



The Combustion Institute

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Postdoctoral Appointee - Simulation of Turbulent Reacting Flow

This postdoctoral position is a temporary position for up to one year, which may be renewed at Sandia's discretion up to five additional years. The PhD must have been conferred within five years prior to employment.

Individuals in postdoctoral positions may bid on regular Sandia positions as internal candidates, and in some cases may be converted to regular career positions during their term if warranted by ongoing operational needs, continuing availability of funds, and satisfactory job performance.

We seek to hire a postdoctoral researcher in the Reacting Flow Research department. You will develop software for parallel direct numerical simulation and hybrid direct numerical simulation and large-eddy simulation of turbulent reacting flows coupled with fuel spray, soot formation and oxidation, and thermal radiation over nontrivial geometry on exascale computing platforms.

On any given day, you may be called on to:

- Collaborate with multi-disciplinary teams both within Sandia and external collaborators.
- Conduct successful research to result in impactful publications in major scientific journals and widespread recognition within the international scientific research community, as well as meaningful contributions to the long-term energy and environmental and high-performance computing mission objectives of the U.S. Department of Energy.

Department Description

Experimental and computational modeling studies of reacting flow phenomena relevant to combustion processes.

Required

- You have a PhD in engineering, computational sciences, physical sciences, mathematics, or related field.
- You have expertise in high-fidelity simulation of turbulent combustion and high-performance scientific computing.

Desired

- You have the ability to work effectively as part of an interdisciplinary research team.
- Your background is strong in numerical methods for adaptive mesh refinement and spray, soot, and radiation modeling
- You have experience in programming on graphics processing units and parallel programming models for extreme-scale hardware architectures.

Security Clearance

This position does not currently require a Department of Energy (DOE)-granted security clearance.

Combustion Job Opportunity

Sandia will conduct a pre-employment drug testing, and a pre-employment background review that includes personal reference checks, law enforcement record checks, and employment and education verifications. Further, employees in New Mexico must pass a U.S. Air Force background screen for access to the work site. Substance abuse or illegal drug use, falsification of information, criminal activity, serious misconduct or other indicators of untrustworthiness can cause access to be denied or terminated, rendering the inability to perform the duties assigned and resulting in termination of employment.

If hired without a clearance, and one subsequently becomes required or you bid on positions that require a DOE-granted security clearance, a pre-processing background review that includes personal reference checks, law enforcement record and credit checks, and employment and education verifications may be conducted prior to a required federal background investigation. Applicants for DOE-granted security clearances must be U.S. citizens and be able to obtain and maintain the appropriate DOE security clearance as required for the position.

How to Apply

https://sandia.jobs/livermore-ca/postdoctoral-appointee-simulation-of-turbulent-reacting-flow/885CF755C3294F81B5CCBA35CC548BD5/job/?utm_medium=JOBS&utm_source=CombustionInstitute&utm_campaign=DE-Pilot

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