

# EAPS WEEKLY NEWSLETTER

15 February 2021

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## DEPARTMENT NEWS

### MARS WATCH PARTY



Purdue EAPS will host a **watch party for the Mars Rover Perseverance landing on Feb. 18th from 2:30 – 4:30 p.m. EST.**

Professor Briony Horgan will kick off our watch party with a talk about her role in this mission. This watch party will be moderated by Professor David Minton. Professor Ali Bramson will speak about the water on Mars. Brad Garczynski, EAPS PhD student, will also discuss this historic mission.

Youtube link: <https://youtu.be/NW-ms-dxD5Y>

## Earth Atmospheric Planetary Sciences

### EAPS MEETINGS & EVENTS

#### **EAPS FACULTY MTG.**

Tuesday's 3:30-5:00/pm

Remote

March 9

April 13

May 4

#### **PRIMARY COMMITTEE MTG.**

April 6

#### **READING DAYS**

Wednesday, February 17

Thursday, March 18

Tuesday, April 13

#### **COMMENCEMENT**

Friday, May 14

Saturday, May 15

#### **EAPS K-12 OUTREACH CALENDAR OF EVENTS**

[http://www.eaps.purdue.edu/outreach/Outreach\\_News.html](http://www.eaps.purdue.edu/outreach/Outreach_News.html)

#### **REPORT YOUR OUTREACH AND ENGAGEMENT ACTIVITIES**

<http://bit.ly/EAPSOut>

## **EAPS COLLOQUIA**

Again this semester all colloquia can be accessed virtually and we will continue to have opportunities for students and faculty to meet with speakers individually and in small groups; signups to meet with speakers and more details will be available closer to the date of their talk.

Julia Cisneros  
University of Illinois at Urbana-Champaign  
**Thursday, February 25**  
3:30 PM  
Remote

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## **OUTREACH NEWS**

Do you have part of a recorded lecture that would work for high school students? Do you have an idea for a virtual lab for K-12? Do you have cookies? Are you including a broader impacts section for your next grant? Contact our K-12 Outreach Coordinator, Steven Smith ([mrsmith@purdue.edu](mailto:mrsmith@purdue.edu)).

The Purdue University Superheroes of Science Podcast is on most podcast players as well as YouTube! Check out some of the latest episodes, <https://www.youtube.com/c/SuperheroesofScience>.

Facebook <https://www.facebook.com/EAPS.out>  
<https://www.facebook.com/PurdueSOS>  
Twitter (@Purdue SOS)  
EAPS departmental outreach web page:  
<http://www.eaps.purdue.edu/outreach/index.html>.



## **2021 NASA PLANETARY SCIENCE SUMMER SCHOOL APPLICATIONS OPEN**

2021 NASA Planetary Science Summer School Applications Open Through April 1st.

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 and the trade-offs inherent in each.

Science and engineering doctoral candidates, recent PhDs, postdocs, and 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.

**Session 1: May 24-Aug 6**

**Session 2: May 24-Aug 20**

With workload of a rigorous 3-hour graduate-level course, participants spend the first 10 weeks in preparatory webinars acting as a science mission team, and spend the final culminating week mentored by JPL's Advance Project Design Team to refine their planetary science mission concept design and present it to a mock expert review board. The culminating week is typically at JPL, however in 2021 it is likely to be virtual due to Covid-19 pandemic conditions.

<http://go.nasa.gov/missiondesignschools>

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## **HALF TIME POST DOC OPPORTUNITY WITH CIMMS - UNIVERSITY OF OKLAHOMA**

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at The University of Oklahoma (OU) is currently looking for a half-time (20 hours/week) Post-Doctoral Research Associate working in the National Weather Center (NWC). The NWC is a highly collaborative operational, research, and academic environment containing a number of NOAA and OU organizations.

Responsibilities of the position include:

- The primary task consists of applications of both radar and satellite data on natural hazards such as drought and floods.
- An additional task of this project is to support the further development of severe thunderstorm applications based on NASA Atmospheric Infrared

Sounder (AIRS) data to develop joint ground radar-satellite research.

[See attached flier for complete details]

**PHD LEVEL RESEARCHER WITH CIMMS**

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at The University of Oklahoma (OU) working collaboratively with NOAA's National Severe Storms Laboratory (NSSL), is currently looking for a highly-qualified Research Scientist to provide scientific and technological expertise in the combined analysis of airborne NOAA P-3 tail Doppler radars (TDRs) with ground-based radars to improve process understanding of severe deep moist convection. The Research Scientist will provide leadership in the development and application of radar editing and analysis tools for use in research applications at CIMMS/NSSL, primarily for the use of performing process studies to better understand severe weather phenomena (tornadoes, hail, high wind) in supercells and quasi-linear convective systems observed during VORTEX-SE and TORUS. This position will include participation in the field for upcoming research projects (e.g., TORUS-2022) and will require the Research Scientist to integrate multi-radar airborne/ground-based analyses and retrievals, surface and airborne in situ, sounding, windsonde, and surface profiler and airborne compact Raman lidar observations into these process studies. The incumbent will work directly with research scientists at NSSL and will be encouraged to collaborate actively with scientists from other institutions with expertise in radar-based severe weather process studies (e.g., the OU School of Meteorology Biggerstaff Research Group). The position will be based at NSSL in Norman, OK within the National Weather Center (NWC), a highly collaborative forecasting, research, and academic environment containing a number of NOAA and OU organizations.

