

Monday 8

11.30

WELCOME RECEPTION

Room L5, Mathematical Institute, Andrew Wiles Building

12.00

RESEARCH ADVANCES 1

Introduced by Chris BREWARD

Rubens ROSARIO FERNANDEZ (CAMBRIDGE)

Modelling the cleaning of viscoplastic soil layer by coherent impinging liquid jets

ALEX JENKINS (SELLAFIELD LTD.)

Whirling and swirling pipe cleaning methods

RAJESH KUMAR (CAMBRIDGE)

Some insight into the origin of the thin film hydraulic jumps

13.00

Lunch in N4.01 (Boardroom)

14.00

PLENARY 1 *Chaired by Ian GRIFFITHS*

Gareth MORRIS (DYSON LTD.)

Aerosol charge analysis of high-performance separation systems

14.45

Coffee break and POSTER PRESENTATIONS

15.15

RESEARCH ADVANCES 2

Introduced by Mohit DALWADI

Ellen LUCKINS (OXFORD)

Homogenisation of models for reactive decontamination in porous media

Oliver WHITEHEAD (OXFORD)

Modelling decontamination of two-dimensional spills

Cameron HALL (BRISTOL)

Residue removal by surface reactions: theory and experiments

Alexandra TZELLA (BIRMINGHAM)

An introduction (5 minutes)

16.30

PLENARY 2 *Chaired by Ian GRIFFITHS*

Enrique RUIZ-TREJO (SMART SEPARATIONS)

Microfiltration with Smart Separations Membranes

17.15 FINISH

19.30 DINNER AT ST ANNES COLLEGE

POSTER PRESENTATIONS

Georgina CUCKSTON (CAMBRIDGE)

Dynamic gauging for studying rapidly swelling or shrinking layers

Saeed MAZINANI (BATH)

3D-Printed Fouling-resistance Composite Membranes

Mubbashar MEHMOOD (HERIOT-WATT UNIVERSITY)

Experimental study of the coupling mechanism of kinetic and thermal impacts of Rayleigh SAW on microdroplet

Martin PORCHERON (NOTTINGHAM)

RoboClean: Human Robot Collaboration for Allergen-Aware Factory Cleaning

Billy Seng Hoe HUE (UCL)

Non-Newtonian Multiphase Displacement in Microchannels

Tuesday 9

9.30 RESEARCH ADVANCES 3

Chaired by **Julien LANDEL**

Arnot TILLOY (MANCHESTER)
Cleaning contaminant drops in narrow gaps and cracks using advection-diffusion mass transfer: theory and experiments

Ian GRIFFITHS (OXFORD)
Water purification for developing countries

Binan GU (NEW JERSEY INSTITUTE OF TECHNOLOGY)
SNetwork theory for filtration

10.30
Coffee break and POSTER PRESENTATION

11:00
PLENARY 3 Chaired by **Mohit DALWADI**

John CHEW (BATH)
3D Printed Fouling-resistant Composite Membrane

11.45 RESEARCH ADVANCES 4

Chaired by **Ian WILSON**

Kris KIRADJIEV (OXFORD)
Modelling purification of flue gas in porous catalytic media

Joy MUKHERJEE (SHEFFIELD) & Hamza MOHAMED (PERLEMAX LTD.)
Advanced biofilm removal mediated by targeted microbubbles generated by fluidic oscillation

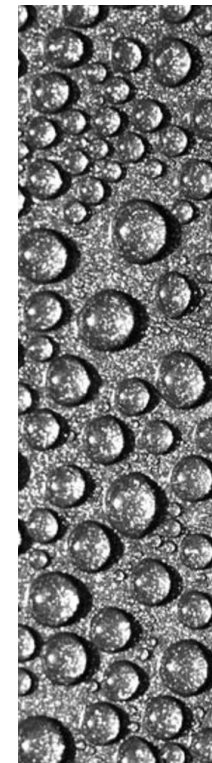
Antonio D'AMMARO (BEKO PLC.)
A few cleaning challenges in domestic appliances

Sepideh KHODAPARAST (IMPERIAL COLLEGE LONDON)
Hydrodynamics of cleaning

13.00
Lunch in N4.01 (Boardroom)

14:00
SUMMARY OF SIG ACTIVITIES & FORWARD LOOK
Chaired by **Julien LANDEL**

14.45 FINISH



8 - 9 July 2019, Mathematical Institute

Fluid Mechanics of Cleaning and Decontamination

ORGANISED BY

CHRIS BREWARD
MOHIT DALWADI
IAN GRIFFITHS
JULIEN LANDEL
IAN WILSON

