UNIVERSITY OF LIEGE - To start NOW

Deadline Feb the 15th, 2019

POSTDOC (m/f) - Physics of fluids - Experimentalist - 2 years contract

Context

WOLFLOW: Wrapping Objects with Liquid Flows by Lifting them Out of their Wakes

When an object is pulled out of a pool of fluid, it entrains a certain quantity of fluid that eventually drains down. The crossing of an object through a fluid interface is of particular importance, not only from a fundamental point of view, but also for many applications that imply coating processes. This project thus aims to build the bridge between the motion of the object in the fluid and the drainage mechanism when the object is out of the fluid. Its originality lies in the integrated analysis of the three steps of the process, i.e., the crossing of the interface, the liquid entrainment, and the film drainage along the object, which are all transient phenomena. Each of these steps is related to fundamental questions that must be addressed in order to unravel the whole process. Hence this project articulates along three main questions that are related to these three steps:

CROSSING - How can we describe a body crossing a fluid-fluid interface?

ENTRAINMENT - Can we predict the amount of fluid that is entrained by the object?

DRAINAGE - How quickly and homogeneously does the liquid drain out?

Job Description

The job consists in:
1. setting up the experimental part (the equipment is already available)
2. obtaining and interpreting the experimental data
3. interacting with the two collaborating teams and running numerical codes
(Benoit Scheid, ULB and Vincent Terrapon ULiège)

Profile : PhD in Physics and in situation of international mobility (the candidate was not in Belgium more than 2 years for the last 3 years)

Data analysis, open minded, taste for prototyping (3D printer, laser cutter...), no fear for interfacing devices (basics), programming,.

Language: Proficient written and spoken English is mandatory

Apply to: S.Dorbolo@ULiege.be +CV+motivation letter+ names of 2 reference persons