Postdoctoral Research Associate – WoFS-MPAS

Overview

The Cooperative Institute for Severe and High-Impact Weather Research and Operations (CIWRO) seeks to fill a Postdoctoral Research Associate position to work collaboratively with the NOAA National Severe Storms Laboratory (NSSL) in Norman, Oklahoma. This position will contribute directly to NOAA's Warn-on-Forecast (WoF) program (https://wof.nssl.noaa.gov/), housed in the National Weather Center in Norman, Oklahoma (https://www.ou.edu/nwc). A successful candidate for this position will help develop the next generation WoF system using the regional Model for Prediction Across Scales–Atmosphere (MPAS-A) dynamic core and the Joint Effort for Data Assimilation Integration (JEDI) system.

Job Responsibilities

As a CIWRO Post Doctoral Research Associate you will:

- Help improve NCAR's Model Prediction Across Scales (MPAS) dynamical core and physics configurations to optimize it for high-frequency data assimilation.
- Help create an MPAS ensemble configuration that matches or exceeds the skill of the current WRF-based system and is computationally efficient.
- Help test implementation of a JEDI-based MPAS-WoFS system.
- Serve as the lead and contributing author on scientific manuscripts for publication in peer-reviewed journals as well as present at conferences, workshops, and symposia.
- Creatively and efficiently solve scientific problems, independently and as part of the WoFS team.

Qualifications

We are looking for candidates who possess:

- A PhD in Atmospheric Science or a related field.
- Experience with atmospheric weather models or 3D computational fluid dynamics models and an understanding of atmospheric dynamics and physics.
- Strong programming skills in Fortran, shell scripting, and Python, and experience working in Linux-based high-performance computing (HPC) environments.
- Knowledge of ensemble data assimilation concepts and methods (e.g., EnKF or hybrid ensemble–variational approaches).
- Excellent written and oral communication skills, with evidence of scientific publication and presentation.
- Ability to work both independently and collaboratively as part of a multi-institution, interdisciplinary team.

Benefits and Work–Life Balance

Joining our team comes with numerous benefits, including:

- Competitive salary based on experience and comprehensive university benefits (http://hr.ou.edu/).
- Generous paid leave, encompassing 14 paid holidays and 22 hours of accrued paid time off per month.
- Reduced membership at the University of Oklahoma's state-of-the-art fitness and aquatic center (https://www.ou.edu/far).

More details about working at the University of Oklahoma, benefits packages, as well as living in Norman, Oklahoma are provided on our website: https://jobs.ou.edu/Discover-OU.

We are dedicated to promoting a healthy work–life balance by championing a flexible work culture, offering adaptable work hours and a hybrid work arrangement. This framework enables team members to navigate personal commitments while effectively contributing to their professional responsibilities.

How to Apply

Applications should be emailed to ciwro-careers@ou.edu, Attn: WoF Modeler, and include:

- A cover letter highlighting your interest in the position and describing how you meet the position qualifications,
- The names and contact information for three references
- Your résumé/CV

The cover letter must highlight your relevant qualifications and how they can contribute to the WoFS team. Applications will be accepted until the position is filled. The starting date is negotiable.

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