

# EAPS WEEKLY NEWSLETTER

January 27, 2025

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## EAPS MEETINGS & EVENTS

[PURDUE REGISTRAR CALENDARS](#)

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

[REPORT YOUR OUTREACH AND](#)

CONGRATS, KUDOS,  
COOL STUFF, AND  
THUMBS UP!



- Congrats to Ayobami Oladapo, Srilani Wickramasinghe, Shivika Aggrawal, and Marty Frisbee for having the short documentary film they created for CUAHSI be chosen for the Colorado Environmental Film Festival! There were over 270 entries from 49 countries that applied.
- Congrats to Michelle Thompson for being awarded the Presidential Early Career Award (PECASE) for her NASA work. PECASE is the highest honor bestowed by the U.S. government on outstanding scientists and engineers early in their careers.
- Welcome to the world, Noah Royce Carroll! Noah was born on January 14 to EAPS Business Manager Alicia Carroll!
- In case you missed it, Mark Longacre and Bill Hinze, emeritus faculty and alumnus, revisited a 70+ year thesis. Read more: [https://www.eaps.purdue.edu/news/articles/2025/0107\\_70yearoldthesis\\_hinzelangacre.html](https://www.eaps.purdue.edu/news/articles/2025/0107_70yearoldthesis_hinzelangacre.html)

## 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, [click here](#) for more information.

### [EAPS SEMINAR – HANNAH HOROWITZ](#)

**Thursday, January 30, 3:30 pm in HAMP 1252**

Hannah Horowitz is an assistant professor at the University of Illinois Urbana-Champaign. Hosted by Gouri Prabhakar.

### [AI FUSION POSTER SESSION](#)

Join us for the AI Fusion Poster Session, a dynamic gathering designed to foster interdisciplinary collaboration and innovation among Purdue's Colleges of Agriculture,

Engineering, and Science. This event serves as a prelude to the upcoming Seed Grant Competition sponsored jointly by all colleges. This event provides a platform for researchers, faculty, and students to showcase their expertise, exchange ideas, and connect with others interested in advancing artificial intelligence applications in a wide range of fields.

Date: **Wed Jan 29, 2025**

Time: 2:00 – 5:00 PM

Location: STEW 218

[REGISTER FOR EVENT](#)

# 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: <https://purdue.link/STEMrepository>

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](#).

Social sites:

[Twitter](#)

[Instagram](#)

[Facebook Superheroes of Science](#)

[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.

## 4-H Academy Summer Weather/Meteorology Workshop

- Dates: June 11<sup>th</sup>, 12<sup>th</sup>, 13<sup>th</sup>, 2025
- Three-day career exploration event for high school-aged youth who have completed 9-12<sup>th</sup> grade.
- Hands-on Learning, Intro to Meteorology Careers, Technology integration, Environmental Awareness
- Reach out to Angie Frost if interested
  - [alfrost@purdue.edu](mailto:alfrost@purdue.edu)

# PUBLICATIONS

- Bramson, A.M.**, A.C. Pascuzzo, P. Becerra, J.F. Mustard (2025), Development and evolution of icy layer outcrops on Mars' north polar ice cap: A sublimation-based framework. *Journal of Geophysical Research: Planets*, 130, e2024JE008360, <https://doi.org/10.1029/2024JE008360>.
- Ari Essunfeld, Jade M. Comellas, Reid A. Morris, Patrick J. Gasda, Dorothea Delapp, Diane Oyen, **Candice C. Bedford**,

Benton C. Clark, Erwin Dehouck, Ryan B. Anderson, Ana Lomashvili, Roger C. Wiens, Samuel M. Clegg, Olivier Gasnault, Nina L. Lanza, Attribute recognition: A new method for grouping planetary images by visual characteristics, using the example of Mn-rich rocks in the floor of Gale crater, Mars, *Icarus*, Volume 429, 2025, 116451, ISSN 0019-1035, <https://doi.org/10.1016/j.icarus.2024.116451>

