EAPS WEEKLY NEWSLETTER
30 September 2019

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BE SURE TO CHECK OUT ALL OF THE EAPS COMMUNICATIONS MEDIA!

Facebook
Twitter
Department Magazine
Website News

DEPARTMENT NEWS

EAPS COLLOQUIA
Ruben Juans
Massachusetts Institute of Technology
Thursday, September 30, 2019
3:30 PM
HAMP 1252

[See attached flyer for more information]

EAPS DEFENSE
PhD
Yang (Wendy) Zhang
September 30, 2019
9:00 A.M.
HAMP 2201
Co-Advisors: Darryl Granger/James Ogg

EAPS FACULTY MEETINGS
Tuesday’s - 3:00 PM
HAMP 3201
October 22
November 12
December 3 (tentative)

PRIMARY COMMITTEE MEETINGS
3:00 PM
HAMP 3201
Tuesday, October 1
Tuesday, October 15 (vote)

EAPS K-12 OUTREACH CALENDAR OF EVENTS
http://www.eaps.purdue.edu/outreach/Outreach_News.html

http://www.eaps.purdue.edu/
**NEW EAPS PUBLICATIONS**


Twitter length summary: Salmon et al. (2019) studies processes that control the vertical structure of water vapor in the atmosphere through the isotopic fingerprints that they leave.

Summary to share through EAPS/CoS/PCCRC: Recently published research in Atmospheric Chemistry and Physics by Olivia Salmon, Lisa Welp, Paul Shepson, Mike Baldwin and co-authors studies processes that control the vertical structure of water vapor in the atmosphere through the isotopic fingerprints that they leave on the residual vapor in the air. They measured vertical profiles of water vapor stable isotopes through the lower troposphere and see evidence of earlier dehydration processes, complex boundary layer development, and evaporation of cloud or rain droplets. These are the first measurements of their kind over land. These observations will help to improve our understanding of atmospheric humidity variability and processes like mixing and cloud evolution that occur where the surface boundary layer meets the free troposphere.

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**EAPS SOCIAL MEDIA**

Sarah Sams will be taking over the EAPS social media for at least the semester, while the department searches for a new Communications Manager since Logan is now working in the Honors College.

If you have anything you want shared on social media (pictures, outreach, publications, etc.), please email them to Sarah (samss@purdue.edu) and she will post them. Also, if you think anyone’s work/outreach should be highlighted, please also let her know. Sarah is looking forward to showing off all that the EAPS department is involved in!

If you don’t follow the department already, below are the links to the respective sites.
Facebook: https://www.facebook.com/EAPSPurdue/
Twitter: https://twitter.com/PurdueEAPS
Instagram: https://www.instagram.com/purdue.eaps/

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**STUDENT NEWS**

**OPEN RANK PROFESSOR OF EARTH AND PLANETARY SCIENCES**

The Department of Earth and Planetary Sciences at Washington University in St. Louis invites applications for a tenure-track or tenured faculty position at the assistant, associate, or full professor rank, commensurate with experience, in the field of planetary science. The candidate is expected to perform research in the broad area of planetary surfaces and processes, have or seek active involvement in planetary science missions, and eventually assume leadership of the NASA Planetary Data System Geosciences Node at Washington University. The ideal candidate will employ quantitative tools and will integrate computational approaches with remotely sensed observations.

The successful candidate is expected to develop a vigorous, externally funded research program, maintain a strong publication record, advise students, provide outstanding teaching of undergraduate and graduate courses, and participate actively in departmental governance and university service. We seek candidates who will strengthen existing research programs in planetary science and remote sensing, as well as foster collaboration with scholars across the Washington University community.

[See attached flyer for more information]

http://www.eaps.purdue.edu/
Call for Applications

THE PROGRAM: The University of California 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 LGBT. 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.

AWARDS AND APPOINTMENTS. 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 $50,760 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.

ELIGIBILITY. 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.

APPLICATION. Apply online at: ppfp.ucop.edu

DEADLINE: November 1, 2019

GRADUATE SCHOOL FAIR

The USC Price School of Public Policy will be attending the Idealist Graduate School Fair in Chicago on Thursday, October 3rd. Students are invited to attend the Fair, which is free to attend. The USC Price School offers a number of master’s degrees including:

- Master of Public Policy
- Master of Public Administration
- Master of Urban Planning
- Master of Health Administration
- Master of Public Policy Data Science
- Master of Nonprofit Leadership & Management

The mission of the USC Sol Price School of Public Policy is to improve the quality of life for people and their communities, here and abroad. We achieve this mission through education and research that promote innovative solutions to the most critical issues facing society. We are also celebrating our 90th anniversary this year, making us one of the oldest public administration schools in the nation. Our website is located at https://priceschool.usc.edu/.

[See attached flier with event details, which is free to attend.]

ALPHA GIRLS PANEL

The Alpha Girls panel featuring two of our very own department heads - Janice Evans and Chris Hrycyna, along with one of Silicon Valley’s first women venture capitalists MJ Elmore, and others will speak about women in STEM, business, and entrepreneurship.

Thursday, October 10
5:30/pm
Burton D. Morgan Center, Room 121
FREE/Open to the Public

[See attached flyer for more information]
LOOKING FOR TUTORING HELP WITH EAPS 112

Looking for a tutor to help student athlete with EAPS 112. Required that this tutor have taken the course and received at least a B+ or higher and have an overall GPA of 3.0. Interested individuals should contact the tutor coordinator for athletics, Candace Britten (cbritten@purdue.edu), 494-4899, Brees Academic Performance Center, Room 206

POSTDOCTURAL FELLOW I

Position Term: 1-Year, with the possibility of extension. This position is available for a qualified applicant to start right away.

Relocation: No relocation package is offered for this position.

Work Authorization: UCAR | NCAR can sponsor a work visa for this position.

Where You Will Work:
Located in Boulder, Colorado, the National Center for Atmospheric Research (NCAR) is one of the world’s premier scientific institutions, with an internationally recognized staff and research program dedicated to advancing knowledge, providing community-based resources, and building human capacity in the atmospheric and related sciences. NCAR is sponsored by the National Science Foundation (NSF) and managed by the University Corporation for Atmospheric Research (UCAR).

Formed in 2005, the Earth Observing Laboratory (EOL) the is one of the seven laboratories of NCAR, the National Science Foundation’s Federally Funded Research and Development Center. EOL’s mission is to provide leadership in observing facilities, field project support as well as research and data services needed to advance the scientific understanding of the Earth system. EOL manages the majority of NSF’s Lower Atmosphere Observing Facilities (LAOF) and deploys them in support of observational field campaigns, ranging from single investigator projects to large complex campaigns that involve multiple investigators, agencies, and platforms, nationally and internationally. EOL deploys its systems for research by scientists from universities, NCAR, and government agencies, as well as for education. An integral part of EOL’s mission is to develop the next generation of LAOF and to provide management and archiving of data from past supported campaigns. In order to ensure progress in the atmospheric sciences, EOL supports a wide-range of research areas within the Earth System science, ranging from microscale to mesoscale to climate process studies, and employs LAOF platforms and systems that reach from the surface of the Earth to the lower stratosphere and beyond.

EOL’s Remote Sensing Facility’s (RSF) mission is to serve the observational needs of the atmospheric science community by developing and deploying state-of-the-art radar and lidar instrumentation. RSF is committed to providing and analyzing cross-cutting measurements in interdisciplinary research thereby continuing EOL’s leadership in the discipline of remote sensing. The combination of ground-based scanning and airborne remote sensors provides measurements of atmospheric parameters essential for realization of the societal and scientific benefits outlined in the EOL Strategic Plan. These high-resolution, large-domain, remotely-sensed observations of clear air and precipitation are otherwise unobtainable.

Please see link for additional information: https://ucar.wd5.myworkdayjobs.com/en-US/UCAR_Careers/job/Foothills-Lab-1/Postdoctoral-Fellow-I_REQ-2019-14-1

PAN POST-DOCTORAL RESEARCH FELLOWSHIP

The Department of Earth, Environmental and Planetary Sciences at Rice University is inviting applications for the Pan Postdoctoral Research Fellowship.

