EAPS PUBLICATIONS


D. Minton, Animation of the Mars Formation, OVPR, ITap, Purdue University. (See attached for article)

EAPS ALUMNI EVENTS

PURDUE EAPS Alumni & Friends Reception
2013 AMS Reception Invitation
Tuesday, January 8, 6:30-8:30 pm
Hilton Austin, 500 E. 4th Street, Austin, Texas. (See attached flyer)

CAMPUS NEWS

RELAY FOR LIFE OF PURDUE UNIVERSITY
APRIL 6-7, 2013
A call out for those interested in Relay for Life on January 15th at 7pm in Beering B286. Relay for Life raises money for the American Cancer Society to fund prevention programs, health and wellness programs, and cancer research. (See attached flyer for more details)

EARTH SCIENCE RESEARCH GRANTS AVAILABLE!

Ten grants are available for 2013 in amounts up to $3000/grant. The deadline for application is March 1st. http://www.evolvingearth.org

NASA Langley Research Center
The Langley Aerospace Research Student Scholars (LARSS) Research Internship Program

The NASA LARSS internship program is a paid (stipend) research experience open to U.S. citizens who are full-time undergraduate (juniors and seniors) and graduate students. http://www.nianet.org/larss
(See the attached flyer for details)

EAPS Library Information for Spring 2013

Welcome back to a great start for the new academic year! It's time to prepare your reserve lists for spring semester. The Libraries have moved to one online course reserve form, which will allow you to place materials on reserve at any of our library locations. The form is available at http://www.lib.purdue.edu/coursereserves.

This form should also be used if you would like us to order an item for reserve that is not owned by the Libraries or is marked as "lost" or "missing" in the catalog http://www.lib.purdue.edu/. Please be sure to include the ISBN.

Photocopies of Articles: Please bring photocopied articles with complete citation information to the service desk of the library where you would like them to be on reserve. If an electronic version of the article is available, we can assist you with linking this to your course management system. All articles are subject to federal copyright law compliance.

Personal Copies: We accept personal copies to put on reserve, but due to copyright compliance, cannot accept items marked as an instructor or examination copy. Please bring personal copies of books or media to the service desk of the desired library. Print and complete the form at http://www.lib.purdue.edu/coursereserves/ and submit with personal copies.

Media: Media items can be placed on reserve at the Hicks Undergraduate Library using this form: http://www.lib.purdue.edu/coursereserves/. Media viewing equipment is available in Hicks. Media may be scheduled for classroom viewing at http://www.lib.purdue.edu/ugrl/mediasched2.html or by contacting Teresa Balser at schedule@lib.purdue.edu or 49-46732.

I received a textbook list from the EAPS secretary and have ordered or placed on Reserve the textbooks that
were on that list. I do not need to be notified of these course textbooks unless you have decided to use a different one. Please use the form (click on link above) to let me know if you need any additional materials placed on reserve for your class.

Thank you and have a great semester!
Terry Wade, EAPS Library, 4-3264

**4th Annual MIDWEST GRADUATE RESEARCH SYMPOSIUM**

The University of Toledo, Saturday, April 20, 2013, 8:00 am – 7:30 pm. (See attached flyer for details)

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**Indiana Grant Competition for Innovative Uses of GIS Tools and Data**

The goal of this grant is to encourage graduate and undergraduate students to take advantage of Indiana’s geospatial data in solving real-world problems. Proposals will be judged based on their relevance to an identified need within the geospatial community, the value provided by the proposed project, and innovative use of geospatial data or tools. Projects using data available through the IndianaMap (www.indianamap.org) will be given priority, but any creative geospatial proposal will be reviewed.

