

March 26, 2007

UPCOMING MEETINGS

Monday, March 26

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

Monday, April 2

- Leadership Team, CIVL 2173 (11 a.m.)
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SEMINARS

Thursday, March 29, at 3:30 p.m. in CIVL 1252:

"The Impact of the Antarctic Ozone Hole on Climate Change at the Earth's Surface." David W. J. Thompson, Colorado State University

(Refreshments at 3 p.m. in CIVL 2201)

Friday, March 30, at 12:30 p.m. in CIVL 4251:

"A Look at Space-Based Atmospheric Remote Sensing (from Where I Sit)." Perry G. Ramsey, ITT Aerospace/Communications, Ft. Wayne, Indiana

For more information on seminars and meetings, see the EAS Seminars and Events [calendar](#).

RECENT PRESENTATIONS

On March 10, 2007, Jeff Trapp gave an invited presentation on "The State of the Science of Tornadoes" at the IMO Skywarn Advanced Spotter Training Workshop in Elkhart, Indiana.

Sonia Lasher-Trapp was invited to give the Stout Lecture in the Department of Geosciences at the University of Nebraska -Lincoln on March 23rd. Her presentation was titled, "Aerosol Effects upon Supercooled Clouds and Aircraft Icing". She also spoke to their undergraduate AMS chapter on March 22nd on "Careers in the Atmospheric Sciences".

The following three invited papers were presented at the SIAM Conference on Mathematical and Computational Issues in the Geosciences, March 19, 2007 Santa Fe, New Mexico:

"Dispersion of Microbes in Porous Media," John H. Cushman

"Anomalous Dispersion: Angstroms to Kilometers," John H. Cushman

"Three Regime Model for Drug Delivery Systems: Flow and Transport Models," Tessa Weinstein

RECENT WORKSHOPS

On March 15-16, 2007, Professor Qianlai Zhuang chaired the Second Workshop of his methane Working Group, entitled "Toward an adequate quantification of methane emissions from land ecosystems: Integrating field and in-situ observations, satellite data, and modeling" at National Center for Ecological Analysis and Synthesis, Santa Barbara, California. His lab members, Dr. Jingfeng Xiao and Mr. Jinyun Tang, also attended the workshop. The working group consists of scientists on measurements of methane fluxes and concentrations with in-situ and satellite techniques, process-based biogeochemistry modeling, inverse and atmospheric transport modeling, and microbiology from research institutions of US Universities and agencies including NOAA, NASA, USDA, and USGS. The working group also includes methane experts from UK, Sweden, Russia, Netherlands, and Canada.

During the Midwest Bow Echo Workshop, held in Louisville, Kentucky on 28 February - 1 March 2007, the following presentations were given:

"Real-Data and Idealized Simulations of the 4 July 2004 Bow Echo Event," Kent Knopfmeier

"A Review of Low-Level Mesovortices in Quasi-Linear Convective Systems," Jeff Trapp

"Numerical Simulation of Quasi-Linear Convective Systems in Heterogeneous Mesoscale Environments," Dusty Wheatley

This workshop was organized by Angie Lese (BS 2001; MS 2003), who is a forecaster at the National Weather Service Office in Louisville.

STRATEGIC PLANNING MEETING

Eric Riggs participated in the NSF GEOVision 2007 strategic planning meeting at NCAR in Boulder, Colorado, March 19-20, 2007, as part of our work on behalf of the NSF GEO Advisory Committee. Our task is to craft the next 10-year strategic plan for the NSF Geosciences Directorate.

FROM OUR BUSINESS OFFICE

Recent Proposals

- Baldwin, Michael E., and Trapp, Robert J.: An Experimental, Real-time Prediction System for High-impact Convective Weather Events. UCAR/NOAA – \$46,405
- Bowen, Brenda B., and Bell, Julianne: Spectral Reflectance Characteristics of a Modern and an Ancient Mars Analog Environment. NASA – \$24,000
- Bowen, Gabriel J.: Geographic and seasonal variations in stable isotope ratios of water. University of Utah/DOD – \$13,422
- Calais, Eric, Haase, Jennifer S., and Garrison, James L.: Requirements for a Radio Occultation GPS Antenna for Ionospheric Sensing from Balloons. First RF Corp/AFOSR – \$33,000
- Cushman, John H., Pyrak-Nolte, Laura, Tung, Wen-wen, and Xiu, Dongbin: CMG Training: Summer School on Dispersion in Terrestrial, Atmospheric and Oceanographic Sciences. NSF – \$199,432
- Haase, Jennifer S., and Baldwin, Michael E.: Development of Wireless Technology Teamwork Learning in Meteorology for Alternative Energy Evaluation. Hewlett Packard – \$74,000
- Haase, Jennifer S., and Xie, Feiqin: IPY: GPS Radio Occultation Sounding of the Antarctic Atmosphere from Stratospheric Balloons. NSF – \$1,040,261
- Harshvardhan, and Shcherbyna, Mariya: Combination of Numerical Modeling with Space- and Ground-based Lidar Aerosol Profiles to Improve our Understanding of Aerosol Spatial and Temporal Variations. NASA – \$24,000
- Hacker, Thomas J., Huber, Matthew, Ouzzani, Mourad, Song, Xiaohui, and Witt, Michael C.: SDCI Data New: Dataspan - An Extensible Mapping Toolkit for Data Workflows and Repositories. NSF – \$997,754
- Prabhakar, Sunil K., Ebert, David, Huber, Matthew, Merwade, Venkatesh, and Song, Xiaohui: Title: III-CXT: EVA-Environmental Visual Analytics-Extracting Insight from Heterogeneous, Multi-Scale and Uncertain Environmental Data. NSF – \$449,948
- Huber, Matthew, Brandt, Daryl S., Hacker, Thomas J., Salt, David E., and Song, Xiaohui: MRI: Acquisition of a High-speed Massive Storage System to Enable Petascale Data Intensive Collaborative Science: MountainStore. NSF – \$1,182,113
- Michalski, Greg: Collaborative Research: IPY: Coupled Biotic and Abiotic Nitrogen Cycles in the McMurdo Dry Valleys, Antarctica. NSF – \$488,560

