

Experimental and Numerical Studies of Fluid Properties and Measurements
Faculty advisor: Prof. David James

The following projects are available to interested M.Eng. students:

Measuring the relaxation time of viscoelastic liquid, using a variety of techniques and instruments.

Preparing and characterizing a water-based ideally elastic liquid having a high viscosity.

Numerical simulation of a sphere in an unbounded creeping flow of a Newtonian fluid, to find the drag.

Numerical simulation of an isolated circular cylinder in a creeping flow of a Newtonian fluid, to find the drag.

Design of a miniature flow cell which simultaneously measures the density, viscosity and surface tension of a liquid sample.