Individuals and groups at universities affiliated with the Indiana Space Grant Consortium (https://engineering.purdue.edu/INSGC) are eligible to apply. Awards for grants of $5,000-$10,000 will be made. **Deadline for submission is January 31, 2013.**

**Award Categories**

Categories have been compiled with input from Indiana spatial data professionals. Applicants are encouraged to contact individuals in the geospatial community to verify the need for their proposed project. For a list of sample projects and contacts, see [www.igic.org/grants/categories.html](http://www.igic.org/grants/categories.html)

- Climate Change and the 2012 Drought
- Energy Technology Trends
- Environment
- Hydrology
- Agriculture
- Geospatial Technology
- Data Visualization
- Public Health, Disease, and Epidemiology
- Archaeology
- Food and Nutrition
- Community Organization and Resource Management
- Public Safety and Criminal Justice
- Public Policy
- Spatial Economics
- Sport, Tourism, Recreation and Public Spaces
- Transportation

**Submission Requirements**

Applicants must submit a digital application package with the following:

1. Two to three page Proposal Narrative
2. Budget Form and Narrative
3. Curriculum Vitae for Senior Personnel
4. Two Letters of Support

For more information, visit [www.igic.org/grants](http://www.igic.org/grants)

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**Indiana Geographic Information Council (IGIC) and Indiana Space Grant Consortium (INSGC) – Grant Competition**

The 2012-2013 Indiana grant competition for innovative uses of GIS tools and data. It opens for graduate and undergraduate students' who is taking advantage of Indiana’s geospatial data in solving real-world problems. The deadline is January 31, 2013.

(See attached for more details)

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**Predoctoral Training Awards In Translational Research**

The Indiana Clinical and Translational Sciences Institute (CTSI) is seeking applicants for special predoctoral training awards in translational research. Applications must be submitted by February 4, 2013, and awards will start July 1, 2013. Interested candidates should email their CV to Colleen Gabauer, Ed.D. at icts@purdue.edu (Ph: 765-494-9256).

(See attached flyer for more details)

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**OPEN POSITION**

UNIVERSITY OF WISCONSIN-MILWAUKEE

Visiting Assistant Professor

The position is for 2013-14, but may be renewed for up to three more years. Application deadline is February 28, 2013. To apply, please go to:

[http://jobs.uwm.edu/postings/11260](http://jobs.uwm.edu/postings/11260)

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**A Note from Our Academic Counselor**

**Experience Washington, D.C. through a Cultural and Social Justice Lens**

The Division of Diversity and Inclusion is sponsoring a cultural and social justice tour of Washington, D.C. January 18-21, 2013. Twenty-four undergraduate students will be selected for this opportunity that will include visits to museums, monuments, and a viewing of the Presidential Inauguration with peers from American University and Georgetown University. **APPLICATIONS MUST BE SUBMITTED BEFORE JANUARY 11 AT 8am:**


A committee will review all applicants and select students who would most benefit from and contribute to this shared learning experience; all students will be notified by January 14, 2013. If you are selected as a participant, you are expected to attend a Pre-Trip meeting on Wednesday January 16, 2013 from 7:30-9pm at the Black Cultural Center (BCC) Multi-Purpose Room 2 (MP2). There will also be a mandatory Post-Trip session following our experience.

If your application is accepted for participation, you will be required to bring a **$25 registration fee (cash, check, or money order)** to the Pre-Trip session on Wednesday, January 16, 2013.
This trip is not associated with any class, but students are expected to achieve the following learning outcomes:

- Attendees will develop a deeper understanding of current social and cultural issues in the United States and abroad.
- Attendees will increase awareness of the complex identity issues and experiences inherent in the lives of members of underrepresented populations.
- Attendees will recognize and articulate commonalities and differences among diverse populations within their historical and cultural contexts.
- Attendees will deepen their understanding of personal identity, culture, and heritage, as well as that of others.
- Attendees will be able to engage in meaningful conversations promoting and maintaining a hospitable campus climate for all students.

If you have any questions please do not hesitate to email Lowell Kane at kane14@purdue.edu or call 765-496-6231. This is a trip of a lifetime, so get your application in soon!

SOARS Internship Opportunity in Climate and Weather
SOARS stands for Significant Opportunities in Atmospheric Research and Science, and SOARS offers up to 4 year of summer research experience, strong mentoring, community support, funding for conferences, tuition support, and graduate school preparation; this program also offers a stipend, housing and transportation.

Their mission is to increase the diversity of the atmospheric and related sciences by involving more students from historically under-represented groups, including Black or African-American, American Indian or Alaska Native, Hispanic or Latino, female, first-generation college students and students with disabilities and welcomes lesbian, gay, bisexual, and transgender students. More than 90% of SOARS protégés have gone on to graduate school and careers in science. For an example of past research topics, please check out the Earth, Wind, Sea and Sky publication. Application deadline is February 1, 2013. www.soars.ucar.edu – soars@ucar.edu 303-497-8622.

