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

Facebook
Twitter
Department Magazine
Website News

DEPARTMENT NEWS

EAPS COLLOQUIA

BILL KUO
NCAR & UCAR
Wednesday, March 6, 2019
1:45pm
HAMP 2108

** NOTE TIME CHANGE **

DEPARTMENT CREDIT CARDS

If you are checking out department credit cards, please be sure to return them as soon as possible. Due to the limited number of cards in the department, failing to return them quickly may impact others that also need to borrow department credit cards.

http://www.eaps.purdue.edu/
RECEPTION TO WELCOME NEW DEPARTMENT HEADS AND THANK OUR INTERIM DEPARTMENT HEADS FOR THEIR SERVICE

Please join Dean Patrick Wolfe
March 6, 2019
Purdue Memorial Union
Anniversary Drawing Room
3:00 – 4:30 p.m.
Light refreshments will be served
Remarks at 3:30 p.m.

Biological Sciences
Janice Evans
Stephen F. Konieczny

Earth, Atmospheric, and Planetary Sciences
Daniel Cziczo
Darryl Granger

({Flyer attached})

BUSINESS OFFICE CHANGES

Due to recent changes, Sarah Flook and Elizabeth Dunning are no longer in the EAPS Business Office; they are now in the College of Science Travel Center and working only with travel; no longer with purchasing, shipment of packages, or payroll. If you need assistance with travel, procurement, or payroll please email the College of Science business centers. The College of Science business centers are:

Payroll: cospayroll@purdue.edu, LWSN 3130

Procurement: cosprocure@purdue.edu, WTHR 225

Travel: costravel@purdue.edu, LILY 1-412

Recharge: cosrecharge@purdue.edu, RLPH 158

ANNUAL FORD PRESENTATION

The OCGP is inviting all interested faculty to the annual Ford presentation of research interests and requests for proposals. Purdue joined the Ford Alliance Partnership in December 2016, and since that time 27 significant research projects have been funded with the colleges of Engineering, Science, HHS, and the Polytechnic Institute. I believe Ford is seeking to fund new projects and so I urge any of you with an interest to attend.

Wednesday, March 6, 2019
8:30 a.m. to 9:30 a.m.
WALC 3090 (Wilmeth Active Learning Center)

Presenters: Ed Krause, Global Manager External Alliances, Research and Advanced Engineering and Bala Chander, University Programs Manager, Ford Motor Company

The research interests will be revealed at the session, but are expected to include robotics, autonomy, AI, data science, electrification, connectivity, cyber security, safety, mobility as a service, and additional topics. The Purdue Ford Partners site will be updated by March 6 with the 2019 research interests, the initial idea form (for one-page pre-proposals), and the research cycle key dates. You can click on the link to access this information.

David McKinnis mckinnis@purdue.edu is the assigned Alliance Manager for Purdue and will be glad to provide more information if you contact him.

Since it will be hard to gauge attendance, please email Linda Higbee lhigbee@purdue.edu if you intend to participate.

100th ANNIVERSARY OF THE AMS

The American Meteorological Society is celebrating its Centennial Year (formed in 1919). Lots of activities being planned throughout 2019, up to the 100th annual meeting in Boston (home of the AMS) on January 12-16, 2020.

Get on board to celebrate the AMS. Here is a portal to enter: https://www.ametsoc.org/index.cfm/ams100/#stories. Scroll down to read a short clip by someone you may know.
The Southeastern Coastal and Atmospheric Processes Symposium is held annually during the spring semester. Topics include tropical and coastal meteorology, hurricane and severe weather safety and awareness, coastal processes, the role the media and governmental departments take in public notification of impending natural disasters, and current research being conducted. The relaxed nature of SeCAPS fosters interaction between students and earth science professionals in industry, government, broadcast media, and academia.

The symposium is held on the University of South Alabama’s main campus (Mobile, AL), in the John Counts room in the Mitchell Center. Guests also may have the opportunity to view the innovative Coastal Weather Research Center and advanced meteorological equipment used by the meteorology students and faculty on campus.

Thanks to the USA Student Government Association and the Coastal Weather Research Center, there is no charge for attendees affiliated with the University of South Alabama. There is a nominal $10 charge for non-USA attendees to help offset the continued rising costs required to host the conference. If you have any questions or concerns, please contact us at secaps@southalabama.edu.

More information at: https://www.southalabama.edu/colleges/artsandsci/earthsci/meteorology/secaps/

Our Scholars Scholarship Application Information – Due 3/24

The Our Scholars scholarship application is open for student submissions until March 24, 2019.

This scholarship program recognizes undergraduate student engagement in original research, scholarship, or creative work under the guidance of a Purdue faculty or approved mentor. These annual, non-renewable, academic scholarships, in the amount of $1,000 ($500/semester) are funded through an equal matching agreement between the Office of Undergraduate Research (OUR) and the College of Science.

Our Scholar Qualifications:
• Full-time student in good academic standing at the West Lafayette campus
• Work on the same, year-long (Fall 2019 and Spring 2020) project with a research mentor

Our Scholar Application Process:
• Student locates a research mentor for the 2019-2020 academic year or works with a current research mentor
• Student submits an application through the online Qualtrics form by March 24
• Research mentor submits a letter of recommendation for each student through another Qualtrics form by March 24

Purpose: "Every year, the ASP hosts a summer colloquium designed for graduate students on subjects that represent new or rapidly developing areas of research for which good course material may not yet be available. The colloquium brings together lecturers and graduate students to NCAR and generally includes about 25 student participants, and several lecturers from NCAR and the community at large."

Additional information: https://asp.ucar.edu/asp-colloquia

Application deadline: 1 April 2019 (no kidding)


NCAR Advanced Study Program Summer 2019 Colloquium

The NCAR Advanced Study Program (ASP) is hosting a summer colloquium on "Quantifying and communicating uncertainty in high-impact weather prediction" from 15–26 July 2019 in Boulder, CO.

http://www.eaps.purdue.edu/
• Selected students are informed in May 2019

OUR Scholar Expectations:
• Enroll in and pass a one-credit undergraduate research [online course for each semester as an OUR Scholar
• Disseminate research at the Purdue Undergraduate Research Conference in spring 2020
• Submit two end-of-the-semester reports of their undergraduate research experience for each semester

If you have any questions, please contact [UGResearch@purdue.edu](mailto:UGResearch@purdue.edu) or go to the [OUR Scholars application page](http://www.eaps.purdue.edu/).

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**12th ANNUAL ECOLOGICAL SCIENCES AND ENGINEERING (ESE) SYMPOSIUM**

Please join us for the 12th Annual Ecological Sciences and Engineering (ESE) Symposium on Tuesday, March 26th and Wednesday, March 27th!

This year we’re asking the Purdue and Lafayette communities to face a common question: what do science communication and the science-public interface look like in a “post-truth world?”

The Symposium, titled In Data We Trust: Perceptions of Science in a Post-Truth World, will be featured as part of the [Purdue Sesquicentennial Ideas Festival](http://www.eaps.purdue.edu/) addressing a [Sustainable Economy and Planet](http://www.eaps.purdue.edu/). This year’s Symposium events will focus on science communication (#SciComm) in its many forms and will feature speakers from around the country.

You are invited to join us for the Symposium events. Please visit the links below for each event and RSVP while spaces are available! Visit the [ESE Symposium website](http://www.eaps.purdue.edu/) to RSVP and to find more symposium information.

ESE Symposium events:
**Tuesday, March 26th @ 6pm at Lafayette Brewing Company Science on Tap** presents Science on Display featuring Jamē McCray with art displays by Liz Anna Kozik, Daniel Bird, and others, presented by ESE, the Division of Environmental and Ecological Engineering, and the Illinois-Indiana Sea Grant

**Wednesday, March 27th on Purdue’s campus**
- **[How to Illustrate Your Science](http://www.eaps.purdue.edu/) (1:30 pm - 2:45 pm, STEW 214)** featuring: Liz Anna Kozik, Ph.D student, Nelson Institute of Environmental Studies, University of Wisconsin-Madison
- **[The Future of Science Communication - A moderated panel](http://www.eaps.purdue.edu/) (3:00 pm - 4:30 pm, STEW 214 or 218 - TBD)** featuring: Dr. Jeff Dukes, Director of Purdue Climate Change Research Center; Professor of Forestry & Natural Resources & Biological Sciences, Purdue University
Sarah McAnulty, Ph.D candidate, University of Connecticut; Founder of Skype a Scientist
Dr. Jamē McCray, Environmental Social Scientist, Sea Grant
Katie O’Reilly, Ph.D candidate, University of Notre Dame; 2018 Sea Grant Knauss Marine Policy Fellow
Dr. Shari Rudavsky, Health and Medicine Reporter, Indianapolis Star

**Symposium Keynote: Science in a Fact-Free World** (7:30 pm - 9:00 pm, Hiler Theater - WALC) featuring:
Dr. Katharine Hayhoe, Director of the Climate Science Center at Texas Tech; Professor in Public Administration, Texas Tech University

Dr. Hayhoe’s talk is being hosted in a small theater on campus to promote a lively discussion of these challenging issues, and interested members of the public and Purdue affiliates are encouraged to reserve a seat while space remains.

**Ideas Festival - other opportunities to get involved:**
**Monday, March 25th on Purdue’s campus**
- **Poster Session hosted by the 150th Ideas Festival, Agricultural and Biological Engineering, Campus Master Planning and Sustainability, and Ecological Sciences and Engineering Symposium – click here for more information.**

If you have any questions about the ESE symposium please contact [ese@purdue.edu](mailto:ese@purdue.edu).
ATMOSPHERIC SCIENCE WITH METPY AND SIPHON

March 14-15, 2019
A Unidata Software Training Workshop.

Unidata software developers will be leading a two-day Python-focused workshop at Valparaiso University covering the use of the MetPy and Siphon packages in the context of atmospheric science. A basic familiarity with Python is assumed – check out the Unidata Online Python Training (http://bit.ly/uni-opt) for a refresher. An optional “hack day” will be held on Saturday, March 16. The cost for students, faculty, and staff is $25 ($50 for those not affiliated with an educational institution.) Bring your laptop, or contact Dr. Goebbert if you need to use a lab computer.

