EAPS MEETINGS

Tuesday, September 17, 10:30am, HAMP 2173
Undergraduate Committee

Wednesday, September 18, 1:00pm, HAMP 2173
Alumni Committee

EAPS SEMINARS

Monday, September 16, 3:30pm, HAMP 2201
ATMS Seminar

Thursday, September 19, 3:30pm, HAMP 1252
Alexandria Johnson, PhD Candidate, EAPS
“The Formation of Ice in MaritimeCumuli

Friday, September 20, 12:30pm, HAMP 3201
Prof. Stephen Warren, University of Washington
“Black Carbon and Other Light-Absorbing Impurities in Snow”

EAPS PUBLICATIONS


EAPS NEWS


Former PhD student, Dr. Ben MacCall, from Army Research Lab, visited Purdue University on Sept. 10-15 to discuss collaborative research with Dr. Wen-Yih Sun.

Dr. Wen-Yih Sun will be the speaker for the CSE/CLS Seminar to be held on Wednesday, September 25 at 3:30 pm., LWSN 3102. His seminar will be entitled “Numerical Study of 1998 Dust Storms in East Asia”.

WISP EVENT

EAPS WISP held their first retreat this past weekend at Pine Creek Camp, Pine Village, IN. Fourteen women participated in the overnight retreat which consisted of discussions surrounding paired mentoring, mission statement building, and destressing techniques in addition to time spent getting to know each other. We also completed Purdue’s low ropes course (Boiler Challenge) Saturday afternoon. Funding for this retreat was procured through a grant from Science Women for Purdue Giving Circle.

UNDERGRADUATE AND GRADUATE STUDENT INFORMATION

DeGRASSE STUDENT LECTURE

Dr. Neil deGrasse Tyson, world-renown astrophysicist, as part of this year’s Discovery Lecture Series will present a lecture entitled “This Just In: Latest Discoveries in the Universe” at 7:00pm in Elliott Hall of Music on September 19. Additional information about Dr. Tyson’s lecture is available at http://www.convocations.org/portfolio/dr-neil-degrasse-tyson-9-19-13/.
**INDUSTRIAL ROUNDTABLE**
The Industrial Round Table will be held **Tuesday September 17 and Wednesday September 18** at the Purdue Memorial Mall (Rain Locations: Mackey Arena and Lambert Fieldhouse).
The fair is open to all undergraduate and graduate students throughout the wide variety of majors offered in engineering, management, science, technology, and business. Thirteen companies have indicated an interest in EAPS majors.

For current information about the fair, go to: [http://www.purdueesc.org/](http://www.purdueesc.org/). Visit the CCO (Center for Career Opportunities) [https://www.cco.purdue.edu/](https://www.cco.purdue.edu/) for help with your resume and interview tips.

**OIL COMPANY INTERVIEWS**
**EXXONMOBIL**
**October 1-2**
Open to both Undergraduate and Graduate students. If interested in obtaining an interview slot, please fill out an online application and post a copy of your resume and transcripts on their website by **September 23**. The ExxonMobil website is [www.exxonmobil.com/apply](http://www.exxonmobil.com/apply). Also, see Kathy Kincade (HAMP 2169D) to sign up for an interview timeslot. Lisa Ryan, Recruiter for ExxonMobil will also hold a pre-interview presentation on **September 30** at 5:00pm in Room 2201/HAMP. See attached flyer for additional information.

**GLOBAL POLICY RESEARCH INSTITUTE POLICY SCHOLAR INTERNSHIP PROGRAM**
Purdue’s Office of Global Affairs and Global Policy research Institute (GPRI) are expanding their Policy Scholar Internship Program in Chicago, Indianapolis, and Washington, DC. This program is designed to provide Purdue students with experiential learning opportunities related to policy. In addition, this program enables students to experience DC’s unique political culture, explore career interests, and develop professional networks. **Application deadline is October 18, 2013.** Applications may be downloaded from the GPRI website: [www.purdue.edu/globalpolicy](http://www.purdue.edu/globalpolicy). See attached flyer for details.