[For additional information see attached flier]

**CIMMS REAL-TIME MODELING RESEARCH FELLOW – 100% REMOTE WORK**

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at the University

of Oklahoma (OU) is currently seeking a Half-Time (0.5FTE) Research Fellow to oversee and maintain real-time model forecast systems for NOAA's National Severe Storms Laboratory (NSSL). Specifically, these systems include, (1) the NSSL-WRF, which is a permanent experimental modeling framework providing storm-scale guidance to the Storm Prediction Center (SPC) and serving as a testing ground developing storm-scale model diagnostics, (2) the NSSL-FV3, a limited area version of the Finite Volume Cubed Sphere model, which NOAA has selected as the dynamics core for its Unified Forecasting System initiative, and (3) the Warn-on-Forecast System (WoFS), a rapidly updating, convection-allowing ensemble being developed by NSSL to extend hazardous weather warning lead times and provide probabilistic forecast guidance within the watch to warning (i.e., 0.5 – 6-h) time frame. The NSSL-WRF and NSSL-FV3 are run daily on Jet, a NOAA High-Performance Computing (HPC) cluster, while WoFS is an on-demand system run internally at NSSL when significant severe weather is expected. However, the incumbent would lead implementation of WoFS on Jet. All job duties may be performed remotely.

[See attached flier for additional information]

**CIMMS RESEARCH ASSOCIATE AT THE STORM PREDICTION CENTER – SATELLITE PROVING GROUND LIAISON**

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at The University of Oklahoma (OU) is currently looking for a Research Associate to work with the NOAA/NWS Storm Prediction Center (SPC). This position will be located at the SPC in Norman, OK, which is housed within the National Weather Center (NWC), a highly collaborative operational, research, and academic environment containing a number of NOAA and OU organizations. Here you will work directly with development meteorologists and operational forecasters at the SPC and will have opportunities to interact with NOAA and academic scientists within the NWS, NOAA's Satellite and Information Service (NESDIS), and the broader meteorological community.

[Flier attached for additional information]

## **ASSISTANT PROFESSOR IN ATMOSPHERIC AND CLIMATE SCIENCE**

The Department of Geography at the University of Florida, College of Liberal Arts and Sciences, invites applications for two (2) full-time, nine-month, tenure-accruing positions, at the level of Assistant Professor to begin August 16, 2021. The department seeks candidates with expertise in Artificial Intelligence (AI) to study Atmospheric and Climate Science (meteorology, weather forecasting and prediction, extreme events, climate change and climate change modeling, etc.) and will complement existing strengths in the department and across campus.

Primary responsibilities include 1) the development of a high-quality research portfolio employing AI techniques (e.g., artificial neural networks, deep learning, machine learning, computer vision, reinforcement learning) in Atmospheric and/or Climate Science, 2) a 2-1 teaching assignment where developed undergraduate and graduate courses contribute to our proposed new major in meteorology and/or certificate in AI and Atmospheric Science along with mentoring students, including those from underrepresented backgrounds, and 3) performance of administrative/service duties commensurate with a tenure-track appointment in the Department.

For additional information go to link:

<https://facultyjobs.hr.ufl.edu/posting/82837>

### **PROJECT GEOLOGIST**

Lord and Winter is hiring a full time Project Geologist based out of our Franklin, Tennessee Office. The ideal candidate would live in Middle Tennessee and have a Bachelor's Degree in Geology and a Master's Degree in Geology with emphasis in hydrogeology or geochemistry. Experience level required is 2 to 10 years having obtained Professional Geologist Licensure (PG) or Geologist In Training (GIT) or Professional Geologist (PG) through ASBOG. The candidate must be entrepreneurial, be self-motivated, work successfully unsupervised, and be adept at electronic data collection including use of cloud based administration systems. Knowledge of contaminant fate and transport, human health risk

assessment, and site investigation and remediation guidance is a plus.

Anticipated project work will include remediation planning and management, Phase II Site Investigations, and Phase I Site Assessments. Work will include sample collection, soil description using the USCS system, interpretation of analytical data, and report writing. The work is expected to include frequent travel, generally within the Southeastern US. The work can be physically challenging with site investigations over several hundred acres which may be required to be completed on foot. Non-field work will be completed in a home-based office.

The successful candidate will qualify for a full time (40 hour) Lord and Winter Professional Scientist Position with benefits which may include quarterly bonus, vacation, healthcare, dental care, vision care, short-term disability, life insurance, and contributions to an employer-matched individual retirement plan.

Lord and Winter is the leading Professional Environmental Services firm in the Southeastern United States. Lord and Winter is headquartered in Nashville, Tennessee with offices in Franklin, Tennessee; Baton Rouge, Louisiana; and Austin, Texas. We have experienced steady growth since our founding in 2013. Lord and Winter is sought out by commercial and residential developers, public utility providers, and the energy industry due to our niche expertise in environmental remediation, environmental permitting, and environmental compliance. Lord and Winter is an equal opportunity employer. Find out more about Lord and Winter at [www.lordandwinter.com](http://www.lordandwinter.com). Salary commensurate with experience.

For information and to apply go to the following link: <https://www.ziprecruiter.com/jobs/lord-and-winter-a826f4e6/project-geologist-56443b4c>

### **AGI INVITES APPLICATIONS FOR NEW SCHOLARSHIP FOR ADVANCING DIVERSITY IN THE GEOSCIENCE PROFESSION**

The American Geosciences Institute (AGI) is pleased to announce its new Scholarship for Advancing Diversity in the Geoscience Profession.

