

Department of Earth, Atmospheric, and Planetary Sciences

# EAPS WEEKLY NEWSLETTER

**September 25, 2023** 

Facebook Twitter LinkedIn Instagram Website

#### **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 PRIMARY COMMITTEE
TUESDAY, SEPTEMBER 21, 3:30 – 5:00PM
HAMP 2244

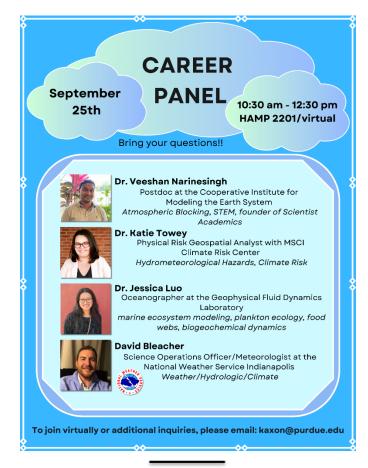
## MS AND PHD EAPS STUDENTS BROADEN YOUR GRAD EXPERIENCE

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, <u>click here</u> for more information.





#### **PUBLICATIONS**

Roger N. Bryant, Jocelyn A. Richardson, Tara C.
 Kalia, Olivier Gros, Juan Lopez-Garriga, Clara L. Blättler;

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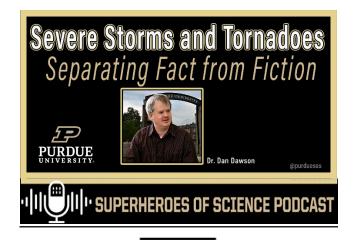
Inorganic sulfate-based signatures of chemosymbiosis in modern infaunal lucinids. *Geology* 2023; doi: https://doi.org/10.1130/G51353.1

### **OUTREACH NEWS**

Check out the latest Superheroes of Science podcast with Dr. Dan Dawson of Purdue EAPS!

Listen or watch here:

YouTube | Apple



## 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

Repository: <a href="https://www.purdue.edu/science/K12/LabPages/c">https://www.purdue.edu/science/K12/LabPages/c</a> areers.php

generation of scientists, engineers, and innovators!

Connect with us and contribute to the STEM Career

exploration and education. Let's inspire the next

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:

<u>Twitter</u> <u>Instagram</u>

<u>Facebook Superheroes of Science</u>
EAPS departmental outreach web page

#### **SUPERHEROES OF SCIENCE**

Please help us by subscribing and sharing our podcast and our <u>YouTube</u> channel!

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On Spotify: <a href="https://bit.ly/SOS spotify">https://bit.ly/SOS spotify</a>

On Amazon: <a href="https://bit.ly/Superheroes amazon">https://bit.ly/Superheroes amazon</a>

# MEETINGS/EXPOS/ OPPORTUNITIES OUTSIDE OF PURDUE

NCAR ADVANCED STUDY PROGRAM ACCEPTING
APPLICATIONS FROM STUDENTS AND NOMINATIONS
FROM NCAR SCIENTIFIC STAFF FOR GRADUATE
VISITOR PROGRAM AND STUDENT APPLICATIONS FOR
THE BRIDGE TO GVP PROGRAMS

The NCAR Advanced Study Program (ASP) is pleased to announce that we are now accepting applications from students and nominations from NCAR scientific staff for the Graduate Visitor Program (GVP) and student applications for the Bridge to GVP programs.

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#### \*Graduate Visitor Program\*

The ASP's Graduate Visitor Program (GVP) is an excellent way for graduate students to connect with NCAR to work on parts of their thesis or final project equivalent with guidance from NCAR scientists and engineers for visits ranging from two to six months. These visits have the goal of enhancing NCAR partnerships with other public and private institutions while enriching the research of the participating students.

The application deadline for the GVP is October 31, 2023. The host nomination deadline for NCAR scientists and engineers is November 5, 2023.

https://edec.ucar.edu/advanced-studyprogram/graduate-visitor-program

#### \*Bridge to GVP\*

The ASP's Bridge to GVP is a hybrid one-month exploratory internship (3 weeks virtual and one week in person) at NCAR for graduate students who may be early in their career or who don't have a fully defined collaborative project for a regular GVP visit. The internship will give the student an opportunity to explore potential collaborations at NCAR with the goal of a longer visit in the future. Unlike the regular GVP process, this program does not require a nomination from an NCAR sponsor.

## The application deadline for the Bridge to GVP is October 31, 2023.

https://edec.ucar.edu/advanced-studyprogram/gvp-bridge-program Questions? Contact\_asp-gvp-program@ucar.edu or cyccone@ucar.edu.

#### GEOSCIENCE INTERNSHIP OPPORTUNITES - DEVON ENERGY

Devon Energy's open Geoscience Internship position. We are currently seeking graduate-level geoscience students to intern with us in Oklahoma City, through the summer of 2024.

Detailed information regarding the internship and where to apply can be found <a href="https://example.com/here">here</a>.

