

UK FLUIDS CONFERENCE 2026
Tuesday 8 – Thursday 10 September 2026
University of Leeds

PROGRAMME (subject to change)

TUESDAY 8 SEPTEMBER 2026		
08:15 – 09:30	Registration and coffee in Parkinson Court	
09:30 – 09:45	INTRODUCTION AND WELCOME Rupert Beckett Lecture Theatre, Michael Sadler Building	
Tuesday 09:45 – 10:30	SESSION 1 Rupert Beckett Lecture Theatre, Michael Sadler Building	
	Paper 1.1	PLENARY 1 Droplet dynamics in the presence of gas nanofilms: merging, wetting, bouncing & levitation <i>Professor James Sprittles, University of Warwick</i>
10:30 – 10:45	Group photograph on the Parkinson Steps	
10:45 – 11:15	Refreshments, posters and exhibition in Parkinson Court	
	PARALLEL SESSIONS 2 TO 4	
Tuesday 11:15 – 13:15	SESSION 2 – INS: Fluid dynamic instabilities, transition and turbulence 1 Rupert Beckett Lecture Theatre, Michael Sadler Building	
	Paper 2.1	Minimal seeds in the stokes boundary layer <u>Tom Eaves</u> <i>University of Dundee, UK</i>
	Paper 2.2	Resonant triad interactions of free-surface gravity waves in a seaworld <u>Matthew Durey</u> , <u>Emilian I. Părău</u> , <u>Paul A. Milewski</u> <i>University of Glasgow, UK; University of East Anglia, UK; Pennsylvania State University, USA</i>
	Paper 2.3	Resonant triad interactions of gravity waves in variable-depth containers <u>Jie Yang</u> , <u>Katarzyna Kowal</u> , <u>Matthew Durey</u> <i>University of Glasgow, UK</i>
	Paper 2.4	Optimised body force for horizontal heated pipe flow <u>Shijun Chu</u> , <u>Elena Marensi</u> , <u>Ashley Willis</u> <i>Université Côte d'Azur, France; University of Sheffield, UK</i>
	Paper 2.5	Heat transport in rotating, sheared convection <u>Paraskevi Katsiavria</u> <i>Durham University, UK</i>
Tuesday 11:15 – 13:15	SESSION 3 – AER: Aerodynamics, aeroelasticity and aeroacoustics 1 Room LG10, Michael Sadler Building	
	Paper 3.1	An experimental investigation on the performance of vortex generators under gust conditions on NACA 63-618 <u>Jan Modrzyński</u> <i>Swansea University, UK</i>
	Paper 3.2	Vortex formation in small-scale vertical axis wind turbines <u>Anushka Goyal</u> , <u>Hulya Biler</u> , <u>Sjouke Schekman</u> , <u>Michael Atkins</u> , <u>Neil Cagney</u> , <u>Kshitij Sabnis</u> <i>Queen Mary University of London, UK; University of the Witwatersrand, South Africa</i>
	Paper 3.3	Effect of discrete and continuous gusts on tandem propeller-wing systems <u>Morgan Lobb</u> , <u>Aron Finnemore</u> , <u>Xia Yuying</u> , <u>Ye Yuan</u> , <u>Michelle Westin</u> , <u>Alper Celik</u> <i>Swansea University, UK; University of Glasgow, UK; Embraer, Brazil</i>
	Paper 3.4	Experimental investigation of the aerodynamic response of side-by-side propellers to discrete gusts in axial flight <u>Aron Finnemore</u> <i>Swansea University, UK</i>
	Paper 3.5	Aerodynamic effects of freestream turbulence on a propeller in edgewise flight <u>Efe Sen</u> , <u>Chaitanya Paruchuri</u> , <u>Bharathram Ganapathisubramani</u> <i>University of Southampton, UK</i>
	Paper 3.6	Turbulent boundary layer response to spanwise-periodic impulsive roughness <u>Zefanya Bramantasaputra</u> , <u>Dea Wangsawijaya</u> , <u>Bharath Ganapathisubramani</u> <i>University of Southampton, UK</i>

