THE HEAD'S PERSPECTIVE

The latter part of the spring semester always seems to be the busiest part of the academic year. We had an amazing group of students, faculty, and alumni recognized for their accomplishments at the EAS Awards Banquet, at the College of Science Distinguished Alumni dinner, and at the Faculty Awards convocation. Also, I recently hosted a dinner for 20 EAS alumni and friends in Seattle, and it was great to reconnect with so many former students from both the earth and atmospheric parts of our department, and hear about their successes, their fond memories of EAS, and their reflections on how various aspects of the EAS experience have been critical in their careers and other aspects of their lives. Important input for the department was also recently provided by ten EAS alumni who took part in our departmental external advisory committee visit. Their work focused on helping the department think about ways to enhance our programs to prepare students for diverse careers, and they came up with several good suggestions that we will work to implement next academic year. The final part of the semester also brings a lot of things to completion, as well as some moments of great humor. At our most recent faculty meeting we completed and approved a new version of the Environmental Geosciences major. We will move ahead quickly in implementing this innovative new version of one of our four departmental majors. We are also coming to the closing stages of several searches that will result in an exciting new group of outstanding faculty joining the department in the next year and a half. Many thanks to the committees and all the faculty, staff and students who worked so hard to make the search process run smoothly and effectively. On the humor front, particular highlights include the “dress like Bill Z” day, and the new standard of excellence for communicating science, four faculty “dancing a research paper” at the banquet (yes, there are versions of this on youtube).

Finally, as some of you head out of town right after finals, I would like to wish you an enjoyable and productive summer as well as safe travels if you are on the road for research, study or other forms of pleasure and enlightenment.

UPCOMING MEETINGS / EVENTS

Thursday, May 5
- EAS Executive Committee, CIVL 2201 (9 a.m.)

Friday, May 6
- Computing Committee, CIVL 2201 (9 a.m.)
- Retirement Reception for Carolyn Laffoon, CIVL 2201 (2:30-4 p.m.)

OUR RECENT PUBLICATIONS


RECENT PRESENTATIONS
Matthew Huber gave two seminars, one at the Harvard EPS Department: "Progress report on the Eocene 'low gradient' and 'equable' climate problems” on April 26, and the other one on April 25 in the MIT EAPS Department: "Thermostats, amplifiers, and rectifiers: What past warm climates can teach us about dynamics."

STUDENT SESSION

ADVISORY BOARD MEETING

The students met with our Advisory Board to discuss “preparing students for diverse careers.” The Advisory Board took input from the students during the morning session and prepared a presentation that was given later in the afternoon to select EAS faculty involved in the undergraduate and graduate committees.
SPRING GRADUATES

Ali Can Bakir, M.S.
Advisor: Robert Nowack
Thesis Title: Modeling of Seismic Pn Attributes using the Spectral-Element Method for Velocity and Attenuation Structure of the Tibetan Lithosphere

C. Kendra Castillo, Ph.D.
Advisor: Kevin Gurney
Thesis Title: Determining Biophysical, Carbon and Climate Feedbacks of Tropical Deforestation: Do the Pathways Matter in Both Science and Policy?

Ming Lei, Ph.D.
Advisor: Dev Niyogi
Dissertation Title: Urbanization Impacts on Mesoscale Rainfall and Severe Weather

Ryan Neufelder, M.S.
Advisor: Brenda Bowen
Thesis Title: Petrographic, Mineralogical, and Geochemical Evidence of Diagenesis in the Eau Claire Formation: Implications for Sealing Capability in a Carbon Dioxide Sequestration System

Tonya Richardson, M.S.
Advisors: Hersh Gilbert/Ken Ridgway
Thesis Title: A Geophysical and Geologic Analysis of the Development, Structure, and Activity of the Eastern Sierras Pampeanas, Argentina

Jinyun Tang – Ph.D.
Advisor: Qianlai Zhuang
Thesis Title: Improving a Process-Based Biogeochemistry Model Using an Atmospheric Transport Chemistry Model and In-Situ and Remotely-Sensed Terrestrial and Atmospheric Data

FRANK PRESS AWARD

Eric Calais has been selected to receive the Frank Press Award from the Seismological Society of America. This award honors outstanding contributions to the advancement of public safety or public information relating to seismology. It is a measure of how much respect his colleagues have for the exceptional work he has done in Haiti. The presentation of the award will take place during the 2012 Annual Meeting, April 17-19 in San Diego.