The scholarship is a one-time \$5,000 award supporting geoscience graduate studies by a U.S. citizen or permanent resident who self-identifies as a member of an underrepresented minority (Black, Indigenous, or Person of Color) and is within two semesters of completing a recognized geoscience program.

"The geosciences can thrive only with full participation from all communities, yet research shows that many underrepresented minority students face obstacles in the transition from undergraduate to graduate studies," says AGI Interim Executive Director Sharon Tahirkheli. "Supporting the next generation of aspiring minority geoscientists has perhaps never been more important."

The **application deadline is February 21, 2021**. The scholarship winner will be notified in April 2021. To learn more, see <https://www.americangeosciences.org/workforce/agi-scholarship-advancing-diversity-geoscience-profession>. If you have questions, please contact AGI Geoscience Profession and Higher Education Director Christopher Keane at [keane@americangeosciences.org](mailto:keane@americangeosciences.org).

#### **About AGI**

The American Geosciences Institute (AGI), a federation of scientific and professional associations representing over a quarter-million geoscientists, is a nonprofit 501(c)(3) organization dedicated to serving the geoscience community and addressing the needs of society. AGI headquarters are in Alexandria, Virginia.

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### **AMERICAN METEOROLOGICAL SOCIETY (AMS) GRADUATE FELLOWSHIPS AND UNDERGRADUATE SCHOLARSHIPS**

The American Meteorological Society (AMS) administers an array of graduate fellowships and undergraduate scholarships with the support of its members, corporations, and government agencies nationwide. The fellowships and scholarships range from \$1,000 to \$25,000 and help further the education of outstanding graduate and undergraduate students pursuing a career in the atmospheric and related oceanic or hydrologic sciences.

Applications for the 2021 AMS Scholarships and Fellowships are now open!  
<https://www.ametsoc.org/index.cfm/ams/information-for-students/ams-scholarships-and-fellowships/>

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### **MS AND PHD EAPS STUDENTS BROADEN YOUR GRAD EXPERIENCE**

For those MS and PhD students in EAPS that would like to broaden their graduate experiences while at Purdue, EAPS is affiliated with the Computational Interdisciplinary Graduate Programs (CIGP) at Purdue. While working toward a graduate degree in EAPS, graduate students can also have a concentration (specialization) in the area of Computational Science and Engineering (CSE).

For more information see:  
<https://www.purdue.edu/gradschool/cigp/index.html>

A short video about the CIGP/CSE program can be found at:  
<https://www.youtube.com/watch?v=8aqo9yKtduQ>

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### **EAPS GRAD STUDENT RESEARCH OPPORTUNITIES**

If you are interested in an EAPS grad research opportunity, go to the following updated link for information:  
[https://www.eaps.purdue.edu/for\\_students/graduate/grad-research-opp.html](https://www.eaps.purdue.edu/for_students/graduate/grad-research-opp.html)

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### **POSTDOCTORAL APPOINTEE REGIONAL SCALE CLIMATE MODELING**

This post-doctoral appointment in the Environmental Science Division of the Argonne National Laboratory will involve methodological and applied research in regional scale climate modeling. In particular, the focus will be on high-resolution dynamic downscaling, hydrological modeling, impacts and assessments. For this position, we are looking for applicants with experience in regional scale models of hydrology,



(e.g. WRF-Hydro). Expertise in working with large datasets on high-performance computing resources is required.

Please use the following link to directly apply:  
<https://bit.ly/32RrPkE>

Applications will be considered as they arrive and with a likely start date in October 2020. This will be a two-year position. The successful applicant will be required to provide 3 letters of reference and university transcripts.

For complete information go to link:  
<https://bit.ly/32RrPkE>

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### **PRE-DOCTORAL APPOINTEE**

This pre-doctoral appointment in the Environmental Science Division of the Argonne National Laboratory will involve providing technical support to scientific staff for methodological and applied research in atmospheric science in projects related to aerosol-cloud interactions and regional scale climate modeling. For this position, we are looking for applicants with experience in the analysis of large weather/atmospheric datasets, running atmospheric models and analysis of the model output.

For complete information go to link:  
<https://bit.ly/3bEORz8>

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### **CIMMS PETER LAMB POSTDOCTORAL FELLOWSHIP**

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at the University of Oklahoma has established the Peter Lamb Postdoctoral Fellowship that is offered annually. CIMMS is a research organization that promotes collaborative research between National Oceanic and Atmospheric Administration (NOAA) and University of Oklahoma (OU) scientists on problems of mutual interest. This collaborative basic and applied research includes the study of mesoscale and storm-scale meteorological phenomena to help produce better forecasts and warnings that save lives and property and the investigation of the societal impacts of such

phenomena. Research scientists within CIMMS use observations, analysis and models to improve the understanding and prediction of high-impact weather elements and systems ranging in size from cloud nuclei to multi-state areas.

Applications must include a 3-4 page novel proposal developed by the applicant that addresses at least one of the CIMMS research themes: 1) weather radar research and development; 2) storm-scale and mesoscale modeling research and development; 3) forecast improvements research and development; 4) impacts of climate change related to extreme weather events; and 5) societal and socioeconomic impacts of high-impact weather systems. Applicants are highly encouraged to contact a CIMMS scientist to receive guidance when drafting a research proposal. The CIMMS website <http://cimms.ou.edu/index.php/research> has more information on projects underway within these research themes as well as contact information for CIMMS scientists working on these themes.

