

EAPS WEEKLY NEWSLETTER

November 20, 2023

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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 MAGNETICS 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.

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.

PUBLICATIONS

- **Lifton, N., Wilson, J., Koester, A.**, 2023. Technical note: Studying Li-metaborate fluxes and extraction protocols with a new, fully automated in situ cosmogenic ¹⁴C processing system at PRIME Lab. *Geochronology*, 5, 361-375. <https://gchron.copernicus.org/articles/5/361/2023/>
- **Izquierdo, K., A.M. Bramson, T. McClintock, K.L. Laferriere, S. Byrne, J. Bapst, I.B. Smith** (2023) Local Ice Mass Balance Rates via Bayesian Analysis of Mars Polar Trough Migration, *Journal of Geophysical Research: Planets*, 128, 10, <https://doi.org/10.1029/2023JE007964>.
- B.N. Peterson, A.C. Morales, J.M. Tomlin, C.G.W. Gorman, P.E. Christ, S.A.L. Sharpe, S.M. Huston, B.T. O’Callahan, M. Fraud, Y. Noh, P. Pahari, A.J. Whelton, P.Z. El-Khoury, R.C. Moffet, A. Zelenyuk, A. Laskin. Chemical characterization of microplastic particles formed in airborne waste discharged from sewer pipe repairs. 2023, 25, 1718-1731. doi : 10.1039/D3EM00193H
- A.C. Morales, C.P. West, B.N. Peterson, Y. Noh, A.J. Whelton, A. Laskin. Diversity of Organic Components in Airborne Waste Discharged from Sewer Pipes Repairs. *Environmental Science: Processes & Impacts*, 2023, 25, 1670-1683. doi: 10.1039/D3EM00084B
- **Herr B, Delph JR** (2023) “Constraining the Lithospheric Discontinuity Structure beneath Hawai’i using Teleseismic Receiver Functions” *J. Geophys. Res.*, 128, 10.1029/2023JB027029
- **Weller, M. B., A. J. Evans, D. E. Ibarra, and A. V. Johnson** (2023): The Ancient Venus Atmosphere: Atmospheric N₂ Explained by Early Plate Tectonics. *Nature Astronomy*. DOI: 10.1038/s41550-023-02102-w.

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 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!

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On Spotify: https://bit.ly/SOS_spotify

On Amazon: https://bit.ly/Superheroes_amazon

MEETINGS/EXPOS/ OPPORTUNITIES OUTSIDE OF PURDUE

SCHLANGER 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

February 21-23, 2024

Houston, TX / virtual

[Meeting info](#)

55th LUNAR AND PLANETARY SCIENCE CONFERENCE

(LPSC)

March 11-15, 2024

The Woodlands, TX / virtual

[Meeting info](#)

URANUS FLAGSHIP WORKSHOP

May 21-23, 2024

NASA Goddard Space Flight Center, Greenbelt, MD

[Meeting info](#)

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.](#)

**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 Mgmt 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 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 (ECAPE) 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, and 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 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](#).