

Sunday - Aug 30, 2026, Aug 30, 2026

11:00 - 12:00

Registration open

The Stables Club

12:00 - 17:30

Excursion to the Cliffs of Moher - Departure from the Stables

Optional excursion to the Cliffs of Moher - Departure from The Stables Participation fee: €55 One of Ireland's favourite visitor experiences, the Cliffs of Moher tower over the rugged West Clare coast. Walk the safe, paved pathways and view the famous Cliffs on Europe's western frontier and enjoy the spectacular vistas over the Atlantic Ocean and the Aran Islands.

18:30 - 22:00

Welcome Reception & BBQ at The Stables

The Stables Club

Registration at the Stables from 18:00

08:00 - 08:15

Registration and Coffee/tea

08:15 - 08:30

Conference opening and welcome by Prof. Sarah Hudson and Prof. Harry Van den Akker

Prof. Sarah Hudson, Director Bernal Institute, University of Limerick
Prof. Harry Van den Akker, Bernal Professor of Fluid Mechanics, Bernal Institute, University of Limerick

08:30 - 09:10

Keynote lecture by Federico Alberini

Speakers

Federico Alberini, Associate Professor, University Of Bologna Department Of Industrial Chemistry Toso Montanari

Moderators

Joëlle Aubin, TOULOUSE INP - LGC

Bridging Academic and Industrial Perspectives Through the MIXING of Experimental Techniques and Methodologies for Complex-System Characterization
The mixing of complex fluids and multiphase systems are at the heart of many industrial processes, yet their characterization remains one of the most challenging tasks in chemical and process engineering. This lecture explores how the integration of experimental techniques and methodologies can provide a deeper understanding of complex flow phenomena while addressing both academic and industrial needs. The role of experimental data as a critical asset for process development, model validation, and scale-up is discussed, highlighting the complementary perspectives of research institutions and industry. A range of state-of-the-art measurement approaches, including Particle Image Velocimetry (PIV), Positron Emission Particle Tracking (PEPT), Electrical Resistance and Capacitance Tomography (ERT/ECT), and Passive Acoustic Emission (PAE), will be presented through practical case studies. Particular attention is devoted to the challenges associated with dispersed-phase characterization, non-transparent systems, and large-scale operations. The impact of measurement scale on representativity, resolution, and reproducibility is examined, together with the growing role of computational tools and digitalization. The lecture concludes by emphasizing that effective characterization of real systems requires the convergence of multiple techniques, interdisciplinary expertise, and strong collaboration between academia and industry.

09:15 - 10:15

Session 1 - Theme: Experimental Techniques & Results (1)

Speakers

Marc Tusenko, PTM GmbH

Darius Khoshdel, EngD Student, Formulation Engineering CDT

Jason Giacomelli, Philadelphia Mixing Solutions/ITT FLOW

Moderators

Adam Kowalski, Unilever

Hydrodynamic Optimization of a Propeller Mixer for Wastewater Treatment: Combined CFD Simulation and Experimental Validation via PIV and ERT

09:15 - 10:15

Presented by:

Marc Tusenko, PTM GmbH

Power, Flow Field and Mixing Time Analysis of Dual-Shaft, Turbine-Anchor Stirred Tanks for Newtonian Fluids in the Transitional Regime

09:15 - 10:15

Presented by:

Darius Khoshdel, EngD Student, Formulation Engineering CDT

Energy Balance Approach to Modeling Immiscible Liquid Draw Down in Stirred Tank Reactors with Multiple Up-Pumping Impellers

09:15 - 10:15

Presented by:

Jason Giacomelli, Philadelphia Mixing Solutions/ITT FLOW

10:15 - 10:40

Coffee/tea break

10:40 - 12:40

Session 2 - Theme: Experimental Techniques & Results (2)

Speakers

Yoshiyuki Komoda, Associate Professor, Kobe University
Gustavo Padron, Senior Technical Consultant, Framatome Ltd.
Cormac Ryan, Research Engineer, SPXFLOW
Christopher Staeglich, TU Dresden
Lukas Buntkiel, Research Associate , HZDR
Amol Joshi, Bernal Institute, University Of Limerick, Ireland
Kunihiko Matsumura, Senior Researcher, Kobe University

Moderators

Ville Alopaeus, Aalto University

Dramatic improvement in mixing performance due to rotational reciprocation of anchor impellers

10:40 - 12:40

Presented by:

Yoshiyuki Komoda, Associate Professor, Kobe University

Gas-Induced Liquid Phase Blending

10:40 - 12:40

Presented by:

Gustavo Padron, Senior Technical Consultant, Framatome Ltd.

