**EAPS MEETINGS & EVENTS**

**CoS SPRING FACULTY MEETING SCHEDULE**  
Feb. 16 & Apr. 19, 2016  
LWSN 1142  
3:30-4:30 PM

**EAPS SPRING FACULTY MEETING SCHEDULE**  
Feb. 9th, Mar. 22nd, Apr. 12th, 2016  
HAMP 3201  
3:00-4:30 PM

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

**EAPS AWARDS BANQUET**  
April 18, 2016  
Buchanan Club of Ross-Ade Pavilion  
Reception: 5:30 PM  
Dinner at 6:00 PM

**ALUMNI ADVISORY BOARD MEETING**  
April 19, 2016  
HAMP 2201

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

**EAPS COLLOQUIA**

Kimberly Eilmore, CIMMS and National Severe Storms Laboratory  
“mping at NSSL: Present and Possible Futures”  
Tuesday, February 2, 2016  
3:30 PM  
HAMP 1144

Darryl Granger, Purdue University  
“Cosmogenic Nuclides: From Landscape Evolution to Human Evolution”  
Thursday, February 4, 2016  
3:30 PM  
HAMP 1252

**EAPS PUBS**


**EAPS NEWS**

**OUTREACH ACTIVITIES**

Steve Smith visited Klondike Middle School last week and led sessions to inform the students about careers in EAPS. Next week he will be at the HASTI Conference on February 4th & 5th in Indianapolis. There he will lead sessions for teachers in a variety science demonstrations and a porosity/soils lab using Science Express equipment.

**GRADUATE EXPO**

Prospective graduate students will be visiting campus next week for the Graduate Expo on Feb 5th and 6th. Please make them feel welcome as they experience Boilermaker pride! Thank you to all the faculty, staff, and students, involved in making this event a success.
UNDERGRADUATE AND GRADUATE STUDENT INFORMATION

BRAZIL STUDY ABROAD 2016

Call out for a study abroad opportunity in 2016. Open to all students. In this 6 credit course, students learn the rigors of ethnographic field methods in the heart of the Brazilian Amazon.

February 1
5:45-6:30 p.m.
STONE 154

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SANDIA NATIONAL LABORATORIES ON CAMPUS

Monday, February 1
Purdue Expo 2016 – Mackey Arena
9:00 am – 4:00 pm
Information Session - KRAIN G016
7:30 pm-8:30 pm

For all interested B.S., M.S and Ph.D. engineering and science students.
Many positions open of internships, co-ops, and full-time employment.
Most positions require U.S. Citizenship.
Lear more: www.sandia.gov.careers

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PROPOSALS SOUGHT FOR GRADUATE STUDENT EDUCATIONAL RESEARCH SYMPOSIUM

The Graduate Student Education Council and the College of Education are inviting submissions for the 10th Annual Graduate Student Educational Research Symposium on March 24 from 11:30 a.m. to 5 p.m. in Purdue Memorial Union's North Ballroom.

This year's theme is "Digital Education: Are You Really Ready?" Graduate students from all departments at Purdue with research related to education are invited to submit a proposal. Presentations will be posters and seven-minute TEDx-style talks. Posters can be related to education in some way, but the talks must be loosely aligned with technology and education. Proposals should be submitted via a Qualtrics survey at https://goo.gl/mjq33r by Feb. 19.

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NASA EARTH AND SPACE SCIENCE FELLOWSHIP (NESSF) PROGRAM

NASA announces a call for graduate fellowship proposals to the NASA Earth and Space Science Fellowship (NESSF) program for the 2016-2017 academic year. This call for fellowship proposals solicits applications from accredited U.S. universities on behalf of individuals pursuing Master of Science (M.Sc.) or Doctoral (Ph.D.) degrees in Earth and space sciences, or related disciplines. The purpose of NESSF is to ensure continued training of a highly qualified workforce in disciplines needed to achieve NASA’s scientific goals. Awards resulting from this competitive selection will be made in the form of training grants to the respective universities.

Deadline extended for NEW applications: 11:59 p.m. on February 8, 2016.