**3 MINUTE THESIS**
Undergraduate, Master’s and PhD research students are invited to take part in the 3MT competition on Monday, October 21st 2013. The subject of your presentation does **NOT** have to be directly related to the ESE summit theme “Capturing Resilience: The Bridge from Recovery to Prosperity”, but should have a connection to issues of sustainability and resilience.

Applications will be accepted through **September 30, 2013**. Students involved in the poster competition are also allowed to compete in the presentations and may receive awards in both. Additional information and presentation guidelines are available at [http://www.gradschool.purdue.edu/ese/symposium/3MT.cfm](http://www.gradschool.purdue.edu/ese/symposium/3MT.cfm)

**AMS FELLOWSHIPS AND SCHOLARSHIPS**
The American Meteorological Society (AMS) is pleased to announce that they are currently accepting applications for the 2014 AMS fellowship and scholarship programs.

AMS encourages fellowship and scholarship applications from women, minorities, and disabled students, traditionally underrepresented in the atmospheric and related oceanic and hydrologic sciences. Information and applications are available on the AMS web site below. Application deadlines are **February 7, 2014**.


**AMS TRAVEL GRANT**
The American Meteorological Society (AMS) will provide annual meeting travel opportunities for students. The 94th AMS Annual Meeting and 13th Annual AMS Student Conference will be held in Atlanta, Georgia, 1 February - 6 February 2014. The AMS strongly encourages student participation at the annual meeting. Therefore, AMS has established programs that help provide partial travel support to students wishing to attend. This year we are offering the Student Assistant Program and the Student Travel Grant Program. Further information can be found on the AMS web site annual meeting pages at [www.ametsoc.org](http://www.ametsoc.org). On the AMS home page click the annual meeting logo.

**POSTDOCS AND GRADUATE STUDENTS**
**MAKING THE MOST OF YOUR PRESENTATION**
Presented by Dr. Jean-luc Doumont
Tuesday, September 24th 6:00-8:00pm
Reception with light refreshments at 5:30

Strong oral presentation skills are a key to success for engineers, scientists, and other professionals, yet many speakers are at a loss to tackle the task. Based on Dr. Doumont’s book, “Trees, maps, and theorems”, discussing effective communication strategies for rational minds, this lecture proposes a systematic way to prepare and deliver presentations. Among other topics, it covers structure, slides, and delivery, as well as stage fright.

**Pre-registration is required for this event; seating is limited.**
[https://ias.itap.purdue.edu/rgs/wgb_workshop.disp_online_workshop](https://ias.itap.purdue.edu/rgs/wgb_workshop.disp_online_workshop)

**GRANT AND PROPOSAL WRITING WORKSHOP**
Dr. Peter Dunn (Professor of Entomology and Research Integrity Officer) will provide tips, advice, and instruction on how to write a proposal for funding. The workshop will be held on **Tuesday, September 17, from 7:00 – 8:30 PM**. Please register at: [https://ias.itap.purdue.edu/rgs/wgb_workshop.disp_online_workshop](https://ias.itap.purdue.edu/rgs/wgb_workshop.disp_online_workshop)
A.H. ISMAIL INTERDISCIPLINARY TRAVEL AWARD

The A. H. Ismail Interdisciplinary Program Doctoral Research Travel Award competition provides funds to assist students in the presentation of their doctoral research at a national or international conference. **Deadline to apply is October 18.** Application information may be found at: [http://www.gradschool.purdue.edu/downloads/fund/fellowships/Ismail%20Announcement%202013.pdf](http://www.gradschool.purdue.edu/downloads/fund/fellowships/Ismail%20Announcement%202013.pdf)

NATIONAL RESEARCH COUNCIL of the NATIONAL ACADEMIES

The National Research Council of the National Academies sponsors a number of awards for graduate, postdoctoral and senior researchers at participating federal laboratories and affiliated institutions. These awards include generous stipends ranging from $42,000 - $80,000 per year for recent Ph.D. recipients, and higher for additional experience. **Graduate** entry level stipends begin at $30,000. These awards provide the opportunity for recipients to do independent research in some of the best-equipped and staffed laboratories in the U.S. Research opportunities are open to U.S. citizens, permanent residents, and for some of the laboratories, foreign nationals.

