

EAPS WEEKLY NEWSLETTER

September 6, 2021

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EAPS MEETINGS & EVENTS

Faculty Meetings (3:30-5pm, Executive Committee 3-3:30pm)

- 14 September
- 26 October
- 9 November
- 7 December

Primary Committee 3-5pm (Associate and Full Professors) Sept. 28, 2021

[PURDUE CALENDAR 2021-22](#)

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

[REPORT YOUR OUTREACH AND ENGAGEMENT ACTIVITIES](#)

OUTREACH NEWS

Wonder what K-12 Outreach does in the summer?

This summer (May-July) we released 16 Superheroes of Science "Science from the Experts" Episodes, posted 34 educational related videos on our [Youtube channel](#), collaborated on 7 grants and facilitated teacher professional developments that had a total attendance of 319 teachers attending live Webex presentations. Social media impact included a reach of 57,247 from social media posts. Additionally, there were 1,123 downloads of audio

podcasts and 4,244 views on the SoS YouTube channel.

We are lining up more interviews, planning in person AP Friday's and working on other virtual and in person outreach events for the fall.

Superheroes of Science is always looking for interesting science to share.

If you would like to share an aspect of the science you are researching, contact [Steven](#) to set up an interview. Please consider subscribing, liking, and sharing videos for the channel.

Outreach has a number of programs to help you with your broader impacts and engagement activities.

The Purdue University Superheroes of Science Podcast is on most podcast players as well as [YouTube!](#)

Social sites:

[Facebook EAPS Outreach](#)

[Facebook Superheroes of Science](#)

[Twitter](#) [EAPS departmental outreach web page](#)

PUBLICATIONS

THE LATEST PUBLICATIONS FROM EAPS

(in no particular order)

- Britsch, S. & Shepardson, D.P. (2021). The Use of Teacher Resources in a Sheltered Science Unit on Watersheds. *Science Educator*, 28(1), 41-53.

DEPARTMENTAL NEWS AND OPPORTUNITIES

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.

LUNAR SURFACE SCIENCE WORKSHOP

Landing Sites and Capabilities for Future CLPS Deliveries

November 18, 2021, Virtual

This LSSW session will solicit input from the community on high-priority landing sites for upcoming CLPS deliveries. The overall goal of this session is to build upon previously identified landing sites of high scientific value for near-term CLPS deliveries and identify new strategic targets. Science conducted at these sites should answer outstanding science questions as outlined in the Planetary Decadal Survey and key community documents (e.g., the Artemis III Science Definition Team Report, 2018 NASA Strategic Plan, the Scientific Context for the Exploration of the Moon, LEAG Advancing Science of the Moon Strategic Action Team Report, etc.).

Call for Abstracts

Abstract submission deadline -- October 8, 2021, 5:00 p.m. U.S. Central Daylight Time (GMT -5)

Abstracts are solicited for presentations and posters describing target areas on the Moon for in-situ science, network science, and sample return missions. Concepts that require or utilize campaign science (i.e., multiple landings), especially those that build up to crewed Artemis landings and beyond, may also be described. Registration deadline: November 15, 2021. Registration fees are not being collected for this LSSW virtual session, but registration is required to continue receiving e-mail updates. Registered attendees will receive an e-mail from Houston Meeting Info with connection information.

AMS COMMITTEE OF SEVERE LOCAL STORMS

CALL FOR ABSTRACTS

The Student and Early Career Scientist Conference on Topics in Severe Local Storms will be held virtually on November 4-5, 2021.

This event is FREE for all presenters & attendees!

**STUDENT & EARLY CAREER SCIENTIST
VIRTUAL CONFERENCE ON TOPICS
IN SEVERE LOCAL STORMS**

ORGANIZED BY THE AMS STAC COMMITTEE ON SEVERE LOCAL STORMS

NOVEMBER 4TH & 5TH, 2021

CALL FOR ABSTRACTS

THE AMS SLS STAC COMMITTEE INVITES INTERESTED
**UNDERGRADUATE & GRADUATE STUDENTS
& EARLY-CAREER SCIENTISTS** [GRADUATED AFTER JANUARY 2016]
TO SHARE THEIR RECENT RESEARCH FINDINGS ON TOPICS
RELATED TO SEVERE STORMS WITH THE BROADER COMMUNITY

**ABSTRACT SUBMISSION DEADLINE:
SEPTEMBER 20TH, 2021**

ABSTRACT SUBMISSION & REGISTRATION ARE BOTH **FREE**

ALL MEMBERS OF THE COMMUNITY ARE ENCOURAGED TO ATTEND THIS EVENT

ADDITIONAL INFORMATION ABOUT THE PROGRAM & EVENT REGISTRATION ARE FORTHCOMING

*NOTE: THIS MEETING IS NOT A SUBSTITUTION FOR THE TENTATIVELY PLANNED, FORMAL 2022 SLS CONFERENCE TO BE HELD IN SANTA FE, NM.

[Please submit your abstract here.](#)

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 (NAEM) 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](#)."

