

Department of Earth, Atmospheric, and Planetary Sciences

# EAPS WEEKLY NEWSLETTER

#### January 13, 2025

Facebook Twitter LinkedIn Instagram Website

### EAPS MEETINGS & EVENTS

PURDUE REGISTRAR CALENDARS

EAPS SEMINARS AND EVENTS CALENDAR

EAPS K-12 OUTREACH CALENDAR OF EVENTS

REPORT YOUR OUTREACH AND ENGAGEMENT ACTIVITIES

### CONGRATS, KUDOS, COOL STUFF, AND THUMBS UP!

- Welcome back boilermakers!
- Please welcome David Siple to the team! He is the new Communications Specialist covering EAPS and PhysAstro.

### NEWS/OPPORTUNITIES AT PURDUE

#### DEFENSE CIVILIAN TRAINING CORPS - PURDUE UNIVERSITY

Purdue's Defense Civilian Training Corps (DCTC) is a new program that will build civilian careers in the Department of Defense relating to acquisition, digital technologies, critical technologies, science, engineering, and finance and more. The Defense Civilian Training Corps is a scholarship-for-civilian-service award.

#### NEW OIL AND GAS COURSE OFFERED AT PURDUE

A new engineering course for the upstream oil and gas industry is being offered starting in spring of 2025. This class has been approved at all levels, BS, MS, PhD. Check with your advisor!

#### EAPS GRAD STUDENT RESEARCH OPPORTUNITIES

If you are interested in an EAPS grad research opportunity, <u>click here</u> for more information.

### **OUTREACH NEWS**

If you have not done your STEM Career video yet please set up a time with Steven to record it. It should only take you ~10 minutes to record the video.

Here is a great example from Jonathan Delph

Link to the repository with all of the recorded STEM Career videos: <u>https://purdue.link/STEMrepository</u> If you or your group has worked with or helped with an activity for K-12 students or teachers, please fill out the <u>departmental outreach activity form</u>.

#### Social sites:

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

#### **Tabletop Gaming Night**

- Dates: First Friday of each Month (September May): 6-9 pm
- Location: HAMP 2244
- Needs: No "needs" here. It's not even an official Dept event. It's just a bunch of us getting together to play board games. Everyone is welcome.

### PUBLICATIONS

- Kling, A. M., Greer, J., Thompson, M. S., Heck, P. R., Isheim, D., & Seidman, D. N. (2025). Nanoscale reservoirs store solar wind-derived water on the lunar surface. *Earth* and Planetary Science Letters, 651, 119178. https://doi.org/10.1016/j.epsl.2024.119178
- Mijjum, M., Andrews, B., McCoy, T. Corrigan, C., Caffee, M.W., and Tremblay, M. M., 2025, Using micro-computed tomography (μCT) to determine subsample-specific cosmogenic noble gas production rates of enstatite (E)

chondrites. *Meteoritics and Planetary Science*, p. 1-22. doi: 10.1111/maps.143091

• Parth Hasabnis, Enhedelihai Alex Nilot, Yunyue Elita Li, Introducing USED: Urban Seismic Event Detection, Computers & Geosciences, Volume 196, 2025, 105815, ISSN 0098-3004,

https://doi.org/10.1016/j.cageo.2024.105815. (https://www.sciencedirect.com/science/article/pii/S0098 30042400298X)

# MEETINGS/EXPOS/ OPPORTUNITIES OUTSIDE OF PURDUE

#### SCHWEICKART PRIZE

Propose Solutions. Demonstrate Leadership. Advance Planetary Defense.

Are you a graduate student or postdoctoral fellow with bold ideas for planetary defense? The Schweickart Prize invites you to submit an innovative proposal for tackling challenges like asteroid detection, impact mitigation, space law, or public education.

#### What's the Prize?

The winner will be granted a cash prize of \$10,000 USD, receive a prestigious award, be given broad public exposure through a digital press campaign and receive mentorship by the Prize Selection Committee including Apollo 9 Astronaut Rusty Schweickart. Proposals can address diverse challenges in planetary defense, such as:

- Innovative technologies for asteroid detection
- and deflection.
- Legal solutions for asteroid mitigation collaboration.
- Public education strategies for disaster preparedness.
- Financial frameworks for funding planetary defense.