RESESS: Research Experiences in Solid Earth Science for Students
The RESESS Internship is a multi-summer internship program, primarily funded by NSF OEDG, which is dedicated to increasing diversity in the geosciences. RESESS encourages applications from individuals who are members of a group that is historically under-represented in the Earth sciences and those from economically disadvantaged circumstances. A successful candidate usually will:

- Have completed the equivalent of two years of college.
- Have at least one semester of college remaining after the initial summer program.
- Have a cumulative GPA of 3.0 or higher.
- Have completed several courses in or have a major in geology, math, physics, geophysics, physical geography, engineering, environmental sciences, or hydrology.
- Be interested in pursuing a career in the Earth sciences or related science.
- Have U.S. citizenship or permanent-resident status.

Be comfortable with all the internship requirements, such as living in Boulder, Colorado, for the summer. Applications are due February 1, 2013.

Additional Links to Undergraduate Research Experiences and Opportunities
There is some overlap in what is listed, but they are good resources to search:
- Institute for Broadening Participation - Internship Search Engine
- Research Experiences for Undergraduates (REU) Sites, Division of Earth Sciences, National Science Foundation
- Undergraduate Summer Internships in Geological Sciences and Other Opportunities - Sheehan Geophysical Research Group List
- SMART Program
- For opportunities in Atmospheric Sciences, also check out NOAA Internships

2013 Research Experience for Undergraduates at Mote Marine Laboratory
Overview:
Each summer, Mote Marine Laboratory hosts a 10-week program focused on providing research experiences in estuarine science to 10 advanced undergraduate students. Students are paired with Mote scientists and develop and complete an independent research project related to their mentor’s research interests. Students gain experience in science communication by presenting the results of their independent projects in a manuscript-style research paper and orally at a laboratory-wide poster session. Students attend research seminars and workshops on career skills in science and also have the opportunity to present their research findings at professional conferences. Information about 2013 REU mentors and their programs, as well as the application procedures, are now posted on the REU web site: www.mote.org/reu. **All application materials are due on February 15, 2013**

CEINT(Centr for the Environmental Implications of NanoTechnology) Research Experience for Undergrads
When to Apply:
Applications are due February 15, 2013. To apply, click on this link: http://ceint.duke.edu/reu/apply
Overview:
Center for the Environmental Implications of NanoTechnology (CEINT) is accepting applications for summer 2013 for our NSF funded Center-wide Research Experience for Undergraduates Program (REU). Research sites include four CEINT partner institutions: Duke, Virginia Tech, and Carnegie Mellon Universities as well as the European Center for Research and Education in Geosciences and the Environment (CEREGE) in Aix-en-Provence, France.

Learning Opportunities:
- Participate in research linking physical and chemical properties of nano-scale materials with biological and ecosystem effects
- Design/conduct lab and field studies
- Learn how risk assessment provides feedback to guide future research
• Learn about parameters mitigating environmental impacts of nanomaterials at the cellular, organismic and ecosystem levels.
• Train in a rich array of lab and imaging technologies
• Engage in multi-university and global research experiences and networking
• Develop cutting edge skills to enhance success in applying for jobs, internships and graduate school.

Nature of Student Activities:
The CEINT REU Program is uniquely designed to guide undergraduate students toward independent interdisciplinary research in academic fields related to nano-science and engineering. These include Biomedical Engineering, Materials Science, Biology, Chemistry, Ecotoxicology, Geosciences, and Civil & Environmental Engineering.

Students meet for Orientation Week at Duke and develop their own website to foster student-to-student, student-to-faculty and site-to-site interactions. Faculty provide a basic orientation and background primer on nano-science and technology and an overview of opportunities available across CEINT sites.

Click on this link: http://ceint.duke.edu/reu/projects - EXAMPLE RESEARCH PROJECTS to review research projects available for REU students across the four placement sites- Duke, Carnegie Mellon and Virginia Tech Universities as well as the CEREGE in Aix-en-Provence, France.

