

EAPS WEEKLY NEWSLETTER

January 9, 2023

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EAPS MEETINGS & EVENTS

[PURDUE CALENDAR 2023](#)


[EAPS K-12 OUTREACH CALENDAR OF EVENTS](#)

[REPORT YOUR OUTREACH AND ENGAGEMENT ACTIVITIES](#)

NEWS/OPPORTUNITIES AT PURDUE

MRCC PAID SUMMER UNDERGRAD INTERNSHIP

Details below. **Submit by Feb 6, 2023.** Send questions & applications to mrcc@purdue.edu



MRCC 2023 Summer Intern – Climatologist

Position: Student hourly
Salary: \$15/hour; 40 hours/week
Location: West Lafayette, Indiana (must be in-person); Purdue University

Availability: Must commit to a minimum of 8 weeks. Up to 13 paid weeks are available. Internship period run from May 15, 2023 – August 11, 2023.

Primary Function of Position: To serve in a support role within the service and research-based environment at the Midwestern Regional Climate Center (MRCC).

Duties & Responsibilities: This position is designed to expose the intern to the range of activities performed by the MRCC. The intern will assist MRCC climatologists with outreach and education activities (e.g., social media, marketing of products and tools), in responding to data and information requests in the MRCC service office, and with applied research projects.

Education Requirement: This position is open to anyone currently enrolled as a sophomore or above in an atmospheric sciences or related field program. Graduating seniors are eligible only if they have been accepted to a graduate degree program and they will begin that program no later than Fall 2023.

Experience Requirement: A strong interest in climatology is preferred, as well as an interest in climate outreach and education. Strong communication skills are required for this climate services and outreach environment.

Knowledge (Required): Experience with word processing and spreadsheet software
Encouraged: Experience in computer programming, scripting, and statistical packages.

Decision Timeline: Top candidates will be invited for a virtual interview in mid-February. Internship offer letters will be sent no later than February 28, 2023, and candidates will be given 10 days from when they receive their letter to accept or decline the offer. The MRCC expects to hire up to 2 student interns for Summer 2023.

Logistics: Interns will be responsible for their own travel to/from West Lafayette and responsible for their own housing. Interns are eligible to apply for student housing through Purdue University.

Contact Information: A cover letter, resume, and the names of up to three professional references should be submitted electronically via email no later than 12 PM Eastern on February 6, 2023. The applicant's last name must be included within each file name.

Applications should send all materials to:
 Midwestern Regional Climate Center
mrcc@purdue.edu

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.

OUTREACH NEWS

Don't forget to submit any activities you do with K-12: <https://bit.ly/EAPSOOut>

Did you know that Outreach is working on an online [science demonstration repository](#)?

If you know a science demo that educators would enjoy, let us know!



Science Demo Series

Watch for new Demos on Fridays

[@purduesos](#)

Follow us on Social media to see now demos on Fridays.

Social sites:

[TikTok SuperHeroesofScience](#) [Twitter Facebook EAPS Outreach](#) [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](#)!

On Apple: https://bit.ly/SOS_apple
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PUBLICATIONS