The application deadline is November 1, 2019. For this post-doctoral fellowship advertisement and other post-doctoral opportunities, you can also visit - https://earthscience.rice.edu/home-page/open-positions/

We encourage candidates with interests in broad areas of solid Earth and planetary processes, interior-surface connections, and planetary habitability to apply.

http://www.eaps.purdue.edu/
Department of Earth, Environmental and Planetary Sciences, Rice University is seeking candidates with independent research interests that intersect with one or more faculty within our department. Both domestic and international applicants are welcome. A Ph.D. is required at the time of appointment, but candidates must have received their Ph.D. no more than 3 years before their start date at Rice.

The research fellowships will be supported for two years, pending satisfactory progress during the first year, and covers an annual stipend of $60,000 with a benefits package and an additional annual discretionary research allowance of $3,500. Applicants are requested to develop a proposal of research to be undertaken during the fellowship period. The principal selection criteria are scientific excellence, a clearly expressed research plan to address questions at the forefront of their field of study, and research synergies with at least one faculty. The proposed research should, however, encompass independent research ideas and explore new directions beyond the applicants Ph.D. Preference will be given to applicants whose proposals demonstrate independence and originality, and also the potential for collaboration with one or more faculty in the Department of Earth, Environmental and Planetary Sciences.

The application is due on 1 November, 2019 at http://jobs.rice.edu/postings/21282.

The application should include the following documents:
(1) A current CV, including a list of publications.
(2) A brief synopsis of the applicants doctoral dissertation (less than one page).
(3) A concise research proposal (no longer than three pages, including figures, excluding references) describing the applicants research interests, specifically the research that the applicant would like to pursue at Rice University.
(4) The names of potential Rice faculty who could serve as postdoctoral mentors for the applicant.
(5) The names and email addresses of at least three references to write recommendation letters.

The highest ranked applicants will be invited to visit Rice in early 2020. Following acceptance, the appointment may begin anytime before January 1, 2021. For further information or questions contact the chair of the search committee at esci-postdoc@rice.edu.

Rice University is located in Houston, Texas, and is a private, coeducational, nonsectarian university that aspires to path-breaking research, unsurpassed teaching, and contributions to the betterment of our world. Rice fulfills this mission by cultivating a diverse community of learning and discovery that produces leaders across the spectrum of human endeavor.

Rice University is an Equal Opportunity Employer with commitment to diversity at all levels, and considers for employment qualified applicants without regard to race, color, religion, age, sex, sexual orientation, gender identity, national or ethnic origin, genetic information, disability or protected veteran status.

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**2020 AMS STUDENT CONFERENCE**

Announcing the upcoming 19th Annual American Meteorological Society (AMS) Student Conference, held the weekend prior to the AMS Annual Meeting in Boston, MA. Of particular relevance is the upcoming deadline (4 October 2019) for abstract submissions to the Student Conference poster session and competition.

[See attached flier for complete information]

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**WINTER DTA SCIENCE FELLOWSHIP OPPORTUNITY**

Program: The Data Incubator is an intensive 8 week fellowship that prepares masters students, PhDs, and postdocs in STEM and social science fields seeking industry careers as data scientists. The program is free for Fellows and supported by sponsorships from hundreds of employers across multiple industries. In response to the overwhelming interest in our earlier sessions, we will be holding another fellowship.

Who Should Apply: Anyone who has already obtained a masters or PhD degree or who is within one year of graduating with a masters or PhD is welcome to apply. Applications from international students are welcome. Everyone else is encouraged to sign-up for a future session.
Locations: In addition to the below in-person locations, we will have a remote online session:

- New York City
- San Francisco Bay Area
- Boston
- Washington, DC.

Dates: All sections will be from 2020-01-13 to 2020-03-06.

Application Link: https://www.thedataincubator.com/fellowship.html#apply?ref=wZXRoaWNzQHB1cmR1ZSZS5ZHUk


We are assessing and interviewing candidates who apply for the Early Deadline first and then based on remaining availability, will take candidates who applied for the Regular Deadline on a first-come first-serve basis.

Data Science in 30 minutes: Learn how to build a data-science project in our upcoming free Data Science in 30-minutes webcast. Signup soon as space is limited.

Learn More: You can learn about our fellows at The New York Times, LinkedIn, Amazon, Capital One, or Palantir. To read about our latest fellow alumni, check out our blog. To learn more about The Data Incubator, check us out on Venture Beat, The Next Web, or Harvard Business Review.

Purdue <> Terraton Challenge

Indigo recently announced the launch of the Terraton Initiative, a global effort to remove 1 trillion metric tons of carbon dioxide from the atmosphere and use it to enrich our agricultural soils. As part of launching the Terraton Initiative, we have also launched the Terraton Challenge, an open call to innovators to develop solutions to better accelerate, quantity, and reward soil carbon sequestration.

We believe students and professors from top tier universities, like Purdue, can create the innovative solutions we are looking for to sequester carbon dioxide.

There are no minimum requirements to submit an application, and all Round One applicants will be eligible for $3.5K in prizes, just for submitting an idea. If you are interested in learning more, I’m happy to hop on a call and discuss further. Applications are due October 1st.

[See attached flyer for more information]

**UNIVERSITY OF MISSOURI GEOLOGY FIELD CAMP**

The University of Missouri Geology Field Camp is located in Sinks Canyon within the Shoshone National Forest, 7000 feet high in the Wind River Range, 9 miles south of Lander, WY. The facility is housed in log buildings, including dormitories for men and women, a well-equipped computer laboratory/classroom with satellite internet access, a student lounge and a large dining hall.

In-state tuition for all applicants, Estimated total cost (includes all tuition and fees) for summer 2020 is $4,500.

Wind River Range, Wyoming
May 24-July 4, Summer 2020

[See attached flyer for complete information]

**PURDUE APPLIED MICROBIOME SCIENCES (PAMS) FALL 2019 SEMINAR SERIES**

10.18.2019/10/am/CRTN 1042: Andres Gomez, University of Minnesota Contact: Tim Johnson – john2185@purdue.edu
Intra-and Interspecies Gut Microbiome Dynamics in Primates: Lessons in Ecology and Evolution

10.31.19/3:30/pm/HORT 117: Alejandro Rodriguez Sanchez, Purdue University Contact: Lori Hoagland – lhoaglan@purdue.edu
Interactions between Wastewater and Crops: Benefits and Disadvantages Focusing on Microbial Communities (HLA Seminar Series)

11.21.19/10:00/AM/CRTN 1042: Jim Tiedje, Michigan State University Contact: Tim Johnson – john2185@purdue.edu
Interrogating Risk on the Environmental-Clinical Antibiotic Resistance Continuum

12.12.19/3:45/PM WSLR 116: Tobin Hammer, University of Texas-Austin Contact: Thor Hansen –
EAPS PODCAST INTERVIEWING FACULTY

We have officially started the “Superheroes of Science” podcast and it should now be on your favorite podcast player!

In each episode Steven Smith and Sarah Nern interview different faculty researching in the various fields of science or education. Give it a listen and discover what others are currently researching and how they first got involved in science. Some episodes will discuss current topics for today’s K-12 science classroom.

Subscribe, review, and share the podcast to help us get the word out.

You can find the podcast on your favorite Podcast hosting site under Superheroes of Science or use one of the quick links below


Google Play: https://play.google.com/music/m/l5fqneaqydhqympmd27krmkcbuem?hl=en&gl=us&market=us

Podbean: https://www.podbean.com/podcast-detail/vbczx-9e60c/Superheroes-of-Science-Podcast

Sticher: https://www.stitcher.com/s?fid=458999&refid=stpr

Blubrry: https://www.blubrry.com/purdue/science

Library: https://directory.libsyn.com/shows/view/id/purdue

NASA DEVELOP RECRUITING

Our application for the upcoming Spring 2020 term of the program recently opened and will remain open until Friday, October 11th. The term will take place January 27 – April 3.

