

EAPS WEEKLY NEWSLETTER

February 5, 2024

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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 GRAD STUDENT RESEARCH OPPORTUNITIES

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

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

PROF. EMERITUS
DAN SHEPARDSON

GOLDEN LECTURE



Looking Back, Moving Forward
HAMP 1252
3:30 - 4:30 p.m.
Reception to follow in HAMP 2201

EAPS COLLOQUIUM – GOLDEN LECTURE FOR DAN SHEPARDSON, EMERITUS PROFESSOR

Thursday, February 8, 3:30p.m.
HAMP 1252

[Dan Shepardson](#) is an emeritus professor from Purdue EAPS. He is giving his Golden Lecture and all are invited to attend.

[EAPS calendar](#)

PUBLICATIONS

- Adam, L.F., Bridges, J.C., **Bedford, C.C.**, Holt, J.M.C., Rampe, E., Thorpe, M., Mason, K. and Ewing, R.C. (2023), Synchrotron x-ray diffraction for sealed Mars Sample Return sample tubes. Meteorit Planet Sci. <https://doi.org/10.1111/maps.14105>
- Guralnik, B., **Tremblay, M. M.**, Phillips, M., Sellwood, E. L., Gribenski, N., Presl, R., et al. (2024). Three centuries of snowpack decline at an Alpine pass revealed by cosmogenic paleothermometry and luminescence photochronometry. Geophysical Research Letters, 51, e2023GL107385. <https://doi.org/10.1029/2023GL107385>
- **Axon, K. L.**, A. L. Houston, C. L. Ziegler, C. C. Weiss, E. N. Rasmussen, M. C. Coniglio, B. Argrow, E. Frew, S. Swenson, A. E. Reinhart, and M. B. Wilson, 2023: The Potential Roles of Preexisting Airmass Boundaries on a Tornadic Supercell Observed by TORUS on 28 May 2019. *Mon. Wea. Rev.*, **152**, 97–121, <https://doi.org/10.1175/MWR-D-23-0007.1>.
- John P. Ortiz, H. Rajaram, P.H. Stauffer, K.W. Lewis, **R.C. Wiens**, and D.R. Harp (2024) Sub-Diurnal Methane Variations on Mars Driven by Barometric Pumping and Planetary Boundary Layer Evolution. *J. Geophys. Res. Planets*. 129, e2023JE008043. <https://doi.org/10.1029/2023JE008043>.
- Baptiste Chide, Philippe Blanc-Benon, Tanguy Bertrand, Xavier Jacob, Jeremie Lasue, Ralph D. Lorenz, Franck Montmessin, Jorge Pla-Garcia, Fabian Seel, Susanne Schroeder, Alexander E. Stott, Manuel de la Torre Juarez, and **Roger C. Wiens** (2024) An acoustic investigation of the near-surface turbulence on Mars.

J. Acoustic Soc. Am. 155,
<https://doi.org/10.1121/10.0024347>.

- **S.A. Connell**, D.M. Applin, N.N. Turenne, E.A. Cloutis, C. Kiddell, S. Sidhu, P. Mann, P. Ferguson, M. Driedger, J. Campos, A. Barari, M. May, V. Reddy, S.A. Mertzman, D. Trang, "The Iris CubeSat mission: Science payload description for a pathfinder geological space weathering investigation," Acta Astronautica, Volume 216, 2024,
<https://doi.org/10.1016/j.actaastro.2024.01.009>

OUTREACH NEWS

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:

[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

MEETINGS/EXPOS/ OPPORTUNITIES OUTSIDE OF PURDUE

USGC 2024 SUMMER INTERNSHIPS

The USGS Geologic Hazard Science Center's (GHSC) **2024 summer internship job postings are now live on USAJOBS and will available for two weeks through February 12.** The links to apply either as a current undergraduate or graduate student are below. Note there are [project opportunities](#) spanning all areas of GHSC (earthquake, landslide, geomagnetism) this year both in Golden, CO, and Albuquerque, NM.