Tuesday 11:15 – 13:15	SESSION 4 – FRE: Free surface and multiphase flows 1 Room LG19, Michael Sadler Building	
	Paper 4.1	Contact transfer of liquids between impermeable rigid surfaces: effect of gravity <u>George Fortune</u> , Georgia Ioannou, Merlin Etzold, Julien Landel, Stuart Dalziel <i>University of Cambridge, UK; Defence Science and Technology Laboratory, UK; University Claude Bernard Lyon 1, France</i>
	Paper 4.2	Influence of surface wettability and fluid properties on liquid bridge evolution and transfer ratios <u>Georgia Ioannou</u> , George Fortune, Merlin Etzold, Julien Landel, Stuart Dalziel <i>University of Cambridge, UK; Defence Science and Technology Laboratory, UK; University Claude Bernard Lyon 1, France</i>
	Paper 4.3	Evaporation of a sessile droplet into a confined atmosphere <u>Caroline Purvis</u> , Stephen Wilson, Jennifer Tweedy <i>University of Bath, UK</i>
	Paper 4.4	The effect of contact-line motion on the deposition of particles from an evaporating sessile droplet <u>Stephen Wilson</u> , Hannah D'Ambrosio, Alexander Wray <i>University of Bath, UK; University of Glasgow, UK; University of Strathclyde, UK</i>
	Paper 4.5	Evaporation of a rivulet on an inclined substrate with variation transverse to the direction of flow <u>Fryderyk Tomczyk</u> , Alexander Wray, Stephen Wilson <i>University of Strathclyde, UK; University of Bath, UK</i>
	Paper 4.6	The effect of capillary forces on lubricated viscous gravity currents <u>Hannah-May D'Ambrosio</u> , Katarzyna Kowal <i>University of Glasgow, UK</i>
13:15 – 14:00	Lunch, posters and exhibition in Parkinson Court	
	PARALLEL SESSIONS 5 TO 7	
Tuesday 14:15 – 16:15	SESSION 5 – INS: Fluid dynamic instabilities, transition and turbulence 2 Rupert Beckett Lecture Theatre, Michael Sadler Building	
	Paper 5.1	Investigating cooling strategies in hypersonic boundary layer flow using DNS <u>Raahil Sanjay Nayak</u> <i>Sheffield Hallam University, UK</i>
	Paper 5.2	Hydrodynamic characterisation of flow over inclined deep cavities <u>Morgan Taylor</u> , Murilo Cicolin, John Lawson, Bharath Ganapathisubramani <i>University of Southampton, UK</i>
	Paper 5.3	Unsteady foil interactions with free stream turbulence <u>Mohammad Mustafa Khan</u> <i>University of Southampton, UK</i>
	Paper 5.4	Centrifugal instability of compressible flows <u>Serguei Komissarov</u> <i>University of Leeds, UK</i>
	Paper 5.5	Stability of combined steady-plus-oscillatory flow past a circular cylinder <u>Geng Chen</u> , Lian Gan, Philip Gaskell <i>Durham University, UK</i>
	Paper 5.6	Resolvent analysis of strongly stratified flows with arbitrary equations of state <u>Dongdong Xu</u> , Benjamin Bugeat <i>University of Leicester, UK</i>