[See attached flyer for complete information]

2019-20 GEODATA SCIENCE FOR PROFESSIONALS MS PROGRAM

Employers seek in today’s advanced Science, Technology, Engineering, and Mathematics workforce skills in analytics and data science, including Big Data (Denecke, D. et al. 2017, Council of Graduate Schools). In the United States, however, geoscience curricula are in general not designed to capitalize on the digital revolution, especially the enormous growth in data science. Thus, there has been a disconnect between the jobs of the future and the curricula of the present.

Data science is highly technical and requires rigorous preparation in mathematics, statistics and computing. Specifically, in the context of geosciences, data science applied with the goal of improving the understanding of causal relations in physical systems also promotes better predictions, therefore risk assessments.

In response to the Purdue campus-wide datascience initiatives and the College of Science strategic plan, the Department of Earth, Atmospheric, and Planetary Sciences (EAPS) is prioritizing data science training, with applications to climate, weather forecasting, environmental science, natural resources, and energy data for decision-support and decisionmaking in the public and private sectors.

A key outgrowth of this initiative is the EAPS Master’s Concentration of Geodata Science for Professionals (GDSP), integrating rigorous academic coursework, high-performance big data-science computing environments such as Hadoop systems and GPU computing, with real-life research and work experiences.

Fall 2019 admission application deadline is March 15, 2019
Spring 2020 deadline is October 15, 2019

Link: http://www.eaps.purdue.edu/gdsp/docs/PurdueEAPSGDSPBrochure2019.pdf

[See flyer for more information]

PACK THE PANEL

Rising Professionals invites you to #PackThePanel! Taking place at 4pm in Fowler Hall in Stewart Center on Sunday, March 3rd, come hear from distinguished young alumni who have left a lasting impression at Procter and Gamble, the US Air Force, NASA, and more. These 5 Rising Professionals are back on campus to reconnect with you, the student body, and share advice on how their Purdue involvement has shaped their career paths.

This event is free, and open to all students and members of the Greater Lafayette community. The Rising Professionals were once in your same shoes, walked this beloved campus, and felt the same excitement, curiosity, and hope for their futures. Please join us in welcoming the Rising Professionals back to campus and hear about how Purdue has emboldened these Rising Professionals to rise up into their early career success. This is an evening you won’t forget!

[Flyer attached]

http://www.eaps.purdue.edu/
17th ANNUAL GLMC

Great Lakes Meteorology Conference (GLMC) would like to invite a variety of speakers to provide insight into navigating different careers in the field of Meteorology. This year will be the 17th Annual GLMC, happening on March 23rd. They would love to invite any current students in our program to join them this day!

To register, please click the link here. Students will also be able to apply to the poster presentation where they can present research they have done through their program or an internship.

Tickets for the conference are $60 which includes breakfast, lunch, and dinner but will increase to $80 starting March 16th.

For updates on the conference including the speaker line-up this year, please check out our facebook page Northwest Indiana AMS/NWA Chapter where we will announce our speakers throughout the next few weeks leading up to the conference. We hope to see you there!

Extra Information: Each year we center the conference around a specific theme that we feel is relevant to current meteorology/atmospheric science undergraduate students. This year’s theme is titled “Breaking Boundaries and Building Leaders.” Our goal with this theme is to emphasize the importance of diversity in the scientific community while also preparing students to be the new leaders of the field. We will also be having a Weather Workshop lead by our Storm Intercept Team to understand the importance of communication between forecasters, broadcasters, and emergency responders during impactful weather events.

2019 SUMMER INTENSIVE ON COMMUNITY ENGAGED SCHOLARSHIP

ATTENTION: EARLY CAREER FACULTY AND ADVANCED GRADUATE STUDENTS

Michigan State University’s Office of University Outreach and Engagement is hosting a Summer Intensive that will focus on community-engaged research and community engaged teaching and learning, including service-learning and community-based research in classes. The Summer Intensive is composed of interactive workshops, lunches in disciplinary clusters and with senior community engaged scholars, dialogue with community partners, and time to develop your own community engagement plan for your return to campus.

Application deadline: Friday, April 5, 2019

Applications include the online form, short biography, statement of interest, nomination forms, and release form. [See attached flyer for complete information]

NWP SCIENTIST/MODELER POSITION

Radiant Solutions (https://www.radiantsolutions.com/) has an opening for a NWP Scientist / Modeler that we hope some on this listserv may be interested in. The job requisition is posted here: https://digitalglobe.wd1.myworkdayjobs.com/en-US/Radiant_Solutions_Careers/job/Gaithersburg/Numerical-Weather-Prediction-Scientist_R02949-1

For those unfamiliar with our group, the weather division within Radiant Solutions has formerly been called MDA Weather Services (~2005-2017) and EarthSat Weather (pre-2005). We’ve been in operation for 40+ years, and predominantly support customers in Energy, Agriculture, and Trading.

JOB DESCRIPTION

General Summary

Radiant Solutions has an immediate opening for a Numerical Weather Prediction Scientist in our Gaithersburg, MD location. This position will serve an integral role in Radiant’s commercial business group as a part of a team of highly motivated and forward-thinking atmospheric and data scientists. The applicant will help build a next-generation high-performance weather data platform that serves numerous internal and external applications. If you have a passion for the atmospheric and geospatial sciences in addition to building and working with high-performance computing environments, then we have an exciting opportunity for you.
Required qualifications:
• 5+ years experience developing, refactoring, manipulating, and compiling global numerical weather prediction (NWP) modeling systems on various high-performance computing (HPC) platforms
• Well-developed understanding of scientific programming using Fortran, C/C++ and related parallelization via Message Passing Interface (MPI) such as MPICH and IMPI
• Adept scripting ability in various Linux shells such as bash, KSH, and CSH
• Knowledge of multi-/many-core computer architectures, compilers, and supporting libraries and their application in NWP
• Demonstrated ability running massively parallelized programs using processing workflows such as Rocoto and queue-based systems such as Sun Grid Engine or SLURM
• Familiarity in building, configuring, and maintaining HPC environments, including cloud-based HPC, for use with NWP applications
• Awareness of recent developments surrounding computer architecture and HPC

Desired qualifications:
• Knowledge of manipulating multi-dimensional datasets in GRIB (1/2) or netCDF formats
• Familiarity of Amazon Web Services (AWS) and related services such as EC2, S3, EBS, and EFS
• Experience with programming in Python
• Experience creating graphics with GrADS and/or various Python data science libraries
• Exposure to commercial and open source GIS software/libraries including ESRI ArcGIS, Erdas Imagine, QGIS, GeoServer, and GDAL
• Familiarity with version control software (Git)
• Understanding of raster and vector data set creation
• Experience working with customers and strategic partners to understand their needs
• Excellent written and oral communication skills

Education:
• Masters/PhD (preferred) in atmospheric or computational science

Periodic travel required to attend:
• Industry conferences
• Meetings with partners
• Meetings with customers

To be qualified you must be a US Citizen.

2019 VIRTUAL GRAD FAIR & GLOBAL SYMPOSIUM FOR ONLINE PROGRAMS

The 2019 Virtual Graduate Fair and Global Symposium for Online Programs is scheduled for Tuesday, March 26, 2019 from 10 a.m. – 5 p.m. EST. Students will:

- get an inside look at graduate school and the application process,
- view videos and presentations from experts about graduate school opportunities, and
- attend a premier virtual graduate school fair and network with representatives some of the nation’s top graduate institutions, including Purdue, Indiana, Northwestern, Chicago, Notre Dame, Maryland, Illinois, and Michigan.

Prospective students participating in this event can apply to a Purdue Online Master’s program for Free!

This one-day mini-conference is especially designed for students who are looking for advanced degrees in:
- Engineering
- Technology
- Education
- Communications
- Hospitality and Tourism Management
- Public Health and Health Administration
- Other Related disciplines

The 2019 Virtual Grad Fair for Online Graduate Programs offers a waiver for the Purdue University Graduate application fee to encourage participation. For more information, please contact virtualgradfair@purdue.edu or see the flyer on our website.

OFFICE OF UNDERGRATE RESEARCH (OUR)

Upcoming Undergrad Research Seminars

Feb. 25: You’re a Researcher, Now What?
As an undergraduate researcher, there are many things to consistently be considering. This workshop will help cover what you should know as
a researcher and how you can publish your work you produce.

The Spring 2019 Undergraduate Research Seminar series includes sessions for current and prospective researchers. Sessions will also help individuals interested in participating in the Purdue Undergraduate Research Conference in April. Most are on Mondays from 4:30-5:30pm in HIKS G980D.

Submit Research to Undergraduate Research Conference

The spring Purdue Undergraduate Research Conference (PURC) is coming up in April 2019 and submissions are being accepted for oral presentations and posters now. Oral presentations require a 3-5 page paper of the research project and posters require only an abstract. Non-selected papers for oral presentations will automatically be considered for posters using their abstracts.

Deadline to submit papers and abstracts: March 1, 2019

Note the extension for paper submissions.

Learn more about the application process and to submit your document on the PURC website.

Scholarships & Funding Opportunities

March 5. Celebrate Purdue’s Thinkers, Creators, & Experimenters
A project showcase where researchers show attendees what they are working on via models, demonstrations, activities, etc. Open to student clubs, independent researchers, or faculty-student research projects.
1:30-4:30pm: Co-Rec
Register by February 19, 2019.

Purdue Undergraduate Research Conference
The annual research conference with awards for top student posters and oral presentations.
April 4: 1-4pm STEW 214 Oral Presentations (Submit by March 1, 2019)
April 9: 9am-4pm :: PMU Ballrooms :: Poster Symposium (Submit by March 1, 2019)
Keep updated on upcoming events by subscribing through the OUR website.

Undergraduate Research Opportunities

Undergraduate Summer Research Program in Digital Agriculture
A 12-week research program at Purdue for those looking to pursue a career in digital agriculture and data science. Selected students will receive a $5,250 stipend for travel and living costs, but must be a US citizen, national, or permanent resident of the US. Deadline to apply is March 1, 2019.