Terms of appointment are for one (1) year, renewable for a second year subject to satisfactory performance. An annual salary of \$60,000 and a research budget of up to \$5,000 per year is included in the award, along with a modest relocation stipend. Successful applicants must have obtained a Ph.D. within the last five years; proof of a Ph.D. is required before assuming the post-doctoral position, but those in the final stages of Ph.D. dissertation completion are encouraged to apply provided a finish date **before July 31, 2021** is anticipated.

Applicants are asked to submit electronically: (1) a curriculum vitae; (2) a list of all products (e.g., papers, patents, technology transfers, licensed software, etc.) generated over the course of their career; (3) a cover letter which includes the expected start date and any non-standard resources that might be needed to complete the proposed work; (4) a brief proposal (no more than 4 pages, double-spaced, excluding the list of references and figures) describing the work to be pursued during a 2-year tenure at CIMMS; and (5) a list of three references. In addition, applicants should request that their referees directly send their reference letters to CIMMS at the email address listed below.

[See Attached flier for more information]

### **NOAA HOLLINGS UNDERGRADUATE SCHOLARSHIP**

The 2021 Ernest F. Hollings Undergraduate Scholarship application period is now open — apply today!

Link: <https://www.noaa.gov/office-education/hollings-scholarship>



### **PURDUE UNIVERSITY ENGAGEMENT & SERVICE-LEARNING SUMMER**

Engagement and Service-Learning Summit to be held virtually on

**Thursday, March 4, 2021 from 9:00 – 11:30 AM (EST)**

Hosted by the Office of Engagement

This event serves to bring together faculty, staff, students, and community partners to discuss best practices in engagement and service-learning, highlight accomplishments, and increase collaboration opportunities.

This year's virtual event will feature two tracks: a beginning track on networking and partnership formation and an advanced track on broader research impacts. A showcase featuring student digital engagement stories will conclude the Summit.

**FACULTY & STAFF:** Connect with community partners and enhance your research impact

**STUDENTS:** Submit a digital engagement story for the event's virtual showcase

**COMMUNITY:** Find faculty and courses to help address your organization's needs

There is no cost to attend; however, registration is required:

<https://www.purdue.edu/conferences/events/ESL/>

[Flier attached with additional information]

### **PURDUE ASIAN AMERICAN AND ASIAN RESOURCE AND CULTURAL CENTER VIRTUAL LUNCH AND LEARN**

Please join Purdue Asian American and Asian Resource and Cultural Center (AAARCC) in our weekly Spring 2021 Virtual Lunch & Learn Series to discuss research, teaching/learning, and experiences of diverse Asian and Asian American communities. This event is free and open to all.

To register for all segments of the Lunch & Learn Series: <https://tinyurl.com/y2rkj7z7>

For more information on the Lunch and Learn program:  
<https://www.purdue.edu/aaarcc/events/Spring%202021.php>

### **SPRING 2021 CALENDAR OFFICE OF GRADUATE PROFESSIONAL DEVELOPMENT**

Career Prep, Academic Career Track, Industry Career Track, Wellness, Research & Ethics, Communication, Grantsmanship, Post-Docs, & Diversity.

All Spring 2021 Workshops are virtual.

New Workshops are added regularly! For registration & additional information, visit <http://bit.ly/purdueworkshops>

[See attached flier for more information]

### **SAVE THE DATE: ENGAGEMENT & SERVICE – LEARNING SUMMIT**

This event serves to bring together faculty, staff, students, and community partners to discuss best practices in engagement and service-learning, highlight accomplishments, and increase collaboration opportunities. This year's virtual event will feature three tracks: a beginning track on networking and partnership formation and two advanced tracks on broader research impacts. A showcase featuring student digital engagement stories will conclude the Summit. There is no cost to

attend; however, registration is required and will open in January 2021.

Hosted by the Office of Engagement

Thursday, March 4, 2021  
9:00 – 11:30 AM  
Via Zoom

[See attached flier for more information]

### 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> 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](mailto: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 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>





**PURDUE UNIVERSITY**  
**Department of Earth, Atmospheric, and Planetary**  
**Sciences Colloquia – Spring 2021**  
**Thursdays at 3:30 PM,**  
**REMOTE (unless noted)**

Jan. 21	Andy Czaja, University of Cincinnati	Host: Briony Horgan
Jan. 28	Zheng Wu, ETH Zurich	Host: Funning Li
Feb. 4	Andrew Bungler, University of Pittsburgh	Host: Wenjing Wang
Feb. 11	Lijun Liu, University of Illinois at Urbana-Champaign	Host: Xiaotao Yang
Feb. 18	Meena Balgopal, Colorado State University	Host: Erika Foster
Feb. 25	Julia Cisneros, University of Illinois at Urbana-Champaign	Host: Marissa Tremblay
March 4	Ryan Fogt, Ohio University	Host: Connor Belak
March 11	Sara Port, NASA Glenn	Host: Alexander Kling/ Noel Scudder
<b>March 18</b>	<b>READING DAY</b>	
March 25	Leena Mavis Cycil, University of Nevada Las Vegas	Host: Dara Laczniak
April 1	Melisa Diaz, Woods Hole Oceanographic Institution	Host: Marissa Tremblay
April 8	Alejandro Soto, Southwest Research Institute	Host: Alexandria Johnson
April 15	Angela Dapremont, Georgia Institute of Technology	Host: Ali Bramson
April 22	Melissa Berke, Notre Dame	Host: Lisa Welp
April 29	Osinachi Ajoku, UCSD/National Center for Atmospheric Research	Host: Matthew Huber
May 6	Fred Ciesla, University of Chicago	Host: Michelle Thompson

**University of Oklahoma**  
**Cooperative Institute for Mesoscale Meteorological Studies**  
**Post-Doctoral Research Associate (Half-Time)**  
**Remote Sensing Hydrometeorology**

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at The University of Oklahoma (OU) is currently looking for a half-time (20 hours/week) Post-Doctoral Research Associate working in the National Weather Center (NWC). The NWC is a highly collaborative operational, research, and academic environment containing a number of NOAA and OU organizations.