Tuesday 14:15 – 16:15	SESSION 6 – AER: Aerodynamics, aeroelasticity and aeroacoustics 2 Room LG10, Michael Sadler Building	
	Paper 6.1	Experimental investigation of the aerodynamic wake characteristics of active front wings <u>Thomas Lemmon</u> <i>Swansea University, UK</i>
	Paper 6.2	Comparative study of wing-wake interactions across butterfly species Arjun Shergill, Somnath Roy, Chandan Bose <i>University Of Birmingham, UK; IIT Kharagpur, India</i>
	Paper 6.3	Aerodynamic performance of x-wing tail unmanned aerial vehicle (UAV): analytical and ANN solution integration <u>Suhaib Shbailat</u> <i>Al- Nahrain University, Iraq</i>
	Paper 6.4	Effect of gust magnitude on pigeon flight response <u>Charles Proe</u> <i>Swansea University, UK</i>
	Paper 6.5	Resonance to rest: transfer-function modelling of impulsive lift responses with structural resonance Christian Toma, Bharath Ganapathisubramani, Sean Symon <i>University of Southampton, UK</i>
	Paper 6.6	Slow and steady doesn't always win: energetic benefits of aerofoil manoeuvres <u>Bailey McAtee</u> , Sergio Araujo-Estrada, Bharath Ganapathisubramani <i>University of Southampton, UK</i>
Tuesday 14:15 – 16:15	SESSION 7 – FRE: Free surface and multiphase flows 2 Room LG19, Michael Sadler Building	
	Paper 7.1	Beyond Saffman-Taylor: viscous fingering of free-surface flows <u>Katarzyna Kowal</u> <i>University of Glasgow, UK</i>
	Paper 7.2	Revisiting the role of solutal-Marangoni flow and liquid-liquid interactions in the spreading of evaporating binary droplets <u>Mohammad Abo Jabal</u> , Ekhlās Homede <i>Shenkar College of Engineering, Design and Art, Israel; (The Institute of Applied Research, The Galilee Society, Israel)</i>
	Paper 7.3	Circular hydraulic jumps under microgravity <u>Arnab Mallik</u> <i>University of Cambridge, UK</i>
	Paper 7.4	The interaction of a microfluidic jet with a water-oil interface <u>Lewis Phillips</u> <i>University of Manchester, UK</i>
	Paper 7.5	Galloping bubbles <u>Jian Hui Guan</u> , Saiful Tamim, Connor Magoon, Xinyun Liu, Howard Stone, Pedro Saenz <i>University of Hull, UK; University of North Carolina at Chapel Hill, USA; Princeton University, USA</i>
16:15 – 16:45	<i>Refreshments, posters and exhibition in Parkinson Court</i>	
Tuesday 16:45 – 17:25	SESSION 8 – UKFN Thesis Prize Lecture Rupert Beckett Lecture Theatre, Michael Sadler Building	
	Paper 8.1	Elasto-inertial instabilities and turbulence in Taylor Couette flows <u>Theofilos Boulafentis</u> <i>University College London, UK</i>
Tuesday 17:25 – 18:00	POSTER FLASH PRESENTATIONS Rupert Beckett Lecture Theatre, Michael Sadler Building	
Tuesday 18:00 – 19:00	POSTER SESSION AND DRINKS RECEPTION Parkinson Court	
19:00 onwards	<i>Evening free (for delegates to make their own arrangements)</i>	

WEDNESDAY 9 SEPTEMBER 2026

Wednesday 09:00 – 09:45	SESSION 9 Rupert Beckett Lecture Theatre, Michael Sadler Building	
	Paper 9.1	PLENARY 2 A challenge of two timeframes - multidisciplinary design optimisation in the preliminary overall aircraft design cycle for commercial aviation <i>Dr Martin Muir, Airbus</i>
09:45 – 10:10	<i>Refreshments, posters and exhibition in Parkinson Court</i>	
	PARALLEL SESSIONS 10 TO 12	
Wednesday 10:10 – 12:30	SESSION 10 – INS: Fluid dynamic instabilities, transition and turbulence 3 Rupert Beckett Lecture Theatre, Michael Sadler Building	
	Paper 10.1	Spin-up and spin-down flow instabilities in cylinders <u>Ellen Bartle</u> <i>University of Leeds, UK</i>
	Paper 10.2	Stratification effects on the onset of rapidly rotating magnetoconvection in an anelastic polytropic layer <u>Oliver Jackson</u> , Evy Kersale, Chris Davies, David Hughes <i>University of Leeds, UK</i>
	Paper 10.3	Subharmonic instability of surface waves with submerged vortex rows <u>Josh Shelton</u> , David Dritschel, Wooyoung Choi <i>University of St Andrews, UK; New Jersey Institute of Technology, USA</i>
	Paper 10.4	Effect of pressure gradient length scale on high Reynolds number turbulent boundary layers <u>Ashley Kwong</u> <i>University of Southampton, UK</i>
	Paper 10.5	Theory for isotropic and axisymmetric turbulence in cylindrical coordinates <u>Benjamin Richards</u> , Elena Marensi, Pierre Ricco <i>University of Sheffield, UK</i>
	Paper 10.6	A generalized transient one-dimensional integral model for turbulent buoyant plumes in confined and ventilated spaces <u>Sina Khaleghi</u> , Joshua Finneran, Malcolm Cook <i>Loughborough University, UK</i>
	Paper 10.7	Eigensolutions of nanofluid Poiseuille flow with different shapes of particles <u>Lalrinpuia Tlau</u> <i>National Institute of Technology Puducherry, India</i>
Wednesday 10:10 – 12:30	SESSION 11 – AER: Aerodynamics, aeroelasticity and aeroacoustics 3 Room LG10, Michael Sadler Building	
	Paper 11.1	Trailing edge noise in shear flow <u>Matthew Nethercote</u> <i>University of Cambridge, UK</i>
	Paper 11.2	Aftwall inclination in surface-embedded airfoil cavities: a review of aeroacoustic mechanisms and an unexplored design frontier for passive noise control <u>Trupti Trupti</u> <i>University Of Leeds, UK</i>
	Paper 11.3	Turbulent boundary layer under unsteady pressure gradients <u>Ke Zheng</u> , Bharath Ganapathisubramani <i>University of Southampton, UK</i>
	Paper 11.4	Spatio-temporal gust response of morphing foils with graded chordwise flexibility <u>Hibah Saddal</u> , Chandan Bose <i>University Of Birmingham, UK</i>
	Paper 11.5	Wake dynamics of active morphing wings under combined twisting and bending <u>Yukesh Karki</u> , Chandan Bose <i>University Of Birmingham, UK</i>
	Paper 11.6	Porosity effects on the flow-induced vibration of a pitching flat plate <u>Murilo Cicolin</u> , Daniel Carlson, Bharath Ganapathisubramani <i>University of Southampton, UK</i>
	Paper 11.7	Effects of thickness and porosity on the loads and flow field dynamics over a porous body <u>Abhishek Gururaj</u> , Bharath Ganapathisubramani <i>University of Southampton, UK</i>