2019 Quantum Matters Science Communication Competition
If your research is related to quantum science or technology, consider this competition that asks researchers to talk or demonstrate how their research might matter to us in the future. Cash prizes and travel funds are available to selected winners to go to the Museum of Science in Boston, MA to showcase their entry.

Off-Campus Summer Research Opportunities
These opportunities outside Purdue are not endorsed by the OUR, only as a sample of research positions and programs available. Also, these programs have varying deadlines beginning at the end of January through March.

Gulf of Main Research Institute
Marine Corps Archival Internship
Buffalo Bill Center of the West Museum Research Internships
Rock County Historical Society Archival Internship Program

PhD POSITION IN ATMOSPHERIC MODELLING OVER COMPLEX TERRAIN

The Atmospheric Dynamics group of the Department of Atmospheric and Cryospheric Sciences (ACINN) at the University of Innsbruck (Austria) invites applications for a PhD position in the field of mountain meteorology. The PhD student will work in the project “Atmospheric boundary-layer modeling over complex terrain (ASTER)”, led by principal
investigator Dr. Manuela Lehner. The objectives of the project are (i) to evaluate the performance of a numerical weather prediction model in forecasting soil properties and surface and near-surface turbulent fluxes over complex terrain and (ii) to evaluate the model’s sensitivity to changes and potential errors in the turbulence and land surface parameterizations and their input parameters over complex terrain. Numerical weather prediction relies heavily on these parameterizations to represent the exchange of heat, moisture, and momentum between the ground and the atmosphere and within the atmospheric boundary layer at spatial scales that are not resolved explicitly by the model. Current parameterizations, however, are not necessarily adequate for complex mountainous terrain and the spatial resolution of required land cover datasets is often not sufficient to represent the land use correctly. The PhD student will focus on the first of the above objectives by performing case study simulations for the regions of North and South Tyrol with WRF and quantifying the model performance based on observational data.

[For complete information see attached flyer]

**BUTLER CENTER ACCEPTING APPLICATIONS FOR NEW TRAVEL AWARD FOR GRADUATE STUDENTS**

Applications are being accepted for a new annual graduate student travel award administered by the Susan Bulkeley Butler Center for Leadership Excellence. In keeping with the mission of the Butler Center to support women’s success and leadership, this travel award will encourage and enable networking and academic collaboration. The travel award is intended to support a graduate student who will be presenting a paper as an author or co-author at a national or international conference scheduled anytime between May 1, 2019, and April 30, 2020.

This award is made possible through a partial gift fund from the “Varma Family” and matching contribution from the Butler Center. Each award provides $500 to cover travel expenses for graduate students to present (as an author or co-author) at a national or international conference. The award of $500 will be a reimbursement after expenses toward the conference are incurred. Up to three travel awards will be made each year.

**Award criteria:**

- Graduate students in any discipline in any college at Purdue are eligible to apply.
- Applicant must be enrolled in a full-time program at the master’s or PhD level.
- Applicant must have a complete sole authored or co-authored paper (not an abstract) submitted and accepted for presentation at a national or international conference scheduled between May 1, 2019, and April 30, 2020.
- The paper must be included for an oral presentation or in a panel session.
- Overall record of the student based on a two-page CV.
- No student will receive funds to attend more than one conference.

Applications should be submitted via this link by 5 p.m. March 4. Individuals will fill out the form on the webpage and will also need to:

- Attach the submitted paper that includes the name of the author/s.
- Attach email or letter of acceptance to present the paper at the conference. Conference name and date must be noted on the letter of acceptance. Those who have not yet received acceptance should submit this to ButlerCenter@purdue.edu by April 15.
- Attach a two-page CV (12-point font, one-inch margins) listing selected honors and awards, publications and conference presentations (only panel sessions).

Applications that do not comply with the instructions will not be reviewed or be considered for the award. The winners will be selected by a committee. For more information, email ButlerCenter@purdue.edu.
2019 SPRING RECEPTION

Calling all graduate students! Submit an application to present a poster at the Office of Interdisciplinary Graduate Programs 2019 Spring Reception Wednesday, May 1, 2019 10:00 AM - 12:00 PM North & South Ballrooms, Purdue Memorial Union A celebration of graduate research at Purdue

10:00-11:30 Open Poster Sessions 11:30-12:00 Awards Presentation and Keynote Address All are welcome to attend

Find more information online. Click here to submit an application to present a poster by March 1st!

Contact us at 765-494-0379 or oigp@purdue.edu purdue.edu/gradschool/oigp

[Flyer attached]

WEATHER SCIENCE RESEARCH LEAD

The Climate Corporation leads the industry in providing digital agriculture solutions for growers to manage their data, as well as to derive insights from their data for maximizing productivity, efficiency and sustainability. We are seeking an exceptional candidate to organize and lead a small Weather Science research team. This role will be responsible for prioritizing and developing a research plan combining existing and novel efforts into a coherent research program focused on incorporating all key aspects of atmospheric science, agronomic practices and environmental characteristics. The successful candidate will be responsible for guiding a team of science experts who can combine atmospheric, environmental and management data using novel modeling frameworks and approaches to improve our understanding of agriculturally limiting factors.

What You Will Do:
• Exploratory data analysis, data cleaning & processing
• Directed and/or independent research to test scientific hypotheses
• Engage with diverse research groups to understand their models and products and develop solutions to meet their data needs
• Evaluate the limitations of existing data sources and provide recommendations to address unmet data needs
• Undertake written & verbal communication with stakeholders in various parts of the organization
• Lead a team focused on both integrating existing models and developing new models; work collaboratively with partner teams to maximize the use of genetic, environmental, and grower management data assets
• Actively contribute to efforts to understand the prospective value of R&D projects in ways that can support portfolio review processes and financial forecasting; track and maintain portfolio of projects and capabilities against company pipeline/portfolio processes
• Serve as the primary point of contact and key science stakeholder to respective counterparts in other business units, including Product, Engineering, and Commercial/Marketing
• Contribute thought leadership, helping establish/execute on the team’s research agenda
• Clearly and effectively communicate research vision, strategy, and outcomes to key stakeholders both internally and externally.

Active areas of research:
• Analysis and interpretation of observations (e.g. satellite, weather stations, radar), and third party products (climate indices, reanalyses, seasonal outlooks)
• Ensemble reconstruction of historical weather from multiple proxies
• Multivariate spatio-temporal stochastic processes
• A combination of physical and statistical models, including statistical forecast calibration and downscaling
• Numerical weather prediction, data assimilation, mesoscale meteorology, ensemble forecasting

Basic Qualifications:
• MS in a quantitative science discipline (e.g. atmospheric sciences, physics, applied mathematics) paired with experience in data science or computationally intensive research
• Demonstrated experience working with diverse weather data, including a high level of expertise with soils and other environmental data
• At least 5 years of post-degree work experience, including industry experience involving management of research programs and at least 1 year of people management experience
• Demonstrated experience translating complex technical concepts to collaborators, decision makers, and non-technical audiences

Preferred Qualifications:
• PhD in Atmospheric Sciences, Computer Science, High-Dimensional Statistics, Applied Math or other physical science involving computationally intensive research
• Strong organizational skills
• Ability and inclination to work in multidisciplinary environments, and desire to see ideas realized in practice
• Strong drive to learn new topics and skills and to develop innovative products for our customers
• Excellent interpersonal and communication skills

What We Offer:
Our teams are composed of industry experts, top scientists, and talented engineers. The environment is extremely engaging and fast-paced, with dozens of specialties coming together to provide the best possible products and experiences for our customers.

We provide competitive salaries and some of the best perks in the industry, including:
• Superb medical, dental, vision, life, disability benefits, and a 401k matching program
• A stocked kitchen with a large assortment of snacks & drinks to get you through the day
• Encouragement to get out of the office and into the field with agents and farmers to see first-hand how our products are being used
• We take part and offer various workshops, conferences, meet-up groups, tech-talks, and hackathons to encourage participation and growth in both community involvement and career development

We also hinge our cultural DNA on these five values:
• Inspire one another
• Innovate in all we do
• Leave a mark on the world

Job site location: http://jobs.jobvite.com/the-climate-corporation-internal/job/oUFd9fwF

SEMESTER ABROAD: INTERN – STUDY - TRAVEL

Spend your next semester interning, studying and living in a developing country, gaining career relevant experience while exploring the world as an alternative to volunteer tourism, the Semester in Development prioritizes learning from locals, both in the classroom, where you'll earn university credits, and in the field, during your hands-on internship

The program is open to all undergrads, and at $6,250 USD is a low-cost alternative to a traditional semester spent at home or abroad

Are you looking to gain meaningful experience? Have you considered going abroad but don't know where to look?
For more than 6 years, Insight has been delivering programs for students in over 7 countries. With a model of ethical engagement at the root of what we do, our programs equip students with the skills and experiences sought after in today's global community.

To Learn More visit: https://insightglobaleducation.com/university/?utm_campaign=Semester%20in%20Development%20Department%20Emails&utm_medium=email&hsenc=p2ANqtz-9a4Bx9W_Zwr_ZXR4StOpp2N89PJo2VQ2fYa475IX3eQW6PUQvpsZbKDqPvEq44T9C111_PXX2-REb2F1E6nYXdpkExbQQ&_hsml=69251819&utm_content=69251819&utm_source=hs_email&hsCtaTracking=7d0c9c74-3544-495d-b6b1-c8869411203a%Ced4fc35-6e96-45c1-b49e-086153dac4ab

[See attached information sheets]
CIMMS RESEARCH ASSOCIATE – OPERATIONS PROVING GROUND

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at The University of Oklahoma is currently looking for a Research Associate (RA) to collaborate with scientists and National Weather Service (NWS) forecasters at the Operations Proving Ground (OPG) in Kansas City, MO. This position will assist with projects designed to transition meteorological research and forecasting tools into the operational environment, develop practical applications for emerging technologies, incorporate risk communication skills into the warning and forecast process, and optimize NWS forecast delivery systems. Much of the work will be conducted on the Advanced Weather Interactive Processing System, Version 2 (AWIPS-2). Concentrating on AWIPS-2 enables the OPG to focus development and evaluation efforts on the primary NWS operational system, as well as allowing meteorological research, development and operational services to be integrated and leveraged with other federal, regional, state and local partners.

