Postdoctoral Researcher: Plasma physics and chemistry modeling for combustion

The Center for Exascale Simulation of Plasma-coupled Combustion (XPACC — http://xpacc.illinois.edu) at the University of Illinois at Urbana-Champaign seeks a Postdoctoral Research Associate in the area of Plasma physics and chemistry modeling for combustion. Specific tasks will be to

- Develop predictive capabilities for plasma-coupled ignition and combustion,
- Perform small- and large-scale numerical simulations,
- Work with a team of experimentalists to plan experiments and measurements to inform and refine the models.

Faculty working in this area within XPACC include Carlos Pantano, Marco Panesi, Jonathan Freund, and Daniel Bodony (at Illinois) and Igor Adamovich (at Ohio State University).

This is a large center-level effort, and there will be tremendous opportunities for leadership and career development within the center. There will also be opportunities for close collaborative interaction with computer scientists, computational scientists, and experimentalists, as well as the international high-performance computing community. Interest and ability to interact productively with our DOE sponsors is essential. The center also involves more senior staff-level personnel, which provides opportunities for promotion within XPACC.

XPACC researchers have access to state-of-the-art computing platforms at all DOE/NNSA labs and the Blue Waters system (https://bluewaters.ncsa.illinois.edu/) at the University of Illinois.

Applicants should have a PhD in a Mechanical or Aerospace Engineering or a related field. A competitive salary will be set in accordance with University of Illinois policy. Appointments will be for 1 year, with the possibility of renewal for additional years.

To apply, email applications in PDF format to xpacc@illinois.edu. These should include a full CV (including publications and details of graduate studies) and at least 3 references. The target start date is November 15, 2015. Please be sure to indicate the specific position to which you are applying.

Illinois is an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, religion, color, national origin, sex, age, status as a protected veteran, or status as a qualified individual with a disability. Illinois welcomes individuals with diverse backgrounds, experiences, and ideas who embrace and value diversity and inclusivity (www.inclusiveillinois.illinois.edu).

Center for Exascale Simulation
XPACC
of Plasma-Coupled Combustion