicant will create a research program with productive collaborations within and outside CIRES that will lead to novel insights into Earth system processes and changes. Research areas that may be appropriate for this position include development and deployment of remote sensing instrumentation, analysis of diverse remotely sensed data sets, and modeling that focuses on the integration of such data sets. The successful candidate will be appointed within a tenured or tenure-track affiliation in a relevant academic department including, but not limited to, Atmospheric and Oceanic Sciences, Aerospace Engineering Sciences, Ecology and Evolutionary Biology, Geography or Geological Sciences. In addition to developing a robust research program and leading the center, the candidate will be required to teach undergraduate and graduate remote sensing courses in an academic department. Minimum academic requirements include a PhD with demonstrated research record in remote sensing.

Applications must be submitted to Jobs at CU: <http://www.jobsatcu.com/postings/72885>.

To Apply:

- 1 - Upload curriculum vitae including funding history and publications.
- 2 - Cover letter (Professor Roger Bilham, Chair of the Search Committee)
- 3 - List of 3 references, including all contact information.
- 4 - Document 1- should be a description of the proposed research vision and program (up to 5 pages).

5 - Document 2- proposed teaching program and vision and possible academic department(s)(up to 2 pages).

6 & 7 upload two of your most relevant papers as Publication 1 and Publication 2.

8 - Proof of degree (unofficial transcripts or scan of diploma)

Deadline for applications is **December 16, 2013**. Questions can be sent to Professor Roger Bilham (Chair of the Search Committee) at [roger.bilham@colorado.edu](mailto:roger.bilham@colorado.edu).

#### **4. Tenure Track Faculty Position, Climate Based Physical Oceanography Cooperative Institute for Research in Environmental Sciences, University of Colorado, Boulder**

The Cooperative Institute for Research in Environmental Sciences (CIRES, [www.cires.colorado.edu](http://www.cires.colorado.edu)), an interdisciplinary research institute within the University of Colorado Boulder, seeks to appoint a junior, tenure-track faculty member specializing in physical oceanography as related to climate variability on seasonal, interannual, interdecadal or longer time scales. The successful applicant will create a research program with productive collaborations within and outside CIRES, including the wider Boulder climate community, leading to novel insights about mechanisms that connect ocean processes with topics of interest to CIRES scientists, including regional process studies, air-sea interactions, wave dynamics, ocean circulation, or paleoclimate.

Appropriate research tools for this position may include modeling, theory, and data analysis (e.g., from remote sensing sources). The successful candidate will have a tenure-track affiliation in a relevant academic department including, but not limited to, Atmospheric and Oceanic Sciences, Geography, Aerospace Engineering Sciences, or Geologic Sciences. The distribution of effort for this position will be 40% research, 40% teaching, and 20% service. Minimum education requirements include a PhD in oceanography, physics, geology, or a related field. Applications must be submitted to [www.jobsatcu.com](http://www.jobsatcu.com), posting #F00798. Alternative formats of the job posting can be provided upon request for individuals with disabilities by contacting [hr-ada@colorado.edu](mailto:hr-ada@colorado.edu).

Review of applications and requests for letters of recommendation will begin **November 1, 2013**, and will continue until a successful applicant is selected. Questions can be sent to Professor John Cassano (Chair of the Search Committee) at [John.Cassano@colorado.edu](mailto:John.Cassano@colorado.edu).

#### **5. Two Faculty Positions in Climate/Weather Impacts and Risk Assessments University of Illinois at Urbana Champaign, Urbana, IL**

The Department of Atmospheric Sciences within the School of Earth, Society, and Environment at the University of Illinois at Urbana-Champaign invites applications for two full-time tenure-track/tenured faculty positions in the areas of extreme weather events, climate change impacts, and/or risk analysis and assessment. One position is at the Associate or Full Professor level, while the other is at the Assistant Professor (tenure-track) level. These positions are both nine-month academic appointments with a target start date of August 16, 2014.

We are particularly interested in applicants whose research and teaching strengths include, but are not limited to, studies of climate change and extreme weather events, such as catastrophic storms, heat waves, droughts, and other hazardous phenomena using remote sensing techniques, numerical modeling and/or data analysis, risks and impact assessment associated with hazardous events, and management and

strategic planning for weather and climate-related extreme events. Candidates who specialize in inter-disciplinary research areas with applications to the energy, commodities, agricultural, insurance, transportation, and/or natural resources sectors are encouraged to apply. We encourage applicants with exceptional strengths in other related research areas.

Qualified candidates must have a Ph.D. degree in atmospheric, environmental or earth science, or a related field. The successful candidates will be expected to: (i) establish and maintain an externally funded and internationally recognized quality research program, (ii) participate in the department's teaching mission by mentoring graduate and undergraduate students and developing a successful teaching program, and (iii) collaborate effectively with other faculty. For a tenured appointment at the Associate or Full Professor level, the applicant must also show demonstrated excellence in research, service, and teaching at either or both the graduate and undergraduate levels, commensurate with tenure guidelines at the University of Illinois at Urbana-Champaign.

The members of the Atmospheric Sciences department work in a broad range of research areas. Opportunities are available for collaborations with departments across the university, with linkages already existing with the Department of Geology and the Department of Geography and Geographic Information Science, both within the School of Earth, Society, and Environment, the School of Integrative Biology, the Department of Natural Resources and Environmental Sciences, the Prairie Research Institute, the National Center for Supercomputing Applications (NCSA), the Department of Electrical and Computer Engineering, the Department of Civil and Environmental Engineering, and many others. More information about the department can be found at [www.atmos.illinois.edu](http://www.atmos.illinois.edu), and about the School of Earth, Society and Environment at [www.earth.illinois.edu](http://www.earth.illinois.edu).

