

IChemE Fluid Mixing Process SIG Annual Student Research Event

Thursday 23rd April 2026

Joe Biddlestone Lecture Theatre (Room 124) School of Chemical Engineering,
University of Birmingham, B15 2TT

AGENDA

All presentations are for 20 minutes plus 10 minutes of questions

09:30	Registration and coffee	
09:45	Introduction and welcome	Prof Mark Simmons (Chair FMP)
10:00	Track me if you can: a novel approach to flow visualisation	George Truc University of Birmingham
10:30	Engineering constraints on transient transfection scale-up across stirred-tank and rocking bioreactor platforms	Laia Miranda University College London
11:00	Knowledge-guided symbolic regression and model-based design of experiments for accelerating formulated product process development and scale-up	Alexander Rogers University of Manchester
11:30	Coffee and posters	
12:00	Flow and power analysis of a helical ribbon mixed high throughput testing system for lamellar gel network formulations	Aled Williams University of Birmingham
12:30	A novel data-driven framework for predicting formulation mixing process performance	Sam Kay University of Manchester
13:00	Characterisation of the Xcellerex™ X-platform reactor: insights from the novel 6B-R50 impeller and vortex formation	C. Aleu Heredia University College London
13:30	Lunch and posters	ALL
14:15	Prize announcements	
14:30	Meeting closes	

POSTERS

A hybrid RANS-LES approach for CFD modelling of transitional flow of non-Newtonian fluids in stirred tanks

Rob Leaney

University of Birmingham

CFD analysis of pressure generation in non-Newtonian soap extrusion: a comparative study of single & twin screw systems

Fawad Ahsan

University of Sheffield