EAPS MEETINGS & EVENTS

FALL FACULTY MEETING SCHEDULE
Dec. 1st
HAMP 3201
3:00-4:30 PM

GSA 2015
November 1-4, 2015
7:00-9:00 PM
Hilton Baltimore, Peale B room
Baltimore, Maryland

AGU 2015
December 14-18, 2015
7:00-9:00 PM
Thirsty Bear
San Francisco, California

AMS 2016
January 10-14, 2016
New Orleans, LA

LPSC 2016
March 21-25, 2016
The Woodlands, Texas

DEAN’S VISIT TO DEPARTMENT
April 21, 2016
1:30 - 4:00 PM

COLLOQUIA

Professor Kim Novick
Indiana University
“The Mechanisms Limiting Ecosystem Carbon Uptake and Evapotranspiration During Drought”
Thursday, Nov. 5th
3:30-4:30 PM
HAMP 2152

EAPS NEWS

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.

UPCOMING OUTREACH ACTIVITIES

November 7 - Purdue Homecoming Celebration held on Stadium Mall between Pharmacy and Armstrong buildings.

These are some of the activities that are already on the books. They will be adding many more throughout the semester. If you would be interested in helping with any of the activities, please contact Steven Smith (mrsmit@purdue.edu)
Lagrangian and Eulerian coordinate system representations are employed throughout all developments. We begin by constructing the fully non-linear strain tensor and analyze its component’s physical significance. This is followed by development of the integral, and subsequently local forms, of conservation of mass, balances of linear and angular momentum and conservation of energy.

The 2nd –law of thermodynamics is postulated for the entire body and employed to develop fully non-linear constitutive relations which are subsequently linearized near equilibrium for many classes of fluids and solids. Maxwell’s equations of electrodynamics are introduced, coupled with the conservation and balance laws and subjected to the 2nd –law to obtain generalized field equations. Averaging principles are employed to obtain the conservation and balance laws for mixtures of species and phases of relevance to porous media. Applications are presented for swelling biopolymers (foods and cells), drug delivery substrates, geophysical media (soils, aquifers and petroleum reservoirs), electro-active polymers (soft robotics), and fuel cells (flow batteries). The common structure of all these examples is highlighted.

UNDERGRADUATE NEWS

"Re-thinking the Design of Presentation Slides":
Mr. Michael Alley, Associate Professor, the Pennsylvania State University
Wednesday, Nov. 11th
12:00-1:00 PM
Lawson 1142
No RSVP required! This talk is open to any faculty, graduate students, or undergraduate students.

Please see attached flier for more information.

GRADUATE NEWS

GRADUATE STUDENT CONFERENCE SUPPORT

The EAPS Department provides the opportunity for merit-based support to graduate students to present their research at professional conferences. The maximum yearly amount of department support is $400 per graduate student (each fiscal year). Submit your form to Kathy Kincade (Room 2169D/HAMP) no later than one month prior to the start of the conference you plan to attend. Requests after the fact or after that timeframe will not be accepted.

MIDWEST GRADUATE RESEARCH SYMPOSIUM
(MGRS) 7TH ANNUAL MIDWEST GRADUATE RESEARCH SYMPOSIUM

The University of Toledo Graduate Student Association is proud to present the 7th Annual Midwest Graduate Research Symposium on Saturday, April 9th, 2016 at the University of Toledo. This event has been recognized as a premier event and is a great opportunity for presenting research, networking, and fostering intercollegiate friendships and collaborations.

When:
April 9, 2016
8:00 am – 7:00 pm

Where:
The University of Toledo

Building:
Memorial Field House & Student Union

Free Registration Deadline: March 19th, 2016 at Midnight!

Contests and Awards

• Poster Presentation: One 1st place, one 2nd place, and one 3rd place winner each receives a plaque and certificate.

• Oral Presentation: One 1st place, one 2nd place, and one 3rd place winner each receives a plaque and a certificate.

• AWIS Award: One $100.00 award for the top women in a STEM field presenting at the conference.

• Sigma Xi UT chapter Award

• All participants receive participation certificates.

• All participants receive an invitation to the awards dinner following the graduate student symposium.

