EAPS WEEKLY NEWSLETTER
13 Feb. 2017 | EAPS on Facebook | EAPS on Twitter

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DEPARTMENT NEWS

EAPS COLLOQUIA
Matthew Bower
PhD Candidate
Tuesday, February 14, 2017
4:00 PM
HAMP 2201

Praveen Kumar
University of Illinois University
Thursday, February 16, 2017
3:30 PM
HAMP 1252

BIRTH ANNOUNCEMENTS
Logan and Rebecca Judy who had a daughter, Alice Michal, on Feb. 6, 2017. She weighed 8 lbs. 10 oz. and was 21.25 inches long.

http://www.eaps.purdue.edu/
COLLEGE OF SCIENCE STAFF PROFESSIONAL DEVELOPMENT FUND APPLICATION

It is time to request applications for the Summer 2017 Staff Professional Development Fund. These applications should be for professional development opportunities that will take place during the summer (May through early August) months. To apply, please complete the application and return it to Angie Teel by Friday, March 3. A committee of fellow CoS staff members will then meet to evaluate the applications and make the final funding decisions.

BLACK AND GOLDEN JUBILEE OPEN FOR REGISTRATION

The Black & Golden Jubilee website is now open for registration. For more information on the event, go to the event website. To register, go to the registration website.

GLOBE OBSERVER TUTORIALS

GLOBE Observer is an international citizen science initiative to understand our global environment. Citizens make environmental observations that complement NASA satellite data in helping scientists study Earth and the global environment. EAPS Outreach will be conducting GLOBE Observer tutorials during Purdue Springfest on April 8, 2017.

COLLEGE OF SCIENCE FACULTY/STAFF AWARDS LUNCHEON

Please join us as we celebrate our honored coworkers and their achievements.

Thursday, February 23, 2017
Purdue Memorial Union – North Ballroom
12:00 p.m. – 1:30 p.m.

Reservations are $15 per lunch. Checks are made payable in advance to Purdue Research Foundation and mailed to Wendi Ailor, Math 902, College of Science. Unfortunately, the Purdue Research Foundation is unable to take credit card payments or online payments for this event.

Please RSVP by February 17 at www.science.purdue.edu/FacultyStaff. Any questions can be forwarded to the College of Science by phone at 765-494-0586 or by email at ScienceEvents@purdue.edu

COLLEGE OF SCIENCE RESEARCH AWARDS

The College of Science Research Awards presentation will take place on Tuesday, February 28 beginning at 3:00pm in LWSN 1142. A reception with the three recipients will immediately follow the presentations.

See attached flyer for this year’s recipients.

STUDENT NEWS

ADVANCED STUDY PROGRAM (ASP) SUMMER COLLOQUIUM: THE INTERACTION OF PRECIPITATION WITH OROGRAPHY (IPRO)

This is a workshop for graduate students held at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado.

http://www.eaps.purdue.edu/
Motivation: Precipitation near significant orography has many climatological, terrestrial and human impacts. Gradients in orographic height lead to large variations in precipitation, land-surface type, vegetation and watershed properties. Dramatic flooding events linked to orography can also impact the local ecosystem and human activity. A complete understanding of the interactions among all these systems is key but remains illusive.

Students will experience international speakers with observational and modeling expertise across the range of the orographic, precipitation environment. Practical exercises using both the Community Earth System Model (CESM) and the Weather, Research and Forecasting model (WRF) will form the foundation for understanding the orographic precipitation processes in models. The Advanced Study Program colloquium is intended for advanced graduate students.

Tutorials and computer-based exercises will provide experience with a broad range of material, extending across the sub-disciplines of theoretical flow over orography, observational case studies, simple models, moist physical processes, the representation of precipitation-orography interactions in forecast and climate models (WRF and CESM), and the smaller scale applications community.

