NEWS/OPPORTUNITIES
AT PURDUE

EAPS COLLOQUIUM - MANISH SHRIVASTAVA
Thursday, October 12, 3:30 – 4:30pm
HAMP 1252
Manish Shrivastava is a Staff Scientist at Pacific Northwest National Laboratory.
Host: Prof. Alex Laskin

GYPSUM VIRTUAL SEMINAR SERIES
the GeodesY and geoPhysics Seminar of the Upper Midwest (GYPSUM) virtual seminar series is happening, and Prof. Delph wanted to make sure to invite any departmental newcomers that may be interested and not already on the mailing list. GYPSUM is meant to connect researchers from midwestern institutions and allow them an opportunity showcase their research to other universities. Subject matter can include: seismology, geodesy, geodynamic/numerical modeling, electromagnetic/magnetotelluric methods, and tectonics (including petrology, geochemistry, and structural studies with implications for geophysical studies). Fall 2023 will consist of ~7 50 minute virtual blocks that will take place on Tuesdays from 2:00-3:00 ET between October and November.

FIESTA DE ALMUERZO’
FOR HISPANIC HERITAGE MONTH!
This event will be held on Oct. 11th at 3pm in HAMP 2201. There will be free food provided by Hispanic owned restaurants and even some dishes made by some of our very own grad students wanting to share their culture’s foods as well!

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

http://www.eaps.purdue.edu/
GLOBAL CITIZENSHIP IN CARBON CAPTURE, USE, AND STORAGE (CCUS) AND NEW CARBON ECONOMY

Tuesday, 17th October from 2:00-3:00PM EDT.

In a world grappling with the challenges of climate change, our webinar seeks to shed light on innovative solutions driving the transition to a more sustainable future. Specifically, we will focus on the critical role of Carbon Capture, Use, and Storage (CCUS) in mitigating climate change impacts and shaping a new carbon economy.

This webinar is the fifth in a six-part series on fostering youth-led innovation for the United Nations Sustainable Development Goals (SDGs). It is co-developed by the Center for Sustainable Development at Columbia University and the Entrepreneurship at Environment team from the University of Waterloo, and will be led by Wen-wen Tung at Purdue University.

We have convened an expert panel consisting of Douglas Schmitt, Greg Dipple, Matt Mettler, and Amanda Ellis. Dr. Yunyue Li will moderate a discussion that helps participants envision a future where technological innovation harmonizes with sustainability. The panel will touch on unique challenges and opportunities emerging as part of the new carbon economy, addressing key themes such as scientific analysis and open data on CCUS, transformative impacts of CCUS and CDR (Carbon Dioxide Removal), and envisioning a low-carbon future.

As a participant, you will deepen your understanding of the following:

- **Context:** Explore the deployment of CCUS technologies gaining traction in North America and Europe, catalyzed by favorable policies.
- **Insights:** Gain in-depth insights into CCUS and CDR technologies, with expert panelists unraveling the scientific intricacies and engineering designs underpinning these transformative projects.
- **Real-world Perspectives:** Industry forerunners will share challenges and successes in scaling up CCUS and CDR endeavors, offering a practical perspective on a low-carbon future.

This webinar is designed for an innovative and entrepreneurial audience passionate about creating a sustainable future. To join us for this enlightening session, please register in advance.

**EAPS GRAD STUDENT RESEARCH OPPORTUNITIES**

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

**PUBLICATIONS**

- Kevin Gray and Jeffrey Frame; Investigating the development and characteristics of streamwise vorticity currents produced by outflow surges in simulated supercell thunderstorms. Monthly Weather Review 2023; doi: https://doi.org/10.1175/MWR-D-22-0309.1
- Zhao, J., Harbor, J., Qiu, J., Caffee, M., Guo, W., Ji, H., Liu, R., Ma, H., 2023. Glacier fluctuations since the


## OUTREACH NEWS

### SUPERHEROES OF SCIENCE PODCAST ALERT!

**FEATURING DISHA OKHAI**

Disha Okhai researches ancient volcanoes to learn about the patterns and processes that provide valuable information about how magma accumulates, moves, and triggers volcanic eruptions. This historical perspective allows for the identification of key indicators and precursors that signify an impending volcanic eruption. Armed with this knowledge, modern monitoring techniques can be fine-tuned to detect early warning signs of impending eruptions more effectively, leading to more accurate forecasts and enabling communities living in volcanic-prone areas to be better prepared and respond swiftly to potential threats. View on YouTube here or listen on Apple podcasts here.

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**K-12 Outreach would like to ask for your help in getting this request out to professional organizations.**

Teachers are desperately requesting resources related to STEM careers. Please consider sharing what you do with students and teachers by making a recording.