Eligibility:
This internship is open to undergraduates who are majoring in engineering, chemistry, biology, physics, ecotoxicology or other fields related to nano-science and engineering. Applicants must also be either citizens or permanent residents of the US or its territories.

Duration and Stipend:
10 weeks (including 1 week orientation). Students will be onsite from May 28, 2013 until August 2, 2013. Participating students will receive a $4000 stipend plus housing and travel to research sites.

Program Contact: Dr. Glenda Kelly glenda.kelly@duke.edu

Deadline for application:
Students for US research placements will be notified of acceptance status by April 1, 2013 & by March 1 for the French CEREGE research site to allow early booking for the international travel.

Shannon Point Marine Center’s (SPMC) Research Experiences for Undergraduates

Program:
The National Science Foundation (NSF) Research Experiences for Undergraduates (REU) program provides support for undergraduate students to conduct independent, supervised research with a faculty advisor.

Each summer, eight students will be selected from a national pool to spend nine weeks at the Shannon Point Marine Center working with faculty supervisors in designing and conducting the research projects. At the end of the session, students will produce a written and an oral report based on the results of their research. In the past, student research projects have included work on productivity and nutrient cycling in local watershed systems; marine microbial ecology; marine chemical ecology; physiology of symbiosis; ecology and physiology of seaweeds; larval development, physiology, ecology; morphology of marine invertebrates; and environmental toxicology.

Student support includes a $4500 stipend plus a $567 food allowance, a travel allowance and housing (see Residential Facilities) at the Shannon Point Marine Center.

Facilities:
SPMC is located in Anacortes, Washington, 90 miles north of Seattle, Washington, and an equal distance south of Vancouver, British Columbia. The 87 acre campus includes teaching-research laboratories, six research vessels, and a dormitory with kitchen facilities available for food preparation. Located on the mainland, the Shannon Point Marine Center offers easy access to the marine and coastal environments of the Pacific Northwest, as well as the alpine environments of the Cascade Mountains and the Olympic Peninsula.

HOW TO APPLY:
• Applicants must be citizens or permanent residents of the United States and its possessions and must be enrolled in a degree program leading to a bachelor's degree. Students between their junior and senior years will receive preference; students who will have received their degree prior to August 23, 2013 are not eligible.
• Applicants are required to submit a letter describing their general background and interests in pursuing a research experience, undergraduate transcripts, and one letter of reference from an individual familiar with the student’s academic performance by February 15, 2013.
• Application materials may be submitted:
  • Mail to: Dr. Stephen D. Sulkin, Director, Shannon Point Marine Center, 1900 Shannon Point Road, Anacortes, WA 98221; or
  • Fax to: (360) 293-1083; or
  • Email to SPMC@wwu.edu

Funding for this REU site is provided by the National Science Foundation's Division of Ocean Science's located in Arlington, VA. The NSF contact for this program is Lisa Rom, elrom@NSF.gov, or 703-292-7709. NSF does not handle REU applications; please contact each REU site directly for application information.

To Get an Application Form go here: http://www.wwu.edu/spmc/docs/spreuapp.pdf Download the form to your computer before completing. *IMPORTANT: The application form works best from a desktop or laptop, not a tablet or smartphone. Download the form to the desktop/laptop before completing.
All students who are offered a position at this REU Site have until March 15th or later to accept or reject the offer. Any student who is asked to accept or reject an offer prior to March 15th should contact the National Science Foundation.

Western Washington University is committed to ensuring that all programs and activities are readily accessible to all eligible persons without regard to race, color, religion, national origin, sex, age, disability, marital status, sexual orientation, Vietnam era veteran or disabled veteran status. Additional information on the program and SPMC is available at http://www.edu/spmc/sprehome.shtml.

Seeking Applications for the 2013 Summer Research Experience for Undergrads Program (C2B2/NSF REU)

The Colorado Center for Biorefining and Biofuels (C2B2) is a cooperative research and educational center devoted to the conversion of biomass to fuels and other products.