## 7TH MIDWEST STUDENT CONFERENCE ON ATMOSPHERIC RESEARCH September 30-October 1, 2023

Showcase your research at the 7<sup>th</sup> Midwest Student Conference on Atmospheric Research (MSCAR)! MSCAR is a 2-day conference with student talks and poster sessions, guest speaker seminars, workshops and more, and we welcome all undergraduate and graduate students to join us and learn about Atmospheric Sciences. It will be hosted on September 30 - October 1, 2023 at the

University of Illinois Urbana-Champaign, in-person with a hybrid component. **Abstract submissions open on August 1st.** A hotel block is available! Save the date and follow us on Twitter (@MSCAR\_Illinois) to learn the most updated news about the conference!

## FREE COURSE PROVIDED BY THE ASSOCIATION FOR WOMEN GEOSCIENTISTS

American Geosciences Institute, in partnership with the AAPG Foundation is offering AGI Member Societies FREE access to the Geologize online course, "Practical Geocommunication." This course, valued at \$400 per person, provides an excellent opportunity for geoscientists to become more effective and powerful public ambassadors for our field, something that is urgently needed. Given the challenges facing both our field and society more broadly, it has peraps never been more vital to effectively communicate geoscience to the public and other stakeholders. The free offer is available for one year, so you are encouraged to take advantage soon!

How to get free access to the training:

- Go to the AGI <u>society landing page here</u>.
- Click on the 'AGI Access' button
- Register for the course (free)
- Click on the link 'Have a Coupon?"
- Enter the code 'awg-agi-pggz-2324' to remove the price.

## SCHOLARSHIPS AVAILABLE INTERNATIONAL ASSOCIATION FOR GEOSCIENCE DIVERSITY STUDENT PATHWAYS SCHOLARSHP

This scholarship is a one-time award of \$500-\$1000, depending upon the number of applicants, for students with disabilities pursuing fields of study within the geosciences. This scholarship is open to both full-time and part-time students and can be used to cover the cost of tuition, rent, bills, or other financial obligations they may be dealing with.

Deadline for entry is October 1, 2023.

## 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

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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.

#### MARS EXPLORATION PROGRAM ANALYSIS GROUP

New Meeting Date: October 13, 2023 Virtual

Meeting info

#### **VENUS EXPLORATION ANALYSIS GROUP**

October 30-31, 2023 Albuquerque, NM / Virtual Meeting info

#### **VENUS AS A SYSTEM**

November 1-3, 2023 Albuquerque, NM / Virtual Meeting info

### OUTER PLANETS ASSESSMENT GROUP (OPAG) MEETING

November 28-29, 2023 Boulder, CO / Virtual Meeting info

#### 2<sup>nd</sup> INTERNATIONAL ORBITAL DEBRIS CONFERENCE

December 4-7, 2023 Houston, TX / virtual Meeting info

## PLANET CHARACTERIZATION IN THE SOLAR SYSTEM AND THE GALAXY WORKSHOP

February 21-23, 2024 Houston, TX / virtual Meeting info

## POSITIONS AVAILABLE-CAREER OPPORTUNITIES

UNIV OF OKLAHOMA-CAPS SCIENTIST OPENING
RESEARCH ASSOCIATE OR POST-DOC APPOINTMENT

The Center for Analysis and Prediction of Storms (CAPS) at the University of Oklahoma is seeking a meteorologist or data scientist to participate in research of cutting-edge numerical weather prediction (NWP), ensemble weather prediction and associated calibration/post-processing to improve forecasts of high impact weather. The individual selected for this position will contribute to NOAA-funded projects relating to flash flood prediction, winter weather predictions, and development of the next-generation Rapid Refresh Forecast System (RRFS) ensemble. This research includes the use of machine learning algorithms to calibrate and post-process convection-allowing model output, so an interest in data science/AI will be helpful.

#### Job Responsibilities:

- Implement new and updated model capabilities for research and real-time forecasting utilizing the convection allowing model ensembles.
- Run and monitor real-time ensemble NWP forecasts using NOAA's FV3-LAM (specifically, the UFS Short-Range Weather App) on high performance computing systems, to support CAPS research projects. Non-standard work hours may be required for 4-6 weeks in the summer and 2-3 weeks in the winter (can be done remotely).
- Contribute to verification of CAPS ensemble forecasts and forecast products.
- Publish findings in peer-reviewed academic journals and present research results at professional meetings and conferences.

#### **Required Qualifications:**

- Master's degree (for a research associate appointment) or a recent Ph.D. (to be appointed as a post-doc) in meteorology, atmospheric science, computer science/data science or a closely-related field.
- At least one year of experience working with numerical weather prediction models (e.g., WRF, FV3, ARPS) in a high-performance Linux environment.
- Two years of experience in scientific programming and computing on Linux systems using high-level programming languages (such as Fortran, R and/or Python).
- Ability to work independently and troubleshoot issues in running community-developed software packages.
- Ability to communicate effectively in meetings, research presentations, software documentation, and formal publications.

