

EAPS WEEKLY NEWSLETTER

February 28, 2022

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EAPS MEETINGS & EVENTS

EAPS FACULTY MEETINGS 3-5pm

- **March 22**
- **March 29** (Primary Committee)
- **April 12** (College of Science Faculty Meeting)
- **April 19**
- **May 3** (Primary Committee)
- **May 10 (tentative)**

[PURDUE CALENDAR 2021-22](#)[EAPS K-12 OUTREACH CALENDAR OF EVENTS](#)[REPORT YOUR OUTREACH AND ENGAGEMENT
ACTIVITIES](#)

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](#)[Instagram](#)

Tell us about your major. #1minscience

We are giving prizes each month to an entry for the 1 Minute Science Challenge. One of the most

popular #1minscience videos we have is Ryland's "What is Environmental Science? Students want to know what you study in your major. Record a **vertical** video that is under 1 minute and send the video to Steven Smith (mrsmith@purdue.edu). You can use your phone or get with Steven and he can record/edit for you in the outreach lab! Let's take a minute and tell the world what we study!

You know that Superheroes of Science is a podcast too, right? **The most downloaded Superheroes of Science podcast episode is our very own Mike Baldwin.** If you haven't listened to it yet, [check it out](#). Also, please leave a positive review to help the rankings.

PUBLICATIONS

Jianzhong Xu, Anusha Priyadarshani Silva Hettiyadura, Yanmei Liu, Xinghua Zhang, Shichang Kang, and Alexander Laskin, "Atmospheric Brown Carbon on the Tibetan Plateau: Regional Differences in Chemical Composition and Light Absorption Properties," *Environmental Science & Technology Letters* Article ASAP <https://pubs.acs.org/doi/10.1021/acs.estlett.2c00016>

Alvarez-Campos, Odiney, Elizabeth J. Olson, Lisa R. Welp, Marty D. Frisbee, Sebastián A. Zuñiga Medina, José Díaz Rodríguez, Wendy R. Roque Quispe, et al. "Evidence for High-Elevation Salar Recharge and Interbasin Groundwater Flow in the Western Cordillera of the Peruvian Andes." *Hydrology and Earth System Sciences* 26, no. 2 (January 31, 2022): 483–503. <https://doi.org/10.5194/hess-26-483-2022>.

NEWS/OPPORTUNITIES

Faculty Candidate

College of Science Origins of Life Search

Dr. Michael Wong

Post-Doctoral Fellow

Carnegie Science's Earth & Planets Laboratory

[Website](#) [Curriculum Vitae](#)

Public Seminar:

"Pondering Our Place in the Universe"

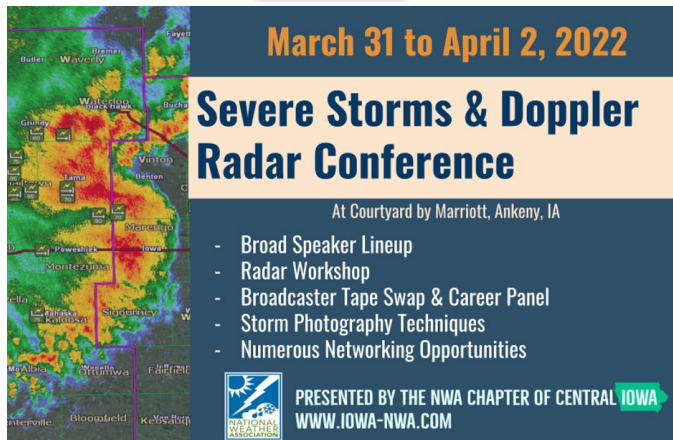
Date: Monday, February 28, 2022 Time: 10:30 -- 11:30 AM Location: HAMP 2244

Abstract: On a journey that begins in the hazy atmosphere of Titan, then ventures to the abyssal havens of the early Earth, an ancient crater lake on Mars, and the enigmatic ocean of Europa, I seek the answers to the timeless questions "Where did we come from?" and "Are we alone?" What I find is a whole new perspective on life and an exciting outlook on the expanse of exoplanetary possibilities.