The NESSF call for proposals and submission instructions are located at the NESSF 16 solicitation index page at http://nspires.nasaprs.com/ - click on "Solicitations" then click on "Open Solicitations" then select the "NESSF 16" announcement. Also refer to "Program Specific Questions” and “Frequently Asked Questions” listed under “Other Documents” on the NESSF 16 solicitation index page.

All proposals must be submitted in electronic format only through the NASA NSPIRES system. The faculty advisor has an active role in the submission of the fellowship proposal. To use the NSPIRES system, the faculty advisor, the student, and the university must all register. Extended instructions on how to submit an electronic proposal package are posted on the NESSF 16 solicitation index page listed above. You can register in NSPIRES at http://nspires.nasaprs.com/.

For further information contact Claire Macaulay, Program Administrator for NESSF Earth Science Research, Telephone: (202) 358-0151, E-mail: claire.i.macaulay@nasa.gov or Dolores Holland, Program Administrator for NESSF Heliophysics Research, Planetary Science Research, and Astrophysics Research, Telephone: (202) 358-0734, E-mail: hq-nessf-space@nasa.gov

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MERIT-BASED SUPPORT TO GRADUATE STUDENTS

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 2169/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.
OTHER UNIVERSITY NEWS

PARTICIPANTS SOUGHT FOR NEW CAREER DEVELOPMENT RESOURCE

Human Resources, in partnership with APSAC and CSSAC, has designed a new career development tool for Purdue supervisors and staff. The DevelopMe tool is designed to help supervisors and staff create personalized career strategies. Launch date is May. Supervisors and staff members who wish to learn more or register may visit: http://www.purdue.edu/hr/od/pdf/pucareerdevportal.pdf

Questions concerning DevelopMe can be addressed to Adedayo Adeniyi, director of leadership and organizational development, at lod@purdue.edu

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. While Fallon is on leave, material for inclusion in the newsletter should be submitted to Jill (jwable@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.html.

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.
An accurate depiction, analysis and prediction of the surface precipitation type during winter weather events among the tougher challenges facing forecasters today. A major initiative at the National Severe Storms Laboratory is to devise a surface classification algorithm that makes use of both numerical forecast model output and, in the future, dual-polarization radar data.

Such a task requires many observations. To gather these observations, the University of Oklahoma in concert with NSSL hosts the meteorological Phenomena Identification Near the Ground (mPING) project, which uses a smartphone app to collect a large number surface precipitation type observations from “citizen scientists.” This app and some of its characteristics will be reviewed. Along the way, the quality of mPING observations is addressed because, if the observations aren’t any good there’s no point in continuing.

A straightforward mPING application is to assess numerical model precipitation type performance, which will be shown, but a more comprehensive application is to use the observations to drive a winter surface precipitation classification algorithm. A candidate approach is presented that explicitly uses these observations to drive an “artificial intelligence” or “machine learning” classification technique called a random forest. Random forests are an ensemble method for classification that construct a multitude of decision trees that use predictors or attributes, derived from vertical profiles extracted from forecast models, associated with the observed precipitation types. For each case, the class is defined as the mode of the all the classes resulting from the ensemble of decision trees. Random forests can also be used to generate the probability of each class. Random forests are very fast, resistant to over-fitting and are among the most powerful and general artificial intelligence classification tools available. Some random forest results will be shown.

mPING at NSSL: Present and Possible Futures
Kimberly Elmore
CIMMS and the National Severe Storms Laboratory

