Contents:
Meetings/Events & Dept. News...........................................1
Undergrad/Graduate Student News.................................2
University News............................................................3

EAPS DEFENSES

PhD Defense – Wendell Walters
Monday, October 24, 2016
11:00 AM
HAMP 2201
(Advisor: Greg Michalski)

EAPS COLLOQUIA

Logan Dawson
PhD Candidate
Tuesday, October 25, 2016
4:00 PM
HAMP 2201

Allison Wang
Lamont-Doherty Earth Observatory
Thursday, October 27, 2016
3:30 PM
HAMP 1252

EAPS HOLIDAY SCHEDULE

Thanksgiving: Nov. 24 & 25, 2016
Christmas: Dec. 23-26, 2016

http://www.eaps.purdue.edu/
EAPS FACULTY AND STAFF RESOURCE FUND

The EAPS Faculty and Staff Resource Fund provides faculty and full-time, permanent staff with a simple, open, and transparent way to request resources they need to be productive in their work. This is not intended to replace other sources (e.g. grants, discretionary accounts, start-up, competitive programs on campus, and usual supplies and expenses), rather it is to meet occasional needs that are important for individual productivity and advancement in cases where these other sources are not available to an individual. Examples include professional development course tuition, office needs, and professional conferences.

Procedure:
Applications to the fund should be sent via email (as a pdf) to the Assistant Department Head. Requests must include the following items and not exceed one page: applicants name, position title, email address, a detailed, one paragraph description of what is being requested, a short explanation of how this will help the individual be productive in their work, amount requested (this program will accept requests between $200 and $2,000), time constraints on what is being requested (e.g., a deadline for registration).

Request deadline is the 20th of each month. Decisions will be made by the 5th of the following month. All requests will be reviewed by a group including the Assistant Department Head, the Business Manager, and at least two members of the EAPS Executive Committee.

VII EARTH SCIENCES CONVENTION
(EXHIBITION OF PRODUCTS, NEW TECHNOLOGIES AND SERVICES)

The Cuban Geological Society (SCG) is inviting scientists, professionals, technicians, and university students of Geology, Geophysics, and Mining and related Geosciences, to participate in the VII Earth Sciences Convention, to be held at the International Conference Center in Havana, Cuba on April 3-7, 2017. For further information, please contact: www.scg.cu; www.cubacienciasdelatierra.com; geociencias@mnhnc.inf.cu. Please see attached flyer.

PUPS
PURDUE UNIVERSITY PLANETARY SCIENCE

There is a new student club called PUPS (Purdue University Planetary Science)–to provide a sense of community for students who are interested in planetary sciences, as well as, providing encouragement and information about the future of planetary science. The goal is to increase awareness of and the interdisciplinary nature of planetary sciences.

Advisor: Briony Horgan.
E-mail: briony@purdue.edu

http://www.eaps.purdue.edu/
Distinguished Lectures

Arvind Varma
R. Games Slayter Distinguished professor of Chemical Engineering
Monday, October 31, 2016
2:30 PM
Fowler Hall (Stewart Center)

Jian-Kang Zhu
Distinguished professor of Plant Biology,
Departments of Horticulture and Landscape Architecture, and Biochemistry
Monday, October 31, 2016
3:30 PM
Fowler Hall (Stewart Center)

Lectures are free and open to the public. Please see attached flyers for more details.

TA@20: CURRENT
Purdue Memorial Union, East Faculty Lounges
October 26, 2016
11:45 AM-1:30 PM (LUNCH)
Qualtrics link for registering: https://goo.gl/N8OjdL
Register by: October 24, 2016 at 5:00 PM
Please see attached flier for more details.

Writing Lab at Purdue
At-A-Glance for Instructors, Faculty, and Advisors
Fall 2016

Main Location
Heavilon Hall Room 226
Monday - Thursday 9:00 AM - 6:00 PM
Fridays 9:00 AM - 1:00 PM

Appointments: https://cla.purdue.edu/wlschedule

Purdue will be hosting the 2nd Annual Indiana STEM Education Conference at Purdue on 1/12/17 from 9 to 4:30. I hope that you will consider attending this event. We had an outstanding turnout of over 650 people last year and are expecting 1,000 this year.

