



Joint Johns Hopkins / Army Research Lab Postdoctoral Fellowship Position

The Shields Uncertainty Research Group (SURG) in the Dept. of Civil Engineering at Johns Hopkins University (JHU) and the Computational and Information Sciences Directorate of the U.S. Army Research Laboratory (ARL) are seeking applications for the position of Postdoctoral Fellow. The postdoc will work on a collaborative effort to build novel stochastic simulation-based methodologies for advanced computational uncertainty quantification in hierarchical materials modeling. Particular areas of interest include reduced-order modeling, surrogate modeling, active learning, multi-scale and multi-fidelity modeling. Candidates must possess a Ph.D. in Civil Engineering, Mechanical Engineering, Applied Mathematics, Computational Science and Engineering or a related field. The candidate must further possess a strong working knowledge of probability theory and experience with numerical modeling of physical (preferably, but not necessarily materials) systems. Strong preference will be given to candidates with previous experience in stochastic simulation-based uncertainty quantification using, for example, advanced Monte Carlo simulations, polynomial chaos expansions, sparse-grid stochastic collocation, stochastic reduced-order models, stochastic surrogate models, or related concepts. Programming in Python will be required. Candidates should send a CV, brief (1 page) statement of research experience/interests, and contact information for 2-3 references to Prof. Michael Shields at michael.shields@jhu.edu. Priority will be given to applications received before August 1, 2018 although the position will remain open until filled.

The postdoc will be appointed through the Hopkins Extreme Materials Institute (www.hemi.jhu.edu) with an expectation that time will be shared between JHU and ARL to foster strong collaboration between the groups. JHU is located in the city of Baltimore, MD and ARL is located at the Aberdeen Proving Grounds in Aberdeen, MD. The two sites are approximately 45 mins apart. Regular travel between the two sites will be required.