- 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>
- Mijum, M.**, Bristol, K.E., Bono, R.K., Sprain, C.J., **Lifton, N.**, and **Tremblay, M.M.**, 2025, A model framework for scaling pre-Quaternary cosmogenic nuclide production rates. *Geochemistry, Geophysics, Geosystems*, v. 26, e2024GC012020. doi:10.1029/2024GC012020
- Mijum, 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, Enhedelilai 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/S009830042400298X>)
- Pascuzzo, A.C., **A.M. Bramson**, P. Becerra, J.F. Mustard (2025), Development and evolution of icy layer outcrops on Mars' north polar ice cap: Observations of vertical and lateral variability. *Journal of Geophysical Research: Planets*, 130, e2024JE008377, <https://doi.org/10.1029/2024JE008377>.
- Vermeuel, M. P., Millet, D. B., Farmer, D. K., Ganzeveld, L. N., Visser, A. J., Alwe, H. D., et al. (2024). A vertically resolved canopy improves chemical transport model predictions of ozone deposition to north temperate forests. *Journal of Geophysical Research: Atmospheres*, 129, e2024JD042092. <https://doi.org/10.1029/2024JD042092>
- Zhang, O., & **Schmitt, D. R.** (2025). An optimized 2D/3D Finite-difference Seismic Wave Propagator Using Rotated Staggered Grid for Complex Elastic Anisotropic Structures. *Computers & Geosciences*, 105850. <https://doi.org/https://doi.org/10.1016/j.cageo.2024.105850>

# 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 [www.schweickartprize.org](http://www.schweickartprize.org)

## 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 [Cicerone Program website](#) for more information.

**Applications are due January 31, 2025.**

## 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 AI-driven data analytics is preferred. Interested candidates are encouraged to contact Dr. Jerry Brotzge ([<Jerald.brotzge@wku.edu>](mailto:Jerald.brotzge@wku.edu)) for more information.

## 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 [Geography & GIS](#), [Biological Sciences](#), [Chemistry](#), [Civil Engineering](#), or [Environmental Sciences](#) 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 [Watershed Scholars Program](#) (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 [Watershed Scholars website](#). If students have any questions, please encourage them to contact the Watershed Scholars project lead, Dr. Adriana E. Martinez at [admart@siue.edu](mailto:admart@siue.edu). This program is funded by the National Science Foundation - DUE Award #2130471.

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

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 \$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 [mat@amnh.org](mailto:mat@amnh.org) or (212) 313-7464.

**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 [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](http://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

[Meeting info](#)

#### **MERCURY EXPLORATION ASSESSMENT GROUP (MEXAG) ANNUAL MEETING**

Feb 4-6, 2025

Laurel, Maryland / Virtual

[Meeting info](#)

#### **56<sup>th</sup> LUNAR PLANETARY SCIENCE CONFERENCE**

March 10-14, 2025

The Woodlands, Texas / Virtual

[Meeting info](#)

#### **LUNAR SURFACE SCIENCE WORKSHOP**

April 9-10, 2025

Virtual

[Meeting info](#)

#### **EXTRATERRESTRIAL MATERIALS ANALYSIS GROUP (ExMAG)**

May 5-7, 2025

Houston, Texas / Virtual

[Meeting info](#)

#### **8<sup>TH</sup> INTERNATIONAL PLANETARY DUNES WORKSHOP**

May 19-22, 2025

Sardina, Italy / Virtual

[Meeting info](#)

#### **87<sup>TH</sup> ANNUAL MEETING OF THE METEORITICAL SOCIETY (METSOC)**

July 14-18, 2025

Perth, Western Australia

[Meeting info](#)

#### **WORKSHOP ON BENNU AND RYUGU: SAMPLES FROM THE EARLY SOLAR SYSTEM**

October 7-9, 2025

Houston, TX / Virtual

[Meeting info](#)

#### **SECOND WORKSHOP ON ICES IN THE SOLAR SYSTEM**

January 5-7, 2026

Montreal, Canada

## **POSITIONS AVAILABLE- CAREER OPPORTUNITIES**

- [Assistant Professor of Geology](#) – University of Southern Indiana
- [Future Faculty in the Physical Sciences \(FFPS\) Fellowship](#) – Princeton
- [Multiple Positions](#) with Enviroforensics
- Meteorology and Atmospheric Science – [multiple positions from various companies](#)
- AGI Geoscience Job Center – [multiple positions](#)
- Gradient Corp – [multiple opportunities](#). contact [Qian Zhang](#)
- National Weather Service – [multiple opportunities](#)

## **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 [David Siple](#) 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](#).