Colloquium Dates: June 5-16, 2017
Application Deadline: February 28, 2017
Details: [ASP Summer Colloquium 2016](http://www.eaps.purdue.edu/)
Contact: Diana Zucco, zucco@ucar.edu

**RESEARCH EXPERIENCE FOR UNDERGRADUATES ON SUSTAINABLE LAND & WATER RESOURCES**

The aim of the proposed REU on Sustainable Land and Water Resources is to introduce undergraduate students to the key elements of research on land and water resources that are essential to improving management practices, with a focus on Community-Based Participatory Research (CBPR) and diverse interdisciplinary research teams. Students will work on one of three teams on projects that integrate Earth-surface dynamics, geology, hydrology and other disciplines. Research teams are hosted on two Native American reservations and at the Univ. MN and projects are developed in collaboration with the tribes’ resource management divisions. The REU incorporates an interdisciplinary team-oriented approach that emphasizes quantitative and predictive methods, CBPR, indigenous research methods, and traditional ecological knowledge.

Project take place on the main campus of the University of Minnesota, Minneapolis; on the Fond du Lac Reservation in Northern Minnesota; and at Salish Kootenai College on the Flathead Reservation in Montana. Students in Civil Engineering, Earth Sciences, Hydrology, Biology, Ecology, Sustainability, Mathematics, and related disciplines are invited to apply. The application deadline is March 2, 2017, and the program dates are June 12 – August 18, 2017.

For a complete list of projects for this year, visit [the project website](http://www.eaps.purdue.edu/).

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**UNDERGRADUATE RESEARCH AND POSTER SYMPOSIUM**

The 2017 Undergraduate Research and Poster Symposium has been set for Tuesday, April 11, 2017. If you are a student, consider participating in this wonderful opportunity, and, if you are a faculty member, consider being a judge for the College of Science. Please think about donating an hour (or more) of your time to participate as a judge, it would be greatly appreciated.

More information can be found on the symposium website. If you have any questions, you can send them to Robin Sipes at rsipes@purdue.edu.

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**DEADLINE FOR COLLEGE OF SCIENCE INTERNATIONAL TRAVEL AWARDS**

For international travel between March 1, 2017, and December 31, 2017, graduate students may apply for the College of Science International Travel Awards. To qualify, you must be a full-time PhD student making an oral or poster presentation at an international conference. Three or four awards totalling $800 will be awarded. To apply,
send all of the following in one electronic file to Robin Sipes at rsipes@purdue.edu:
CV (2 page limit)

- Brief summary of research (1 page limit)
- Brief statement of purpose for attending conference, specifying whether your presentation is oral or poster
- Link to conference website
- Letter of support from research advisor

The deadline for the application is February 17, 2017.

HAZARDOUS WEATHER TESTBED RESEARCH ASSOCIATE POSITION

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at The University of Oklahoma (OU) is currently looking for a Research Associate to provide scientific and meteorological expertise, and technical support for annual NOAA/Hazardous Weather Testbed (HWT) Spring Forecasting Experiments (SFEs), and real-time, year-round experimental prediction systems.

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: HWT

Please see attachment for more details.

CIMMS RESEARCH ASSOCIATE POSITION

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at The University of Oklahoma (OU) is currently looking for a Research Associate to provide leadership, satellite expertise, and meteorological support for the GOES-R Proving Ground effort based at the NOAA/NWS Storm Prediction Center (SPC). The SPC is located at the National Weather Center (NWC) in Norman, OK, a highly collaborative environment containing a number of NOAA and OU organizations, including the National Severe Storms Laboratory, NWS Warning Decision Training Division, NWS Forecast Office, OU School of Meteorology, and OU Center for Analysis and Prediction of Storms. This project will include activities focused to maximize the diagnostic and forecast value of geostationary satellite data and products. The incumbent will interact with NWS operational forecasters to prepare them for new satellite dependent products that will become operationally available after the launch of GOES-R.

Please see attached flier for more information.

