Postdoctoral Scholar Positions - CFD/Plasma Dynamics

The Center for Predictive Engineering and Computational Sciences in the Oden Institute for Computational Engineering and Sciences at the University of Texas at Austin is searching for Postdoctoral Scholars in computational fluid and plasma dynamics to join a large research project to develop high fidelity predictive simulation models of inductively coupled plasma (ICP) torches. An ICP torch presents a multi-physics modeling challenge which will require coupled solution of the compressible Navier-Stokes, Maxwell, Boltzmann and radiative transport equations. This postdoc will contribute to the development of models and algorithms for ICP torch simulation and their implementation in a finite-element-based software infrastructure. They will also participate in the verification and validation of the torch simulator, and will be part of an interdisciplinary team working at the forefront of many areas of physics, computational science, and computer science.

Knowledge of finite element and/or spectral methods and prior software experience in large-scale parallel code development, including MPI, C++, multi-threading, and git revision control are required. Applicants must have a Doctorate in Science, Engineering, Computer Science, Computational Science, Applied Mathematics, or a related technical field. Candidates with experience in simulation of fluid mechanics and/or plasma physics are preferred.

For more information about the project and team, visit pecos.oden.utexas.edu. To apply, please send a cover letter describing your interests, a CV, and a list of three references to pecos_recruit@oden.utexas.edu.

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