EAPS MEETINGS & EVENTS

FALL FACULTY MEETING SCHEDULE
Tuesday, Oct. 27th and Dec. 1st
HAMP 3201
3:00-4:30 PM

SEG 2015
October 18-23, 2015
New Orleans, LA

GSA 2015
November 1-4, 2015
Baltimore, Maryland

AGU 2015
December 14-18, 2015
San Francisco, California

AMS 2016
January 10-14, 2016
New Orleans, LA

LPSC 2016
March 21-25, 2016
The Woodlands, Texas

DEAN’S VISIT TO DEPARTMENT
April 21, 2016
1:30 - 4:00 PM

COLLOQUIA

Qianlai Zhuang
“Methane Emissions, Sea Ice Decline, and Arctic Amplification”
Thursday, October 15, 2015
3:30 PM
HAMP 1252

EAPS NEWS

ASTRONAUT AND PURDUE EAPS ALUM DREW FEUSTEL WITH MATT DAMON

Matt Damon having hand prints made at NASA’s Jet Propulsion Laboratory (JPL) Mars Yard in Pasadena California.

Drew Feustel, Matt Damon, and Director Ridley Scott, at earlier trailer launch event for the movie.

Matt Damon is now starring in the film “The Martian” directed by Ridley Scott, which opened on Oct. 2nd.

For the YouTube video of the Trailer Launch Event Q&A see https://www.youtube.com/watch?v=k6PEwafogAU.
TERRY WEST ATTENDS THE 58TH ANNUAL MEETING OF THE ASSOCIATION OF ENVIRONMENTAL AND ENGINEERING GEOLOGISTS (AEG)

Terry West attended the 58th annual meeting of the Association of Environmental and Engineering Geologists (AEG) in Pittsburgh, PA from September 21-25, 2015 and gave two oral presentations: “Two Ways to Deal With Combined Sewer Overflow, A Tale of Two Cities, Lafayette and West Lafayette” coauthored by Ashley Murray, former under graduate student, and “Rock Block Slide Along the Ohio River, Indiana Causes Damage to Residential Buildings”. Dr. West also initiated the West-Gray Scholarship by awarding its first grant to an AEG student member. A silent auction at the meeting raised more than $6000 for the scholarship endowment. Also at the meeting, Dr. Abdul Shakoor, Distinguished Alumnus of EAPS, received the Honorary Member of AEG award, the highest recognition bestowed by the Association. Many of Dr. Shakoor’s former students from Kent State University were present to acknowledge his award at the annual banquet.

EAPS ANNUAL HOG ROAST
October 17, 2015
Ken Ridgeway’s house

Come join the EAPS department for this historical event! Be ready to enjoy a good time and even better food with all of your peers! Providing a hot dish and seating options are highly encouraged. If you have questions, please e-mail: jboschel@purdue.edu

*If you do not know Dr. Ridgeway’s address, please contact Sheridan (sackiss@purdue.edu) to get it.

Please see flier for more details.

UPCOMING OUTREACH ACTIVITIES

November 1 - Purdue Convocations Event: Lighting pre show.
November 7 - Purdue Homecoming Celebration held on Stadium Mall between Pharmacy and Armstrong buildings.

These are some of the activities that are already on the books. They will be adding many more throughout the semester. If you would be interested in helping with any of the activities, please contact Steven Smith (mrsmith@purdue.edu)

Did you know that EAPS K-12 Outreach is part of the College of Science’s Science Express program for Indiana teachers to borrow equipment to us for classroom instruction? Last year 251 of the 425 Indiana students who enrolled in the College of Science came from the schools in the Science Express program. Want your content in front of college bound students, you might speak with Steven about that next broader impact…