GS-3/4 for undergrads:

<https://www.usajobs.gov/job/773141100>

GS-5/7 for grads:

<https://www.usajobs.gov/job/773141200>

WASHINGTON STATE UNIVERSITY, PULLMAN WA (EASTERN WA)

[Website with details about the program](#)

Applicable Field/Major: Students at all levels of their undergraduate work are sought for this program, and majors such as environmental engineering, atmospheric science, water resources, civil engineering, as well as students from chemistry, physics, math, and other technical majors are encouraged to apply. And yes, we take Freshmen to Juniors. **Apply by Feb. 25.**

NSF NCAR | UCAR | UCP STUDENT OPPORTUNITIES

NCAR | UCAR | UCP offer many different summer experiences for students in Earth System Science. Labs and Programs have unique opportunities with separate applications and different deadlines. We invite you to explore the compiled list below and apply to opportunities you find interesting.

[NASA Heliophysics Summer School](#)

UCAR CPAESS partners with NASA to hold the Heliophysics Summer School each year. We invite you to apply for the 2024 NASA Heliophysics Summer School, which will be held both virtually and in-person this year. We are seeking students to join us this coming summer for a unique professional experience. They will learn about the exciting science of heliophysics as a broad, coherent discipline that reaches in space from the Earth's troposphere to the depths of the Sun, and in time from the formation of the solar system to the distant future. **Deadline: Feb. 29**

[ACOM Ralph Cicerone Fellowship](#)

The Ralph Cicerone Fellowship in Earth System Science is intended for graduate students with experience in, or working with, underrepresented communities. One fellowship is awarded each year for a two-year period. Successful candidates receive financial support for four months, divided over two years, and benefit from the training and guidance of ACOM scientists on tools and techniques that enhance and support their graduate research. Generally, the Fellowship recipient will visit NCAR for three consecutive months in the summer of the first year to focus on a self-defined research project in the field of atmospheric chemistry and one month in the following year to complete the project.

Applications due February 29, 2024

[UCAR Next Generation Fellowship](#)

The UCAR Next Generation graduate Fellowship is a prestigious, multi-faceted opportunity to explore the interplay between the areas of scientific research, diversity and inclusion, and public policy within the

field of Earth Systems Science. Fellows engage with, and learn from, UCAR's leaders in these three arenas while participating in dedicated professional development and leadership training opportunities.

Application will open in January 2024.

[Student Opportunities Website](#)

Check the opportunities website for other opportunities that are not currently accepting applications but may during other times of the year.

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.**

PLANET CHARACTERIZATION IN THE SOLAR SYSTEM AND THE GALAXY WORKSHOP

February 21-22, 2024

Houston, TX / virtual

[Meeting info](#)

55th LUNAR AND PLANETARY SCIENCE CONFERENCE (LPSC)

March 11-15, 2024

The Woodlands, TX / virtual

[Meeting info](#)

INTEGRATING OCEAN DRILLING AND NASA SCIENCE: A WORKSHOP TO EXPLORE MISSIONS TO

PLANET EARTH

April 2-4, 2024

Washington, D.C.

[Meeting info](#)

URANUS FLAGSHIP WORKSHOP

May 21-23, 2024

NASA Goddard Space Flight Center, Greenbelt, MD

[Meeting info](#)

8th INTERNATIONAL CONFERENCE ON MARS POLAR SCIENCE AND EXPLORATION

July 8-12, 2024

Whitehorse, Yukon, Canada

[Meeting info](#)

METSOC 2024

July 28-Aug. 2, 2024

Brussels, Belgium

[Meeting info](#)

POSITIONS AVAILABLE-

CAREER OPPORTUNITIES

WHIN – DIRECTOR OF RESEARCH AND EDUCATION

We are looking for a sharp and hardworking individual interested in a full-time position located in West Lafayette, IN to serve as WHIN's Director of Research and Education. You will be responsible for (1) building relationships with researchers and educators from K12 through university; (2) writing grants in partnership with Purdue University and Ivy Tech Community College; (3) supporting various IoT technology pilots and implementations in the WHIN Living Lab; and (4) writing reports on specific IoT use cases in the WHIN Living Lab. [Read the full job description](#) Interested candidates should send a cover letter, resume, and references of relevant experience to careers@WHIN.org for consideration.