UNIVERSITY NEWS

PURDUE CCO SPRING 2017 GRADUATE WORKSHOPS & PRESENTATIONS

Feb. 21 / Negotiation Skills
5:30 PM to 6:30 PM / PGSC Room 105AB, Graduate Student Center

Attend this presentation to learn how to evaluate and negotiate an offer! Understand the evaluation and negotiation process, the critical questions to address, and possible factors for consideration as you compare offers and negotiate the terms of a job offer.

See the attached flyer for the full spring schedule.

http://www.eaps.purdue.edu/
SAFETY CHAIR MEETING AND SAFETY FAIR

Purdue’s Radiological and Environmental Management department will hold its annual Safety Chair Meeting from 8 a.m. to 11 a.m. March 1 in Stewart Center, Room 214. Room 218 will feature a safety fair from 7:30 to 11:30 a.m. with a variety of vendor displays and REM representatives to answer questions about safety needs.

Departmental safety representatives and building deputies are invited to attend to hear presentations on environmental health and safety issues and compliance updates. Faculty and staff are welcome to attend any or all of the sessions. The Safety Chair Meeting is split into three sessions. The first session at 8 a.m. features an occupational safety theme targeting a nonacademic audience. The second session, 9-10 a.m., will apply to all audiences. The third and final session, 10-11 a.m., will have a laboratory theme targeting an academic research audience.

Doug Condon, contractor safety leader from Dow AgroSciences, will discuss that company’s successful safety culture implementation during the 9 a.m. session.

The full program agenda is available here. Registration is due Feb. 22.

VII EARTH SCIENCES CONVENTION
(EXHIBITION OF PRODUCTS, NEW TECHNOLOGIES AND SERVICES)

The Cuban Geological Society (SCG) is inviting scientists, professionals, technicians, and university students of Geology, Geophysics, and Mining and related Geosciences, to participate in the VII Earth Sciences Convention, to be held at the International Conference Center in Havana, Cuba on April 3-7, 2017.

For further information, please contact: www.scg.cu; www.cubacienciasdelatierra.com geociencias@mnhnc.inf.cu or see attached flier.

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 and Click on News to access active links as needed. Material for inclusion in the newsletter should be submitted to Kathy Kincade (kkincade@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

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
What Does that Error Bar Mean? Reconsidering Assumptions for Quantifying Uncertainty in the Climatological Mean

Matt Bowers
PhD Candidate

This work proposes an adaptive procedure for estimating the variability and constructing confidence intervals for climate mean states---accounting for both short- and long-memory. While the prevailing methods for quantifying variability of climate means account for short-range dependence, they ignore long-memory, which is demonstrated to lead to underestimated variability and hence artificially narrow confidence intervals. To capture both short- and long-range correlation structures, climate data are modeled as fractionally integrated autoregressive moving-average processes. The preferred model can be selected adaptively via an information criterion, and the estimated variability of the climate mean state can be computed directly from the selected model. The approach is demonstrated by constructing confidence intervals for 30-year means of surface temperatures observed at Potsdam, Germany. These confidence intervals are roughly twice the width as those obtained using prevailing methods which disregard long-memory, leading to substantive reinterpretation of differences among mean states of this particular temperature dataset. These results indicate the need for more meticulous consideration of the correlation structure of climate data, especially with respect to their long-memory properties.
Intensively managed landscapes in the glaciated mid-western US are relatively young. After the end of glaciation, rapid changes in soil and vegetation took place on these landscapes as climate transitioned. Wind driven soils (loess) provided a backdrop for the establishment of pioneer vegetation species followed with nitrogen fixing plants leading to the eventual establishment of climax species, the prairies. Loess deposited over glacial drift supported rich environment for biodiversity through competition, mutualism and mosaicking. In areas impacted by Wisconsian episode (latest glacial episode), this happened about eight thousand years ago. Heterogeneity of vegetation, soil organic carbon, nitrogen, etc. arose from differentiated accumulation over till, which has high water holding capacity, and outwash, which has lower water holding capacity. Transformations and transport was dominated by large residence times over low gradient landscape. Since European settlement and the trajectory of large-scale adoption of industrial agriculture, these landscapes have been rapidly modified. Reduced residence time no longer mutes event scale response. Landscape has switched to transport dominated system due to anthropogenic modifications, which includes deployment of tile drains, ditching, and channel straightening. This amplifies event scale dynamics, changes dominant processes, and alters process connectivity across time and space with non-reversible, often threshold dominated, cascading effects. Annual tillage and nitrogen application alters the stocks and flows of carbon and nutrients through the soils and water bodies. Understanding the deep couplings between landscape evolution, climate change, and anthropogenically driven dis-equilibrium arising from the alterations of coupled water, carbon and nutrient cycles across scales remains a challenge. This talk will present insights gained towards this challenge from the efforts of the Intensively Managed Landscape Critical Zone Observatory.
In 2012, the University created a performance evaluation policy for staff which included a focus on capturing the professional development activities of staff throughout the year. The College of Science firmly believes that participation in professional development provides long lasting benefits to both the individual staff member and their department. As such, the College desires to support these activities.

