RESEARCH ASSOCIATE POSITION IN FLUID DYNAMICS

Department of Mechanical Engineering

The University of Sheffield, United Kingdom

The candidate will join a team of other researchers working on the instability and control of wall-bounded flows within the Department of Mechanical Engineering. More information about our research work can be found here:
Dr Pierre Ricco's website: http://www.pierre-ricco.co.uk.

We are looking for a hardworking and skilled researcher to work on an exciting project in the field of stability and transition of aerodynamic boundary layers. You will join an established group working at the forefront of fluids physics and engineering in the Department of Mechanical Engineering at the University of Sheffield. Your standing and approaches will further strengthen our strong international research profile and our reputation for novel, research-led teaching. The project will require theoretical and numerical analysis of high-speed transitional flows by use of a range of Navier-Stokes solvers. It will involve extensive collaboration with foreign partners.

Key objectives will be the physical understanding of each stage of the process of transition to turbulence, from inception of the flow disturbances to the fully developed regime, and the development of engineering tools that will be useful in industrial applications. In-house codes will be used and expanded. The results will be presented at the most meaningful international conferences and workshops and will be disseminated in the most relevant archival journals in the field of fluid mechanics.

Background and skills: You should have a good honours degree (or equivalent experience) and a PhD (or be close to completion) in theoretical and numerical fluid mechanics, preferably in the field of boundary-layer theory and simulation of flow stability (or have equivalent experience). You should also have high-calibre publications in the best archival journals in the field of fluid mechanics. High-level scientific computing is also a required asset, while advanced mathematical techniques, such as matched asymptotic expansions and multiple scale analysis, are a desired part of the candidates background. The candidate will possess outstanding written and oral communication skills in English.

Duration: 3 years, starting on 3rd February 2020.

Nationality The position is open to all nationalities.

Deadline: 15 November 2019.

For informal discussion and questions please contact:

Pierre Ricco
Senior Lecturer in Mechanical Engineering
Department of Mechanical Engineering, The University of Sheffield
Email: p.ricco@sheffield.ac.uk

Apply here:
https://www.jobs.ac.uk/job/BWB438/research-associate-in-fluid-mechanics