NEW NRC "RANKINGS" REPORT
HOW EAS FARED

NRC doctoral programs report emphasizes strength and change in EAS: Our department is among the very best in PhD student outcomes and support.

The recently-released NRC Doctoral Programs Report provides wide-ranging information on doctoral programs throughout the US. The report allows us to see how we stacked up in data collected in 2005-06, as well as reflect on changes since then. The report does not provide simplistic rankings; rather it uses statistical approaches with two different approaches (R and S rankings) to assess 5th and 95th percentiles of possible rankings. It also provides detailed data on wide-ranging aspects of doctoral programs. The full report can be accessed at http://sites.nationalacademies.org/pga/Resdoc/.

Although difficult to interpret, in part because of very different ways in which programs have been classified and divided at different institutions, we can compare our percentile values with peer institutions to get a sense of where we stood in 2006. The table below provides 5th percentile R and S rankings for Big 10 institutions for doctoral programs in both Earth Sciences and Atmospheric Sciences. R and S rankings are described in the NRC FAQ page at http://sites.nationalacademies.org/PGA/Resdoc/pga_051962 (it would take too long to explain it here!).

NRC Doctoral programs Rankings, based on 2005-06 Data, Big Ten Universities

<table>
<thead>
<tr>
<th>Institution</th>
<th>Atmospheric Sciences Rankings</th>
<th>Earth Sciences Rankings</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>5th Percentile R</td>
<td>5th Percentile S</td>
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<tr>
<td>Purdue</td>
<td>27</td>
<td>15</td>
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<td>Indiana</td>
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<tr>
<td>Ohio State</td>
<td>43</td>
<td>39</td>
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<tr>
<td>University of Illinois UC</td>
<td>34</td>
<td>14</td>
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<tr>
<td>Northwestern</td>
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<tr>
<td>Wisconsin</td>
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<td>Iowa</td>
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Various specialties were mixed together in the report. Here we have matched the closest possible categories, based on what was reported, e.g., in “Atmospheric Sciences,” University of Michigan is ranked for “Atmospheric, Ocean and Space Sciences” versus other universities being ranked in “Atmospheric Sciences.”

Overall, the survey results indicate that in 2006 there were a small number of PhD programs that were truly exceptional throughout, and that just below this there was a group of extremely good programs with more focused strengths. Purdue EAS placed in this group of extremely good programs, along with other Big 10 programs that we typically consider as our peers and close competitors for outstanding graduate students. A particular high point in the detailed information in the report was a 5th percentile ranking of ‘PhD student outcomes and support’ of #1 for Purdue Atmospheric Science and #11 for Purdue Earth Sciences.

The 2006 report also provides an opportunity for us to reflect on how rapidly EAS has been changing. Since 2006 we have added 11 new faculty members (25% of our total faculty headcount), including a member of the National Academy of Sciences, and our external funding awards for research have almost doubled. None of our PhD students had external fellowships when the NRC data were collected, and this semester 11 of our PhD students are on external fellowships!

The NRC report gives us much to reflect on as we seek to continue to improve the quality and impact of our graduate programs and our department. It confirms that we were a very good department in 2006 and provides us with a great baseline against which to measure the exceptional growth of departmental quality and size since then.

GREEN WEEK 2010

This week is Green Week at Purdue which will showcase our campus-wide efforts and initiatives in sustainability. At the end of this newsletter is a flyer with a list of the global events. More details about each can be found at the Green Week web site: http://www.purdue.edu/sustainability/greenweek/index.htm
UPCOMING MEETINGS

Monday, October 4
- EAS Primary Committee, CIVL 3201 (11:30 a.m.)

Wednesday, October 6
- EAS Primary Committee (if needed), CIVL 3201 (11:30 a.m.)

Friday, October 8
- Graduate Committee, CIVL 2201 (11:30 a.m.)

EAS SEMINAR

Thursday, October 7, at 3:30 p.m. in CIVL 1252:
"Particle-resolved simulations of an evolving urban plume: Impact of mixing state on optical and cloud condensation nuclei activation properties." Nicole Riemer, University of Illinois, Urbana-Champaign

Refreshments at 3 p.m. in CIVL 2201

For more information, see the EAS online calendar.

RECENT PRESENTATIONS

Alexander Gluhovsky attended the 11th International Meeting on Statistical Climatology held July 12-16 at the University of Edinburgh, UK, where he gave an oral presentation entitled “Subsampling inference for trends and extremes in climate data.”


Jim Ogg gave a seminar at the University of Wisconsin (Madison) on the “Late Jurassic Time Scale,” 24 Sept 2010.

