

第262回GMSI公開セミナー／第85回CIAiSセミナー／第7回iFSセミナー

# A fundamental approach to modelling multiphase flows

## Dr. Lachlan Mason

Department of Chemical Engineering  
Imperial College London

**Date: Wednesday, 23 May 2018, 11:00-12:00**  
**Venue: Faculty of Engineering Bldg. 2, 3F, 31B**



### Abstract:

Multiphase flows are central to many manufacturing and processing technologies, with applications spanning material science and biomedical settings. Due to computational limitations, the dynamics of ‘real-life’ systems are challenging to simulate, and the use of empirical correlations remains the norm. This seminar will summarise efforts to develop truly predictive numerical tools that can be used as a sound basis for design. The framework features massively parallel front-tracking and multiphysics methods and is cable of being coupled to novel surrogate models for exploiting advances in machine learning.

### Biography:

Lachlan Mason is a postdoctoral researcher at Imperial College London. He holds a PhD in chemical engineering from the University of Melbourne. Research and development work from this seminar was undertaken in collaboration with the Matar Fluids Group, the Priestley Polymer Laboratory at Princeton University and the Alan Turing Institute, London.