UNDERGRADUATE NEWS

LAMONT RESEARCH PROFESSORS

The Lamont-Doherty Earth Observatory (LDEO) of Columbia University anticipates appointing one or more Lamont Research Professors in the Earth sciences in the coming academic year. The rank of the appointment(s) is open and dependent on experience. Lamont Research Professors receive nine-month appointments with partial salary support provided from institutional sources. An incentive program encourages the establishment of a vigorous externally funded research program to provide the majority of salary support, including an opportunity for summer salary. Applicants for Associate and Full Research Professor ranks should have established records of innovative research of high impact in one or more areas of Earth science, through publications in peer-reviewed journals, and should have demonstrated success at raising external support for their research programs. Applicants for the rank of Assistant Research Professor should have demonstrated potential for significant research contributions by having published in peer-reviewed journals and potential for supporting their research programs with external funding. Candidates with strong secondary interests in science education and outreach are also encouraged to apply. Following the recent completion of an Observatory-wide strategic plan, LDEO is particularly interested in applicants who will expand our expertise in the following areas:

- Dynamics of hydrometeorological systems, particularly extreme events and their impacts
- Real-time observational geoscience, with an emphasis on applications of new sensor and information technologies to fundamental processes at all scales
- Dynamics and kinematics of the solid Earth, with a focus on earthquake and volcanic processes and associated modes of crustal deformation and crust-mantle coupling
- Climate and paleoclimate studies, including coupled climate, ocean, and terrestrial ecosystems
- Studies of the cryosphere and sea-level

Eligibility requirements include a Ph.D. in Earth and environmental sciences or a related field, evidence of ongoing externally funded research programs or potential for supporting research programs with external funding, and at least 2-3 years of relevant research experience. Salary will be commensurate with experience.

Evaluation of applications will begin after Nov. 15, 2015.

All interested candidates should apply online at the following Quick Link:
For more information contact:
Office of the Director
Lamont-Doherty Earth Observatory of Columbia University,
Palisades, NY 10964
Telephone: 845-365-8546 • Fax: 845-365-8162 • Email: director@ldeo.columbia.edu

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RESEARCH ROUNDTABLE
PRESENTED BY THE PURDUE SOCIETY OF PROFESSIONAL ENGINEERS (PSPE) AND TAU BETA PI
Purdue Memorial Union
November 10, 2015
9:00 AM-4:00 PM

Designed to connect students with exciting research projects and bring together a multitude of groups and programs currently in progress at Purdue. Research and program staff will be there to talk with you about available research internships and jobs.

*Please see attached flier for more details.

GRADUATE NEWS

PURDUE NURSING: GRADUATE STUDENTS-CHILD WELLNESS DAY

October 23, 2015
10:00 AM-4:00 PM
Nursing Center for Family Health-Lyles Porter

Please see attached flier for more details.

OTHER

BECOME A PART OF THE HIGHER EDUCATION RESEARCH EXPERIENCES (HERE) PROGRAM AT OAK RIDGE NATIONAL LABORATORY (ORNL)

Opportunities for qualified students, alumni, and faculty to participate in hands-on research in a real-world setting

• Experience the thrill of research or technical projects at a cutting edge national laboratory and camaraderie with prestigious scientists, researchers and engineers
• Meet and collaborate with the people who are world and international experts in fields that interest you
• Contribute to the U.S. technical prowess that will enhance living standards and set the nation at the top of a global community
• Work on solutions to pressing scientific and technical problems

Highlights of the program include:
• Open to Undergraduates, Post-BS and AAS, MS, PhD and Faculty – Appointments are primarily for Science, Engineering, Technology and Mathematics (STEM) majors but all majors can apply
• Applications are accepted year-round

• Appointments can start and end at any time during the year based on your availability and the needs of the ORNL mentor/project
  • Full-time and part-time appointments
  • Minimum GPA - 2.5/4.0
• U.S. Citizen or Legal Permanent Resident (LPR)
• Stipend based on academic status
• Limited travel and housing allowances (if eligible)
• Professional development activities

Visit http://www.orau.org/ornl/heretornl/ or contact ORNL Science Education Programs at ornledu@orau.org for more information!