WOOSTER – VISITING ASSISTANT PROFESSOR

Wooster is hiring a 2-year Visiting Assistant Professor in Environmental Science. We are open to any expertise in the environmental sciences as long as the candidate can teach GIS. Next year, we will be developing an Environmental Science major – this person would play a critical role in that process and the administration has been supportive of our plan to convert this position to tenure track.

This is a great opportunity for an early career scientist to launch a future in the liberal arts. Our small, supportive department fosters a vibrant environment for students, staff, and faculty to thrive. We are looking for someone who is passionate about teaching and eager to contribute to our intellectual and inclusive community. [Full details and application instructions can be found here.](#)

NOBLE GAS GEOCHEMISTRY TRACK – SYRACUSE UNIVERSITY

1. **Fully funded Ph.D. student positions:** Students will apply noble gases as a dating and tracing tool for fluid and solid samples. Students will be trained in noble gas geochemistry for both laboratory and data analysis skills. Students will conduct experimental noble gas work in groundwater, natural gas, and/or rock.

2. **Postdoc/Lab Manager position** (3-year support): The candidate will assist in the management of the noble gas geochemistry laboratory and performing noble gas geochemistry research. The candidate will conduct experimental noble gas work in shallow and deep groundwater, natural gas, and rock samples. The candidate will

be expected to collaborate with faculty members in ongoing research projects with the possibility to conduct independent research. The successful candidate will also have the option to participate in teaching, including lectures and laboratory teaching of both undergraduate and graduate students.

Environmental Data Sciences and Geospatial Modeling Track

3. **Fully funded Ph.D. student position**

4. **Postdoc position** (3-year support)

Both positions above (3 and 4) will work on a DOE-funded project to learn and apply machine learning and geospatial modeling to analyze multidisciplinary datasets to understand the status and environmental impacts of oil and gas wells. Please email Dr. Tao Wen (twen08@syr.edu) with questions and project details.

UCHICAGO – TWO POSITIONS AVAILABLE

- Assistant Instructional Professor (<https://apply.interfolio.com/136612>)
- Senior Instructional Professor (<https://apply.interfolio.com/137371>).

These are career-track (although not tenure-track) teaching positions.

TWO GEOLOGIST POSITIONS WITH INDIANA GEOLOGICAL AND WATER SURVEY

The Indiana Geological and Water Survey in Bloomington Indiana currently has two new open Geologist positions. Both will be working on the 2-year Statewide Subsurface Energy Project (SSEP) that was awarded to IGWS by DOE and is set to start very soon. An overview about the project is in the DOE project selection link.

The Survey will be conducting a statewide assessment of the potential for CO2 hub development in different regions of the state. IGWS will also be partnering with IU's Center for Rural Engagement (CRE) and IUPUI's Polis Center to work on the societal considerations of CO2 sequestration development in the state. Carbon sequestration is quickly becoming a topic of interest in Indiana where there is a concentration of GHG emitting industries. [More info](#)

For questions, please contact Ashley Douds at adouds@iu.edu

POSTDOC POSITION(S) - THE BARNES GROUP AT CSU

The [Barnes Research Group](#) at Colorado State University's [Dept. of Atmospheric Science](#) is looking to hire two postdoc positions in the area of artificial

intelligence (AI) for climate science! Specifically, the individual(s) will design and implement novel AI approaches for the prediction of earth system phenomena under past, present, and future climates. Research topics will include predicting extreme events on subseasonal-to-decadal time horizons, training, implementing and evaluating modern AI-weather/climate emulators, developing transfer learning approaches for climate models and observations, and using high-performance computing including GPU computing.

For more questions / information please contact Prof. Barnes at eabarnes@colostate.edu

To find out more about the Barnes Research Group, visit: <https://barnes.atmos.colostate.edu>

To apply via the open postdoc pool, go here: <https://jobs.colostate.edu/postings/125988>

AES – FACULTY SEARCH

The [UAH Department of Atmospheric and Earth Science \(AES\)](#) is conducting an open-rank faculty search for a member of our community who is interested in utilizing and expanding the [UAH SWIRLL research and teaching facilities](#).

Questions? aes-chair@uah.edu.