- Kollias, P.; Palmer, R.; Bodine, D.; Adachi, T.; Bluestein, H.; Cho, J. Y. N.; Griffin, C.; Houser, J.; Kirstetter, Pierre. E.; Kumjian, M. R.; Kurdzo, J. M.; Lee, W. C.; Luke, E. P.; Nesbitt, S.; Oue, M.; Shapiro, A.; Rowe, A.; Salazar, J.; **Tanamachi, R.**; Tuftedal, K. S.; Wang, X.; Zrnic, D.; Puigdomenech Treserras, B., 2022: Science Applications of Phased Array Radars. *Bull. Amer. Meteor. Soc.*, **103**, E2370–E2390, <https://doi.org/10.1175/BAMS-D-21-0173.1>.
- **Zhao, B., Zhuang, Q., & Frolking, S.** (2022). Modeling carbon accumulation and permafrost dynamics of northern peatlands since the Holocene. *Journal of Geophysical Research: Biogeosciences*, 127, e2022JG007009. <https://doi.org/10.1029/2022JG007009> PDF
- Lu, Y., Huang, Y., **Zhuang, Q.** et al. China's terrestrial ecosystem carbon balance during the 20th century: an analysis with a process-based biogeochemistry model. *Carbon Balance Manage* 17, 16 (2022). <https://doi.org/10.1186/s13021-022-00215-9> PDF
- **Dan Kou**, Tarmo Virtanen, Claire C. Treat, Juha-Pekka Tuovinen, Aleksi Räsänen, Sari Jutinen, Juha Mikola, Mika Aurela, Lauri Heiskanen, Maija Heikkilä, Jan Weckström, Teemu Juselius, Sanna R. Piilo, Jia Deng, Yu Zhang, Nitin Chaudhary, Conghong Huang, Minna Väiliranta, Christina Biasi, **Xiangyu Liu, Mingyang Guo, Qianlai Zhuang**, Atte Korhola, Narasinha J. Shurpali (2022). Peatland heterogeneity impacts on regional carbon flux and its radiative effect within a boreal landscape. *Journal of Geophysical Research: Biogeosciences*, 127, e2021JG006774. <https://doi.org/10.1029/2021JG006774> PDF
- **Oh, Y., Zhuang, Q., Welp, L.R.** et al. Improved global wetland carbon isotopic signatures support post-2006 microbial methane emission increase. *Commun Earth Environ* 3, 159 (2022). <https://doi.org/10.1038/s43247-022-00488-5> PDF
- **Huang, C., Zhuang, Q., Meng, X.** et al. A fine spatial resolution modeling of urban carbon emissions: a case study of Shanghai, China. *Sci Rep* 12, 9255 (2022). <https://doi.org/10.1038/s41598-022-13487-5> PDF
- **Zhao, B., Zhuang, Q., Treat, C., & Frolking, S.** (2022). A model intercomparison analysis for controls on C accumulation in North American peatlands. *Journal of Geophysical Research: Biogeosciences*, 127, e2021JG006762. <https://doi.org/10.1029/2021JG006762> PDF
- **McConeghy, J., Flesch, L., & Elliott, J.** (2022). Investigating the effect of mantle flow and viscosity structure on surface velocities in Alaska using 3-D geodynamic models. *Journal of Geophysical Research: Solid Earth*, 127, e2022JB024704. <https://doi.org/10.1029/2022JB024704>

MEETINGS/EXPOS/ OPPORTUNITIES OUTSIDE OF PURDUE

SUMMER 2023 UNDERGRADUATE REU

Are you looking for a summer research internship studying ocean, coastal or environmental science? I invite you to check out the Maryland Sea Grant Summer REU program. We bring upper-level undergraduate students to the Chesapeake Bay to conduct individual research projects with a scientist-mentor at the University of Maryland Center for Environmental Science. We select undergrads in many disciplines, including engineering, biology, chemistry, physics, mathematics, ecology and marine and environmental science.

Our program runs for 12-weeks from May 22 to August 13, 2023.

Each REU fellow will receive:

- \$7,200 stipend
- Free housing at your research lab
- Round-trip travel expenses

In particular, **we encourage students from colleges and universities where access to marine science and to research opportunities is limited and who are from groups traditionally underrepresented in science, technology, engineering and math.** We believe bringing together students from many disciplines, backgrounds and parts of the country makes for a more interesting and educational summer experience.

We are accepting applications for the 2023 class now through February 15. We held our first in-person REU this past summer and expect to hold summer 2023 in-person as well. We recognize that the state of the pandemic may impact how the program operates. Please visit our website to find out more (www.mdsg.umd.edu/reu) or drop me a note at reu@mdsg.umd.edu.