To provide some background information, NASA DEVELOP is under the Capacity Building Program within NASA’s Applied Sciences Program. NASA DEVELOP conducts feasibility research projects which use NASA satellite data to answer current environmental questions for our partner organizations, while providing opportunities for professional and personal growth for our participants. Each year we have three “terms” that consist of 10 intense weeks of research and analysis that is conducted by a team of current students (undergraduate or graduate), recent graduates (undergraduate or graduate), and early/transitions career professionals. Teams partner with professional organizations (The Nature Conservancy, FEMA, Dauphin Island Sea Lab, National Park Service) offering unique opportunities for networking with these partners as well as with NASA scientists and advisors. Projects fall into one or two of the eight National Application areas, and are team led providing participants the opportunity to grow their leadership, professional, and technical skill sets. Many focuses of study can benefit from the program as they cultivate professional skills while they learn how to use GIS and remote sensing techniques. In the past we have had successful applicants from a number of fields, such as Geography, History, Biology, Computer Science, Earth System Science, Anthropology, and Political Science.

To give you some examples of past projects:

http://www.eaps.purdue.edu/
We have several projects proposed for the spring, all of which can be found on the apply page, and again we would love to have students from your university apply. This is a paid position and the application will be open until Friday, October 11th.

[See attached flyer for complete details]

DATA SCIENTIST POSITION

DTN is a global leader providing insights and analytics to our customers who feed, protect, and fuel the world. The data science team at DTN currently has an opening for an individual with a passion for learning and solving challenging problems.

As part of the team you will:

• Gain experience in all areas of data science
• Tackle a wide variety of problems in weather, agriculture, energy, and finance
• Explore our unique, proprietary datasets to find solutions to meaningful problems
• Work in a professional environment with passionate coworkers

Responsibilities:
• Quick feasibility checks with go/no-go recommendations
• Data exploration to identify and advance insight solutions
• Data cleaning
• Model development to support production solutions
• Visualization generation
• Outcome presentation to senior leadership
• Model evaluations and recommendations

Requirements:
• Machine Learning Experience (Supervised/Variety of Techniques)
• Python Programming Experience
• Experience with some of the common machine learning toolkits:
  - Scikit-Learn, Numpy, Scipy, Pandas, Matplotlib, Tensorflow, Keras
  - Mathematics/Probability/Statistics Understanding
• MS/PhD in math, CS, engineering, or related field
• 2+ years of relevant experience in a data science or machine learning role
• Evidence of past projects or experience may be considered in lieu of formal work experience
• Independent, Self-Directed
• Fast learner
• Good Communication Skills
• Experience building weather-driven models a plus

Why DTN?
OUR VISION: To be the independent, trusted source of insights to our customers who feed, protect, and fuel the world.

OUR MISSION: Empower our customers with intelligent and actionable insights that exceed their expectations and enable their success on a daily basis.

OUR VALUES: Customer Delight, Education, Teamwork, Colleague Focus, Innovation, Integrity

We have great benefits at DTN – apply today to find out more!

DTN is an Equal Opportunity Employer
Minorities/Women/Veterans/Disabled

For complete information go to: https://workforcenow.adp.com/mascsr/default/mdf/recruitment/recruitment.html?cid=3cb8097c-1afa-4a4e-958e-7a3524dcbefa&ccId=19000101_000001&jobId=291539&lang=en_US&source=CC4

http://www.eaps.purdue.edu/
POST-DOCTORAL SCHOLAR POSITION

The Department of Civil and Environmental Engineering and Earth Sciences (CEEES) at the University of Notre Dame, in partnership with the Environmental Change Initiative at the University of Notre Dame, and the University of Illinois at Urbana-Champaign, seeks to hire a postdoctoral scholar to conduct foundation research on South Asian Monsoon dynamics using high-resolution climate models.

For complete information please go to: https://environmentalchange.nd.edu/opportunities/employment/

METEOROLOGIST II POSITION

This position will be responsible for the weather forecasting requirements as directed by ACES Members & Customers. Inclusive of short and long term forecast communication to the ACES Members and Customers, Front Office Trading groups, and associated corporate web sites and publications.

REQUIRED QUALIFICATIONS
Candidate should possess a bachelor’s degree in an appropriate discipline with experience in the meteorological industry preferred.
3 years of experience in weather forecasting and model analysis.
Knowledge of power and gas market operations.
Knowledge of the industry’s interconnected regions (NERC).
Competence with mathematics and technical concepts.
High degree of analytical skill.
Effective written and oral communication skills.
Public speaking experience preferred.
Excellent computer skills especially with Excel, Word, and PowerPoint. R-coding ability preferred.
Strong attention to detail.
Ability to work in a fast paced environment.
Candidate must be comfortable with being on call during non-business hours for critical decision making and coordinate time off schedule to allow for continuous coverage during business hours.

RESPONSIBILITIES
Responsible for generating all daily weather forecasting requirements for the ACES trading floors including but not limited to:

A 10-day forecast for all major hubs and required points of interest, including an afternoon revision.

A 4-day forecast for all required cities.
Hourly temperature forecasts for requesting member cooperatives.

A map displaying the projected paths of tropical storms, when appropriate.

A 15-day forecast discussion issued daily.
Assist with generating a twice-yearly winter/summer seasonal outlook.

Assist with generating monthly outlooks and provide additional input on monthly/seasonal weather trends when requested.

Collaborate with other ACES groups in building value-added analytical tools, including but not limited to load and renewable energy forecasting models.

Assist in procuring and evaluating vendors for renewable energy-related forecasts including wind and solar generation.

Contact for the company’s weather, wind, and solar forecasting.

Provide background research to the marketing and quantitative analysis areas as needed.
Provide reports to Director of Natural Gas Trading and other management teams and ACES Members and Customers.

As required and requested, prepare and deliver industry related information at member meetings, trade shows, and energy conferences.

Attend Member & Customer meetings and conference calls as required.

Assist in the preparation of the Weekly Energy Outlook, Bi-Weekly Coal Recap & Outlook and other industry reports.

Will adhere to all ACES corporate policies and comply with all ACES regulatory requirements, including but not limited to NERC, FERC, and
relevant state regulations, as applicable to this position.

Any additional responsibilities assigned by management.

For complete information please go to the following link:
https://workforcenow.adp.com/mcrs/default/mdf/recruitment/recruitment.html?cid=3d881ef4-bdda-4758-9e9d-a0f907c200e3&ccId=19000101_000001&jobId=257814&lang=en_US&source=CC4

STUDENT-RUN GRIEF AND LOSS GATHERING

Actively Moving Forward is a student run organization focused on providing support to Purdue students experiencing grief. We meet bi-weekly to share our experiences and be comfortable with our grief. We would like all students going through this painful process to have access to our group and support. It is likely that grieving students will talk to academic advisors about loss first, so we would like to provide resources to help advisors meet the needs of their students.

[Flyer attached for more information]

IOWA STATE UNIVERSITY HAS TENURE-TRACK FACULTY APPOINTMENT OPENING

The Department of Geological and Atmospheric Sciences in the College of Liberal Arts and Sciences at Iowa State University invites applications for a tenure-track faculty appointment at the rank of Assistant Professor to begin in August 2020. The successful candidate will be expected to build a nationally recognized, externally funded research program; mentor graduate and undergraduate students; and teach undergraduate and graduate courses (particularly in boundary layer meteorology and numerical modeling or remote sensing). Possible research areas include, but are not limited to, boundary layer meteorology, numerical modeling of high impact weather and climate events, and land-surface interaction. The candidate should also have excellent communication skills and be able to interact with other faculty, staff, and students. Additionally, the successful candidate will have a commitment to excellence in research, teaching at all levels, and performance of service duties.

Application Instructions: To apply for this position, please go to:
https://isu.wd1.myworkdayjobs.com/IowaStateJobs/job/Ames-IA/Assistant-Professor-of-Meteorology_R345 and click on “Apply” and complete the Employment Application. Please be prepared to enter or attach the following:

- Resume/Curriculum Vitae
- Letter of Application/Cover Letter
- Contact Information for Three Professional References

If you have questions regarding this application process, please email employment@iastate.edu or call 515-294-4800 or Toll Free: 1-877-477-7485. For consideration, submit application before: September 30, 2019.