**College of Science Professional Development Philosophy:**

- Professional development participation should be available to all full- or part-time, permanent staff—clerical, service, administrative/professional and managerial/professional.
- Professional development should focus on developing skills that will prepare staff to advance at Purdue or to perform their current duties more effectively.
- All supervisors are strongly encouraged to allow appropriate amounts of time for each staff person throughout the year to attend trainings that will help them accomplish their professional development goals. Approval for participation in such activities should be based on the business needs of each area.

**College of Science Professional Development Fund:**

In order to support staff professional development activities, the College has created a Professional Development Fund to financially assist with participation in trainings that involve fees or the purchase of training materials.

*Professional Development Fund Guidelines:*

- Professional Development funds are to be used to support College of Science staff’s participation in activities that will assist them in developing skills that will prepare staff to advance at Purdue or to perform their current duties more effectively.
- Award applications will be requested three times annually with approximately 10 awards per call. Funds requested may be used to defray costs associated with attending professional meetings or seminars, to participate in workshops, or to enroll in professional-oriented courses related to employment responsibilities. The funds must be utilized within two application cycles (Spring awards utilized by the end of Fall, etc.).
- Applications for amounts of up to $1000 will be accepted.
- Individuals are eligible for one award per calendar year.

*Application Deadlines:*

- Spring Application Call – application due by first Monday in October; decisions made by November 30
- Summer Application Call – application due by first Monday in March; decisions made by April 30
- Fall Application Call – application due by first Monday in June; decisions made by July 31
Darryl E. Granger
Professor of Earth, Atmospheric, and Planetary Sciences

Dating Early Human Evolution with Cosmic Ray-produced Radionuclides

Our knowledge of early human evolution and migration out of Africa is strongly limited by a lack of reliable dating methods. Although the fossil record in East Africa has been exquisitely well dated by interbedded volcanic ash layers, other sites across most of Asia, Europe, and southern Africa remain poorly dated. In this talk I will show how we can use rare nuclides that are produced in mineral grains by secondary cosmic rays (i.e., cosmogenic nuclides) to date the sediments associated with fossils or stone tools found on ancient river terraces or in caves. The cosmogenic nuclides $^{26}\text{Al}$ and $^{10}\text{Be}$ build up in the mineral quartz when it is exposed at the ground surface, and then decay by radioactivity after the quartz is buried. By measuring $^{26}\text{Al}$ and $^{10}\text{Be}$ with accelerator mass spectrometry and accounting for the buildup and decay of the two nuclides simultaneously we can determine the burial age of the deposit. Examples from China and South Africa show how the cosmogenic nuclide method is impacting the history of early human evolution and migration.