- Michalski, Greg, Bowen, Gabriel J., and Filley, Timothy: Technician Support: A Technical Scientist/Lab Manager for the Purdue Stable Isotope Facility. NSF – \$399,974
- Niyogi, Devdutta S., and Chang, Hsin-I: Improved Land Surface Representation and Associated Land-atmosphere Interactions on Heavy Precipitation Events during the Indian Summer Monsoon Region. NASA – \$24,000
- Crawford, Melba M., Pijanowski, Bryan C., and Riggs, Eric M.: PIRE: International Research and Education on Global Change and Vegetation Dynamics in Tropical Woodlands. University of Virginia/NSF – \$660,000
- Trapp, Robert J., Hitchens, Nathan: Predictability of Sub-Daily Extreme Precipitation Events on Seasonal Time Scales. NASA – \$24,000
- Tung, Wen-wen: Collaborative Research: Quantifying Dynamical Predictability with Applications to Tropical Cyclone Track Predictions. NSF – \$177,858
- Zhang, Dabao, and Diffenbaugh, Noah S.: CMG Collaborative Research Proposal: Statistically Quantifying Uncertainties in 21st-Century Climate Extremes. NSF – \$346,614
- Zhuang, Qianlai, Shepson, Paul B.: Collaborative Research: Feedbacks and Interactions between the Biosphere, Cryosphere, and Atmosphere in the Arctic. NSF – \$446,193
- Zhuang, Qianlai, and Tang, Jinyun: Improving a Process-Based Biogeochemistry Model Using an Atmospheric Transport Chemistry Model and In-Situ and Remotely-Sensed Terrestrial and Atmospheric Data. NASA – \$24,000

Recent Awards

- Calais, Eric: Collaborative Research: Magma-Tectonic Processes in an Active Transitional Rift from Seismic, GPS, and Modeling Studies in Afar. NSF – \$213,059
- Krockover, Gerald H., and Bayley, William G.: Standards Based Integrated Science Instruction for the Middle Grades (SISI). IN Commission for Higher Education – \$322,719

A REMINDER FROM THE PROVOST

At this point in time, the end of the semester may seem far away. But it's not, and I want to remind you of two policies. First, exams and quizzes are not to be given during the last week of classes. Second, students who have more than two final exams in one day "are entitled to reschedule any examinations in excess of two. Similarly, students faced with a direct exam conflict are entitled to reschedule either examination" (University

Regulations Part 2, Section I, B. 5). Such arrangements should be requested before the last week of regularly scheduled classes. Thank you for your attention to the policies – and to the well being of our students.

A NOTE FROM OUR ACADEMIC COUNSELOR

Discovery Park Undergraduate Research Internship

DURI offers opportunities for about 50 research internships, and all majors are encouraged to apply. Benefits include a \$500 scholarship for each semester of participation; project descriptions and application [online](http://www.purdue.edu/dp/learningcenter/duri) at <http://www.purdue.edu/dp/learningcenter/duri>. Application deadline is **April 6** at 5 p.m.

Callouts:

Tuesday, March 27 4:30-5:30 p.m. REC 112
Monday, April 2 4:30-5:30 p.m. BRNG 1230

Etiquette Dinner

The Collegiate College Network is offering an etiquette dinner on Tuesday, April 3 from 5:30 - 8:30 p.m. at the Dauch Alumni Center in the Prusiecki Banquet Room. Tickets are \$16 (or \$11 if a CCN member) and can be purchased from the CCO in STEW 194. Business attire is required for the evening; it's a 5-course meal and an opportunity to network.

Job Fair Reminder

Friday, March 30 is the Indiana Collegiate Job at the Indiana Convention Center in downtown Indianapolis from 10 - 3. Registration is at the door for \$10, take plenty of resumes, and wear professional attire. You can research participating employers at <http://www.jobfairs.iupui.edu>.

Graduate Record Exam Changes

If you plan to take the GRE as part of your graduate school applications, please go to the GRE web site and read about the revised exam and upcoming test dates. The last date for the current exam to be given is July 31, 2007; the new test begins in September. Information at <http://www.ets.org/gre/>.

Nancy

HAPPY BIRTHDAY!!!

Joe Francisco – March 26

Dongbin Xiu – March 27



ABOUT THIS NEWSLETTER:

This weekly newsletter will be the place to look to keep up with departmental happenings, announcements (seminars, student group events, scholarship and award deadlines, departmental committees), job and grant opportunities, and anything else you need to know about the department. It should cut down on the glut of email and other forms of separate announcements – **if it is in the newsletter, we assume you know about it** and no other reminders are needed. Past issues will be available on our department web site (www.purdue.edu/eas/). 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 newsletter.