FIELD TECHNICIAN POSITION AT THE NEW YORK STATE MESONET

The New York State Mesonet (nysmesonet.org) is currently seeking to hire a Field Technician. This is a good position for someone who enjoys field work and instrumentation, though some field experience is required. Details and link below:
https://rfhr.interviewexchange.com/jobofferdetail.sjsp;jsessionid=454124CFBBE47A0B0E8965AB8DE45E33?JOBID=113320

MULTIPLE OPENINGS AT NCICS ASHEVILLE

NCICS is currently seeking candidates for the positions listed below. The current postings are available below and also at this link:

- Research Associate (Climate Data Analyst)
The Research Associate (Analyst) will independently support, develop, design, and/or execute moderately complex research activities involving large scale environmental data sets; participate in the scientific analysis of re-analyzed data sets to improve data quality and advance the interpretation of in situ and remotely sensed observations; independently perform climate
data collection and analysis; and participate in formulating research methods approaches, suggesting options for quality improvement and solutions.

- **IT Network Administrator**
  The IT Network Administrator will design, implement, and manage computing and networking infrastructure to support a variety of programs and research efforts. This position is responsible for the performance, integrity, and security of Institute IT hardware, software and data holdings. The IT Network Administrator is also involved in planning, development, and troubleshooting and advises management on IT concepts, functional capabilities, parameters, and prototypes.

- **Research Scholar – Software Engineer**
  The Software Engineer will provide expertise in scientific programming and data analytics to address the software engineering needs of the Institute’s Climate Assessment activities.

**OPERATIONAL METEOROLOGIST JOB OPENING AT SOUTHERN CALIFORNIA EDISON**

Southern California Edison is looking to hire new advisor level operational meteorologist. If you are interested, please follow the link to apply:

Job link: [https://www.edisoncareers.com/ShowJob/Id/719936/Meteorology%20Advisor](https://www.edisoncareers.com/ShowJob/Id/719936/Meteorology%20Advisor)

**Job Description**

Are you looking for a diverse team of inventors, pioneers, and problem solvers working together? Look no further.

We want team members who want to invest their skills and intellect into something that matters—like solving one of the most important issues of our time. It's what we do. Powering the planet while drastically reducing carbon emissions and creating cleaner air for everyone. You're a critical piece of the solution.

As we look onto creating a cleaner energy future, our customer needs are also changing and as part of our Business Resiliency organization you will have an opportunity to help us support this effort

**The Job…..**

This position will support the Weather Services group within Business Resiliency. The position will be responsible for blue sky operational support for the Situational Awareness Center and incident operational support when Emergency Operating Center is activated for gray and black sky conditions.

You will also be responsible for developing tools and models to aid in forecasting accuracy and fidelity. Additionally, the position will also be responsible for operational forecasting support for the procurement of energy within the Energy Procurement and Management organization

**Detailed things you will be doing…..**

- You develop and implement procedures to monitor, analyze and produce short, medium and long-range weather forecasts and reports for situational awareness from the Situational Awareness Center (SA-Center). This could be during day-to-day operation and leading up to and during times of Incident Management Team Activations.
- Work closely with the Watch Office to inform reports to executives and send alerts about extreme weather to grid operations and other affected organizations across the company.
- Project manager for complex projects—specifically, projects aimed at the mitigation of asset failure due to weather, fires and climate impacts.
- Lead projects with multiple work streams or complex tasks and provides direction to more junior staff in development and execution of situational awareness tools, fire prevention and monitoring, hazard modelling, and climate adaptation efforts etc.
- Ensures timely development of products needed to support the SA-Center, Business Resiliency and Operations. Reviews work product and mentors more junior team members.
- Supports the Energy Procurement and Management (EPM) organization through the operation, testing, and maintenance of quantitative forecasting, modeling and analysis tools, to produce data to support power procurement transactions, hedging, position management, regulatory reporting, bidding and resource optimization in energy markets.
- Reviews and provides guidance on the work of more junior staff.

[http://www.eaps.purdue.edu/](http://www.eaps.purdue.edu/)
• Maintains proficiency in and influences company operations through weather monitoring, forecasting and reporting.
• Works with the lead Meteorologist to identify requirements and opportunities for the team to work and train in the field with key stakeholders to maintain proficient knowledge of company operations.
• Works and trains with people in the field and key stakeholders from multiple organizations across the company to understand and learn about equipment, assets and business functions across the territory.
• Use knowledge to develop tools aimed at improving operational support.
• Routinely interacts with T&D Grid Operations, field operations and Fire Management personnel to gain and maintain knowledge of grid systems and develop relationships with field personnel and external stakeholders;
• Provides subject matter expertise and consults on projects across the company and internal to Business Resiliency.
• Develops relationships and key partnerships with meteorology, scientific and technology communities to align and continuously improve in-house weather forecasting skills, statistical weather forecasting models and information and tools need to support operations.
• Continuously improves in-house weather forecasting skills and statistical weather forecasting models; Works with vendors on improving their weather forecasting services;
• Completes own work independently;
• Works with the scientific community to maintain up to date expertise on state of the art modeling and empirical weather related monitoring technologies.
• Maintains proficiency in the use of all existing weather related technical tools and explores and implements new technical solutions used at SCE.

Qualifications we need you to have......
• Bachelors or Master’s degree in meteorology, atmospheric sciences or a related technical area of study.
• Seven years of experience in weather forecasting and analysis
• Experience communicating how extreme weather events effect the environment.

Other qualifications that will set you up for success.....

• Experience using GIS systems and programming in languages such as python and matlabb
• Graduate degree in meteorology, atmospheric sciences or a related technical discipline
• Ten years of academic or work experience in weather forecasting and statistical analysis.
• Experience integrating various weather outlooks and briefing users on uncertainties and impacts.
• Experience forecasting one to seven-day ahead surface temperature and forecasting weather utilizing a wide variety of observational and model data, both at surface and upper air.
• Experience analyzing renewable power production (wind, solar, hydro) and how weather impacts those resources.
• Extensive knowledge of NWS system and demonstrated experience using National Oceanographic and Atmospheric Administration (NOAA) products.
• Ability and experience with configuring and running WRF model.
• Experience performing statistical analysis and modeling.
• Experience using SAS, R, or other tools for statistical analysis and forecasting.
• Weather forecasting experience for California and the Western United States.
• Experience forecasting for conditions pertaining to or around wildfires.
• Experience with long-term (month ahead or more) weather forecasting.
• Electric/Gas Utility work experience.
• A broad understanding of power markets and the related regulatory requirements that govern SCE’s participation in them by assisting strategy development to increase the value of SCE resources and lower customer costs.
• Fire weather forecasting experience.
• Experience preparing findings and presenting complex technical information to technical and nontechnical audiences.
• Experience using Microsoft Word, Excel, Access and PowerPoint.

Comments
• You are legally authorized to work directly as employees for any employer in the United States without visa sponsorship.
• We offer a Total Rewards Package that includes things like a wide selection of health plans, preventative health reimbursement, 401(k) savings plan with company match and automatic

http://www.eaps.purdue.edu/
company contributions, tuition reimbursement, professional development, volunteer programs, employee assistance program, electric service discount, and many more perks!

- Relocation may be offered for this position

**JILL HRUBY FELLOWSHIP**

Accepting applications for the Jill Hruby Fellowship in National Security Science and Engineering. The Hruby Fellowship is one of Sandia National Laboratories’ most prestigious postdoctoral fellowships. This fellowship aims to develop women technical leadership careers in national security. All qualified applicants will be considered for this fellowship.

For more information, please visit: [https://tinyurl.com/HrubyFellowship](https://tinyurl.com/HrubyFellowship)

**Deadline: November 1 at midnight.**

[For more information see attached flyer]

**PRESIDENT HARRY S. TRUMAN FELLOWSHIP**

Sandia National Laboratories is seeking applicants for the President Harry S Truman Fellowship in National Security Science and Engineering. Candidates for this position are expected to have solved a major scientific or engineering problem in their thesis work or to have provided a new approach or insight to a major problem, as evidenced by a recognized impact in their field.

