



Post-doctoral Research Positions Center for Hypersonics and Entry Systems Studies.

Outstanding candidates are sought for **multiple postdoctoral research positions** to simulate and model

- The unsteady, non-equilibrium flows associated with hypersonics and very high-temperature flows within inductively coupled plasma (ICP) facilities.
- The complex multi-physics coupling between the high-temperature flow and the deformations and damage taking place within ablative thermal protection systems.

Each successful candidate will use and develop state-of-the-art simulation, modeling, and data reduction tools to predict and study high-temperature flows, including but not limited to, thermal and chemical non-equilibrium, radiation, interaction with thermal protection systems, and ICP torch dynamics. The positions are open immediately and have a nominal duration of two years. The successful candidates will become part of the [Center for Hypersonics and Entry System Studies](#) and join the highly active hypersonics community at the University of Illinois at Urbana-Champaign.

Necessary Qualifications:

1. Ph.D. in Aerospace Engineering, Mechanical Engineering, Theoretical Mechanics, Physics, Applied Mathematics, or a related science and engineering field.
2. Prior experience with computational fluid dynamics, modeling of unsteady fluid dynamic systems, fluid/structure interaction, and/or nonlinear constitutive and damage modeling of complex materials.

Applications:

Applicants should send a CV with a cover letter, the names of at least two references, and a summary of recent work and interests as a single PDF document to Daniel J. Bodony, bodony@illinois.edu and Philippe H. Geubelle, geubelle@illinois.edu.

More information about the *Center for Hypersonics and Entry System Studies* and its associated research and people can be found at <https://chess.grainger.illinois.edu>. CHES facilities include the [Plasmatron-X](#), the largest ICP facility in the United States.

The University of Illinois is an Equal Opportunity, Affirmative Action employer. Minorities, women, veterans and individuals with disabilities are encouraged to apply. For more information, visit <http://go.illinois.edu/EEO>.