Detailed program information, including online applications, instructions on how to apply and a list of participating laboratories, is available on the NRC Research Associateship Programs Website (see link above). Questions should be directed to the NRC at 202-334-2760 (phone) or [rap@nas.edu](mailto:rap@nas.edu). There are four annual review cycles.

- **Review Cycle:** May; Opens March 1; Closes May 1
- **Review Cycle:** August; Opens June 1; Closes August 1
- **Review Cycle:** November; Opens September 1; Closes November 1
- **Review Cycle:** February; Opens December 1; Closes February 1

Applicants should contact prospective Adviser(s) at the lab(s) prior to the application deadline to discuss their research interests and funding opportunities.

THESIS FORMATTING AND DEPOSIT WORKSHOPS

The following workshops are strongly encouraged for Masters and PhD candidates for Fall 2013 graduation. Workshops will be held:
- **Tuesday, September 17,** 9:00-11:30am
- **Tuesday, September 17,** 1:00-3:30pm
- **Wednesday, September 18,** 6:00-8:00pm
- **Monday, September 23,** 6:00-8:00pm

All sessions are identical in content and pre-registration is required. Candidates should bring a draft copy of their thesis for reference and spot-checking. You may pre-register at the following link: [https://ias.itap.purdue.edu/rgs/wgb_workshop.disp_online_workshop](https://ias.itap.purdue.edu/rgs/wgb_workshop.disp_online_workshop).

CAMPUS NEWS

ENVISION CENTER TOUR

A September 17 open house and tour of ITaP’s Envision Center is aimed at faculty, graduate students and research staff who may want to visualize, animate or employ virtual reality in their research, or for teaching purposes. More information is available at [www.itap.purdue.edu/newsroom/news/130821_envisioncenter_2013openhouse.html](http://www.itap.purdue.edu/newsroom/news/130821_envisioncenter_2013openhouse.html).

DISABILITY RESOURCE CENTER THURSDAY EVENING EXAMS

The Disability Resource Center’s accommodated exam area, DRC Testing, will be open Thursday evenings beginning **September 19.** The change is being made in response to faculty and student requests for extended hours. The new hours for Thursdays will be 8 a.m.-8:30 p.m. Hours for Monday-Wednesday and Friday are 8 a.m.-5 p.m. unless closed for a campus-designated holiday. DRC Testing is located in Young Hall, Room 853. For more information, call 49-41246, email [drctesting@purdue.edu](mailto:drctesting@purdue.edu) or visit [www.purdue.edu/odos/drc/contact_information.php](http://www.purdue.edu/odos/drc/contact_information.php).

TOUR OF NEW HIGH-TECH HOME FOR PURDUE SUPERCOMPUTER CARTER

Faculty and staff will have an opportunities to tour the new high-tech home of Purdue’s powerful Carter supercomputer, a portable, self-contained, modular computer center. ITaP will conduct tours of the POD from **1:30-2:30pm on Friday, September 20.** Those taking the tour will meet in the main lobby of Freehafer Hall. To register, email Shirley Skeel, [sskeel@purdue.edu](mailto:sskeel@purdue.edu). For complete story, see [http://www.itap.purdue.edu/newsroom/news/130819_communityclusters_podtours.html](http://www.itap.purdue.edu/newsroom/news/130819_communityclusters_podtours.html).