C2B2 is a research center of the Colorado Renewable Energy Collaboratory and is supported by state, institutional, and industry funds. C2B2’s partner institutions include:
- University of Colorado Boulder
- Colorado State University
- Colorado School of Mines
- National Renewable Energy Laboratory

Center members and researchers have the capability of utilizing specialized facilities at each C2B2 site location. Our personnel work to establish ground-breaking research and educational programs for the advancement of renewable energy technologies. We aim to accelerate the rapid introduction of these innovations into the marketplace.

C2B2 provides private industry with one-stop access to researchers, laboratories, students, and educators from four pioneering institutions, each having unique strengths in biofuel and bio refining application areas.

C2B2’s integration offers unsurpassed research and educational opportunities for students, researchers and industry.

Program Dates: May 28 – August 3, 2013

Financial Provisions:
- $4300 Stipend
- $550 Travel Allowance
- $1,900 Housing/Food Allowance

Eligibility Information:
- Students from all academic fields, interested in bioenergy research.
- U.S. citizens, permanent residents, and international citizens
- Undergraduates currently enrolled in a degree-seeking program at the time of program participation.

Visit http://c2b2web.org/7JobsUnd_REU.php for application requirements. Completed applications must be received as of February 17, 2013 at 11:59 PM. Questions? E-mail C2B2@colorado.edu or call 303.735.2503.

Call for Student Applications: ESA Workshop on Future of Environmental Decisions (FED)
Scaling Up: Future of Environmental Decisions (FED): A Student Workshop
- Organized by the Ecological Society of America (ESA)
- June 2 – June 7, 2013
- Baltimore, MD

ESA’s Office of Education & Diversity Programs is pleased to announce the Call for Applications for the student workshop, “Scaling Up: Future of Environmental Decisions (FED)”, made possible by funding from the National Science Foundation.

This six-day interactive workshop will use a case study of the Chesapeake Bay to explore the ecological and socioeconomic dimensions of decision-making using data at the regional and continental-scale. Participants will explore geospatial datasets; develop GIS analysis skills; build science communications skills and explore careers that involve Big Data in environmental and related disciplines.

Opportunity: Up to 25 awards of travel, lodging, and subsistence support to attend the workshop.

Eligibility: Current and recently graduated undergraduate students as well as current graduate students from any academic discipline – including social, natural, formal and applied science fields – are invited to participate. Underrepresented minority students are especially encouraged to apply. Workshop website: http://www.esa.org/scalingup/.

Application deadline: Friday, February 8th, 2013; 5:00pm Eastern.
Applicants must submit an online application, which requests academic information, a description of relevant course work, extracurricular activities and a personal statement. The workshop committee will select participants to ensure an appropriate mix of disciplines and backgrounds. Prior GIS experience is not required. Applications will be notified of their acceptance status by Mid-March. Questions: Contact Andrea McMillen, ESA Education Programs Coordinator, at andrea@esa.org.

January Birthdays
Harsh – 1st
Qianlai Zhuang – 2nd
Matt Huber - 10th
John Cushman - 19th
Tom Tharp – 28th
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 www.purdue.edu/eas/ and Click on News to access active links as needed. Material for inclusion in the newsletter should be submitted to Wanitta Thompson (thompson@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 EAPS Technology Support staff, please visit 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.
A New Look on the Great Lakes

Cary Troy traditionally has viewed his data on environmental fluid mechanics of the Great Lakes in numbers or 2-D plots. Thanks to the Envision Center for Data Perceptualization, the civil engineering professor has a new window on his research.

Troy's data has now been turned into 3-D maps with multiple factors and layers, GIS (geographic information system) style. The images are animated and projectable in large display and immersive formats.

"There's really nothing like seeing it in three dimensions," Troy says. "It's not just about pretty pictures. It's about functionality, getting to look at your data so you can actually do the science you want."

Animation of the Mars Formation

Our solar system formed 4.5 million years ago, so it's too late to watch Mars coalescing out of the cloud of gas and dust surrounding the young sun — unless you have Purdue's Envision Center for Data Perceptualization.

The ITaP-operated data visualization and multimedia production services center worked with Professor David Minton, a Purdue planetary scientist, to create a 3-D animation of a Mars formation theory contrary to the long-held view that the planets formed roughly where we find them today.