PURDUE-LED TEAM STUDIES EARTH'S RECOVERY FROM PREHISTORIC GLOBAL WARMING

The Earth may be able to recover from rising carbon dioxide emissions faster than previously thought, according to evidence from a prehistoric event analyzed by a Purdue University team led by Gabe Bowen. Read more...

SCIENCE HIGHLIGHT

Jay Melosh’s presentation on the asteroid Vesta at the 2011 Lunar and Planetary Science conference has been highlighted in the April 15 issue of Science Magazine by Science news writer Dick Kerr (Melosh’s presentation is one of only four out of the entire conference that he chose to highlight – and one other highlights the work of Bill Bottke, a former student of his). The full citation to the newspiece is: R. A. Kerr (2011) A Badly Battered Vesta Awaits Dawn’s Arrival, Science, 323, p. 303 (15 April 2011).

OUTSTANDING STUDENT PAPER AWARD

Timothy Bowling has been selected to receive an Outstanding Student Paper Award for his presentation titled, “Detection and modeling of the acoustic perturbation produced by the launch of the Space Shuttle using the Global Positioning System” at the 2010 Fall Meeting in San Francisco, California. His presentation was recognized as among the best of a strong group of student presenters. Outstanding Student Paper Award winners will be announced in an upcoming publication of Eos, the weekly newspaper of AGU. Congratulations Tim!

NAGT FIELD STUDY SCHOLARSHIP

EAS Undergraduate, Andrea Stevens, has been awarded the National Association of Geoscience Teachers (NAGT) Field Study Scholarship. As one of the two top women candidates in this national competition, she is receiving an NAGT award sponsored by the Association for Women Geoscientists. She is one of only 18 outstanding
undergraduates to earn this highly competitive national award, ranking 2nd overall out of this year's field of 75 applicants. She will receive $500 toward her field camp costs and recognition on the NAGT website. Congratulations Andrea!

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**EAS ANNUAL AWARDS PROGRAM**  
**April 25, 2011**

**INDUSTRY-SUPPORTED AWARDS**

**Chesapeake Energy Graduate Scholarship**  
Established by the Chesapeake Energy Corporation. Awarded to a graduate student who shows outstanding achievement in scholarship, research and/or service.  
**Presenter:** Mark Lester  
**Recipients:** Darryl Reano (was awarded Fall 2010), Haylee Dickinson, Kelvin Koster, Thomas Lovell, Stacy Story

**Chesapeake Energy Undergraduate Scholarship**  
Established by the Chesapeake Energy Corporation. Awarded to an undergraduate student who shows outstanding achievement in scholarship, research and/or service.  
**Presenter:** Mark Lester  
**Recipients:** Rebecca Bobick, Brenton Chentnik, Casey Reid, John Shufflebarger

**Mobil Oil Geology Graduate Award**  
Awarded to a graduate student who wishes to pursue a career in the geology field.  
**Presenter:** Brenda Bowen  
**Recipient:** Julianne Bell

**Chevron Corporation Graduate Student Research Support**  
Awarded to a graduate student who wishes to pursue a career in an energy-related industry.  
**Presenter:** Ken Ridgway  
**Recipient:** Darryl Reano (was awarded Fall 2010)

**FRIENDS OF EAS AWARDS**

**Henry Silver Graduate Scholarship**  
Established in honor of Henry Silver, a 1934 Purdue Alumnus. Presented to a graduate student in environmental geosciences including environmental aspects of Atmospheric Science, Hydrogeology, and Engineering Geology.  
**Presenter:** Brenda Bowen  
**Recipients:** Darryl Reano, Stacy Story

