OUTREACH NEWS

Did you know, faculty use the Superheroes of Science YouTube channel for broader impacts on their grants and in their instruction? The channel has had over 10,000 views this year so far. Help us continue to grow the channel and increase the impact by subscribing and sharing videos.

The Purdue University Superheroes of Science Podcast is on most podcast players as well as YouTube!

Social sites:
TikTok SuperHeroesofScience
Facebook EAPS Outreach
Facebook Superheroes of Science
Twitter EAPS departmental outreach web page

WANT TO HELP OUTREACH? Write a favorable review on the Superheroes of Science podcast. This helps their ratings go up and helps them become more visible in various podcast platforms.

http://www.eaps.purdue.edu/
We encourage the top students from our nation’s best meteorology and atmospheric science programs to apply. Students with backgrounds in computer science, data mining, and machine learning and an interest in how these areas intersect with meteorological applications are also strongly encouraged to apply. To increase the likelihood of receiving an internship offer in a specific area of research, students are encouraged to carefully review the list of eligible laboratories and identify those that have matching research interests, and then indicate their preferred laboratory/ies on their application where appropriate. We are currently planning next summer as an in-person program, but students should be aware that the program may be shifted to a virtual or hybrid format at any time between now and summer 2022.

Below is a list of some research topics available at NRL MMD in summer 2022.

- In-situ and Satellite-based Wind Observation Data Assimilation
- Meteorological Decision Aids, Post-Processing, and Weather and Air Quality Verification
- Web Development (Python, JavaScript, and SQL Background Encouraged)
- Python-based Processing of Large Satellite Datasets
- Machine Learning
- Subseasonal Prediction and Coupled Global Modeling
- Aerosol Model and Satellite Analysis
- Smoke Emission and Transport
- NWP Infrastructure Improvement and Distributed Computing

Stipends:
- $7,000 New Undergraduate Interns
- $8,500 Returning Undergraduate Interns
- $11,000 Graduate Student Interns

Deadline for Summer '22: Nov. 1st, 2021

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**INDIANA STORM CHASER’S CONVENTION**

This year is our 10th anniversary of the convention and we have a two-day event set for Sat. November 13 - Sun. November 14, 2021 in Danville, Indiana. We have already received interest from students from around the region about attending and wanted to reach out to some of the universities around the area to let them know there is a discount price for students! This is a great opportunity for students to not only learn, but network with others in the field of meteorology. Here is the lineup of speakers we have for this year's event.

- Reed Timmer - Meteorologist/Storm Chaser
- Brian Wilkes - Chief Meteorologist at FOX 59 Indianapolis
- Sam Lashley - Warning Coordination Meteorologist at NWS Indy
- Dr. Victor Gensini - Associate Professor at NIU, Meteorologist, Storm Chaser
- Liz Szewczyk - Meteorologist at WPTA Ft. Wayne, IN
- Jay Farlow - 30 Year Storm Spotter & HAM Radio Operator
- Adam Lucio - Veteran Storm Chaser
- Simon Brewer - Meteorologist & Extreme Weather Journalist

If you have any questions or would like to see more about the event please visit or feel free to email us at inchasercon@gmail.com.

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**LPI SUMMER INTERN PROGRAM IN PLANETARY SCIENCE**

The LPI Summer Intern Program in Planetary Science provides undergraduate students with an opportunity to perform cutting-edge research, learn from widely respected planetary scientists, and discover exciting careers in planetary science. During the 10-week internship, students have opportunities to participate in enrichment activities, including lectures and career development workshops. Many of today’s leaders in planetary science began as LPI summer interns. Every career starts somewhere, and we encourage you to join us as you embark on your journey.

Program dates: June 6–August 12, 2022
Application deadline: December 13, 2021
Given the uncertainty of the COVID-19 pandemic, the 2022 program may be held in person, virtually, or as a combination of those formats. Selected participants will be notified in March 2022 of the internship format. Apply and learn more.