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POSITION ANNOUNCEMENT FOR DIRECTOR OF THE COOPERATIVE INSTITUTE FOR MESOSCALE METEOROLOGICAL STUDIES

The University of Oklahoma invites nominations and applications for a dynamic, visionary leader to serve as Director of the highly successful Cooperative Institute for Mesoscale Meteorological Studies (CIMMS).

Please see attached description for more details.

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BIRTHDAYS

Dev Niyogi
Oct. 18th
IMPORTANT NOTICE ABOUT THIS NEWSLETTER
This newsletter is used as the primary information source for current and upcoming events, announcements, awards, grant opportunities, and other happenings in our department and around campus. Active links to additional information will be provided as needed. Individual email announcements will no longer be sent unless the content is time-sensitive. We will continue to include our publications, presentations and other recent news items as well. Those using paper copies of the newsletter should go to our newsletter archive on the EAPS website at www.purdue.edu/eas/ and Click on News to access active links as needed. Material for inclusion in the newsletter should be submitted to Fallon (fmcquern@purdue.edu) by 5:00pm on Thursday of each week for inclusion in the Monday issue.

If it is in the newsletter, we assume you know about it and no other reminders are needed. For answers to common technology questions and the latest updates from the EAPS Technology Support staff, please visit http://www.purdue.edu/eas/info_tech/index.php.

Also, as an additional resource for information about departmental events, seminars, etc., see our departmental calendar at http://calendar.science.purdue.edu/eas/seminars.
Sept. 22  Subashini Subramanian, PhD Candidate
   “Land Surface Effects on the Post Landfall Characteristics of
   Tropical Cyclones”
   
   **Tuesday, 4:30PM, Room 2201/HAMP**

Sept. 24  Dr. Joseph Morris, Lawrence Livermore National Laboratory
   “Hydraulic Fracture Simulation: Rising to the Challenge of
   Unconventional Reservoirs”
   
   **EAPS Energy Colloquium**

Oct. 1   Prof. Nathan Sheldon, University of Michigan
   Title: TBA
   Host: Horgan

Oct. 8   Prof. Blair Schoene, Princeton University
   “Constraining Crustal Evolution on Very Short and Very
   Long Timescales”
   Host: Caffee

Oct. 15  Prof. Qianlai Zhuang, Purdue University
   Title: TBA

Oct. 20  Haylee Dickinson, PhD Candidate
   “Inferred Rheology and Petrology of the Southern California and
   Northwest Mexico Mantle from Postseismic Deformation Following the
   2010 El Mayor-Cucapah Earthquake”
   
   **Tuesday, 4:00PM, Room 2201/HAMP**

Oct. 22  Prof. Victor Gensini, College of DuPage
   “Tornadoes: Past, Present and Future”
   Host: Agee

Oct. 27  Anthony Ingrafea, Cornell University
   Title: TBA
   **EAPS Energy Colloquium**
   **Tuesday, 7:00PM, Room 112/PHYS**

Oct. 29  Prof. Jerry DeGraff, AEG-Jahns Lecturer,
   “Effective Monitoring for Environmental and Engineering Geology
   Projects, Case Histories in Mining, Groundwater Contamination and
   Hot Springs Migration”
   Host: West

Nov. 5   Prof. Kim Novick, Indiana University
   “Mechanisms Limiting Forest Carbon Uptake and Water Use
   During Drought”
   Host: Welp

Nov. 10  Kimberly Hoogewind, PhD Candidate
   Title: TBA
   **Tuesday, 4:00PM, Room 2201/HAMP**
<table>
<thead>
<tr>
<th>Date</th>
<th>Speaker</th>
<th>Institution</th>
<th>Title</th>
<th>Host</th>
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<tbody>
<tr>
<td>Nov. 12</td>
<td>Dr. Dave Finnegan</td>
<td>US Army Corps of Engineers</td>
<td>“Automated LiDAR Scanning of a Tidewater Glacier: Helheim Glacier, Southeast Greenland”</td>
<td>Elliott</td>
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<td>Nov. 19</td>
<td>Prof. Susan Brantley</td>
<td>Pennsylvania State University</td>
<td>Title: TBA</td>
<td>Melosh</td>
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<tr>
<td>Dec. 3</td>
<td>Prof. Paul Staten</td>
<td>Indiana University</td>
<td>“Metrics, Mechanisms, and Magnitudes of Tropical Widening in a Warming Climate”</td>
<td>Wu</td>
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Methane Emissions, Sea Ice Decline, and Arctic Amplification

