EAPS MEETINGS & EVENTS

Purdue Calendar 2023-24
EAPS K-12 Outreach Calendar of Events
Report Your Outreach and Engagement Activities

News/Opportunities at Purdue

EAPS 59100 - Gravity and Magnetism for Earth Scientists – Spring 2024
Instructor: Mark Longacre (Principal Geophysicist, President, MBL, Inc.)
Dates: Thursday – Saturday, March 21 (6-9PM), March 22 (6-9PM), & March 23 (9AM-12PM, 1-4PM - Workshop: Laptop Required). Follow-up: Thursday, April 11 (2 hours during the day)
Credit: 1 Credit Hour
Register With: Prof. Jonathan Delph (jdelph@purdue.edu)
Prerequisites: Basic Understanding of Geological Processes. EAPS354 is helpful but not necessary; No Previous Gravity or Magnetic Experience Required. Aimed Upper Division Undergrad / Graduate Student.
Location: Room 2244 Hampton Hall (Civil Engineering Bldg). Dinner/Lunch (Pizza/Sandwich) Provided!
Description: Gravity and magnetic data have an essential role in crustal studies complementing geological and subsurface information including seismic profiling. This course is designed to acquaint Earth scientists with state-of-the-art gravity and magnetic tools for the acquisition, processing, and interpretation of these data. Using the principles of gravity and magnetics the course will illustrate the applications of these methods and the essential need for the integration of these data with complementary geological and geophysical datasets. Worldwide case histories, including examples from passive continental margins, sedimentary basins, rifts, and cratons, will be described and dissected as examples of the significance and limitations of gravity and magnetic data to mapping the subsurface and understanding geological processes. Using a real-world exercise, experience will be gained in applying gravity & magnetic data for tectonic analysis and interpretation.

EAPS Colloquium - Jiang Zhu
Thursday, November 30, 3:30 – 4:30pm
HAMP 1252
Jiang Zhu is a Project Scientist II at NCAR.
Host: Xiaoqing Liu, PostDoc

Gillian Ferguson GDSP Seminar
Gillian Ferguson is presenting her GDSP MS Research, titled “Deep Learning for Nowcasting of Precipitation at Urban Airports Using Spatial-Temporal Satellite Data” with Prof. Wen-wen Tung on Wednesday, November 29, 2023, from 12:30-1:30 PM, in HAMP 2107.
Abstract: Precipitation, especially its extremes, impacts the planning and operation of complex urban infrastructure. Urban environments also influence cloud formation and precipitation, creating challenges for traditional physics-based numerical weather prediction models. This study investigated an auxiliary deep-learning framework to nowcast significant precipitation events at urban airports. Recognizing that airport station precipitation is part of a larger, spatially coherent weather system, we applied a spatial-temporal deep learning approach. Specifically, we utilized a convolutional Long Short-Term Memory (LSTM) neural network to create a next frame prediction for two severe precipitation cases. The first case was a heavy rain and flooding episode in northern and central Illinois from April 15th through 19th, 2013. The second case was a blizzard sweeping across the Mid Atlantic and northeastern states from January 22nd through 24th, 2016. The study used data from two sources: ground-station
observations from the Automated Surface Observing System (ASOS) and satellite measurements from the Global Precipitation Measurement (GPM) mission. We designed the neural network to model and predict precipitation at the Chicago O’Hare (case 1) or John F. Kennedy (case 2) International Airport ASOS stations by integrating the local ASOS data and regional GPM data. Initial results suggest that the framework is promising for rapid precipitation nowcasting at ASOS stations with a 3.5-hour lead time, warranting further investigation into hyperparameter tuning and model explainability. Zoom Link

CCO PROFESSIONAL CLOTHING DRIVE
The CCO needs New or Lightly used professional clothing for students in need.

- Students get to make an appointment
  - 30-Minute Session
  - BoilerConnect (CCO/QuickChat)
- No-cost to Purdue students in need
- Students get one full outfit per academic year
  - Blazer, trouser or skirt, shirt or blouse, tie or scarf, belt, and shoes
- Attire is theirs to keep!