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**MEXAG22 – CALL FOR ABSTRACTS AND REGISTRATION**

MExAG Annual Meeting
February 1–3, 2022
Virtual #MEXAG22
This is the second meeting of the Mercury Exploration Assessment Group (MExAG). The agenda will include an overview of NASA programs, ongoing science of the innermost planet, updates on ongoing concepts for future spacecraft missions, and discussion of the MExAG Goals Document for the future of Mercury science and exploration. This meeting is open to everyone with an interest in the science and exploration of the planet Mercury.
**Call for Abstracts:** Abstract submission deadline — **December 2, 2021, 5:00 p.m. U.S. Central Standard Time (GMT –6)**

Registration fees are not being collected for this virtual meeting, but registration is required. Registration will be available through February 3. Virtual connection information will be provided to registrants before the meeting.

https://www.lpi.usra.edu/mexag/meetings/2022/

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**DECADAL SURVEY ON BIOLOGICAL & PHYSICAL SCIENCES RESEARCH IN SPACE 2023–2032**

The Decadal Survey on Biological and Physical Sciences Research in Space 2023–2032 is now accepting white papers. White papers can either be “topical” and focus on a single research area, scientific investigation, or experiment, or be for “research campaigns” that address broad or large-scale goals and can span multiple topics or research disciplines. Of particular interest is “transformative research” for ideas, discoveries, or tools that radically change our understanding of an important existing scientific or engineering concept or that lead to the creation of a new paradigm or field of science or engineering.

The National Academies of Science, Engineering and Medicine (NASEM) has released this call for white papers and the white papers will contribute to the development of their report for the next Decadal Survey on Life and Physical Sciences Research in Space 2023-2032. These white papers serve as the input from the scientific community into the decadal survey. The report will be used by the Science Mission Directorate of the National Aeronautics and Space Administration (NASA) to provide the framework for the vision, priorities, and strategic plan and budget for NASA’s research efforts in the area of biological and physical sciences in reduced gravity environments.

The call for 2- to 5-page white papers have the following due dates:

- “Topical” white papers should be received by **October 31, 2021.**
- “Research Campaign” white papers should be received by **December 23, 2021.**

Information about past microgravity materials science research conducted aboard the International Space Station (ISS) may be found at A Researcher’s Guide to Microgravity Materials Research.

The most recent decadal survey was entitled “Recapturing a Future for Space Exploration: Life and Physical Sciences Research for a New Era,” which was subsequently followed by “A Midterm Assessment of Implementation of the Decadal Survey on Life and Physical Sciences Research at NASA.”

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**ASTROMATERIALS DATA MANAGEMENT IN THE ERA OF SAMPLE-RETURN MISSIONS COMMUNITY WORKSHOP**

**November 8–9, 2021 - Tucson, Arizona/Virtual**

The two-day workshop will be hosted both in-person at the University of Arizona in the Michael J. Drake Building in Tucson and virtually using vFairs to facilitate broad participation from the international sample-science community. Meeting information and virtual connection details will be sent to registered participants before the meeting.

**Program:** Detailed information about the schedule is available by viewing the program and abstracts. Authors should check the author index to see where their presentations have been scheduled. Session chairs and abstract authors: please review your name in these products and, if updates are needed, e-mail them.

**Registration:** Space is limited to the first 150 virtual and 50 in-person registrants. Registration will close once capacity is reached, regardless of the date.

Standard Registration Deadline — October 31, 2021 at 5:00 p.m. U.S. Pacific Daylight Time (GMT -7)/7:00 p.m. U.S. Central Daylight Time (GMT -5)

**In-Person:** $175   -   **Virtual:** $125

University of Arizona participants should process registration through an Internal Billing form. Contact Nancy Ramos for details. Visit the workshop website for travel and lodging information.

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**LUNAR SURFACE SCIENCE WORKSHOP INCLUSIVE LUNAR EXPLORATION**

**January 26–27, 2022, Virtual**

The goal of this LSSW session is to begin an open dialogue about how to explore the Moon responsibly, ethically, and inclusively. As the Artemis era begins, this is a time to intentionally make key decisions that will impact the lunar and planetary workforce and the future of exploration. Inclusion is one of NASA’s core values. This session will discuss best practices.
related to advancing inclusion and diversity in the lunar science and exploration community and initiate conversations about how to explore the Moon responsibly, ethically, and inclusively. One expected outcome of this session is a publicly available report of key findings and recommendations to NASA and the community, including best practices.

**Call for Abstracts: Abstract submission deadline — November 17, 2021, 5:00 p.m. U.S. Central Standard Time (GMT -6)**

Input is solicited from the planetary science and exploration community (defined broadly) in the form of short abstracts (<1,200 characters) or suggestions for discussion topics and/or speakers. Abstracts are solicited on topics related to diversity, equity, inclusion, and/or accessibility in the lunar and planetary community, as well as topics related to exploring the Moon responsibly. A mix of invited and contributed presentations is anticipated, with dedicated time for discussion. Suggestions for discussion topics or speakers will not be made public, and more than one topic and/or speaker can be suggested.