Responsibilities of the position include:

- The primary task consists of applications of both radar and satellite data on natural hazards such as drought and floods.
- An additional task of this project is to support the further development of severe thunderstorm applications based on NASA Atmospheric Infrared Sounder (AIRS) data to develop joint ground radar-satellite research.

The minimum qualifications for this position are:

- A PhD in Meteorology, Atmospheric Science, Hydrology or related area
- Proficiency with programming languages (preferably MATLAB)
- Ability to work and communicate in a team environment

You will work under general supervision of CIMMS Research Scientists but are expected to work independently and determine action to be taken in handling all but unusual situations. This is a non-supervisory position. Salary is based on your education, experience, skills, and knowledge. Information on University of Oklahoma benefits may be found at <https://hr.ou.edu>.

To apply for the position, please send your CV, cover letter, and list of three references to:

CIMMS Careers  
University of Oklahoma CIMMS  
120 David L. Boren Blvd., Suite 2100  
Norman, OK 73072-7304  
CIMMS-careers@ou.edu  
Job Requisition: Remote Sensing Post-Doc

The University of Oklahoma is an equal opportunity/Affirmative Action employer.

## **CIMMS Research Scientist – Applications of Airborne/Ground-based Radar Analysis in Process Studies of Severe Deep Moist Convection**

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at The University of Oklahoma (OU) working collaboratively with NOAA's National Severe Storms Laboratory (NSSL), is currently looking for a highly-qualified Research Scientist to provide scientific and technological expertise in the combined analysis of airborne NOAA P-3 tail Doppler radars (TDRs) with ground-based radars to improve process understanding of severe deep moist convection. The Research Scientist will provide leadership in the development and application of radar editing and analysis tools for use in research applications at CIMMS/NSSL, primarily for the use of performing process studies to better understand severe weather phenomena (tornadoes, hail, high wind) in supercells and quasi-linear convective systems observed during VORTEX-SE and TORUS. This position will include participation in the field for upcoming research projects (e.g., TORUS-2022) and will require the Research Scientist to integrate multi-radar airborne/ground-based analyses and retrievals, surface and airborne in situ, sounding, windsonde, and surface profiler and airborne compact Raman lidar observations into these process studies. The incumbent will work directly with research scientists at NSSL and will be encouraged to collaborate actively with scientists from other institutions with expertise in radar-based severe weather process studies (e.g., the OU School of Meteorology Biggerstaff Research Group). The position will be based at NSSL in Norman, OK within the National Weather Center (NWC), a highly collaborative forecasting, research, and academic environment containing a number of NOAA and OU organizations.

The principal duties of this position are:

1. Use specialized radar editing and multi-radar data synthesis code to generate analyses of convective events observed during VORTEX-SE (2017-2018) and TORUS by the NOAA P-3 aircraft via its unique onboard dual tail Doppler radar (TDR) systems.
2. Integrate airborne-ground-based multi-radar wind syntheses with unique P-3 Raman lidar temperature and water vapor mixing ratio profiles in the atmospheric boundary layer (from VORTEX-SE 2018 and TORUS-2019 data), as well as lead individual scientific analysis of data collected by airborne/ground-based multi-radar arrays.
3. Collaborate with other NOAA weather research laboratories and University of Oklahoma researchers on airborne/ground-based radar analysis, and collaborate with University of Colorado researchers concerning the relationships between airborne Raman lidar profiler observations and storm evolution.
4. Contribute to scientific publications and present scientific results at professional off-site conferences, workshops, and symposia.
5. When appropriate, participate in transferring new knowledge to operations by providing input on radar algorithm design or through educating radar users on data interpretation.

The minimum qualifications for the position are:

1. A Ph.D. in meteorology or atmospheric science.
2. Expertise in radar data editing software, preferably including editing software authorship.
3. Expertise in areas of ground-based and airborne radar analysis applications and radar remote sensing, and applications to severe convective weather. Applicants should identify experience in these areas, including meteorological radar systems, and software used to analyze data from meteorological radar systems.
4. Experience with Unix, programming (e.g., Fortran, C, C++), and scripting (e.g. Python, NCL).
5. United State citizenship or permanent residency.

Preferred qualifications include experience with airborne and ground-based radars and field work.

Normal working hours will be observed except for irregular hours during field data collection and/or conferences/workshops conducted at remote sites. The incumbent will work under general supervision in order to satisfy the objectives of various research grants and programs, and is expected to contribute to field efforts as needed.

The beginning salary for this position will be based on qualifications and experience and will include University benefits. Information on benefits may be found at: <http://hr.ou.edu/>. The expected start date for the position is no later than May 2021.