Qianlai Zhuang
Purdue University

Large amounts of carbon in Arctic permafrost and soils poses a great threat to our future climate if the perceived positive feedback of methane emissions to the climate system exists. This large carbon reservoir is about the same size as the total carbon in global vegetation and the atmosphere combined. Meanwhile, the summer Arctic sea ice is rapidly shrinking, indicating that the climate has been changing. While earth system models have not showed the existence of the large positive feedback of greenhouse gas emissions from the Arctic, we do see that there is a strong correlation between land methane emissions and sea ice retreat during the period 2005-2010. In this presentation, I will discuss the evidence of the increasing Arctic methane emissions due to warming. I will also discuss a possible major cause to Arctic amplification, which has not been adequately explored before.
The Purdue Graduate Student Government and the Purdue School of Nursing have come together to offer a Child Wellness Day for the children of Purdue Graduate Students. Services offered are:

- Physical Exams
- Immunizations
- Hemoglobin and Lead Screening
- Well Child Health Education
- Child Safety Education
- Hearing screen
- Nutrition screening

**REGISTRATION:**
Please click on or copy and paste link to register online after 10/1/2015:
https://www2.itap.purdue.edu/bs/worklife/

**TRANSPORTATION**
- PVCC will provide a van that will pick up every 1/2 hour at PVCC and the Lyles Porter building and drop off at the clinic. Please provide car seats in order to utilize the van service.
- Parking is available all day long at the Harrison Street Parking Garage, need for “A” permit is waived for the day.

If your children have health insurance, please bring insurance card.
Please bring copy of your children’s immunizations.

Questions: Jennifer Coddington- jsundell@purdue.edu or Liz O’neil oneile@purdue.edu
EAPS Annual Hog Roast!

Come join the EAPS department for this historical event! Be ready to enjoy a good time and even better food with all of your peers! Providing a hot dish and seating options are highly encouraged.

When: October 17th
Where: Ken Ridgeway's house

Head Formation
Shoulder Formation
Bacon Formation
Loin Formation
Ham Formation

Questions? Email: jboschel@purdue.edu
Director of the Cooperative Institute for Mesoscale Meteorological Studies

The University of Oklahoma invites nominations and applications for a dynamic, visionary leader to serve as Director of the highly successful Cooperative Institute for Mesoscale Meteorological Studies (CIMMS).

CIMMS was established in 1978 as a cooperative program that unites the scientific and technical resources of National Oceanic and Atmospheric Administration (NOAA) and The University of Oklahoma (OU) into a center of research excellence. CIMMS was created to support NOAA’s Mission of Science, Service and Stewardship and thereby contribute to NOAA’s long-term goal of building a Weather-Ready Nation that is prepared for and responds to weather-related events. CIMMS research areas include weather radar, hydrometeorology, observations and numerical modeling of high-impact weather including severe storms, forecast and warning improvements, regional climate variations, the societal and socioeconomic impacts of weather and climate, and related subject areas.

