

October 17, 2011

UPCOMING MEETINGS

Monday, October 17 ****TODAY****

- Primary Committee, CIVL 3201 (11:30 a.m.)

Wednesday, October 19

- Primary Committee (Voting meeting), CIVL 3201 (11:30 a.m.)

Thursday, October 20

- Undergrad Committee, CIVL 2201 (9:15 a.m.)

Monday, October 24

- EAS Faculty Meeting, CIVL 3201 (11:30 a.m.)

EAS SEMINAR

Thursday, October 20, at 3:30 p.m. in CIVL 1252:

"Glaciers and Climate Change - Past, Present, and Inter-hemispheric Patterns." Joerg Schaefer, Lamont Doherty

Refreshments at 3 p.m. in CIVL 2201

For more information, see the EAS online [calendar](#).

OUR RECENT PUBLICATIONS

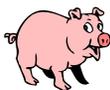
Agee, Ernest M., Alyssa Hendricks: An Assessment of the Climatology of Florida Hurricane-Induced Tornadoes (HITs): Technology vs. Meteorology. *J. Climate*, **24**, 5218-5222.

Gluhovsky, A., 2011: Statistical inference from atmospheric time series: Detecting trends and coherent structures. *Nonlin. Processes Geophys.*, **18**, 537-544.

Qin, Zhangcai, Qianlai Zhuang, and Min Chen, 2011: Impacts of land use change due to biofuel crops on carbon balance, bioenergy production, and agricultural yield, in the conterminous United States, *Glob Change Biol Bioenergy*, 1757-1707, <http://dx.doi.org/10.1111/j.1757-1707.2011.01129.x>.

9TH ANNUAL EAS HOG ROAST

The Grangers will be hosting the 9th annual EAS hog roast and bonfire October 22, this coming weekend. Please plan to come, and bring a side dish or something to share. See the [flyer](#) at the back of this newsletter for more details.



RECENT PRESENTATIONS

David Minton and Tim Bowling attended the joint DPS/EPSC meeting in Nantes, France October 2-7. The following talks and poster presentations were given. In addition, a talk on which David was coauthor received some press attention. See [article](#) about Levison et al. talk.

Talks:

T. Bowling, J. Richardson, H. J. Melosh, and P. Thomas, "Density Estimation of Comet 103P/Hartley 2"

D. Minton and R. Malhotra, "The sweeping nu6 secular resonance during giant planet migration: implications for models of the primordial excitation and depletion of the asteroid belt"

Posters:

D. Minton and H. Levison, "Reinventing planet formation: the important roles of planetesimal-driven migration and collisional grinding during embryo growth"

J. Richardson, P. Thomas, and **D. Minton**, "Illuminating the bombardment history of the outer solar system"

HOW TO WRITE AN NIH PROPOSAL OR RESUBMISSION: STRATEGIES, GRANTSMANSHIP AND REVIEW PROCESS WORKSHOP

The OVPR is hosting a series of three luncheon workshops designed to address various aspects of developing proposals to the National Institutes of Health. The second of these workshops, **How to Write an NIH Proposal or Resubmission: Strategies, Grantsmanship and Review Process**, will be presented by Perry Kirkham, project coordinator in the OVPR and former NIH program officer, and Sally Bond, lead proposal coordinator in the OVPR office.

The workshop is scheduled for November 2, 11:30 a.m.-1:00 p.m., in Stewart Center, Room 310. This workshop will address submission and grantsmanship strategies, and examine the review process. Knowledge and familiarity with NIH mechanisms and review procedures can be a

tremendous advantage during the writing, submission and post-review phases of your submission. As lunch is provided, registration is required. Please visit the OVPR website at https://purdue.qualtrics.com/SE/?SID=SV_6Wf2uUogcYjCqol to register.

7 BILLION PEOPLE 7 GRAND CHALLENGES



Registration is now open for the 2011 ESE Symposium, "Solutions for 7: 7 Billion People 7 Grand Challenges," which will be held November 8th and 9th at Purdue's Hall for Discovery Learning and Research in Discovery Park. The symposium includes a keynote dinner, poster session, and several sets of short talks addressing a variety of issues.

Please note the poster session is open to both undergraduate and graduate students from all programs (not just ESE students). **Please spread the word!**

Register by October 21st at <http://www.purdue.edu/esesymposium/>.