The Envision Center helps faculty enhance research and teaching by graphically representing data and information through techniques such as scientific visualization, animation, motion capture and immersive 3-D virtual environments. Besides operating the hardware and software, staff and students at Envision consult on ways to visualize projects and collaborate on grant proposals.

The center uses a blend of technology and art to display information graphically in ways that communicate the complex more effectively, simplify understanding and create a springboard for new insights.

Minton wanted an animation illustrating his theory — that early in the solar system's history there was substantial migration by the planets as they grew — to make it accessible to non-specialists.

"Planet formation theory and orbital mechanics are difficult to visualize for someone without much artistic experience, so I was grateful to have the Envision Center try visualizing my current work," Minton says. "I am very happy with the product. I believe it will allow the results of my paper to be appreciated by a much wider audience."

With Minton's guidance, Envision Center staff created an animation of the formation of Mars consistent with the professor's research using, among other tools, the same software used in making animations for the Discovery or Science channels, not to mention numerous Hollywood blockbusters.

For more information, contact George Takahashi, Envision Center technical lead, 496-1862, gtakahash@purdue.edu.

Writer: Greg Kline is a science and technology writer, Information Technology at Purdue (ITaP).
2013 AMS Meeting

Presentations by
Faculty and Students

Earth
Atmospheric
Planetary
Sciences

Purdue University
West Lafayette, IN
Sunday, 6 January 2013

5:30 – 7:00 PM: 12th Annual AMS Student Conference and Career Fair
Hall 3 (Austin Convention Center)

S11: Variability in Atmospheric Thermodynamic Soundings (VATS): The Drought of Summer 2012

S14: Observations of the Urban Heat Island Effect from a Small City

S39: A Python-Based Approach to Improving the Purdue Forecast Game

S47: DROPS 2-Sea Breeze Exhibit
Kayla A. Hudson, Agronomy, Purdue University, West Lafayette, IN

S54: High-Resolution Surface Observations of the Change in Meteorological Variables across Fronts
Bryce T. O’Neill, Earth, Atmospheric, and Planetary Sciences, Purdue University, West Lafayette, IN; and J. P. Banitt, B. Kozak, A. E. Orton, B. Pan, J. M. Parish II, B. S. Westfall, and Z. T. Zobel

S83: Feature-specific evaluation of surface front predictions

S124: Perceptions of Risk from Climate Change: Perspectives of Midwestern Corn Farmers and Advisors
Amber S. Mase, Forestry & Natural Resources, Purdue University, West Lafayette, IN; and L. S. Prokopy

Tuesday, 8 January 2013

3:30 – 5:30 PM
Room 19A (Austin Convention Center)

6.2: (3:45pm) If we build it, will they come?: Incorporating survey results of the agricultural community into climate-based decision support tools
Linda Prokopy, Forestry & Natural Resources, Purdue Univ., West Lafayette, IN; and M. Widhalm, J. R. Angel, T. Haigh, A. S. Mase, and D. P. Todey

3:30 – 5:30 PM
Room 15 (Austin Convention Center)

4.3: (4:00 pm) Chicago Heat Waves: A Climatological Comparison
Bryce T. O’Neill, Earth, Atmospheric, and Planetary Sciences, Purdue University, West Lafayette, IN; and M. E. Woloszyn and J. R. Angel
Wednesday, 9 January 2013

8:30 – 10:00 AM
Ballroom F (Austin Convention Center)

1.5: (9:45 am) Assessment and Prediction of Seasonal Tornado Activity
Robert J. Trapp, Earth, Atmospheric, and Planetary Sciences, Purdue University, West Lafayette, IN; and M. E. Baldwin and H. E. Brooks

1:30 – 2:30 PM
Room 9A (Austin Convention Center)

4.2: (1:45 pm) Invited Presentation: Urban Land use – land cover feedbacks on regional climate – Current Understanding, Future needs
Dev Niyogi, Earth, Atmospheric, and Planetary Sciences, Purdue Univ., West Lafayette, IN

2:30 – 4:00 PM
Hall 3 (Austin Convention Center)

525: Complexities in power-law modeling of river discharge time series Exhibit Hall 3 (Austin Convention Center)
Matthew C. Bowers, Earth, Atmospheric, and Planetary Sciences, Purdue University, West Lafayette, IN; and W. W. Tung and J. Gao

