UPCOMING EAPS MEETINGS

SPRING FACULTY MEETING SCHEDULE
Tuesday, Jan. 27th, Feb. 10th (Dean’s Visit to Dept.), Mar. 24th, and Apr. 14th, 2015
3:00-4:30 p.m.
HAMP 3201

GRAD EXPO
February 27th & 28th, 2015

OTHER IMPORTANT DATES TO REMEMBER

FORM 40s DUE
March 14th, 2015

EAPS DISTINGUISHED SCIENCE ALUMNI AWARD RECEPTION
April 17th, 2015

EAPS ANNUAL AWARDS BANQUET
Monday, April 20th, 2015
Ross-Ade Pavilion
5:30-9:00 p.m.

EAPS ALUMNI ADVISORY BOARD MEETING
Tuesday, April 21st, 2015

EAPS COLLOQUIA

David Blair (PhD Candidate)
“The Princess and the Pea: Fractures in the Floors of Lava-Filled Impact Craters”
Tuesday, Jan. 20th, 2015
4:00 p.m.
HAMP 2201

Eldon Gath (AEG Jahns Lecturer)
“Tectonic Geomorphic and Paleoseismic Investigations for the Panama Canal”
Thursday, Jan. 22nd, 2015
3:30 p.m.
HAMP1252

SPECIAL SEMINAR

ATMOSPHERIC SCIENCE FACULTY CANDIDATE

Daniel Chavas (Princeton University)
“The Tropical Cyclone Wind Field”
Wednesday, Jan. 21st, 2015
10:30 a.m.
HAMP 2108

EAPS NEWS

EAPS OMBUDSMAN

What is an Ombudsman? The ombudsmen are an informal, neutral, confidential resource for people in the department, especially students, to raise questions or concerns about any aspect of their academic experience. The EAPS ombudsman is Barbara Gibson (HAMP 2169B;barbara@purdue.edu) - please feel free to contact her if needed.

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
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.

TO EAPS PROFESSORS AND TA’S:

“I have received the Spring 2015 course textbook list from the EAPS office and have placed the textbooks that were listed on Reserve for your courses. If you would like additional materials placed on reserve please let me know. Thank you.” –Terry Wade

UNDERGRADUATE AND GRADUATE STUDENT INFORMATION

PURDUE UNIVERSITY METEOROLOGICAL ASSOCIATION:

The PUMA Spring Callout will be on Wednesday, January 28th at 5:30 in HAMP 1252! All majors welcome! See flyer.

THE DORIS DUKE CONSERVATION SCHOLARS PROGRAM AT THE UNIVERSITY OF WASHINGTON.

Freshman or Sophomore Interested in the Environment, Diversity, and Conservation. Looking for an all-expense paid summer opportunity? The goal of this multi-year conservation immersion program is to broaden participation within conservation by selecting talented freshmen and sophomore students who may have just an initial interest in the environment or diversity. The 8 week summer course will explore the many landscapes of Washington State and will allow the students to connect with a variety of conservation professionals.

What you should know:

- this is an all-expense-paid program including travel to and from Washington
- scholars will earn a $500 weekly stipend
- freshmen and sophomores are eligible due to the multi-year nature of the program
- students DO NOT have to come from an environmental science or even science major, but should demonstrate a commitment to the environment and diversity
- students from all backgrounds are encouraged to apply

The application is online at http://goo.gl/5FPFbT and requires 2 letters of recommendation (Due Date: January 29th)

Applications are due (along with letters of recommendation) by January 29th! Feel free to contact us at ddcsp@uw.edu if you have questions.

2015 MARINE SCIENCE SUMMER INTERNSHIP - UNIVERSITY OF DELAWARE

A great undergraduate summer research opportunity at the College of Earth, Ocean, and Environment, University of Delaware. Supported by a grant from the National Science Foundation’s Division of Ocean Sciences, this REU (Research Experience for Undergraduates) program supports ten undergraduate students to conduct research in marine science. We especially encourage applications from members of minority groups underrepresented in science.

The program will run for 10 weeks (June 8 - August 14).

Please go to our website http://goo.gl/0NhWZZ to find out more about the program. Student support includes a $5,500 stipend, campus housing, and travel assistance. Application is open now; deadline is February 13, 2015.

The application form and instructions for submitting supporting documents are available at http://goo.gl/T2HgX5. Interns will work with faculty and research staff in a graduate student atmosphere on a research topic in chemical, physical, or biological oceanography, marine biology, or marine geology.

This internship program will take place at the University of Delaware’s Hugh R. Sharp campus in the resort community of Lewes, located on the shores of the Delaware Bay and Atlantic Ocean near Cape Henlopen State Park. If you have any questions, please contact Joanna York (302) 831-7040 or jyork@udel.edu.

WRITING LAB WORKSHOP AND SERVICES

The Writing Lab is now open for normal consultation hours: Monday – Thursday from 9:00 AM to 6:00 PM and Friday 9:00 AM to 1:00 PM. More information, including our evening satellite locations and hours, can be found at http://goo.gl/1cr9DZ.

