Overview:

Computational simulation of fluid flow, often referred to as Computational Fluid Dynamics (CFD), plays a vital role in the design of numerous complex systems, including aircraft, cars, ships, and wind turbines. We are working to develop a new generation of CFD technology, that can perform high-fidelity time-dependent simulations of unsteady turbulent flows on a range of hardware architectures - up to and including the world’s biggest supercomputers.

The current project will continue development of this technology within the PyFR (www.pyfr.org) framework, and apply it to a range of industrially relevant flow problems. There will be opportunity for travel and interaction with a world leading team of project partners, both in the UK and USA.

Prerequisites:

Candidates should have, or expect to obtain, a strong undergraduate degree in a quantitative discipline e.g. a 1st Class degree in Physics, Computer Science, Aeronautics, or Mathematics. Previous programming experience is important (ideally Python, C++ and CUDA). The candidate should also have an interest in fluid dynamics and aerospace applications.

Apply:

To apply for the position please send a cover letter, and CV to Dr Peter Vincent (p.vincent@imperial.ac.uk) with the subject line ‘PhD Studentship - Developing a New Generation of High-Fidelity Computational Fluid Dynamics Solvers’.

Closing date for applications: Open until filled

Start Date: 1st Oct 2018

Committed to equality and valuing diversity. We are also an Athena Bronze SWAN Award winner, a Stonewall Diversity Champion and a Two Ticks Employer.