**Registration fees are not being collected, but registration is required. Registration will be available through January 27. Virtual connection information will be provided to registrants before the session.**

For more information, contact: Meeting and Publication Services, USRA/Lunar and Planetary Institute

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**LOW-COST SCIENCE MISSION CONCEPTS FOR MARS EXPLORATION - CALL FOR ABSTRACTS**

*January 11–13, 2022*

The Low-Cost Science Mission Concepts for Mars Exploration workshop is scheduled for January 11–13, 2022, in the Southern California area (final location to be announced soon). Emerging small spacecraft capabilities and innovative new mission concepts offer opportunities for compelling science discoveries at Mars at unprecedented low costs. NASA’s Mars Exploration Program invites the community to this three-day workshop to explore this potential new class of Mars missions from multiple perspectives. In this forum, Mars scientists, engineers, technologists, and industry representatives will share ideas and approaches for low-cost exploration of the Red Planet. Here, “low-cost” equates to mission costs that fall well below the current Discovery Program cost cap. The recent Mars Architecture Strategy Working Group suggested that small spacecraft missions in the $100–$300M cost range (including delivery) may offer a sweet spot in terms of achievable science per unit cost. Missions in this class could represent an important new program element in a future balanced portfolio of Mars missions.

**Abstract submission deadline — October 28, 2021, 5:00 p.m. U.S. Central Daylight Time (GMT -5)**

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**SCHOLARSHIP OPPORTUNITY - SWANA**

SWANA, a solid waste disposal organization has statewide scholarships available to college students. Applicants must be student members of the organization but membership is free. [For more information.]

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**EAPS GRAD STUDENT RESEARCH OPPORTUNITIES**

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

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**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

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**POSITIONS AVAILABLE - CAREER OPPORTUNITIES**

**NATIONAL WEATHER SERVICE**

Check here for available positions with the National Weather Service.

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**AGI GEOSCIENCE JOB CENTER**

Check listings here.
FULL TIME METEOROLOGIST WITH KDRV-TV
Full-time newsroom opening for an on-air meteorologist. Will prepare and present the forecast for weekday morning and midday newscasts. This is a great opportunity for a meteorologist looking to develop his or her forecasting skills in a dynamic weather environment with ocean beaches, mountain ranges, and scenic river valleys as microclimates in our coverage area. For more information, contact Mark Hatfield, former News Director, turned General Manager for KDRV-TV, the Allen Media Broadcasting-owned ABC affiliate in Medford, Oregon: markhatfield@kdrv.com
Recent grads or students soon to be graduating are encouraged to apply.

ASST. PROFESSOR - SYNOPTIC METEOROLOGY
The Ohio State University
The Department of Geography in the College of Arts and Sciences at The Ohio State University invites applications for a tenure track position at the assistant professor level, commencing autumn semester 2022. We seek a scholar with research interests in synoptic meteorology and weather forecasting. The successful candidate will teach synoptic meteorology and forecasting courses at the undergraduate level and graduate classes in atmospheric science that are commensurate with their research interests. We are particularly interested in candidates whose research focuses on mid-latitude weather systems, numerical weather prediction, radar meteorology, or severe weather. The successful candidate will be expected to attract external funding and have a demonstrated commitment to excellence in teaching.
Qualifications: A Ph.D. in Atmospheric Science or a closely related field is required. All applicants are expected to have fundable research programs and to contribute to both graduate and undergraduate supervision and instruction. Preferred qualifications include experience developing or working in interdisciplinary research teams, ties to operational weather forecasting activities, university teaching experience and experience mentoring members of underrepresented groups.
Apply. A complete application consists of a cover letter including teaching, research and service credentials, a curriculum vitae; a diversity statement articulating your demonstrated commitments and capacities to contribute to diversity, equity, and inclusion through research, teaching, mentoring, or outreach and engagement; up to three representative publications, and contact information for three references. Inquiries may be directed to Darla Munroe. Applications received prior to November 15, 2021 will receive priority consideration.

POSTDOC RESEARCH ASSOCIATE - TEXAS A&M
Texas A&M is looking for a postdoc starting in the January-May 2022 time period. This opportunity is part of the TAMU component of the DOE TRACER project. While there is an aerosol-cloud interaction component, they are particularly looking for someone with experience or interests in idealized modeling of convection and/or radar analysis. They are also looking for someone that can take a leading role in field deployments (mobile radiosonde launches) in summer 2022.

