Postdoctoral Position: Simulation of Materials at Extreme Conditions
Materials Simulation Laboratory, University of South Florida

A postdoctoral research associate (PDA) position is currently available in the group of Prof. Ivan Oleynik at the Materials Simulation Laboratory, University of South Florida (http://msl.usf.edu). We are looking for a creative and enthusiastic researcher with **significant expertise** in molecular dynamics (MD) simulations of materials including both classical and quantum MD. The successful candidate will develop machine-learning interatomic potentials and perform quantum-accurate machine-learning molecular dynamics simulations on exascale supercomputers to study fundamental atomic-scale materials behavior under extreme temperatures and pressures in the interiors of exoplanets, inertial confinement fusion implosions, and dynamic compression of condensed matter. The PDA will also be involved in the development of advanced materials simulation techniques and their implementation in LAMMPS, the state-of-the-art MD simulation package. The project will provide a unique experience of collaboration with several leading experimental groups.

Minimum job requirements:

- PhD in Physics, Chemistry, Materials Science or a closely related field
- Significant experience in materials simulations using LAMMPS, VASP, OVITO
- Demonstrated record of research productivity including peer-reviewed publications
- Programming experience (C++, Fortran, Python)
- Experience with running simulations on HPC systems
- Excellent oral and written communication skills, ability to work independently as well as within collaborative team environment

For full consideration, applicants must send a CV including list of publications and names of 3 references, as well as a one-page description of prior research experience to Prof. Ivan Oleynik (oleynik@usf.edu)