Alexander Gluhovsky attended the 2nd International Conference on Data Analysis and Modeling in Earth Sciences held September 22-24 at the University of Lisbon, Portugal, where he gave an oral presentation entitled “Detecting Coherent Structures and Trends from Atmospheric Data.”

The following posters were presented at the Ninth Aerocom Workshop, Oriel College, University of Oxford, Oxford, UK, September 27-30:

Harshvardhan: "Aerosols in the past (and future)."

M. Petrenko, R. Kahn, M. Chin, T. Kucsera and A. Soja: "Using spaceborne AOD observations to constrain biomass burning emissions in the GOCART model."

NEW PEOPLE IN EAS

Casey Kennedy

Casey Kennedy is a post-doc working with Gabriel Bowen on developing models to quantify hydrological controls on nitrogen transport in artificially drained agricultural watersheds. This work is being conducted in collaboration with Chad Jafvert (CE) and is supported by a Ralph W. and Grace M. Showalter Research Trust grant to G. Bowen. Casey recently completed a two-year Intelligence Community Postdoctoral Fellowship (also with G. Bowen) on modeling spatial and temporal variations of oxygen isotope ratios in human drinking water. Casey received a Ph.D. in Hydrology from North Carolina State University in 2008.

Russell Martin

I received my Bachelor of Science degree from Purdue last May, where I also did undergraduate research while working under Prof. Saad Haq on analog modeling of convergent margins. I am now a master's student under Prof. Haq, concentrating on the role of basement obstructions within convergent margins. My current aim is to examine how basement obstructions affect the inner structure of the orogenic wedge as well as analyzing the different structures produced on the surface in comparison to normal convergent margins.

BILL HINZE'S 80TH BIRTHDAY CELEBRATION

You are invited to our alumni, friends, and student reception and a celebration of Bill Hinze's 80th birthday at the SEG Annual Meeting (see flyer at the end of this newsletter for more details).

Please RSVP with number of guests to Dee Gillespie ASAP!
(gillesp@purdue.edu or 49-44753)
FY12 WASHINGTON PROJECTS CALL FOR WHITE PAPERS

The OVPR is initiating the annual call for Washington Projects for the federal Fiscal Year 2012. See the Call for White Papers memo (with an attachment illustrating the white paper format), and the distribution list. Please note that the white papers are due to the OVPR by Friday, October 15.

TECHNOLOGY SUPPORT NEWS

New Science IT Employee

Howard Nodine is our newest Science IT employee and will serve as our Database and Web Administrator. Howard comes to us from a local firm, Third Floor Software where he provided software development and project management services for numerous companies and academic institutions. He is a Purdue graduate with a degree in Economics and specialization in Computer Science.

You will find him currently located in MATH 911, but he will eventually reside in MATH 908 once the last of the window renovations is done. Please welcome Howard when you get a chance to meet him. We are very pleased to have him join Science IT!

EAS Touchscreen Directory
(outside of EAS main office, 2nd floor)

Science IT is pleased to announce that the EAS interactive directory in the corridor outside the department main office is now up and running! This directory makes use of the Samsung touchscreen LCD panel, and features faculty, staff, and graduate student information including pictures, office and phone numbers, interest areas, etc. A special thanks to James Wheaton, a Science IT student who developed the interface to the Exhibio software to make this work. If you have any corrections to your information listed on the interactive directory, please send an email to vewing@purdue.edu.

NEW TRAINING OFFERINGS

New training sessions have been scheduled for Adobe Connect and Web 2.0 content design tools. Read more...

EPA SUSTAINABILITY COMPETITION!

EPA’s P3 - People, Prosperity and the Planet - Program is a unique grant opportunity for college and university faculty and students. Through this hands-on design competition, student teams and their faculty advisors receive $15,000 grants to design scientific, technical, and policy solutions to sustainability challenges around the world. Read more...

RESEARCH WORKSHOPS

The Office of the Vice President for Research invites faculty to two workshops being held on Thursday, October 21. Robert Lowman, Ph.D., associate vice chancellor for research and adjunct associate professor of psychology at the University of North Carolina at Chapel Hill, will be presenting the workshops. Read more...

SAMUEL D. CONTE DISTINGUISHED LECTURE SERIES

The Department of Computer Science is proud to announce this year's Samuel D. Conte Distinguished Lecture Series. The speakers are:

Dr. Robin Murphy, Texas A&M University
Wednesday, October 20, 2010
3:30pm, LWSN 1142
Title: Robots to the Rescue!