POSTDOC IN STABLE ISOTOPES AND REACTION KINETICS – INDIANA UNIVERSITY
Applications are invited for a Postdoctoral Research Associate at Indiana University, USA. The project aims using non-traditional stable isotopes to measure reaction rates and understand the mechanisms of mineral-aqueous solution reactions. See our recent publications for details (Zhu et al., 2016, Chemical Geology; Zhu et al, 2020, 2021, GCA). The project will employ a combined experimental, analytical, theoretical, and modeling approach.
The successful candidate will hold a Ph.D. in earth sciences or a closely related field. A strong background in either stable isotopes or kinetics and thermodynamics is required. Experience performing aqueous geochemical experiments, and using geochemical equilibrium and kinetics models is highly desirable.
Salary is competitive and includes fringe benefits. The initial appointment will be for one year, with the expectation of renewable for another two years, subject to performance and funding availability. The candidate will be based on the Bloomington campus of Indiana University, and will have access to an extensive suite of analytical tools, including MC-ICP-MS, TIMS, ICP-OES, ICP-MS, FESEM, and FETEM. Indiana University has some of the most powerful high-performance computing facilities in the nation that are free for faculty and students to use. The position requires excellent
communication and interpersonal skills, intellectual curiosity, and a willingness to explore unfamiliar aspects of earth sciences.

ASSISTANT PROFESSOR IN LITHOSPHERE DYNAMICS - USC

The Department of Earth Sciences, University of Southern California (USC), invites applications for a tenure track Assistant Professorship in lithospheric geoscience, to complement existing strengths in thermochronology, surface processes, and earthquake science. We seek an outstanding emerging scholar poised to tackle the complexity of lithospheric deformation processes from new perspectives, including a combination of field observations with recently developed analytical techniques and integration across traditional sub-disciplines. The successful candidate will be expected to sustain and further develop the undergraduate and graduate curricula in solid-Earth geoscience in areas potentially including, but not limited to, field methods, structural geology, petrology, rock mechanics, and/or geochemistry.

Applicants should have a Ph.D. (or equivalent) and the demonstrated ability to conduct compelling independent research and to attract external research funding. The review of applications will begin on November 15, 2021. Applicants should submit a curriculum vitae, a cover letter, the contact information for 3-5 references, and research, teaching, and DEI statements, each not exceeding 3 pages.

TENURE-TRACK ASST. PROFESSOR IN PHYSICS AND EARTH & ENVIRONMENT

School of the Earth, Ocean and Environment
University of South Carolina, Columbia, SC

The School of the Earth, Ocean and Environment (SEOE) invites applications for a tenure-track Assistant Professor position in Physics of the Earth & Environment beginning August 16, 2022. We seek an individual who uses innovative and interdisciplinary approaches to geophysics to examine physical processes anywhere from the Earth’s deep interior to surface layers. Applicant’s research interests may address geophysical aspects of environmental and near-surface issues, engineering and petrophysical applications, geohazard prediction and mitigation, as well as deep Earth and tectonic processes. The successful candidate will complement, strengthen, and diversify the School’s research program in Earth and environmental sciences, and will direct an active, externally-funded research program. Teaching responsibilities will include an undergraduate non-majors course, an upper-level undergraduate course for SEOE majors and a graduate-level course related to the candidate’s specialty.

For additional information, please contact Dr. Andrew Leier, Physics of the Earth & Environment Search Chair. Review of complete applications will begin November 12, 2021.

PRESIDENT’S POSTDOC-FELLOWSHIP PROGRAM

University of California

The President’s Postdoctoral Fellowship Program was established in 1984 to encourage outstanding women and minority Ph.D. recipients to pursue academic careers at the University of California. The current program offers postdoctoral research fellowships and faculty mentoring to outstanding scholars in all fields whose research, teaching, and service will contribute to the diversity and equal opportunity at the University of California. The contributions to diversity may include public service towards increasing equitable access in fields where women and minorities are underrepresented. In some fields, the contributions may include research focusing on underserved populations or understanding inequalities related to race, gender, disability or LGBTQ. The program is seeking applicants with the potential to bring to their academic and research careers the critical perspective that comes from their non-traditional educational background or understanding of the experiences of members of groups historically underrepresented in higher education in the United States.

Fellowships are awarded for research conducted at any one of the University of California’s ten campuses. The award includes a salary starting at approximately $54,540 depending on field and experience, benefits including health insurance and paid vacation/sick leave, and up to $5,000 for research-related and program travel expenses. Each award is for a minimum of 12-months and may be renewable for an additional term upon demonstration of academic/research productivity.

Applicants must receive a Ph.D. or terminal degree from an accredited university before the start of their fellowship. Successful applicants must present documents demonstrating that they are legally authorized to work in the United States. Individuals granted deferred action status under
the Deferred Action for Childhood Arrivals program are encouraged to apply. DEADLINE: November 1, 2021. More information.