Don't see your focus here? That's okay—creative and novel approaches are encouraged! Sign up for our newsletters to learn more and be invited to upcoming information sessions.

#### Who can apply?

Graduate and/or recent graduate students. Application Deadline: March 5, 2025 How to apply: Visit <u>www.schweickartprize.org</u>

#### NSF NCAR/ACOM RALPH CICERONE FELLOWSHIP PROGRAM

#### The NSF NCAR/ACOM Ralph Cicerone Fellowship

**Program** for graduate students in Atmospheric Chemistry and related Earth System Science fields is now accepting applications for the 2025-2026 program. See the <u>Cicerone Program website</u> for more information.

Applications are due January 31, 2025.

#### 2025 EXPLORATION SCIENCE SUMMER INTERN PROGRAM

Now Accepting Applications for the Exploration Science Summer Intern Program The Lunar and Planetary Institute (LPI) is accepting applications for the 2025 Exploration Science Summer Intern Program, which will run from May 27 to July 25, 2025, in Houston, Texas. This program offers students the opportunity to contribute to the next era of lunar exploration, including supporting missions such as Artemis II, upcoming lunar landings near the lunar south pole, and efforts tied to the Global Exploration Roadmap.

The LPI invites applications from graduate students in geology, planetary science, and related programs. Selected interns will receive financial support to cover living expenses in Houston and up to \$1,000 for reimbursement of travel expenses.

The application deadline is January 20, 2025. For more information and to apply, visit https://www.lpi.usra.edu/exploration\_intern/

#### WESTERN KENTUCKY UNIVERSITY SEEKING FOUR M.S. GRAD STUDENTS

The Department of Earth, Environmental, and Atmospheric Sciences (EEAS) at Western Kentucky University (WKU) is inviting applications for four M.S.level graduate students to start August 2025. Students will work as a part of the state-wide CLIMBS (https://kynsfepscor.uky.edu/climbs/) initiative, a 5-year, \$20 million National Science Foundation EPSCoR grant to advance research in climate resilience for Kentucky. The successful applicants will be expected to contribute to one of the following projects: (a) Identification and analysis of the synoptic-scale atmospheric environments associated with high-impact weather; (b) Dynamical downscaling of future 21st century climate projections for the Mid-South region of the U.S.; (3) Comprehensive assessment of historical state-wide weather and climate-related threats and hazards; and (4) An historical, wide-ranging study of casualties associated with high-impact weather and climate events.

These positions include a 12-month stipend and tuition. Applicants should have a B.S. degree in the

atmospheric, environmental, or geographic sciences, or a closely related discipline. Prior experience in computer programming (e.g., Python, FORTRAN, NCL, Linux shell scripting) is necessary, and experience in application to climatic processes, numerical weather simulation, and/or Al-driven data analytics is preferred. Interested candidates are encouraged to contact Dr. Jerry Brotzge (<<u>Jerald.brotzge@wku.edu</u>>) for more information.

#### SIPARCS APPLICATIONS ARE OPEN!

We are pleased to announce that we are now accepting applications for the 2025 Summer Internships in Parallel Computational Science. The application deadline for the 2025 SIParCS program is January 21, 2025 at 5pm Mountain Time.

This year we are offering undergraduate and graduate students the opportunity to work with technical projects ranging in topic from machine learning, data science, software engineering, data assimilation, digital asset management, visualization, and application

optimization/parallelization in HPC among others. If you're interested in applying, please visit our website to review our technical statements of work and apply to up to two projects you would like to work with. Watch our videos to learn more about the SIParCS experience or about NSF NCAR as a science organization for a resilient, sustainable society.

We also have a CISL Outreach, Diversity, and Education (CODE) Intern, for graduate students in Higher Education Administration / Student Affairs, Science Education, Education Policy, Social Work, or related programs who are interested in learning about HPC Education and Outreach.