Gassed Power for Single Radial Impellers in Stirred Tanks: A Mechanistic Approach

10:40 - 12:40

Presented by:

Cormac Ryan, Research Engineer, SPXFLOW

Hydrodynamic investigation of CMC solution in a stirred tank reactor with Lagrangian Sensor Particles for validation of Euler-based CFD studies

10:40 - 12:40

Presented by:

Christopher Staeglich, TU Dresden
Lukas Buntkiel, Research Associate , HZDR

Improving Gas-Liquid Mass Transfer under Vacuum Surface Evaporation in Large Stirred

10:40 - 12:40

Presented by:

Kunihiko Matsumura, Senior Researcher, Kobe University

Antisolvent Precipitation of Lipid Nanoparticles: Influence of Device Design and Micro-mixing

10:40 - 12:40

Presented by:

Amol Joshi, Bernal Institute, University Of Limerick, Ireland

12:40 - 14:00

The Pavilion

Lunch

14:00 - 14:45

Keynote Nin Yang

Speakers

Ning Yang, Professor, Institute Of Process Engineering, Chinese Academy Of Sciences

Moderators

Claudio P. Fonte

Mesoscale Modeling of Multiphase Flows in Stirred Tanks and Rotor-Stator Devices

Multiphase flows in stirred tanks and rotor-stator devices are characterized by complex interactions across multiple scales, from molecular-level interfacial phenomena to device-scale turbulence. Accurate prediction of key performance parameters, such as gas holdup, flow regime transition, and droplet size distribution, remains a significant challenge for conventional CFD models. This talk presents a mesoscale modeling framework that bridges the gap between sub-grid interfacial physics and macroscopic transport phenomena. We first evaluate the role of drag models in gas-liquid stirred tanks, demonstrating that the dual-bubble-size (DBS) drag models, rooted in the Energy-Minimization Multi-Scale (EMMS) concept, significantly improve predictions of flow regimes and gas dispersion compared to classical or turbulence-corrected drag models. The formation of secondary liquid circulation near the free surface is shown to be closely linked to non-uniform gas holdup, underscoring the importance of mesoscale constraints. Extending to liquid-liquid emulsification in rotor-stator devices, we integrate the EMMS approach into CFD-population balance modeling (PBM) to derive a breakage rate corrector without empirical fitting. This corrector, which increases with rotational speed and dispersed phase fraction, enables accurate prediction of droplet size distribution, Sauter mean diameter, and span for surfactant-free systems. Finally, we address the second mesoscale-emulsifier adsorption at droplet interfaces through coarse-grained molecular dynamics (CGMD). By coupling CGMD-derived adsorption parameters (maximum adsorption density, diffusion coefficient, kinetic constants) with surfactant transport equations in CFD-PBM, we develop a unified model that captures the inhibition of coalescence due to interfacial coverage. This cross-scale coupling, from molecular adsorption to device-scale turbulence, represents a paradigm shift toward predictive emulsification modeling. Overall, this talk highlights the necessity and significance of crossing two distinct mesoscales-interfacial and device-level-to achieve a complete, parameter-free description of gas-liquid and liquid-liquid flows in mixing systems.

14:45 - 15:45

Session 3 - Theme: Computational Fluid Dynamics (1)

Speakers

Harry E. A. Van Den Akker, Bernal Institute, University Of Limerick, Ireland

Orest Shardt, University Of Limerick

Jingchang Zhang, Institute Of Process Engineering Chinese Academy Of Sciences

Moderators

Francois Bertrand, Polytechnique Montreal

Novel approaches to Two-Fluid models using Lattice Boltzmann method

00:00 - 23:00

Presented by:

Harry E. A. Van Den Akker, Bernal Institute, University Of Limerick, Ireland

A Free-Energy Lattice Boltzmann Model for Solute Transport in Bubbly Flows

00:00 - 23:00

Presented by:

Orest Shardt, University Of Limerick

GPU-Accelerated LBM-LES Simulation for Turbulent Mixing and Liquid-Liquid Dispersion in Stirred Tanks

00:00 - 23:00

Presented by:

Jingchang Zhang, Institute Of Process Engineering Chinese Academy Of Sciences

15:45 - 16:10

Coffee/tea break

16:10 - 17:30

Session 4 - Theme: Computational Fluid Dynamics (2)

Speakers

Inês Oliveira, Faculty Of Engineering Of The University Of Porto

Antonio Buffo, Politecnico Di Torino, Department Of Applied Science And Technology

Georgina Wadsley, Process Engineer, Unilever

Eva Rütten, PhD Candidate, Karlsruhe Institute Of Technology

Moderators

Jérôme MORCHAIN, TBI

Effect of Non-Newtonian fluids on flow behavior in Confined Impinging Jets mixers

16:10 - 17:30

Presented by:

