EAPS WEEKLY NEWSLETTER

21 Aug. 2017 | EAPS on Facebook | EAPS on Twitter

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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

Ki-Hong Min
Kyungpook National University
Tuesday, Aug. 22, 2017
4:00 PM
HAMP 2201

Roland Stull
University of British Columbia
Thursday, Aug. 24, 2017
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 ombudsman is Ken Ridgway (HAMP 3277B; ridge@purdue.edu) – please feel free to contact him if needed.

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**TERRY WEST ATTENDS THE INDIANA SOCIETY OF MINING AND RECLAMATION (ISMR) PLANNING MEETING IN JASONVILLE, IN.**

On **August 10, 2017**, Terry West attended the Indiana Society of Mining and Reclamation (ISMR) planning meeting in Jasonville, IN. The Executive Council of ISMR finalized the program for the annual conference to be held December 4 and 5 in Evansville, IN which is attended by 200 plus coal mine employees. The two day conference hosts two short courses on the first day and a plenary session of lectures on the second. Terry West chairs the poster session, where students, governmental agencies and coal companies present topics related to mining. Students presenting posters receive a complementary registration.

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**BLACK AND GOLDEN JUBILEE OPEN FOR REGISTRATION**

The Black & Golden Jubilee website is now open for registration. For more information on the event: go to the event website. To register, go to the registration website.

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**EAPS TECH DIGEST**

Linux lab computers have been converted from Red Hat to Ubuntu. Please let Tomas Ratkus or Frank Bakhit know if you encounter any issues. If you have existing Red Hat PC they 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**. As mentioned earlier, this is to give campus time to transition to another Linux distribution. 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](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](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 Tomas know. The only ironclad solution is to use owa.purdue.edu, at least until ITaP's messaging team fixes the IronPort issues.

If people want to continue using their local e-mail clients, VPN is the way to go.
R&D SUMMER INTERN PROGRAM

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 Masters 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. Attached is our intern recruiting flyer. Please feel free to print, post, and distribute it to your students per your school’s guidelines.

Regretfully, the intern team does not have the resources to manage multiple on-line posting systems, but we do believe that our program is one of the best and hope you will share this information with your students. Interested students should apply at http://www.dowagro.com/en-us/careers/student-internships/science-laboratory-based-research.

Applications will be accepted between August 15 and November 1, 2017 for the 2018 program.

FALL GK-12 PROGRAM INFORMATION FOR GRADS AND POSTDOCS

GK-12: Engaging graduate students and post-docs 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 post doc, 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.
DEAN’S WELCOME RECEPTION

JOIN US FOR THE
DEAN’S WELCOME RECEPTION

Please join the College in welcoming Patrick J. Wolfe, Frederick L. Hovde Dean of the College of Science. Greet Dean Wolfe, enjoy ice cream and mingle with colleagues!

Thursday, August 31, 2017
3:00 - 5:00 PM
East West Faculty Lounges
Purdue Memorial Union, 2nd floor

RSVP HERE

8th ANNUAL CONFERENCE FOR PRETENURE WOMEN

Featured Keynote--Jessica Bennett,
New York Times contributing writer and author, feminist fight club: an office survival manual

Register here: https://goo.gl/3cvv6K

A GUIDE TO WRITING AN AGU ABSTRACT

Faculty and students who are interested in finding out more information about writing an AGU abstract, please click here: https://goo.gl/VHmnoZ

DATA DEPOT PRICING

As of last Friday, Depot storage cost has been slashed in half. It's now $75 for 1 TB of space/year.

If you are maxing your quota, or are simply on the fence about Depot, this is a great time to purchase new, or additional storage. The free 100GB trial option is still there.

Info and purchase page: https://www.rcac.purdue.edu/order/products/3

If you have questions about how this space can be used, feel free to stop by 3212 or e-mail me directly.
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
## Colloquia – Fall 2017