Wednesday 10:10 – 12:30	SESSION 12 – COM: Complex fluids 1 Room LG19, Michael Sadler Building	
	Paper 12.1	On bounds of conformation tensor space in planar flows of the Oldroyd B model <u>Robert Poole</u> <i>University of Liverpool, UK</i>
	Paper 12.2	An asymptotic and numerical analysis of fracture fields in viscoelastic materials <u>Andrea Sendula</u> <i>University of Leeds, UK</i>
	Paper 12.3	Bifurcations and spatiotemporal chaos in nematic channel flows Rahil Valani, Sumesh Thampi, Julia Yeomans <i>University of Oxford, UK; IIT Madras, India</i>
	Paper 12.4	Biphilic grass leaves as natural templates for jumping-droplet condensation Bashra Mahamed, Francis Dent, <u>Sepideh Khodaparast</u> <i>University of Leeds, UK</i>
	Paper 12.5	Magnetohydrodynamic shear-induced dispersion in pressure-driven suspensions <u>Leonardo Inacio</u> , Francisco Ricardo Cunha <i>University of Brasilia, Brazil</i>
	Paper 12.6	Pore network modelling of evaporation-induced salt precipitation <u>Nihal Muhammed Habeeb</u> , Mykyta V. Chubynsky Fatima-Zohra Sahraoui, Lucas Goehring, Ran Holtzman <i>Coventry University, UK; Institut de Diagnòstic Ambiental i Estudis de l'Aigua – CSIC, Spain; Nottingham Trent University, UK</i>
12:30 – 13:30	<i>Lunch, posters and exhibition in Parkinson Court</i>	
Wednesday 13:30 – 14:15	SESSION 13 Rupert Beckett Lecture Theatre, Michael Sadler Building	
	Paper 13.1	PLENARY 3 Fluid dynamics of the eye <i>Dr Jennifer Tweedy, University of Bath</i>
PARALLEL SESSIONS 14 TO 16		
Wednesday 14:20 – 15:20	SESSION 14 – CFD: Computational fluid dynamics 1 Rupert Beckett Lecture Theatre, Michael Sadler Building	
	Paper 14.1	Modelling 3D printing of rheologically complex materials using OpenFOAM <u>Christopher Jackson</u> , Oliver Harlen, Daniel Read, Masoud Jabbari, Robert Kay <i>University of Leeds, UK</i>
	Paper 14.2	Swelling dynamics of polymer gel in explicit solvent: a theoretical and computer simulation study <u>Mobarak Alkorbi</u> <i>University of Reading, UK</i>
	Paper 14.3	Acoustic delay characteristic boundary conditions for thermoacoustic flame simulations Benjamin Cookman <i>University of Manchester, UK</i>
Wednesday 14:20 – 15:20	SESSION 15 – ADV: Advanced techniques including AI, machine learning and data-driven approaches 1 Room LG10, Michael Sadler Building	
	Paper 15.1	Towards massively parallel particle tracking velocimetry <u>Jörg Sommerau</u> , Bharathram Ganapathisubramani, John Lawson <i>University of Southampton, UK</i>
	Paper 15.2	Extracting wall-shear stress vectors from oil-film interferometry images using convolutional neural networks <u>André Weingärtner</u> , Bharath Ganapathisubramani <i>University of Southampton, UK</i>
	Paper 15.3	Synchronisation of rotating and non-rotating turbulence: threshold and spectral dynamics <u>Yi Li</u> <i>University of Sheffield, UK</i>