Dr. David Garlan, Carnegie Mellon University
Monday, November 1, 2010
10:30am, LWSN 1142
Title: Engineering Self-Healing and Self-improving Systems

Dr. Fred Schneider, Cornell University
Thursday, December 2, 2010
3:30pm, LWSN 1142
Title: Principles and Principals for Authorization in Nexus

MISC

Preparing the Next Generation of STEM Innovators


Burton D. Morgan Center for Entrepreneurship can provide support for the outreach, education, or entrepreneurship aspects of proposals. To find out more, please see the proposal boilerplate.
EAS LIBRARY'S NEWEST BOOKS
Click here to see a list of new books in the EAS library in the last two weeks.

NATIONAL PHYSICAL SCIENCE CONSORTIUM GRADUATE FELLOWSHIP IN THE PHYSICAL SCIENCES
National Physical Science Consortium (NPSC) is a unique partnership of industry, government and higher education. NPSC helps its partners to recruit, identify, select, and support outstanding U.S. doctoral students. The Fellowship Program of the National Physical Science Consortium (NPSC) is again open for receipt of applications. Read more...

A NOTE FROM OUR ACADEMIC COUNSELOR
October Calendar
October 11-12 October Break (no classes).
October 27 Last day to make any changes to your fall schedule.

Teach For America Information Session
Tuesday, October 5, at 7:00 p.m. in EE 117 Teach For America seeks our nation's future leaders – outstanding recent college graduates and professionals from all majors and backgrounds – to commit two years to teach in our lowest income communities and join a force of individuals who devote their lives to impact the fundamental changes necessary to ensure educational opportunity for everyone. This is a link to the math/science need in low-income schools and another link to what their alumni are doing in the science sector. Contact Lindsey Pittas (lindsey.pittas@teachforamerica.org), recruitment director with Teach For America, with any questions or click here to find out more.

Kappa Delta Pi
International Educational Honor Society
Tuesday, October 5, from 7-8 p.m. in BRNG 2275 local education professionals (teachers and administrators) will offer advice, answer questions, and provide interviewing tips for future teachers. All teacher education students are invited to attend. Snacks and drinks will be provided.

Science Week 2010 - Open to all Purdue Students, Faculty and Staff
Help Purdue Science Student Council celebrate Science!
- Oct. 4th - The Wild World of Animals!
  6:00 p.m. in Windsor Basement Activity Room
  Fangs to fur, scary to sweet, we've got all sorts of animals we want you to meet!
  Dr. Waser will begin the event with a short presentation on "Primate Research & Ecotourism in Uganda" followed by direct interaction with the animals!
- Oct. 5th - Video Game Science
  6:00-8 p.m. in BRNG B-230
  GAME ON! Come meet your match in these exhilarating competitions including, but not limited to, Rock Band, Guitar Hero, & Super Smash Brothers! Free pizza.
- Oct. 7th - Physics Pool Tournament
  6:30-9:30 p.m. in PMU Rack & Roll
  $5 per team at the door
  Come out and enjoy a night of food, fun, cash prizes and friendly competition.
  Special Presentation from the Billiards Club followed by a bracketed pool tournament.

Nancy

HAPPY BIRTHDAY!!!
Wen-Yih Sun – October 4
Wen-wen Tung – October 8
Purdue Green Week Global Sustainability Events

**Monday, October 4**
“Resilience and Adaptation in the Face of Climate Change”
Daniel Aldrich (POL), Rabi Mohtar (ABE, Director of Global Engineering) and Dev Niyogi (AGRY/EAS and Indiana State Climatologist)
Organized by the Purdue Climate Change Research Center
Pfendler Hall 241 1:00 p.m. – 2:30 p.m

**Wednesday, October 6**
“Does Life Evolve Differently in the Sea?”
Rick Grosberg, University of California at Davis
Organized by the Purdue Biodiversity Faculty, Andrew DeWoody (FNR) host
Burton D. Morgan Room 121, 1:30 – 2:30 pm

**Thursday October 7**
Historical, Social & Cultural Approaches to the Environment: Meaning, Politics, Resilience
Daniel Aldrich (POL), Adrian Del Caro (FLL), John Lauritz Larson (HIS), Robert Marzec (ENG), Laura Zanotti (ANT)
Organized by the College of Liberal Arts and the Center for the Environment
Stewart Center Room 314, 1:30 – 3:00

Oil Spills: Safety and Communication Presentations and Panel Discussion
Richard Harris, Science Correspondent, NPR News, Deborah L. Grubbe, Operations and Safety Solutions, LLC, Ana Unruh Cohen, Select Committee on Energy Independence and Global Warming and Staff Member for Massachusetts Representative Edward Markey
Organized by the Purdue Oil Spill Faculty, a Discovery Lecture Series event
Burton D. Morgan Room 121, 3:00 – 4:30 PM