A competitive salary, commensurate with position, qualifications and experience, and an excellent benefits package will be offered. To ensure full consideration, applications must be submitted online by **December 15, 2013**. Create your U of I application(s) through [jobs.illinois.edu](http://jobs.illinois.edu) and upload your application materials which should include: cover letter, vita, list of publications, record of research funding, teaching record, description of research and teaching interests, and names and email addresses of at least 3 references. Please state in your cover letter if you are applying for a junior or senior level position. Applicants may be interviewed before the closing date; however, no hiring decision will be made until after that date.

Questions can be addressed to Prof. Atul Jain, Chair of the Search Committee, at Email: [jain1@illinois.edu](mailto:jain1@illinois.edu) or Phone: 217-333-2128.

## **6. Tenure Track Assistant Professor, Ocean Carbon Cycle Modeling University of California, Santa Barbara**

The Interdepartmental Graduate Program in Marine Science (IGPMS; [www.igpms.ucsb.edu](http://www.igpms.ucsb.edu)) at the University of California, Santa Barbara, invites applications for a tenure-track faculty position in Ocean Carbon Cycle Modeling at the rank of Assistant Professor. We seek a highly creative and interactive scholar whose research and teaching interests focus on the interaction among biogeochemical, ocean circulation, and ecological processes in the sea with broad linkages to climate and climate change. In particular, we are interested in candidates who focus on numerical modeling of biogeochemical cycles of carbon and associated materials in the ocean on regional to global scales in the modern and/or paleo-oceans. Individuals who combine modeling with empirical studies are also encouraged to apply. The successful candidate will hold a faculty appointment in an academic department that participates in the IGPMS program, and is expected to develop an internationally recognized and extramurally-funded research program, mentor

graduate and undergraduate students in the candidate's area of expertise, and teach both graduate and undergraduate courses.

Applicants should submit: 1) an application letter, 2) a curriculum vitae, 3) a statement of research accomplishments and future plans, 4) a statement of teaching experience and interests, 5) up to three selected publications, and 6) names and contact information of three persons willing to provide letters of reference (the committee will solicit letters for a short list of candidates).

Submit applications electronically at <https://recruit.ap.ucsb.edu/apply/JPF00216>, and address questions to: [OceanCarbonSearch@geog.ucsb.edu](mailto:OceanCarbonSearch@geog.ucsb.edu). Review of applicants will begin **November 30, 2013** and will continue until the position has been filled. The effective start date of the position is July 1, 2014.

### **7. Tenure-Track Assistant Professor, Ecohydrology Department of Geography , University of Kansas, Lawrence, KS**

The Department of Geography at the University of Kansas invites applications for a tenure-track Assistant Professor position in ecohydrology. The successful candidate will be expected to develop an externally funded research program that complements existing strengths of the department, including regional climate change, surface-atmosphere exchanges, remote sensing, and human-environment interactions. The successful candidate will be prepared to participate and represent the concerns of his/her field in a cluster of faculty from Geography, Environmental Studies, Geology, Ecology and Evolutionary Biology, and Law. The cluster will focus on water and related energy resources; develop new interdisciplinary degree programs; and collaborate on major grants. In addition to this collaborative work, the faculty member will be expected to research, write, and publish in the specialty of ecohydrology; develop and teach courses at the undergraduate and graduate level; serve on graduate student committees, direct theses and dissertations, and perform advising responsibilities; and serve on Departmental, College, and University committees. Refer to [www.geog.ku.edu](http://www.geog.ku.edu) and links for additional information about the department and the University of Kansas.

Appointment is expected to begin as early as August 18, 2014. Ph.D. in Geography, Hydrology or a related discipline is expected by the start date of the appointment. Additional qualifications include (1) demonstrated preparation to teach beginning and advanced courses in specialty; (2) demonstrated ability to work in interdisciplinary and collaborative environments; and (3) demonstrated potential for excellence in research, as evidenced by publications in highly ranked journals and innovative research objectives.

For a complete description and to apply online go to <https://employment.ku.edu>, click "Search Faculty Jobs" and search openings by ecohydrology. A complete application should include a letter of application, statements of research and teaching interests, a curriculum vitae, and the full names and contact information for three references. For further information please contact Nathaniel Brunsell, Department of Geography, 213 Lindley Hall, University of Kansas, Lawrence, KS 66045 (tel: 1-785-864-2021 fax: 1-785-864-5378, e-mail: [brunsell@ku.edu](mailto:brunsell@ku.edu)). Initial review of applications will begin **December 1, 2013**, and will continue as long as needed to identify a qualified pool.

## **8. Three Tenure Track Faculty Positions, Oceanography University of Rhode Island, Narragansett, RI**

The Graduate School of Oceanography at the University of Rhode Island (<http://www.gso.uri.edu>) invites applications for 3 tenure track faculty members:

- 1). Assistant Professor in marine biogeochemistry, to study the chemical, geological and/or biological transformations of important elements and compounds across a range of scales and marine habitats. (posting # 6001261)
- 2). Assistant Professor in physical oceanography with an interest in submeso- and smaller- scale processes (posting # 6001252).
- 3). Full Professor of Oceanography and Director of the Coastal Resources Center (posting # 6001259).

Located on the water's edge at the University's Narragansett Bay Campus, GSO is the state's center for marine studies, research and outreach and operates the R/V Endeavor. Students, faculty and staff collaboratively address the science questions and challenges of today. Each new faculty member will be expected to develop strong externally funded research programs, advise graduate students, and teach undergraduate and graduate courses.