WORKSHOP ANNOUNCEMENT

2021 Community Workshop on Astromaterials Data Management in the Era of Sample Return Missions

November 8--November 9, 2021

Virtual/Tucson, Arizona

The workshop will provide an opportunity to present and discuss all the current projects and initiatives for astromaterials sample tracking and data management. The workshop is opened to all members of the scientific community. It will bring together researchers, scientists, and software engineers working on systems to track samples between curation and sample scientists, and the management, visualization and archiving of datasets resulting from the analysis of planetary materials. Those include both mission-returned samples and astromaterials (meteorites,

micrometeorites, and interplanetary dust particles). The organizers invite contributions spanning all these related topics, including data management for past (e.g., Apollo), current (e.g., Hayabusa2, OSIRIS-REx, ANGSA and Chang'e 5), and future (e.g., Mars Sample Return, MMX) sample-return missions. Important: To be added to the mailing list to receive pertinent information about this workshop and to indicate your interest in participating, **please submit an Indication of Interest by August 31, 2021, 5:00 p.m. PDT.**

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)

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.](#)

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](#).

Fall Application Deadline: October 1

Spring Application Deadline: March 1

UNIVERSITY NEWS

INFORMATION ABOUT UNDERGRADUATE RESEARCH FOR 2021-22

Learn about opportunities with undergraduate research [here](#).

2021-22 INTERNATIONAL PROGRAMS CURRICULUM GRANTS

These grants are meant to encourage the development of online courses or projects with international partners that intentionally plan for intercultural learning outcomes. [Learn more.](#)

PURDUE STUDENT SOYBEAN INNOVATION COMPETITION

This competition is sponsored by Purdue University and Indiana Soybean Alliance. Student teams come up with new and innovative ways to use Soy either in an existing product or a brand-new product. Soy crayons and soy candles came from this competition.

Top prize is \$20,000 with second being \$10,000 and third \$5,000 – student teams learn many skills on

their journey from product idea to actual working prototype with a final business plan. The program finds science students are in demand on teams and add a great overall value and strength to teams. The program also offers a paid Internship for successfully finishers of the Soy Competition as well as a possible provisional patent opportunity. [LEARN MORE.](#)

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](#).

- **Improving Resumes** - September 1
Applying for an on-campus or off-campus job? Need help getting started or updating your resume? Join us for advice and support.
- **Improving Cover letters** - September 22
Whether you're applying to a job/internship or crafting your cover letter for future opportunities, we would love to support you as you start, draft, and/or revise.
- **Citing and Documenting Sources** - October 20
Style guides and citations can be tricky to navigate. At this workshop you will learn how to properly cite and document sources in your writing.
- **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](#).

- September 1
- September 15
- September 29
- October 6
- October 20
- 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.

POSITIONS AVAILABLE- CAREER OPPORTUNITIES

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.

OPEN POSITION FOR MS STUDENT IN AUBURN



open position for an MS student in Auburn Geosciences studying the impact of septic systems on water resources

Qualifications

BS Geology/Geography/Enviro. Sci.
Familiar with GIS
Start date Jan. 2022

interested?

Dr. Stephanie Rogers s.rogers@auburn.edu
Dr. Ann Ojeda, asojeda@auburn.edu

POSITIONS AVAILABLE IN METEOROLOGY AND ATMOSPHERIC SCIENCE

[View current career listings](#)

USGS TRIBAL CLIMATE STRATEGIES RESEARCH SCHOLAR

Application Deadline

9/15/2021 3:00:00 PM Eastern Time Zone

*Applications will be reviewed on a rolling basis.

[Get opportunity details and apply here.](#)

Research Project: The project will develop and conduct research with and for Tribal Nations/organizations relevant to the SE CASC mission "to deliver science wildlife, ecosystems, and people adapt to a changing climate." This includes evaluation of current Southeast CASC research portfolio for relevance to Tribal Nations/Organizations, support for developing a Northeast/Southeast CASC Tribal Climate Resilience Engagement Strategy, and technical support to better leverage, translate, communicate, synthesize and share CASC research with Tribal Nations/Organizations.

Learning Objectives:

1. Develop understanding of how Tribal Nations in the southeastern US consider climate change as part of their long-term planning
2. Develop understanding of technical needs of Tribal Nations to incorporate climate science into their natural and cultural resource management
3. Develop understanding of scientific questions needed to better address Tribal climate-related resource management challenges.

Qualifications:

The qualified candidate should have received a doctoral degree in a field relevant or related to climate science and/or Native American studies, e.g. environmental science, natural resources, earth science, geography, atmospheric science, biology.

Preferred skills:

- Knowledge of Tribal governance and history
- Experience incorporating traditional ecological knowledge
- Knowledge of co-management and multi-jurisdictional management of natural resources
- Experience studying climate impacts to natural resources.
- Experience with science translation and communication of climate concepts to audiences outside of the field of climate science.

Location: Raleigh duty station is preferred but other duty locations will be considered.

Salary: Competitive salary commensurate with experience. The position can be renewed for multiple years. Moving expenses, travel, training, health insurance also provided.

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 for information about departmental events, seminars, etc., see our [departmental calendar](#).