Sponsored in part by the Department of Earth and Atmospheric Sciences.

2012 EXXONMOBIL GEOSCIENCE GRANTS

ExxonMobil is pleased to be able to make available ten research grants of \$7500 each to provide partial support for master's and doctoral thesis research in all fields of geosciences. [Read more...](#)

A NOTE FROM OUR ACADEMIC COUNSELOR EPICS

EPICS is a program that brings together students from multiple majors to work on community service projects. There are several that would be of interest to EAS majors, and one credit of EPICS at any level is enough to meet the College of Science

Multidisciplinary requirement. It would also meet Teambuilding Experience as long as you met the Principles requirement first or concurrently. Go to www.purdue.edu/EPICS for more information.

Get Smart - Stay Smart

The FBI and Purdue discuss cyber security and ways to keep your mobile devices and information secure. To see all of the details, go to: <http://www.purdue.edu/securePurdue/training/cyberscurity2011.cfm>.

Career Building Events

Students who want to learn how to build their personal brand can attend the, "5 Steps to Build Your Personal Brand Webinar" on Wednesday, **October 19** at 3 p.m. in Stewart 322. Sherri Thomas, president of Career Coaching 360, will be the guest speaker.

International students looking for more info about obtaining work authorization can attend the International Students Clinic-Work Authorization on **October 19** from 6-7 p.m. in WTHR 104.

Reminder:

Wednesday, **October 26**, is the last day to drop a fall class. Those classified as freshman need only advisor and student signatures on their paperwork. All others also need instructor's signature and the "grade." All drops require paperwork to be submitted to Room 45 Hovde.

Nancy

HAPPY BIRTHDAY!!!

Dev Niyogi – October 18

Darrell Leap – October 19

Gabe Bowen – October 21

Sonia Lasher-Trapp – October 22



Special Seminar



New Insights into Martian Atmospheric Chemistry

by Chris Blaszczak-Boxe

NASA-JPL

Tuesday October 18, 2011

at 9:30 am

in WTHR 201

New Insights into Martian Atmospheric Chemistry

C. S. Boxe

*Earth and Space Science Division, Jet Propulsion Laboratory,
California Institute of Technology*

Abstract

HO_x radicals are produced in the Martian atmosphere by the photolysis of water vapor and subsequently participate in catalytic cycles that recycle carbon dioxide (CO₂) from its photolysis product carbon monoxide (CO), providing a qualitative explanation for the stability of its atmosphere. Balancing CO₂ production and loss based on our current understanding of Martian gas-phase chemistry has, however, proven to be difficult. The photolysis of O₃ produces O(¹D), while oxidation of CO produces HOCO radicals, a new member of the HO_x family. The O(¹D) quantum yield has recently been updated, which quantifies nonzero quantum yields in the Huggins bands. Limited kinetic data on reactions involving HOCO prevented consideration of its reactions directly in atmospheric models. Therefore, the impact of HOCO reactions on Martian chemistry is currently unknown. Here, I incorporate new literature rate constants for HOCO chemistry and an updated representation of the O(¹D) quantum yield in the Caltech/JPL 1-D photochemical model for Mars' atmosphere. I will present the impact of these parameterizations on the atmospheric state of Mars, in addition to complementary research efforts, which will entail incorporating heterogeneous processes in the 1-D, 2-D, and 3-D Caltech/JPL Mars models. My talk will conclude with a description of my broader research foci, encompassing earth and planetary modeling and renewable and sustainable energy.

Thursday, October 20, 2011

6:00 PM

HAAS 111

Professor Frederi Viens

Depts Statistics and Mathematics

Director for Statistics Computational Finance Program

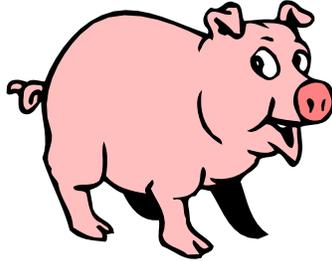
**"Climate Change Negotiations, Environmental
Stewardship, Energy Poverty:
Science Engagement and Challenges in Africa"**

Abstract: The Franklin Fellowship is a national recognition accorded by the U.S. Department of State, via which "approved organizations can promote public service by [sharing their] mid-career and more senior employees to work on global issues of vital importance to the United States." Professor Viens traveled to Washington, DC, to work as a Franklin Fellow in 2011-2012. A position of Science Adviser was created for Professor Viens in the Bureau of African Affairs, in which he was responsible for coverage of all science and technology topics, in the context of the United States' foreign relations with sub-Saharan African nations.

