Contents:
Meetings/Events & Dept. News.........................1
Undergrad/Graduate Student News..................3
University News.................................4

DEPARTMENT NEWS

INSIDE EAPS NEWSLETTER

Read all of the latest news in our department magazine, Inside EAPS, including Antarctica research, public outreach, and clean energy for hybrid vehicles. The latest version of Inside EAPS newsletter can be found here: https://goo.gl/47U9VP

BE SURE TO CHECK OUT ALL OF THE EAPS COMMUNICATIONS MEDIA!

Facebook
Twitter
Department Magazine
Website News

EAPS COLLOQUIA

Tim Cronin
Massachusetts Institute of Technology
Thursday, August 31, 2017
3:30 PM
HAMP 1252

http://www.eaps.purdue.edu/
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 ombudsmen are Ken Ridgway (HAMP 3277B; ridge@purdue.edu) and Barbara Gibson (HAMP 2169B; barbara@purdue.edu)– please feel free to contact either of them if needed.

EAPS FACULTY/STAFF RESOURCE FUND

Guidelines:
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, startup, 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.

EAPS TECH DIGEST

Linux lab computers have been converted from Red Hat to Ubuntu. Please let Tomas Ratkus or Frank Bakht know if you encounter any issues If you have existing Red Hat PC we may have missed, please contact Frank or Tom to arrange a for time to upgrade Please let Science IT know if you are still having trouble sending e-mail from home without having to use VPN New PAL/Eduroam wireless access points have been installed along Northwestern

Red Hat contract has been extended until early August 2018. This is to give campus time to transition to another Linux distribution. The plan is to be off of Red Hat by then.

If people are experiencing trouble sending e-mail from home or even while on campus, sender reputation based on subnet or even specific hosts IP on Purdue’s campus networks can be looked up here: https://goo.gl/wXRZpX

RCAC updated their /scratch policy. Purging will happen after 60 days of inactivity, as opposed to 90 in the past. This means that if someone has a large amount of research input or output data stored in their scratch space, and hasn’t accessed it in two months, it will be irrecoverably deleted. This is fairly standard, but good to be aware of. https://www.rcac.purdue.edu/news/992

Some people may have noticed licensing issues with ENVI/IDL. This was due to ENVI being acquired by Harris Geospatial (previously owned by Exelis). License server manager’s claim that issues are resolved, but if you encounter issues, please let Frank or I know. The only ironclad solution is to use owa.purdue.edu, at least until ITaP’s messaging team fixes the IronPort issues.

http://www.eaps.purdue.edu/
Apply to R&D Summer Intern Program at Dow AgroSciences. R&D internships are available in chemistry, biology, and computer science related disciplines, including, but not limited to, biochemistry, molecular biology, cell biology, microbiology, plant breeding, organic chemistry, analytical chemistry, physical chemistry, surface chemistry, engineering (chemical, biological, material, or optical) and informatics (bio and chem). Our laboratory-based Research and Development internships are located at our global headquarters in Indianapolis, Indiana. This is a paid internship; salaries are determined by the student’s year in school. Subsidized housing is available for qualified students. Eligible students will be pursuing a Bachelors or Master’s degree from a U.S. based college or university with proper U.S. work authorization, or the ability to obtain work authorization through their university.


Please see attached flier for more details.

FALL GK-12 PROGRAM INFORMATION FOR GRADS AND POSTDOCS

GK-12: Engaging graduate students and postdocs in integrating and communicating their research in middle school classrooms “participating in GK12 was the single best decision I have made in my professional life and it will forever influence my career path in the future” (Purdue Grad Student) GK-12 is an exciting program organized through the Graduate School that gives Masters, Ph.D., and Post-doctoral students a mentored, in-depth opportunity to share their research with K-12 students and teachers in a local middle school. This provides graduate and Post-doctoral students with enhanced skills and experience in outreach, teaching, and communication of their research with diverse audiences. Past participants have found that it also makes them more competitive for academic and professional jobs.

After an initial training session, participants in the GK-12 program will learn from and assist teachers in a local middle school for approximately one day a week for 10 weeks, and by the end of the semester they will develop and teach a lesson based on their interests and research. This is an extension of a very successful externally-funded program that ran for several years, and has now been successfully transitioned to a graduate school program. While this program does not provide funding directly to the student or postdoc, some modest funding is available for expenses associated with materials for in-class activities. Students may elect to register for 2 credit hours for their involvement, or simply do this program as a voluntary activity, and the program is open to all Masters, Ph.D., and Post-Doc students at Purdue (any and all disciplines).

For more information, please check out the two-page brochure that outlines the program for this coming semester at https://goo.gl/Ukb1x1.