Appointment to this position is contingent on passing a Department of Commerce/NOAA background check.

To apply, please forward your CV, cover letter and list of three references to:

CIMMS Careers  
University of Oklahoma CIMMS  
120 David L. Boren Blvd., Suite 2100  
Norman, OK 73072-7304  
[CIMMS-Careers@ou.edu](mailto:CIMMS-Careers@ou.edu)  
ATTN: Airborne/Ground-based Radar Analysis

## **CIMMS Real-Time Modeling Research Fellow**

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at the University of Oklahoma (OU) is currently seeking a Half-Time (0.5FTE) Research Fellow to oversee and maintain real-time model forecast systems for NOAA's National Severe Storms Laboratory (NSSL). Specifically, these systems include, (1) the NSSL-WRF, which is a permanent experimental modeling framework providing storm-scale guidance to the Storm Prediction Center (SPC) and serving as a testing ground developing storm-scale model diagnostics, (2) the NSSL-FV3, a limited area version of the Finite Volume Cubed Sphere model, which NOAA has selected as the dynamics core for its Unified Forecasting System initiative, and (3) the Warn-on-Forecast System (WoFS), a rapidly updating, convection-allowing ensemble being developed by NSSL to extend hazardous weather warning lead times and provide probabilistic forecast guidance within the watch to warning (i.e., 0.5 – 6-h) time frame. The NSSL-WRF and NSSL-FV3 are run daily on Jet, a NOAA High-Performance Computing (HPC) cluster, while WoFS is an on-demand system run internally at NSSL when significant severe weather is expected. However, the incumbent would lead implementation of WoFS on Jet. All job duties may be performed remotely.

The principal duties of this position are:

1. Oversee and maintain the NSSL-WRF and NSSL-FV3 real-time forecast systems on Jet. This involves checking the runs daily to make sure they've run successfully, working with Jet administrators when there are problems, and informing NSSL, CIMMS, and SPC staff when there are problems or delays.
2. Occasionally working with CIMMS, NSSL, and SPC staff to facilitate additional experimental model runs for limited time periods, for example, during Hazardous Weather Testbed Spring Forecasting Experiments.
3. Implement WoFS on NOAA's Jet HPC and clearly document the workflow. Oversee and maintain WoFS on Jet when needed and/or train others for these duties.

The minimum qualifications for the position are:

1. A Master's Degree in Meteorology, Atmospheric Science, or related area.
2. Expert knowledge and experience conducting weather forecast model simulations on High-Performance Computing clusters.
3. Experience and proficiency running NOAA's Warn-on-Forecast System.

Excellent coding skills and experience in languages such as Fortran and Python are highly desired, as well as proficiency in shell scripting (e.g., bash, ksh, tcsh, etc.). Excellent oral and written communication skills are also highly desired. Applicants should identify experience with HPC, programming and scripting languages, numerical weather prediction, and graphic design/visualization.

Work can be conducted remotely and working hours depend upon requirements of real-time systems (e.g., late evening hours and/or early morning hours may be required to ensure model runs have started and/or finished. CIMMS staff will provide general supervision with technical oversight provided by NSSL scientific staff and management. The incumbent works under general supervision, but is expected to work independently and determine action to be taken in handling all but unusual situations.

The beginning salary is commensurate with educational background and experience, with OU insurance benefits. Information on OU benefits can be found at <https://hr.ou.edu/Employees>.

To apply for the position, please forward your resume, cover letter and list of three references to:

CIMMS Careers  
University of Oklahoma  
120 David L. Boren Blvd., Suite 2100  
Norman, OK 73072-7304  
CIMMS-careers@ou.edu  
Attn: CIMMS Real-Time Modeling

*The University of Oklahoma is an Equal Opportunity/Affirmative Action employer.*

## **CIMMS Research Associate at the Storm Prediction Center Satellite Proving Ground Liaison**

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at The University of Oklahoma (OU) is currently looking for a Research Associate to work with the NOAA/NWS Storm Prediction Center (SPC). This position will be located at the SPC in Norman, OK, which is housed within the National Weather Center (NWC), a highly collaborative operational, research, and academic environment containing a number of NOAA and OU organizations. Here you will work directly with development meteorologists and operational forecasters at the SPC and will have opportunities to interact with NOAA and academic scientists within the NWS, NOAA's Satellite and Information Service (NESDIS), and the broader meteorological community.

As a CIMMS Research Associate working with the SPC, you will provide scientific and meteorological expertise, along with leadership, satellite expertise, and technical support for the Satellite Proving Ground effort in Norman, OK. More specifically, the list below describes potential projects:

1. Serve as a "Satellite Liaison" at the SPC, assisting in Satellite Proving Ground efforts on satellite-based hazardous weather products and demonstrating the unique and complementary value of satellite information to forecasters;
2. Document satellite dependent forecast and analysis tools focused on the specific needs of hazardous weather forecasters;
3. Execute tests and validation of proposed new satellite-dependent products, decision aids, and best practices for operational forecasters with an emphasis on exploring the value of advanced satellite products for detection and short-term prediction of convective storms and associated hazards;
4. Serve as "implementation expert" for selected planned satellite products and their proxies;
5. Assist in the execution of the satellite portions of Hazardous Weather Testbed experiments, serving as the focal point for satellite-centered activities for both the Experimental Warning Program and the Experimental Forecast Program;
6. Assist with satellite components of any field excursion experiments headquartered out of the National Weather Center requiring satellite expertise;
7. Bridge satellite-related activities between the NOAA FACETs initiative, the NWS, and NESDIS;
8. Represent the NESDIS effort within the HWT by attending off-site conferences, symposia, and hazardous weather-related outreach events;
9. Develop synergy and shared accomplishments with the OCLO Satellite Training Team and Satellite Proving Grounds at NOAA National Centers, Training Centers, and Cooperative Institutes; and
10. Other duties as assigned.