[See attached flyer for complete information]

UNDERGRADUATE SUMMER RESEARCH OPPORTUNITIES AT THE SCRIPPS INSTITUTION OF OCEANOGRAPHY

The Scripps Institution of Oceanography is offering summer research experience for undergraduates, spanning fields that include earth sciences, geophysics, and atmospheric science. For a list of these internships, go to: https://scripps.ucsd.edu/undergrad/research-programs/summer-research-opportunities.

REQUEST FOR PREPROPOSALS FOR USE OF THE U.S. DEPARTMENT OF ENERGY’S ARM USER FACILITY

The U.S. Department of Energy (DOE) is now accepting preliminary proposals from scientists worldwide to use components of the Atmospheric Radiation Measurement (ARM) user facility for field campaigns.

Preproposals are due April 5, 2019, for:

- Use of the second ARM Mobile Facility – AMF2 will be available for deployment beginning in January 2022. Note: The Scanning ARM Cloud Radar (SACR) will not be offered with AMF2.
- Supplemental campaigns – Moderate-size campaign proposals to augment an ARM atmospheric observatory will be considered for calendar years 2020−2021.
- Note: The Gulfstream-159 research aircraft will not be available for this call.

Submit preproposals online through the field campaign preproposal form.

Be sure to check the ARM campaign page for more details, including current campaigns and capabilities, and proposal due dates. Proposed deployments should focus on research that addresses the ARM mission of improving the understanding and representation of clouds and aerosols in earth system models, as well as their interactions and coupling with the Earth’s surface.

Priority will be given to proposals that:

- make comprehensive use of the ARM facilities
- focus on strategic goals of the DOE Office of Biological and Environmental Research (BER)
- have the ability to improve regional or global earth system models.

Proposals that coordinate with other BER community capabilities (e.g., Environmental Molecular Sciences Laboratory, AmeriFlux Network, Next Generation Ecosystem Experiments in the Arctic and Tropics, Energy Exascale Earth System Model) are encouraged.

https://www.arm.gov/news/facility/post/52337

ASSISTANT PROFESSOR OF METEOROLOGY POSITION AT VIRGINIA TECH

The Department of Geography (https://geography.vt.edu) at Virginia Tech (https://vt.edu) is seeking applicants for a faculty position in meteorology/climatology at the level of
Assistant Professor. This is a full-time, tenure-track position available August 2019.

We seek a geographically trained meteorologist or climatologist who has demonstrated excellent teaching, is able to teach courses in dynamic and either physical or synoptic meteorology, and who will develop additional courses in support of our BS degree program in Meteorology. Supervision of graduate students in our geography MS degree program and in our College of Natural Resources and Environment’s [https://cnre.vt.edu](https://cnre.vt.edu) interdisciplinary Geospatial and Environmental Analysis PhD program is also expected.

[See flyer attached for complete information]

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**CIMMS RESEARCH SCIENTIST – WARN ON FORECAST @ UNIVERSITY OF OKLAHOMA**

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at the University of Oklahoma (OU) is currently seeking an experienced Research Scientist to provide scientific and meteorological expertise for collaborative work to advance NSSL’s storm-scale data assimilation and prediction science within the NOAA Warn-on-Forecast project. Specifically, research will focus on improving short-term predictions of high impact severe convective storms, heavy rainfall, landfalling tropical cyclones and other hazardous weather associated with convective storms. This research will require close collaboration with the Storm Prediction Center, NOAA’s Global Systems Division at the Earth Systems Research Laboratory, and the Environmental Modeling Center in College Park, Maryland. A successful candidate for this position will need high-level abilities to diagnose and understand differences in forecasts between various modeling and data assimilation systems, through expertise in mesoscale and storm-scale dynamics and convection allowing models. Also required are high-level abilities to assess the capabilities of models to properly depict mesoscale convective systems and land-falling tropical cyclones and their attendant hazardous weather, and the ability to develop diagnostics for those weather hazards from convective models. The emphasis of the research will be on Warn-on-Forecast applications (e.g., 0-6 h forecasts of severe wind gusts, storm-scale vortices within mesoscale convective systems, and tornadic supercells within TC rainbands). The position will be based at the National Severe Storms Laboratory (NSSL) in Norman, OK within the National Weather Center, a highly collaborative operational, research, and academic environment containing a number of NOAA and OU organizations.

[See attached flyer for complete information]

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**CIMMS POST-DOCTORAL RESEARCH ASSOCIATE – FACETs**

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at the University of Oklahoma is currently seeking a postdoctoral research associate to collaborate with scientists in the National Severe Storms Laboratory’s (NSSL) Warning Research & Development Division on the development of probabilistic severe convective weather guidance for the Forecasting A Continuum of Environmental Threats (FACETs) project. The goal of FACETs is that future warnings will be probabilistic, spatially coherent forecasts.

[For complete information see attached flyer]

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**CIMMS – MRMS SEVERE WEATHER RESEARCH SCIENTIST**

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at the University of Oklahoma is currently seeking a research scientist to collaborate with scientists in the National Severe Storms Laboratory’s (NSSL) Warning Research & Development Division on the development and assessment of scientific applications, algorithms, and applied research that assists forecasters in the warning decision-making process for severe convective weather events. The incumbent will lead the development of severe convective weather guidance applications for the Multi-Radar / Multi-Sensor system, which is widely used in the National Weather Service, private sector, and in academia for analyzing thunderstorm events.

[See attached flyer for complete information]
CIMMS PETER LAMB POSTDOCTORAL FELLOWSHIP

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at the University of Oklahoma is seeking excellent candidates for the prestigious Peter Lamb Postdoctoral Fellowship. 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 to improve basic understanding of mesoscale and storm-scale meteorological phenomena to help produce better forecasts and warnings that save lives and property and to understand 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 and climate anomalies ranging in size from cloud nuclei to multi-state areas.

Although the position is not project-specific, proposals for the CIMMS Postdoctoral fellowship should address at least one of 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. 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. It is suggested but not required that those applying contact a CIMMS scientist before writing their research proposal to receive guidance when drafting a proposal.

CIMMS RESEARCH ASSOCIATE – SEVERE CONVECTIVE WEATHER RADAR APPLICATIONS

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at the University of Oklahoma is currently seeking a research associate to collaborate with scientists in the National Severe Storms Laboratory’s (NSSL) Warning Research & Development Division on the development and testing of new severe weather applications for the detection and diagnosis of tornadoes and hail.

CIMMS RESEARCH ASSOCIATE – MRMS SEVERE WEATHER APPLICATIONS

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at the University of Oklahoma is currently seeking a research scientist to collaborate with scientists in the National Severe Storms Laboratory’s (NSSL) Warning Research & Development Division on the development of scientific applications, algorithms, and applied research that assists forecasters in the warning decision-making process for severe convective weather events. The incumbent will work to develop severe convective weather guidance applications for the Multi-Radar / Multi-Sensor project, which is widely used in the National Weather Service, private sector, and in academia for analyzing thunderstorm events.

LECTURER – UNIVERSITY OF GEORGIA

The University of Georgia, Geography Dept., is advertising for a full-time non-tenure-track lecturer who would teach synoptic, mesoscale, weather forecasting seminars, and physical geography, with a PhD who is interested in, and excels, at teaching weather-related subjects. The salary is circa $60K/9-month appointment. A diverse applicant pool is highly desirable. Job ad link is here: https://www.ugajobsearch.com/postings/35012?fbclid=IwAR0WH1Ff7sdlzyy- iPJPZuihoJcP1f3Uq9gYjqL-1fgjXCOjt5h5ijnM4

http://www.eaps.purdue.edu/
ENTERPRISE AND THE ENVIRONMENT SUMMER SCHOOL

The Enterprise and the Environment Summer School will take place from 30 June - 12 July 2019 at the University of Oxford and is intended for undergraduate and masters students passionate about environmental change. The course typically attracts a global spread of 35-40 attendees from a diverse mix of academic disciplines and will include teaching across subjects such as sustainable enterprise management, environmental economics and policy, the future of transport, valuing water for sustainable development, and the renewable energy transition. More details are available on the website: https://www.smithschool.ox.ac.uk/courses/summer-school/.

[See attached flyer for more information]

CHANGES TO IRB REVIEW PROCESSES AT PURDUE UNIVERSITY

Please see attached memo from Christopher Agnew, Associate Vice President for Research, Regulatory Affairs detailing additional burden-reducing changes to IRB review processes here at Purdue. These changes have come into effect as of the week of January 22 with the final approval of federal Common Rule updates. The goal is to improve processing of human subjects research protocols submitted to the IRB.

[See attached memo for important information]

UPDATED CAREER PLANNING TOOLS RELEASED TO SUPPORT NEW JOB FAMILY STRUCTURE

Through the implementation of the job family structure, employees can begin to identify opportunities for career growth. To support employees in building a career at the University, Human Resources is announcing the availability of the Career Path Maker.

This tool allows employees to explore the jobs within the job family structure. By simply searching by career stream, job family, sub family, or keyword, employees can see the various opportunities and alternative paths available to them. The tool provides information regarding the job family, sub family, title, career stream, and competencies required for each job, as well as a high-level summary of each job.

Additionally, minor revisions have been made to the Career Stream Level Guide. The updated version should be used and is available online.

For any questions regarding the Career Path Maker, contact jobfamilystructure@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](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 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)
Please join Dean Patrick Wolfe for a reception to welcome our new department heads and thank our interim department heads for their service.

March 6, 2019
Purdue Memorial Union
Anniversary Drawing Room

3:00 – 4:30 p.m.
Light refreshments will be served
Remarks at 3:30 p.m.

Biological Sciences
Janice Evans
Stephen F. Konieczny

Earth, Atmospheric, and Planetary Sciences
Daniel Cziczo
Darryl Granger
Atmospheric Science with MetPy and Siphon
March 14-15 2019

A Unidata Software Training Workshop

Unidata software developers will be leading a two-day Python-focused workshop at Valparaiso University covering the use of the MetPy and Siphon packages in the context of atmospheric science. A basic familiarity with Python is assumed — check out the Unidata Online Python Training (http://bit.ly/uni-opt) for a refresher. An optional “hack day” will be held on Saturday, March 16.