DEVELOPING EXPERTISE AND BUILDING COLLABORATIONS TO ADVANCE ATMOSPHERIC SCIENCE EDUCATION RESEARCH (ASER) PROFESSIONAL DEVELOPMENT WORKSHOP

We would like to invite you to apply to our NSF-funded workshop, Developing Expertise and Building Collaborations to Advance Atmospheric Science Education Research (ASER).

This workshop for the ASER community will take place from May 22nd - 24th, 2023 in Minneapolis, MN. The purpose of the workshop is to build collaborations and increase research expertise among emerging and current atmospheric science education researchers. We invite SoTL* scholars, DBER** scholars, and newcomers to apply. The workshop will consist of small focus sessions on research topics and new research collaborations among ASER scholars (see attached flyer). Workshop events will include dinner with an invited speaker, and time to network and collaborate with atmospheric science educators and education researchers. All travel expenses and meals will be provided for workshop participants. Workshop participants will be asked to complete a series of pre-workshop tasks (~ 3 hours), and we hope that collaborations will continue post-workshop. To apply, please complete a short application by clicking [HERE](#). **Please apply before Wednesday, January 18th, 2023.** Thank you for considering this invitation.

FELLOWSHIPS IN GEOPHYSICAL FLUID DYNAMICS AT WOODS HOLE OCEANOGRAPHIC INSTITUTION

June 20 to August 25, 2023

Since 1959 the GFD program has promoted an exchange of ideas among researchers in the many distinct fields that share a common interest in the nonlinear dynamics of fluid flows in oceanography, meteorology, geophysics, astrophysics, applied mathematics, engineering and physics. Each year, the program is organized around a ten-week course of study and research for a small group of competitively selected graduate-student fellows. The overall philosophy is to bring together researchers from a variety of backgrounds to provide a vigorous discussion of concepts that span different disciplines, and thereby to create an intense research experience. For the student fellows, the centerpiece of the program is a research project, pursued under the supervision of the staff. At the end of the program, each fellow presents a lecture and a written report for the GFD proceedings volume.

The Program commences with two weeks of Principal Lectures focusing on a particular theme in GFD. **For 2023, the theme is "GFD on Other Worlds"** and the lecturers will be Heather Knutson (Caltech), who will concentrate on recent observations from other worlds, and Geoff Vallis (University of Exeter), who will review our theoretical understanding of GFD on other worlds.

Up to ten competitive fellowships are available for graduate students. Successful applicants will receive stipends of \$7,793 and an allowance for travel expenses within the United States. A small number of unpaid fellowships may also be available for strongly qualified students who can support themselves financially. **The application deadline is February 1, 2023.** Awards will be announced by March 31, 2023. We seek applicants from all areas of Geophysical Fluid Dynamics, and particularly encourage applications from women and members of underrepresented groups. It is expected that fellows will be in residence for the full ten weeks of the program, and that visitors will spend extended periods of at least one week participating in the program. Further information and application forms may be obtained at <https://gfd.whoi.edu> , or by writing to: gfd@whoi.edu Prospective visitors should contact Tiffany Shaw at tas1@uchicago.edu , or Pascale Garaud at pgaraud@soe.ucsc.edu

WHOI is an Equal Employment Opportunity/Affirmative Action Organization. The GFD Program is funded by the National Science Foundation and the Office of Naval Research.

SCHOLARSHIPS AVAILABLE - 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.](#)

MASTER OF ARTS IN TEACHING EARTH SCIENCE RESIDENCY PROGRAM ACCEPTING APPLICATIONS

[The Master of Arts in Teaching Earth Science Residency Program](#) in the Richard Gilder Graduate School at the American Museum of Natural History in New York City is looking for graduates with Earth and space science backgrounds (geology, mineralogy, paleontology, oceanography,