Bio: Dr. Granger joined the Purdue faculty in 1996, and has been affiliated with the PRIME Lab accelerator mass spectrometry facility. He holds a Ph.D. in geology from the University of California, Berkeley, and a B.S. in physics and scientific instrumentation from Carnegie Mellon University. His research largely focuses on geologic applications of cosmogenic nuclides produced in mineral grains, especially for problems related to landscape evolution, caves, and archaeology. He has authored or coauthored over 70 peer-reviewed papers, including 5 in *Nature* and *Science*. He is a fellow of the Geological Society of America and a recipient of an NSF CAREER award. He has been featured in two *National Geographic* documentaries, and his research has been highlighted 3 different times in *Discover* magazine’s top 100 science stories of the year.
Oxygen present at ~20% in Earth’s atmosphere comes mostly from photosynthesis that occurs in cyanobacteria, green algae and higher plants. This oxygen is generated from water by a process which evolved about 3 billion years ago. The light driven water splitting achieved in the oxygen evolving complex (OEC) of Photosystem II is a critical process that sustains our biosphere. It has also inspired research into artificial photosynthesis which aims at converting sun light into fuels for clean and sustainable energy. Photosynthetic water splitting is fascinating in its efficiency, however, it is not yet understood. Achieving new energy solutions based on concept of artificial photosynthesis requires understanding the molecular mechanisms of water splitting. At the heart of the water splitting process occurring in the Photosystem II is the Mn4Ca cluster embedded in a fine tuned protein environment. Using spectroscopic techniques we have determined the geometry of the Mn4Ca cluster and followed evolution of its electronic structure in time during the formation of O2 molecule. Our experiments were supported by computational analysis and electronic structure calculations. While Mn is an earth abundant element, efficient Mn based molecular catalysts for artificial Photosynthesis have not been yet demonstrated. Ru based molecular catalysts of water oxidation are available with variety of ligand environments and provide convenient systems for mechanistic analysis. We have used in situ EPR, X-ray spectroscopy and resonance Raman measurements to characterize catalytic Ru complexes under water splitting conditions and detect reactive intermediates. Uncovered molecular mechanisms allowed to move forward to design a more efficient water splitting assemblies for future production of so called solar fuels.

Bio: Yulia Pushkar graduated with MS in Physical Chemistry from the Moscow State University, Russia in 1999. She obtained PhD in Biophysics in 2003 from Free University Berlin studying mechanisms of the electron transfer in the Photosynthetic proteins. She worked as a postdoctoral researcher at the Physical Biosciences Division of the Lawrence Berkeley National Laboratory until she obtained a faculty position at Purdue University in 2008. In 2014 she was promoted to associate professor.
Anisotropic media can be modeled with Riemannian metrics. The rigidity problem consists of recovering the metric in a domain, up to an isometry, from the distance between boundary points. We show that in dimensions three and higher, knowing the distance near a fixed strictly convex boundary point allows us to reconstruct the metric inside the domain near that point, and that this reconstruction is stable. We also prove semi-global and global results under certain convexity conditions. The problem can be reformulated as a recovery of the metric from the arrival times of waves between boundary points; which is known as travel-time tomography. The interest in this problem is motivated by imaging problems in seismology: to recover the sub-surface structure of the Earth given travel-times from the propagation of seismic waves. In oil exploration, the seismic signals are man-made and the problem is local in nature. In particular, we can recover locally the compressional and the shear wave speeds for the elastic Earth model, given local information. The talk is based on joint work with Uhlmann (UW) and Vasy (Stanford).