Wednesday 14:20 – 15:20	SESSION 16 – BIO: Biological flows including health applications (including biofluids) 1 Room LG19, Michael Sadler Building	
	Paper 16.1	How are Pathogens Distributed in Respiratory Emissions? <u>Danny Blundell</u> <i>University of Leeds, UK</i>
	Paper 16.2	A mathematical model for mucociliary clearance in human sinuses Nikhil Desai, Eric Lauga <i>University of Birmingham, UK; University of Cambridge, UK</i>
	Paper 16.3	CFD simulation of non-Newtonian hemodynamics in curved stenotic arteries <u>Taiba Hussain</u> <i>University of Salford, UK</i>
15:20 – 15:50	Refreshments, posters and exhibition in Parkinson Court	
	PARALLEL SESSIONS 14 TO 16 CONTINUED	
Wednesday 15:50 – 17:10	SESSION 14 CONTINUED – CFD: Computational fluid dynamics 1 Rupert Beckett Lecture Theatre, Michael Sadler Building	
	Paper 14.4	CFD modelling of nanofluid heat transfer in flat plate solar collectors <u>Sireetorn Kuharat</u> <i>University of Salford, UK</i>
	Paper 14.5	Multiscale–multiphysics analysis and optimisation of wing-integrated heat exchangers for sustainable aircraft <u>Girindra Ramgobin</u> <i>University of Leeds, UK</i>
	Paper 14.6	Towards reliable numerical simulations of trapped gas dissolution and growth in porous media: a volume of fluid-based approach <u>Masoumeh Karimi Pashaki</u> , Julien Maes, Hannah Menke, Jacqueline Mifsud <i>Heriot-Watt University, UK</i>
Wednesday 15:50 – 17:10	SESSION 15 CONTINUED – ADV: Advanced techniques including AI, machine learning and data-driven approaches 2 Room LG10, Michael Sadler Building	
	Paper 15.4	Towards a generic wall model for streamwise heterogeneous roughness <u>Martina Formichetti</u> <i>University of Southampton, UK</i>
	Paper 15.5	Hard constraint projection in a Fourier neural operator <u>Miranda Horne</u> , Peter Jimack, Amirul Khan, He Wang <i>University of Leeds, UK; University College London, UK</i>
	Paper 15.6	An interpretable convolutional neural network framework for fluid dynamics <u>Kwame Agyei-Baah</u> , Muhammad Rahman, Edward Smith <i>Brunel University London, UK; Islamic University of Technology, Bangladesh</i>
	Paper 15.7	Automated and robust shape optimisation of CFD-based design problems using multi-objective Bayesian methods <u>Ben Moore</u> <i>University of Exeter, UK</i>
Wednesday 15:50 – 17:10	SESSION 16 CONTINUED – BIO: Biological flows including health applications (including biofluids) 2 Room LG19, Michael Sadler Building	
	Paper 16.4	Developing numerical tools to improve the diagnosis of peripheral artery disease <u>Luke Barratt</u> <i>University of Leeds, UK</i>
	Paper 16.5	Effect of constitutive law on the erythrocyte membrane response <u>Marianna Pepona</u> , John Gounley, Amanda Randles <i>Durham University, UK; Oak Ridge National Laboratory, USA; Duke University, USA</i>
	Paper 16.6	Pseudomonas aeruginosa biofilm dynamics under ocular oscillating-pulsatile flow conditions mimicking blinking <u>Niamh Corkery-Hayward</u> <i>University of Sheffield, UK</i>
	Paper 16.7	A microfluidic device based on a shark’s nose <u>Jonathan Cox</u> <i>University of Bath, UK</i>
19:00 – 22:30	Conference Dinner <i>The Queens Hotel, City Square, Leeds City Centre (delegates to make their own way there)</i>	