The cost for students, faculty, and staff is $25. ($50 for those not affiliated with an educational institution.) Bring your laptop, or contact Dr. Goebbert if you need to use a lab computer.

MetPy / Siphon Topics

- Getting Python packages w/Conda
- Jupyter notebook introduction
- Introduction to Numpy
- Introduction to Xarray
- Introduction to Matplotlib
- Introduction to MetPy
- Introduction to Siphon
- Pythonic Data Analysis
- Making maps with Cartopy
- Working with satellite data
- Working with Model data
- Time-series analysis of Buoy Data

For a detailed schedule with links to the Jupyter notebooks that will be used in the workshop, see http://bit.ly/2019valpo

To Register

Workshop Time/Place
8:30am - 4:30pm
March 14-15, 2019
Kallay-Christopher Hall Room 210
Valparaiso University

Questions?
Contact Dr. Kevin Goebbert
kevin.goebbert@valpo.edu
219-464-5517

WWW.UNIDATA.UCAR.EDU

February 2019
Geodata Science for Professionals
Master’s Program

Contact for Information
Phone: +1 (765) 494-3258
Email: eaps-info@purdue.edu
www.eaps.purdue.edu/gdsp

Add to the Employment Value of Undergraduate Education:

- Get a Master of Science
- Work with state-of-the-art High Performance Computing environment for Big Data analytics
- Acquire applied research experience
- Personalized guidance to choose among various elective courses and small group immersion courses providing enrichment to career plans
- Earn one or more Graduate Certificates: Computational Science and Engineering, Applied Statistics, Geodata Analytics.

Department of Earth, Atmospheric, and Planetary Sciences, Purdue University
550 Stadium Mall Drive
West Lafayette, IN 47907
United States of America
**About the GDSP Program**

Employers seek in today’s advanced Science, Technology, Engineering, and Mathematics workforce skills in analytics and data science, including Big Data (Denecke, D. et al. 2017, *Council of Graduate Schools*). In the United States, however, geoscience curricula are in general not designed to capitalize on the digital revolution, especially the enormous growth in data science. Thus, there has been a disconnect between the jobs of the future and the curricula of the present.

Data science is highly technical and requires rigorous preparation in mathematics, statistics and computing. Specifically, in the context of geosciences, data science applied with the goal of improving the understanding of causal relations in physical systems also promotes better predictions, therefore risk assessments.

In response to the Purdue campus-wide data-science initiatives and the College of Science strategic plan, the Department of Earth, Atmospheric, and Planetary Sciences (EAPS) is prioritizing data science training, with applications to climate, weather forecasting, environmental science, natural resources, and energy data for decision-support and decision-making in the public and private sectors.

A key outgrowth of this initiative is the EAPS Master’s Concentration of Geodata Science for Professionals (GDSP), integrating rigorous academic coursework, high-performance big data-science computing environments such as Hadoop systems and GPU computing, with real-life research and work experiences.

To apply, please visit
https://www.purdue.edu/gradschool/admissions/how-to-apply/index.html

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**Curriculum**

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<th>31 total required credits</th>
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**Geodata-science Core Courses**
Take at least two (6 credits)
- Introduction to Analysis and Computing with Geoscience Data
- Time Series Analysis for Geosciences
- Geodata Science
- Geophysical Inverse Theory

**Foundational Core Courses**
Take at least three (9 credits), For example:
- Theory of Climate
- Radar Meteorology
- Ecosystem Ecology
- Introduction to Geodesy
- Introduction to Seismology
- Geographic Information Systems

**Applied Geodata Courses**
Take at least two (6 credits), For example:
- Forecast Verification
- Extreme Weather and Climate: Science and Risk
- Geodetic Data and Applications
- 3D Seismic Interpretation and Visualization
- Introduction to Reflection Seismology
- Geospatial Modeling and Analysis

**Computational and Statistical Courses**
Take at least two (6 credits), For example:
- Introduction to Computational Science
- Scientific Visualization
- Digital Signal Processing
- Statistical Methods
- Applied Regression Analysis
- Divide and Recombine with DeltaRho for Big Data & High Computational Complexity

**Internship/Applied Research Experience** (3 credits)

**Geodata Science Seminar Oral Presentation** (1 credit)

**Gain Professional Data-Science Skills, for Example:**
- Remote sensing and GIS data analytics
- Weather and climate risk assessments
- Data-driven environmental hazard mitigation
- Seismic inversion and imaging
- Machine learning in seismology

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**Earn a Master of Science Degree**

Apply
- Fall application due by March 15
- Spring application due by October 15 of the previous year

Format
- Full-time or part-time on campus
- 31 total required credit hours

Length
- Full-time students can often finish in three semesters
- Maximum four years

Fees
- Matching the Purdue standard Graduate/Professional tuition

For complete course list, please visit
www.eaps.purdue.edu/gdsp/requirements.html
#PackThePanel
Rising Professionals at Fowler

Sunday, March 3rd 2019
4-5 pm
Fowler Hall, Stewart Center

How did you rise up today?

Learn more about us!
http://www.purdueoldmasters.org/rising-professionals/about/

Follow us @RRPurdue
2019 SUMMER INTENSIVE ON
COMMUNITY ENGAGED SCHOLARSHIP

June 3-7, 2019 | On the campus of Michigan State University

ATTENTION: EARLY CAREER FACULTY AND ADVANCED GRADUATE STUDENTS

Michigan State University’s Office of University Outreach and Engagement is hosting a Summer Intensive that will focus on community-engaged research and community engaged teaching and learning, including service-learning and community-based research in classes.

The Summer Intensive is composed of interactive workshops, lunches in disciplinary clusters and with senior community-engaged scholars, dialogue with community partners, and time to develop your own community engagement plan for your return to campus.

At the end of four days, you’ll come away with:
- Conceptual frameworks and scholarly resources
- Practical partnership, collaboration, and evaluation tools
- Perspectives from community partners
- Career advice from senior community-engaged scholars
- Strategies for publishing community-engaged scholarship
- Support from a network of interdisciplin ary colleagues

Application Deadline:
Friday, April 5, 2019
Applications include the online form, short biography, statement of interest, nomination forms, and release form.

Registration Fee:
$450 for MSU participants
$550 for non-MSU participants
Registration fee includes 4 breakfasts, 4 lunches, 1 reception, field trip, and all teaching/learning materials.

ENROLLMENT IS LIMITED TO 35, SO REGISTER SOON.

For more information and registration: engage.msu.edu/summerintensive

Dr. Diane M. Doberneck, Associate Director, MSU’s National Collaborative for the Study of University Engagement: msu.ces.summer.intensive@gmail.com.
PhD position in atmospheric modelling over complex terrain

The Atmospheric Dynamics group of the Department of Atmospheric and Cryospheric Sciences (ACINN) at the University of Innsbruck (Austria) invites applications for a PhD position in the field of mountain meteorology.

The PhD student will work in the project “Atmospheric boundary-layer modeling over complex terrain (ASTER)”, led by principal investigator Dr. Manuela Lehner. The objectives of the project are (i) to evaluate the performance of a numerical weather prediction model in forecasting soil properties and surface and near-surface turbulent fluxes over complex terrain and (ii) to evaluate the model’s sensitivity to changes and potential errors in the turbulence and land surface parameterizations and their input parameters over complex terrain. Numerical weather prediction relies heavily on these parameterizations to represent the exchange of heat, moisture, and momentum between the ground and the atmosphere and within the atmospheric boundary layer at spatial scales that are not resolved explicitly by the model. Current parameterizations, however, are not necessarily adequate for complex mountainous terrain and the spatial resolution of required land cover datasets is often not sufficient to represent the land use correctly. The PhD student will focus on the first of the above objectives by performing case study simulations for the regions of North and South Tyrol with WRF and quantifying the model performance based on observational data.

The project is funded by the Euregio Fund for Scientific Research and is a collaboration between the University of Innsbruck, the University of Trento, and the Free University of Bolzano and is embedded in the recently launched international TEAMx initiative (multi-scale transport and exchange processes in the atmosphere over mountains – programme and experiment). The PhD student will work closely with the other project partners and with the members of the atmospheric dynamics research group at ACINN led by Prof. Mathias Rotach (http://acinn.uibk.ac.at/research/dynamics).

The position is initially awarded for one year and will be extended to a total duration of 3 years after positive evaluation. The preferred starting date is 1 July 2019. Remuneration will be based on the Austrian collective agreement for university employees (representative figures are provided by the Austrian Science Fund, https://www.fwf.ac.at/en/research-funding/personnel-costs/).

Essential qualifications: Master (or equivalent) degree in Meteorology/Atmospheric Sciences or a related subject; demonstrated proficiency in Python, Matlab, or a similar programming language; experience with Linux/UNIX environments; excellent oral and written communication skills in English; strong motivation; ability to work independently.

Assets: Knowledge of the atmospheric boundary layer and of mountain meteorology; experience with numerical weather prediction codes; experience with high-performance computing; knowledge of the German language is beneficial but not required.

Applications received before Monday, 25 February 2019, will be given full consideration. The application package should be submitted via e-mail to Manuela Lehner (manuela.lehner@uibk.ac.at) and should include the following information:

- A curriculum vitae;
- A formal letter of motivation, stating your interest and qualifications for the position;
- Degree transcripts and master thesis abstract;
- Contact information for one to three referees.

The University of Innsbruck aims at increasing the proportion of women at all employment levels, and therefore encourages applications by qualified women.

Candidates who wish to receive further details about the position are welcome to contact Dr. Lehner by e-mail.
The Office of Interdisciplinary Graduate Programs Presents the 2019 Spring Reception

Wednesday, May 1, 2019
10:00 AM - 12:00 PM
North & South Ballrooms, Purdue Memorial Union

10:00-11:30 Open Poster Sessions
11:30-12:00 Awards Presentation and Keynote Address

All are welcome to attend

Find more information online.
Submit an application to present a poster.