For more information, visit: [http://sandia.gov/careers/students_postdocs/fellowships/truman_fellowship.html](http://sandia.gov/careers/students_postdocs/fellowships/truman_fellowship.html)

**Deadline to apply is November 1 of each year and the fellowship normally begins on October 1 of the following year.**

[See attached flyer for more information]

**METEOROLOGIST IN SILVER SPRING, MD**

This position is located in the National Weather Service (NWS), Analyze, Forecast and Support Office (AFSO), Analyze and Mission Support Division (AMSD), Analysis and Nowcast Branch (ANB) with one vacancy in Silver Spring, MD.

As a Meteorologist, you will perform the following duties:

- Serve as a technical authority on validating various tools and models pertinent to the Analysis and Nowcast for the ANB.
- Collect, process and analyze forecast field' needs and help develop them into requirements to identify and fill gaps in analysis and short-term (0-18 hour) forecasting.
- Develop and implement validation algorithms for 0-18 hour forecasting tools and innovations in order to improve critical forecasting capabilities to meet the needs of NWS forecasters.
- Collaborate with the Office of Science and Technology Integration’s OPG (Operations Proving Ground) and NOAA Testbeds on research to operations (R2O) processes to implement tools and techniques for operational use.
- Communicate with state/local officials, policy experts, and the media to negotiate technical approaches to problems, further preparedness programs, and negotiate and explain service levels.

For complete details go to: [https://www.usajobs.gov/GetJob/ViewDetails/538341500](https://www.usajobs.gov/GetJob/ViewDetails/538341500)

**POSTDOCTORAL RESEARCH ASSOCIATE I**

Seeking Postdoctoral Researcher(s) to work on NASA funded projects to further develop data assimilation capabilities with the Community Land Model using the Data Assimilation Research Testbed to improve our understanding of the global carbon cycle. This position will be located at the national Center for Atmospheric Research in Boulder, CO.

Details here: [https://uacareers.com/postings/37793](https://uacareers.com/postings/37793)

**ASSOCIATE SCIENTIST, EARTH SCIENCES**

Entry level MS position supporting GPM at NASA Goddard.

[http://www.eaps.purdue.edu/](http://www.eaps.purdue.edu/)
In this position, the researcher will conduct research to advance ground validation activities for the NASA Global Precipitation Measurement (GPM) mission. The research will fall into three task areas: (a) characterizing uncertainties in satellite and ground-based (radar, dense gauge networks) rainfall estimates over a broad range of space/time scales; (b) using data from synergistic missions/sensors (e.g. SMOS, SMAP, GRACE, MODIS) to characterize correct detection or false alarms in GPM products; and (c) characterizing uncertainties in hydrologic models and understanding propagation of input uncertainties into model forecasts. The research involves work on retrospective regional analysis, retrospective global analysis, and real-time global analysis. The researcher will leverage existing open source modeling platforms including NASA’s Land Information System (LIS) to conduct these analyses.


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**KAVLI CIVIC SCIENCE FELLOW**

Are you passionate about civic science, including science outreach, communication, and public engagement? We, a collaboration of scientific societies, are looking for someone to lead an initiative that will increase the support and incentives for scientists who incorporate civic science into their work. The Kavli Civic Science Fellow is an ideal position for someone who has experience in civic science and is looking for an opportunity to think more broadly about advancing the field. This fellowship presents a remarkable opportunity to work with leaders across multiple scientific societies, while ultimately, influencing the culture of science and its relevance to society.

The American Society for Cell Biology (ASCB), the American Association for the Advancement of Science (AAAS), the American Geophysical Union (AGU) and Research!America are partnering to support the work of a Kavli Civic Science Fellow who will work across multiple scientific societies to connect, and advance the societies’ collective support so that scientists are empowered to undertake civic science activities. As part of their work, the Kavli Civic Science Fellow will follow a collective impact model that will rely on strategizing, data collection, and analysis and team building. The goal of the fellowship is to lay the groundwork for a more cohesive whole among societies, as they work towards influencing long-term culture change within the scientific enterprise to increase value and support for meaningful civic science engagement. This position is an 18-month fellowship.

The Kavli Civic Science Fellow will have the opportunity to shape the activities of the fellowship, with leaders from multiple scientific societies, to meet this larger goal. By working with a wide range of scientific societies, the Kavli Civic Science Fellow along with the scientific societies will set a common agenda, which establishes an agreed understanding of the problem and a shared vision of change. They will then work to establish common progress measures and mutually reinforcing activities.

Some of the activities that may be undertaken by the Kavli Civic Science Fellow in collaboration with representatives from the scientific societies may include:

- Conduct a landscape assessment of scientific societies’ visions, goals, capabilities, programs and opportunities related to civic science.
- Recommend ways in which scientific societies can leverage their strengths and authorities to encourage academic and funding institutions to provide deeper support for civic science-including altering their incentive structures.
- Highlight existing resources and speed the development of new resources that support scientific societies’ planning, implementation, and evaluation of civic science, including resources that societies make available to their members.
- Increase collaboration among scientific societies to accomplish work at the grassroots level and to find efficiencies in the existing system and leverage these efficiencies to better support societies of varying sizes and scales that want to encourage their members to do effective civic science engagement.

The candidate will also be part of the inaugural class of Civic Science Fellows. The Fellowship will
embed emerging leaders from diverse backgrounds in organizations working at the many interfaces of science and society. Additional fellows will be hired by other organizations later this year. The benefits of being a Civic Science Fellow include access to a network of Fellows at other institutions, professional development in subject matter as well as leadership skills, and mentoring.

Requirements
• Master’s degree or higher in science, science communication or related field.
• Experience in an aspect of civic science: science outreach, public engagement, science communication.
• Experience in program or project management.
• Understanding of the culture of science and scientific societies or similar organizations is desirable.
• Strong written and verbal communication skills.
• Ability to work independently.
• Comfortable working with CEOs and with mid-level staff who run programs.
• Possess initiative, be entrepreneurial, and think strategically and long-term.

ASCB will be the fiscal and administrative home institution for the Fellow, who will spend time in several other societies located in the DC area in a series of 2 month rotations. This is an 18-month position. The salary for this fellowship is $80K per year plus benefits.

Please submit a cover letter with salary requirements and resume. Apply at: https://recruiting.paylocity.com/Recruiting/Jobs/Apply/118055

Incorporating Alternative Values to Design Conservation and Development Program
Tuesday, October 1, 2019
10:30 A.M.
Potter Hall, Room 234 (Fu Room)

[See attached flyer for abstract and complete information]

FACULTY AND STAFF INVITED TO GREEN ZONE STUDENT PANEL TO LEARN ABOUT MILITARY, VETERAN EXPERIENCE

About 10 years ago, when Corey Linkel was just getting started as an academic advisor at Purdue, he had a meeting with a student veteran that felt like a success at the time.

Later, after Linkel came to know the student better, the student admitted to having a different experience.

“He told me he had felt disappointed after our initial meeting, that he felt isolated and disconnected and didn’t feel like he was getting out of the advising appointment what he needed,” Linkel says. “That experience caused me to pause and rethink things. It made me realize that our military-connected students have needs that I didn’t understand as well as I needed to, and it made me want to do more to support them.”

Linkel never forgot the experience. That’s why he attended the inaugural Green Zone Student Panel last fall. The event will be offered again from 2-4 p.m. on Wednesday, Nov. 13, in Lawson, Room 1142, and faculty and staff are invited to attend. During the panel, students will share personal stories aimed toward expanding participants’ understanding of the military-connected student experience.

“Even if you think you know, even if you are a member of a military family, you have something to gain from attending,” Linkel says. “Our military-connected students are navigating some of the most difficult bureaucratic scenarios our students face. When academic advisors and other student support professionals understand those complexities, it’s good for Purdue, good for our
country, and most importantly, good for the students we work with."

The event is free, but registration is required. Individuals may register for a session online. If the session you wish to attend is not visible on the registration page, the session is full.

In addition to the semiannual student panel, the Veterans Success Center (VSC) also offers more regular Green Zone training sessions. These sessions provide Purdue faculty and staff participants with the understanding and tools necessary to better serve the roughly 400 veteran and military students on Purdue’s West Lafayette campus. A nod to the heavily fortified zone in the center of Baghdad, Iraq, “Green Zone” refers to a location recognized by veterans as a safe place.