There will be a box in the supply room to drop your donations from December 4 – 7 at noon. I will be taking our donations to the CCO on December 7 in the afternoon. Any donations made after December 7 at noon will need to be taken directly to the CCO. More info

MS AND PHD EAPS STUDENTS
BROADEN YOUR GRAD EXPERIENCE
For those MS and PhD students in EAPS that would like to broaden their graduate experiences while at Purdue, EAPS is affiliated with the Computational Interdisciplinary Graduate Programs (CIGP) at Purdue. While working toward a graduate degree in EAPS, graduate students can also have a concentration (specialization) in the area of Computational Science and Engineering (CSE). For more information, click here. A short video about the CIGP/CSE program can be found here. Spring Application Deadline: March 1 Fall Application Deadline: October 1

EAPS GRAD STUDENT RESEARCH OPPORTUNITIES
If you are interested in an EAPS grad research opportunity, click here for more information.

http://www.eaps.purdue.edu/

PUBLICATIONS


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OUTREACH NEWS

SUPERHEROES OF SCIENCE PODCAST ALERT!
FEATURING PROF. ANDY FREED

Steven and Sarah of Superheroes of Science discuss Moon Facts vs Myths with Dr. Andy Freed. View on YouTube here or listen on Apple podcasts here.

K-12 Outreach would like to ask for your help in getting this request out to professional organizations.

Teachers are desperately requesting resources related to STEM careers. Please consider sharing what you do with students and teachers by making a recording.

Calling all STEM Professionals! Join our mission to inspire students and support educators! Students lack awareness of the vast possibilities in STEM fields. Teachers are tasked with integrating college and career readiness into their curricula. To support both students and their teachers, Purdue University College of Science K-12 Outreach is creating an extensive STEM Career Repository. We need YOUR expertise to make a difference! Record a short video (2-3 minutes) introducing the captivating work you do as a STEM professional. Help us shed light on potential careers in STEM and ignite young minds with passion and curiosity!

For the video, consider introducing yourself along with your job/career, then follow with important background information relevant to your job. Finish your video by highlighting how you can be a role model for students and inspire them to pursue STEM fields.

For more information, visit http://www.eaps.purdue.edu/
with something interesting that you do as part of your job.
Video clips (2-3 minutes) should be filmed horizontally and submitted to mrsmith@purdue.edu. If you would prefer, we can record you on Zoom. Many people are recording in both English and another language that they are fluent in speaking. If you do record in a second language, please let us know the language. Please share this request with your fellow professionals in the STEM fields to amplify our impact! Together, we can shape the future of STEM exploration and education. Let’s inspire the next generation of scientists, engineers, and innovators! Connect with us and contribute to the STEM Career Repository: https://www.purdue.edu/science/K12/LabPages/careers.php

If you or your group has worked with or helped with an activity for K-12 students or teachers, please fill out the departmental outreach activity form. https://bit.ly/EAPSOut

Social sites:
Twitter
Instagram
Facebook Superheroes of Science
EAPS departmental outreach web page

SUPERHEROES OF SCIENCE
Please help us by subscribing and sharing our podcast and our YouTube channel!

MEETINGS/EXPOS/OPPORTUNITIES OUTSIDE OF PURDUE
EUROPA CLIPPER ICONS INTERNSHIPS – NASA SCIENCE
The new Inspiring Clipper: Opportunities for Next-generation Scientists (ICONS) internships will bring members of the Europa Clipper mission team together with undergraduate students for 10-week programs that give students the opportunity to conduct original scientific research. Internships may be in-person at the mentor’s institution, virtual, or hybrid, depending on the research project and needs of the mentor and intern.
At the end of the 10 weeks, students and mentors will convene for a two-day conference at NASA’s Jet Propulsion Laboratory in Pasadena, California. Interns will receive a $12,000 stipend for the duration of the program, and may be eligible for travel, housing, and relocation allowances, depending on the location of their research activities.
The first Europa ICON internship will run June 3-Aug. 9, 2024.
- Student applications are due Feb. 2, 2024, and can be found on the NASA STEM Gateway by searching “Europa ICONS.”
- Mentor project proposals are due Dec. 18.
Info here.

2024 RIPS SUMMER PROGRAM OPPORTUNITY FOR UNDERGRADS
Research in Industrial Projects for Students (RIPS) Program at the Institute for Pure and Applied Mathematics (IPAM) has a summer program opportunity for undergraduate students. Program details.