543: Microphysical Differences Resulting from Regional Climate Change in Simulated Deep Convective Storms
Cecille Villanueva-Birriel, Earth, Atmospheric, and Planetary Sciences, Purdue University, West Lafayette, CO; and S. Lasher-Trapp and H. Morrison

844: Probabilistic forecasts of severe convection with a WRF-DART analysis and convection-permitting forecast system
Logan C. Dawson, Earth, Atmospheric, and Planetary Sciences, Purdue University, West Lafayette, IN; and G. Romine, S. Tessendorf, and C. S. Schwartz

4:00 – 5:30 PM
Room 9A (Austin Convention Center)

5.1: (4:00 pm) Improving the Conceptual Understanding of Urban Thunderstorm Modification Using the Real Atmosphere Idealized Land-surface (RAIL) Method
Paul Schmid, Earth, Atmospheric, and Planetary Sciences, Purdue Univ., West Lafayette, IN; and D. Niyogi

Thursday, 10 January 2013

1:30 – 3:00 PM
Room 15 (Austin Convention Center)

11.3: (2:00 pm) An Integrated Approach to Building Usable Decision Tools for the Agricultural Community
Melissa Widhalm, Forestry & Natural Resources, Purdue University, West Lafayette, IN; and L. Prokopy, J. R. Angel, and D. P. Todey

3:30 – 5:00 PM
Ballroom F (Austin Convention Center)

4.1: (3:30 pm) Intrinsic Predictability of the Madden-Julian Oscillation
Wen-Wen Tung, Earth, Atmospheric, and Planetary Sciences, Purdue University, West Lafayette, IN
Plan to Join

Earth Atmospheric Planetary Sciences

for our annual Alumni & Friends Reception

Tuesday, January 8, 2013
6:30 - 8:30 pm

Hilton Austin
500 E 4th Street
Austin, Texas

No RSVP required
Contact 765-494-3258 for more information
What is Relay for Life?
A fun – filled 15 hour event in April where we raise money for the American Cancer Society, remember those who battled cancer, and fight back against this horrible disease!

Join the fight against cancer!

Make a difference!

You do not need to have a team formed to come to the call-out! Just come to learn about Relay for Life and how you can get involved.

Questions? Email us at cacteamdev@gmail.com
The NASA Langley Research Center (Hampton, VA) offers paid, year-round (3 sessions), highly competitive research internships for exceptional students to work with Langley engineers and scientists on some of the Nation’s most important, difficult, and challenging problems. The LARSS program emphasizes multi-disciplinary and collaboratively developed solutions to problems in such broad areas as (1) flight, including entry, descent, and landing, in all atmospheres; (2) Earth systems science, including the characterization of all atmospheres; (3) affordable, safe, and sustainable space exploration systems and technology; and (4) materials and structural concepts, analysis, and integration.

ELIGIBILITY REQUIREMENTS
- U.S. Citizenship
- Full-time student status at an accredited U.S. college or university
- Classification as a rising undergraduate junior or senior, or graduate student (master's or doctoral level)
- Cumulative 3.0 GPA on a 4.0 scale

PROGRAM SESSION DATES
  Application Deadline: Oct. 11, 2012
- 2013 Summer Session (10 weeks) June 4 – Aug. 9, 2013
  Application Deadline: Feb. 1, 2013
- 2013 Fall Session (15 weeks) Sept. 4 – Dec. 13, 2013
  Application Deadline: June 26, 2013

CONTACT INFORMATION
Debbie Murray
LARSS Program Coordinator
Phone: 757-864-5215
Fax: 757-864-9701
Deborah.B.Murray@nasa.gov

Find additional LARSS information, application, and deadlines at http://www.nianet.org/larss
4th Annual
Midwest Graduate Research Symposium

Saturday
April 20, 2013
8:00A.M. – 7:30P.M.