Screening of the Documentary Film Carbon Nation,
Introduction by Karen Wiepert, Urban Partnership Bank
Panel Discussion Craig Just (University of Iowa), Leigh Raymond (POL), Raiford Smith (Duke Energy), Karen Wiepert
Organized by Engineers for a Sustainable World
Fowler Hall, Stewart Center 7:30 – 9:30

**Friday October 8**
“Innovation and a Sustainable Energy Future”
Arun K. Majumdar, Advanced Research Projects Agency – Energy (ARPA-E)
Organized by Engineers for a Sustainable World
Fowler Hall, Stewart Center 8:30 – 10:00 a.m.

“Biocultural Diversity and Hydrodevelopment: Emerging Trends, Sustainable Futures?”
Barbara Johnston, University of California at Santa Cruz.
Organized by the Purdue Biodiversity Faculty, Laura Zanotti and Helen Gruenbaum (ANT) hosts, sponsored by the Department of Anthropology and Center for the Environment
Lawson Room 1142, 12:30 – 1:30
You’re Invited To a Very Special Event

Our Alumni, Friends, and Student Reception
and a
Celebration of
Bill Hinze’s 80th Birthday
at the SEG Annual Meeting
Grand Hyatt-Denver
Crystal Peak, Pinnacle Club, 38th floor
(1750 Welton Street)
Monday, October 18, 2010
6:30-8:30pm
(you don’t need to be registered for the meeting to attend)

Do you have a special story, photo, or something else you would like to share at the event?
If so, please contact Mark Longacre at:
Mark.Longacre@mbl-inc.com
“The opportunities you have with the SMART Program, both the financial side and project support, are better than any program I’ve seen anywhere. There is no comparison.”

James Wright, SMART Scholar, Boston University

SMART Overview
The DoD recognizes the need to support the education of America’s future scientists and engineers. The SMART Scholarship-for-Service Program is part of a concentrated effort to improve the flow of new, highly skilled technical labor into DoD facilities and agencies and to enhance the technical skills of the workforce already in place.

SMART offers scholarships to undergraduate, master’s, and doctoral students who have demonstrated ability and special aptitude for excelling in STEM fields. Students are also provided opportunities to continue their research in civil service roles following graduation.

Through SMART, we are proud to offer our research leaders of tomorrow not only an education, but a career.

SMART Scholars Receive:
- Cash award paid at a rate of $25,000 - $41,000 per year depending on prior educational experience
- Full tuition and related education expenses
- Health Insurance reimbursement allowance
- Book allowance
- Summer Internships (multi-year participants)
- Post-Graduation Career Opportunities

Contact
Contact the SMART Program below for more information and to apply.

smart@asee.org
http://www.asee.org/smart
SMART Scholarship
Science, Mathematics & Research for Transformation

SMART Applicants
SMART Scholarships are awarded to applicants who are pursuing a degree in, or closely related to, one of the following Science, Technology, Engineering and Mathematics (STEM) disciplines:

- Aeronautical and Astronautical Engineering
- Biosciences
- Chemical Engineering
- Chemistry
- Civil Engineering
- Cognitive, Neural, and Behavioral Sciences
- Computer and Computational Sciences
- Electrical Engineering
- Geosciences
- Industrial and Systems Engineering (Technical tracks only)
- Information Sciences
- Materials Science and Engineering
- Mathematics
- Mechanical Engineering
- Naval Architecture and Ocean Engineering
- Nuclear Engineering
- Oceanography
- Operations Research
- Physics

Award Benefits
In addition to paying tuition and other educational expenses, SMART Participants receive a generous cash award and health insurance allowance. Cash awards are paid at a rate of $25,000 - $41,000 per year depending on prior educational experience.

Internships
SMART Scholarships include summer internships. Internships are located at DoD facilities and include a stipend to cover travel expenses.

Eligibility
The SMART Scholarship for Service Program is open only to citizens of the United States. Persons who hold permanent resident status are not eligible. Proof of citizenship is required. Students must be at least 18 years of age to be eligible. Applicants for undergraduate awards must be currently enrolled in a U.S. college or university. Awardees must be eligible to receive and hold a security clearance. Please see the program website for details about the security clearance process.

Application Guidelines
The application opens in August and closes in December. Award notification occurs each spring. For more information and to apply visit http://www.asee.org/smart

Employment Placement
Upon graduation, SMART award recipients are placed in civilian jobs in DoD laboratories and agencies. The post-degree service commitment is commensurate with the length of the scholarship award. Please see program website for additional details.