Tuesday, February 2, 2016
3:30 p.m.
Room 1144 HAMP

Refreshments at 3:00 pm
Room 2201/ HAMP
<table>
<thead>
<tr>
<th>Date</th>
<th>Speaker</th>
<th>Host</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>Jan. 21</td>
<td>Chuck Doswell, C. Doswell Enterprises, Inc.</td>
<td>Tanamachi</td>
<td>“A Retrospective Look at the Relationship Between Academic Achievement and a Professional Career as a Scientist”</td>
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<tr>
<td>Jan. 28</td>
<td>Roshi Nateghi, Purdue University</td>
<td>Baldwin</td>
<td>“Risk Analytics for the Impacts of Extreme Events on Infrastructure Systems”</td>
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<tr>
<td>Feb. 2</td>
<td>Kim Elmore, CIMMS and National Severe Storm Laboratory</td>
<td>Baldwin</td>
<td>“mPING at NSSL: Past, Present and Possible Futures”</td>
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<td><strong>Joint seminar w/Civil Engineering; 3:30 PM, Room 1144/HAMP</strong></td>
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<tr>
<td>Feb. 4</td>
<td>Darryl Granger, Purdue University</td>
<td></td>
<td>“Cosmogenic Nuclides: From Landscape Evolution to Human Evolution”</td>
</tr>
<tr>
<td>Feb. 11</td>
<td>Benjamin MacCall, Army Research Lab</td>
<td>Sun</td>
<td>“The US Army Research Laboratory Atmospheric Science Center: A New Resource for the Characterization and Modeling of Boundary Layer Processes in Complex Terrain”</td>
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<tr>
<td>Feb. 23</td>
<td>Roby Douilly, PhD Candidate</td>
<td>Freed</td>
<td>“3D Dynamic Rupture Simulations Following the 2010 Haiti Earthquake and Scenarios of Potential Earthquakes on the Enriquillo Fault”</td>
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<td><strong>Tuesday, 4:00 PM, Room 2201/HAMP</strong></td>
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<td>Feb. 25</td>
<td>James Hurrell, Director, NCAR</td>
<td>Agee</td>
<td>“Research Highlights at NCAR in 2015”</td>
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<td>Mar. 3</td>
<td>Carol Ann Clayson, Woods Hole Oceanographic Institution</td>
<td>Agee</td>
<td>“The Role of the Ocean in the Global Climate”</td>
</tr>
<tr>
<td>Mar. 10</td>
<td>Francesca E DeMeo, Harvard-Smithsonian Center for Astrophysics</td>
<td>Minton</td>
<td>“Asteroids as Records of Solar System History”</td>
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<tr>
<td>Mar. 29</td>
<td>Steeve Symithe, PhD Candidate</td>
<td>Freed</td>
<td>“Active Deformation in the Caribbean and Southern Haiti”</td>
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<td><strong>Tuesday, 4:00 PM, Room 2201/HAMP</strong></td>
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<tr>
<td>Mar. 31</td>
<td>Daniella Rempe, University of Texas, Austin</td>
<td>Frisbee</td>
<td>“The Ecological Significance of Landscape-scale Weathering Patterns And Rock Moisture: Observations from the Eel River Critical Zone Observatory in Northern California”</td>
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<tr>
<td>Apr. 5</td>
<td>Zhenong Jin, PhD Candidate</td>
<td>Zhuang</td>
<td>“Using Crop Model to Assess and Mitigate the Impact of Climate Change on the US Agriculture System”</td>
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<td><strong>Tuesday, 4:00 PM, Room 2201/HAMP</strong></td>
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<td>Date</td>
<td>Speaker</td>
<td>Institution</td>
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<td>Apr. 7</td>
<td>Tiffany Shaw, University of Chicago</td>
<td>Host: Wu</td>
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<td>Apr. 14</td>
<td>Catherine Macris, IUPUI</td>
<td>Host: Milbury</td>
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<td>April 21</td>
<td>No Seminar, Visit Dean Roberts</td>
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<td>April 26</td>
<td>Qianwen Luo, PhD Candidate</td>
<td>Advisor: Tung</td>
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<td><strong>Tuesday, 4:00 PM, Room 2201/HAMP</strong></td>
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<tr>
<td>April 28</td>
<td>Marcia Bjornerud, Lawrence University</td>
<td>Host: Milbury</td>
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Sandia National Laboratories will be on campus!

Monday, February 1st
Purdue EXPO 2016 - Mackey Arena
9:00am - 4:00pm

Information Session
7:30pm - 8:30pm
KRN A016

>> BRING RESUMES

For all interested B.S., M.S. and Ph.D. engineering and science students.

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