Inês Oliveira, Faculty Of Engineering Of The University Of Porto

Fast population balance predictions of drop size distributions in stirred tanks using turbulent dissipation rate statistics

16:10 - 17:30

Presented by:

Antonio Buffo, Politecnico Di Torino, Department Of Applied Science And Technology

CFD-informed model development linking geometry to power constants in inline high-shear mixers

16:10 - 17:30

Presented by:

Georgina Wadsley, Process Engineer, Unilever

Bridging the Gap: From CFD-Based Cavitation Insights to Process Efficiency in High-Pressure Homogenization

16:10 - 17:30

Presented by:

Eva Rütten, PhD Candidate, Karlsruhe Institute Of Technology

17:30 - 18:00

Winner of the EFCE Young Researcher Award in Mixing 2026 - Ernest Simon

Speakers

Ernest Simon, Post-doc, TBI

Moderators

Giuseppina Montante, Professor Of Chemical Engineering, University Of Bologna

Experimental study of laminar flow of non-Newtonian fluid in a mixing tank through 4D-LPT (3D time resolved Lagrangian Particle Tracking)

17:30 - 18:00

Presented by:

Ernest Simon, Post-doc, TBI

18:00 - 19:30

Poster viewing session, complimentary drinks served

Poster room

Speakers

YUNDONG WANG, Professor In Chemical Engineering, Tsinghua University

Hanna Ekelund, PhD Candidate, Lund University

Laura Lenters, Research Assistant, Hochschule Niederrhein

Kimiya Ramezani, PhD Student At The University Of Manchester, University Of Manchester

Robert Leaney, University Of Birmingham

Julia Werner, Research Assistant, Bb Med. Product GmbH/ Universität Duisburg-Essen

Rowan Meacher, University Of Birmingham

Martina Lo Chiano, Understanding Polymer Dissolution: Studying The Impact Of Hydrodynamics At Different Scales, IPEN

Rufat Abiev, Department Head Of Optimization Of Chemical And Biotechnological Equipment, Saint Petersburg State Institute Of Technology (Technical University)

Laura Caboni, Pfizer

Tomáš Jirout, Profesor, Head Of Department, Vice-dean For R&D, Czech Technical University In Prague, Faculty Of Mechanical Engineerig, Department Of Process Engineering

Fan Xu, Institute Of Process Engineering Chinese Academy Of Sciences

Tamao Yoshinaga, Master's Student, Yokohama National University

Radek Šulc, Researcher, Czech Technical University In Prague, Faculty Of Mechanical Engineering, Department Of Process Engineering

Svenja Schramm, Laboratory Engineer, University Of Applied Sciences Niederrhein, Faculty Of Chemistry

Antoni Rożej, Assistant Professor, Warsaw University Of Technology

Isabelle Barth, Umwelt-Campus Birkenfeld

Magdalena Jasińska, Warsaw University Of Technology

Taichi Hayabara, Master's Student, Kobe University

Jingchang Zhang, Institute Of Process Engineering Chinese Academy Of Sciences

Aled Williams, Formulation Engineering CDT (University Of Birmingham) And Unilever.

Ömer Gürçay, Process R&D Lab Project Manager, Kansai Altan Boya Sanayi Ve Ticaret A.Ş.

Arvid Kraus, Fraunhofer ITWM

Robert Demyanovich, RJD Technologies

Riccardo Pellicari, PhD Student - University Of Bologna - Industrial Chemistry, Università Degli Studi Di Bologna

Till Lenczyk, Hamburg University Of Technology, Institute Of Process Imaging

George Truc, University Of Birmingham

Rupak Kumar, Bernal Institute, University Of Limerick, Ireland

Md Readul Mahmud, Associate Professor , Independent University, Bangladesh

Ville Alopaeus, Aalto University

Shreyasi Deshpande, University Of Birmingham

Haruki Furukawa, Assistant Professor, Nagoya Institute Of Technology

Andreas Håkansson, Senior Lecturer, Lund University

Seitaro Kato, D2, Nagase & Co., Ltd. / Tokyo University Of Science

Ernest Simon, Post-doc, TBI

Laura Cullen, PhD Student, University Of Porto

Soontaree Intasa-ard, Sumitomo Heavy Industries (Thailand) Ltd.

Louis Fradette, Polytechnique Montreal

Joao Pedro Ciriaco Rodrigues, CEA, DES, ISEC, DMRC, Univ. Montpellier, Marcoule, France

Ning Yang, Professor, Institute Of Process Engineering, Chinese Academy Of Sciences

Nicolas Nickel, Hamburg University Of Technology, Institute Of Multiphase Flows

Parinaz Makhtoumi, University Of Alberta

Ghazaleh Mirakhori, Engineering Scientist , Coanda Research And Development

Mirella Coroneo, Research Scientist, The Dow Chemical Company

Naoto Ohmura, Professor, Kobe University

Kevin Moroney, Associate Professor, University Of Limerick

KATSUhide TAKENAKA, Engineering Vice Manager, Sumitomo Heavy Industries Process Equipment Co., Ltd.