Proposals are due by 10/15/16. Email to carlacjohnson@purdue.edu. You will be notified of the decision on your proposal by 11/4/16.

Presenters will need to register for the conference at: https://goo.gl/5KbfKP
The University of Oklahoma’s School of Meteorology is seeking to build on its expertise and international leadership in weather research and invites applications for two tenure-track faculty positions at the Assistant or Associate Professor levels to begin in the academic year 2017-2018.

Please see attached job announcement for more details.
9th Annual PURDUE RECEPTION at the AGU Fall Meeting

Thursday, December 15
7:00 PM - 9:00 PM

ThirstyBear Restaurant, Billar Room
661 Howard Street, San Francisco

Complimentary heavy hors d’oeuvres

Co-sponsored by:
Department of Earth, Atmospheric, and Planetary Sciences (EAPS)
and
Purdue Climate Change Research Center (PCCRC)

PURDUE UNIVERSITY
Sept. 1  Joel Saylor, University of Houston  
“Integrating Stable Isotopes and Basin Analysis for a Paleogene-Neogene Paleoelevation History of Southern Peru”  
Host: Ridgway

Sept. 8  William McKinnon, Washington University in St. Louis  
“Pluto Revealed! Results from NASA’s New Horizons Mission”  
Host: Melosh

Sept. 13  Wanchen Wu, PhD Candidate  
“The Effects of Continental Aerosols on the Eyewall of a Typhoon”  
Tuesday, 4:00PM, Room 2201/HAMP  
Advisor: Tung

Sept. 15  Peter Colarco, NASA Goddard Space Flight Center  
“Aerosol Modeling Applications in the NASA GEOS-5 Earth System Model”  
Host: Harshvardhan

Sept. 22  Oliver Boyd, U.S. Geological Survey  
“Seismic Hazard and Geodesy in the New Madrid Seismic Zone”  
Host: Gilbert/Freed

Sept. 27  Sarah Bischoff, PhD Candidate  
“Breaking Down the Impact of Strength Heterogeneity on Deformation of the India-Eurasia Collision: A Numerical Modeling Approach”  
Tuesday, 4:00PM, Room 2201/HAMP  
Advisor: Flesch

Sept. 29  Kevin Reed, SUNY-StonyBrook  
“High-resolution Global Simulations from Reduced Complexity to Future Projections”  
Host: Chavas

Oct. 4  Wendell Walters, PhD Candidate  
“Unraveling the “Fingerprints” of Nitrogen Oxides using Stable Isotopes: Implications for Source Partitioning and Evaluation of Atmospheric Oxidation Pathways”  
Tuesday, 4:00PM, Room 2201/HAMP  
Advisor: Flesch

Oct. 20  Fan-Chi Lin, University of Utah  
“Imaging the Yellowstone Magmatic and Hydrothermal System Using Seismic Tomography”  
Host: Nowack

Oct. 25  Logan Dawson, PhD Candidate  
“Examination of Mesoscale Feedbacks on Convective Scale Predictability During MPEX”  
Tuesday, 4:00PM, Room 2201/HAMP  
Advisor: Baldwin

Oct. 27  Allison Wing, Lamont-Doherty Earth Observatory  
“Clouds, Circulation, and Climate Sensitivity in Cloud Resolving Model Simulations of Self-Aggregation of Convection”  
Host: Chavas