THURSDAY 10 SEPTEMBER 2026

Thursday 09:05 - 09:50	SESSION 17 Rupert Beckett Lecture Theatre, Michael Sadler Building	
	Paper 5.1	PLENARY 4 The physics of the energy cascade in magnetohydrodynamic turbulence <i>Dr Moritz Linkmann, University of Edinburgh</i>
09:50 – 10:20	Refreshments, posters and exhibition in Parkinson Court	
	PARALLEL SESSIONS 18 TO 20	
Thursday 10:20 – 12:00	SESSION 18 – CFD: Computational fluid dynamics 2 Rupert Beckett Lecture Theatre, Michael Sadler Building	
	Paper 18.1	Reduced-order surface parameterization for efficient CFD-based shape optimisation <u>Joelle Salamoun</u> <i>Swansea University, UK</i>
	Paper 18.2	Fluids on manifolds: mathematical formulation and numerical simulations <u>Yongxing Wang</u> <i>University of Leeds, UK</i>
	Paper 18.3	An overset mesh framework for simulating actively deforming systems <u>Yukesh Karki, Chandan Bose</u> <i>University of Birmingham, UK</i>
	Paper 18.4	Wall modes and pattern formation in molten-salt magnetoconvection <u>Asif Nawaz, Andrei Teimurazov, Olga Shishkina, Moritz Linkmann</u> <i>University of Edinburgh, UK; Max Planck Institute for Dynamics and Self-Organization, Germany</i>
	Paper 18.5	Wake dynamics of permeable disks at low to moderate Reynolds number <u>Doudou Huang</u> <i>University of Edinburgh, UK</i>
Thursday 10:20 – 12:00	SESSION 19 – ENV: Environmental flows (including coastal, riverine and urban fluid mechanics) 1 Room LG10, Michael Sadler Building	
	Paper 19.1	On the generation of secondary flows over fine-sediment ribbons <u>Michele Trevisson</u> <i>Imperial College London, UK</i>
	Paper 19.2	Understanding the coupled effects of permeability and surface roughness on turbulent open channel flows <u>Luke Gaston</u> <i>University of Sheffield, UK</i>
	Paper 19.3	Turbulent boundary layer along a gentle downslope with a gaussian shaped gorge <u>Donnchadh MacGarry</u> <i>University of Southampton, UK</i>
	Paper 19.4	Fluid transport across a turbulent impinging line fountain <u>Tanmay Agrawal, Vamsi Krishna Chalamalla, Narsing Kumar Jha</u> <i>University of Oxford, UK; Indian Institute of Technology Delhi, India</i>
	Paper 19.5	Experimental investigation on convective heat transfer <u>Ihab Alkhalidi</u> <i>University of Southampton, UK</i>