Bio: Plamen Stefanov joined the Department of Mathematics at Purdue in 2000. He received his Ph.D. in math from the University of Sofia in 1988. Since then, and before coming to Purdue, he has worked at universities in Bulgaria, Finland, France, Canada, Brazil and the US. His research is in analysis and applied analysis; most recently in the field of Inverse Problems and applications of microlocal analysis. In particular, his most recent work is focused on mathematical inverse problems arising in various medical imaging methods, geometry, seismology, radar imaging and cosmology.
2017 College of Science
Graduate Student International Travel Awards

Deadline: February 17, 2017
For travel between March 1, 2017 and December 31, 2017

~ 3 or 4 awards ranging up to $800 for international travel will be awarded~

Prerequisites:
• must be a full-time PhD student within a Department in the College of Science
• must be making an oral or poster presentation at an international conference

Priority will be given to:
• travel to make an oral presentation at a conference
• attendance at an interdisciplinary conference
• students who have passed their prelims

To apply, please send electronically as one file:
• CV (2 page limit)
• brief summary of research (1 page limit)
• brief statement of purpose for attending conference specifying whether your presentation is oral or poster
• provide web link to conference
• letter of support from research advisor

Send applications to Robin Sipes at rsipees@purdue.edu
Hazardous Weather Testbed Research Associate

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at the University of Oklahoma (OU) is currently looking for a Research Associate to provide scientific and meteorological expertise, and technical support for annual NOAA/Hazardous Weather Testbed (HWT) Spring Forecasting Experiments (SFEs), and real-time, year-round experimental prediction systems. A key focus will include development of web-based visualization tools to support/enhance SFE activities and post-experiment analysis and verification of convection-allowing ensembles used in the SFEs. The position will be based at the National Severe Storms Laboratory (NSSL) in Norman, OK within the National Weather Center, a high collaborative forecasting, research, and academic environment containing a number of NOAA and OU organizations. As this unique position will serve the interests of both the NSSL and Storm Prediction Center (SPC), the incumbent will work directly with research scientists at NSSL and development meteorologists/operational forecasters at SPC.

The principal duties of this position are:

1. Enhance and develop web-based visualization of real-time ensemble data for NOAA/HWT SFEs, as well as real-time, year-round systems like the Storm Scale Ensemble of Opportunity (SSEO) and NSSL-WRF.
2. Conduct post-experiment analyses/verification of convection-allowing ensembles from Community Leveraged Unified Ensemble (CLUE) experiments, subjective model evaluations, and other experimental and operational systems used in the SFE.
3. Support, develop, and enhance SFE core activities including acceleration of new tools from research to operations, inspiring new initiatives for operationally relevant research, and identifying and documenting sensitivities and performance of state-of-the-art convection-allowing models and ensembles.
4. As needed, represent CIMMS/NSSL/SPC by contributing to scientific publications and attending off-site conferences, workshops, symposia and hazardous-weather-related outreach events.

The minimum qualifications for the position are:

1. A Master’s Degree in Meteorology, Atmospheric Science, or related area.
2. Emphasis will be placed on applicants with knowledge and experience in web design and model visualization, as well as knowledge in severe storms meteorology, numerical weather prediction models/ensemble systems including convection-allowing models and application of statistical techniques for forecast verification.

Excellent oral and written communication and public speaking skills are highly desired, as well as proficiency in Python, and a strong understanding of JavaScript, PHP, CSS stylesheets, and how to implement dynamic data visualizations through D3. Applicants should identify experience in web development, graphic design/visualization, programming and scripting languages, numerical weather prediction, and Linux (Unix) environments including AWIPS/N-AWIPS.

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 and SPC scientific staff and management. The incumbent works under general supervision, but is expected to work independently and determine action to be taken in handling all but unusual situations.

The beginning salary is commensurate with educational background and experience, with OU benefits. Information on OU benefits can be found at http://hr.ou.edu/Employees/New-Employees-at-OU/OU-Benefits-Overview.