Linkel, who now serves as associate director of undergraduate programs for the Weldon School of Biomedical Engineering, says anyone on campus who works with students should consider attending an upcoming session, the nearest of which takes place from 10 a.m. to noon on Thursday, July 25, in Krach, Room 260.

Below is a full list of upcoming Green Zone opportunities:

- **Green Zone:** 2-4 p.m. Tuesday, Oct. 15, in Rawls, Room 2079
- **Green Zone Student Panel:** 2-4 p.m. Wednesday, Nov. 13, in Lawson, Room 1142
- **Green Zone:** 10 a.m. to noon Tuesday, Dec. 17, in Grissom, Room 103

“Being aware of veteran students’ needs better prepares me to work with any student who has more going on than what’s visibly on the surface, whether a student may be experiencing things such as PTSD, anxiety, or other unseen disabilities,” Linkel says. “The more I educate myself, the more I realize there’s so much more out there to learn. I encourage everyone to get the training, be supportive, and be an ally.”

Individuals who would like to participate in Green Zone training but are unable to attend the scheduled sessions may contact Jamie Richards to schedule future offerings. Staff and faculty may also visit the Veterans Success Center (part of Student Success Programs), located in the Purdue Memorial Union, Room 284.

### CELEBRATIONS

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lisa Welp-Smith</td>
<td>October 1</td>
</tr>
<tr>
<td>Ernest Agee</td>
<td>October 2</td>
</tr>
<tr>
<td>Wen-Yih Sun</td>
<td>October 4</td>
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[http://www.eaps.purdue.edu/](http://www.eaps.purdue.edu/)
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. Individual email announcements will no longer be sent unless the content is time-sensitive. We will continue to include our publications, presentations and other recent news items as well.

Those using paper copies of the newsletter should go to our newsletter archive on the EAPS website at [http://www.eaps.purdue.edu/news/newsletters.html](http://www.eaps.purdue.edu/news/newsletters.html) and Click on News to access active links as needed. Material for inclusion in the newsletter should be submitted to Katherine Huseman (khuseman@purdue.edu) by 5:00pm on Thursday of each week for inclusion in the Monday issue.

If it is in the newsletter, we assume you know about it and no other reminders are needed. For answers to common technology questions and the latest updates from the EAPS Technology Support staff, please visit: [http://www.eaps.purdue.edu/resources/information_technology/index.htm](http://www.eaps.purdue.edu/resources/information_technology/index.htm).

Also, as an additional resource for information about departmental events, seminars, etc., see our departmental calendar at [http://www.EAPS.purdue.edu/events-calendar.html](http://www.EAPS.purdue.edu/events-calendar.html)
Many natural subsurface processes involve the interaction between multiphase flow and deformation of porous media like rocks and soils. Examples include hydraulic fracturing, induced seismicity from fluid injection, and subsidence from groundwater extraction, just to name a few. In some cases, such as soil desiccation cracks or methane venting from organic sediments, surface tension plays a fundamental role in the fluid-solid interaction. Here, we report some recent observations on how, in these cases, the flow and deformation are strongly modulated by wettability, that is, the relative affinity of each fluid to the solid making up the porous medium. These observations are surprising and intriguing, but a mechanistic explanation has heretofore remained elusive. Here, we present a fully-coupled dynamic model of granular mechanics and multiphase flow at the pore scale, which explicitly incorporates the impact of wettability. This mechanistic model allows us to explore the rich emerging behavior as a function of different parameters, such as capillary number, contact angle, initial packing density, and grain rigidity. Beyond the suggestive predictions of pattern formation, the model also hints at the origin of the transitions between patterns. We reconcile the rich behavior we observe in terms of a jamming transition, which opens a promising way to understand novel aspects of wet granular systems.
The Department of Earth and Planetary Sciences at Washington University in St. Louis invites applications for a tenure-track or tenured faculty position at the assistant, associate, or full professor rank, commensurate with experience, in the field of planetary science. The candidate is expected to perform research in the broad area of planetary surfaces and processes, have or seek active involvement in planetary science missions, and eventually assume leadership of the NASA Planetary Data System Geosciences Node at Washington University. The ideal candidate will employ quantitative tools and will integrate computational approaches with remotely sensed observations.

The successful candidate is expected to develop a vigorous, externally funded research program, maintain a strong publication record, advise students, provide outstanding teaching of undergraduate and graduate courses, and participate actively in departmental governance and university service. We seek candidates who will strengthen existing research programs in planetary science and remote sensing, as well as foster collaboration with scholars across the Washington University community.

Candidates must have a Ph.D. in planetary science or a related field at the time of appointment. In addition, candidates at the associate or full professor rank must have an advanced record of research, publication, and teaching warranting tenure. Complete applications include cover letter, curriculum vitae, statements of teaching and research interests, and names and contact information of at least four references, submitted via Interfolio: https://apply.interfolio.com/66099. Applications must be received by October 31, 2019 to ensure consideration.

Washington University in St. Louis is committed to the principles and practices of equal employment opportunity and especially encourages applications by those underrepresented in their academic fields. It is the University’s policy to recruit, hire, train, and promote persons in all job titles without regard to race, color, age, religion, sex, sexual orientation, gender identity or expression, national origin, protected veteran status, disability, or genetic information.
THE PROGRAM. The University of California 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 LGBT. 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.

AWARDS AND APPOINTMENTS. 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 $50,760 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.

ELIGIBILITY. 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.

APPLICATION. Apply online at: ppfp.ucop.edu

DEADLINE: November 1, 2019

University of California
PRESIDENT’S
POSTDOCTORAL
FELLOWSHIP
PROGRAM

CALL FOR APPLICATIONS

2020–2021

Berkeley
Davis
Irvine
Los Angeles
Merced
Riverside
San Diego
San Francisco
Santa Barbara
Santa Cruz

More information:
President’s Postdoctoral Fellowship Program
University of California

visit online: ppfp.ucop.edu/info/
email: ppfpinfo@berkeley.edu

University Partnerships for Faculty Diversity

Partner Programs with Carnegie Mellon University, University of Colorado, Boulder, University of Maryland, University of Michigan, University of Minnesota, New York University, University of North Carolina, Charlotte, UC Chancellor’s Postdoctoral Fellowship Programs, and the UC-affiliated National Labs. Please visit: http://ppfp.ucop.edu/info/about-ppfp/partnerships.html
USC Price at a Glance

The mission of the Price School is to improve the quality of life for people and their communities, here and abroad.

We Offer Masters Degrees in:
- Public Policy
- Public Administration
- Urban Planning
  - Nonprofit Leadership & Management
- Public Policy Data Science
- Health Administration
- Real Estate Development

3 Executive Masters Programs
3 Doctoral Programs

IDEALIST GRADUATE SCHOOL FAIR
October 3rd, 5:00pm - 8:00pm
University of Illinois, Chicago
UIC Forum

FOR MORE INFORMATION, VISIT PRICESCHOOL.USC.EDU
ALPHA GIRLS: WOMEN IN STEM, BUSINESS, & ENTREPRENEURSHIP

Thursday, October 10 | 5:30 p.m.
Burton D. Morgan Center | Room 121
Purdue University
Free | Open to the Public

PANEL DISCUSSION FEATURING:

• MJ Elmore, BS ’76 Math | Silicon Valley Trailblazer and Angel Investor
• Janice Evans, PhD | Biological Sciences Department Head
• Chris Hrycyna, PhD | Chemistry Department Head
• Nathalie Duval-Couetil, PhD | Director, Certificate in Entrepreneurship and Innovation Program
• Julian Guthrie | Alpha Girls Author

Reception immediately following during The Showcase, a Purdue Foundry event.