SCHLAGER OCEAN DRILLING FELLOWSHIP
The Schlanger Ocean Drilling Fellowship Program offers merit-based awards for graduate students enrolled in a Ph.D. program to conduct research related to scientific ocean drilling. Research may be related to the objectives of past expeditions or it may address broader science themes. Selected fellows will receive an award of $30,000 for a 12-month period that can be used for research, stipend, tuition, or other approved costs. Schlanger Fellowships are open to all graduate students enrolled at U.S. institutions in full-time Ph.D. programs. Applications require reference material from two referees, one of which must be the student’s faculty advisor. Learn more.
All application materials, including reference material, must be submitted by the December 22nd deadline.

CIWRO PETER LAMB POSTDOCTORAL FELLOWSHIP
The Cooperative Institute for Severe and High Impact Weather Research and Operations (CIWRO) has established the Peter Lamb Postdoctoral Fellowship that is offered annually. CIWRO is a research organization that promotes collaborative research between scientists at the National Oceanic and Atmospheric Administration (NOAA)
and a consortium of universities led by the University of Oklahoma (OU) on problems of mutual interest. CIWRO research seeks to improve the basic understanding of weather and transitioning that understanding to operations in order to help produce better forecasts and warnings that save lives and property. CIWRO also investigates the societal impacts of such phenomena. The recipient will be an OU employee but may conduct her/his research at OU, Howard University (HU), the Pennsylvania State University (PSU), Texas Tech University (TTU), or the University at Albany (UA). Apply by: January 15. More info.

AWG BRUNTON AWARD AND BRUNTON FIELD PROJECT AWARD

The AWG Brunton Award and Brunton Field Project Award promote the future of field mapping and data acquisition for the upcoming generation of people whose gender identity has been historically underrepresented in the geosciences. Applicants should have a passion for and exceptional experience with field work, including internships, field camp, coursework with a field-based research component, or research. The AWG Brunton Award has been active for >20 years and provides Brunton compasses to 1–2 awardees each year. The AWG Brunton Field Project Award started in 2022 and awards a Brunton compass and up to $1000 to support field activities to each of 1–2 awardees each year. Learn more here. Deadline for entry is Dec. 15th of each year.

2nd INTERNATIONAL ORBITAL DEBRIS CONFERENCE
December 4-7, 2023
Houston, TX / virtual
Meeting info

MERCURY EXPLORATION ASSESSMENT GROUP (MExAG) ANNUAL MEETING
February 6-8, 2024
Virtual
Meeting info

INTEGRATING OCEAN DRILLING & NASA SCIENCE: WORKSHOP TO EXPLORE MISSIONS TO PLANET EARTH
February 20-23, 2024
Washington D.C. / virtual
Meeting info

PLANET CHARACTERIZATION IN THE SOLAR SYSTEM AND THE GALAXY WORKSHOP

POSITIONS AVAILABLE - CAREER OPPORTUNITIES

FULL-TIME WEEKEND METEOROLOGIST/WEEKDAY REPORTER - WVVA TV IN BLUEFIELD, WV
An immediate opening for a full-time weekend meteorologist/weekday reporter (for weather/science stories). Link

TENURE-TRACK ASSISTANT PROFESSOR UNIVERSITY AT ALBANY
The Department of Atmospheric and Environmental Sciences at the University at Albany is conducting a faculty search for a tenure-track assistant professor in the area of extreme weather systems. Extreme weather systems of particular interest include midlatitude cyclones, severe convective storms, and fire weather. Application review begins Dec. 1. Full posting

MIT - ASSISTANT PROFESSORSHIP IN CLIMATE SCIENCES
MIT EAPS Department is conducting a faculty search in Climate Sciences including: 1) terrestrial processes affecting climate and carbon, 2) advancing the science of attribution of climate system changes, particularly for extremes and 3) science of climate-related risks and impacts., among other topics. Closing date Dec. 3, 2023. Link

ASST. PROFESSOR OF EARTH MATERIALS - UNIVERSITY OF NORTH CHARLOTTE
Apply by Dec. 15th, 2023
Apply here.

http://www.eaps.purdue.edu/
UW-MADISON - PROFESSOR OF ATMOSPHERIC & OCEANIC SCIENCES

faculty position opening, with interests in satellite meteorology, atmos radiation, weather-climate dynamics. Apply here.

PATHWAYS RECENT GRADUATE PROGRAM – SEVERAL FEDERAL GOV. EMPLOYMENT LISTINGS

Eligible: Recent graduates from a qualifying educational institution having completed an academic program within the preceding two years OR will be receiving a degree or certificate within 120 days of closing date of this announcement.