**Terry R. West Scholarship**  
Established in recognition of Dr. West’s 40 years of teaching geology at Purdue University. Presented to students pursuing a degree in the applied geological sciences, involving engineering/environmental geology, hydrogeology, or geophysics.  
**Presenter:** Terry West  
**Recipients:** Nicholas Farny, Zachary Umperovitch

**William J. Hinze Graduate Award in Exploration Geophysics**  
Established in recognition of Dr. Hinze’s 75th Birthday and for his contributions as a professor in EAS for 25 years. Presented to students studying exploration geophysics including the investigation or application of geophysical techniques that are used to determine Earth structure and properties.  
**Presenter:** William Hinze  
**Recipients:** Haylee Dickinson, Sribharath Kainkaryam, D. Sarah Stamps

**Cedric J. Newby Award**  
Established in honor of Cedric J. Newby, a 1923 graduate of Civil Engineering who worked as a Plane-table Engineer and was Head of the Humble Oil Exploration Section at Humble Oil and Refining Company in Houston. Presented to students pursuing a degree in solid-earth geosciences leading to professional employment as a geophysicist.  
**Presenter:** Robert Nowack  
**Recipients:** Nicholas Black, Haylee Dickinson, Nicholas Farny, Paula Giryn, Sribharath Kainkaryam, D. Sarah Stamps, Zachary Umperovitch, Shen Wang

**Dr. and Mrs. William R. Gommel Award in Atmospheric Science**  
Established to recognize an outstanding junior in the Atmospheric Science major based on academic merit.  
**Recipient:** Kandace Kiefer

**Hydrologists Helping Others**  
Established to support foster involvement by Purdue students in water-related projects in distressed areas by providing national and international travel grants.  
**Presenter:** Ken Ridgway  
**Recipients:** Jacob Niemeier, Laurent Ahialblame, Taisha Venort, Genevieve Viduya, Monette Viduya
**FIELD GEOLOGY AWARDS**

**Michael C. Gardner Memorial Award**

Funded by relatives and friends in the oil industry in memory of EAS geology graduate student Michael Gardner. Presented to a graduate student whose research is field-oriented in the areas of structure/tectonic and stratigraphy/sedimentation.

*Presenter:* Gabe Bowen  
*Recipients:* Clément Bataille

**Ned Smith Memorial Field Camp Award**

Presented to students attending a field camp in earth sciences and who have demonstrated academic proficiency in their field of study.

*Presenter:* Ken Ridgway  
*Recipients:* Nicholas Black, Jane Block, Rebecca Bobick, Jonathan Buening, Brenton Chentnik, Tyler Chisholm, Molly Crowell, Joseph Dixon, Steven Goedde, Matt Jackson, Colleen Klockow, Mark McLochlin, Tyler Merrell, Jordan Nicholson, Casey Reid, Vishnu Srinivasaraghavan, Andrea Stevens, Justin Wright

**UNDERGRADUATE AWARDS**

**Kathryn Pokorny Scholarship**

Established in memory of Kathryn Pokorny, who was to be a freshman in EAS in Fall 1999 to fulfill her lifelong dream to become a meteorologist. Awarded to an incoming undergraduate student.

*Presenter:* Sonia Lasher-Trapp  
*Recipient:* Morgan Griffith (awarded Fall 2010)

**Henry Silver Undergraduate Scholarship**

Established in honor of Henry Silver, a 1934 Purdue Alumnus. Presented to an undergraduate student in environmental geosciences including environmental aspects of Atmospheric Science, Hydrogeology, and Engineering Geology.

*Presenter:* Brenda Bowen  
*Recipient:* Juan Crespo

**Wilton Melhorn Undergraduate Scholars Award**

Established in honor of Wilton Melhorn, a former EAS faculty member and Department Head. Awarded to an undergraduate student who excels in academics.

*Recipient:* Nathan Bleeke

**EAS Freshman Top Scholars**

Merit-based Presidential, Trustees, and Emerging Leaders scholarships awarded in Fall 2010 for incoming freshmen with superior academic records in math, science, English, social studies and foreign language.