See How to Apply for tips on applying to SIParCS and Frequently Asked Questions. Applicants will be required to submit the following:

- 1. Application through HR website (no more than two (2) projects)
- 2. CV/Resume
- 3. Personal Statement
- 4. Unofficial Transcript (from all institutions attended)

Share this email widely to students who may be interested in an internship at NSF NCAR next summer. International Students who are eligible to work in the U.S. are welcomed and encouraged to apply. The individual project qualifications describe the ideal skill set we look for in candidates. We encourage candidates to apply even if they do not possess all of the listed qualifications. As part of our goal of making a long-term, positive impact on the quality and diversity of the HPC workforce, the SIParCS program welcomes and encourages applications from students who are pursuing their first professional internship. As many CISL staff can attest, the path to an HPC career can follow many twists and turns. Be sure to tell us in your personal statement how all of your work, school, and life experiences have prepared you for taking on a SIParCS project.

As always, if you have any questions about the program or the application process, you can reach us at siparcs@ucar.edu. Feel free to set-up an appointment to learn more about our program.

#### WATERSHED SCHOLARS PROGRAM

We are excited to announce the Watershed Scholars Program for students interested in pursuing a master's degree in environmental sciences, biology, chemistry, civil engineering, or geography with an emphasis in watershed sciences topics broadly at Southern Illinois University Edwardsville (SIUE). Students selected for the program will receive a tuition waiver and \$10,000 scholarship for each of the two years they are in the program, as well as funding to attend conferences and to purchase equipment and tools needed to complete their research. In addition, students will participate in thesis and research workshops, career panels, scientific and technical seminars, and mentoring from a variety of people. Eligible students are required to have an income of \$26,355 (single household)/ \$35,770 for family of 2) or less while a student at program start date (Fall 2025). Income in the prior year is not considered. Scholars must be U.S. citizens, permanent residents, or admitted refugees. Interested individuals can read more about the program here.

SIUE is located near the confluence of the Mississippi and Missouri Rivers and offers opportunities to study watersheds at multiple scales and from rural to urban environments. The SIUE campus is on 2,600 acres of beautiful rolling hills and woodlands, on the bluff above the Mississippi floodplain. Students applying to SIUE master's programs in <u>Geography & GIS</u>, <u>Biological Sciences</u>, <u>Chemistry</u>, <u>Civil Engineering</u>, or <u>Environmental</u> <u>Sciences</u> are eligible to apply for the Watershed Scholars program. Students with an interest in sustainable watersheds and backgrounds in biology, chemistry, engineering, ecology, geography, geology, environmental sciences, fisheries sciences, wildlife management, natural

resources, environmental archaeology, and geosciences, are encouraged to apply. After being admitted to the SIUE graduate program, potential scholars must then apply to the <u>Watershed Scholars Program</u> (or they should apply to both the graduate program and scholarship program at the same time). Potential scholars will be asked to provide a written statement (250-500 words) describing their interest in watershed science research and, if applicable, any

prior relevant research experience. **Students should apply before February 15, 2025,** for priority consideration. Further information, including details on how to apply, can be found on the <u>Watershed Scholars website</u>. If students have any questions, please encourage them to contact the Watershed Scholars project lead, Dr. Adriana E. Martinez at <u>adrmart@siue.edu</u>. This program is funded by the National Science Foundation - DUE Award #2130471.

#### MASTER OF ARTS IN TEACHING EARTH SCIENCE RESIDENCY PROGRAM

The <u>Master of Arts in Teaching Earth Science</u> <u>Residency Program</u> 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 \$40,000 stipend** towards the cost of living. 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 2025. 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 at <u>mat@amnh.org</u> or (212) 313-7464.

#### NSF SOARS FIRST YEAR PROTÉGÉ APPLICATIONS OPEN

We are happy to announce that the NSF SOARS 2025 First-Year Protege **Applications are now open until January 21, 2025**.

Applications must be submitted through the SOARS website: <u>https://soars.ucar.edu/apply</u>

NSF SOARS is an undergraduate-to-graduate bridge program, designed to broaden participation of marginalized communities in the atmospheric and related sciences. Students are invited from multiple STEM disciplines including: chemistry, computer science, ecology, engineering, environmental studies, geography, mathematics, meteorology, oceanography, physics, science education, social sciences, and other related fields.