Note: Veterans who were precluded by their military service obligation from meeting this requirement will have up to six years to apply.

Agronomist Archaeologist Archeologist- FPL 11
Civil Engineer Civil Engineer- FPL 12 Economist
Forester GIS Specialist Management Analyst
Natural Resource Specialist Soil Conservationist
Range Management Specialist Soil Conservationist
Range Mgmnt Specialist- FPL 11 Hydrologist

DEPARTMENT OF ATMOSPHERIC AND ENVIRONMENT SCIENCES AT THE UNIVERSITY AT ALBANY - TENURE-TRACK ASSISTANT PROFESSOR IN AREA OF EXTREME WEATHER SYSTEMS

We seek candidates with backgrounds in atmospheric science with expertise in extreme weather systems, who study these systems using numerical weather modeling and/or field observations to gain insight into physical processes. Extreme weather systems of particular interest include midlatitude cyclones, severe convective storms, and fire weather; other areas are also welcome.

The full posting, including job responsibilities, qualifications, and how to apply, may be found here. Applications received by December 1, 2023 will receive priority consideration. Questions may be directed to the chair of the search committee, Dr. Brian Tang (btang@albany.edu).

TENURE TRACK METEOROLOGY FACULTY POSITION - VALPARAISO UNIVERSITY

We are excited to announce an opening for a Tenure Track Assistant Professor of Meteorology at Valparaiso University starting in August 2024. We especially need someone for mesoscale meteorology at the undergraduate level. Apply here.

DePauw University

DePAUW SEEKING PART TIME INSTRUCTOR

The department of Geology and Environmental Geoscience at DePauw University is looking for a part-time instructor to teach an undergraduate course in Hydrogeology in next spring semester. This is a great opportunity for a graduate student to get some teaching experience in a Liberal Arts setting (at least a Master’s degree is required). Apply here.

POSTDOCTORAL RESEARCH ASSOCIATE POSITION - PURDUE UNIVERSITY

A postdoctoral position investigating cloud-aerosol interactions using stable water vapor isotopes and cloud microphysics observations is available in the Department of Earth, Atmospheric, and Planetary Sciences at Purdue University. The postdoctoral researcher will join Professor Lisa Welp analyzing observations measured during the Southern California Interactions of Low cloud and Land Aerosol (SCILLA) airborne experiment, complementing the Eastern Pacific Cloud Aerosol Precipitation Experiment (EPCAPE) DOE ARM mobile facility deployment in La Jolla, CA. The SCILLA research flights investigated the stratocumulus-topped boundary layer off-shore during the month of June 2023. The postdoctoral researcher will be supported by DOE ASR funding to quantify dry air entrainment and cloud drizzle processes drying the cloud layer using water vapor stable isotopes. They will also work closely with the cloud microphysics data measured by collaborator Professor Patrick Chuang’s research group at the University of California Santa Cruz.

Candidates for this position should have recently completed their Ph.D. or should expect to complete their degree requirements by the start date, in atmospheric science or relevant Earth science program. Previous experience with the analysis of atmospheric gases or isotopes or a strong understanding of marine boundary layer processes is preferred. Candidates interested in this position should have a record of scientific achievement, excellent verbal and written communication skills. Initial appointments are for 12-18 months with renewal for up to a total of 2.5 years upon review. The start date is flexible. A background check is required for employment in this position.

Applicants should supply (a) a curriculum vitae, including a list of publications, (b) a statement of research interests and goals including qualifications for the position (maximum 2 pages) and (c) e-mail address of three references to: Lisa Welp (lwelp@purdue.edu). Potential applicants are encouraged to apply promptly.
welcome to contact Professor Welp prior to applying to learn more about the project. Applications will be reviewed immediately, and the position will remain open until filled. Applications can also be submitted here.

NYS MESONET FIELD TECHNICIANS
NYS Mesonet is hiring two field technician positions to maintain and repair 126-site standard network and 85 subnetwork sites. Competitive pay + benefits, learn more and apply here.