JIA Xiangru, Ecole Centrale De Lille

Jannis Juchmann, Research Assistant, University Of Applied Sciences Niederrhein, Faculty Of Chemistry

N. Gul Ozcan-Taskin, Senior Lecturer, Loughborough University

Join us for the Poster Viewing Session, where innovative research and practical developments in mixing science take centre stage. This informal session offers an excellent opportunity to meet poster presenters, discuss their work in detail and exchange ideas with fellow delegates from academia and industry. A selection of complimentary drinks will be served throughout the session, creating a relaxed atmosphere for networking and scientific discussion. We encourage all participants to visit the posters, engage with the authors and make the most of this interactive part of the conference. Whether you are presenting a poster or simply exploring the latest research, we look forward to welcoming you to an inspiring evening of science, collaboration and conversation.

Comparative Dispersion Protocols for an Antimicrobial Coating Additive

18:00 - 19:30

Presented by:

N. Gul Ozcan-Taskin, Senior Lecturer, Loughborough University

Oxygen Mass Transfer Intensification in Stirred Tank Reactors: Pilot-to-Industrial Scale Evaluation

18:00 - 19:30

Presented by:

Nicolas Nickel, Hamburg University Of Technology, Institute Of Multiphase Flows

Particle Settling Dynamics in Bingham Fluids

18:00 - 19:30

Presented by:

Parinaz Makhtoumi, University Of Alberta

Enhancing Mixing Efficiency in Taylor-Couette Reactor via Vertically Asymmetric Rough Walls

18:00 - 19:30

Presented by:

Fan Xu, Institute Of Process Engineering Chinese Academy Of Sciences

A new drag model for CFD simulation of gas-liquid flow in stirred tanks

18:00 - 19:30

Presented by:

Ning Yang, Professor, Institute Of Process Engineering, Chinese Academy Of Sciences

Pickering emulsions used as an efficient separation process for rare earth minerals

18:00 - 19:30

Presented by:

Louis Fradette, Polytechnique Montreal

Prediction of droplet breakage in a stirred tank using a reduced PBM: sensitivity to CFD simulation strategies

18:00 - 19:30

Presented by:

Joao Pedro Ciriaco Rodrigues, CEA, DES, ISEC, DMRC, Univ. Montpellier, Marcoule, France

Scale-up of liquid-liquid break-up and coalescence in pipelines: Dynamic evolution of the chord length distribution

18:00 - 19:30

Presented by:

Ghazaleh Mirakhori, Engineering Scientist , Coanda Research And Development

Scale-Up Challenges in Mixing Highly Filled Polyurethane Systems

18:00 - 19:30

Presented by:

Mirella Coroneo, Research Scientist, The Dow Chemical Company

Mesoscale modeling of emulsification in rotor-stator devices

18:00 - 19:30

Presented by:

Ning Yang, Professor, Institute Of Process Engineering, Chinese Academy Of Sciences

Flow pattern at Laminar Regime with low viscosity fluid

18:00 - 19:30

Presented by:

KATSUhide TAKENAKA, Engineering Vice Manager, Sumitomo Heavy Industries Process Equipment Co., Ltd.

Numerical investigation of stirring hydrodynamics in a small-scale crystallizer

18:00 - 19:30

Presented by:

Kevin Moroney, Associate Professor, University Of Limerick

Slug-Induced Stabilization of Taylor Vortex Flow in a Continuous Taylor–Couette Reactor

18:00 - 19:30

Presented by:

Naoto Ohmura, Professor, Kobe University

Power Consumption of Multistage Disk Turbine in Commercial Scale Gas-Liquid Stirred-Reactor

18:00 - 19:30

Presented by:

Soontaree Intasa-ard, Sumitomo Heavy Industries (Thailand) Ltd.

Baffled Micro-Fluidized Beds for Improved Gas–Solid Mixing: Slug Suppression and Operating Window Expansion

18:00 - 19:30

Presented by:

JIA Xiangru, Ecole Centrale De Lille

Numerical CFD Modelling of Mixing-Controlled Fast Chemical Reactions in NETmix Reactors

18:00 - 19:30

Presented by:

Laura Cullen, PhD Student, University Of Porto

Back-Mixing Identification in a Rotary Disc Contactor for Liquid--Liquid Systems Using CFD and Tracer Pulse Tests

18:00 - 19:30

Presented by:

Ville Alopaeus, Aalto University

Journey of a Single Droplet Inside a Vortex-based Cavitation Device: A Coupled LES-VOF-DPM Study