NO-COST RESEARCH COMPUTING RESOURCE SEMINAR

DiaGrid hub puts a graphical Web front end on a growing array of research software like the Community Earth System Model (CESM), BLAST, Gromacs and R and offers the power of thousands of processors on the back end — all at no cost to Purdue researchers and their students. A seminar from **1-2 p.m. Tuesday, Sept. 24,** in Stewart Center, Room 311, will be an introduction to DiaGrid and its capabilities. More information may be found at [www.itap.purdue.edu/newsroom/news/130904_diagrid_fallsembinar13.html](http://www.itap.purdue.edu/newsroom/news/130904_diagrid_fallsembinar13.html).
FACULTY SEARCH AND SCREEN PROCEDURES WORKSHOPS

ADVANCE Search Committee Workshop on Faculty Hiring
Note: This workshop is now required (to be taken once every 5 years) if a faculty member plans to Chair a Search Committee.

Oct. 10, 8 a.m.-noon, Purdue Memorial Union, West Faculty Lounge
This workshop provides an interactive opportunity to explore and discuss search strategies and challenges. For questions, contact Barb Clark at BarbClark@purdue.edu or 49-41765. The Office of Institutional Equity is committed to making all programs accessible to participants with disabilities. If you require an accommodation or assistance due to a disability for this program, contact the Office of Institutional Equity before the program begins at 49-47253, 49-61343 (TTY), or oie@purdue.edu.

CAPTURING RESILIENCE SUMMIT
On October 21 & 22, the Ecological Science and Engineering (ESE) program and the Office of University Sustainability invite you to: “Capturing Resilience: The bridge between recovery and prosperity.”
Capturing Resilience is a summit to bring together leaders from government, industry, agriculture, and academia to draft and implement strategies to enhance economic prosperity and environmental preservation in the region.
Highlights:
- Nationally renowned speakers in sustainable development and resilience strategy
- Poster and 3 minute thesis competitions with cash awards.
- Lunch served with locally grown produce
- Panel discussions and focus groups
- Career and academic networking opportunities

Click here to learn more and register

OLD MASTERS PROGRAM
The Old Masters program invites outstanding individuals to campus to share ideas and experiences with Purdue students. This year’s Old Masters will take place November 3-5, and includes one of our own alum, Mark Lester. The Department will be hosting Mark for part of his visit for this event, including inviting him for guest lectures in a couple of EAPS courses, and a lunch with students.
More information about the Old Masters program can be found on their website (http://www.purdueoldmasters.org/), or email inquiries may be sent to oldmasters@purdue.edu.

FREE FLU SHOTS AVAILABLE
The Center for Healthy Living is providing free flu shots by appointment for all benefits-eligible employees, plus spouses/same-sex domestic partners (SSDPs) who are covered on a Purdue medical plan.

Appointments are available from 8 a.m. to 4:30 p.m. on Thursdays and Fridays, Oct. 4 through Nov. 8. To schedule, eligible individuals should call the center at 49-40111. The Center for Healthy Living is located in the Purdue West Shopping Center at 1400 W. State St. Free parking is available, and no permit is needed.
The center does not provide flu shots for children. However, employees, spouses/SSDPs and children who are covered on a Purdue medical plan have two ways to get a free flu shot aside from going to the Center for Healthy Living.

*Go to a retail pharmacy: Those getting a flu shot through a retail location will need to show their Cigna ID card. A list of covered locations is available at www.purdue.edu/hr/Benefits/Medical/fluShots.html.

*Go to their health care provider: All Purdue medical plans cover seasonal flu shots for covered employees and family members.

Employees who have questions about flu shot coverage may contact Human Resources at 49-42222 or hr@purdue.edu.

A Note from Our Academic Counselor
LBC
There will be a Learning Beyond the Classroom (experiential learning in science) call-out on Monday, September 23 from 5:45-6:45 in BRNG Rm. 2290. Pizza will be served--see flyer for additional information.

Did you know…? If you are enrolled in the LBC and have earned at least 3 points (which is fairly easy to do), you can apply for funding for things like undergraduate study abroad, unpaid internships, and service learning projects.