Awards for both oral & poster presentations
Nationally Recognized Keynote Speaker

FREE

*Open to All Graduate Students from All Study Areas*

Registration Deadline: March 29, 2013

• Register for free online by visiting www.utoledogsa.com → Participant Registration
• For complete information, visit: www.utoledogsa.com/information

Semi-Formal Dinner
Oral & Poster Presentation
Great Networking Opportunity

No registration fee
Breakfast, Lunch, and Dinner Provided

E-mail: graduatestudentassociation@gmail.com

Sponsored and Organized by the University of Toledo Graduate Student Association
IGIC Announces the 2012 – 2013 Indiana Grant Competition for Innovative Uses of GIS Tools and Data

In partnership with the Indiana Space Grant Consortium (INSGC), The Indiana Geographic Information Council (IGIC) is pleased to announce our first ever GIS grant competition in support of STEM Education for the State of Indiana.

Deadline for submission is January 31, 2013:
IGIC’s goal of this grant is to encourage graduate and undergraduate students to take advantage of Indiana’s geospatial data in solving real-world problems. Proposals will be judged based on their relevance to an identified need within the geospatial community, the value provided by the proposed project, and innovative use of geospatial data or tools. Projects using data available through the IndianaMap (http://www.IndianaMap.org) will be given priority, but any creative geospatial proposal will be reviewed.

Project Categories:
The following grant categories have been compiled with input from Indiana geospatial data professionals: Public Health, Disease and Epidemiology, Archaeology, Food and Nutrition, Community Organization and Resource Management, Public Safety and Criminal Justice, Public Policy, Spatial Economics, Sport Tourism Recreation and Public Spaces, Transportation, Climate Change and the 2012 Drought, Energy Technology Trends, Environment, Agriculture, Geospatial Technology and Geospatial Data Visualization.

Application Timeline:
All applications should be received by January 31, 2013 to ensure full consideration. Timelines for awardees are scheduled as follows:
   - November 5, 2012: Application submission opens
   - January 31, 2013: Application deadline
   - March 29, 2013: Initial notification of intent to award

Eligibility:
Students currently attending universities in Indiana affiliated with the Indiana Space Grant Consortium (https://engineering.purdue.edu/INSGC) are eligible to apply. Awards for grants of $5,000-$10,000 will be made. Both individual and group projects will be considered. Students and PIs receiving funding must be US citizens. For projects NOT using IndianaMap data, 1:1 matching will be required.

For more information visit the IGIC Grants home page: http://igic.org/grants/
The Indiana Clinical and Translational Sciences Institute (CTSI) is seeking applicants for special predoctoral training awards in translational research.

In biomedical terminology translational research refers to what is popularly termed "bench to bedside", the process by which research in the lab "translates" into patient treatment. Translation may involve applying discoveries made during research (in the lab, through animal studies, etc.) to the development of clinical trials and studies in humans, or carrying out research aimed at enhancing the adoption of best practices, or both.

These two types of translational research are usually described as consisting of either “T1 research” (basic biomedical research, e.g. study disease at a molecular or cellular level, as it progresses to the development of new treatment options at the clinical level) or “T2 research” (enhancing access to and the adoption of evidence-based strategies in clinical and community practice, institutionalizing programs, products, and services to improve health). These awards are aimed at predoctoral students whose research is at any point along this spectrum.

Funding is available for pre-doctoral graduate students. Criteria for application include:

- Candidates must have completed at least one year of a pre-doctoral training program but cannot have completed more than their third year (i.e., applicants must be in the second or third year of their pre-doctoral program when they apply).
- Co-mentorship by faculty investigators from at least two different disciplines (preferably a clinician and a non-clinician scientist).
- Research that is translational in nature and takes advantage of the synergism that comes from working at this basic/clinical interface.
- U.S. citizen or permanent resident status.

Funding is for two years (with the 2nd year of funding contingent upon satisfactory progress). Benefits include a full stipend as well as health insurance and partial coverage of tuition and fees. The Indiana CTSI is applying for a competing renewal in early 2013. Funding availability is contingent upon continued funding of the Indiana CTSI by the NIH.

Trainees will be required to participate in a translational science course, attend a National CTSA meeting, and present at several Indiana CTSI pre-doctoral gatherings during the academic year.

Applications must be submitted by February 4, 2013, and awards will start July 1, 2013. Interested candidates should e-mail their CV to Colleen Gabauer, Ed.D, at ictsi@purdue.edu (Phone: 765-494-9256).