**Calling all STEM Professionals!** Join our mission to inspire students and support educators! Students lack awareness of the vast possibilities in STEM fields. Teachers are tasked with integrating college and career readiness into their curricula. To support both students and their teachers, Purdue University College of Science K-12 Outreach is creating an extensive STEM Career Repository. We need YOUR expertise to make a difference! Record a short video (2-3 minutes) introducing the captivating work you do as a STEM professional. Help us shed light on potential careers in STEM and ignite young minds with passion and curiosity!

For the video, consider introducing yourself along with your job/career, then follow with important background information relevant to your job. Finish with something interesting that you do as part of your job.

Video clips (2-3 minutes) should be filmed horizontally and submitted to mrsmith@purdue.edu. If you would prefer, we can record you on Zoom. Many people are recording in both English and another language that they are fluent in speaking. If you do record in a second language, please let us know the language.

Please share this request with your fellow professionals in the STEM fields to amplify our impact! Together, we can shape the future of STEM exploration and education. Let’s inspire the next generation of scientists, engineers, and innovators! Connect with us and contribute to the STEM Career Repository: [https://www.purdue.edu/science/K12/LabPages/careers.php](https://www.purdue.edu/science/K12/LabPages/careers.php)

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](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!


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### MEETINGS/EXPOS/OPPORTUNITIES OUTSIDE OF PURDUE

**CEG DIG INDY DEEP ROCK TUNNEL PRESENTATION**

You are invited to attend a brief presentation and tour of Citizens Energy Group’s deep rock tunnel. **October 27, 2023**

10:00–12:00 EDT

There is a virtual tour on YouTube. [sign up at Eventbrite](https://bit.ly/EAPSOut).

Location: 3800 W. Southport Road, Indianapolis, Indiana, 46217

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[http://www.eaps.purdue.edu/](http://www.eaps.purdue.edu/)
Program: There will be a brief presentation on the background of the DigIndy project, some of its challenging geology, and the current progress on construction. Some rock core samples will be available to review and discuss. Afterwards, we will tour the Deep Rock Tunnel pumpstation. The presentation and tour will last 60-90 minutes.

Logistics: Registration is required and seats are limited to 20.

This event is free and non-members of AIPG are welcome.

- When you approach the gate, there is a call box. Press the button and let the attendant know you’re there for a tour of the pump station. They will open the gate for you.
- Someone will be inside the gate waiting for our group on the right hand side of the drive, and will lead you back to the pump station site.
- All guests will be required to sign a waiver. Anyone under 18 must have a legal guardian sign for them.
- All guests must wear hard-soled, closed-toed shoes, long pants, and sleeved shirts (short sleeves are acceptable). Dress for the weather. We’ll spend some time outside.
- Hi-vis vests, hardhats, and clear safety glasses will be provided. Bring your own if you have them.
- Parking is limited. Carpool if possible!
- Register at eventbrite:

Questions? Contact Mark Howell, CPG-9563 Illinois/Indiana Section Secretary AIPG-IL-IN@protonmail.com 317-745-0002

NCAR ADVANCED STUDY PROGRAM ACCEPTING APPLICATIONS FROM STUDENTS AND NOMINATIONS FROM NCAR SCIENTIFIC STAFF FOR GRADUATE VISITOR PROGRAM AND STUDENT APPLICATIONS FOR THE BRIDGE TO GVP PROGRAMS

The NCAR Advanced Study Program (ASP) is pleased to announce that we are now accepting applications from students and nominations from NCAR scientific staff for the Graduate Visitor Program (GVP) and student applications for the Bridge to GVP programs.

*Graduate Visitor Program*

The ASP’s Graduate Visitor Program (GVP) is an excellent way for graduate students to connect with NCAR to work on parts of their thesis or final project equivalent with guidance from NCAR scientists and engineers for visits ranging from two to six months. These visits have the goal of enhancing NCAR partnerships with other public and private institutions while enriching the research of the participating students.

The application deadline for the GVP is October 31, 2023. The host nomination deadline for NCAR scientists and engineers is November 5, 2023. https://edec.ucar.edu/advanced-study-program/graduate-visitor-program

*Bridge to GVP*

The ASP’s Bridge to GVP is a hybrid one-month exploratory internship (3 weeks virtual and one week in person) at NCAR for graduate students who may be early in their career or who don’t have a fully defined collaborative project for a regular GVP visit. The internship will give the student an opportunity to explore potential collaborations at NCAR with the goal of a longer visit in the future. Unlike the regular GVP process, this program does not require a nomination from an NCAR sponsor.