Thursday 10:20 – 12:00	SESSION 20 – IND: Industrial applications (including microfluidics, mixing and 3D printing) 1 Room LG19, Michael Sadler Building	
	Paper 20.1	Pulsatile fluid flow through axisymmetric porous membranes <u>Hessah Almaaz</u> , Matthew Durey, Katarzyna Kowal <i>University of Glasgow, UK</i>
	Paper 20.2	Flow and filtration in porous membranes for application in enhanced lateral flow testing Harry Morse, Fouzia Ouali <i>Nottingham Trent University, UK</i>
	Paper 20.3	Surface washing of contaminated dry porous media <u>Gael Kemp</u> , Georgia Ioannou, Merlin Etzold, Julien Landel, Stuart Dalziel <i>University of Cambridge, UK; Defence Science and Technology Laboratory, UK; University Claude Bernard Lyon 1, France</i>
	Paper 20.4	Experimental flow visualisation of the effect of impeller geometries in a stirred-tank bioreactor <u>Rebecca Lewis</u> , Eleanor Barton, Joshua Lowe, Ewan Ross, Eirini Theodosiou, Jean-Baptiste Soupez, Patrick Geoghegan <i>Aston University, UK; Birmingham City University, UK</i>
	Paper 20.5	Microfluidic fuses: flow-induced choking in soft radial channels <u>Lewis Melvin</u> <i>University Of Manchester, UK</i>
12:00 – 13:00	Lunch in Parkinson Court	
	PARALLEL SESSIONS 21 TO 23	
Thursday 13:00 – 14:00	SESSION 21 – CFD: Computational fluid dynamics 3 Rupert Beckett Lecture Theatre, Michael Sadler Building	
	Paper 21.1	Finite volume numerical simulation of magneto-micropolar convection in an enclosure with applications in materials processing <u>O Beg</u> <i>University of Salford, UK</i>
	Paper 21.2	Flow behaviour and heat transfer characteristics of novel gyroid cylindrical tubes with different lengths <u>Bhagaban Jena</u> , S. Vengadesan, Sreenivas Jayanti, K Arul Prakash <i>Indian Institute of Technology Madras, India</i>
	Paper 21.3	Preliminary results for rimming flow on a horizontal rotating elliptical cylinder André Lopes, <u>Vinícius Silva</u> <i>Universidade de Brasília, Brazil</i>
Thursday 13:00 – 14:00	SESSION 22 – GEO: Geophysical flows 1 Room LG10, Michael Sadler Building	
	Paper 22.1	Dynamics of atmospheric rotors <u>Vartika Rungta</u> , Andrew Ross, Peter Sheridan, Amirul Khan, Simon Vosper <i>University of Leeds, UK; Met Office, UK</i>
	Paper 22.2	Particle clouds dynamics: implications for post-planetary-impact flows <u>Quentin Kriaa</u> , Benjamin Favier, Maylis Landeau, Michael Le Bars <i>University of Cambridge, UK; Aix-Marseille University, France; Université Paris Cité, France</i>
	Paper 22.3	The fluid mechanics of grounding zone wedges <u>Tanisha Kumari</u> , Matthew Durey, Peter Stewart, Katarzyna Kowal <i>University of Glasgow, UK</i>
Thursday 13:00 – 14:00	SESSION 23 – IND: Industrial applications (including microfluidics, mixing and 3D printing) 2 Room LG19, Michael Sadler Building	
	Paper 23.1	Using sub-sonic vibrating flow fields for micro particle collection and sorting <u>Ansu Sun</u> <i>Northumbria University, UK</i>
	Paper 23.2	Long-term transient hydrodynamics of bubble barriers <u>Maggie Kou</u> , Jerome Neufeld, Daria Frank <i>University of Cambridge, UK</i>
	Paper 23.3	Collision and agglomeration of fully resolved ellipsoidal particles in shear flow <u>Connor Nolan</u> <i>University of Leeds, UK</i>

Thursday 14:00 – 14:45	SESSION 24 Rupert Beckett Lecture Theatre, Michael Sadler Building	
	Paper 24.1	PLENARY 5 Experimental studies of urban aerodynamics and air pollution dispersion <i>Professor Christina Vanderwel, University of Southampton</i>
14:45 – 15:00	Prize Awards and Conference Close Rupert Beckett Lecture Theatre, Michael Sadler Building	

POSTERS

POSTER SESSION

TUESDAY 8 SEPTEMBER 2026 (18:00 – 19:00)

