

Dear friends and colleagues,

We are looking for highly qualified students working in the area of computational low temperature plasma science to intern at Sandia National Labs in Albuquerque, NM. Our primary scientific goal is to understand the mechanisms of vacuum arc initiation; however, we are potentially interested in all low temperature plasma behavior. Our primary simulation tool is based on a kinetic plasma description using Particle-In-Cell (PIC) and Direct Simulation Monte Carlo (DSMC) methodologies in unstructured meshes, although extensive excursions away from basic methods are expected and encouraged. We operate in a production environment where we simulate complex plasma devices in real 3D geometries using leading edge massively parallel computing resources and tool chain.

We are interested in students with the following skills (the more the better):

- Particle-in-Cell (PIC) simulation methodology
- Low temperature plasmas
- Use of high performance computing (HPC)
- Development and implementation of parallel algorithms
- Verification and validation techniques for stochastic codes

Internships typically occur over summers but other schedules can also be accommodated.

The ability to obtain a Department of Energy security clearance is required for these positions, which normally requires United States citizenship.

Please contact Matt Hopkins, mmhopki@sandia.gov, 505-284-6376, to apply (e-mail introduction with CV) or for more information.