

Postdoctoral Associate

The University of Notre Dame, Center for Shock Wave-processing of Advanced Reactive Materials (C-SWARM), is seeking a highly qualified candidate for the postdoctoral associate position in the area of computational mechanics/physics with emphasis on chemically reactive solids. C-SWARM is center of excellence established by National Nuclear Security Administration (NNSA) whose primary focus is on the emerging field of predictive science. The main mission of C-SWARM is to predict shock conditions under which new materials can be synthesized using predictive computational models that are verified and validated with quantified uncertainty on future high-performance Exascale computer platforms.

The successful candidates will be a key part of a team that is developing and implementing adaptive, multiscale, high-performance (parallel) computational algorithms for numerical solutions of chemo-thermo-mechanical PDE's with emphasis on complex heterogeneous materials, such as heterogeneous reactive composites, etc.

Qualifications:

- Ph.D. in Mechanical Engineering, Theoretical and Applied Mechanics, Applied Mathematics, Physics or related engineering or science discipline
- Knowledge of computational nonlinear solid/fluid mechanics and/or chemical kinetics and solid-solid phase transformations
- Knowledge of numerical methods for solution of nonlinear PDEs
- Knowledge of C/C++ and UNIX operating system is required
- Experience in parallel programming

Close Date:

Review of applications will begin immediately and continue until the position is filled.

Salary:

Salary will commensurate with qualifications and experience.

Additional questions:

Contact the Center Director.

Dr. Karel Matouš

College of Engineering Collegiate Associate Professor of Computational Mechanics

Director of Center for Shock Wave-processing of Advanced Reactive Materials

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Contact:

Interested applicants should send a CV with a cover letter, names of at least three references, and a summary of recent work. All applications should be submitted electronically (paperless process) as a **single PDF document** to:

C-SWARM Program Manager

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The University of Notre Dame is an Affirmative Action, Equal Opportunity Employer.
Women and minorities are encouraged to apply.