Postdoctoral Researcher

The Air Quality Forecasting (AQF) Lab within Department of Marine, Earth, Atmospheric Sciences, North Carolina State University (NCSU) is accepting applications for a post-doctoral research position in Atmospheric/Earth System Modeling.

The position will involve the development, application, and evaluation of Earth system models such as NCAR’s Community Earth System Model (CESM/CAM5) and its downscaling with the Weather Research and Forecast Model with Chemistry (WRF/Chem) and its variants such as WRF/Chem-MADRID or WRF-CAM5 over North America, East Asia, and subdomains focusing on representative urban airsheds. The model development may include aerosol chemistry and microphysics, aerosol-convective cloud-precipitation interactions, ice nucleation in mixed-phase and ice clouds, aerosol and meteorological and chemical data assimilation. Example model applications include long-term climate/aerosol simulations under current and future year emission/energy/climate scenarios to study the impacts of global climate changes and human-induced air pollution on the Earth system.

The successful candidate will have a recent PhD degree in atmospheric sciences and chemical/environmental engineering with a strong background in atmospheric chemistry and cloud/aerosol chemistry and microphysics. Experience in 3-D online-coupled atmospheric/Earth system modeling using CESM, WRF/Chem, WRF-/CAM5, and two-way coupled WRF/CMAQ Earth system models such as CESM as well as handling large datasets for surface networks and satellites for model evaluation is required. He/she must be very familiar with FORTRAN 90 and UNIX/Linux systems and parallel computing. Excellent oral and written communication skills are essential.

The incumbent will have opportunities to collaborate experts from various disciplines including energy, emissions, air quality, climate, hydrology and biology at NCSU, Argonne national laboratory, and Southern Research Station, USDA Forest Service. The initial appointment will be for 1 year period, with a possibility for extension of 1-2 years depending on satisfactory performance and the availability of funding. Salary is commensurate with qualification and experience. Qualified candidates should submit application materials via NCSU’s online job site: https://jobs.ncsu.edu/postings. Refer to the position number: 00102076. Required materials include cover letter containing contact address and visa status (if any), complete curriculum vitae, official copies of transcripts, statement of research interests, and names and contact information for three references and 2-5 sample publications. Review of the applications will begin immediately and will continue until the position is filled. More information on the AQF lab at NCSU can be found at http://www.meas.ncsu.edu/aqforecasting/. For technical questions regarding these positions, please contact Dr. Yang Zhang at yang_zhang@ncsu.edu.

NC State University is an equal opportunity and affirmative action employer. All qualified applicants will receive consideration for employment without regard to race, color, national origin, religion, sex, age, veteran status, or disability. In addition, NC State welcomes all persons without regard to sexual orientation. Persons with disabilities requiring accommodations in the application and interview process please call (919) 515-3148. Final candidates are subject to criminal & sex offender background checks. Some vacancies also require credit or motor vehicle checks. If highest degree is from an institution outside of the U.S., final candidates are required to have their degree verified at www.wes.org. Degree must be obtained prior to start date. NC State University participates in E-Verify. Federal law requires all employers to verify the identity and employment eligibility of all persons hired to work in the United States.