*Presenter:* Michael Baldwin  
*Recipient:* Blake Cotcamp, Hilarie Hahus, Michael Kula, Ashley Murray, Trevor Williams

**Senior Student Recognitions**

Recognition of all graduating seniors

*Presenters:* Sonia Lasher-Trapp and Nancy Stewart, Undergraduate Counselor

*Recipients:* Nicholas Black, Joshua Holland, Jared Blatsioris, Aaron Hurley, Jonathan Buening, Erik Larson, Brittany Davila, Timothy Lucko, Shawn Dedeker, Jeffry Neufer, Kathryn Demchak, John Martin, Joseph Dixon, Justin Pflug, Matthew Dixon, Lacey Rhudy, Brian Doogs, Matthew Rudkin, Taylor Egan, Shadya Sanders, Jessica Gephard, Jessica Starrett, Cheyne Geverd, Andrea Stevens, Paula Giryn, Zachery Umperovitch, Meghan Henschen, Kevin Van Leer, Brittany Herrholtz, Kristen Werling

**GRADUATE STUDENT EXPO AWARDS**

*Presenter:* Jeff Trapp

**Outstanding Presentations**

**Courtney Creamer:** "Mechanisms of soil carbon accrual in response to woody plant encroachment"

**D. Sarah Stamps:** "Kinematic constraints on the Lwandle-Somalian plate boundary across Madagascar from GPS geodesy"

**Outstanding Posters**

**Patrick Brennan:** "Detrital zircon record of the exhumation of the highest mountain belt in North America: Central Alaska Range, Tanana Basin, Alaska"

**Roby Douilly:** "Estimating ground motions in the Port-au-Prince region associated with a future earthquake on the Enriquillo Fault"

**COLLEGE FACULTY AND STAFF AWARDS**

**Leadership Award**

Recognizes excellence in leadership that improves the environment for faculty, staff, and students and promotes diversity and inclusiveness in the College.

*Recipient:* Dee Gillespie

**Engagement Award for Faculty**

Recognizes demonstrated excellence in innovation and impact in engagement.

*Recipient:* Elizabeth McNie
Graduate Student Mentor Award for Faculty recognizes excellence in effectively nurturing the professional and personal growth of graduate students.

Recipient: Gerald Krockover

Leadership Award for Faculty recognizes excellence in leadership that improves the environment for faculty, staff, and students and promotes diversity and inclusiveness in the College.

Recipient: Eric Riggs

Undergraduate Advising Award for Faculty recognizes excellence in advising and mentoring undergraduate students in their professional and personal growth.

Recipient: Greg Michalski

OUTSTANDING STUDENT AWARDS

Outstanding Undergraduate Students (sponsored by ExxonMobil)
Awarded to undergraduate students demonstrating outstanding scholarship and/or service.

Presenter: Saad Haq

Recipients:
Senior (ATMS), Kevin Van Leer
Senior (Solid Earth), Zachary Umperovitch
Junior, Kandace Kiefer
Sophomore, Nathan Bleeke
Freshman, Trevor Williams

Outstanding Graduate Student (sponsored by ExxonMobil)
Awarded to a student demonstrating outstanding scholarship and research achievement as well as excellence in teaching and/or service.

Recipient: Shen Wang

CONGRATULATIONS TO ALL!!!

DRESS LIKE ZINSMEISTER DAY

On April 29, in Prof. Zinsmeister's Earth History class they had "Dress like Zinsmeister Day" to show how much they love Zinsmeister and want to be just like him! The last class they talked to him about how you should dress for success - so today for their final exam they did! From left to right is: Elisa Baumgardt (junior), Zins, Kristen Werling (senior), and Josiah Maas (sophomore).

CUTTING EDGE EVENT:
STRATEGIC EARLY CAREER PLANNING

This virtual event is one of a series on Pursuing an Academic Career in the Geosciences offered by the On the Cutting Edge program with support from the National Science Foundation. Read more...