The first workshop is: Beyond Citations: Get More from the Writing Lab
Heavilon Hall 220 - January 21, 2015 - 12:30pm-1:30pm

You can bring ANY document to their writing consultants, even videos
The Online Writing Lab (OWL) has resources on conducting research, visual communication, and simply starting your writing process. They offer conversation groups to help you practice your English and have an ESL specialist on staff. All workshops are free and open to all students, faculty, and staff, but advance registration is required. Call (765) 494-3723 to sign up.

**JANUARY CENTER FOR CAREER OPPORTUNITIES (CCO) WORKSHOPS**

- **Writing a Resume that Works** Tue. Jan. 27 
  5:30pm-6:30pm | UNIV 117

- **Job Fair Workshop** Wed. Jan. 28 
  5:30pm-6:30pm | UNIV 117

- **Interviewing Workshop** Thurs. Jan. 29 
  5:30pm-6:30pm | UNIV 117

**2015 INTERNATIONAL STUDENT CAREER EVENT AND WORKSHOP SERIES**

**EVENT - LEGALLY WORKING IN THE US (INT. STUDENTS)**

On January 23rd, the CCO and ISS are hosting an event where an immigration attorney who will discuss US work rules & regulations, including CPT, OPT & H1B.

Choose One: 10:30am-12pm or 1:30pm - 3pm

Location: Fowler Hall

- **March 3** International Student Panel Discussion 6pm-7:30pm | HAAS G066
- **April 21** CCO Services & Writing an American Style Resumé 6pm-7pm | HAAS G066
- **April 22** Career Fairs & Networking: Making a Small Talk 6pm-7pm | HAAS G066
- **April 23** Legalities of Working in the U. Choose One at 10:30am-12pm or 1:30pm - 3pm | Fowler Hall
  Co-Sponsored by CCO & ISS | Guest Speaker: Immigration Attorney
- **April 27** Job Search Strategy & Use of Social Media 6pm-7pm | HAAS G066
- **April 28** How to Prepare for an Interview 6pm-7pm | HAAS G066
- **April 29** Speed Networking Event 6pm-7pm | HAAS G066

**WINTER DATA SCIENCE FELLOWSHIP OPPORTUNITY**

Program: The Data Incubator is an intensive six-week fellowship that prepares Masters, PhDs, and Postdocs in STEM + social science fields seeking industry careers as data scientists. The program is free for fellows and supported by sponsorships from dozens of employers across multiple industries. In response to the overwhelming interest in our earlier sessions, we will be holding another fellowship.

**Locations:**

There will be both an in-person (in NYC and DC) and online section of the fellowship.

**Dates:** All sections will be from 03/23/15 to 05/01/15

**Who should apply:**

Anyone within one year of graduating from a masters or PhD program or who has already obtained a masters or PhD is welcome to apply. Applications from international students welcome. There is a common application for both the online and in-person sections. Everyone else is encouraged to sign-up for a future session.

For additional information, check out our website, blog, Venture Beat article, or Harvard Business Review piece.

**UPCOMING FELLOWSHIP DEADLINES**

**Charles C. Chappelle Fellowship** – January 26, 2015

Provides a one-year fellowship to students with undergraduate degrees from Purdue for the furtherance of post-graduate research at Purdue University. Chappelle Fellows are selected on the basis of character, intellectual ability, and promise of degree attainment. The Chappelle Fellowship provides a stipend, Graduate School Fellow Scholarship, payment of most fees, and a medical insurance supplement.


**Boren Awards** – January 27, 2015

Boren Fellowships support students pursuing the study of languages, cultures, and world regions that are critical to U.S. national security but are less frequently studied by U.S. graduate students, i.e., areas of the world other than Western Europe, Canada, Australia, and New Zealand. It is hoped that recipients of Boren Fellowships will comprise an ever-growing cadre of experts whose enriched educational and professional experiences will enable them to provide leadership and direction in our national commitment to economic growth, international peace and security, and the promotion of democracy abroad.

Web Site: [http://www.borenawards.org/](http://www.borenawards.org/)
DOE Computational Sciences Graduate Fellowship – January 27, 2015
The Department of Energy Computational Science Graduate Fellowship (DOE CSGF) program provides a $36,000/year stipend and all tuition and fees paid, as well as opportunities to students pursuing doctoral degrees in fields of study that use high performance computing to solve complex science and engineering problems. http://www.krellinst.org/csgf/about-doe-csgf

Josephine De Karman Fellowship – January 31, 2015
Open to students in any discipline, including international students, who are currently enrolled in a PhD program who will defend their dissertation by June 2015 and undergraduates entering their senior year (will receive bachelor’s degree in June 2015). Grantees receive $22,000 for graduate and $14,000 for undergraduate, for one year of study. www.dekarman.org

Ludwig Kruhe Fellowship – February 2, 2015
Purdue University Graduate School fellowship that supports graduate students pursing courses in comparative government, or similar or related studies, to the end that international relationships and good will may be advanced through a better understanding of world affairs. http://www.gradschool.purdue.edu/downloads/fund/fellowships/Kruhe%20Announcement.pdf