**Thursdays at 3:30 PM, Room 1252 HAMP** (unless noted)

<table>
<thead>
<tr>
<th>Date</th>
<th>Speaker</th>
<th>Institution</th>
<th>Host</th>
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<tbody>
<tr>
<td>Aug. 22</td>
<td>Ki-Hong Min, Kyungpook National University</td>
<td>Host: Sun</td>
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<td></td>
<td><strong>Tuesday, 4:00PM, Room 2201/HAMP</strong></td>
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<td>Aug. 24</td>
<td>Roland Stull, University of British Columbia</td>
<td>Host: Tanamachi</td>
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<td>Aug. 31</td>
<td>Tim Cronin, MIT</td>
<td>Host: Chavas</td>
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<td>Sept. 7</td>
<td>Vince Agard, MIT</td>
<td>Host: Chavas</td>
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<td>Sept. 14</td>
<td>Amir Allan, University of Utah</td>
<td>Host: Ridgway</td>
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<td>Sept. 21</td>
<td>Ed Harvey, U.S. National Park Service, Water Resources Division</td>
<td>Host: Frisbee</td>
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<td><strong>Held in WALC, Room 2087</strong></td>
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<td>Sept. 28</td>
<td>Shad O’Neel, USGS</td>
<td>Host: Elliott</td>
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<td>Oct. 5</td>
<td>Devon Orme, University of Nevada, Las Vegas</td>
<td>Host: Ridgway</td>
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<td>Oct. 12</td>
<td>Cliff Johnston, Purdue University</td>
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<td>Oct. 19</td>
<td>Chanh Kieu, Indiana University</td>
<td>Host: Chavas</td>
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<td>Oct. 24</td>
<td>Zhou Lyu, PhD candidate</td>
<td>Advisor: Zhuang</td>
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<td></td>
<td><strong>Tuesday, 4:00PM, Room 2201/HAMP</strong></td>
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<td>Oct. 26</td>
<td>Julie Castillo-Rogez, Jet Propulsion Laboratory, NASA</td>
<td>Host: Minton</td>
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<td>Oct. 31</td>
<td>Tong Yu, PhD candidate</td>
<td>Advisor: Zhuang</td>
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<td></td>
<td><strong>Tuesday, 4:00PM, Room 2201/HAMP</strong></td>
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<td>Nov. 2</td>
<td>Scott Collis, Argonne National Laboratory</td>
<td>Host: Tanamachi</td>
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<td>Nov. 9</td>
<td>Jack Kaye, Earth Science Division, NASA</td>
<td>Host: Zhuang</td>
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<td>Nov. 16</td>
<td>Xiangdong Zhang, University of Alaska, Fairbanks</td>
<td>Host: Zhuang</td>
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<td>Nov. 30</td>
<td>Rossella Guerrieri, CREAF, Univ. Autònoma de Barcelona</td>
<td>Host: Michalski</td>
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<td>Dec. 7</td>
<td>Sarah Feakins, University of Southern California</td>
<td>Host: Welp/Huber</td>
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The talk will be given in two parts. Firstly, the quantitative precipitation forecasting (QPF) capability of the radar variational assimilation method using two numerical weather prediction (NWP) models is investigated over the Korean Peninsula. The two NWP models considered in this study are the UKMO Unified Model (UM) and the Weather Research and Forecasting (WRF) model with double-moment 6-class microphysics scheme (WDM6). We calculated radar equivalent reflectivity using the Korean Meteorological Administration (KMA) Local Data Analysis and Prediction System (LDAPS) based on UM and compared with radar observations in Korea. To compare the cloud microphysics scheme in simulating precipitation, three types of experiments are performed using UM and WRF model and with 3D-Var assimilation method. Comparisons of the 24-hr accumulated rainfall with Automatic Weather Station (AWS) data, contoured frequency by altitude diagram (CFAD), time-height cross sections, and vertical profiles of hydrometeors are used to evaluate the schemes and understand model predictability. Two heavy rainfall cases during the monsoon season of 2016 and one convective case in 2014 are selected for comparison with the 24-hr accumulated precipitation from AWS and CMORPH data.

Secondly, I will present a new method to assimilate null-echo from radar observations that has been developed in my group for short-term quantitative precipitation forecasting (QPF). A null-echo is defined as a region with no precipitating echo(s) within the radar observation range. This information is used to suppress and correct erroneous model precipitation. The model removes excessive humidity and four types of hydrometeor contents (wet and dry snow, graupel, rain water) based on radar reflectivity by a three-dimensional variational (3D-Var) data assimilation technique within WRF-DA system. Some procedures of preprocessing radar reflectivity data and the use of null-echo in the assimilation are presented.
Numerical Weather Prediction Issues in Mountainous Western North America

Roland Stull
University of British Columbia

Thursday, August 24, 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
- Biology
- Chemistry
- Informatics
- Other agriculture-related majors

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.

Apply here:
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!