ASSISTANT PROFESSOR – DEPT OF GEOSCIENCES – PRINCETON UNIVERSITY
The Department of Geosciences at Princeton University is seeking applications for a tenure-track assistant professor faculty position in geology, broadly defined. Possible fields of specialty include, but are not limited to, petrology, geochemistry, volcanology, tectonics, glaciology, geomorphology, sedimentology, Earth history, and paleontology. We are particularly interested in interdisciplinary scientists who could interact productively with existing faculty across the department. Applicants should send a curriculum vitae, including a publication list, statements of research and teaching interests, a separate statement outlining how they see themselves contributing to our mission of building a diverse and inclusive discipline, and contact information for three references. Evaluation of applications will begin as they arrive; for fullest consideration, apply by December 1, 2021, but applications will be accepted until the position is filled. General information about applying to Princeton and how to self-identify.

OPEN POSITIONS AT UTAH STATE
Assistant Professor, Climate Resiliency Extension Specialist - We seek an individual with expertise in climate mitigation, adaptation, and resilience science alongside a depth of knowledge in any related natural resource management field (e.g., water resources and conservation, water quality, aquatic ecology, fish ecology, fisheries management, plant, riparian, and wetland management, biogeochemistry). Successful candidates must have a commitment to stakeholder engagement, co-production of knowledge, collaborative decision-making, teamwork, and communication, as well as strong interpersonal skills. We are particularly interested in innovative candidates committed to helping natural resource managers adapt to and mitigate climate change impacts. The primary clientele for this Extension Specialist will be local, federal, and state agency staff and/or industry partners charged with managing natural resources in Utah and throughout the Intermountain West. The position consists of 60% extension, 30% research, and 10% service, with an anticipated start date of August 1, 2022.
Assistant Professor, Climate Data Analysis - We seek an engaging educator and researcher with the technical proficiency and broader conceptual awareness of climate science who can help position and adapt watershed science research and management within the realities of the climate emergency. Other valuable characteristics include experience working with large, multi-dimensional data (e.g., netCDF, HDF, GRIB, TIFF), climate model outputs (i.e., CMIP GCMs, downscaled data), translating gridded climate data into other formats for hydroclimate and ecological analysis, uncertainty and risk quantification, meteorological station time series data, and/or making climate data tools for policymakers and decisionmakers. Other preferred characteristics include proficiency in Python and/or R, strong data visualization and communication skills, and experience leading collaborative efforts. The position consists of 60% teaching, 30% research, and 10% service, with an anticipated start date of August 1, 2022.

POSITIONS AVAILABLE – ARGONE NATIONAL LABORATORY
Postdoctoral Appointee – AI and Climate Science
Postdoctoral Appointee - Numerical Modeler/Regional Climate

POSITIONS AVAILABLE IN METEOROLOGY AND ATMOSPHERIC SCIENCE
View current career listings

UNIVERSITY NEWS
COVID VACCINES
Purdue is offering COVID vaccines. Have you been fully vaccinated? Purdue requests that you submit documentation to Protect Purdue Health Center.

PURDUE WRITING LAB SCHEDULE
Workshops are from 2:30-3:30 PM, in HEAV 220, on the dates below. In the event that a workshop
needs to be rescheduled, the listed backup dates will be followed. To sign up now, use the Group Programs tab in MyWCO using the online scheduler.

- **Strategies for Self-revision and Self-editing**
  - November 10: Join us to learn strategies for revising and editing your academic, professional, and personal writing.

**Grad Writers’ Rooms**
Writers’ Rooms for the Fall 2021 sessions will be held virtually from 3:00 p.m. - 5:00 p.m. on the following days. This is a great opportunity for graduate students to make progress on their dissertations or thesis. Sign up will be available starting next week in MyWCO using the online scheduler.

- November 3
- November 17
- December 1

**English Conversation Groups**
If you are a Purdue University student or scholar whose first language is not English, the Writing Lab’s conversation groups are a terrific way to improve your fluency and expand your vocabulary. Sign up will be available starting September 7th in MyWCO using the online scheduler.

- Mondays 2:30 p.m. - 3:30 p.m.
- Tuesdays 2:30 p.m. - 3:30 p.m.
- Virtual Wednesdays 2:30 p.m. - 3:30 p.m.
- Thursdays 2:30 p.m. - 3:30 p.m.
- Fridays 2:30 p.m. - 3:30 p.m.

**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 (pierce81@purdue.edu) 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

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