Please see attached flier.
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 (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.eaps.purdue.edu/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.
Sept. 22  Subashini Subramanian, PhD Candidate
“Land Surface Effects on the Post Landfall Characteristics of Tropical Cyclones”
**Tuesday, 4:30PM, Room 2201/HAMP**

Sept. 24  Dr. Joseph Morris, Lawrence Livermore National Laboratory
“Hydraulic Fracture Simulation: Rising to the Challenge of Unconventional Reservoirs”
**EAPS Energy Colloquium**

Oct. 1   Prof. Nathan Sheldon, University of Michigan
Title: TBA
Host: Horgan

Oct. 8   Prof. Blair Schoene, Princeton University
“Constraining Crustal Evolution on Very Short and Very Long Timescales”
Host: Caffee

Oct. 15  Prof. Qianlai Zhuang, Purdue University
Title: TBA

Oct. 20  Haylee Dickinson, PhD Candidate
“Inferred Rheology and Petrology of the Southern California and Northwest Mexico Mantle from Postseismic Deformation Following the 2010 El Mayor-Cucapah Earthquake”
**Tuesday, 4:00PM, Room 2201/HAMP**

Oct. 22  Prof. Victor Gensini, College of DuPage
“Tornadoes: Past, Present and Future”
Host: Agee

Oct. 27  Anthony Ingrafea, Cornell University
Title: TBA
**EAPS Energy Colloquium**
**Tuesday, 7:00PM, Room 112/PHYS**

Oct. 29  Prof. Jerry DeGraff, AEG-Jahns Lecturer,
“Effective Monitoring for Environmental and Engineering Geology Projects, Case Histories in Mining, Groundwater Contamination and Hot Springs Migration”
Host: West

Nov. 5   Prof. Kim Novick, Indiana University
“Mechanisms Limiting Forest Carbon Uptake and Water Use During Drought”
Host: Welp

Nov. 10  Kimberly Hoogewind, PhD Candidate
Title: TBA
**Tuesday, 4:00PM, Room 2201/HAMP**
<table>
<thead>
<tr>
<th>Date</th>
<th>Speaker</th>
<th>Title</th>
<th>Host</th>
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<tbody>
<tr>
<td>Nov. 12</td>
<td>Dr. Dave Finnegan, US Army Corps of Engineers</td>
<td>“Automated LiDAR Scanning of a Tidewater Glacier: Helheim Glacier, Southeast Greenland”</td>
<td>Elliott</td>
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<td>Nov. 19</td>
<td>Prof. Susan Brantley, Pennsylvania State University</td>
<td>Title: TBA</td>
<td>Melosh</td>
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<tr>
<td>Dec. 3</td>
<td>Prof. Paul Staten, Indiana University</td>
<td>“Metrics, Mechanisms, and Magnitudes of Tropical Widening in a Warming Climate”</td>
<td>Wu</td>
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Stomata are the pathway through which CO$_2$ enters plants, and the pathway through which water vapor is lost to the atmosphere. Thus, plants are persistently challenged to regulate stomatal conductance in a way that maximizes carbon uptake while minimizing water loss. The plant’s approach to solving this “optimization problem” has important consequences not only for plant-level growth and fitness, but also ecosystem-scale carbon uptake, water use, and energy balance. In this talk, I will discuss recent efforts to quantify and characterize the drought response of common U.S. tree species within the context of evolving theoretical frameworks, including stomatal optimization theory and the anisohydric/isohydric continuum for plant water use strategies. Much of the data that supports this work was collected in the Morgan-Monroe State Forest in south-central Indiana, which supports a long-running Ameriflux tower and multiple long-term records of leaf- and tree-level carbon and water cycle fluxes. A severe drought that affected much of the U.S. Midwest in 2012 functions as an important test case for our theoretical predictions. The site-level work is also complemented by a synthesis of evapotranspiration records from ~40 long-running Ameriflux sites.
Michael Alley, from The Pennsylvania State University, is an engineer and world-renowned speaker, communications expert, and researcher of effective methods for designing scientific and engineering presentations.

Mr. Alley will present his research on effective presentations, introducing attendees to principles of the Assertion-Evidence Method. Participants will learn to shape effective presentations that better help their audiences understand and retain material.

Re-thinking the Design of Presentation Slides
November 11, 2015

Mr. Michael Alley
Associate Professor, The Pennsylvania State University

12-1 pm “Re-thinking the Design of Presentation Slides”
Location: Lawson Hall 1142

No RSVP required! This talk is open to any faculty, graduate students, or undergraduate students in the engineering, technology, science, mathematics, or the communications communities. Invite your labmates and friends!
The University of Toledo Graduate Student Association is proud to present the 7th Annual Midwest Graduate Research Symposium on Saturday, April 9th, 2016 at the University of Toledo. This event has been recognized as a premier event and is a great opportunity for presenting research, networking, and fostering intercollegiate friendships and collaborations. Here at the University of Toledo we strive to improve the world around us by advancing research and education to the cutting edge. We look forward to hosting individuals from around the nation in what promises to be an outstanding day for all involved.

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