Bio: Michael L. Wong is a Carnegie Postdoctoral Fellow at the Carnegie Institution for Science's Earth & Planets Laboratory. As an astrobiologist, he approaches the questions of life's emergence, planetary habitability, and biosignatures primarily via the lens of atmospheric chemistry. In his spare time, he hosts a podcast called Strange New Worlds, which examines the intersection between Star Trek and science, technology, and culture. Co-Host Contact: [Stephanie Olson](#) and [Brandon Johnson](#), Purdue EAPS.

PSPSPS SEEKING SUBMISSIONS OF PET PHOTOS FOR CALENDAR

The EAPS 22-23 Committee on Planning the Selection of Purdue's Special PetS (PSPSPS) is seeking submissions of pet photos from willing participants within the EAPS department for inclusion in an upcoming publication. This objective of this program is to create a calendar showcasing the lovely pets within our department and give them the recognition and attention they deserve. [Please fill out this form for submission.](#) (Google login required to submit form.) The calendar will cover an 18-month period, beginning in August of 2022 and ending in December 2023. If you have multiple pets that you would like included, please try to include them in the same photo. **If anyone has important dates they would like included in the calendar, those can be added as well (pending committee approval outlined in the PSPSPS handbook).** **The submission deadline to be included in the calendar is February 28, 2022.** We will send out regular reminders until that point. Calendars will likely cost \$15-20 and the money will support the EAPS Graduate Student Assembly. Please do not hesitate to reach out to hvannier@purdue.edu if you have any questions.



March 31 to April 2, 2022

Severe Storms & Doppler Radar Conference

At Courtyard by Marriott, Ankeny, IA

- Broad Speaker Lineup
- Radar Workshop
- Broadcaster Tape Swap & Career Panel
- Storm Photography Techniques
- Numerous Networking Opportunities

PRESENTED BY THE NWA CHAPTER OF CENTRAL IOWA
WWW.IOWA-NWA.COM



THE OHIO UNIVERSITY CHAPTER OF THE AMERICAN METEOROLOGICAL SOCIETY PRESENTS:

Our 12th Annual Meteorology Symposium!

Will feature 8 guest speakers from different sectors of meteorology, including broadcast, academia, government and the private sector! FREE and open to the public!

SATURDAY, MARCH 19TH, 2022
11:00 AM - 4:30 PM
WALTER HALL 235

← Sign Up Here!

AMS LOCAL CHAPTER, OHIO METEOROLOGICAL CLUB, OHIO CAMS, OHIO UAMS, SCALIA LABORATORY, GEO DEPARTMENT OF GEOGRAPHY, OHIO UNIVERSITY

Sign up with QR code above or [click here](#)

NASA Planetary Science Summer School Applications Due March 30, 2022

Offered by the Jet Propulsion Laboratory in Pasadena, CA, PSSS is a 3-month long career development experience to learn the development of a hypothesis-driven robotic space mission in a concurrent engineering environment while getting an in-depth, first-hand look at mission design, life cycle, costs, schedule & the inherent trade-offs. Engineering students close to completion of their MS degree, science & engineering doctoral candidates, recent PhDs, postdocs, & junior faculty who are U.S. Citizens or legal permanent residents (and a very limited number of Foreign Nationals from non-designated countries) are eligible. Applicants from diverse backgrounds are particularly encouraged to apply- we highly value diversity, equity, and inclusion.