Contact us at 494-0379 or oigp@purdue.edu
purdue.edu/gradschool/oigp
Spend your next semester interning, studying and living in a developing country, gaining career relevant experience while exploring the world.

As an alternative to volunteer tourism, the Semester in Development prioritizes learning from locals, both in the classroom, where you'll earn university credits, and in the field, during your hands-on internship.

The program is open to all undergrads, and at $6,250 USD is a
low-cost alternative to a traditional semester spent at home or abroad

Are you looking to gain meaningful experience? Have you considered going abroad but don't know where to look?

For more than 6 years, Insight has been delivering programs for students in over 7 countries. With a model of ethical engagement
at the root of what we do, our programs equip students with the skills and experiences sought after in today's global community
The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at The University of Oklahoma is currently looking for a Research Associate (RA) to collaborate with scientists and National Weather Service (NWS) forecasters at the Operations Proving Ground (OPG) in Kansas City, MO. This position will assist with projects designed to transition meteorological research and forecasting tools into the operational environment, develop practical applications for emerging technologies, incorporate risk communication skills into the warning and forecast process, and optimize NWS forecast delivery systems. Much of the work will be conducted on the Advanced Weather Interactive Processing System, Version 2 (AWIPS-2). Concentrating on AWIPS-2 enables the OPG to focus development and evaluation efforts on the primary NWS operational system, as well as allowing meteorological research, development and operational services to be integrated and leveraged with other federal, regional, state and local partners.

The duties of this position are:

1. Develop expertise in meteorology and the delivery of warnings, forecasts, and impact-based decision support services (IDSS).
2. Develop expertise in utilizing AWIPS-2 to generate and disseminate forecast products and deliver IDSS.
3. Develop expertise in creating AWIPS-2 cases that can be used to evaluate and validate the usefulness and usability of promising tools or capabilities emerging from NOAA-affiliated laboratories and testbeds.
4. Refine skills needed in the operation of Linux and Windows workstations. The person applying to this position should have a basic knowledge of Linux and experience with Python.
5. Participate in NWS designed simulations to study the effectiveness of newly developed applications and capabilities designed to enhance forecasting and/or service delivery.
6. Assist in testing and fielding new capabilities and services in a simulated operational environment. By validating both scientific integrity and human factors, deployment risks will be reduced prior to implementation.
7. Review technical and professional publications, and attend seminars to stay abreast of current developments in meteorological and hydrological applications.
8. Attend meetings and professional conferences to understand new meteorological and hydrological applications and interact with the operational community.
9. Perform related duties as assigned to support the development and delivery of user and focal point training for the AWIPS-2 system.

The minimum qualifications for the position are:

1. A Master’s Degree in Meteorology, Atmospheric Science or related area;
2. Or a Bachelor’s Degree in Meteorology, Atmospheric Science or related area and at least three years’ experience in operational meteorology, operational hydrology or applied research;
3. Emphasis will be placed on applicants with experience in operational forecast operations, operational forecast systems, applied meteorology, Linux, Python, and AWIPS-2.
Applicants should identify expertise with any of the following areas: operational forecasting, forecast systems, risk communication and adult education. Strong oral and written communication skills are needed for the position. Please indicate experience with Linux (or UNIX) operating systems, National Weather Service systems, programming skills and commercial software applications - specifically Python, GIS, Java, Dreamweaver, and graphic design programs.

Normal working hours will be observed except for occasional irregular hours during system testing or workshops. Incumbents will receive training and gain expertise in the latest meteorological forecasting systems. This position is located in Kansas City, MO.

Supervision will be provided by CIMMS staff. Technical oversight will be provided by CIMMS staff and OPG management. The incumbent will work under general supervision but is expected to determine action to be taken in handling all but unusual situations. Incumbents in this position are not expected to supervise other employees, but may serve as leaders of technical teams.

Beginning salary range is scalable to experience and qualifications, supplemented by University of Oklahoma employment benefits. Information on benefits may be found at https://hr.ou.edu/.

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

       Tracy Reinke
  Executive Director, Finance and Operations
     University of Oklahoma CIMMS
      120 David L. Boren Blvd., Suite 2100
           Norman, OK 73072-7304
      treinke@ou.edu
         ATTN: OPG KC

_The University of Oklahoma is an equal opportunity/Affirmative Action employer._
Full-time, Tenure-track Assistant Professor Position in Meteorology/Climatology
Department of Geography, Virginia Tech, Blacksburg, Virginia

The Department of Geography (https://geography.vt.edu) at Virginia Tech (https://vt.edu) is seeking applicants for a faculty position in meteorology/climatology at the level of Assistant Professor. This is a full-time, tenure-track position available August 2019.

We seek a geographically trained meteorologist or climatologist who has demonstrated excellent teaching, is able to teach courses in dynamic and either physical or synoptic meteorology, and who will develop additional courses in support of our BS degree program in Meteorology. Supervision of graduate students in our geography MS degree program and in our College of Natural Resources and Environment's (https://cnre.vt.edu) interdisciplinary Geospatial and Environmental Analysis PhD program is also expected.

An ability to develop a strong, externally funded research program and publication record is essential for success at Virginia Tech. Applicants must provide evidence of the skills necessary to secure external funding and evidence of a research track focused on atmospheric science with a strong foundation in data analytics. The specific research specialty is open, but preference will be given to candidates who can strengthen research collaborations at Virginia Tech through research involving data-driven modeling and/or analysis of large/complex data sets.

In the spirit of Virginia Tech’s strong commitment to the principles of diversity and inclusion, the Department of Geography seeks a broad spectrum of candidates, including women, minorities, veterans, and people with disabilities. Individuals with disabilities desiring adjustments in the application process should notify the search committee chair by the application deadline. To evaluate the requirements and apply, candidates should review posting TR0180193 in its entirety at https://listings.jobs.vt.edu/postings/search.

Review of applications will begin on January 18, 2019. For full consideration, applicants MUST apply on-line.

Applications should include the following information: (1) curriculum vitae, (2) a cover letter expressing a statement of interest in the position, (3) separate statements of research and teaching interests in a single statement document, and (4) the names, titles, and complete contact information for three references. An official transcript for highest degree earned is required prior to the start of employment for the selected candidate.

Inquiries can be made to Dr. Drew Ellis, Search Committee Chair; e-mail: awellis@vt.edu.

The Department of Geography offers bachelor’s and master’s programs in geography, houses the only bachelor’s degree in meteorology in the state, and is also a major participant in the interdisciplinary geospatial and environmental analysis doctoral program. The department is recognized for its high quality of instruction and advising and is a leader at Virginia Tech in geospatial applications. Faculty regularly publish with graduate students and are active on multiple research projects supported by external funding sources. Selected faculty research topics include human health in Appalachia, Tanzanian social networks, Bangladesh coastal hazards, sea level rise in the southeast US, alpine biogeographic response to climate change, Caribbean paleo-environments, water resources in South Asia, spatial analysis of tropical cyclones, urban mega-events (e.g., the Olympics), and remoting sensing of land use change.
This year, faculty members have taught international field courses in Antarctica, Croatia, and New Zealand, and the meteorology program regularly offers a two-week summer Hokie Stormchase course. The department is well-positioned in the new Pathways general education curriculum with multiple Pathways courses and a new minor in Sustainability.

The College of Natural Resources and Environment, one of nine college units at Virginia Tech, was established in 1992. The college is composed of four academic departments (Fish and Wildlife Conservation, Forest Resources and Environmental Conservation, Geography, and Sustainable Biomaterials) serving more than 1,000 undergraduate students. The college has about 180 faculty and staff, including 75 tenure-track faculty. More than 300 graduate students are enrolled in our programs, which include both an online master of natural resources degree and a cohort-based executive degree in the National Capital Region. The college’s Advising Center, with dedicated professional academic advisors assigned to each department, works in partnership with faculty mentors focused on student success. The college hosts an annual career fair that attracts a wide range of external partners, working in partnership with the college’s director of employer relations. Faculty research awards total $15-20 million annually in the college’s research-intensive, student-centered environment. Two of our departments are among the top 10 academic departments at Virginia Tech in average research dollars awarded annually, and the college ranks second among colleges at Virginia Tech in research expenditures per FTE. The college hosts several NSF centers as well as numerous other research and outreach centers engaged with state and federal agencies and the private sector. The college manages a nearly 1,300-acre forest located close to campus that is utilized on a weekly basis for student learning and research, as well as a forestry research site in Critz, Virginia. College Factual has ranked the college as No. 1 for the study of natural resources and conservation for four consecutive years. The forestry degree program is ranked No. 1 by College Factual for the second consecutive year, and the packaging systems and design degree program is ranked No. 7 among the top 20 programs nationally by Value Colleges.

*Virginia Tech is an equal opportunity/affirmative action institution.*
CIMMS Research Scientist – Warn-on-Forecast

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at the University of Oklahoma (OU) is currently seeking an experienced Research Scientist to provide scientific and meteorological expertise for collaborative work to advance NSSL’s storm-scale data assimilation and prediction science within the NOAA Warn-on-Forecast project. Specifically, research will focus on improving short-term predictions of high impact severe convective storms, heavy rainfall, landfalling tropical cyclones and other hazardous weather associated with convective storms. This research will require close collaboration with the Storm Prediction Center, NOAA’s Global Systems Division at the Earth Systems Research Laboratory, and the Environmental Modeling Center in College Park, Maryland. A successful candidate for this position will need high-level abilities to diagnose and understand differences in forecasts between various modeling and data assimilation systems, through expertise in mesoscale and storm-scale dynamics and convection allowing models. Also required are high-level abilities to assess the capabilities of models to properly depict mesoscale convective systems and land-falling tropical cyclones and their attendant hazardous weather, and the ability to develop diagnostics for those weather hazards from convective models. The emphasis of the research will be on Warn-on-Forecast applications (e.g., 0-6 h forecasts of severe wind gusts, storm-scale vortices within mesoscale convective systems, and tornadic supercells within TC rainbands). The position will be based at the National Severe Storms Laboratory (NSSL) in Norman, OK within the National Weather Center, a highly collaborative operational, research, and academic environment containing a number of NOAA and OU organizations.