18:00 - 19:30

Presented by:

Rupak Kumar, Bernal Institute, University Of Limerick, Ireland

Track me if you can: A Novel Approach to Flow Visualisation

18:00 - 19:30

Presented by:

George Truc, University Of Birmingham

Bridging Process Understanding and Control: ERT-Based Monitoring of Aluminium Adjuvant Dynamics Across Scales in Pharmaceutical Formulation Tanks

18:00 - 19:30

Presented by:

Riccardo Pellicari, PhD Student - University Of Bologna - Industrial Chemistry, Università Degli Studi Di Bologna

Seeing Inside Stirred Tanks: MRI Insights into Multiphase Hydrodynamics

18:00 - 19:30

Presented by:

Till Lenczyk, Hamburg University Of Technology, Institute Of Process Imaging

PIV studies into the effect of fluid rheology and impeller geometry on the flow fields generated by sawtooth impellers

18:00 - 19:30

Presented by:

Shreyasi Deshpande, University Of Birmingham

Design and Simulation of 2D and 3D Hexagonal Micromixer

18:00 - 19:30

Presented by:

Md Readul Mahmud, Associate Professor , Independent University, Bangladesh

3D time resolved characterization of turbulent flow of water in a mixing tank: a comparative study of 4D-LPT (3D time-resolved Lagrangian Particle Tracking) with LES (Large Eddy Simulation)

18:00 - 19:30

Presented by:

Ernest Simon, Post-doc, TBI

Development of a Theoretical Correlation for Mixing Time in the Well-Mixed Region

18:00 - 19:30

Presented by:

Haruki Furukawa, Assistant Professor, Nagoya Institute Of Technology

Deformation-Based Evaluation of High-Viscosity Mixing in a Twin-Screw Mixer: Experimental Validation with MPFI Simulations

18:00 - 19:30

Presented by:

Seitaro Kato, D2, Nagase & Co., Ltd. / Tokyo University Of Science

Flow and Power Analysis of a Helical Ribbon Mixed High Throughput Testing System for Lamellar Gel Network Formulations

18:00 - 19:30

Presented by:

Aled Williams, Formulation Engineering CDT (University Of Birmingham) And Unilever.

Hydrodynamics and quality of micromixing in microreactors with intensively swirled flows – a comparison with radial liquid inlet

18:00 - 19:30

Presented by:

Rufat Abiev, Department Head Of Optimization Of Chemical And Biotechnological Equipment, Saint Petersburg State Institute Of Technology (Technical University)

Mechanistic Insights into Plant Cell Structure Disintegration During High-Pressure Homogenization

18:00 - 19:30

Presented by:

Andreas Håkansson, Senior Lecturer, Lund University

Droplet Breakage Kernels and Dynamic Interfacial Tension in a Stirred Tank

18:00 - 19:30

Presented by:

YUNDONG WANG, Professor In Chemical Engineering, Tsinghua University

Beyond Interfacial Tension: Elastic Effects in Turbulent Emulsion Formation in Rotor-Stator Mixers

18:00 - 19:30

Presented by:

Hanna Ekelund, PhD Candidate, Lund University

The Effect of Mixing on Particle Size and Shape Distributions in Batch Cooling Crystallization: An Experimental Study

18:00 - 19:30

Presented by:

Kimiya Ramezani, PhD Student At The University Of Manchester, University Of Manchester

Modelling of single-phase non-Newtonian fluids in stirred tanks in the transitional flow regime

18:00 - 19:30

Presented by:

Robert Leaney, University Of Birmingham

Impact of rheology on the digital optimisation of mixing in soap manufacture

18:00 - 19:30

Presented by:

Rowan Meacher, University Of Birmingham

Understanding polymer dissolution: studying the impact of hydrodynamics at different scales

18:00 - 19:30

Presented by:

Martina Lo Chiano, Understanding Polymer Dissolution: Studying The Impact Of Hydrodynamics At Different Scales, IFPEN

NOVEL CENTRIFUGAL-PULSED IMPELLERS: INVESTIGATION OF MASS TRANSFER AND HYDRODYNAMICS

18:00 - 19:30

Presented by:

Rufat Abiev, Department Head Of Optimization Of Chemical And Biotechnological Equipment, Saint Petersburg State Institute Of Technology (Technical University)

Hydrodynamic Optimization of Tubular Photobioreactors Using Static and Dynamic Mixers

18:00 - 19:30

Presented by:

Tomáš Jirout, Profesor, Head Of Department, Vice-dean For R&D, Czech Technical University In Prague, Faculty Of Mechanical Engineering, Department Of Process Engineering

Feasibility study on the development, design and characterisation of novel bionic-based whale-fin agitators and their comparison with conventional stirrers