For any additional questions or information please contact the program coordinator, Mohan Yang, at yang1178@purdue.edu. Jon Harbor, GK-12 Program Director.

http://www.eaps.purdue.edu/
Faculty and staff are reminded that they are required to report outside activities and financial conflicts of interest in accordance with University policy. The policies on Conflicts of Commitment and Reportable Outside Activities (III.B.1) and Individual Financial Conflicts of Interest (III.B.2) are available on the University Policies website. All exempt faculty and staff, whether part-time or full-time, are required to report and obtain approval before they engage in any Reportable Outside Activities. In some situations, members of the clerical and service staff must also report outside activities. At the beginning of each fiscal year, employees also must report all activities in which they continue to participate, even if previous approval was granted. If an individual completed a form for activities in the 2016-17 fiscal year, that information will prepopulate the 2017-18 disclosure form and may be revised as necessary.

For more information, please visit:
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 http://www.eaps.purdue.edu/news/newsletters.html and Click on News to access active links as needed. Material for inclusion in the newsletter should be submitted to Fallon McQuem (fmcquem@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.eaps.purdue.edu/resources/information_technology/index.htm

Also, as an additional resource for information about departmental events, seminars, etc., see our departmental calendar at http://www.EAPS.purdue.edu/events-calendar.html
August 22  
Ki-Hong Min, Kyungpook National University  
**Host: Sun**  
**Tuesday, 4:00PM, Room 2201/HAMP**

August 24  
Roland Stull, University of British Columbia  
**Host: Tanamachi**

August 31  
Tim Cronin, MIT  
**Host: Chavas**

September 7  
Vince Agard, MIT  
**Host: Ridgway**

September 14  
Amir Allan, University of Utah  
**Host: Ridgway**

September 21  
Ed Harvey, U.S. National Park Service, Water Resources Division  
**Host: Frisbee**  
**Held in WALC, Room 2087**

September 28  
Shad O’Neel, USGS  
**Host: Elliott**

October 5  
Devon Orme, University of Nevada, Las Vegas  
**Host: Ridgway**

October 12  
Cliff Johnston, Purdue University  

October 19  
Chanh Kieu, Indiana University  
**Host: Chavas**

October 24  
Zhou Lyu, PhD candidate  
**Advisor: Zhuang**  
**Tuesday, 4:00PM, Room 2201/HAMP**

October 26  
Julie Castillo-Roge, Jet Propulsion Laboratory, NASA  
**Host: Minton**

October 31  
Tong Yu, PhD candidate  
**Advisor: Zhuang**  
**Tuesday, 4:00PM, Room 2201/HAMP**

November 2  
Scott Collis, Argonne National Laboratory  
**Host: Tanamachi**

November 9  
Jack Kaye, Earth Science Division, NASA  
**Host: Zhuang**

November 16  
Xiangdong Zhang, University of Alaska, Fairbanks  
**Host: Zhuang**

November 30  
Rossella Guerrieri, CREAF, Univ. Autònoma de Barcelona  
**Host: Michalski**

December 7  
Sarah Feakins, University of Southern California  
**Host: Welp/Huber**
Arctic Temperature Profiles and Their Sensitivity to Climate Change

Tim Cronin
Massachusetts Institute of Technology

The high-latitude vertical structure of temperature is poorly understood, yet is an important factor in the polar amplification of climate change. To better understand the high-latitude lapse rate and its sensitivity to various forcings, we explore two perspectives on the high-latitude temperature structure.

The first is the Lagrangian perspective of Arctic air formation. We prescribe the initial sounding of the atmosphere representing an air column starting over the ocean, then allow the air mass to evolve for two weeks in the absence of any solar heating, representing the movement of the air column over a high-latitude continent. Using a single-column model, we find that a low-cloud feedback slows cooling of the surface and amplifies continental warming, increasing the continental surface air temperature by roughly two degrees for each degree increase of the initial maritime surface air temperature.

The second is the Eulerian perspective of radiative-advective equilibrium. High latitude temperature profiles are generally stable to convection, with frequent surface-based inversions, especially in winter. Such profiles result from the stabilizing influences of advective heat flux convergence and atmospheric solar absorption, which dominate over the destabilizing influences of surface solar absorption and subsurface heating. We formulate an analytical model that represents the dominant balance between advective heating and radiative cooling, and discuss how climate feedbacks in this state depend on the type of forcing.