The principal duties of this position are:

1. Conduct original research and solicit funding for new research on diagnostics, verification, and predictability for frequently updating storm scale data assimilation and prediction systems with a focus on understanding model dynamics and representation of physical processes associated with extreme high impact weather.
2. Collaborate with NOAA testbeds such as the Hazardous Weather Testbed, Hydro-Meteorological Testbed, and Aviation Weather Testbed, to design real-time forecasting experiments using experimental storm-scale modeling and data assimilation systems, and lead/organize post-experiment evaluations.
3. Contribute to scientific publications and attend off-site conferences, workshops, symposia and NOAA testbed-related outreach events as needed.
4. Provide leadership within CIMMS and the Forecast Research and Development Division of NSSL through mentorship of students and junior colleagues.

The minimum qualifications for the position are:

1. A PhD in Meteorology, Atmospheric Science, or related area.
2. Demonstrated excellence in mesoscale and convective-scale dynamics via his/her publication record and conference presentations.
3. Experience with mentoring students and/or colleagues in these areas.

Excellent oral and written communication and public speaking skills are highly desired, as well as proficiencies in weather visualization software (e.g., GrADS, NCL, GEMPAK, etc.) and coding languages like Python and/or Fortran. Applicants should identify experience in graphic
design/visualization, programming and scripting languages, as well as skills using numerical weather prediction models.

Normal working hours will be observed except for occasional irregular hours during data collection, warning/forecast experiments or workshops conducted at remote sites. CIMMS staff will provide general supervision with technical oversight provided by NSSL 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 benefits. Information on OU benefits can be found at http://www.hr.ou.edu/.

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

Tracy Reinke, Executive Director, Finance and Operations  
University of Oklahoma CIMMS  
120 David L. Boren Blvd., Suite 2100  
Norman, OK 73072-7304  
treinke@ou.edu  
Attn: Warn-on-Forecast

The University of Oklahoma is an Equal Opportunity/Affirmative Action employer.
CIMMS Post-Doctoral Research Associate - FACETs

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at the University of Oklahoma is currently seeking a postdoctoral research associate to collaborate with scientists in the National Severe Storms Laboratory’s (NSSL) Warning Research & Development Division on the development of probabilistic severe convective weather guidance for the Forecasting A Continuum of Environmental Threats (FACETs) project. The goal of FACETs is that future warnings will be probabilistic, spatially coherent forecasts.

The duties of this position are:
1. Apply diverse data sets to produce storm-based probabilistic trends and historical distributions of convective storm features to produce probabilistic hazard information.
2. Develop and test new multi-sensor (e.g., satellite, lightning, numerical models, radar) algorithms and techniques (e.g., machine learning) for short-term probabilistic prediction and nowcasting;
3. Acquire and apply expertise in severe local storms and the warning-decision-making process;
4. Design and lead applied research and operational experiments with National Weather Service Forecasters and end-users in the Hazardous Weather Testbed’s Experimental Warning Program.
5. Attend meetings and professional conferences to present research results and interact with collaborators and users; formally publish results when appropriate;
6. Review technical and professional publications and attend seminars to stay abreast of current developments in meteorological and remote sensing science.

The minimum qualifications for the position are:
1. A Ph.D. Degree in Meteorology, Atmospheric Science, or related area;
2. Experience with scientific programming on UNIX/Linux using a high level language (e.g. C++, Java, Python)
3. Experience with statistical methods or software for meteorological data analysis and visualization
4. Ability to communicate scientific research through conference presentations, formal publications and technical documents

Applicants should identify expertise with any of the following areas: Severe Local Storms; Using Large Datasets; Data Mining; Machine Learning; Statistics; Warning Decision Making; Weather Radar; Lightning Data; Numerical Modeling; Remote Sensing and Satellite. Strong oral and written communication skills are needed for the position. Please indicate experience with Linux (or UNIX) operating systems, programming skills (including web-based and mobile applications) and Geographic Information Systems.
Normal working hours will be observed except for occasional irregular hours during data collection, warning/forecast experiments or workshops conducted at remote sites. Incumbents will receive training and gain expertise in the latest radar and other remote sensing technology and warning decision-making.

Supervision will be provided by CIMMS staff. Technical oversight will be provided by CIMMS staff, NSSL scientists, and NSSL management. Works under general supervision but is expected to determine action to be taken in handling all but unusual situations. Incumbents in this position are not expected to supervise other employees, but may serve as leaders of technical teams and supervise students.

The beginning salary will be based on qualifications and experience with University benefits. Information on benefits may be found at http://www.hr.ou.edu. The position is expected to begin February 2019.

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

Tracy Reinke
Executive Director, Finance and Operations
University of Oklahoma CIMMS
120 David L. Boren Blvd., Suite 2100
Norman, OK 73072-7304
treinke@ou.edu
ATTN: Post-Doc FACETs

The University of Oklahoma is an equal opportunity/Affirmative Action employer.
CIMMS - MRMS Severe Weather Research Scientist

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at the University of Oklahoma is currently seeking a research scientist to collaborate with scientists in the National Severe Storms Laboratory’s (NSSL) Warning Research & Development Division on the development and assessment of scientific applications, algorithms, and applied research that assists forecasters in the warning decision-making process for severe convective weather events. The incumbent will lead the development of severe convective weather guidance applications for the Multi-Radar / Multi-Sensor system, which is widely used in the National Weather Service, private sector, and in academia for analyzing thunderstorm events.

The duties of this position are:
1. Lead development and assessment of techniques and algorithms that utilize a variety of sensors (e.g., satellite, lightning, polarimetric radar, or numerical models) to improve the short-term prediction of high impact weather including tornadoes, hail, lightning, and damaging wind.
2. Design and lead applied research and operational experiments in the Hazardous Weather Testbed’s Experimental Warning Program that facilitate the evolution of how severe convective weather threats are analyzed and communicated;
3. Develop scientific talent and enhance diversity within the field through the advisement of undergraduate and graduate students.
4. Attend meetings and professional conferences to present research results and interact with collaborators and users; formally publish results when appropriate;
5. Review technical and professional publications and attend seminars to stay abreast of current developments in meteorological and remote sensing science.

The minimum qualifications for the position are:
1. A Ph.D. Degree in Meteorology, Atmospheric Science, or related area;
2. Experience with statistical methods or software for meteorological data analysis and visualization
3. Experience with scientific programming on UNIX/Linux using a high level language (e.g. C++, Java, Python)
4. Interest in new severe and convective applied research and operational applications of research
5. Ability to communicate scientific research through conference presentations, formal publications and technical documents

Applicants should identify expertise with any of the following areas: Severe Local Storms; Machine Learning; Statistics; Warning Decision Making; Weather Radar; Lightning Data; Numerical Modeling; Remote Sensing and Satellite. Strong oral and written communication skills
are needed for the position, including the ability to collaborate on proposals and reports. Please indicate experience with Linux (or UNIX) operating systems, programming skills (including web-based and mobile applications) and Geographic Information Systems.

Normal working hours will be observed except for occasional irregular hours during data collection, warning/forecast experiments or workshops conducted at remote sites. Incumbents will receive training and gain expertise in the latest radar and other remote sensing technology and warning decision-making.

Supervision will be provided by CIMMS staff. Technical oversight will be provided by CIMMS staff, NSSL scientists, and NSSL management. Works under general supervision but is expected to determine action to be taken in handling all but unusual situations. Incumbents in this position are not expected to supervise other employees, but may serve as leaders of technical teams and supervise students.

The beginning salary will be based on qualifications and experience with University benefits. Information on benefits may be found at http://www.hr.ou.edu. The position is expected to begin February 2019.

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

Tracy Reinke  
Executive Director, Finance and Operations  
University of Oklahoma CIMMS  
120 David L. Boren Blvd., Suite 2100  
Norman, OK 73072-7304  
treinke@ou.edu  
ATTN: MRMS Scientist

_The University of Oklahoma is an equal opportunity/Affirmative Action employer._
CIMMS Peter Lamb Postdoctoral Fellowship

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at the University of Oklahoma is seeking excellent candidates for the prestigious Peter Lamb Postdoctoral Fellowship. 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 to improve basic understanding of mesoscale and storm-scale meteorological phenomena to help produce better forecasts and warnings that save lives and property and to understand 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 and climate anomalies ranging in size from cloud nuclei to multi-state areas.

Although the position is not project-specific, proposals for the CIMMS Postdoctoral fellowship should address at least one of 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. 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. It is suggested but not required that those applying contact a CIMMS scientist before writing their research proposal to receive guidance when drafting a proposal.

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, 2019 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 30, 2019. All materials should be sent electronically to:

Tracy Reinke, Executive Director Finance and Operations
Cooperative Institute for Mesoscale Meteorological Studies (CIMMS)
120 David L. Boren Blvd, Norman, OK, 73072
treinke@ou.edu
ATTN: Peter Lamb Postdoctoral Fellowship
CIMMS Research Associate - MRMS Severe Weather Applications

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at the University of Oklahoma is currently seeking a research scientist to collaborate with scientists in the National Severe Storms Laboratory’s (NSSL) Warning Research & Development Division on the development of scientific applications, algorithms, and applied research that assists forecasters in the warning decision-making process for severe convective weather events. The incumbent will work to develop severe convective weather guidance applications for the Multi-Radar / Multi-Sensor project, which is widely used in the National Weather Service, private sector, and in academia for analyzing thunderstorm events.

The duties of this position are:

1. Developing and/or testing new multi-sensor (e.g., satellite, lightning, numerical models) algorithms and techniques (e.g, machine learning) for short-term probabilistic prediction and nowcasting;
2. Acquire and apply expertise in severe local storms and the warning-decision-making process;
3. Participate in applied research and operational experiments in the Hazardous Weather Testbed’s Experimental Warning Program that facilitate the evolution of how severe convective weather threats are analyzed and communicated;
4. Attend meetings and professional conferences to present research results and interact with collaborators and users; formally publish results when appropriate;
5. Review technical and professional publications and attend seminars to stay abreast of current developments in meteorological and remote sensing science.