The application deadline for the Bridge to GVP is October 31, 2023. https://edec.ucar.edu/advanced-study-program/gvp-bridge-program

Questions? Contact asp-gvp-program@ucar.edu or cyccone@ucar.edu.

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.

MARS EXPLORATION PROGRAM ANALYSIS GROUP

New Meeting Date: October 13, 2023
Virtual
Meeting info

VENUS EXPLORATION ANALYSIS GROUP

October 30-31, 2023
we need people who know how to organize: to run organizations and campaigns that will inspire the support and action we need to save our environment. Our program starts with intensive classroom training. You learn about issues and campaigns, organizing theory and principles, and skills from recruiting volunteers to staging a media event. Then, you move to a more hands-on experience. You make a difference on important campaigns to transition our country to clean energy, protect wildlife, and more. For example, Lauren Karpinski, an organizer from the Green Corps Class of 2019, brought together a coalition of 40 groups that helped win a landmark solar energy bill in Arkansas. We’re accepting the top 20 candidates for our 2024-2025 program. Graduates will join our more than 400 alumni who are leading environmental campaigns and organizations across the country. If you’re passionate about the environment and ready to learn and practice the craft of organizing, Apply and learn more. Green Corps’ year-long program begins in August 2024 with introductory classroom training, and continues with field placements in multiple locations across the U.S. Candidates must be willing to relocate. We also have additional shorter-term opportunities available starting in January 2024. Please contact Renee Wellman at renee@greencorps.org with additional questions.

Green Corps is part of The Public Interest Network, which operates and supports organizations committed to a shared vision of a better world and a strategic approach to social change. Visit publicinterestnetwork.org to learn more. Green Corps is an equal opportunity employer. The target annual compensation for this position is $32,500 (but compensation may range between $32,500 and $39,000 depending on location). Green Corps’ benefits package includes medical insurance for employees and dependents, needs-based student loan assistance, commuter benefit program, sick pay (60-72 hours/year depending on location), and 80 hours (2 weeks) of accrued vacation. We also offer short-term positions, an excellent training program, and opportunities for advancement.

http://www.eaps.purdue.edu/
improve forecasts of high impact weather. The individual selected for this position will contribute to NOAA-funded projects relating to flash flood prediction, winter weather predictions, and development of the next-generation Rapid Refresh Forecast System (RRFS) ensemble. This research includes the use of machine learning algorithms to calibrate and post-process convection-allowing model output, so an interest in data science/AI will be helpful.

**Job Responsibilities:**
- Implement new and updated model capabilities for research and real-time forecasting utilizing the convection allowing model ensembles.
- Run and monitor real-time ensemble NWP forecasts using NOAA’s FV3-LAM (specifically, the UFS Short-Range Weather App) on high performance computing systems, to support CAPS research projects. Non-standard work hours may be required for 4-6 weeks in the summer and 2-3 weeks in the winter (can be done remotely).
- Contribute to verification of CAPS ensemble forecasts and forecast products.
- Publish findings in peer-reviewed academic journals and present research results at professional meetings and conferences.

**Required Qualifications:**
- Master’s degree (for a research associate appointment) or a recent Ph.D. (to be appointed as a post-doc) in meteorology, atmospheric science, computer science/data science or a closely-related field.
- At least one year of experience working with numerical weather prediction models (e.g., WRF, FV3, ARPS) in a high-performance Linux environment.
- Two years of experience in scientific programming and computing on Linux systems using high-level programming languages (such as Fortran, R and/or Python).
- Ability to work independently and troubleshoot issues in running community-developed software packages.
- Ability to communicate effectively in meetings, research presentations, software documentation, and formal publications.

**Desired Skills:**
- Familiarity with workflow management on high-performance computing systems using schedulers such as SLURM.
- Experience with developing and/or modifying workflow automation using, e.g., Linux/Unix shell scripts, Python, and/or Rocoto.
- Familiarity with methods and software for NWP forecast visualization, evaluation, and verification, such as Python, Model Evaluation Tools (MET), etc.
- Familiarity with accessing datasets via tools such as AWS CLI and/or UNIDATA LDM.

**How to Apply:**
Send a statement of interest highlighting how you meet the position qualifications, your resume/CV, and a list of three professional references to: Keith Brewster, kbrewster@ou.edu. Questions about the position may also be directed via email to Dr. Brewster. This position will remain open until filled. A formal review of applications will start on October 23rd, 2023 with anticipated start date in December, 2023. Fall 2023 graduates are welcome to apply.

