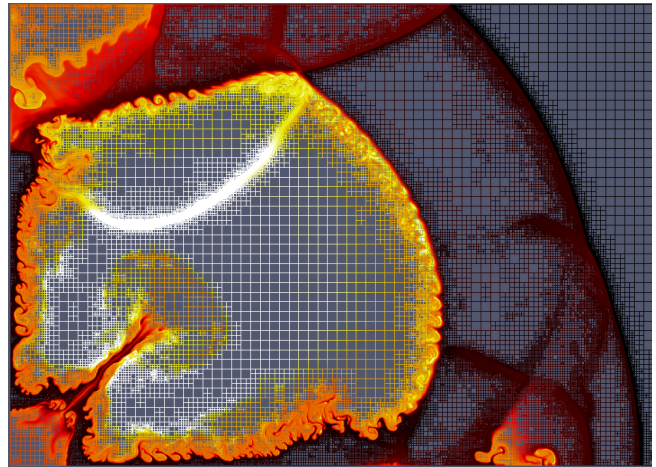# Skoltech
Skolkovo Institute of Science and Technology

Research Scientist and PhD Positions

The Skoltech Center for Materials Technologies (CMT) Moscow, Russia has an open full time Research Scientist/Postdoctoral position in the research group of Professor Oleg V. Vasilyev, in the area of

Multi-Scale/Multi-Physics Modeling and Simulation of Complex Flows.

Research Scientist

We are looking for a Research Scientist with PhD or equivalent degree in Applied Mathematics, Computer Science, Physics, Mechanical Engineering, Aeronautics, or the related field with expertise in computational fluid mechanics and/or high-performance scientific computing. The successful candidate will work with the team of research scientists, software engineers and PhD students to develop novel computationally efficient variable fidelity approaches for predictive modeling and simulation of complex multi-scale multi-physics flows. The key ingredient is the tight integration of numerical solvers and physics-based modeling within a next-generation parallel adaptive wavelet environment capable to identify dynamically dominant structures, resolve and track them on a space-time adaptive mesh, while modeling the effect of the unresolved motions using the compatible multi-resolution approaches.

Candidates are expected to have a strong background in computational fluid mechanics and/or applied mathematics. Solid knowledge of C++ is also required. The balance of work between theoretical and computational as well as flow physics to be modeled will depend on the candidate's strengths and preferences. Good communication skills and English proficiency are required. Previous experience working with parallel research codes is essential.

Selected applicants will receive a highly competitive compensation package (salary commensurate with experience, housing allowance in case relocation will be needed, medical insurance).

The application file should contain a CV, a list of publications, a research statement, and names with contact information of minimum three references. The research statement should be no more than two pages and should summarize the candidate's technical strengths, past research accomplishments, research interests, and long-term career objectives. The application should be emailed to Prof. Oleg V. Vasilyev (*O.Vasilyev@skoltech.ru*). The candidate's e-mail message should contain "Postdoc position in multi-scale/multi-physics modeling" in the subject.

Ph.D. Student

Graduate students interested in pursuing Ph.D. studies in the above topics are advised to first contact Prof. Oleg V. Vasilyev (*O.Vasilyev@skoltech.ru*). The standard procedure is to apply via Skoltech Admissions for Doctoral Programs (http://www.skoltech.ru/en/apply).

Successful candidates are expected to have M.Sc. or equivalent degree in Applied Mathematics, Computer Science, Physics, Mechanical Engineering, Aeronautics, or the related field. Applicants should have a strong theoretical background and a desire to use mathematical and computational tools in their research. A good knowledge of C++ is highly desirable.

http://faculty.skoltech.ru/people/olegvasilyev