The minimum qualifications for the position are:

1. A Masters Degree in Meteorology, Atmospheric Science, Geographic Information Systems, or related area;
2. Experience with scientific programming on UNIX/Linux using a high level language (e.g. C++, Java, Python)
3. Experience with statistical methods or software for meteorological data analysis and visualization
4. Interest in new radar algorithm development for severe storm detection and diagnosis
5. Ability to communicate scientific research through conference presentations, formal publications and technical documents

Applicants should identify expertise with any of the following areas: Severe Local Storms; Machine Learning; Statistics; Warning Decision Making; Weather Radar; Lightning Data; Numerical Modeling; Remote Sensing and Satellite. Strong oral and written communication skills are needed for the position. Please indicate experience with Linux (or UNIX) operating systems,
programming skills (including web-based and mobile applications) and Geographic Information Systems.

Normal working hours will be observed except for occasional irregular hours during data collection, warning/forecast experiments or workshops conducted at remote sites. Incumbents will receive training and gain expertise in the latest radar and other remote sensing technology and warning decision-making.

Supervision will be provided by CIMMS staff. Technical oversight will be provided by CIMMS staff, NSSL scientists, and NSSL management. Works under general supervision but is expected to determine action to be taken in handling all but unusual situations. Incumbents in this position are not expected to supervise other employees, but may serve as leaders of technical teams and supervise students.

The beginning salary will be based on qualifications and experience with University benefits. Information on benefits may be found at http://www.hr.ou.edu. The position is expected to begin February 2019.

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

    Tracy Reinke  
    Executive Director, Finance and Operations  
    University of Oklahoma CIMMS  
    120 David L. Boren Blvd., Suite 2100  
    Norman, OK 73072-7304  
    treinke@ou.edu  
    ATTN: MRMS Severe Weather Applications

_The University of Oklahoma is an equal opportunity/Affirmative Action employer._
The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at the University of Oklahoma currently is seeking a research associate to collaborate with scientists in the National Severe Storms Laboratory’s (NSSL) Warning Research & Development Division on the development and testing of new severe weather applications for the detection and diagnosis of tornadoes and hail.

The duties of this position are:

1. Development of new applications and techniques for the analysis of WSR-88D data, including tornado and mesocyclone detection algorithms;
2. Evaluation of existing Radar-based products and applications, specifically focusing on data quality control and short-term nowcasting (0-2 hour) of severe and convective events;
3. Acquire and apply expertise in severe local storms and the warning-decision-making process;
4. Attend meetings and professional conferences to present research results and interact with collaborators and users;
5. Meet with collaborators and provide regular summaries of work accomplished;
6. Review technical and professional publications and attend seminars to stay abreast of current developments in meteorological and remote sensing science;
7. Plan and execute the evaluation of new applications and techniques in the Hazardous Weather Testbed.

The minimum qualifications for the position are:

1. A Masters Degree in Meteorology, Atmospheric Science, Geographic Information Systems, or related area;
2. Computer programming and scripting experience (e.g. C++, Java, Python);
3. Skills in the interpretation of weather radar data.

Applicants should identify expertise with any of the following areas: Computer Programming; Weather Radar; Visualization; Geographic Information Systems; Warning Decision Making; MRMS; WDSS-II. Good oral and written communication skills are needed for the position. Please indicate experience with Linux (or UNIX) operating systems and programming skills (including application development and scripting).

Normal working hours will be observed except for occasional irregular hours during data collection, warning/forecast experiments or workshops conducted at remote sites. Incumbents will receive training and gain expertise in the latest radar and other remote sensing technology and warning decision-making.
General supervision will be provided by the CIMMS leadership. Technical oversight will be provided by CIMMS staff, NSSL scientists, and NSSL management. Appointee will work under general supervision but is expected to determine action to be taken in handling all but unusual situations. Incumbents in this position are not expected to supervise other employees, but may serve as leaders of technical teams.

The beginning salary will be dependent on experience, with University of Oklahoma benefits. Information on benefits may be found at http://www.hr.ou.edu. The position is expected to begin February 2019.

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

Tracy Reinke  
Executive Director, Finance and Operations  
University of Oklahoma CIMMS  
120 David L. Boren Blvd., Suite 2100  
Norman, OK 73072-7304  
treinke@ou.edu  
ATTN: Severe Weather Radar Applications

_The University of Oklahoma is an equal opportunity/Affirmative Action employer._
I’m delighted to invite you to the annual Enterprise and the Environment Summer School at the University of Oxford. This is a unique programme which teaches across the Smith School’s strengths in environmental economics and policy, enterprise management, and financial markets and investment. During the Summer School we will explore critical global environmental challenges in the 21st century through a combination of science, diverse stakeholder engagement, and analysing the value of the environment to enterprise.

The Smith School is a leading interdisciplinary academic hub focused upon teaching, research, and engagement with enterprise on climate change and long-term environmental sustainability. We work with social enterprises, corporations, and governments; we seek to encourage innovative solutions to the challenges facing humanity. We are excited to be holding our fourth Summer School and hope to meet you in Oxford in June 2019.

Professor Cameron Hepburn
Director, Smith School of Enterprise and the Environment

Dates: 30 June - 12 July 2019
Accommodation: Jesus College, University of Oxford
Teaching Venue: School of Geography and the Environment, University of Oxford
Website: www.smithschool.ox.ac.uk/courses/summer-school/
Contact: summerschool@smithschool.ox.ac.uk
Early Bird Price: £2850 (for payments made prior to 12 April 2019)
Full Price: £3100 (for payments made after 12 April 2019)
Date: January 22, 2019

To: Associate Deans for Research

cc: Suresh V. Garimella, Executive Vice President for Research and Partnerships
    Jay T. Akridge, Provost and Executive Vice President for Academic Affairs and Diversity

From: Christopher R. Agnew, Associate Vice President for Research, Regulatory Affairs

Re: Important Updates from the Purdue Human Research Protection Program (HRPP)

This memo is being sent to all Associate Deans for Research, with the request that each of you distribute this information to your college’s dean, department heads, faculty, post docs, graduate students, and research staff.

I write to update the Purdue research community on the latest changes to regulations and associated processes governing human subjects research. Purdue’s HRPP, which includes our Institutional Review Boards, stands ready to assist researchers as they navigate these latest welcome changes.

1. Long Awaited Final Implementation of Changes to the Common Rule

Final changes to the federal rules that prescribe protections for human participants in research (collectively known as the Common Rule) became effective yesterday, January 21, 2019. We are now fully embracing all of these burden-reducing changes. Here are some highlights:

   a) **Moving from Annual to Triennial Review.** Qualifying protocols deemed by IRB to be “No Greater Than Minimal Risk” are being (or have been) converted from an annual to a triennial (i.e., every 3 years) review cycle. The conversion process involves PIs providing a short update on the status of their data collection and minor new required changes to approved consent forms. Principal Investigators (PI) are being contacted by HRPP on a rolling basis for this purpose. Once complete, a new approval letter will be issued that reflects the extended approval period.

   b) **Implementing Broad Consent for Future Data Use.** Storage and use of samples for future studies may now be eligible for exemption from IRB review. However, the process involves a separate participant “broad consent” process in parallel with tracking and monitoring provisions typically associated with established bio- or data-banking facilities. HRPP will evaluate pending guidance as it becomes available from the federal government. For now, HRPP will determine applicability on a case-by-case basis.

   c) **Adding Benign Behavioral Intervention Exemption Category.** Additional categories of research that are exempt from IRB review have now come into effect. Of particular
importance for social and behavioral researchers is the inclusion of new Exemption Category 3, which involves studies classified as “benign behavioral interventions.” To qualify, the research must involve only adults participating in brief research interventions involving the study of psychological states and processes, cognition, ideas and attitudes, or behavior. Note that studies involving physical (bodily) tasks, such as exercise or blood collection, do not qualify for this new exemption category. Common examples of benign behavioral interventions include adults solving puzzles, playing computer games, or answering survey questions. Like all human subject research (exempt or not), researchers are still required to provide information about their study to HRPP prior to beginning their study. This is most easily done via our online PROPEL tool (Purdue Research Online Portal Exemption Logic: www.irb.purdue.edu/getting-started/). Researchers who conduct benign behavioral interventions will notice a significant decrease in review time and in the number of documents required for protocol submission. The HRPP is already accepting and reviewing applications accordingly.

2. Storing Research Data Using Box

Recently, Purdue’s Office of Research and Partnerships collaborated with Information Technology at Purdue (ITaP) to provide a new data storage resource for the Purdue research community. Purdue researchers now have access to Box, a cloud-based storage service that allows investigators to store and share data. HRPP/IRB will accept protocol applications that make use of Box as an acceptable means to store research data. However, please be aware that any storage of Protected Health Information (PHI) covered under HIPAA, or storage of other data with specific access parameters, will require special account set-up through ITaP prior to data storage. Note that ITaP and other campus units are currently exploring the possibility of storage options for data covered under additional regulations (e.g., export controlled data). To access Box, use your Purdue Career Account login here: https://purdue.account.box.com/login

3. Additional Investigator Resources

HRPP efforts in recent months follow the dual themes of (1) removing the mystery from what is necessary for an IRB protocol submission, and (2) working collegially with researchers to meet, as efficiently as possible, their regulatory obligations. In addition to offering monthly training sessions and an online Researcher Guide, updated infographics give an at-a-glance overview of the process involved in putting together an IRB application. One of the more recent tools added to our website outlines what to consider when making a study recruitment flyer. New resources will be added continuously. As you review the current resources, please feel free to submit your ideas regarding topics we should add (email irb@purdue.edu).

PIs continue to be responsible for reporting any changes to procedures, personnel, funding, or problems that occur during the course of an approved study. Please do not hesitate to reach out to the IRB should changes occur. Also, please note that all approved and currently open studies are subject to post approval monitoring by HRPP (for more on this process, go here: https://www.irb.purdue.edu/after-approval/). As we transition to these long-awaited regulatory changes, we will continue to look for efficiencies that can be added to our processes, without compromise to research protections. We welcome your comments and feedback as we work together to ensure the welfare of human research participants.