Application review will begin **January 7, 2014** and continue until the positions are filled. Visit <https://jobs.uri.edu> and search individual position numbers to read full position descriptions with required and preferred qualifications. Submit applications online, including the following in PDF format: (1) a letter of application; (2) curriculum vitae to include the names, email addresses, and telephone numbers of at least three references; and (3) a statement of teaching and research interests. Other relevant material in support of your application may be sent directly to the search chairs (Marine Biogeochemistry, Rebecca Robinson, [rebecca\\_r@mail.uri.edu](mailto:rebecca_r@mail.uri.edu); Physical Oceanography, Arthur Spivack, [spivack@mail.uri.edu](mailto:spivack@mail.uri.edu); Professor/Director Coastal Resources Center, David Smith, [dsmith@mail.uri.edu](mailto:dsmith@mail.uri.edu)).

## **9. Tenure Track Assistant/Associate Professor, Physical Oceanography Old Dominion University, Norfolk, VA**

The Department of Ocean, Earth and Atmospheric Sciences at Old Dominion University (<http://sci.odu.edu/oceanography/>) invites applications for a tenure track position as Assistant or Associate Professor in Physical Oceanography. We seek a broad-minded scholar with an interest in the physical processes in the ocean on times scales of inter-annual to centuries and their role in the Earth System. Preference will be given to scientists who employ quantitative analytical methods and/or models and focus their research on societally relevant issues, such as global and climate change, the role of the ocean in the global water cycle, and development of predictive capabilities on decadal time scales. The successful candidate should have excellent communication skills and a demonstrated strong potential to establish a vigorous, well-funded research program. She/he is also expected to teach graduate and undergraduate classes, mentor graduate students, and work within a multi-disciplinary department.

Many opportunities exist for disciplinary and interdisciplinary interactions with more than 25 other faculty in OEAS, its Centers for Coastal Physical Oceanography (<http://www.ccpo.odu.edu>) and Quantitative Fisheries Ecology and other departments within the university. Information about the department and its facilities can be found at: <http://sci.odu.edu/oceanography/>. Research funding by OEAS faculty

totaled over \$6.2 M in FY11. An endowment of approximately \$16 million provides additional support for departmental programs.

Applications, including a cover letter, CV, teaching (1 page) and research statements (1 page), and contact information for three references must be submitted electronically to: [oeasearch@odu.edu](mailto:oeasearch@odu.edu). Review of applications will begin **December 1, 2013** and will continue until the position is filled.

#### **10. Tenure Track Assistant Professor, Chemical Oceanography Department of Ocean Sciences, University of California, Santa Cruz**

The Ocean Sciences Department at the University of California, Santa Cruz (UCSC) invites applications for a position in Chemical Oceanography, at the Assistant Professor (tenure track) level.

The Department of Ocean Sciences seeks an innovative inorganic chemist who applies cutting-edge field and/or laboratory analytical approaches to fundamental oceanographic problems. We invite applications from outstanding candidates within a diverse range of chemical expertise and focus areas. These could include, for example, basin-scale geochemical processes, coastal ocean environmental change, and/or aspects of inorganic ocean chemistry relevant to fundamental biological oceanographic questions. The successful candidate should have a strong interest in interdisciplinary research, and complement existing faculty within the Ocean Sciences department and affiliated programs at UCSC.

UCSC provides state-of-the-art analytical facilities to leverage development of a dynamic research program. These include both clean-lab facilities and a number of shared instrumental centers, such as a suite of plasma instruments (including the Keck Neptune multi-collector facility) for trace element and isotopic analysis, the Light Stable Isotope Lab, and the Marine Analytical Lab. Together these facilities provide a world-class research center attracting national and international collaborations. The ideal candidate will interact with a broad community of faculty around campus, and potentially also with regional partner institutions such as the Monterey Bay Aquarium Research Institute (MBARI), Moss Landing Marine Labs, USGS, the National Marine Fisheries Lab, and the rapidly developing Coastal Ocean Observing System.

The successful candidate is expected to teach at all levels, with expertise appropriate to teach chemical oceanography and aquatic inorganic chemistry courses at the graduate-level, instrumental analysis at the upper division undergraduate level, and introductory ocean sciences courses for non-majors. The ability to contribute significantly to graduate education and the mentoring of graduate students is highly desirable. The successful candidate must be able to work with students, faculty and staff from a wide range of social and cultural backgrounds. We are especially interested in candidates who can contribute to the diversity and excellence of the academic community.

Basic qualifications: Ph.D. or equivalent degree, in oceanography or related discipline in hand at time of appointment; demonstrated research and teaching record.

Position available: July 1, 2014. Applications are accepted via the UCSC Academic Recruit online system, and must include: a letter of application; a curriculum vitae, a statement of research and teaching interests; and the names and contact information for three to four referees. Applicants are invited to submit a statement addressing their contributions to diversity through research, teaching and/or service. Documents/materials must be submitted as PDF files.

Apply at <https://recruit.ucsc.edu/apply/JPF00062>. Refer to position #JPF00062-14 in all correspon-

dence. Review of applications will begin on **November 15, 2013**. To ensure full consideration, applications should be complete by this date. The position will remain open until filled, but not later than 6/30/2014.

### **11. Two Tenure Track Research Faculty Positions, Atmospheric Science Atmospheric Sciences Research Center, University at Albany, SUNY**

As part of a multi-year “Climate, Environment, and Energy” initiative, the Atmospheric Sciences Research Center (ASRC) of the University at Albany, State University of New York, seeks to hire two tenure-track Research Faculty (rank open), effective Fall 2014. These New York State supported college-year appointments allow for supplementary summer salary from external research funding. We currently seek to fill two positions, with an emphasis on the area of Cloud-Climate Interactions. We are particularly interested in applicants with research expertise that includes, but is not limited to, Cloud-Resolving Modeling or Field Observations. Available facilities include ASRC’s Whiteface Mountain Observatory near Lake Placid, NY, home to more than 50 years of cloud, chemistry, and climate research (<http://asrc.albany.edu/observatories/whiteface/whiteface.html>). This unique facility is available to all ASRC scientists and includes measurement sites at the summit of the mountain and a fully equipped laboratory at its base station.