Thursday, August 31, 2017
3:30 p.m.
Room 1252 HAMP

Refreshments at 3:00 pm
Room 2201/HAMP
Dow AgroSciences is searching for the best and brightest students who are interested in R&D summer internship opportunities. These are full-time positions available from May until August at our headquarters in Indianapolis, IN. Applicable majors would include:

- Biology
- Chemistry
- Informatics
- Other agriculture-related majors

**About Us**

We provide a variety of products and services to meet the needs of our customers. Our research with strategic partners is bringing breakthrough and sustainable solutions to the industry such as:

- Innovative Hybrids and Seed Varieties
- Vegetation Management Solutions
- Crop-enhancing Traits
- Residential Pest Control
- Crop Protection Products
- Turf and Ornamental
- Post-harvest Commodity Protection

**Job Description**

Our Research and Development Summer Intern program provides an opportunity for students to work closely with senior scientists in order to improve technical skills while being given a developmental opportunity in an industrial setting. It is desirable that the intern have past practical experience in handling chemicals, operating laboratory equipment, generating and manipulating data, as well as computer database and word-processing skills. Interns are encouraged to be creative and take initiative, where appropriate, and will be granted significant latitude for discretionary decisions and independence of action within guidelines established by their supervisor. Interns are expected to always operate in a safe and efficient manner.

Qualified interns should be pursuing a BS or MS degree in biology, chemistry, informatics, or closely related majors. Interns will be part of a team responsible for the development of novel agricultural products. Strong interpersonal, communication, organizational, teamwork and time management skills are essential. Foreign students are encouraged to apply, however, they MUST be attending a U.S. university or college as the school is the sponsor for them to work in the U.S.

**Contact Information**

To apply for an R&D internship at Dow AgroSciences, see the link below. Applications will be accepted between August 15 and November 1, 2017 for the 2018 summer program. Questions: FELNTRN@dow.com Do not send resumes to this address.

Well-positioned for future growth.

You’re working on your education. Now it’s time to work on your career. An internship with Dow AgroSciences lets you learn from a global leader through real-world, hands-on experience, focused on your interests, with targeted training from experts in the field.

Learn from our team.

Q: Will I be involved in activities outside of my research project?
A: Most definitely! You will participate in group meetings and have opportunities to attend various other meetings and events. Safety is a top priority, so a safety orientation and monthly safety meetings are on the agenda. You may also have the opportunity to participate in roundtable discussions with company group leaders, executives, and/or fellow scientists to get a feel for what Dow AgroSciences is all about. We also plan social gatherings, based upon the interest of the interns.

Q: What can I expect?
A: The R&D intern program provides an opportunity for students to work closely with a senior scientist in order to improve technical skills while being given a developmental opportunity in an industrial setting.

You will be required to present a poster to an audience of R&D employees summarizing the research you conducted during your internship. In addition, since you will be part of a research team, you may be asked to present at a team/group meeting. These are great opportunities to polish your public speaking skills in a non-threatening environment.

Our interns will be expected to work independently, as well as in a team environment, for maximum productivity. Throughout the 12 weeks, participants will be given coaching and feedback to learn, grow and develop expertise. This program can be a tremendous opportunity in a college student’s learning journey!

Q: How do I apply?
We look forward to hearing from you!
Discovery Park Conference on Convergence and the Future of Research

OCTOBER 6, 2017 • 1-6 P.M.
Discovery Park Conference on Convergence and the Future of Research

LOCATION
Burton D. Morgan Center for Entrepreneurship (BDMCE)

PARKING
Event parking is available in the large lot across from Nimitz Drive; limited parking is available behind the Birck Nanotechnology Center.

SCHEDULE
1 p.m. OPENING REMARKS
Tomás Diáz de la Rubia, Chief Scientist and Executive Director, Discovery Park

1:10 p.m. VOSS TALKS

3:50 p.m. BREAK

4 p.m. FACULTY PANEL
Discovery Park faculty

5 p.m. RECEPTION & CLOSING REMARKS

REGISTRATION
Registration is not required but recommended. Please visit www.purdue.edu/discoverypark/convergence.

THE VOSS TALKS
Purdue alumna Janice Voss was a pioneer in space travel for women. Logging five flights, she spent a total of 49 days in space and traveled 18.8 million miles in 779 Earth orbits. Until her death in 2012, Voss encouraged us to reach for the stars. Because her story has inspired so many, we’ve named our TED-style talks in her memory.

PRECISION AGRICULTURE: THE FUTURE OF AGRICULTURE
Karen Plaut, Interim Dean, College of Agriculture
Purdue University

CONNECTED AND AUTONOMOUS VEHICLES: THE FUTURE OF MOBILITY
Scott Corwin, Managing Director, Future of Mobility Leader
Deloitte Consulting, LLP

THE CONTINUOUS TECHNOLOGY OFFSET: THE FUTURE OF DEFENSE
Speaker TBD

BIONANOTECHNOLOGY: THE FUTURE OF HEALTHCARE
Rashid Bashir, Grainger Distinguished Chair in Engineering and Head, Department of Bioengineering
University of Illinois at Urbana-Champaign, and Executive Associate Dean, Carle Illinois College of Medicine

BIG DATA AND QUANTUM COMPUTING: THE FUTURE OF COMPUTING
Jason Matheny, Director, Intelligence Advanced Research Projects Activity/MS2 Building
Office of the Director of National Intelligence