In this presentation, Professor Viens will briefly describe examples of the types of activities he was involved in as a member of the Africa Bureau. He will also discuss a number of topics, primarily in the areas of climate change, natural resources management, and renewable energy, which remain severely understudied in Africa and other parts of the developing world, but are nonetheless crucial for the purpose of informing public policy here and abroad in the near future. He hopes to describe opportunities that statisticians might have to address some of these gaps, using tools such as machine learning from remote sensing, and Bayesian and stochastic modeling. The intent in this presentation is to leave ample time for questions and discussion.

Please see: <http://www.stat.purdue.edu/> for the full story.

9th Annual EAS/PRIME Lab Hog Roast & Bonfire



October 22, 2011
5:30pm-??

At the home of Darryl and Allison Granger
3025 State Road 25 West
Shadeland
471-4654

Please Bring:

A side dish or drinks, and a chair to sit on!

Directions:

From West Lafayette, take 231 S across the river and turn right at State Road 25 W. Continue for about 3 miles (just past the gas station). Look for a white farmhouse on the left and a big red barn.

Purdue University

Department of Earth and Atmospheric Science

November 14-15, 2011

Recruiter: Bob Stewart

ExxonMobil Geoscience



ExxonMobil will interview students interested in petroleum geoscience-related careers in these areas:

Exploration

Development

Production

Geophysics Specialties

Research

Applicants are required to fill out an online application and post a copy of their resume on our website one week prior to interviewing with our campus recruiter. **We do not accept hard copy applications.** Copies of transcripts should also be posted on the website or brought to the interview. At this stage of the process, "unofficial" school versions of transcripts will be accepted as attachments to the online submittal. The ExxonMobil website is www.exxonmobil.com/apply.

The time and location of the orientation will be designated by the Department.

Candidates for Regular Employment:

For those interested in careers in Exploration, Development and/or Production, we will be interviewing graduate students receiving a MS or a PhD degree in Geology or Geophysics. For those interested in careers in Research, we will be interviewing graduate students receiving a PhD degree and post-doctoral fellows in the following areas: Geology, Geophysics, Math, Electrical Engineering, Physics and Computer Science.

Candidates for Internships:

We are very interested in interviewing students who meet the following requirements:

- Will be completing their MS or PhD degree program within one year (two years for PhD) after their internship.
- Ability to work approximately three months.

Internships are available throughout the year. Although we will give preference to those students graduating in 2012 or 2013, we will be happy to discuss career opportunities with other students as the interview schedule permits.

ELIGIBILITY INFORMATION APPLICABLE TO CANDIDATES FOR REGULAR AND INTERNSHIP EMPLOYMENT

Applicants for regular U.S. positions must be a U.S. citizen or national, or an alien admitted as permanent resident, refugee, asylee, or temporary resident under 8 USC 1160(a) or 1255a(a)(1). Individuals with temporary visas such as F-1, H-1, H-2, L, B, or J, or who need sponsorship for work authorization now or in the future, are not eligible. ExxonMobil makes a limited number of exceptions to the above criteria (i.e., we may provide visa sponsorship) for applicants with a M.S. and/or a Ph.D. degree in certain research or geophysical specialty disciplines. If you fit these criteria and are interested, please utilize the www.exxonmobil.com/apply website for your application submittal and/or ask one of our campus recruiters for specific details.

Applicants for internship must have the legal right to work in the U.S. during the period of the internship. If you are interested in regular U.S. employment after your internship, you must be able to meet the regular U.S. hiring criteria at the time of regular U.S. hiring.

Individuals who have authorization to work in countries where ExxonMobil has geoscience staff such as Angola, Nigeria, Europe, Malaysia, Indonesia, Russia, and the Middle Eastern countries, may be considered for employment by our affiliates in these locations and should sign up to interview for such employment. Students currently attending school in the U.S. who have authority to work in one of the above countries and are interested in these opportunities should utilize the www.exxonmobil.com/apply website.

EXXONMOBIL IS AN EQUAL OPPORTUNITY EMPLOYER