

EAPS WEEKLY NEWSLETTER

August 26, 2024

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EAPS MEETINGS & EVENTS

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CONGRATS, KUDOS, COOL STUFF, AND THUMBS UP!

- Congratulations to Matthew Huber for being appointed to the NOAA Science Advisory Board Climate Working Group!
- Congrats to Prof. Cliff Johnston for earning an [R&D 100 Award](#). This is a joint project with Sandia National Laboratory – look at how clay minerals can be used for direct air capture of CO₂. Our project is titled, “Low-cost Direct Air Capture of CO₂ with Clay Nanointerlayers (LDAC3)”
- Welcome new faculty! Ben Pearce, Cauê Borlina, Maxim Couillard, Michael Vermeuel, Kelsey Prissel, and Tabb Prissel!

NEWS/OPPORTUNITIES AT PURDUE

EAPS PSPSPS PET CALENDAR

The **EAPS Committee on Planning the Selection of Purdue's Special Pets (PSPSPS)** is open for business to start working on our department's Pet Calendar for the upcoming year! For our newcomers, this calendar is meant to showcase all of the adorable pets in our department and give them the recognition they deserve. Please fill out the following form to be included in this year's edition!

<https://forms.gle/t7PsVpkDRQgt1Lxo6>

(Google login required to submit form.)

The calendar will cover January-December of 2025.

If you have multiple pets that you would like included, please include them in the same photo.

Otherwise, only one pet can be submitted, as challenging as that may be. If anyone has important dates they would like included in the calendar, those can be added as well (pending committee approval outlined in the PSPSPS handbook). See the attachments on this email for an example month.

The calendar submission deadline is **Friday,**

September 6, 2024. We will send out a reminder email as the date approaches.

Calendars will cost \$15 each and the money will support the EAPS Graduate Student Assembly. More emails to follow with instructions for placing orders. Please do not hesitate to reach out to melendl@purdue.edu if you have any questions.



PUBLIC IMPACT FAIR
CAREERS & RESOURCES




September 9, 2024
1:00 pm to 6:00 pm
Purdue University
HCRN 1066 - Honors Hall

ALL MAJORS WELCOME

bit.ly/PublicImpactFair

EAPS GRAD STUDENT RESEARCH OPPORTUNITIES

If you are interested in an EAPS grad research opportunity, [click here](#) for more information.

OUTREACH NEWS



If you have not done your STEM Career video yet ([like the one above](#)), 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](#)

SUPERHEROES OF SCIENCE

Please help us by subscribing and sharing our podcast and our [YouTube](#) channel!

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

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

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

Upcoming Outreach Events:

Purdue Homecoming

- Date: Saturday 9/28
- Location: Outside of HAMP building in the College of Science tent
- Time: Morning before game
- Needs:
 - o volunteers to run stations

- o Steven will NOT be available this day. So, groups/persons will need to get the materials for activities prior to the day.

Wonders on the Wabash

- Dates:
 - o Tuesday, September 24
 - o Wednesday, September 25
 - o Thursday, September 26
 - o Tuesday, October 01
 - o Wednesday, October 02
- Location West Lafayette
- Time: This varies depending on what you sign up for.
- Needs
 - o *All-day raft instructor* - You and another adult will be in a raft with approximately 6 to 8 - 6th grade students.
 - o *AM set-up at Davis Ferry* - North 9th Street - 6:30 AM - Early morning set-up is getting rafts and equipment ready for the day.
 - o *Tapawingo Park - PM where needed* - 12:30 PM - Help get lunch set-up and post trip equipment.
 - o *All-day on land where needed* - 9:00 AM - General help
 - o
- More information:
<https://www.tippecanoe.in.gov/969/Volunteer-Information>
- Sign up for this early as they have to do a background check on all volunteers

Planetary Fact of the Week (Universal Facts!)

- Dates: Wednesday, September 11th & Ongoing
- Location: HAMP 2201
- Time: During Crater Cafe 10:30 am (*or schedule another day/time with Steven*)
- Needs: We are recording fun facts about the universe. These videos need to be under 1 minute so make it a quick fact, not a story!

Rock of the Week

- Dates: Ongoing
- Location: HAMP 2270 (Superheroes of Science HQ)
- Time: During GaGgle 10:30 am (*or schedule another day/time with Steven*)
- Needs: We are recording fun facts about rocks, minerals, or fossils. These videos need to be under 1 minute so make it a quick fact, not a story! Bring your favorite rock or send Steven a photo of one that you are going to talk about!