18:00 - 19:30

Presented by:

Jannis Juchmann, Research Assistant, University Of Applied Sciences Niederrhein, Faculty Of Chemistry

Regulating Mixing Efficiency in Taylor-Couette Reactors: The Role of Gap Width

18:00 - 19:30

Presented by:

Fan Xu, Institute Of Process Engineering Chinese Academy Of Sciences

Coupled CFD-PBM Analysis of Draft Tube Crystallizer for Promoting Crystal Agglomeration

18:00 - 19:30

Presented by:

Tamao Yoshinaga, Master's Student, Yokohama National University

Hydrodynamics in slurry bubble column reactor for Fischer-Tropsch synthesis

18:00 - 19:30

Presented by:

Radek Šulc, Researcher, Czech Technical University In Prague, Faculty Of Mechanical Engineering, Department Of Process Engineering

Design and characterization of hollow-shaft stirrers to optimize heterogeneously catalyzed reactions in stirred-tank reactors

18:00 - 19:30

Presented by:

Svenja Schramm, Laboratory Engineer, University Of Applied Sciences Niederrhein, Faculty Of Chemistry

A Hybrid Model of Molecular-Scale Mixing with Chemical Reaction in a Chaotic Advection Tubular Mixer

18:00 - 19:30

Presented by:

Antoni Rożeń, Assistant Professor, Warsaw University Of Technology

Influence of stirrer geometry on fungal morphology

18:00 - 19:30

Presented by:

Isabelle Barth, Umwelt-Campus Birkenfeld

Process intensification in the novel reactor for gas-liquid processes

18:00 - 19:30

Presented by:

Rufat Abiev, Department Head Of Optimization Of Chemical And Biotechnological Equipment, Saint Petersburg State Institute Of Technology (Technical University)

Investigation of Aeration in Mechanically Stirred Bioreactors for Microbial Growth and PHA Production

18:00 - 19:30

Presented by:

Magdalena Jasińska, Warsaw University Of Technology

A novel closure model for the diazo-coupling reaction to investigate mixing in rotor-stator high-shear devices operating in the turbulent flow regime

18:00 - 19:30

Presented by:

Magdalena Jasińska, Warsaw University Of Technology

Hydrodynamics-Induced Fine Particle Separation Using a Parallel Paddle Impeller and Perforated Partition Plate

18:00 - 19:30

Presented by:

Taichi Hayabara, Master's Student, Kobe University

Eulerian-Lagrangian simulation of dispersed liquid flow in turbulent stirred tanks

18:00 - 19:30

Presented by:

Jingchang Zhang, Institute Of Process Engineering Chinese Academy Of Sciences

Blending Characteristics of Batch Rotor-Stators

18:00 - 19:30

Presented by:

Aled Williams, Formulation Engineering CDT (University Of Birmingham) And Unilever.

A NOVEL DESIGN OF HIGH SHEAR IMPELLER AND COMPARISON OF IMPELLERS ACCORDING TO THEIR HOMOGENIZATION CAPABILITIES

18:00 - 19:30

Presented by:

Ömer Gürçay, Process R&D Lab Project Manager, Kansai Altan Boya Sanayi Ve Ticaret A.Ş.

Investigation of Micro- and Mesomixing in a Reaction Mixing Pump and Jet loop Reactor

18:00 - 19:30

Presented by:

Arvid Kraus, Fraunhofer ITWM

08:00 - 08:15

Registration and morning coffee

08:15 - 08:55

Keynote lecture: Ozcan-Taskin

Speakers

N. Gul Ozcan-Taskin, Senior Lecturer, Loughborough University

Moderators

Tomáš Jirout, Profesor, Head Of Department, Vice-dean For R&D, Czech Technical University In Prague, Faculty Of Mechanical Engineering, Department Of Process Engineering

08:55 - 10:15

Session 5 - Theme: Suspensions, slurries, emulsions (1)

Speakers

Sahil Sood, University Of Alberta

Wolfgang Keller, Head Of R&D, EKATO RMT

Imran Shah, Saskatchewan Research Council Pipe Flow Technology Centre

Sam Hare, University Of Birmingham

Moderators

Yoshiyuki Komoda, Associate Professor, Kobe University

Rethinking Flocculation Scale-Up: The Average Shear Rate Fallacy

08:55 - 10:15

Presented by:

Sahil Sood, University Of Alberta

HYDRODYNAMIC OPTIMIZATION OF AN IMPELLER - THE EPAL 3

08:55 - 10:15

Presented by:

Wolfgang Keller, Head Of R&D, EKATO RMT

Progress on Measuring the Yield Stress of Non-Newtonian Slurries with Coarse Particles Using an Instrumented Mixing Setup

08:55 - 10:15

Presented by:

Imran Shah, Saskatchewan Research Council Pipe Flow Technology Centre

DEM Simulations of the dry mixing of NMC 622 lithium-ion battery cathodes

08:55 - 10:15

Presented by:

Sam Hare, University Of Birmingham

10:15 - 10:40

Coffee/tea break

10:40 - 12:40

Session 6 - Theme: Suspensions, slurries, emulsions (2)

Speakers

Sean Sanders, Professor , University Of Alberta

Rita Branco, INP Toulouse - LGC

Filip Randák, Czech Technical University In Prague, Faculty Of Mechanical Engineering

Nida Sheibat-Othman, CNRS Director Of Research, Université Claude Bernard Lyon 1, CNRS, LAGEPP

Dimas Tiar Wicaksono, PhD Student, Loughborough University

Marcel Suhner, Global Product Expert Mixing & Reaction Technology, Sulzer Chemtech Ltd.

Moderators

Antonio Buffo, Politecnico Di Torino, Department Of Applied Science And Technology

Particle Suspension and Mechanisms in Continuous Oscillatory Baffled Reactors

10:40 - 12:40

Presented by:

Rita Branco, INP Toulouse - LGC

Volume fraction distributions of individual particle species in bi-disperse liquid-solid mixed batches using new measuring method based on Electrical Resistance Tomography (ERT)

10:40 - 12:40

Presented by:

Filip Randák, Czech Technical University In Prague, Faculty Of Mechanical Engineering

Double Emulsion Preparation in Open-Cell Solid Foams: Hydrodynamics and droplet breakage investigations

10:40 - 12:40

Presented by:

Nida Sheibat-Othman, CNRS Director Of Research, Université Claude Bernard Lyon 1, CNRS, LAGEPP

Advancing Static Mixer Design for Gas Scrubbing: Integrating Experimental Testing, CFD, and Data Analytics

10:40 - 12:40

Presented by:

Marcel Suhner, Global Product Expert Mixing & Reaction Technology, Sulzer Chemtech Ltd.

TOWARDS SUSTAINABLE CROP PROTECTION THROUGH PROCESS INTENSIFICATION: EMULSIFICATION OF A PLANT-BASED OIL

10:40 - 12:40

Presented by:

Dimas Tiar Wicaksono, PhD Student, Loughborough University

Measurement of Just-Suspended speed (Njs) For Concentrated Suspensions

10:40 - 12:40

Presented by:

Sean Sanders, Professor , University Of Alberta

12:40 - 14:00

The Pavilion

Lunch

14:00 - 14:40

Winner of the 2026 Alvin & Helen Nienow Lifetime Recognition Award in Mixing / Keynote #4

Speakers

Hugh Stitt, Johnson Matthey

Moderators

Giuseppina Montante, Professor Of Chemical Engineering, University Of Bologna

The Alvin and Helen Nienow Lifetime Recognition Award in Mixing is a triennial award presented to a senior researcher or industrial engineer from an EFCE member country in recognition of an outstanding and sustained contribution to mixing science, technology and practice.

Of Mix and Men

14:00 - 14:40

Presented by:

Hugh Stitt, Johnson Matthey

14:40 - 15:40

Session 7 - Theme: Mixing & Processes (1)

Speakers

Francois Bertrand, Polytechnique Montreal

Jocelyn Doucet, Fluidmapper

Margarida Brito, Universidade Do Porto - Faculdade De Engenharia

Moderators

Luis Sierra, Organon

Digital Twins : a Mix of Synergistic Experimental Data-Driven and Computational Approaches for a Better Blend

14:40 - 15:40

Presented by:

Francois Bertrand, Polytechnique Montreal

Accelerating Multiphase Reactor Development using RPT-AI based Digital Twins

14:40 - 15:40

Presented by:

Jocelyn Doucet, Fluidmapper

Reconstruction of flow in Confined Impinging Jet configurations using Deep Learning based on Proper Orthogonal Decomposition

14:40 - 15:40

Presented by:

Margarida Brito, Universidade Do Porto - Faculdade De Engenharia

15:40 - 16:00

Coffee/tea break

16:00 - 18:00

Session 8 - Theme: Mixing & Processes (2)

Speakers

Asif Shaik, PhD Student, Hamburg University Of Technology

Vaishnavi Honavar, Postdoctoral Research Assistant, Bernal Institute, University Of Limerick, Ireland

Laura Cullen, PhD Student, University Of Porto

Ryuta Misumi, Associate Professor, Yokohama National University

Kimiya Ramezani, PhD Student At The University Of Manchester, University Of Manchester

Jörn Villwock, Postdoctoral Researcher, Technische Universität Berlin, Chemical And Process Engineering