astronomy, environmental geology, and more) who want to make a difference in the world of STEM education. This teaching fellowship combines coursework, mentoring, and real-world experience to prepare Earth and space science graduates for rewarding careers as culturally responsive middle and high school teachers. **All degree candidates will receive free tuition, books, and a \$30,000 living stipend.** In return, candidates commit to teaching in a high-needs school for three years. With a sole focus on preparing new Earth science teachers, the program is a full-time, 15-month Master's degree program that takes place at the Museum and in urban partner schools. We seek a student body with a passion for social justice and diverse life and career experiences. We are currently accepting applicants for the class that will begin in June 2023. Prospective students are encouraged to attend an Information Session or to contact us for more information. You can also visit the program website to learn more and/or join our mailing list (make sure to click MAT for Earth Science Grads). For questions, you can contact the program office directly <mailto:atmat@amnh.org> or (212) 313-7464.

28th MEETING OF THE NASA SMALL BODIES ASSESSMENT GROUP
January 24-26, 2023
Pasadena, CA/Virtual
[Meeting info](#)

VENUS SURFACE AND ATMOSPHERE CONFERENCE
January 30 – February 1, 2023
Change of Conference Location-
Houston, TX/Virtual
[Meeting info](#)

MERCURY EXPLORATION ASSESSMENT GROUP (MEXAG) ANNUAL MEETING
February 1-3, 2023
Virtual
[Meeting info](#)

54TH LUNAR AND PLANETARY SCIENCE CONFERENCE
March 13–17, 2023
The Woodlands, TX/Virtual
[Meeting info](#)

4TH INTERNATIONAL PLANETARY CAVES CONFERENCE
May 4-7, 2023
Haria Municipality, Lanzarote, Spain

[Meeting info](#)

BRINES ACROSS THE SOLAR SYSTEM: ANCIENT AND FUTURE BRINES CONFERENCE
May 15-18, 2023
Reno, NV
[Meeting info](#)

ASTEROIDS, COMETS, & METEORS CONFERENCE
June 18-23, 2023
Flagstaff, AZ
[Meeting info](#)

URANUS FLAGSHIP: INVESTIGATIONS AND INSTRUMENTS FOR CROSS-DISCIPLINE SCIENCE
July 25-27, 2023
Pasadena, CA
[Meeting info](#)

2nd INTERNATIONAL ORBITAL DEBRIS CONFERENCE
Dec. 4-7, 2023
Houston, TX / virtual
[Meeting info](#)

POSITIONS AVAILABLE- CAREER OPPORTUNITIES

WEATHER, OCEANOGRAPHY, AND CLIMATE CHANGE INSTRUCTOR AT PORTLAND COMMUNITY COLLEGE

Portland Community College is seeking a full-time general science faculty member to provide culturally responsive instruction in support of PCC's Mission and Values. The successful candidate will be a dynamic instructor who can build an environment that inspires and communicates a love of physical science to a diverse group of students. There will be opportunities to provide input and collaborative leadership in the areas of curriculum and program development, mentoring, virtual learning, college-wide initiatives, community outreach and educational research. The ideal candidate will have a background in meteorology, oceanography, and climate studies, as well as experience with aviation weather forecasting. The new instructor in this position will teach classes at the Rock Creek campus, and fully-online, to support general education as well as PCC's Aviation Science program. The earth sciences departments are currently in a state of renewal, and this is a rare

opportunity to help shape the future growth of the program for the 21st century. [More info.](#)

**MILLERSVILLE UNIVERSITY –
TENURE TRACK ASSISTANT PROFESSOR OF
METEOROLOGY (BEGINNING AUGUST 2023)**

Millersville University - Tenure Track Assistant Professor of Meteorology (Beginning August 2023)
The Department of Earth Sciences in the College of Science and Technology welcomes applications for a Full-Time Tenure-Track Assistant Professor position beginning August 2023. Responsibilities include teaching, advising students, scholarly or creative work and department and university service. Actual assignments will depend upon department needs. The successful candidate will have a strong interest in teaching undergraduates (12 contact hours of instruction each semester), involvement of undergraduates in their research program, mentoring and advisement of undergraduates, and participation in recruitment activities. The department, college, and university cultivate a safe, open and inclusive environment and are committed to hiring a diverse candidate. [More info.](#)