Woodrow Wilson Indiana Teaching Fellowships
Mission: The Woodrow Wilson Indiana Teaching Fellowship seeks to attract talented, committed individuals with backgrounds in the STEM fields—science, technology, engineering, and mathematics—into teaching in high-need Indiana secondary schools.

Funded through a $10 million grant from Lilly Endowment, Inc., the Teaching Fellowship offers rigorous pedagogical preparation, extensive clinical immersion in secondary classrooms, and ongoing mentoring.
The Teaching Fellowship includes:

- admission to a master's degree program at a well-established partner university
- teacher certification in science, mathematics or technology education
- extensive preparation for teaching in a high-need urban or rural secondary school for one full year prior to becoming the teacher-of-record in a science or math classroom
- a $30,000 stipend (Once Fellows are certified teachers at the end of the first year, they obtain salaried employment in high-need schools.)
- support and mentoring throughout the three-year teaching commitment
- support of a cohort of WW Fellows passionate about science and math education
- lifelong membership in a national network of Woodrow Wilson Fellows who are intellectual leaders

Eligibility:

- The Fellowship is open to college seniors, graduates, and career changers who:
  - have majored in and/or have a strong professional background in a STEM field (science, technology, engineering, or math);
  - demonstrate a commitment to the program and its goals;
  - have U.S. citizenship or permanent residency;
  - have attained, or expect to attain by June 30, 2014, a bachelor's degree from an accredited U.S. college or university;
  - a cumulative undergraduate grade point average (GPA) of 3.0 or better on a 4.0 scale is preferred* 

*Note: Candidates who can demonstrate excellence through other avenues will also be considered. All applications are considered in their entirety and selection is based on merit.

Contacts:
Woodrow Wilson Teaching Fellowships Team. For general program, application, and Fellowship questions please email the Woodrow Wilson Teaching Fellowship staff at wwwwteachingfellowship@woodrow.org.

Purdue University:
John Hill STEMGoesRural@purdue.edu
Sidney Moon sidney@purdue.edu

October 15, 2013 - First application deadline
December 2, 2013 - Second application deadline
January 31, 2014 - Final application deadline
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 Kathy Kincade (kkincade@purdue.edu) by 5:00pm 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://eaps.purdue.edu.
A Study on the Formation of Ice in Maritime Cumuli

Alexandria Johnson, PhD Candidate
Purdue University

Despite numerous advancements in cloud probe instrumentation, the sampling and identification of small ice particles, particularly in mixed-phase convective clouds, remains a challenge. Initial ice particles in low concentrations can be difficult to detect, nearly spherical ice particles are often indistinguishable from water, and clearly identifying the habits of particles smaller than 100 µm has proven difficult. The Small Ice Detector 2 HIAPER (SID-2H), a relatively new in-situ probe available to NCAR since 2007, has promise for improving the detection and habit distinction of ice particles between 2 and 50 µm in diameter. Its use in the ICE-T field campaign was the first in active cumulus clouds and has allowed for a new look into the first ice particles to form in these high liquid water content environments.

The work to be presented will discuss the data collected by SID-2H, challenges faced in using these data to identify small ice, methods of correcting for falsely identified ice particles and coincidence errors, and comparison with additional in situ observations. The observational data will then be compared with a high-resolution numerical cloud model, capable of representing complex microphysical processes and a number of hydrometeor species.

Thursday, September 19, 2013
3:30 pm
Room 1252, HAMP Bldg.

Refreshments at 3:00pm
Room 2201/HAMP
Absorption of radiation by ice is extremely weak at visible and near-UV wavelengths, so small amounts of light-absorbing impurities in snow can dominate the absorption of sunlight at these wavelengths, reducing the albedo relative to that of pure snow and leading to earlier snowmelt. Snow surveys have been conducted in North America, Eurasia, Greenland, and the Arctic Ocean. Samples are melted and filtered; the filters are analyzed for spectral absorption to distinguish black carbon (BC) from organic carbon and mineral dust. The meltwater is analyzed chemically to apportion the sources of BC into biomass burning and industrial pollution. BC mixing ratios range from 0.2 ng/g in Antarctica to 1000 ng/g in northeast China. When the snow surface layer melts, much of the insoluble particulate material is left at the top of the snowpack rather than carried away in meltwater, thus causing a positive feedback on snowmelt. Controlled experiments on artificial snowpacks with large amounts of soot in a homogeneous mixture are used to test the radiative transfer modeling of albedo reduction.
Global Policy Research Institute
Policy Scholar Internship Program