The Director of CIMMS is expected to play a leadership role in fostering the development of collaborative research between NOAA and OU and work to realize the transitions of these research benefits to NOAA’s operational mission. The successful applicant must also have a dedicated commitment to the academic and research mission of the University of Oklahoma. Qualifications include an earned doctorate degree in atmospheric sciences or a related field or equivalent experience; strong evidence of exceptional leadership skills, such as managing a large, multi-disciplinary organization; a record of personal research; strong evidence of success in developing and executing a bold vision for collaborative research, including demonstrated success in resource mobilization; evidence of research breadth and/or substantial intellectual curiosity given the breadth of CIMMS activities; outstanding communication skills; leadership in professional service and recognized national and international visibility within the professional community; an understanding of strategies regarding the translation of research outcomes into operations; experience working at or familiarity with a comprehensive research university and an understanding of graduate student involvement in research; working knowledge of how policies are developed within NOAA or similar organizational entities including experience of successfully working with administrators, funding managers and the legislative process to develop and sustain programs and projects. Director of CIMMS will also be appointed as a tenured Professor in the School of Meteorology of the College of Atmospheric and Geographic Sciences or in the appropriate academic department or school. The salary (commensurate with qualifications) and starting date are negotiable. This position will remain open until filled. References will be contacted only upon approval. Every effort will be made to ensure confidentiality in the process until the interview stage.

CIMMS is a unit within the National Weather Center at OU (http://www.nwc.ou.edu), the
world’s largest facility that brings together academic, operational, research, and support organizations in a uniquely synergistic fashion. The Center is part of OU’s Research Campus (http://urc.ou.edu), which co-locates and strategically builds linkages among private sector, government, and academic organizations.

The NWC houses several NOAA operational and research organizations, including the National Severe Storms Laboratory (NSSL), the Storm Prediction Center (SPC), the National Weather Service (NWS) Forecast Office, the Weather Decision Training Division, and components of the Radar Operations Center that manages the Nation’s WSR-88D radar systems. NSSL and CIMMS pioneered development and use of Doppler radars to monitor convective storms and detect signatures of severe weather, which eventually led to the establishment of the national network of WSR-88D Doppler radars and more recently, the introduction of polarimetric radar capabilities to improve precipitation estimates and identify hydrometeor types. NSSL and CIMMS scientists have worked closely over the past two decades with the SPC, NWS Forecast Offices and research experts world-wide at the Hazardous Weather Testbed to demonstrate the value of cutting-edge ensemble weather prediction systems in forecasting the probability of severe weather.

The School of Meteorology, also located in the NWC within the College of Atmospheric and Geographic Sciences, is the largest academic atmospheric science program in the nation, with more than 250 undergraduates, nearly 100 graduate students and 25 faculty. The School is most well known for international leadership in the areas of severe storms, mesoscale dynamics, convective-scale modeling and radar research. However, the expertise of the faculty also includes atmospheric chemistry, polar studies, boundary layer and urban meteorology, climate, monsoon circulations, data assimilation, tropical meteorology, lightning, dynamics and cloud physics. Other OU organizations located in the NWC or housed nearby on the research campus include the Advanced Radar Research Center (ARRC), the Center for Analysis and Prediction of Storms (CAPS) and the Department of Interior’s South Central Climate Science Center (CSC). A unique aspect of the School is the presence of numerous adjunct and affiliate scientists from these co-located research centers, CIMMS and from NOAA.

To apply, please submit a letter of interest including a statement that addresses one’s leadership philosophy, research goals and teaching vision, a current curriculum vitae, and the names of four or more people who can serve as references (with full mailing and e-mail addresses, telephone, and fax numbers). Please address all correspondence to:

Dean Berrien Moore III  
Vice President for Weather and Climate  
College of Atmospheric and Geographic Sciences  
Search Committee Chairperson  
University of Oklahoma  
120 David L. Boren Blvd.  
Norman, OK 73072  
Phone: 405-325-3095/fax 405-325-1180/E-mail: berrien@ou.edu  
All Email correspondence should be copied to
Ms. Tracy Reinke: treinke@ou.edu
and
Ms. Lee Anne Sallee: lasallee@ou.edu

The University of Oklahoma is an Affirmative Action, Equal Opportunity Employer. Women and minorities are encouraged to apply.

Search Committee Members
Petra Klein
Alicia Knoedler
Steve Koch
Lance Leslie
Renee McPherson
Berrien Moore, Chair
Robert Palmer
Dave Parsons
Randy Peppler
Russ Schneider
Carol Silva
Aondover Tarhule

Admin: Lee Anne Sallee