Moderators

Margarida Brito, Universidade Do Porto - Faculdade De Engenharia

Recurrence CFD for Rapid Mixing Time Prediction in Stirred Tank Reactors: Experimental Validation and Parametric Analysis

16:00 - 18:00

Presented by:

Asif Shaik, PhD Student, Hamburg University Of Technology

NETmix Crystalliser Design: Assessing the Effect of Injection Chamber Position on Micromixing

16:00 - 18:00

Presented by:

Laura Cullen, PhD Student, University Of Porto

Turbulent Mixing in Neutralization Reaction with Jet in a Semi-Batch Stirred Tank

16:00 - 18:00

Presented by:

Ryuta Misumi, Associate Professor, Yokohama National University

Investigations of Micromixing and Mass Transfer Effects in Precipitation of Porous Silica Nanoparticles

16:00 - 18:00

Presented by:

Vaishnavi Honavar, Postdoctoral Research Assistant, Bernal Institute, University Of Limerick, Ireland

The Effect of Mixing on the Evolution of Particle Size Distribution of Batch Crystallization Processes

16:00 - 18:00

Presented by:

Kimiya Ramezani, PhD Student At The University Of Manchester, University Of Manchester

Model-based process control for optimal operation of liquid/liquid mixer-settler systems

16:00 - 18:00

Presented by:

Jörn Villwock, Postdoctoral Researcher, Technische Universität Berlin, Chemical And Process Engineering

18:30 - 22:00 *Buses leave for Conference Dinner, Dunraven Arms, Adare*

08:00 - 08:15

Registration and morning coffee

08:15 - 08:55

Keynote lecture: Michael Schlüter

Speakers

Michael Schlüter, Professor, Head Of Institute Of Multiphase Flows, Hamburg University Of Technology

Moderators

Alain Liné, Toulouse Biotechnology Institute

08:55 - 10:15

Session 9 - Theme: Bioreactors and Bioprocesses (1)

Speakers

Mohammadjavad Zeinali, Assistant Professor Of Digital Manufacturing, University College Dublin

Ramon Van Valderen, PhD Student, Delft University Of Technology

Francesco Maluta, University Of Bologna Department Of Industrial Chemistry Toso Montanari

Richard LaRoche, CEO, Rwanika-LaRoche LLC

Moderators

Martina Micheletti, Professor, UCL

A CFD study of vortex shape and power characteristics in stirred bench-top reactors

08:55 - 10:15

Presented by:

Mohammadjavad Zeinali, Assistant Professor Of Digital Manufacturing, University College Dublin

CFD-DEM characterization of a 250 mL stirred tank bioreactor for shear-sensitive stem-cell microcarrier cultures

08:55 - 10:15

Presented by:

Ramon Van Valderen, PhD Student, Delft University Of Technology

Flow decomposition and free-surface dynamics in a single-use stirred tank

08:55 - 10:15

Presented by:

Francesco Maluta, University Of Bologna Department Of Industrial Chemistry Toso Montanari

Smarter Mixing With Less Iteration: AI-Augmented Modeling to Reduce Power and Shear in Aerobic Bioreactors

08:55 - 10:15

Presented by:

Richard LaRoche, CEO, Rwanika-LaRoche LLC

10:15 - 10:40

Coffee/tea break

10:40 - 13:00

Session 10 - Theme: Bioreactors and Bioprocesses (2)

Speakers

Laia Miranda Garrido, UCL

Cristina Aleu Heredia, UCL

Joëlle Aubin, TOULOUSE INP - LGC

Benjamin Casale, TBI

Hector Maldonado De Leon, PhD Candidate, Delft University Of Technology

Moderators

Mark Simmons, University Of Birmingham

Engineering constraints on transient transfection scale-up across stirred-tank and rocking bioreactor platforms

10:40 - 13:00

Presented by:

Laia Miranda Garrido, UCL

Characterisation of the Xcellerex™ X-platform reactor: insights from the novel 6B-R50 impeller and vortex formation

10:40 - 13:00

Presented by:

Cristina Aleu Heredia, UCL

Hydrodynamics and mixing performance in a high frequency vibromixer

10:40 - 13:00

Presented by:

Joëlle Aubin, TOULOUSE INP - LGC

Investigation of spatial and microbial population heterogeneities in bioreactors through a coupled CMA-Monte-Carlo approach

10:40 - 13:00

Presented by:

Benjamin Casale, TBI

Bridging CFD and Kinetics: Lessons learned from dynamic Compartment-Model Surrogates

10:40 - 13:00

Presented by:

Hector Maldonado De Leon, PhD Candidate, Delft University Of Technology

12:40 - 13:00

Closure of the Conference

Speakers

Harry E. A. Van Den Akker, Bernal Institute, University Of Limerick, Ireland

13:10 - 14:25

Lunch

The Pavilion