Nov. 1  Shaoqing Liu, PhD Candidate  
“Quantifying Terrestrial Ecosystem Carbon Dynamics with Mechanistically-based Biogeochemistry Models and In Situ and Remotely Sensed Data”  
Tuesday, 4:00PM, Room 2201/HAMP  
Advisor: Zhuang
<table>
<thead>
<tr>
<th>Date</th>
<th>Speaker</th>
<th>Affiliation</th>
<th>Title</th>
<th>Host</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov. 3</td>
<td>Dave Finnegan, US Army Corps of Engineers</td>
<td></td>
<td>“Automated LiDAR Scanning of Tidewater Glacier; Helheim Glacier, Southeast Greenland”</td>
<td>Elliott</td>
<td></td>
</tr>
<tr>
<td>Nov. 10</td>
<td>Jessica Larsen, University of Alaska, Fairbanks</td>
<td></td>
<td>“The 2008 Eruption of Okmok Volcano, Alaska: Geological Perspectives”</td>
<td>Elliott</td>
<td></td>
</tr>
<tr>
<td>Nov. 15</td>
<td>Adam Stepanek, PhD Candidate</td>
<td>Advisor: Baldwin</td>
<td>“Predictions of Severe Weather Environments by the Climate Forecast System Version 2 Model Suite”</td>
<td>Baldwin</td>
<td></td>
</tr>
<tr>
<td>Nov. 17</td>
<td>Michael King, LASP</td>
<td>Host: Harshvardhan</td>
<td>“Spatial and Temporal Distribution of Tropospheric Clouds Observed by MODIS on Board the Terra and Aqua Satellites”</td>
<td>Harshvardhan</td>
<td></td>
</tr>
<tr>
<td>Nov. 28</td>
<td>Tim Marshall, Haag Engineering</td>
<td>Host: Tanamachi</td>
<td>“El Reno Tornado and Damage Survey”</td>
<td>Tanamachi</td>
<td></td>
</tr>
<tr>
<td>Dec. 1</td>
<td>Andy Davis, University of Chicago</td>
<td>Host: Caffee</td>
<td>“Stardust in the Laboratory with CHILI”</td>
<td>Caffee</td>
<td></td>
</tr>
<tr>
<td>Dec. 6</td>
<td>Christy Gibson, PhD Candidate</td>
<td>Advisor: Filley</td>
<td>“ ”</td>
<td>Filley</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Tuesday, 4:00PM, Room 2201/HAMP</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Examination of Mesoscale Feedbacks on Convective Scale Predictability during MPEX

Logan Dawson
PhD Candidate

Two primary objectives of the Mesoscale Predictability Experiment (MPEX) were to quantify upscale feedbacks from deep convection and assess the impact of these feedbacks on numerical model simulations. Analysis of upper air soundings collected during MPEX reiterate that surface cold pools are an effect of deep convection on the mesoscale environment that may persist for extended time periods. Arguably, appropriate representation of these cold pools is necessary for accurate prediction of severe convection occurring in multiday episodes because of the potential for cold pools to persist and significantly contribute to inhibition of surface-based convection.

Experiments employing the WRF-DART data assimilation system are conducted to examine this hypothesized relationship between cold pools and subsequent mesoscale-convective predictability. Ensembles for each data assimilation experiment are initialized at 15 UTC using NCAR ensemble data assimilation system analyses. Assimilation cycling occurs from 16 UTC to 03 UTC before launching forecasts. In these experiments, conventional observations and radar reflectivity data are assimilated onto a 3 km convection-permitting domain. Moreover, suppression of convection will be attempted by assimilating radar reflectivity data that have been edited to remove convective storms. Aspects of the mesoscale environment will be verified with a focus on the supplemental MPEX observations, and characteristics of severe convection will be verified using conventional observations and radar data.
Large-scale atmospheric circulation, and its interaction with organized moist convection across many scales, sets the patterns of tropical cloud cover and relative humidity and their sensitivity to climate change. Possible changes in the amount of organized convection with warming therefore may modulate climate sensitivity. We explore changes in clouds and circulation and the degree of self-aggregation of convection in response to uniform SST change in a set of radiative-convective equilibrium simulations with the System for Atmospheric Modeling (SAM) cloud resolving model. We use a non-rotating, highly elongated three-dimensional channel domain of length >104 km, with interactive radiation and surface fluxes and fixed sea-surface temperature varying from 280–310 K. Convection self-aggregates into multiple moist and dry bands across this full range of temperatures; we describe the time and length scale of the aggregation and explain the physical mechanisms that cause it. We discuss how large-scale overturning circulations, cloud fraction, and cloud feedbacks change in response to warming, and compare these results to the responses in small-domain RCE (which does not have organized convection or large-scale circulation).
Selected research to produce energy carriers and valuable chemicals from new or renewable sources, currently being conducted or recently completed in my laboratory, will be discussed.