Outstanding candidates from other areas of Atmospheric Science will also be considered and are encouraged to apply. The successful candidates will be expected to strengthen ASRC and the university through:

- maintaining a strong externally funded research program
- working with colleagues at ASRC and throughout the university on mutually beneficial research programs
- recruiting and mentoring graduate students
- participating as necessary in service to the Center and the University.

While not a requirement, research faculty at ASRC have the option of making arrangements to teach in the Department of Atmospheric and Environmental Sciences or other university departments. For more information about ASRC, please visit <http://asrc.albany.edu>. For information on the application process or to apply, please visit <http://albany.interviewexchange.com/jobofferdetails.jsp?JOBID=42499> Priority screening will begin on **November 15, 2013**. Positions will remain open until filled. Questions about the positions can be addressed to Fangqun Yu ([fyu@albany.edu](mailto:fyu@albany.edu), 518-437-8767) or Wei-Chyung Wang ([wawang@albany.edu](mailto:wawang@albany.edu), 518-437-8708).

### **12. Tenure Track Faculty Position, Atmospheric/Ocean Theory University of Toronto, Canada**

The Department of Physics at the University of Toronto invites applications for a tenure-stream appointment in the area of Atmospheric/Ocean Theory. In this general area, we are especially interested in attracting candidates whose focus is upon the dynamics of the oceans and their role in climate variability and change, including ocean-atmosphere interactions. The appointment will be at the rank of Assistant Professor, commencing July 1, 2014.

We seek candidates with a strong background in physics and mathematics and a Ph.D. in oceanography, atmospheric science or the geophysical sciences generally, by the date of appointment or shortly thereafter, with proven or potential excellence in both research and teaching. The new appointee will complement and have the opportunity to interact with existing physics faculty in the Earth, Atmospheric and Planetary

Physics group. The research setting of this program at the University of Toronto is further enriched by the existence of the University-wide Centre for Global Change Science as well as the newly established School of the Environment. Computational facilities include SciNet, the most powerful university-based facility in Canada.

Salary will be commensurate with qualifications and experience. All qualified candidates are invited to apply on-line to: [https://utoronto.taleo.net/careersection/10050/jobdetail.ftl?\\_af=1300956](https://utoronto.taleo.net/careersection/10050/jobdetail.ftl?_af=1300956) and refer to Requisition ID 1300956. Applications should include a cover letter, curriculum vitae, teaching dossier (including a statement of teaching philosophy), and a statement outlining current and future research interests. If you have questions about this position, please contact [jobs@physics.utoronto.ca](mailto:jobs@physics.utoronto.ca). All application materials should be submitted online.

The UofT application system can accommodate up to five attachments (10MB) per candidate profile; please combine attachments into one or two files in PDF/MS Word format. Submission guidelines can be found at: <http://uoft.me/how-to-apply>. Applicants should also ask at least three referees to send letters directly to the Department of Physics via e-mail to [chair@physics.utoronto.ca](mailto:chair@physics.utoronto.ca), by the closing date, **December 17, 2013**. Applications will be reviewed beginning December 17, 2013 until the position is filled. Those received by December 17, 2013 will be given first consideration.

### **13. Tenure Track Faculty Position, Experimental Climate Physics University of Toronto, Canada**

The Department of Physics, and the School of the Environment at the University of Toronto invite applications for a cross-appointed tenure-stream appointment in Experimental Climate Physics (51% Department of Physics & 49% School of the Environment). The appointment will be at the rank of Assistant Professor, commencing July 1, 2014. We seek a candidate with a focus on remote sensing of climate variables that can be used in high-resolution models to improve scientific knowledge of the origins and nature of regional climate variability on decadal to centennial time scales, with an emphasis on processes occurring at high latitudes. Possible research areas include chemistry-climate feedbacks, clouds and aerosols, polar climate variability, sea-ice retreat, Arctic climate and cryosphere, atmosphere-cryosphere interactions, and carbon reservoirs. We are particularly interested in applications from candidates whose research program fits well with the Earth, Atmospheric and Planetary Physics group and within the newly established School of the Environment.

Applicants should have a strong background in physics and mathematics as well as a Ph.D, by date of appointment or shortly thereafter, in physics, atmospheric science, or a related field, with proven or potential excellence in research. The appointee will also demonstrate proven or potential excellence in teaching and will contribute to the education and training of undergraduate and graduate students in both Physics and the School. The research setting of this program at the University of Toronto is further enriched by the existence of the Centre for Global Change Science. Salary will be commensurate with qualifications and experience.

All qualified candidates are invited to apply on-line to: [https://utoronto.taleo.net/careersection/10050/jobdetail.ftl?\\_af=1301140](https://utoronto.taleo.net/careersection/10050/jobdetail.ftl?_af=1301140) and refer to Requisition ID 1301140. Applications should include a cover letter, curriculum vitae, teaching dossier (including a statement of teaching philosophy), and a statement outlining current and future research interests. If you have questions about this position, please contact [jobs@physics.utoronto.ca](mailto:jobs@physics.utoronto.ca). All application materials should be submitted online.

Applicants should also ask at least three referees to send letters directly to the Department of Physics via e-mail to [chair@physics.utoronto.ca](mailto:chair@physics.utoronto.ca), by the closing date, **December 1, 2013**. Applications will be reviewed beginning December 1, 2013 until the position is filled. Those received by December 1, 2013 will be given first consideration. We invite prospective candidates to visit our home pages: Department of Physics - [www.physics.utoronto.ca](http://www.physics.utoronto.ca) School of the Environment - [www.environment.utoronto.ca](http://www.environment.utoronto.ca).