Sponsor: Purdue College of Science + Cosponsors: The Purdue Foundry and The Office of Technology Commercialization

MJ Elmore    Janice Evans    Chris Hrycyna    Julian Guthrie    Nathalie Duval-Couetil
19TH ANNUAL AMS STUDENT CONFERENCE
11-12 JANUARY 2020, BOSTON, MASSACHUSETTS

We are thrilled to announce the 2020 AMS Student Conference, which will be held on 11-12 January 2020 in Boston, Massachusetts in association with the 100th AMS Annual Meeting. The theme for this year’s Student Conference is “Hindsight in 2020: A century of meteorological innovation to inspire the future.”

Important eligibility requirement: You must be an active 2020 AMS student member to attend the AMS Student Conference, and you must be a student to present a poster at the poster session!

Sessions will include invited speakers from the private, broadcast, academic, and government sectors, and will engage and excite students about potential career options and recent research in the atmospheric sciences. Attendees will have the opportunity to select an interactive session to attend during online registration (see details below). Interactive sessions will include (1) an integrated warning team workshop, (2) a resume workshop, (3) a broadcast tape swap, (4) a Python workshop, and (5) a bystander training from the NSF-sponsored ADVANCEGeo Partnership.

During the conference, a career fair and networking event will provide a forum for students to personally interact with potential employers and graduate institutions. In addition, a poster session at the conclusion of the conference will provide a great opportunity for students to showcase their research. The student conference is intended for junior and senior undergraduates and early graduate students, but it is open to all students.

Registration
Registration is now open! Early registration will be available online until 11:59 EST 16 December 2019 at a rate of $60. Starting on 17 December, late
registration will be available for $80. To register online, please visit the registration site and select the option corresponding to the 19th Annual AMS Student Conference. On-site registration ($80) may be available if space permits. Attendees must register separately for the 100th AMS Annual Meeting.

Abstract Submission
We welcome abstract submissions from student projects spanning the atmospheric and related sciences, and we hope to accommodate all submitted abstracts at the poster session. The poster session is a fantastic opportunity for students to showcase their work to peers and potential collaborators, and presenters will also have the opportunity to participate in a poster competition.

To submit an abstract, you must be an active AMS student member. All accepted abstracts will be scheduled as poster presentations for the Student Conference poster session during the evening of Sunday, 12 January 2020.

Guidelines for the AMS Student Conference poster session and corresponding poster competition are available here.

Please submit your abstract online by 4 October 2019 and ensure you have applied for or renewed your AMS student membership prior to submitting your abstract. Authors of accepted abstracts will be notified via email by mid-to late-November 2019.

Sponsors and Organizers
The 19th Annual AMS Student Conference is organized by the AMS Student Conference Planning Committee and is sponsored by the American Meteorological Society.

To keep up to date on AMS Student Conference news, search Facebook for “AMS Student Conference” and Twitter for “@AMSStudentConf”.

For additional information, please contact the program chairpersons:

- Gaige Kerr, Johns Hopkins University (gaige.kerr@jhu.edu)
- Matt Flournoy, University of Oklahoma (mflournoy37@gmail.com)
- Kenzie Krocak, University of Oklahoma (mjkrocak@gmail.com)

We hope you join the festivities in Boston!
A call for solutions that accelerate the drawdown of 1 trillion tons of atmospheric carbon dioxide into agricultural soils

Many of the world’s largest industries have transformed and unlocked new value through digital systems innovation, and now’s the time for agriculture to do the same. The Terraton Challenge seeks to focus global innovators on agriculture as a climate solution.

The Terraton Challenge will focus on three critical areas:

- **Accelerate**: Increasing the speed at which carbon dioxide is sequestered and maintained
- **Quantify**: Catalyzing the next generation of soil carbon sampling & measurement systems
- **Reward**: Incentivizing growers to sequester soil carbon

**How It Works:**

- **PHASE 1**: Jul. 23 - Oct. 1, 2019 - Application
- **PHASE 2**: Oct. 1 - Oct. 22, 2019 - Cohort Selection
- **PHASE 3**: Nov 2019 - Jan 2020 - Incubation
- **PHASE 4**: Feb - Oct 2019 - Experimentation & Refinement
- **PHASE 5**: Jun 2020 - Demonstration
- **PHASE 6**: Oct 2020 - Award

**Why Participate:**

- **Prize Opportunities**
  - Up to $3.5K for submitting an idea
  - Up to $60K in grants
  - Up to $3M in contracts

- **Industry Visibility**
  - Demo your solution in front of thousands of stakeholders at Beneficial Ag 2020

- **Mentorship & Real-World Experimentation**
  - Get access to Indigo’s network of acres and the world’s largest agricultural lab to test your solution

- **Intellectual Property Preservation**
  - Maintain full ownership and complete IP rights to your solution

- **Addressing Climate Change**
  - Join a community of changemakers redefining agriculture as a climate solution

**Who Should Apply?**

All Stages • All Geographies • All Industries

Any team or individual with an original solution to one of our Terraton Challenge categories should apply.

Learn more and apply now: [www.indigoag.com/the-terraton-challenge](http://www.indigoag.com/the-terraton-challenge) or email us at terratonchallenge@indigoag.com

The Terraton Challenge rallies innovators to develop solutions that advance The Terraton Initiative, the global effort to remove 1 trillion tons – or a teraton – of carbon dioxide from the atmosphere and use it to enrich agricultural soils.

The Terraton Challenge is subject to contest rules, terms and conditions located here. The Terraton Challenge is made up of two separate contests: an initial screening contest (“Round One”) and a semi-finalist contest (“Final Round”). By submitting an application, applicants are enrolling in Round One only. The only potential prize for Round One is an invitation to participate in the Final Round. Subject to additional terms and conditions, final round participants may be eligible for a chance to win a grant of up to $20,000.00 and one or more contracts with Indigo that may be worth up to $3 million in total. No purchase necessary to enter. Contests are void where prohibited.
The University of Missouri Geology Field Camp is located in Sinks Canyon within the Shoshone National Forest, 7000 feet high in the Wind River Range, 9 miles south of Lander, WY. The facility is housed in log buildings, including dormitories for men and women, a well-equipped computer laboratory/classroom with satellite internet access, a student lounge and a large dining hall.

Six-week, six credit-hour course. Projects include:
- introduction to basic field methods in geology
- sedimentary facies analysis
- mapping of deformed sedimentary units
- applied surface and groundwater hydrogeology
- shallow subsurface reflection and refraction geophysics
- subsurface basin analysis and correlations
- structural analysis of high-grade metamorphic rocks
- four-day trip to Yellowstone and Grand Teton national parks and surrounding areas

Pre-requisites: Historical Geology, Structural Geology and Sedimentology/Stratigraphy

Academic scholarships ($500 to $1,500) available to all qualified applicants.

Student jobs available to interested applicants.

In-state tuition for all applicants. Estimated total cost (includes all tuition and fees) for summer 2020 is $4,500.

Visit us at https://fieldcamp.missouri.edu
Questions? Contact Field Camp Director Dr. Miriam Barquero-Molina (barqueromolinam@missouri.edu)
<table>
<thead>
<tr>
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<th>Location</th>
<th>Speaker</th>
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<td>3:45 PM</td>
<td>WSLR 116</td>
<td>Elizabeth French, Purdue University</td>
<td><a href="mailto:lenders@purdue.edu">lenders@purdue.edu</a></td>
<td>Exploiting the Root-Associated Microbiome for Plant Health</td>
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<td>Oct 18, 2019</td>
<td>10:00 AM</td>
<td>CRTN 1042</td>
<td>Andres Gomez, University of Minnesota</td>
<td><a href="mailto:john2185@purdue.edu">john2185@purdue.edu</a></td>
<td>Intra- and Interspecies Gut Microbiome Dynamics in Primates: Lessons in Ecology and Evolution</td>
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<td>HORT 117</td>
<td>Alejandro Rodriguez Sanchez, Purdue University</td>
<td><a href="mailto:lhoaglan@purdue.edu">lhoaglan@purdue.edu</a></td>
<td>Interactions between Wastewater and Crops: Benefits and Disadvantages Focusing on Microbial Communities (HLA Seminar Series)</td>
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<td>Nov 21, 2019</td>
<td>10:00 AM</td>
<td>CRTN 1042</td>
<td>Jim Tiedje, Michigan State University</td>
<td><a href="mailto:john2185@purdue.edu">john2185@purdue.edu</a></td>
<td>Interrogating Risk on the Environmental-Clinical Antibiotic Resistance Continuum</td>
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<td>3:45 PM</td>
<td>WSLR 116</td>
<td>Tobin Hammer, University of Texas-Austin</td>
<td><a href="mailto:hanse125@purdue.edu">hanse125@purdue.edu</a></td>
<td>Microbial Ecology of Bee and Butterfly Guts</td>
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To arrange an individual meeting with a speaker, please e-mail the contact person for that speaker.
13TH ANNUAL SYMPOSIUM
Sustainable Development Goals:
Are We Chasing Unicorns?

