NSF-funded post-doc opportunity studying the effects of climate change on severe convective storms (Purdue University)

The position: The **Climate and Extreme Weather Laboratory** led by Prof. Dan Chavas, and the **Storm and Tornado Modeling Laboratory (STorMLab)** led by Prof. Dan Dawson—both in the Department of Earth, Atmospheric, and Planetary Sciences (EAPS) at Purdue University—have one **post-doctoral research scientist** position available with a tentative start date of **June 1, 2024** (some flexibility). The research project will use idealized storm-scale numerical simulations to understand how severe convective storms and their hazards will change with global warming over the United States. This position is fully funded by a National Science Foundation (NSF) grant in collaboration with Prof. Alex Anderson-Frey and her lab at the University of Washington. The candidate will lead all execution and analysis of their research, present their findings at major conferences, and publish their work in top journals in our field. The candidate will also be given freedom to spend time pursuing novel scientific interests of their own on any topic.

Research environment and career development: The candidate will work closely in a dynamic, team-oriented environment in the research labs of Profs. Chavas and Dawson and collaborators. The candidate will have opportunities for career and professional development, including presenting at conferences, publishing papers in major scientific journals, mentoring graduate and undergraduate students, and writing competitive grants.

About our groups: Society is vulnerable to a range of extreme weather phenomena, including hurricanes and tornadoes. We use observations, theory, and computer models to understand the underlying physics of these phenomena. Improved understanding will help us better predict their associated hazards that impact our world. We also continuously seek to foster a diverse and supportive culture within our research groups.

About Purdue EAPS: Purdue EAPS is a broad department with a large and vibrant group of young faculty conducting research across atmospheric and climate science, environmental science, geology and geophysics, and planetary science, including planetary atmospheres. EAPS is a leader in the study of both weather and climate, including extreme weather. Purdue University boasts one of the best collections of high-performance research computing systems in the country maintained by a strong and active computing support staff to serve all your computing needs. Purdue is also a world-class engineering and data science school with strong interdisciplinary interests in the impacts of weather and climate on the environment and society, including the Purdue Institute for a Sustainable Future.

Qualifications: The candidate is required to have a Ph.D. in atmospheric science or a closely related field or anticipate receiving their degree in the next 3 months. The candidate should have:
(1) Experience conducting research in atmospheric science or closely related field.
(2) Experience running and analyzing cloud-resolving numerical models. Experience with Cloud Model 1 (CM1) for convective storm simulations is particularly beneficial but not required.
(3) Proficient verbal and written communication skills as evidenced by published results and presentations.

To apply: Please send an email with subject line "Interest in postdoctoral opportunity on severe weather" to both Dan Chavas (dchavas@purdue.edu) and Dan Dawson (dandawson@purdue.edu) with (1) a few sentences about why you are interested in the position, (2) your CV, and (3) a list of names and contact information for three references. If you have any questions about the position/project you may also simply send us an email and we'll gladly get back to you with more information.

Thanks!

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