

PHD STUDENTSHIPS IN CONDENSED MATTER THEORY/MODELING UNIVERSITY OF SOUTH FLORIDA

Applications are invited for several PhD research studentships in computational condensed matter & materials physics in the group of Prof. I. Oleynik in the Physics Department at the University of South Florida. Successful candidates will work on one of several exciting research projects in the following areas: first-principles theory of tunneling in condensed matter and molecular systems, atomistic modeling of matter at extreme conditions and nanostructured materials.

We are seeking bright, creative and highly motivated individuals with solid theoretical background in physics, chemistry, materials science or closely related fields with genuine interest to conduct interdisciplinary research in a close collaboration with experimentalists. You will obtain a practical experience in electronic structure theory including density functional theory, tight-binding, molecular dynamics, empirical potentials, and novel theoretical methods such as Green's function theory of tunneling and analytic bond order potentials. Our activities rely heavily on using computers. Therefore, you will acquire strong programming skills and knowledge of advanced large scale parallel computations. This unique combination of skills will open up exceptional employment opportunities at academia, industry and national laboratories in the areas of computational condensed matter & materials physics, and nanotechnology.

You will be working in intellectually stimulating and supportive environment that will help you to succeed in your learning and research endeavors. Additional possibilities to gain teaching experience exist for individuals interested in pursuing career in academia. The University of South Florida is located in Tampa, Florida, which is consistently rated as one of the best major metropolitan areas for quality of life, vibrant arts, and cultural, recreational and outdoor opportunities. You will also be offered a generous stipend.

Applicants should have a good bachelor's or master's degree in physics, chemistry or related subjects. They should send curriculum vitae, a statement of career goals and general research interests, and names, phone numbers and e-mail addresses of two references to Prof. Ivan Oleynik at oleynik@shell.cas.usf.edu. You are also welcome to email informal inquiries. Additional information about research activities can be found at <http://shell.cas.usf.edu/~oleynik/>.