MONTANA MESONET FIELD MANAGER
MONTANA CLIMATE OFFICE
The Montana Climate Office within the W.A. Franke College of Forestry and Conservation and at the University of Montana is seeking applications for an Applied Meteorologist/Mesonet Field Manager position. The Mesonet Field Manager (MFM) will oversee the installation and maintenance of climate monitoring stations (Montana Mesonet) across the state. The MFM will lead three Mesonet field crews: three full-time technicians and six seasonal employees in the construction and maintenance of the Montana Mesonet and ensure high-quality performance and operation of all stations. The Montana Mesonet is being developed through a US Army Corps of Engineers (USACE) award to the Montana Climate Office. Link

TEACHER OF PLANETARY ATMOSPHERES – ISAE-SUPAERO IN TOULOUSE
The teacher-researcher selected will be attached to the DEOS department of ISAE-SUPAERO. She or he will contribute to the development and animation of research around their own themes. She or he will ensure the fundamental missions of a teacher in his field of competence (face to face teaching, management of teaching programs). She or he will also be responsible for maintaining and developing relations and cooperation with regional, national and international academic and industrial partners. Link

MULTIPLE POSITIONS OPEN WITH ENVIROFORENSICS
EnviroForensics is hiring! We’re looking for motivated and collaborative individuals to join us as a Project Manager (Indianapolis or Louisville), Staff Professional (Indianapolis), Field Professional (Indianapolis), and Field Technician (Indianapolis). If you’re interested in joining our team, visit our Careers and apply today! Click here to apply

ASSISTANT PROFESSOR OF ENVIRONMENTAL & GEOSPATIAL SCIENCES - WESTERN KENTUCKY UNIVERSITY
The Department of Earth, Environmental, & Atmospheric Sciences (EEAS) at Western Kentucky University is seeking highly qualified applicants for a 9-month tenure-track Assistant Professor of Environmental & Geospatial Sciences position. Learn more here.

INDIANA EHS ADVISOR JOB POSTING
U.S. Compliance: Searching for high performing EHS professionals who want to make a difference. Join our fast-growing EHS compliance firm to help us care for people, Protect the environment and grow our clients’ business. Link to posting.

METEOROLOGIST POSITIONS AVAILABLE TEGNA
Multiple meteorology positions are open with TEGNA.

POST-DOC OPPORTUNITY - AIR FORCE SCIENCE & TECHNOLOGY FELLOWSHIPS
The National Academies of Sciences, Engineering, and Medicine administers postdoctoral and senior research awards at the U.S. Air Force Research Laboratory (AFRL), the U.S. Air Force Institute of Technology (AFIT), and the U.S. Air Force Academy (USAFA) under the Air Force Science & Technology Fellowship Program (AF STFP). Seeking highly qualified candidates who are U.S. citizens and hold, or anticipate earning, a doctorate in a variety of fields of science or engineering.

Application deadline dates (four annual review cycles): February 1, May 1, August 1, November 1

Awardees have the opportunity to:
- Conduct independent research in an area compatible with the interests of the Air Force laboratories
- Devote full-time effort to research and publication
- Access the excellent and often unique Air Force research facilities
- Collaborate with leading scientists and engineers
- Awardee benefits:
  - Base stipend starting at $76,542; may be higher based on experience
  - Health insurance (including dental/vision), relocation benefits, and a professional travel allowance
Applicants should contact prospective AFRL, AFIT and USAFA Research Adviser(s) at the lab(s) prior to the application deadline to discuss their research interests and funding opportunities. For detailed program information, to search for AFRL, AFIT, and USAFA Research Opportunities, and to contact prospective Research Adviser(s), visit www.nas.edu/afstfp.

PURDUE ENVISION CENTER (UNDER ITAP)
RECRUITING EAPS STUDENTS
The Envision Center is recruiting EAPS students with background and interest in weather visualization. Details on the job opening can be found here.

POSITIONS AVAILABLE IN METEOROLOGY AND ATMOSPHERIC SCIENCE
View current career listings

AGI GEOSCIENCE JOB CENTER
Check listings here.

GRADIENT CORP
MULTIPLE OPPORTUNITIES
Please feel free to contact Qian Zhang if you are interested in applying and/or have any questions about the company and the opportunities.

NATIONAL WEATHER SERVICE
POSITIONS AVAILABLE
Check here for available positions with the National Weather Service.

NEWSLETTER INFO
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. Material for inclusion in the newsletter should be submitted to Cheryl Pierce by 5:00pm on Thursday of each week for inclusion in the Monday issue.
For answers to common technology questions and the latest updates from the EAPS Technology Support staff, click here. As an additional resource for information about departmental events, seminars, etc., see our departmental calendar.

http://www.eaps.purdue.edu/