EAS LIBRARY NEWS

Gift to EAS
Carolyn’s parting gift to the department of EAS: the electronic backfiles (v.1, 1873–) of the QJRMS (Quarterly Journal of the Royal Meteorological Society). Regular price: $9000. Our price: $4500. Even though the EAS library budget was depleted, Michael Fosmire approved the additional funds to pay for this order! They should be available within the next two weeks.

Carolyn Laffoon

The QJRMS is one of the foremost journals in the atmospheric sciences, international in its scope and broad in its content. To have a full set of this journal available will prove to be of great benefit to both students and faculty. Many thanks to Carolyn for making this acquisition possible.

Dr. Phil Smith

Searching for Newest Books

The new catalog does not allow searching new books received within a specific time period, such as 2 weeks. The only way to search new books is by subject and year. Instructions: from CATALOG tab, choose ADVANCED SEARCH. In dropdown, choose SUBJECT. In next dropdown, choose YEAR OF PUBLICATION. The search, if done for 2011, will show everything received that has a 2011 publication date. Here is the url for a search for the 2011 EARTH SCIENCES:

http://catalog.lib.purdue.edu/Find/Search/Home?type%5B%5D=subject&lookfor%5B%5D=earth+sciences&bool%5B%5D=AND&type%5B%5D=year&lookfor%5B%5D=2011&bool%5B%5D=AND&type%5B%5D=all&lookfor%5B%5D=&submit=Find

Here is the url for a search for the 2011 METEOROLOGY books:

http://catalog.lib.purdue.edu/Find/Search/Home?type%5B%5D=subject&lookfor%5B%5D=meteorology&bool%5B%5D=AND&type%5B%5D=year&lookfor%5B%5D=2011&bool%5B%5D=AND&type%5B%5D=all&lookfor%5B%5D=&submit=Find

Sorry for the inconvenience, but this new catalog does not offer more specific time-sensitive searches.
**A NOTE FROM OUR ACADEMIC COUNSELOR**

Congratulations to EAS May 2011 Candidates

- Jared T. Blatsioris
- Brittany A. Davila
- Katherine A. Demchak
- Shawn A. Dedeker
- Matthew J. Dixon
- Jessica E. Gephard
- Paula A. Giryn
- Meghan F. Henschen
- Brittany N. Herrholtz
- Joshua A. Holland
- Aaron C. Hurley
- Erik D. Larson
- Timothy M. Lucko
- Justin W. Pflug
- Matthew D. Rudkin
- Shadya J. Sanders
- Zachary A. Umperovitch
- Kevin W. Van Leer
- Kristen N. Werling

Spring Commencement for the College of Science is Saturday, May 14 at 2:30 p.m. in the Elliott Hall of Music. Ceremonies can be seen [here](http://www.purdue.edu/eas/)
or on Comcast Channel 5 or Boiler TV Channel 13.

Nancy

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**HAPPY BIRTHDAY!!!**

- Jon Harbor – May 5
- Bill Zinsmeister – May 6
- Dan Shepardson – May 26
- Saad Haq – June 1
- Melissa Guinn – June 5

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**IMPORTANT NOTICE ABOUT THIS NEWSLETTER**

This newsletter will now be 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 EAS website at [www.purdue.edu/eas/](http://www.purdue.edu/eas/) and Click on News to access active links as needed. Material for inclusion in the newsletter should be submitted to Gina Richey (grichey@purdue.edu) by Friday noon 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 EAS Technology Support staff, please visit [http://www.purdue.edu/eas/info_tech/index.php](http://www.purdue.edu/eas/info_tech/index.php).