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: HWT

The University of Oklahoma is an Equal Opportunity/Affirmative Action employer.
CIMMS Research Associate at SPC (Satellite Meteorologist)

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at The University of Oklahoma (OU) is currently looking for a Research Associate to provide leadership, satellite expertise, and meteorological support for the GOES-R Proving Ground effort based at the NOAA/NWS Storm Prediction Center (SPC). The SPC is located at the National Weather Center (NWC) in Norman, OK, a highly collaborative environment containing a number of NOAA and OU organizations, including the National Severe Storms Laboratory, NWS Warning Decision Training Division, NWS Forecast Office, OU School of Meteorology, and OU Center for Analysis and Prediction of Storms. This project will include activities focused to maximize the diagnostic and forecast value of geostationary satellite data and products. The incumbent will interact with NWS operational forecasters to prepare them for new satellite dependent products that will become operationally available after the launch of GOES-R.

The principal duties of this position are:
1. Serve as a “Satellite Liaison” at the SPC and the Hazardous Weather Testbed (HWT), leading GOES-R Proving Ground efforts on satellite based hazardous weather products and demonstrating the unique and complementary value of satellite information to forecasters;
2. Develop and/or document satellite dependent forecast and analysis tools and training focused on the specific needs of hazardous weather forecasters; up to 20% of time may be used to conduct applied research on GOES-R products applicable to improving severe weather forecasting, nowcasting, or warning decision-making;
3. Test and validate proposed new satellite dependent products and decision aids for forecasters with an emphasis on exploring the value of advanced satellite products for detection and short-term prediction of convective storms and associated hazards;
4. Serve as “implementation expert” for selected planned GOES-R products and their proxies;
5. Participate in HWT experiments including the annual Spring Forecast Experiment serving as the focal point for satellite centered activities;
6. Provide satellite expertise to the logistical support of any field experiments headquartered out of the National Weather Center;
7. Bridge satellite-related activities between the Warn-on-Forecast program and the NWS and NESDIS.
8. Represent the GOES-R effort within the HWT by contributing to formal scientific publications, and/or attending off-site conferences, symposia and hazardous weather related outreach events;
9. Develop synergy and shared accomplishments with the NOAA Testbeds and the GOES-R Proving Grounds collocated with the Aviation Weather Center in Kansas City, MO, the NESDIS Satellite Analysis Branch-Weather Prediction Center-Ocean Prediction Center in College Park, MD, and the NWS OCONUS Regional Headquarters in Anchorage, AK and Honolulu, HI.
10. Enhance collaborations with the Cooperative Institute for Meteorological Satellite Studies/University of Wisconsin, Cooperative Institute for Research into the Atmosphere/Colorado State University, and the NASA/Short-term Prediction Research and Prediction Center to test, evaluate, and/or provide feedback on new satellite-based tools and products related to convective storm and fire weather applications.
11. Perform related duties as assigned.

The minimum qualifications for the position are:
1. A Master’s or PhD Degree in Meteorology, Atmospheric Science or related area and at least one year experience in operational meteorology or applied research; additional post-graduate education may be substituted for experience.
2. Emphasis will be placed on applicants with considerable experience in satellite meteorology, and its application to hazardous weather prediction, including deep convection, high resolution numerical models, and ensemble prediction systems.
Applicants should identify their demonstrated expertise with Satellite Meteorology and any of the following areas: Severe Thunderstorms; Numerical Modeling; Ensemble Systems and Probabilistic Forecasting; Warning Decision Making; and Fire Weather Meteorology. Excellent oral and written communication skills are highly desired and a strong ability to work in a collaborative team environment is needed for the position. Please describe experience with Linux (or UNIX) operating systems, software skills including programming and scripting languages, web page development, graphic design or illustration, and AWIPS2/N-AWIPS workstations.

Normal working hours will be observed except for occasional irregular hours during data collection, warning/forecast experiments or workshops conducted at remote sites. The incumbent will receive training and gain expertise in warning and forecasting decision-making.

The new hire will be employed by CIMMS with technical oversight provided by SPC 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. This is a non-supervisory position, although the incumbent is expected to serve as a leader of scientific or technical experiments, groups, or teams; therefore strong teamwork and leadership skills are necessary. The salary for this position is competitive and will be based on experience, skills, and knowledge. Information on University benefits may be found at http://hr.ou.edu/Employees/New-Employees-at-OU/OU-Benefits-Overview.