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The minimum qualifications for the position are:

1. A Master's Degree in Meteorology, Atmospheric Science, or a related area; and
2. United States citizenship or permanent residency.

When applying, please include information related to your experience with satellite meteorology, remote sensing, and associated datasets. Of particular interest is your application of these experiences in software development, web development, graphic design/visualization, and Linux (UNIX) environments, including the AWIPS2/N-AWIPS systems. Lastly, your ability to communicate clearly is crucial to being successful in this position.

Normal working hours will be observed except for occasional irregular hours during data collection, warning/forecast experiments, or workshops conducted at remote locations. Additionally, occasional travel is expected. General supervision will be provided by CIMMS staff with technical oversight provided by SPC management. You will work under general supervision but are expected to work independently and determine action to be taken in handling all but unusual situations. This is a non-supervisory position, although you may serve as a leader of technical teams. Salary is based on your education, experience, skills, and knowledge. Information on University of Oklahoma benefits may be found at <https://hr.ou.edu>.

Review of applications will begin on **26 October 2020** and continue until the position is filled. To apply, please submit your resume/CV, cover letter, and list of three (3) references to:

CIMMS Careers  
University of Oklahoma CIMMS  
120 David L. Boren Blvd., Suite 2100  
Norman, OK 73072-7304  
Attention: SPC-SAT  
[CIMMS-careers@ou.edu](mailto:CIMMS-careers@ou.edu)



## **CIMMS Peter Lamb Postdoctoral Fellowship**

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at the University of Oklahoma has established the Peter Lamb Postdoctoral Fellowship that is offered annually. CIMMS is a research organization that promotes collaborative research between National Oceanic and Atmospheric Administration (NOAA) and University of Oklahoma (OU) scientists on problems of mutual interest. This collaborative basic and applied research includes the study of mesoscale and storm-scale meteorological phenomena to help produce better forecasts and warnings that save lives and property and the investigation of the societal impacts of such phenomena. Research scientists within CIMMS use observations, analysis and models to improve the understanding and prediction of high-impact weather elements and systems ranging in size from cloud nuclei to multi-state areas.

Applications must include a 3-4 page *novel proposal* developed by the applicant that addresses at least one of the CIMMS research themes: 1) weather radar research and development; 2) storm-scale and mesoscale modeling research and development; 3) forecast improvements research and development; 4) impacts of climate change related to extreme weather events; and 5) societal and socioeconomic impacts of high-impact weather systems. Applicants are *highly encouraged* to contact a CIMMS scientist to receive guidance when drafting a research proposal. The CIMMS website <http://cimms.ou.edu/index.php/research> has more information on projects underway within these research themes as well as contact information for CIMMS scientists working on these themes.

Terms of appointment are for one (1) year, renewable for a second year subject to satisfactory performance. An annual salary of \$60,000 and a research budget of up to \$5,000 per year is included in the award, along with a modest relocation stipend. Successful applicants must have obtained a Ph.D. within the last five years; proof of a Ph.D. is required before assuming the post-doctoral position, but those in the final stages of Ph.D. dissertation completion are encouraged to apply provided a finish date before July 31, 2021 is anticipated.

Applicants are asked to submit electronically: (1) a curriculum vitae; (2) a list of all products (e.g., papers, patents, technology transfers, licensed software, etc.) generated over the course of their career; (3) a cover letter which includes the expected start date and any non-standard resources that might be needed to complete the proposed work; (4) a brief proposal (no more than 4 pages, double-spaced, excluding the list of references and figures) describing the work to be pursued during a 2-year tenure at CIMMS; and (5) a list of three references. In addition, applicants should request that their referees directly send their reference letters to CIMMS at the email address listed below.

To receive full consideration, applications and supporting material should be received prior to January 31, 2021. All materials should be sent electronically to:

Cooperative Institute for Mesoscale Meteorological Studies (CIMMS)  
The University of Oklahoma  
[CIMMS-careers@ou.edu](mailto:CIMMS-careers@ou.edu)  
ATTN: Peter Lamb Postdoctoral Fellowship

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FOR THE ANNUAL  
**ENGAGEMENT & SERVICE-LEARNING SUMMIT**  
TO BE HELD VIRTUALLY ON

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VISIT OUR WEBSITE AND REGISTER TODAY!