#### **Desired Skills:**

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- Familiarity with workflow management on highperformance computing systems using schedulers such as SLURM.
- Experience with developing and/or modifying workflow automation using, e.g., Linux/Unix shell scripts, Python, and/or Rocoto.
- Familiarity with methods and software for NWP forecast visualization, evaluation, and verification, such as Python, Model Evaluation Tools (MET), etc.
- Familiarity with accessing datasets via tools such as AWS CLI and/or UNIDATA LDM.

#### How to Apply:

Send a statement of interest highlighting how you meet the position qualifications, your resume/CV, and a list of three professional references to: Keith Brewster, kbrewster@ou.edu. Questions about the position may also be directed via email to Dr. Brewster. This position will remain open until filled. A formal review of applications will start on October 23rd, 2023 with anticipated start date in December, 2023. Fall 2023 graduates are welcome to apply.

#### STAFF METEOROLOGIST

The Department of Geography and Meteorology at Valparaiso University in northwest Indiana seeks applicants for the position of Staff Meteorologist. This is a full-time, staff scientist (non-faculty) position subject to annual professional reviews. We are looking for a dynamic, enthusiastic, instrumentation-oriented scientist with an M.S. or equivalent experience in meteorology/atmospheric science. Candidates should possess an outgoing personality with excellent interpersonal skills and a desire to work closely with undergraduate meteorology students. Apply here.

The department, located in Kallay-Christopher Hall, is home to ~70 undergraduate meteorology majors and maintains a Linux-based computer network, a dual-polarization Doppler radar, radiometer, multiple radiosonde systems, instrumented meteorological towers, and a suite of meteorological instrumentation. More information can be found at www.valpo.edu/geography-meteorology.

Review of applications will begin October 2, 2023 until the position is filled.

#### **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 <u>Sciences at Purdue University</u>. 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 stratocumulustopped 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 (<a href="mailto:lwelp@purdue.edu">lwelp@purdue.edu</a>). 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.

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#### WATER DATA INTEGRATOR

The New Mexico Water Data Initiative is hiring a Water Data Integrator position. This position will use their hydrology, earth science, or data science background to review and compile water datasets. This position is a full-time, one-year, position with benefits. The positions may become long-term based on future grants and funding. A flyer with links to apply is attached to this email. Interested candidates may email Rachel Hobbs directly with questions. The New Mexico Water Data Initiative is a collaborative effort to make New Mexico's water data more accessible for management and planning. These positions will be part of a dynamic team working to make New Mexico more resilient to climate change.

## TENURE-TRACK FACULTY POSITION IN ATMOSPHERIC SCIENCE/CLIMATE SCIENCE IOWA STATE UNIVERSITY

The Department of Geological and Atmospheric Sciences in the College of Liberal Arts and Sciences at Iowa State University invites applications for a tenure-track faculty position in the area of Meteorology and Climate Science at the rank of assistant professor.

The successful candidate will be expected to build a nationally recognized, externally funded research program; mentor graduate and undergraduate students; and teach undergraduate and graduate courses (particularly in atmospheric and climate dynamics). Possible research areas include, but are not limited to, climate dynamics, physical mechanisms of climate change, numerical modeling of change in extreme weather/climate events, and the dynamics of high impact climate events. The position is part of a strategic initiative to build Iowa State's research strength and degree programs in key areas, including climate science and sustainability. Collaborative and interdisciplinary research will be encouraged. Candidates must hold a Ph.D. in Atmospheric Sciences, or closely related field, by the time of appointment. All applications must be submitted electronically. Interested candidates are encouraged to view this full posting before finalizing materials. Please be prepared to attach a letter of application, including concise teaching and research statements, curriculum vitae, and the names, addresses, e-mail addresses, and phone numbers of at least three references. The positions will remain open until filled. Full consideration will be given to applications received by October 2, 2023.

#### 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 ENVIROPORENSICS

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

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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 beginning August 2023. 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 <u>meteorology positions</u> are open with TEGNA.

#### **BRYAN ENVIRONMENTAL CONSULTANTS**

Homewood, IL

#### SEEKING PART-TIME TO FULL-TIME POSITIONS

- Bachelor's or Master's degree in environmental engineering, civil engineering, geotechnical engineering, geology
- Knowledge of State and Federal environmental regulations a plus
- Experience with Phase I and II Environmental Site assessments a plus
- Strong writing skills
- Proficient in all Microsoft Office applications
- Must have cell phone and computer (laptop)
- Valid Driver's License

## 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 <u>Air Force Science & Technology</u> 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 <u>Qian Zhang</u> if you are interested in applying and/or have any questions about the company and the opportunities.

## NATIONAL WEATHER SERVICE POSITIONS AVAILABLE

<u>Check here for available positions</u> 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

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campus. Active links to additional information will be provided as needed. Material for inclusion in the newsletter should be submitted to <u>Cheryl Pierce</u> 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, <u>click here</u>. As an additional resource for information about departmental events, seminars, etc., see our <u>departmental calendar</u>.

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