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: GOES-R

    The University of Oklahoma is an Equal Opportunity/Affirmative Action employer.
Spring 2017 Graduate Workshops & Presentations

Jan. 18 / Criticism: Is it constructive? Giving and receiving feedback effectively
5:30 PM to 6:30 PM / Deans’ Auditorium, 2nd floor, Pfendler Hall
Offering and receiving constructive criticism effectively is an important professional skill. Attend this presentation to learn about giving and receiving critical feedback to and from peers, supervisors and supervisees.

Jan. 24 / Maintaining work-life balance in graduate school
3:30 PM to 4:30 PM / Room 105AB, Graduate Student Center / Presented by Jennifer Walsh, CAPS
“Work-life balance” isn’t a popular catchphrase or an unattainable goal. It is a necessary skill, and one you will need throughout your lifetime! Attend this presentation by Jennifer Walsh, M.A., LMHC, a Staff Therapist with CAPS, to learn how to maintain your mental, physical, personal and social health while succeeding in your academic and professional roles.

Jan. 26 / Make LinkedIn work for you!
5:30 PM to 6:30 PM / Deans’ Auditorium, 2nd floor, Pfendler Hall
Use LinkedIn to maximize your chances of career success. Attend this presentation to learn why you should be on LinkedIn, how to network with alumni and other groups, search for jobs, and get the most out of this resource.

Jan. 31 / Convert your CV into a resume
5:30 PM to 6:30 PM / Deans’ Auditorium, 2nd floor, Pfendler Hall
What are the differences between the purpose, form and content of CVs and resumes? Convert your CV into a resume, improve an existing resume, and learn about resume do’s and don’ts. Bring a copy of your document(s) to workshop or peer review.

Feb. 1 / Elevator pitch and networking
5:30 PM to 6:30 PM / Deans’ Auditorium, 2nd floor, Pfendler Hall
Attend this workshop to learn about networking strategies, how to develop your personal brand, and refine and practice your elevator pitch.

Feb. 2 / Ace your interview!
5:30 PM to 6:30 PM / PGSC Room 105AB, Graduate Student Center
Develop and refine interviewing skills, whether the interview is over the phone or Skype or in person. Learn how to prepare for it (research and strategies), and learn ideal professional etiquette during and after your interview.

Feb. 21 / Negotiation skills
5:30 PM to 6:30 PM / PGSC Room 105AB, Graduate Student Center
Attend this presentation to learn how to evaluate and negotiate an offer! Understand the evaluation and negotiation process, the critical questions to address, and possible factors for consideration as you compare offers and negotiate the terms of a job offer.
VII EARTH SCIENCES CONVENTION
EXHIBITION OF PRODUCTS, NEW TECHNOLOGIES AND SERVICES

XII Geology Congress (GEOLOGIA ’2017)
IX Geophysics Congress (GEOFISICA ’2017)
VII Mining Congress (MINERIA ’2017)
VI Oil and Gas Congress (PETROGAS ’2017)
XIII Informatics and Geosciences Congress (GEOINFO ’2017)

The Cuban Geological Society (SCG) is pleased to invite scientists, professionals, technicians and university students of Geology, Geophysics, Mining and related Geosciences, to participate in the VII Earth Sciences Convention, and Exhibition of Products, New Technologies and Services, to be held at the International Conference Center of Havana, Cuba on April 3-7, 2017.

The convention welcomes presentations about Cuba, the Caribbean and other regions or in general about the geology, geophysics and mining experiences in the search and management of natural resources, including minerals (metals, industrial), water, oil and gas, construction, earthquake research and other geohazards, education of geosciences; as well as any other related to the sustainable exploitation of natural resources.

We invite professional societies, institutions and non-government organizations to organize workshops, round tables and meetings during the Convention.

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President of the Cuban Geological Society

Dr. Manuel A. Iturralde Vinient