Session 1: May 9-Aug 5
Session 2: May 23-Aug 19

With workload of a rigorous 3-hour graduate-level course, participants act as a planetary science mission team during the first 12 weeks of

preparatory webinars, with the final culminating week mentored by JPL's Advance Project Design Team for refining the mission concept design & presenting it to a mock expert review board. The culminating week is typically at JPL, but in 2022 it is likely virtual due to COVID-19 pandemic concerns. [Register here for a PSSS Application Q&A Webinar on Tues., March 1, 2022](#) from 3-4 pm Pacific Time. [For more information and to apply.](#)

**53RD LUNAR AND PLANETARY SCIENCE
CONFERENCE
MARCH 7-11, 2022**

THE WOODLANDS, TEXAS/VIRTUAL

Conference Highlights and Important Deadlines
The 53rd Lunar and Planetary Science Conference (LPSC) will be a hybrid conference on March 7-11, 2022. Proof of full vaccination for all in-person conference attendees is required. If you are not comfortable attending in person, we invite you to consider virtual participation.

Conference Highlights

- Live oral sessions for all registered attendees
- Panel Q&A sessions with in-person and online opportunities to ask and upvote questions
- On-demand access to all oral sessions and iPosters for registered attendees during LPSC and post-LPSC for 30 days
- Dedicated virtual poster session on March 9, 6:30 p.m. CST in Gather.town - join us online through the virtual environment or in the conference venue session rooms
- Online bulletin board to post job opportunities, ancillary meetings, and other announcements
- Networking opportunities for students and early-career scientists
- Numerous lodging options, a room-sharing bulletin board, and expanded conference shuttle operations to Plan Your Visit

Deadline to submit oral presentation files: March 2, 2022, 11:59 p.m. CST

No presentations or revisions to presentations will be accepted after March 2.

For more information: Oral Presenters

Deadline to publish iPosters: March 2, 2022, 11:59 p.m. CST

Virtual poster presenters only -- after publishing, you can continue to work on your iPoster.

For more information: Poster Presenters

LPSC 2022 virtual environment accessible: March 5, 2022, 9:00 a.m. CST

Virtual connection information will be available soon.

**EAPS GRAD STUDENT RESEARCH
OPPORTUNITIES**

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

STEM STUDENT CONTESTS

[Correlation One](#) is a New York based startup that hosts data science and engineering competitions for the world's best STEM students.

This spring, they are hosting two competitions for Purdue University students:

[East Coast Regional Datathon](#)

[Midwest Regional Terminal](#)

Participating students will compete for \$15,000 in cash prizes, and will also be eligible for exclusive recruiting opportunities with Citadel LLC and Citadel Securities. The event is open to all the current students (including undergraduate, graduate, Ph.D., and post-doc researchers).

**APOPHIS T-7 YEARS: KNOWLEDGE
OPPORTUNITIES FOR THE SCIENCE OF
PLANETARY DEFENSE**

**Call for Abstracts and Registration Now Open!
May 11-May 13, 2022
Virtual**

The Apophis T-7 Years: Knowledge Opportunities for the Science of Planetary Defense virtual workshop is scheduled for May 11-13, 2022. This workshop will explore the dynamic details and corresponding science opportunities presented by the April 13, 2029, near-miss passage of the asteroid Apophis.

Call for Abstracts: Abstract submission deadline-March 23, 2022, 5:00 p.m. U.S. Central Daylight Time (GMT -5)

Registration: Registration fees are being collected for this virtual workshop. Only registered attendees will receive an email from Houston Meeting Info with virtual connection information.

Registration is available through May 13, 2022.

For more information, contact: Meeting and Publication Services, USRA/Lunar and Planetary Institute meetinginfo@hou.usra.edu

**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

MRCC SUMMER INTERN - CLIMATOLOGIST

Position: Student hourly

Location: West Lafayette, Indiana (must be in-person)

Salary: \$12/hour; 40 hours/week

Availability: Must commit to a minimum of 8 weeks. Up to 13 paid weeks are available. Internship period run from May 16, 2022 – August 12, 2022.

Primary Function of Position: To serve in a support role within the service and research-based environment at the Midwestern Regional Climate Center (MRCC).

