

FULLY-FUNDED PHD STUDENTSHIP - FLUID DYNAMICS

Department of Mechanical Engineering

The University of Sheffield, United Kingdom



The student will join a team of other researchers working on wall-bounded flow problems within the Department of Mechanical Engineering.

Topic of research: The overall aim is to develop a new flow control method to stabilize aerodynamic boundary-layer flows at high speed. The applications of this control strategy include supersonic and hypersonic vehicles and high-speed wind tunnels. The objective is to delay the instability of the boundary layer to achieve a transition delay and friction drag reduction. This project offers the unique opportunity to develop strong skills in viscous fluid mechanics, numerical methods, and applied mathematics. The research project will be supervised by Dr Pierre Ricco.

Duration: 3 years.

Nationality The studentship is available for UK or European Union citizens.

Education A good 4-year degree or Master degree in Mechanical, Aeronautical, Civil, Chemical Engineering, Applied Mathematics or Physics.

Knowledge, skills

Fluid mechanics; desirable: wall-bounded shear flows, aerodynamics.

Numerical analysis, in particular Computational Fluid Dynamics.

Good programming skills in C, Fortran, or any other high-level language.

Desirable: final-year project on a fluid mechanics problem.

Other requirements

Unique self-motivation and passion for research in fluid mechanics.

Excellent communication of research results and writing skills.

Deadline: until position is filled.

APPLY HERE

You are welcome to get in touch, expressing your interest and sending your CV to:

Pierre Ricco

Senior Lecturer in Fluid Mechanics

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The University of Sheffield

Email: p.ricco@sheffield.ac.uk