Program Benefits:

- Multiple-Year Support: Successful Protégés can participate in NSF SOARS for up to four years.
- Stipend: NSF SOARS Protégés work 40 hours a week for 11-weeks and earn a competitive wage.
- Housing and Transportation: The program provides furnished apartments, round-trip airfare, and a bus pass.
- Conferences: Protégés are funded to attend national scientific conferences to present their summer research.

Eligibility Requirements:

- Must be enrolled in a degree-granting institution
- Must not have received a Bachelor's degree in STEM and at least one more semester left of undergrad.
- Must be a U.S. Citizen or Permanent Resident

For more information about the program and how to apply, visit <u>https://soars.ucar.edu/</u>

#### INTERNSHIP OPPORTUNITIES FOR GRADS AND UNDERGRADS - NRO

National Reconnaissance Office (NRO) is currently accepting undergrad and graduate student intern applications for summer 2025. This is what EAPS Alumna Mariah Romero had to say about this program:

"Last summer I supervised three interns that had broad backgrounds (environmental sciences, political science, and earth sciences). I strongly encourage EAPS grads and undergrads to apply.

The NRO is interested in individuals from all STEM fields. The intern application is super quick, students just need to fill out the portal and upload their resume/CV and transcript. The 'Apply Now' button is buried under a lot of text and is at the very bottom, left side of the webpage." Additional links about NRO:

https://www.nro.gov/

https://www.nro.gov/Careers/Student-

### Programs/Student-Opportunities/#cadreintern

#### **UCAR STUDENT OPPORTUNITIES WEBSITE**

Check the opportunities website for opportunities at UCAR.

#### 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.

#### 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. 15<sup>th</sup> of each year.

#### ITOKAWA AND THE DAWN OF ASTEROIDAL SAMPLE RETURN WORKSHOP

January 28-30, 2025 Houston, Texas <u>Meeting info</u>

MERCURY EXPLORATION ASSESSMENT GROUP (MEXAG) ANNUAL MEETING Feb 4-6, 2025 Laurel, Maryland / Virtual Meeting info

#### 56th LUNAR PLANETARY SCIENCE CONFERENCE

March 10-14, 2025 The Woodlands, Texas / Virtual <u>Meeting info</u>

LUNAR SURFACE SCIENCE WORKSHOP April 9-10, 2025

Virtual

Meeting info

8<sup>th</sup> International Planetary Dunes Workshop May 19-22, 2025 Sardina, Italy / Virtual <u>Meeting info</u>

Workshop on Bennu and Ryugu: Samples from the Early Solar System October 7-9, 2025 Houston, TX / Virtual <u>Meeting info</u>

Second Workshop on Ices in the Solar System

January 5-7, 2026 Montreal, Canada

### POSITIONS AVAILABLE-CAREER OPPORTUNITIES

- <u>Assistant Professor of Geology</u> University of Southern Indiana
- <u>CIWRO Research Scientist Warn-on-Forecast</u>
  <u>Modeling</u> Cooperative Institute for Severe and High-Impact Weather Research and Operations (CIWRO)
- <u>Open Rank Professor, Atmospheric Sciences,</u> <u>Tenure Track</u> – University of North Dakota
- Future Faculty in the Physical Sciences (FFPS) Fellowship – Princeton
- <u>Aviation Meteorology Assoc. Professor</u> University of Oklahoma. Contact search chair Dr. Jens Redemann (<u>iredemann@ou.edu</u>)
- <u>Tenure-track Meteorology Faculty Position</u> Valparaiso University
- <u>Multiple Positions</u> with Enviroforensics
- Meteorology and Atmospheric Science <u>multiple</u> <u>positions from various companies</u>
- AGI Geoscience Job Center <u>multiple positions</u>
- Gradient Corp <u>multiple opportunities</u>. contact <u>Qian Zhang</u>
- National Weather Service <u>multiple opportunities</u>

# 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 <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>.