#### **14. Assistant Professor, Coastal Physical Oceanography Montclair State University, Montclair, NJ**

The Department of Earth and Environmental Studies invites applications for a full-time (10-month) tenure-track Assistant Professor position in Coastal Physical Oceanography. The position begins September 1, 2014. Applicants with expertise in the effects of climate change on coastal processes, physical models of sea level rise, storm surge processes, coastal erosion, coastal engineering, protection and restoration are especially encouraged to apply. The position will complement department strengths in hydrology, paleoclimatology, remote sensing, geomorphology, geophysics, petrology, tectonics, geochemistry, environmental management, and our growing programs in sustainability science. The successful candidate will be required to develop a vigorous externally funded research program and have a strong commitment to excellence in teaching. Teaching responsibilities will include introductory courses as well as upper-level undergraduate and graduate courses within the applicant's areas of expertise. The candidate will be expected to play a critical role in further developing and expanding our masters programs in Geoscience, Environmental Studies, and Sustainability Science, and our interdisciplinary doctoral degree program in Environmental Management based on potential fit of the candidate's research with the scope of each program. Service to the department, university, and larger professional community is also expected.

Applicants are expected to have a Ph.D. in oceanography, coastal engineering, geosciences, physical geography, applied physics, or a related field, a record of peer-reviewed scholarship in coastal physical oceanography, and evidence of potential for success in grant activity. Post-doctoral experience is highly desirable.

Electronic applications consisting of one single .doc or .pdf file are strongly preferred. The combined application file consisting of a cover letter, CV, statements of teaching and research interests, and the names and contact information for three professional references should be sent to Dr. Stefanie Brachfeld at [brachfelds@mail.montclair.edu](mailto:brachfelds@mail.montclair.edu) no later than **November 15, 2013**. Hard copies will also be accepted and should be sent to Dr. Stefanie Brachfeld, Chair, Department of Earth and Environmental Studies, V-F28, Montclair State University, Montclair, NJ 07043.

#### **15. Tenure Track Assistant Professor, Atmospheric Sciences University of Virginia, Charlottesville, VA**

The University of Virginia College and Graduate School of Arts & Sciences Department of Environmental Sciences invites applicants for a tenure-track Assistant Professor position in atmospheric sciences. We seek candidates who are dedicated to our mission and passionate about research and teaching in a world-class institution. Examples of research areas that would strengthen and enhance our existing program include, but are not limited to, atmospheric chemistry and radiative transfer, cloud dynamics, tropical meteorology, and climate dynamics. Regardless of research focus, we wish to hire an outstanding scientist who will thrive in an interdisciplinary department with hydrologists, ecologists and geoscientists.

In addition to developing external funding to support research endeavors, candidates will be expected to teach at the graduate and undergraduate levels, including the teaching of our undergraduate core course for majors (EVSC 3300), and provide service to the University, Department and professional organizations.

Review of applications will begin **November 25, 2013**. The appointment start date will begin August 25, 2014. Applicants must be on track to receive a Ph.D. in the relevant field by May 2014 and must hold a PhD at the time of appointment.

To apply candidates must submit a Candidate Profile through Jobs@UVa (<https://jobs.virginia.edu/>), search on posting number 0612794 and electronically attach the following: a cover letter of interest describing research agenda and teaching experience, a curriculum vitae, sample publications submitted as writing sample 1, and contact information for three references. Questions regarding the application process in JOBS@UVa should be directed to: Rachel Short, [rbs2n@virginia.edu](mailto:rbs2n@virginia.edu), 434- 924-7763.

#### **16. Faculty Position, Climate Science and Global Environmental Change Northern Arizona University, Flagstaff, AZ**

The School of Earth Sciences and Environmental Sustainability at Northern Arizona University is seeking applications from individuals with interest and expertise in climate science and its relation to global environmental change. This is a teaching, advising, research and service faculty position and is integral to continued development of the interdisciplinary PhD in Earth Sciences & Environmental Sustainability. We seek applicants who complement NAU's interdisciplinary programs in climate change and who will (1) advance new understandings of natural climate variability, (2) improve projections of climate change through increased understanding of connections between the atmosphere and hydrosphere, climate modeling, paleoclimate analysis, or related interdisciplinary fields, and (3) apply this knowledge to planning and coping with changing climate and related environmental stresses, including its impacts on ecosystems and landscapes. The successful applicant will have demonstrated success in extramurally funded research in climate science and global environmental change.

The successful candidate must have a doctorate conferred by August 18, 2014 in a field related to climate science; teaching experience at the college level; and demonstrated research experience in climate science that bridges from the past (paleo) to present (instrumental) or future (model projections) time periods.

Applicants must send a letter of application describing their professional goals and how they meet the minimum and preferred qualifications, including evidence for preparedness to teach a graduate-level course in climatology. Include a curriculum vita, and contact information for three references. Electronic (pdf) applications are preferred. Send to [SESES\\_Admin\\_Support@nau.edu](mailto:SESES_Admin_Support@nau.edu). For questions regarding the position, contact the Chair of the search committee ([Scott.Anderson@nau.edu](mailto:Scott.Anderson@nau.edu)). The position will remain open until filled. Review of applications will begin on **November 1, 2013**. Please refer to the full details of the position description at [hr.nau.edu/node/2796&job\\_req=600513](http://hr.nau.edu/node/2796&job_req=600513).

