Project Title:
Modeling and Simulations of Plasma-Surface Interactions

Hosting Site:
CFD Research Corporation
Huntsville, AL
http://www.cfdrc.com/

Project Description:
Understanding plasma-surface interactions is important for many plasma technologies. Electrode erosion by cathodic arcs and sparks, laser ablation, plasma-liquid interfaces are examples of current research conducted at CFDRC. CFDRC is seeking a summer intern with good knowledge of or willing to learn programming languages to contribute to the development of plasma simulation codes or with skills to apply available software packages for multi-physics modeling and simulations of plasma interactions with surfaces. The intern will work closely with researchers from CFDRC and other EPSCoR institutions to conduct computer simulations, analyze the obtained results, and compare these results with experimental observations.

Some background knowledge of plasma physics and computer simulations is a plus. The intern will learn how to use computer simulations for understanding the physics of plasma interactions with surfaces. Some level of qualification is required in programming, visualization & data exploitation on Linux and Windows platforms. Work experience with MS Office applications for reporting and presentation preparation is required.

Disciplines:
Gas Discharge Physics, Computational Plasma Science, Electrical and Computer Engineering

Mentor(s):
Dr. Robert Arslanbekov, rra@cfdrc.com, 256-726-4808
Dr. Vladimir Kolobov, vik@cfdrc.com, 256-726-4847

The name and contact information of personnel at the hosting site is provided for further assistance with questions regarding the hosting site or the project.

Interns will not enter into an employee/employer relationship with the Hosting Site. No commitment with regard to later employment is implied or should be inferred.