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

- Y. Zhou, C.P. West, D. Calderon-Arrieta, M. Misovich, A. P. S. Hettiyadura, T. Shi, J. Cui, H. Wen, W. Pu, X. Wang, A. Laskin. Photolytic Degradation of Water-Soluble Organic Carbon from Ambient Snow: Changes in Molecular Characteristics, Composition of Brown Carbon Chromophores, and Radiative Effects. *Journal of Geophysical Research-Atmospheres*, 129, e2024JD040755, (2024).
<https://doi.org/10.1029/2024JD040755>
- K. Siemens, T. Paik, A. Li, Q. Xie, F. Rivera-Adorno, J. Tomlin, R. Chakrabarty, A. Laskin.* Light Absorption and Chemical Composition of Brown Carbon Organic Aerosol Produced from Burning of Selected Biofuels. *ACS Earth and Space Chemistry*, 8, 7, 1416–1428, (2024).
<https://doi.org/10.1021/acsearthspacechem.4c00056>
- Q. Xie, E.R. Halpern, J. Zhang, M. Shrivastava, A. Zelenyuk, R. A. Zaveri, A. Laskin.* Volatility Basis Set Distributions and Viscosity of Organic Aerosol Mixtures: Insights from Chemical Characterization Using Temperature Programmed Desorption – Direct Analysis in Real Time – High Resolution Mass Spectrometry. *Analytical Chemistry*, 96, 23, 9524–9534, (2024). <https://doi.org/10.1021/acs.analchem.4c01003>
- Laferriere, K. L., Bramson, A. M., & Smith, I. B., (2024), Mars' North Polar Spiral Trough Migration Paths as Revealed Through 3D Radar Mapping. *JGR Planets*, 129(8), <http://dx.doi.org/10.1029/2023JE007996>
- D. Calderon-Arrieta, A.C. Morales, A.P.S. Hettiyadura, C. Li, T. Estock, C. Li, Y. Rudich, A. Laskin. Enhanced Light Absorption and Elevated Viscosity of Atmospheric Brown Carbon through Evaporation of Volatile Components. *Environmental Science and Technology*, 58, 17, 7493–7504. (2024). <https://doi.org/10.1021/acs.est.3c10184>.
- W. Li, L. Xu, Y. Wang, N. Riemer, K. Adachi, Z. Shi, D. Zhang, Z. Zheng, A. Laskin. Microphysical properties of atmospheric soot and organic particles: Measurements, modeling, and impacts. *NPJ Climate and Atmospheric Science*, 7, 65, (2024).
<https://doi.org/10.1038/s41612-024-00610-8>.

MEETINGS/EXPOS/ OPPORTUNITIES OUTSIDE OF PURDUE

SCGSR GRADUATE STUDENT PROGRAM

The SCGSR 2024 Solicitation 2 (2024 S2) is now open for applications. You can see the solicitation at <https://science.osti.gov/wdts/scgsr/>. The online application can be accessed at <https://apps.ornl.gov/SCGSR/Account>. The

online application will last for 12 weeks and will close on **November 6, 2024, at 5:00PM ET**.

Three items for your attention:

We are hosting an application assistance workshop on **Thursday September 12, 2024 from 2:00 to 3:30 pm ET**. Please register using this link:https://www.zoomgov.com/meeting/register/vJlscOmoqjMjHLU4mBpph2iEXm-HT_OliPo

Please direct all questions to sc.scgsr@science.doe.gov.

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.

AWG BRUNTON AWARD AND

BRUNTON FIELD PROJECT AWARD

The AWG Brunton Award and Brunton Field Project Award promote the future of field mapping and data acquisition for the upcoming generation of people whose gender identity has been historically underrepresented in the geosciences. Applicants should have a passion for and exceptional experience with field work, including internships, field camp, coursework with a field-based research component, or research. The AWG Brunton Award has been active for >20 years and provides Brunton compasses to 1–2 awardees each year. The AWG Brunton Field Project Award started in 2022 and awards a Brunton compass and up to \$1000 to support field activities to each of 1–2 awardees each year. [Learn more here](#). **Deadline for entry is Dec. 15th of each year.**

ASTROBIOLOGY AND THE FUTURE OF LIFE MEETING

October 16-18, 2024
Houston, Texas / Virtual
[Meeting info](#)

MARS EXPLORATION PROGRAM ANALYSIS GROUP (MEPAG)

November 6-7, 2024
Virtual
[Meeting info](#)

OUTER PLANET ASSESSMENT GROUP (OPAG) MEETING

November 6-8, 2024
Virtual
[Meeting info](#)

2024 AGU ANNUAL MEETING

December 9-13, 2024
Washington, DC
[Meeting info](#)

ITOKAWA AND THE DAWN OF ASTEROIDAL SAMPLE RETURN WORKSHOP

January 28-30, 2025
Houston, Texas
[Meeting info](#)

56th LUNAR PLANETARY SCIENCE CONFERENCE

March 10-14, 2025
The Woodlands, Texas / Virtual
[Meeting info](#)

POSITIONS AVAILABLE- CAREER OPPORTUNITIES

- [Geologist I](#) – University of Kentucky
- [Tenure-track asst. professor](#) – Dept. of Marine, Earth, and Atmospheric Sciences (MEAS) at NC State University
- [Aviation Meteorology Assoc. Professor](#) - University of Oklahoma. Contact search chair Dr. Jens Redemann (jredemann@ou.edu)
- [Assistant Instructional Professor](#) – UChicago
- [Senior Instructional Professor](#) – UChicago
- [Tenure-track Meteorology Faculty Position](#) – Valparaiso University
- NYS Mesonet [Field Technicians](#)
- [Multiple Positions](#) with Enviroforensics
- PURDUE STUDENT OPPORTUNITY: Purdue Envision Center [recruiting EAPS students](#)
- 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 [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](#).