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**STAFF METEOROLOGIST**
The Department of Geography and Meteorology at Valparaiso University in northwest Indiana seeks applicants for the position of Staff Meteorologist. This is a full-time, staff scientist (non-faculty) position subject to annual professional reviews. We are looking for a dynamic, enthusiastic, instrumentation-oriented scientist with an M.S. or equivalent experience in meteorology/atmospheric science. Candidates should possess an outgoing personality with excellent interpersonal skills and a desire to work closely with undergraduate meteorology students. [Apply here](http://www.eaps.purdue.edu/).

The department, located in Kallay-Christopher Hall, is home to ~70 undergraduate meteorology majors and maintains a Linux-based computer network, a dual-polarization Doppler radar, radiometer, multiple radiosonde systems, instrumented meteorological towers, and a suite of meteorological instrumentation. More information can be found at [www.valpo.edu/geography-meteorology](http://www.valpo.edu/geography-meteorology).

Review of applications will begin October 2, 2023 until the position is filled.

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**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](http://www.eaps.purdue.edu/).

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**POSTDOCTORAL RESEARCH ASSOCIATE POSITION - PURDUE UNIVERSITY**
A postdoctoral position investigating cloud-aerosol...
interactions using stable water vapor isotopes and cloud microphysics observations is available in the Department of Earth, Atmospheric, and Planetary Sciences at Purdue University. The postdoctoral researcher will join Professor Lisa Welp analyzing observations measured during the Southern California Interactions of Low cloud and Land Aerosol (SCILLA) airborne experiment, complementing the Eastern Pacific Cloud Aerosol Precipitation Experiment (EPCAPE) DOE ARM mobile facility deployment in La Jolla, CA. The SCILLA research flights investigated the stratocumulus-topped boundary layer off-shore during the month of June 2023. The postdoctoral researcher will be supported by DOE ASR funding to quantify dry air entrainment and cloud drizzle processes drying the cloud layer using water vapor stable isotopes. They will also work closely with the cloud microphysics data measured by collaborator Professor Patrick Chuang’s research group at the University of California Santa Cruz.

Candidates for this position should have recently completed their Ph.D. or should expect to complete their degree requirements by the start date, in atmospheric science or relevant Earth science program. Previous experience with the analysis of atmospheric gases or isotopes or a strong understanding of marine boundary layer processes is preferred. Candidates interested in this position should have a record of scientific achievement, and excellent verbal and written communication skills. Initial appointments are for 12-18 months with renewal for up to a total of 2.5 years upon review. The start date is flexible. A background check is required for employment in this position.

Applicants should supply (a) a curriculum vitae, including a list of publications, (b) a statement of research interests and goals including qualifications for the position (maximum 2 pages) and (c) e-mail address of three references to: Lisa Welp (lwelp@purdue.edu). Potential applicants are welcome to contact Professor Welp prior to applying to learn more about the project. Applications will be reviewed immediately, and the position will remain open until filled. Applications can also be submitted here.

**WATER DATA INTEGRATOR**

The New Mexico Water Data Initiative is hiring a Water Data Integrator position. This position will use their hydrology, earth science, or data science background to review and compile water datasets. This position is a full-time, one-year, position with benefits. The positions may become long-term based on future grants and funding. A flyer with links to apply is attached to this email. Interested candidates may email Rachel Hobbs directly with questions. The New Mexico Water Data Initiative is a collaborative effort to make New Mexico’s water data more accessible for management and planning. These positions will be part of a dynamic team working to make New Mexico more resilient to climate change.

**NY State Mesonet Field Manager, NY State Mesonet**

NY State Mesonet is hiring two field technician positions to maintain and repair 126-site standard network and 85 subnetwork sites. Competitive pay + benefits, learn more and apply here.

**Montana Climate Office: Mesonet Field Manager**

The Montana Climate Office within the W.A. Franke College of Forestry and Conservation and at the University of Montana is seeking applications for an Applied Meteorologist/Mesonet Field Manager position. The Mesonet Field Manager (MFM) will oversee the installation and maintenance of climate monitoring stations (Montana Mesonet) across the state. The MFM will lead three Mesonet field crews: three full-time technicians and six seasonal employees in the construction and maintenance of the Montana Mesonet and ensure high-quality performance and operation of all stations. The Montana Mesonet is being developed through a US Army Corps of Engineers (USACE) award to the Montana Climate Office. Link

**Teaching and Research Position in Planetary Atmospheres – ISAE-SUPAERO in Toulouse**

The teacher-researcher selected will be attached to the DEOS department of ISAE-SUPAERO. She or he will contribute to the development and animation of research around their own themes. She or he will ensure the fundamental missions of a teacher in his field of competence (face to face teaching, management of teaching programs). She or he will also be responsible for maintaining and developing relations and cooperation with regional, national and international academic and industrial partners. Link

**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 beginning August 2023. [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.

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
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

http://www.eaps.purdue.edu/
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.