Also, as an additional resource for information about departmental events, seminars, deadlines, etc., see our departmental calendar at [http://calendar.science.purdue.edu/eas/seminars](http://calendar.science.purdue.edu/eas/seminars).
RETIREMENT RECEPTION

For
Carolyn Laffoon
Dept. Earth & Atmospheric Sciences
Professional Librarian

Friday, May 6, 2011
2:30-4:00 p.m.
Room 2201 CIVL Bldg.
Global Sustainability Initiative

Research & Development in the 2012 Budget, and Science & Technology Policy in the Obama Administration

Kei Koizumi
Assistant Director for Federal Research and Development
White House Office of Science and Technology Policy

Kei Koizumi is Assistant Director for the Federal Research and Development at the White House Office of Science and Technology Policy (OSTP). Koizumi joined OSTP in February 2009 after having served on the Obama transition team as part of the Technology, Innovation & Government Reform Policy Working Group.

Before joining OSTP, Koizumi served as the longtime Director of the R&D Budget and Policy Program at the American Association for the Advancement of Science (AAAS). He is known as a leading authority on federal science and technology funding, budget issues and is a frequent speaker to public groups and to the press.

Koizumi received his M.A. from the Center for International Science, Technology, and Public Policy program at George Washington University, and received his B.A. in Political Science and Economics from Boston University. He is a Fellow of the American Association for the Advancement of Science.

Thursday May 12, 2011 | 8:30 am | Fu Room, Potter 234

Purdue University Discovery Park | Sponsored by Global Sustainability Initiative
Please join us as Purdue welcomes
Zhores I. Alferov
Director, Ioffe Physico-Technical Institute, Russia
Nobel Laureate in Physics
for the Philip F. Bagwell Lecture
Celebrating the memory of Philip Bagwell, former associate professor in Electrical and Computer Engineering.

It would be very difficult today to imagine solid-state physics without semiconductor heterostructures. Semiconductor heterostructures and especially double heterostructures, including quantum wells, quantum wires and quantum dots, currently comprise the object of investigation of two thirds of all research groups in the physics of semiconductors.

The development of the physics and technology of semiconductor heterostructures has brought about tremendous changes in our everyday lives. Heterostructure-based electron devices are widely used in many areas of human activity. Life without telecommunication systems utilizing double-heterostructure (DHS) lasers, without heterostructure light-emitting diodes (LEDs) and bipolar transistors, or without the low-noise, high-electron-mobility transistors (HEMTs) used in high-frequency devices, including satellite television systems, is scarcely conceivable. Solar cells incorporating heterostructures are used extensively in both space and terrestrial programs.

Prof. Zhores I. Alferov contributed significantly to the creation of modern heterostructure physics and electronics. He is an inventor of the heterotransistor and the winner of the 2000 Nobel Prize in Physics. For his outstanding achievements, Prof. Alferov was honored with many Soviet, Russian and International awards, such as: Franklin Institute Ballantyne Medal (USA, 1971); Lenin Prize (USSR, 1972); Nick Holonyak Jr. Award (Optical Society of America, 2000); Nobel Prize (Sweden, 2000); Kyoto Prize (Inamori Foundation, Japan, 2001); State Prize (Russian Federation, 2001); Golden Plate Award (Academy of Achievement, U.S.A., 2002); Golden Medal of the International Society for Optical Engineering (SPIE, 2002); Global Energy Prize (Russian Federation, 2005) and many others. Prof. Alferov is a member and Vice President of the USSR Academy of Sciences and President of its Saint Petersburg Scientific Center. He is a foreign member of the USA National Academy of Engineering and the USA National Academy of Science. He is also a foreign member of Academies of Science in many other countries throughout the world.
SAVE THE DATE!

56th MIDWEST GROUNDWATER CONFERENCE

to be held in
Lexington, Kentucky
September 19–23, 2011

Please respond to Jim Kipp at jim.kipp@uky.edu by June 1.

1. Are you planning to attend?
   This is not a commitment on your part but will help us plan in these difficult financial times.

2. Are you interested in a field trip to the Mammoth Cave area on September 19?

3. Please inform us of any conflicting meetings.

4. Would you like to jam at the Tuesday mixer with a house band?

More information will soon be available at:
http://kgs.uky.edu/kgsweb/MWGWC/

Please distribute to appropriate staff and colleagues.

The Conference will be held at
DoubleTree Guest Suites
2601 Richmond Road Lexington, Kentucky 40509