- Hydrogen generation for PEM fuel cell vehicle applications
- Catalytic upgrading of bio-oils
- Utilization of glycerol, a biodiesel waste product, for production of valuable chemicals
- Oxidative coupling of methane

The research relies on development of new catalytic materials and/or processes and demonstrates successful applications of the principles of chemical and catalytic reaction engineering to solve problems of contemporary interest facing society.

Monday, October 31, 2016

<table>
<thead>
<tr>
<th>LECTURE</th>
<th>RECEPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:30 p.m.</td>
<td>2:30 p.m.</td>
</tr>
<tr>
<td>Fowler Hall</td>
<td>Robert L. Ringel Gallery</td>
</tr>
<tr>
<td>Stewart Center</td>
<td>Stewart Center</td>
</tr>
</tbody>
</table>

Lecture is free and open to the public.
Some heritable information is not in the DNA sequence of organisms but is contained in the patterns of their DNA methylation. What is DNA methylation and why do we need to know about it?
Each month, the Center for the Environment hosts a Friday reception with food, drink, and conversation, featuring a few thought-provoking three minute talks by faculty offering different perspectives on a particular topic of interest.

ENVIRONMENTAL HEALTH THOUGHT PROVOKERS

- Lalatendu Acharya, Consumer Sciences
- Ellen Wells, School of Health Sciences
- Catherine Hill, Entomology
- Sophie Lelievre, Basic Medical Sciences & Cancer Pharmacology

OCTOBER 28
4:00 – 5:00 PM
Mann Hall
Room 203 & 2ND floor atrium
TA@20: CURRENT
DISCUSSION OF CURRENT INTERESTS AND ISSUES OF ACADEMY MEMBERS, AND FUTURE PROGRAMMING TO ADDRESS THEM.

OCTOBER 26, 2016
11:45-1:30 PM (LUNCH)
PURDUE MEMORIAL UNION, EAST FACULTY LOUNGES

Topics (from responses to the 2016 Teaching Academy member survey):
- Mentoring, teaching, and their places in promotion & tenure processes.
- Mentoring junior faculty & graduate students about teaching.
- Primary committee evaluation of colleagues’ teaching credentials.
- Engaging & mentoring specific student populations, esp. underrepresented minority, first-generation college, & “at-risk” students.

Panel Members/Discussants
- Bernard Y. Tao, Professor, Agricultural & Biological Engineering & Teaching Academy Chair Elect (moderator)
- Audeen W. Fentiman, Assoc. Dean of Graduate Education & Interim Head, Engineering Education
- Peter J. Hollenbeck, Vice Provost for Faculty Affairs
- Jane M. Kirkpatrick, Head, School of Nursing

REGISTER HERE by Oct 24th at 5 PM  QUESTIONS? : TEACHINGACADEMY@PURDUE.EDU
At-A-Glance for Instructors, Faculty, and Advisors

Fall 2016

Hello, we’d like to take this time to update you on Writing Lab news.

We now offer online appointments for clients, who can easily schedule one-to-one consultations at https://cla.purdue.edu/wlschedule. Clients can select convenient times and choose one of our highly trained consultants for face-to-face or online feedback.

In addition, we’ve been working with Purdue’s Institutional Research office to learn more about Writing Lab users. Our initial results indicate that when students have sessions with tutors in the Writing Lab, especially those who are enrolled in English 106, they have significantly higher semester GPAs than their peers who do not come to the Writing Lab.

We are always looking for ways to collaborate with faculty to support writers across disciplines. If you’d like to discuss how we can work with you and your students, please contact us.

Best wishes for a great semester.

