Post Doc in Computational Mathematics With Focus on Stable Methods for Multi-Phase Flows

Closing date: 10 January 2024

If you have a keen interest in computational mathematics, join our international-award winning initiative. The Industrial Computational Fluid Dynamics Research Group (InCFD) specializes in developing state-of-the-art modelling software for industry.

The research involves the development and programming of numerical methods to enable accurate and efficient modelling of LH2 storage during flight. The emphasis of the work is on developing provably stable high order methods for multi-phase flow. Specifically, the work will employ the summation-by-parts (SBP) framework and be done in close collaboration with Prof. Jan Nordström at the Dept. of Mathematics at Linköping University and University of Johannesburg. Funding will be made available for travel and accommodation in both Linköping (Sweden) and Johannesburg.

Requirements:

- PhD thesis submitted for examination/awarded in Continuum Mechanics or Applied Mathematics.
- PhD graduates must have graduated with their doctoral degree within four (4) years.
- The Fellowship is for one year at R350,000 per annum and includes access to our world class CFD lab and computing facilities + funding to travel to Linkoping and Johannesburg.
- Continuation for a second and third year is based on performance.
- Research to commence by no later than 1 March 2024.
- International applicants welcome.

Please send a letter of application together with your CV and all academic publications to arnaud.malan@uct.ac.za. Also please include names and email addresses of at least two academic referees with whom you have worked. Shortlisted applicants will be contacted by 15 January'24. UCT reserves the right not to appoint.