#### **17. Research Scientists, CASCADE and iESM Lawrence Berkeley National Laboratory, Berkeley, CA**

The Earth Sciences Division at Lawrence Berkeley National Laboratory invites outstanding applications for Research Scientist career-track appointments with the following projects:

CASCADE: We seek an interdisciplinary scientist with expertise in fundamental and applied atmospheric science to join a new project - Calibrated and Systematic Characterization, Attribution, and Detection of Extremes (CASCADE). The focus is to systematically improve the fidelity of simulated climate extremes using state-of-the-science Earth system models, and determine how best to enhance long-term projections of these phenomena in future climates. Qualifications: Expertise in climate extremes, climate modeling, and multiscale dynamics of the Earth's atmosphere. Research involves using a combination of scaling theory, short-range forecasts, and in situ and satellite. **Job Number 76352**

iESM: We seek an interdisciplinary scientist with expertise in climate science and environmental policy to join a new project - integrated Earth System Model (iESM). The focus is to understand the coupled future of climate and critical resources using state-of-the-science climate and integrated assessment models. The position will systematically develop and apply iESM of the climate system, energy markets, and water resources. Qualifications: Expertise in interactions among the physical environment and energy, food, and water resources in a changing climate. **Job Number 76353**

These career-track appointments offer an excellent environment for working with a highly skilled interdisciplinary team in the Climate Sciences Department. Berkeley Lab is a renowned center of scientific expertise in many facets of climate-related fundamental and applied science. Learn more at [esd.lbl.gov](http://esd.lbl.gov).

Apply online at <http://cjo.lbl.gov/open-positions.html>

## **18. Postdoc, Clouds and Aerosols Research** **Lawrence Livermore National Laboratory, Livermore, CA**

This is a two-year Postdoctoral appointment with the possibility of extension to a maximum of three years. For important information about LLNL appointments refer to the FAQs above. Eligible candidates are recent PhDs within five years of the month of the degree award at time of employment offer.

The Clouds and Aerosols Research group has an opening for a Postdoctoral Research Staff Member in the diagnosis of cloud, precipitation, and radiation processes in observations and evaluation of their representation in climate models. The Clouds and Aerosols Research group is a leader in the study of cloud processes with activities including their diagnosis with observations, their parameterization and evaluation in climate models, and their response to climate change. The Clouds and Aerosol Research group is closely connected with the Atmospheric Radiation Measurement program that provides exciting and novel ground-based remote sensing observations of clouds and related processes and the Program for Climate Model Diagnosis and Intercomparison, a world leader in the diagnosis of climate models. Possible research activities include analysis and diagnosis of cloud, precipitation and radiation processes in Atmospheric Radiation Measurement program and satellite observations, diagnosis and evaluation of the cloud, precipitation and radiation processes in the Community Atmosphere Model using simulations performed as part of Cloud-Associated Parameterization Testbed, or modification and improvement of cloud, precipitation and radiation processes in the Community Atmosphere Model. The selected candidate will report to the Climate/Carbon Science Group Leader.

### Essential Duties:

- Pursue original research on the Community Atmosphere Model's ability to simulate cloud, precipitation or radiation processes.
- Pursue original research using Atmospheric Radiation Measurement and satellite observations to understand cloud, precipitation or radiation processes.

- Publish research results in technical reports and peer-reviewed journals and present technical results at scientific conferences.
- Work as part of a scientific team to improve Community Atmosphere Model simulations of cloud, precipitation, and radiation processes.
- Travel as required to coordinate research with collaborators.
- Perform all assignments in accordance with ES&H, security, and business practice requirements and policies.

Essential Skills, Knowledge & Abilities:

- Recent PhD in atmospheric science or closely related field.
- Experience conducting research in atmospheric science or closely related field.
- Expertise in one or more of the following areas: cloud, precipitation, radiation and aerosol processes, climate model diagnosis and/or numerical modeling of climate.
- Demonstrated experience with large model and observational datasets, modern programming environments, and visualization techniques.
- Experience collaborating effectively with a team of scientists of diverse backgrounds.
- Demonstrated fundamental verbal and written communication skills as evidenced by published results and presentations.

Desired Skills, Knowledge & Abilities:

- Expertise in cumulus convection or marine boundary layer cloud, precipitation and radiation processes.
- Expertise utilizing ground-based remote sensing observations such as those collected by the Atmospheric Radiation Measurement program or similar programs worldwide.

For more information and to apply, visit: <https://careers.llnl.gov/> and search for job ID: 11665.

## 19. Postdoc, Sea Ice Modeling

### Los Alamos National Laboratory, Los Alamos, NM

COSIM's Sea Ice Team seeks a postdoc within Group T-3, Fluid Dynamics and Solid Mechanics at Los Alamos National Laboratory, to improve seasonal-to-interannual sea ice prediction as part of the Sea Ice Prediction Network. In particular, as a member of the COSIM Sea Ice Team the successful candidate will:

- develop new skill metrics based on stakeholder needs,
- evaluate the performance of the CICE sea ice model in hindcast and predicability experiments,
- perform additional sensitivity studies to help isolate feedbacks and improve prediction, and
- utilize leading-edge data sets to inform new model improvements.

Minimum Job Requirements:

- Demonstrated experience in one or more of the following areas: computational modeling of the polar regions, design and construction of diagnostics used to evaluate and compare models with physical data, analysis of polar field measurements and remote sensing data.
- Software skills including expertise in high-performance computing languages (e.g. Fortran, C, C++) and scripting frameworks (e.g., IDL, MATLAB, NCL, Python).
- A solid educational foundation in the following areas: numerical methods, applied math and statistics.

Desired Skills:

- Strong communication and language skills, as evidenced by publications and the cover letter.
- Experience with the CICE sea ice code.

Education: A Ph.D. in physical oceanography, atmospheric sciences, computational physics, applied math or closely related field.