Purdue’s Office of Global Affairs and Global Policy Research Institute (GPRI) are expanding their Policy Scholar Internship Program in Chicago, Indianapolis, and Washington, DC. This program, open to undergraduate and graduate students from all colleges, is designed to provide Purdue students with experiential learning opportunities related to policy. In addition, this program enables students to experience DC’s unique political culture, explore career interests, and develop professional networks.

The Office of Global Affairs will provide interns with housing and a scholarship to aid in financial challenges students may encounter if participating in an unpaid internship.

Eligibility:

• Upper-division (completed 60 credits by time of internship) or graduate student from any college who is returning to Purdue in Fall 2014 or Spring 2015
• Cumulative GPA 3.0 or better & in good academic standing
• Interest and aptitude for public policy

Requirements:

• Intern to develop mutually agreed upon, concise and measurable learning objectives with supervisor
• Post-internship feedback survey
• Internship report (1 page summary of internship activity/experience), due 2 weeks after completion of internship
• Complete 1 – 3 credit independent study in Fall 2014 or Spring 2015 with faculty member identified by student

Timeline:

• October 18, 2013 – Application Deadline
• October 2013 – Applicant Interviews
• November 2013 – Notification of Decision

To learn more about this program, please contact Tia Tracy, Policy Associate in the Office of Global Affairs, at (765) 496-1621 or tttracy@purdue.edu.

About the Global Policy Research Institute

The mission of the Global Policy Research Institute (GPRI) is to enhance the visibility and impact, both on and off campus, of Purdue’s strengths in policy-related and multidisciplinary research, education, service, and outreach to inform decision-makers on global policy issues.

Additional information on GPRI: [http://www.purdue.edu/globalpolicy](http://www.purdue.edu/globalpolicy)
Purdue Graduate School
Purdue College of Science
Purdue College of Engineering

Present

Dr. Jean-luc Doumont

Making the most of your presentation

Tuesday September 24th 6:00-8:00 pm, Lynn Hall 1136

Reception with light refreshments at 5:30

Strong oral presentation skills are a key to success for engineers, scientists, and other professionals, yet many speakers are at a loss to tackle the task. Systematic as they otherwise can be in their work, they go at it intuitively, sometimes haphazardly, with much good will but seldom good results. Based on Dr. Doumont's book, “Trees, maps, and theorems”, discussing effective communication strategies for rational minds, this lecture proposes a systematic way to prepare and deliver presentations. Among other topics, it covers structure, slides, and delivery, as well as stage fright.

Speaker Bio
An engineer from the Louvain School of Engineering and Ph.D. in applied physics from Stanford University, Jean-luc Doumont now devotes his time and energy to training engineers, scientists, business people, and other rational minds in effective communication, pedagogy, statistical thinking, and related themes.

Articulate, entertaining, and thought-provoking, Dr. Doumont is a popular invited speaker worldwide, in particular at international scientific conferences, research laboratories, and top-ranked universities. For additional information, visit www.principiae.be.

Pre-registration is required for this event; seating is limited.

https://ias.itap.purdue.edu/rgs/wgb_workshop.disp_online_workshop
Attention College of Science students:

Come find out about the Learning Beyond the Classroom Certificate Program and how completion of this program will be noted on your official Purdue transcript!

LBC Information Callout
Monday, September 23rd
5:45-6:45pm
BRNG 2290
Pizza will be served!

Go beyond the walls of the classroom and put your discipline into practice in real world settings.

Hosted by the College of Science Administration and Purdue Science Ambassadors