

Applied Maths & Fluid Mechanics Summer Internship

Schlumberger is the world's leading supplier of oilfield technology. At Schlumberger's Cambridge Research Center we undertake research in a variety of topics including fluid mechanics.

What are we looking for?

Ideally you will have completed Part III or II of the Mathematical Tripos and be looking to broaden your perspective of mathematical modelling. You will have skills in differential equations, fluid mechanics, asymptotic analysis and programming.

What will you be working on?

Drilling, cementing and fracturing are some of the processes which happen in the creation of an oil well. Each of these steps involves pumping fluids with non-standard rheology in pipes and annular geometries in a variety of flow regimes. Models of these steps are used to replicate the oil well in lab experiments and make predictions for the design of actual oil wells. This summer project will involve developing a model of fluid flow in an oil well which captures the impact of changes in well geometry and variations in fluid rheology. The student will need to develop analytical solutions and run pre-existing numerical codes to investigate the controlling mechanisms.

The work will be supervised by Harvey Williams and Sean Lovett at Schlumberger, with input from Eric Lauga.

Benefits

Include: Competitive Salary; Subsidised accommodation (if applicable); Assistance with travel costs (if applicable); Onsite Café; Free beverages, fruit and other food; Lunch time sports and Employee events.

How to apply:

For further information, please contact: Eric Lauga (e.lauga@damtp.cam.ac.uk), Harvey Williams (HWilliams3@SLB.com), or Sean Lovett (SLovett@SLB.com).