Sea Grant Knauss Fellowships – February 13, 2015
$45,000 for one year of graduate or professional study in a marine or aquatic-related field. http://seagrant.noaa.gov/FundingFellowships/KnaussFellowship/ProspectiveFellows.aspx

Future Faculty Workshop at University of Michigan – February 28, 2015
The U-M College of Literature, Science, and Arts science departments will bring up to 50 future faculty participants to the U-M campus to show them the rewards of an academic career, help them understand the faculty search process, and connect them with faculty in their research area, as well as academic leaders, and other participants. The NextProf Science 2015 workshop is free to participants, who must be U.S. citizens or permanent residents. Participants' expenses for travel, lodging, and meals will be covered. Applicants may nominate themselves or be nominated by a faculty mentor. Additional information about the workshop and application materials are online on the NextProf Science website at: sites.lsa.umich.edu/nextprof-science/

OTHER

AMERICAN METEOROLOGICAL SOCIETY 2015-2016 AMS CONGRESSIONAL SCIENCE FELLOWSHIP

The American Meteorological Society (AMS) seeks candidates with backgrounds in the Earth sciences for the 2015-2016 AMS Congressional Science Fellowship. Fellows participate in the legislative process by joining a Congressional office of their choosing in the United States Senate or House of Representatives.

Typical duties include developing legislation, negotiating legislative compromises, writing speeches and briefing memos, meeting with constituents, and conducting background research.

The AMS Congressional Science Fellow will join a class of over 200 AAAS Science and Technology Policy Fellows to help shape federal policy.

Fellows must be U.S. citizens and complete all requirements for their Ph.D. prior to the start of the fellowship year, which runs from September 1, 2015 through August 31, 2016. Support includes a stipend ($55,000), and assistance with moving, travel, and health care expenses.

The application deadline is March 15, 2015. Details are available at www.ametsoc.org/csf. For additional information, contact Paul Higgins at phiggins@ametsoc.org.

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 McQuern (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.
The Princess and the Pea:
Fractures in the Floors of Lava-Filled Impact Craters

David Blair
PhD Candidate

Strange patterns of ridges and troughs can be seen within some craters on the Moon and Mercury which have been flooded—or even completely buried—by volcanic material, or in pools of rock melted during the formation of a crater. This talk examines the ways in which these patterns form, and what they can tell us about both underlying structure and the volcanic history that the crater experienced. We approach the problem with a combination of detailed observations and finite-element modeling.

Tuesday, January 20, 2015
4:00 p.m.
Room 2201 HAMP

Refreshments at 3:30 pm
Room 2201/ HAMP
Tectonic Geomorphic and Paleoseismic Investigations for the Panama Canal

Eldon Gath
AEG Jahns Lecturer

This talk summarizes five years of geological exploration in Panama to quantify the fault hazards to the Panama Canal and the Canal Expansion Project, using tectonic geomorphic mapping and analysis, paleoseismic trenching, and seismic hazard analysis. Faults that were investigated include the Gatún, Limón, Azota, Pedro Miguel, Miraflores, and Agua Blanca. The talk will illustrate techniques of field reconnaissance, trench site selection, 3-D trenching of strike slip faults, and how to assemble into a seismic hazard model. If extra time is available, an overview of the Panama Canal and the Canal Expansion Project can also be presented.
The low-level wind field in a tropical cyclone is critical both to the energetics of the system as a whole and to the risk posed to life and property by wind, surge, and rain generated by these storms at landfall. Nonetheless, to date most research has focused principally on processes controlling the peak wind speed, with minimal attention given to wind field size and structure despite their importance in modulating storm impacts. Here we utilize existing radial structure theory valid in distinct thermodynamic regimes to develop a new theoretical model for the complete radial structure of the tropical cyclone wind field. This simple model is compared to multiple observational databases and demonstrated to successfully capture the characteristic radial structure in nature for reasonably intense storms. Furthermore, the model exhibits two distinct modes of variability in size and structure that mirror the dominant modes found in observations. The model’s lone remaining unknown corresponds to overall storm size, given by the radius of vanishing wind, which is shown to vary widely in nature but whose variance is not readily explained. Storm size at statistical equilibrium is found in a unique idealized modeling setting to scale with a theoretical length scale given by the ratio of the potential intensity to the Coriolis parameter. However, storms in nature are likely far from equilibrium, and analysis of size variability for real storms is the subject of ongoing research. Ultimately, the specification of storm size would result in a time-dependent physical solution for the complete tropical cyclone wind field, one that can be integrated into tropical cyclone risk models for the analysis of potential impacts in the present climate as well as under climate change.
Purdue University
Meteorological Association

Spring Callout!

Interested in learning about the weather? Come to our callout!

All majors are welcome!

Free food provided!

When: Wednesday January 28th
at 5:30 PM
Where: HAMP 1252

Twitter: @Purdue_Weather
Facebook: /PurdueWeather
/PurdueWeatherForecast