

Postdoctoral Scholar in Environmental Sciences

University of California, Riverside

We invite applications for a Postdoctoral Scholar position at the University of California, Riverside, focused on the atmospheric modeling and analysis of biomass burning emissions from prescribed fire practices. The successful candidate will join a multidisciplinary team of researchers and engineers seeking to optimize prescribed burn decision-making using a variety of techniques, including airborne and surface observations alongside integrated atmospheric and fire physics modeling. Specific goals for the modeling component of the project relevant to this position include improved model representation of physical and chemical processes related to prescribed fire and air quality (e.g. biomass burning emissions, fire plume dynamics, and secondary pollutant formation), as well as the application of these model improvements to the development of rapid response tools capable of quickly and efficiently evaluating prescribed fire air-quality risks. Expected starting date for this position is September 28, 2020.

Required qualifications for this position include:

- a PhD in chemistry, physics, engineering, atmospheric science, or other related field
- direct experience setting up and running CMAQ in a high-performance computing environment, as well as analyzing and visualizing model output
- some familiarity with Fortran coding
- computational analysis skills, including expertise in a scripting language platform such as Python, R, or MATLAB
- demonstrated success working and communicating in a team environment
- excellent communication and presentation skills
- strong scientific publication record

This postdoctoral scholar will work directly with Professor William Porter in the Department of Environmental Sciences at UC Riverside, and will collaborate with team members at the US Department of Energy National Labs, the US Forest service, and other collaborating UC schools. Responsibilities will include setting up, modifying, and running CMAQ simulations; integrating inputs from fire physics and atmospheric dynamics models; developing improved emissions, chemistry, and plume dynamics parameterizations, and disseminating results through scientific publications and presentations.

Initial appointment will be for one year and will be renewable for up to two additional years, subject to performance and availability of funding. Salary will be commensurate with qualifications and experience.

UCR is a world-class research university with an exceptionally diverse undergraduate student body. Its mission is explicitly linked to providing routes to educational success for underrepresented and first-generation college students. A commitment to this mission is a preferred qualification. UCR is an EEO/AA/ADA/Vets Employer.

To Apply: Applicants should submit a cover letter, curriculum vitae, and contact information for three references by email to Dr. William Porter at wporter@ucr.edu. Screening of applicants will begin immediately and will continue until the position is filled.