[Apply here.](#)

**UNIVERSITY OF LOUISIANA MONROE –
TENURE TRACK ASST. PROFESSOR**

The Atmospheric Science Program at the University of Louisiana Monroe is searching for a tenure-track assistant professor in Atmospheric Science with an anticipated start date of August 2024. The Atmospheric Science program has experienced growth in both students and research productivity over the past 5-10 years, and are in the final approval stages for offering a new undergraduate degree in Earth System Science. The program maintains several instrument platforms used for research and education that any new hire would be able to access: a S-band polarimetric radar, mobile Doppler wind lidar system, microwave radiometer, lidar ceilometer, and radiosonde systems. We are also leading the deployment and management of a state mesonet with 50 initial stations across Louisiana.

Seeking an individual passionate about undergraduate education with interests in pursuing a research agenda who will contribute to both the Atmospheric Science and new Earth System Science degree programs. To promote a broad and diverse applicant pool, we are not focused on a specific research or topic area background. However, a successful candidate will likely

complement and/or fill gaps in our current course offerings and research areas.

[The full advertisement here.](#)

Review of applications will begin on 1 February 2024 and the position will remain open until filled.

Please contact Dr. Anne Case Hanks (casehanks@ulm.edu) for any questions about the position.

FULL-TIME WEEKEND METEOROLOGIST/WEEKDAY REPORTER - WVVA TV IN BLUEFIELD, WV.

An immediate opening for a full-time weekend meteorologist/weekday reporter (for weather/science stories). [Link](#)

TENURE TRACK METEOROLOGY FACULTY POSITION - VALPARAISO UNIVERSITY

We are excited to announce an opening for a Tenure Track Assistant Professor of Meteorology at Valparaiso University starting in August 2024. We especially need someone for mesoscale meteorology at the undergraduate level.

[Apply here.](#)

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 FELLOWSHIP IN METEOROLOGY: NUMERICAL SIMULATION STUDIES OF TORNADES

The School of Meteorology of the University of Oklahoma has an opening for a Postdoctoral Fellowship in the areas of numerical modeling and severe storms. The successful candidate will use very high-resolution simulations (Cloud Model 1) to study the interaction between tornadoes and the built environment to understand how tornado dynamics evolve over urban landscapes. Sensitivity studies examining different neighborhood layouts and building types will be conducted, and different techniques for injecting turbulence into the model will be explored. The successful candidate will be supervised by Prof. David Bodine and will work collaboratively with an interdisciplinary team of scientists and engineers, including scientists Drs. Anthony Reinhart and Jeremy Gibbs at the National Severe Storms Laboratory and Prof. Franklin

Lombardo at the University of Illinois Urbana-Champaign.

The successful candidate will work in the National Weather Center where the School of Meteorology and NOAA's National Severe Storms Laboratory reside. The National Weather Center fosters a unique collaborative work environment with federal, state, and academic units, providing valuable networking opportunities for career advancement.

Salary will be competitive based on experience and qualifications. The University of Oklahoma offers competitive benefits. Positions are open now until it is filled, and full consideration will be given to applications received by January 31, 2024. Candidates in the final stages of completing their Ph.D. are also encouraged to apply. The term of appointment will be one year, renewable for a second year subject to satisfactory performance.

Qualifications

Requirements:

- Ph.D. in Atmospheric Science, Meteorology, Engineering, Computer Science, Physics, Mathematics, or related disciplines within the last 5 years

- Strong background in numerical modeling

Desired Skills and Qualifications:

- Programming experience with programming languages used in numerical models (e.g., Fortran) and for analysis and plotting (e.g., Python, Matlab)

- Excellent written and oral communication skills, evidenced by peer-reviewed publications

- Past experience and/or strong interest in using supercomputing resources

- Background and/or strong interest in mesoscale meteorology and atmospheric dynamic

Application Instructions

To apply for this position, please [submit the electronic application via Interfolio](#) and to Prof. David Bodine (bodine@ou.edu) and include the following: a letter of research interest and experience, CV, and three names of references (including their contact information).

NYS MESONET FIELD TECHNICIANS

[NYS Mesonet](#) is hiring a field technician position to maintain and repair 126-site standard network and 85 subnetwork sites. Competitive pay + benefits, learn more and [apply here](#).

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](#)

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. [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 [meteorology positions](#) are open with TEGNA.

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 [Qian 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](#).