Short Video Contest

// 1st Place $500
// 2nd Place $300
// 3rd Place $100
// Popular Vote $50

Guidelines:
Submit a video (3 min or less) regarding the UN's SDGs. Videos should focus on the implementation of a specific SDG, overall successes and challenges in achieving SDGs, and/or highlight the complex interconnectedness of the goals.

Submissions Due:
October 11, 2019
13TH ANNUAL SYMPOSIUM

SUSTAINABLE DEVELOPMENT GOALS:
ARE WE CHASING UNICORNS?

// VIDEO COMPETITION
// DISASTER SIMULATION
// EXPERT PANEL
// KEYNOTE SPEAKER

SAVE THE DATE
OCTOBER 17-18, 2019

SCAN HERE FOR MORE INFO
ACTIVELY MOVING FORWARD
PURDUE CHAPTER
GRIEF AND LOSS GATHERING

FALL 2019 MEETINGS:
AUG 27, SEPT 10, SEPT 24,
OCT 22, NOV 5, NOV 19, DEC 3

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6-7 PM

WANT MORE INFO?
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Visit the national website:
www.healgrief.org/actively-moving-forward/

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Seeking Applicants!

We are now accepting applications for the Jill Hruby Fellowship in National Security Science and Engineering. The Hruby Fellowship is one of Sandia National Laboratories' most prestigious postdoctoral fellowships. This fellowship aims to develop women in the engineering and science fields who are interested in technical leadership careers in national security. Jill Hruby is the first woman to have been appointed director of a large, multidisciplinary national security laboratory and has been a driving force for other women at Sandia and across the country to follow careers in technical leadership.

Jill Hruby Fellows have the opportunity to pursue independent research that supports Sandia’s purpose: to develop advanced technologies to ensure global peace. In addition to receiving technical mentorship, Jill Hruby Fellows participate in a unique, prestigious leadership development program. To be considered for this fellowship, applicants must display excellent abilities in scientific and/or engineering research and show clear promise of becoming outstanding leaders. Fellows may work at either of Sandia’s principal locations in New Mexico and California. All qualified applicants will be considered for this fellowship. Deadline: November 1 at midnight.

Sandia’s competitive wage and benefits package includes an annual salary of $111,200; flexible work arrangements; 11 paid holidays; three weeks of vacation; health, vision, and dental insurance; and a 401(k) savings plan with company match.

Qualifications We Require

- Ph.D. conferred within the past three years or completion of Ph.D. requirements by commencement of appointment - begins October 1
- Evidence of strong academic achievement, excellent technical accomplishment, leadership and ability to team effectively
- No previous postdoctoral appointments at a national laboratory (internships excluded)
- Research in areas relevant to national security
- Ability to obtain and maintain a DOE security clearance, which requires US citizenship

Qualifications We Desire

- Creativity and self-motivation
- Good communication skills
- Interest in management/leadership
- Ability to work in a team-oriented, dynamic environment
- Demonstrated interest and/or experience in service to the nation
- Broad-based background and extensive knowledge in one or more of the following areas: bioscience, computing and information science, engineering sciences, geoscience, materials science, nanotechnology and Microsystems, and radiation effects and high energy density sciences

The Jill Hruby Fellowship is a three-year appointment and normally commences on October 1, although exceptions may be made to accommodate special circumstances.

For more information, please visit: https://tinyurl.com/HrubyFellowship
President Harry S. Truman Fellowship in National Security Science and Engineering

Seeking Applicants!

Sandia National Laboratories is seeking applicants for the President Harry S. Truman Fellowship in National Security Science and Engineering. Candidates for this position are expected to have solved a major scientific or engineering problem in their thesis work or to have provided a new approach or insight to a major problem, as evidenced by a recognized impact in their field.

The Fellowship provides the opportunity for new Ph.D. scientists and engineers to pursue independent research of their own choosing that supports Sandia's national security mission. The fellow is expected to foster creativity and to stimulate explorations at the forefront of science and technology and high-risk, potentially high-value research and development.

Sandia's research focus areas are: bioscience, computing and information science, engineering science, materials science, nanodevices and microsystems, radiation effects and high energy density physics, and geosciences. To learn more about additional R&D programs that support Sandia's mission areas, please visit: sandia.gov/missions

The Truman Fellowship is a three-year appointment. The salary is $111,200 plus benefits and additional funding for the chosen proposal. The deadline to apply is November 1 of each year and the fellowship normally begins on October 1 of the following year.

Requirements:

We invite applications from talented researchers who have:

- Received a PhD within the past 3 years, or will complete all PhD requirements by commencement of appointment (10/1/2020)
- Excellent academic and research qualifications, strong communication skills
- No prior national laboratory postdoc appointment (pre-postdoc internships acceptable)
- The ability to thrive in a dynamic, team-oriented environment
- The ability to obtain and maintain a DOE security clearance, which requires US citizenship

For more information, visit: http://sandia.gov/careers/students_postdocs/fellowships/truman_fellowship.html

Apply online: sandia.gov/careers

Click “View all Jobs”
Search
“Truman Fellowship”
or Job ID: 667285

VISION
On behalf of our nation, we anticipate and solve the most challenging problems that threaten security in the 21st century.

MISSION
The synergy and interdependence between our nuclear deterrence mission and broader national security missions forge a robust capability base and empower us to solve complex national security problems.

VALUES
Sandia's five core values inform our daily decisions, shape our performance, and enable us to achieve success as one lab.

- We serve the nation
- We team to deliver with excellence
- We respect each other
- We act with integrity
- We live safe and healthy lives
Incorporating alternative values to design conservation and development programs

Abstract
Efforts are underway globally to improve water quality and other ecosystem services in watersheds impacted by urbanization. Excess nutrients (i.e., nitrogen and phosphorus) create eutrophic conditions that threaten water supply for human consumption as well as ecological health. It has long been recognized that the interfaces between terrestrial and aquatic ecosystems are locations where nutrient processing and removal is maximized. However, in urban landscapes these dynamic connections are often severed resulting in a shunting of water and materials to urban stream networks. A range of urban stormwater practices are used to reestablish these connections, including restoration of floodplain wetlands and creation of stormwater wetlands throughout the watershed. The assumption is that the structural changes to the watershed that mimic natural systems will allow the development of functional equivalencies as well. I will present results of several stream and wetland projects in Charlotte, NC where we are working to disentangle the effects of land use modifications, climate change, and restoration. Our work suggests that there are important feedbacks between restoration design and placement within the watershed and fill an important gap in identifying the potential for cascading positive effects on nutrient biogeochemistry when stormwater management practices are combined in urban landscapes.

Biosketch
Sara McMillan is an Associate Professor in Agricultural and Biological Engineering at Purdue University. She received her Ph.D. in Environmental Science and Engineering from the University of North Carolina at Chapel Hill and BS in Civil & Environmental Engineering from the University of Iowa. Prior to coming to Purdue, she spent 5 years as an assistant professor at the University of North Carolina at Charlotte and several years working as a professional engineer on the impacts of changing land use and climate on water quality. Her research focuses on linking geomorphic structure with ecological function in restoration projects. She integrates field-based experiments with modeling to mitigate the hydrologic and water quality impacts of human development. As an interdisciplinary researcher, she frequently collaborates with social scientists and ecologists to identify the social and biophysical factors that control access to clean water and healthy ecosystems. Her current research focuses on restoration to improve water quality and ecosystem services including projects on green infrastructure, agricultural BMPs, and stream/floodplain restoration.