Duties & Responsibilities: This position is designed to expose the intern to the range of activities performed by the MRCC. The intern will assist MRCC climatologists with outreach and education activities (e.g., social media, marketing of products and tools), in responding to data and information requests in the MRCC service office, and with applied research projects.

Education Requirement: This position is open to anyone currently enrolled as a sophomore or above in an atmospheric sciences or related field program. Graduating seniors are eligible only if they have been accepted to a graduate degree program and they will begin that program no later than Fall 2022.

Experience Requirement: A strong interest in climatology is preferred, as well as an interest in climate outreach and education. Strong communication skills are required for this climate services and outreach environment.

Knowledge

Required: Experience with word processing and spreadsheet software

Encouraged: Experience in computer programming, scripting, and statistical packages.

Covid Protocols: Hired intern must abide by the Protect Purdue requirements detailed at <https://protect.purdue.edu/>, which may include following masking protocols, reporting vaccination status, participating in covid testing, or other requirements for the Purdue University campus.

Contact Information: A cover letter, resume, and the names of up to three professional references should be submitted electronically via email no later than **March 1, 2022**. The applicant's last name must be included within each file name.

Applications should send all materials to:

Midwestern Regional Climate Center
mrcc@purdue.edu

GROUNDWATER SUMMER INTERNSHIP

The Indiana Department of Environmental Management (IDEM) Groundwater Section's summer internship positions have been posted. The Groundwater Section works with water quality related to drinking water from groundwater sources for both public water supplies and private

water wells. This summer our interns will get experience doing field work with Harmful Algal Bloom (HABs), Groundwater Monitoring Network, and PFAS sampling projects. The Groundwater interns are based out of Indianapolis, Indiana and work 37.5 hours a week at \$13.21 an hour. We have had both undergraduate and graduate students and recent graduates as interns in the past. One of the perks is that after doing the internship you are an internal applicant for state positions if you choose to pursue a career with the State of Indiana.

[Groundwater intern posting](#) (Requisition ID 312386)

The internship is through the [Governor's Public Service Summer Internship Program](#) and there are other positions within IDEM and other state agencies. If you would like to see the other listings search "Governor's Summer Intern" on the Work for Indiana website <https://workforindiana.in.gov>

METEORIDS 2022 CONFERENCE

June 13-17, 2022

Virtual

The Meteoroids 2022 local organizing committee has closely watched ongoing developments of the COVID-19 pandemic and met to reconsider in-person delivery in Huntsville, Alabama. Given the recent sharp increase in positive cases and the unpredictable appearance of new variants, the committee has decided to shift the conference from in-person to fully virtual. Although it is disappointing not to be able to meet in person, the health and safety of all participants is our top priority.

Meteoroids 2022 is the eleventh international conference in a triennial series of meetings on meteoroids, their origins, and their associated phenomena. Past conferences have featured a combination of invited and contributed talks and posters covering topics such as meteor observational techniques, meteorite recoveries, meteoroid stream dynamics, ablation physics and airbursts, impacts on airless bodies, the production of dust and meteoroids by asteroids and comets, space missions, and spacecraft anomalies. We look forward to planning a successful conference and to seeing you virtually! Details will be available soon.

APOLLO 17 – ANGSA WORKSHOP

October 26–28, 2022

Lunar Planetary Institute

Houston, Texas

The 3-day workshop is currently planned as an in-person workshop, October 26–28, 2022, at the Lunar and Planetary Institute in Houston, Texas. The 50th anniversary of the Apollo 17 mission is in Dec. 2022. By every metric, this mission to the Taurus-Littrow Valley (TLV) was the most accomplished of any of the Apollo missions to the moon, leading to 50 years of extensive, continuing analytical investigations of its observations, samples, photography, and geophysical data.