Harry C. Denny, Ph.D. • hdenny@purdue.edu
Associate Professor of English and Writing Lab Director

Tammy Conard-Salvo • tcsalvo@purdue.edu
Associate Director

---

**Main Location**

Heavilon Hall Room 226
Monday – Thursday 9:00 AM – 6:00 PM
Fridays 9:00 AM – 1:00 PM

Appointments:
https://cla.purdue.edu/wlschedule

**Satellite Locations**

Drop-in only—first come, first served

**HSSE Library Collaborative Study Center**
Mondays 6:00 – 9:00 PM

**Latino Cultural Center**
Tuesdays 6:00 – 9:00 PM

**Mechanical Engineering (ME) 2nd Floor**
Rooms 2138 & 2142
Wednesdays 6:00 – 9:00 PM

---

**Featured FAQ**

*What appointment options do you offer?*

Students can choose from three appointment types for one-to-one consultations:

- **In-person**: students meet face-to-face with one of our tutors in the Writing Lab or a satellite location.
- **Online**: Students can discuss their work with a tutor in real time using a text-based chat interface.
- **eTutoring**: Also known as asynchronous tutoring, students upload their documents in advance and receive comments at the appointed time.

More online at [owl.english.purdue.edu/writinglab/facultyfaq](http://owl.english.purdue.edu/writinglab/facultyfaq)

---

Writing Lab services are FREE and available to all Purdue students, faculty, and staff.

Heavilon Hall Room 226 • (765) 494-3723 • https://owl.english.purdue.edu/writinglab

@PurdueWLab • /PurdueUniversityWritingLab
One-on-One Tutorials
We offer free tutorials on an appointment basis. Writers can bring any document to the Writing Lab, at any stage of the writing process. Sessions commonly help with the following:

- Clarification: understanding an assignment
- Invention: brainstorming, coming up with ideas, discovering a focus
- Organization: ordering ideas, building an argument
- Revision: revising for clarity and coherence

Our graduate tutors can assist students with a variety of writing tasks, including writing in the disciplines. Our business and professional writing consultants are specialists in employment writing, memos, personal statements, and reports. Our undergraduate teaching assistants help students taking first year composition courses (English 106 and 108). All of our tutors undergo rigorous training.

The student FAQs at https://owl.english.purdue.edu/writinglab/policies answer common questions about our tutorial sessions and offer tips on how best to prepare for sessions.

Students can now schedule appointments online. In addition, our satellite locations offer drop-in hours in the evenings at various locations. Please see https://owl.english.purdue.edu/writinglab for hours of operation and location information.

ESL Services
The Purdue Writing Lab offers a range of services to non-native speakers of English, covering writing and reading skills and conversational fluency:

- Tutorials for feedback on writing projects
- Self-study resources (books, CD-ROMs) for language skills practice
- Daily conversation groups (open to all non-native speakers enrolled at Purdue) for improving oral fluency

For more information on in-lab services for ESL learners, see https://owl.english.purdue.edu/writinglab/esl.

Course-specific Resources
The Writing Lab is committed to Writing Across the Curriculum at Purdue, and we welcome ideas for collaboration with other disciplines in the university. We encourage you to submit your course syllabus and assignment descriptions to the Writing Lab to help us better assist your students in their tutorials. We are also available to consult with instructors about assigning and responding to student papers, encouraging students' use of the Writing Lab, and developing ideas for special projects connected with writing. To learn more or request a consultation, visit https://owl.english.purdue.edu/writinglab/consultation.

Experienced tutors are also available to provide your class with interactive presentations on the resources available to students at the Writing Lab. We also offer classroom workshops on writing topics that can be tailored to specific class projects on a limited basis. You can learn more and request a workshop for your class at https://owl.english.purdue.edu/writinglab/workshops/index.php.

Purdue’s Online Writing Lab (OWL)
The Purdue OWL (https://owl.english.purdue.edu) offers a wide variety of materials, presentations, and YouTube videos (https://www.youtube.com/OWLPurdue) to the Purdue University community and to users around the globe. The Purdue OWL also posts updates on Writing Lab events and produces the Purdue OWL News (https://owl.english.purdue.edu/purdueowlnews). Instructors and students use the OWL to:

- Access regularly-updated handouts on writing process, basic writing, and document design
- Find resources for English as a Second Language students
- Download classroom-ready PowerPoint presentations on a number of writing topics
The Cuban Geological Society (SCG) is pleased to invite scientists, professionals, technicians and university students of Geology, Geophysics, Mining and related Geosciences, to participate in the VII Earth Sciences Convention, and Exhibition of Products, New Technologies and Services, to be held at the International Conference Center of Havana, Cuba on April 3-7, 2017.