Located in northern New Mexico, Los Alamos National Laboratory (LANL) is a multidisciplinary research institution engaged in strategic science on behalf of national security. LANL enhances national security by ensuring the safety and reliability of the U.S. nuclear stockpile, developing technologies to reduce threats from weapons of mass destruction, and solving problems related to energy, environment, infrastructure, health, and global security concerns.

To Apply: Send a curriculum vitae, names of three references, a cover letter detailing qualifications and research interests, and a 1-2 page research proposal to [eclare@lanl.gov](mailto:eclare@lanl.gov). Please include "Sea Ice Modeling Postdoc" in the subject line. Applications will be accepted through **November 1, 2013**.

More information: <http://www.lanl.gov/careers/career-options/jobs>. Vacancy name: IRC29436.

## **20. Postdoc, Atmospheric Chemistry/Aerosol Modeler Air Quality Forecasting Lab, North Carolina State University**

The position will involve the development, application, and evaluation of 3-D atmospheric models such as the NOAA's Weather Research and Forecast Model with Chemistry (WRF/Chem) and 3-D earth system models such as the NCAR's Community Earth System Model (CESM). The model development will focus on gas-phase, aqueous-phase, and heterogeneous chemistry, secondary organic aerosol formation, and aerosol dynamics such as new particle formation and early growth. Example model applications include short-term real-time air quality forecasting and decadal long climate/aerosol simulations under current and future year emission/ energy/climate scenarios to study the impacts of global climate changes on air quality and impact of changed air quality on regional and global climate changes.

The successful candidate will have a recent PhD degree in atmospheric sciences and chemical/environmental engineering with a strong background in atmospheric chemistry and cloud/aerosol chemistry and microphysics. Experience in 3-D air quality/climate modeling using air quality models such as WRF/Chem, CMAQ, and CAMx and climate/Earth system models such as the NCAR's CCSM and CESM as well as handling large datasets for surface networks and satellites for model evaluation is required. He/she must be very familiar with FORTRAN 90 and UNIX/Linux systems and parallel computing. Excellent oral and written communication skills are essential.

The incumbent will have opportunities to collaborate experts from various disciplines including energy, emissions, air quality, climate, hydrology and biology at NCSU, Argonne national laboratory, and Southern Research Station, USDA Forest Service. The initial appointment will be for 1 year period, with a possibility for extension of 1 year depending on satisfactory performance and the availability of funding. Salary is commensurate with qualification and experience. Qualified candidates should submit application materials via NCSU's online job site: <https://jobs.ncsu.edu/postings>. Refer to position number: 00102075.

Required materials include cover letter containing contact address and visa status (if any), complete curriculum vitae, official copies of transcripts, statement of research interests, and names and contact

information for three references and 2-5 sample publications. Review of the applications will begin immediately and will continue until the position is filled. More information on the AQF lab at NCSU can be found at <http://www.meas.ncsu.edu/aqforecasting/>. For technical questions regarding these positions, please contact Dr. Yang Zhang at [yang\\_zhang@ncsu.edu](mailto:yang_zhang@ncsu.edu).

## **21. Postdoc, Land Surface Modeling**

### **Climate Physics Educational Development, Pacific Northwest National Laboratory, Richland, WA**

PNNL is seeking a post-doctoral scientist who will perform land surface model simulations and will characterize and quantify the associated uncertainty. The successful candidate will develop, integrate, and apply uncertainty quantification techniques to identify uncertainties associated with model parameters and/or parameterizations in the Community Land Model (CLM) using observations at various spatiotemporal scales. The primary goal of the planned research is to apply the Community Land Model (CLM) under an existing uncertainty quantification framework, and integrate the CLM with a scalable multi-chain MCMC Bayesian inversion method to be developed in this project.

Minimum Requirements; Candidates must have received a PhD within the past five years from an accredited college or university. All staff at the Pacific Northwest National Laboratory must be able to demonstrate the legal right to work in the United States.

Qualifications: PhD in Atmospheric Sciences, Hydrology, Hydrometeorology, Geography, Ecology, or other closely related field. Knowledge of land surface modeling in a high-performance computing environment is required, and basic knowledge in sensitivity analysis and calibration/inversion is preferred. We are looking for highly motivated individuals who can demonstrate the ability to develop hypotheses, test those hypotheses, write and take the lead in publishing papers, and work in a collaborative environment. The researcher will join an interdisciplinary team of scientists performing research on land modeling in an Earth system modeling framework and applied math and statistics. Experience with unix/linux systems, F90/F95 programming, shell scripting, and familiarity with CLM/CESM is desirable, but not required. The selected candidate will work closely with scientists at PNNL and other DOE National Laboratories.

You can view and apply for this job at: [https://erecruit.pnnl.gov/psp/hrext/EMPLOYEE/HRMS/c/HRS\\_HRAM.HRS\\_CE.GBL?Page=HRS\\_CE\\_JOB\\_DTL&Action=A&JobOpeningId=302696&SiteId=1&PostingSeq=1](https://erecruit.pnnl.gov/psp/hrext/EMPLOYEE/HRMS/c/HRS_HRAM.HRS_CE.GBL?Page=HRS_CE_JOB_DTL&Action=A&JobOpeningId=302696&SiteId=1&PostingSeq=1)

## **22. Research Associate, Cloud Dataset Development and Analysis**

### **CICS, University of Maryland, College Park, MD**

The Cooperative Institute for Climate and Satellites (CICS) at the University of Maryland seeks to fill a professional scientific position for its collaborative research as a Cooperative Institute with the National Oceanic and Atmospheric Administration (NOAA). This position will be associated with the Air Resources Laboratory in NOAA Research. The position will be located at the NOAA Climate & Weather Prediction Center in College Park, Maryland. The position is funded for one year only.