<https://www.purdue.edu/conferences/events/ESLS>

# AAARCC Lunch & Learn Series

Spring 2021, Virtual Platform/Zoom

Thursdays, Noon to 1:00 PM

## **Solidarity & The Next Four Years of Presidency**

**January 28**

Dr. Patsy Schweickart (Emeriti Faculty, English & Asian American Studies, Purdue University)

## **Entrepreneurship as a Potential Career Path**

**February 4**

Dr. Arnold Chen (Managing Director, Burton D. Morgan Center for Entrepreneurship, Purdue University)

## **Inclusivity in the Arts**

**February 11**

Tetia Lee (Chief Executive Officer, Tippecanoe Arts Federation)

## **Pushing Boundaries on Academia as a Mixed Medium EntreScholar**

**February 18**

Ariel Smith (Doctoral Student, American Studies Program, Purdue University)

## **From Foundations to Frontiers: Chinese American Contributions to the Fabric of America**

**February 25**

Committee of 100

**LINK TO REGISTER:**



## **How Central Asian Women in the US Worked on COVID-19 Awareness Raising in Central Asia**

**March 4**

Dr. Annagul Yaryyeva (Researcher, Turkmenistan Health Initiative)

## **Diverging Trajectories of Transitional Justice: A Comparative Look into South Korea and Peru**

**March 11**

Dr. Nusta Carranza Ko (Assistant Professor, University of Baltimore, School of Public and International Affairs)

## **A Look Back at Our Purdue Experience**

**April 8**

Renz Buenavista & Gwynelle Condino (Undergraduate Student Ambassadors, Purdue AAARCC)

## **Virtual Identity & Music**

**April 15**

Dr. Christopher Cayari (Assistant Professor, Patty and Rusty Rueff School of Visual and Performing Arts, Purdue University)

## **Multilinguistic Hybridization in BTS Songs**

**April 22**

Dr. Huai-Rhin Kim (Continuing Lecturer, School of Languages and Cultures, Purdue University)



**PURDUE**  
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**CAREER PREP**

- Preparing for Behavioral Interview Questions (1/27)
- LinkedIn (2/2 & 3/31)
- Business Meal Etiquette (2/23 & 3/30)
- Comparing Job Offers (3/17 & 4/6)
- Personal Branding (4/20)
- The Cover Letter (4/22)
- Networking (4/28)
- Negotiating the Job Offer (4/29)

**ACADEMIC CAREER TRACK**

- An Overview of the Academic Job Interview (2/5)
- Preparing a Teaching Demo (2/11)
- Writing a Teaching and Diversity Statement (2/17)
- Ask a Postdoc Panel (2/24)
- Publishing a Scientific Paper (4/22)
- Crafting Your Teaching Narrative: Teaching Statements (3/1)

**INDUSTRY CAREER TRACK**

- Entrepreneurship as a Career Path (2/2)
- Interviewing for Industry Positions (2/18)
- Converting your CV to a Resume (4/21)

**WELLNESS**

- Managing Uncertainty in the Time of COVID-19 (1/19 & 3/4)
- Time Management (1/20 & 2/19)
- Sleeping for Success (1/28 & 4/6)
- Budgeting & Saving Money (1/28 & 3/16)
- Setting Yourself Up To Win in Grad School (2/3 & 4/1)
- Let's Talk Taxes! (2/3 & 3/4)
- Mindfulness (2/5 & 3/16)
- Impostor Syndrome (2/9 & 3/17)
- Planning to Graduate On Time (2/25 & 3/2)
- Break Out From Burn Out (3/11)
- Success Over Stress (3/24 & 4/14)
- Eat Right When Your Budget is Tight (3/25)
- Credit Cards & Credit Scores (4/1 & 4/14)
- Healthy Eating on the Run (4/20)
- Debt Management (4/21)
- Preparing to Buy a House (4/29)

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**SUBMISSION DEADLINE: 01/29/21**

**RESEARCH & ETHICS**

- **RCR:** What You Should Understand About Copyright Before Publishing (2/1)
- Conducting a Literature Review (2/4)
- Data Quality Management (2/10)
- **RCR:** Overview of RCR (2/11 & 3/18)
- **RCR:** Research Integrity in Engineering and Technology (2/23)
- Citation Management with Zotero (2/26)
- What you NEED to know about thesis formatting and depositing (3/3 & 3/4)
- Understanding The Animal Welfare Act and the 3Rs of Alternatives in Animal Research (3/8)
- **RCR:** Authorship & Publishing (3/9 & 3/19)
- Navigating Databases and How to Conduct a Literature Search (4/20)
- Using Voyant Tools for Systematic Review Searches (3/11)
- Deciding Where to Publish & Present Your Work (3/26)

**COMMUNICATION**

- How to Deliver a Winning Presentation (2/10)
- The Elevator Pitch (3/25)
- How to Create a Winning 3MT Presentation (3/30 & 4/7)
- Using Data to Tell a Story (4/6)

**GRANTSMANSHIP**

- NIH Fellowship F31 Info Session (1/13 & 2/2)
- NIH Fellowship F32/K-award Info Session (1/14 & 2/4)
- How to Find and Prepare for Fellowship Applications (2/9)
- Personal Statements for Fellowships (2/11)
- NC-SARE Fellowship (Agricultural Research) Info Session (2/25)
- Letters of Recommendation for Fellowships (3/3)
- Research Statements for Fellowships (3/10)
- How to Plan a Research Project for a Grant or Fellowship App (3/23)
- Fellowship Application Editing (3/31)

**POSTDOCS**

- Postdoc Grant Writing: Logic Flow (1/21)
- Postdoc Orientation (1/29, 3/12, 4/30)
- Postdoc Grant Writing: NSF (2/18)
- Postdoc Grant Writing: Grant Solicitations and Funding (3/18)
- Postdoc Grant Writing: Postdoc Fellowship Applications (4/15)

**DIVERSITY**

- You are so articulate: Examining Microaggressions (2/16)
- Ostracism (3/4 & 3/5)
- Boys will be Boys: Addressing Gender Bias & Intersectionality (4/14)

**ALL SPRING 2021  
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