The convention welcomes presentations about Cuba, the Caribbean and other regions or in general about the geology, geophysics and mining experiences in the search and management of natural resources, including minerals (metals, industrial), water, oil and gas, construction, earthquake research and other geohazards, education of geosciences; as well as any other related to the sustainable exploitation of natural resources.

We invite professional societies, institutions and non-government organizations to organize workshops, round tables and meetings during the Convention.

Dr. Manuel A. Iturralde Vinient
President of the Cuban Geological Society

www.scg.cu; www.cubacienciasdelatierra.com
geociencias@mnhnc.inf.cu
FACULTY POSITIONS IN METEOROLOGY
School of Meteorology
College of Atmospheric and Geographic Sciences
The University of Oklahoma

The University of Oklahoma’s School of Meteorology is seeking to build on its expertise and international leadership in weather research and invites applications for two tenure-track faculty positions at the Assistant or Associate Professor levels to begin in the academic year 2017-2018. The School is seeking candidates with the ability to establish, lead and sustain a strong and visible research program in the atmospheric science research within topics that include cloud microphysics, atmospheric electricity and radiation; model development and applications; data assimilation and numerical weather prediction; severe weather, convection and mesoscale meteorology; surface and boundary layer processes; remote and in-situ sensing; tropical and synoptic meteorology; topics at the intersection of weather and climate. The applicants also must have a commitment to excellence in teaching and mentoring at the undergraduate and graduate levels plus a strong desire to participate in service to the School, University, and atmospheric science community. Applicants should have completed their PhD by the time of appointment.

The context for these hires is that weather, water, climate, and radar engineering are the University of Oklahoma’s highest priorities for strategic investment. The School of Meteorology has added breadth to its faculty in recent years with new expertise in atmospheric chemistry, climate, polar studies and seasonal prediction. The advertised positions focus on the historical strengths of our program by concentrating on weather research. The School of Meteorology offers significant opportunities for collaboration due to its location within the National Weather Center; one of the largest facilities of its kind in the world housing the University’s academic and research programs in meteorology, state organizations, and the U.S. National Oceanic and Atmospheric Administration’s Norman-based weather research and operational programs. In addition, the nearby research campus also houses the Department of the Interior’s South Central Climate Science Center, a new 35,000 sq. ft. state-of-the-art Radar Innovations Laboratory, and numerous private sector companies.

The University of Oklahoma (OU) is a Carnegie-R1 comprehensive public research university known for excellence in teaching, research, and community engagement, serving the educational, cultural, economic and health-care needs of the state, region, and nation from three campuses: Norman, Health Sciences Center in Oklahoma City and the Schusterman Center in Tulsa. OU enrolls over 30,000 students and has more than 2700 full-time faculty members in 21 colleges. In 2014, OU became the first public institution ever to rank #1 nationally in the recruitment of National Merit Scholars, with 311 scholars. The 277-acre Research Campus in Norman was named the No.1 research campus in the nation by the Association of Research Parks in 2013. Norman is a culturally rich and vibrant town located just outside Oklahoma City. With outstanding schools, amenities, and a low cost of living, Norman is a perennial contender on the “Best Places to Live” rankings. Visit soonerway.ou.edu for more information.

To apply, please submit a letter of interest together with a statement of your research goals and teaching vision, 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). Applicants are also encouraged to provide both publication and citation data such as those available from Web of Science, ResearcherID, Google Scholar or similar resources. Screening of applications will begin on 30 November 2016 and will continue until the positions are filled. Please address all correspondence to:

Drs. Xuguang Wang or David Parsons
Search Committee Co-Chairs
University of Oklahoma 120 David L. Boren Blvd. Norman, OK 73072
Email: xuguang.wang@ou.edu and/or dparsons@ou.edu

The University of Oklahoma is an equal opportunity institution. www.ou.edu/eoo

Women, Minorities, protected veterans and individuals with disabilities are encouraged to apply