



# Non-Newtonian Club 2025

Constitutive Modelling and Flow Transitions in  
Complex Fluids:

Bridging Fundamentals and Applications

**University of Liverpool,  
Friday 5<sup>th</sup> September**

## Key Topics

- Advances in constitutive equation development and model validation,
- Experimental characterisation of flow transitions and instabilities,
- Industrial case studies where rheological modelling has informed design or process optimisation,
- Emerging approaches in data-driven modelling and hybrid frameworks that integrate machine learning with physical insight.

## Invited Speakers

**Dr Andrew Clarke**

SLB Cambridge Research

**Dr Chris Ness**

University of Edinburgh

## Special Session

Tour of the Materials Innovation Factory – a state-of-the-art facility for advanced materials excellence and expertise.

To contribute an oral or poster presentation, please submit a title and 200 word abstract to Dr Rishav Agrawal (R.Agrawal@liverpool.ac.uk) by **Friday 25th July 2025**.