The goals of this workshop are:

- revisiting the TLV by integrating new geologic and exploration context, new ANGSA sample data, orbital observations, and the full breadth of data sets from all six Apollo landed missions for a fuller understanding of the moon, the sun, and the earth
 - establishing links among multiple generations of lunar scientists and engineers as we prepare for our future on the moon
 - focusing on scientific and design lessons learned from both Apollo and from ANGSA in preparation for near-term human exploration of the moon.
- We will also focus on specific topics, with short reports expected from the breakout groups and presented during the workshop. Presentations and results of the workshop will form the basis of a special issue in a peer-reviewed journal. Manuscripts for this special issue will be due within three months after the workshop.

SCIENCE OBJECTIVES FOR HUMAN EXPLORATION OF MARS WORKSHOP

**NEW DATES: May 4–6, 2022
Denver, Colorado**

The Science Objectives for Human Exploration of Mars Workshop will be delivered on May 4–6, 2022 (new dates) in Denver, Colorado, with some components available virtually.

The workshop is co-sponsored by NASA's Science Mission Directorate and the Human Exploration and Operations Mission Directorate to actively engage the scientific community to determine what science could be done by human crews on the Martian surface and how it can be achieved. This workshop will discuss the highest priority science objectives for a first human mission to Mars and then develop several different possible concepts of operation that will enable that science. With the Artemis missions, humans will return to the Moon using innovative technologies to explore the lunar surface. We will use what we

learn on and around the Moon to send the first astronauts to Mars. A human mission to Mars will be a landmark achievement and a golden opportunity to conduct groundbreaking science on Mars. The potential scope of the science activities is extraordinary.

In-Person registration deadline - April 20, 2022

Virtual registration deadline - May 6, 2022

Registration fees are not being collected for this workshop, but registration is required. Before the workshop, registered attendees will receive an email from Houston Meeting Info with virtual connection information.

POSITIONS AVAILABLE- CAREER OPPORTUNITIES

GEORGIA TECH EAS

Non-tenure track lecturer

The School of Earth and Atmospheric Sciences (EAS) at Georgia Tech invites applications for a non-tenure-track Lecturer position. The lecturer will play a significant role in the first-year courses taught in EAS. This program provides over 1500 students each year with lecture and laboratory instructions. The successful candidate will be expected to provide direct lecture and laboratory instruction to undergraduate students, develop curricula, and advise undergraduate students. An MS degree in Atmospheric Sciences or other related fields is required. [More info and how to apply.](#)

USGS GEOCHRONOLOGY DATABASE IS HIRING AT THE MASTERS LEVEL

Facility Operations Specialist

The USGS geochronology database (still in beta form, but hoping to go live in 2022) team is hiring at the master's level (GS-9, [see here](#) for qualifications). The hire will work with our team to continue building and populating the database. We're especially looking for people with experience with geochronology and/or databases.

We expect an ad to go live on USA Jobs soon. The system will likely only accept the first 100 applicants, which is often reached within the first day of posting. Anyone interested can contact [Leah Morgan](#) with questions.

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

WANG ENGINEERING

SEEKING Engineering Geologists, Geotechnical Engineers

Contact: [Cornelia Lidia Marin](mailto:cornelia.lidia.marin@purdue.edu), PG

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

At the Envision Center looking to recruit EAPS students with background and interest in weather visualization. Details on the job opening can be found [here](#).

NATIONAL WEATHER SERVICE POSITIONS AVAILABLE

[Check here for available positions](#) with the National Weather Service.

ASTROCAMP

AstroCamp is looking for graduating students (undergraduate or graduate) for a full-time program instructor position for physical sciences and astronomy concepts at their [outdoor science school in California](#). Link to job [here](#).

AGI GEOSCIENCE JOB CENTER

[Check listings here.](#)

GRADIENT CORP

MULTIPLE OPPORTUNITIES

Please feel free to contact [Qian Zhang](mailto:qian.zhang@gradientcorp.com) if you are interested in applying and/or have any questions about the company and the 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.

**POSITIONS AVAILABLE IN METEOROLOGY AND
ATMOSPHERIC SCIENCE**

[View current career listings](#)

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](#).