Background: This ongoing project involves the development and validation of a homogeneity-adjusted dataset of cloud cover from weather observations for the past ~50 years, comparison of this dataset to other sources of cloud data and other relevant climate variables, and assessment of variability, trends, and uncertainties in cloud data, with emphasis on data from the U.S. The goal of the project is to improve our understanding of past changes in cloud cover on multi-decadal scales.

Responsibilities: The individual will contribute to the goals of the project, including:

- Data processing and analysis of ground-based cloud data, satellite cloud data, and/or related climate variables, and/or analysis of climate model data for comparison to the cloud data, in order to clarify long-term variability and trends in cloud cover.
- Extension of existing station data to create a more spatially complete dataset.
- Publication of results in peer-reviewed literature and presentation at scientific conferences.

Qualifications: Requirements for this position include a M.S. (PhD preferred) in a field related to climate studies, proficiency with a programming language (FORTRAN is preferred), and with scientific graphics software, and demonstrated ability to work independently and analyze scientific data with minimal supervision. Knowledge of and experience with issues relating to extracting long-term climate signals from weather observations or satellite records will be considered a plus. Familiarity with methods to extend sparse data to create a spatially and temporally more complete dataset is also a plus. The candidate must be able to work well with others and to communicate effectively both orally and in writing.

To Apply: Interested candidates should send a CV with a list of at least 3 professional references and a cover letter explaining how your qualifications meet the posted requirements to [anegri@essic.umd.edu](mailto:anegri@essic.umd.edu).

### **23. Graduate Studentship, Global Ocean-Climate Change and Marine Calcification Ries Laboratory, Northeastern University, Boston, MA**

The Ries Laboratory (<http://nuweb2.neu.edu/rieslab/>) in the Department of Marine and Environmental Sciences at Northeastern University seeks a graduate student interested in conducting federally funded research on the relationship between global ocean-climate change and marine calcification, to begin fall 2014. Research will include field investigations of modern (e.g., coral reefs) and/or ancient (e.g., limestones) carbonate systems coupled with laboratory calcification experiments. This opportunity affords access to state-of-the-art analytical equipment, including LA-ICPMS for trace element analysis, XRD for mineralogical characterization, isotope ratio mass spectrometry for  $\delta^{34}\text{S}$ ,  $\delta^{13}\text{C}$ ,  $\delta^{11}\text{B}$  and  $\delta^{18}\text{O}$ , and SEM with EDS/EBSD for micro-imaging and elemental/mineralogical mapping. In addition to completing coursework in their chosen field, the selected graduate student will receive in-depth training in carbonate geochemistry, carbonate sedimentology, biomineralization, global ocean-climate change, and paleoceanography, which will directly support his/her research objectives. The graduate student will be based at Northeastern University's Marine Science Center (<http://www.northeastern.edu/marinescience/>), located on the shores of the Massachusetts Bay on the picturesque Nahant peninsula (8 miles north of downtown Boston). The renovated MSC features a state-of-the-art flow through seawater facility, direct access to classic New England rocky shore intertidal study sites, an in-house SCUBA program, and small-craft research vessels.

Highly motivated and creative individuals with strong writing and analytical skills are encouraged to apply. Interested individuals should apply to Northeastern's Graduate Program in Ecology, Evolution, and Marine Biology (<http://www.northeastern.edu/mes/>) at <https://neugrad.askadmissions.net/emtinterest-page.aspx?ip=account>. Applications are due **December 1, 2013**. Please direct specific inquiries to Prof. Justin Ries at [j.ries@neu.edu](mailto:j.ries@neu.edu).

### **24. Graduate Studentship, Climate Variations and Change University of California, Santa Barbara**

The Climate Variations and Change (CLIVAC) research group currently has positions available for Ph.D. students. Students will be enrolled in the graduate program in the Department of Geography at the Univer-

sity of California, Santa Barbara, USA. Research topics are in weather and climate variability including extreme precipitation, synoptic analysis, weather forecasting, Madden-Julian Oscillation, climate change and impacts associated with extreme precipitation events. Ideal candidates will have strong undergraduate education in quantitative methods including math, physics and computing skills. Research assistantships include monthly stipends, tuition and fees.

For more information about the CLIVAC research, please visit our website: <http://clivac.geog.ucsb.edu> or email Dr. Charles Jones at [cjones@eri.ucsb.edu](mailto:cjones@eri.ucsb.edu).

## **25. Graduate Studentships, Arctic Sea Ice Variability & Greenland Ice Sheet Surface Mass Balance Rutgers University, Rutgers, NJ; City College of New York, NYC**

Seeking 2 highly motivated PhD candidates to be involved in a project aiming at studying interactions between Arctic sea ice variability and Greenland Ice sheet surface mass balance. One position is available at Rutgers, The State University of New Jersey, NJ and the other one at the Cryosphere Processes Laboratory of the City College of New York, NYC starting fall 2014. The two students at Rutgers and CCNY will collaborate with a third student enrolled at the University of Colorado in Boulder.

The ideal applicants should have a M.Sc degree and a strong background in science and programming. Experience in managing and analyzing large data sets, remote sensing and working with climate models is a plus. Applicants with background in the following disciplines are preferred: geography; remote sensing; computer science; earth science; atmospheric science, climatology, and cryospheric studies (e.g. glaciology). Applicants should submit their Curriculum Vitae, transcripts, and two or more letters of recommendation as part of their application package. Additional material may be requested by the respective institution.

CCNY position will be open until filled. Rutgers application deadline is **January 15, 2014**, with expected start date Fall 2014. Interested applicants should contact: Prof. Asa Rennermalm [asa.rennermalm@rci.rutgers.edu](mailto:asa.rennermalm@rci.rutgers.edu) for the Rutgers University position and Prof. Marco Tedesco [mtedesco@ccny.cuny.edu](mailto:mtedesco@ccny.cuny.edu) for the City College of New York position.