**POST-DOC POSITION OPEN AT MIT IN THE FIELD OF
ATMOSPHERIC DYNAMICS**

The research tackles questions on the interface between weather and climate. Topics include but are not limited to:

- Midlatitude storm tracks, Rossby Wave Breaking events, atmospheric circulation regimes, and their projected changes.
- Temperature variability, climate and weather extremes, dynamics of heat waves.
- Subseasonal-to-seasonal predictability

For more information about the position, please contact Talia Tamarin-Brodsky at taliatamarin@gmail.com. Applications from women and under-represented minorities are strongly encouraged. Please include a detailed CV and a list of references in your application. Job Requirements: Ph.D. in atmospheric sciences or a related field by the date of hire. Strong background in atmospheric dynamics/geophysical fluid dynamics is an advantage. Demonstrated ability to carry out creative, innovative, independent research, and to publish in peer-reviewed literature, and effective written and verbal communication skills. [More info about positions at MIT.](#)

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](#)

STUDENT TRAINEE –

**McGILL - ASSISTANT PROFESSOR IN THE DEPARTMENT
OF ATMOSPHERIC AND OCEANIC SCIENCES**

tenure-track faculty position at McGill University in the area of "Tropical-Extratropical Interactions."

[Learn more and 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 beginning August 2023. [Learn more here.](#)

SENIOR GEOSCIENTIST AT FREEPORT-MCMORAN

Freeport-McMoRan is a leading international mining company with headquarters in Phoenix, Arizona. We operate large, long-lived, geographically diverse assets with significant proven and probable reserves of copper, gold, and molybdenum. The company has a dynamic portfolio of operating, expansion and growth projects in the copper industry. Freeport-McMoRan is one of the world's largest publicly traded copper producers, the world's largest producer of molybdenum and a significant gold producer. We have a long and successful history of conducting our business in a safe, highly efficient and socially-responsible manner. Please note: This position has the possibility to work remotely up to 100% of the time.

[Apply here.](#)

**ASSISTANT OR ASSOCIATE PROFESSOR
ATMOSPHERIC AND PLANETARY SCIENCES –
HAMPTON UNIVERSITY**

The Hampton University (HU) Department of Atmospheric and Planetary Sciences (APS) invites nominations and applications for two tenure-track

faculty positions at the rank of Assistant or Associate Professor beginning January 2023.

Founded in 1868, Hampton University is a leading historically black university (HBCU) located on the Virginia Peninsula in the City of Hampton. It is a privately endowed, co-educational, nonsectarian institution. HU established the Center for Atmospheric Science (CAS) in 1996, which led to creation of the Department of Atmospheric and Planetary Sciences in 2007. APS offers M.S. and Ph.D. degrees in the fields of Atmospheric Science and Planetary Science. This program has established a reputation of excellence in education, outreach and research, with particular emphasis on satellite applications for atmospheric studies. [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.](#)

POSTDOCTORAL APPOINTEE AT ARGONNE - WIND ENERGY AND CLIMATE SCIENCES

We have an exciting opportunity for a Postdoctoral Researcher position focusing on Wind Energy and Climate Science at the Argonne National Laboratory. This appointment will be at the Environmental Science Division embedded within our Computer, Environment, and Life Sciences Directorate. The project aims to improve our understanding of factors modulating winds in an offshore wind farm environment, with an ultimate goal of improving their representation in models used for forecasting wind energy. The three-year multi-institutional project titled Observationally driven Resource Assessment with CoupLEd models (ORACLE) is funded by Department of Energy Wind Energy Technology Office. [Learn more here.](#)

METEOROLOGIST POSITIONS AVAILABLE TEGNA

Multiple [meteorology positions](#) 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 [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

At the Envision Center looking to recruit 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 [Qianlai 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](#).