Parkinson Court

01	Modulation of turbulent structures by directional riblets in adverse pressure gradient flow <u>Ashraf Alsaffar</u> , Bagus Nugroho, Zambri Harun, Rey Chin <i>University of the West of England, UK; University of Melbourne, Australia; National University of Malaysia, Malaysia; University of Adelaide, Australia</i>
02	Exact solutions for the oscillatory pressure-driven flow of a viscoelastic fluid in an equilateral triangular duct <u>Leonardo Inacio</u> , Vinicius Silva, André Lopes, Francisco Ricardo Cunha <i>University of Brasília, Brazil</i>
03	Differentiable machine learning: towards accurate surrogates for fluid dynamics <u>Benjamin Dalby-McCusker</u> <i>University of Leeds, UK</i>
04	The dynamics of fluid-supported dense granular flows <u>Ben Durnford</u> <i>University of Leeds, UK</i>
05	Aerodynamic and acoustic performances of bluff bodies with noise mitigation devices <u>Matthew Wernham</u> , Yufeng Yao, Guangyuan Huang <i>University of the West of England, UK</i>
06	Multi-fidelity modelling of extrusion force in polymer additive manufacturing <u>Hesamedin Sokhanvari</u> , Rashid Jamshidi <i>Manchester Metropolitan University, UK</i>
07	Graph neural networks as learned surrogates for smoothed particle hydrodynamics: a comparative study <u>Desara Papa</u> <i>University of Edinburgh, UK</i>
08	Spectral optimisation of interpolation schemes for advection in computational fluid dynamics <u>Nawal Alshahrani</u> , John Thuburn <i>University of Exeter, UK</i>
09	Investigating the dynamics of the quasi-stationary borneo vortex James Dunstan, Juliane Schwendike, John Methven, John Marsham, Stephen Griffiths, Prince Xavier, Muhammad Fridaus Bin Abdullah <i>University of Leeds, UK; University of Reading, UK; Met Office, UK; METMalaysia, Malaysia</i>
10	Enhancing mixing and reaction in porous media with viscoelastic instabilities <u>Mihnea Cazacu</u> <i>University of Manchester, UK</i>
11	Investigating the linear stability of magnetohydrodynamic waves in rotating fluids <u>Jade Spinks</u> <i>University of Leeds, UK</i>
12	Non-classical numerical methods for time-fractional differential equations: applications to medical ultrasound <u>Billy Hollis</u> , Timon Gutleb, Jitse Niesen <i>University of Leeds, UK</i>
13	Validation of the sphere settling dynamics in the thixotropic fluid using the Lattice Boltzmann Method <u>Akash Bhardwaj</u> , Akash Bhardwaj <i>University of Leeds, UK; Malaviya National Institute of Technology Jaipur, India</i>
14	Freezing porous gravity currents <u>Jacob Cook</u> <i>University of Cambridge, UK</i>
15	Physical mechanisms of bubble-induced removal of surface-adhered particles <u>Gulana Anwar</u> <i>University of Leeds, UK</i>
16	Liquid metal magnetohydrodynamics for breeder blankets <u>Anthony Gregory</u> <i>University of Manchester, UK</i>
17	Relaminarising turbulence via nonlinear optimisation Robert Bennett, Yohann Duguet, <u>Ashley Willis</u> , Elena Marensi <i>University of Sheffield, UK; Laboratory for Numerical Sciences, France</i>
18	Multiscale modelling of poroelastic biomaterials <u>James Baxter Chapman</u> <i>University of Leeds, UK</i>

19	Periodic rimming flow on a horizontal rotating elliptical cylinder <u>André Lopes, Vinícius Silva</u> <i>Universidade de Brasília, Brazil</i>
20	The fate of radioactive particles in the marine environment <u>Unjin Jang</u> , Liam Abrahamsen-Mills, Vasileios Tsitsopoulos, Peter Taylor, Laura Newsome, Richard Hill, Ioannis Karmpadakis, Wouter Mostert <i>University of Oxford, UK; UK National Nuclear Laboratory Ltd., UK, NRS Dounreay, UK; Sellafield Ltd., UK; Imperial College London, UK</i>
21	Propulsion and aerodynamic control of a spin-stabilised circular planform UAS <u>Pitcharporn Ampraj</u> ; Jonathan R Potts, Almajd Alhinai <i>Sheffield Hallam University, UK</i>
22	Data-driven optimisation of bio-inspired morphing wing sections <u>Manu Aryal, Yukesh Karki, Chandan Bose</u> <i>University Of Birmingham, UK</i>
23	The selection mechanism for the terminal-speed of a receding contact-line problem <u>Jack Keeler</u> <i>University of Birmingham, UK</i>
24	A machine learning approach to accelerating the deterministic modelling of rarefied gas flows <u>Thomas van Mierlo</u> <i>Swansea University, UK</i>
25	Wind tunnel and CFD investigation of aerodynamic loads on port container stacks <u>Liangrui Ni</u> <i>University of Southampton, UK</i>
26	Billion-voxel CFD in porous mMaterials: from micro-CT to multiphysics simulations with a volume-of-solid immersed boundary approach <u>Julien Maes</u> <i>Heriot-Watt University, UK</i>
27	Wave damping by current-induced shear layer above seagrass meadows <u>Davide Vettori</u> , Francesco Giordana, Costantino Manes <i>University of Glasgow, UK; Politecnico di Torino, Italy</i>
28	On the deformation of double emulsion droplets in shear flows <u>Moshe Favelukis</u> <i>Shenkar College, Israel</i>
29	Particle laden flows in pipe systems containing secondary currents <u>Aniruddha Bose</u> <i>University of Leeds, UK</i>
30	Spontaneous dewetting of corrugated surfaces <u>Saffron Cormican</u> <i>University of Oxford, UK</i>
31	Fluid-structure Interactions in central conducting lymphatic anomaly <u>Jessica Johnson</u> <i>University of Oxford, UK</i>
32	Beyond haemodynamics: modelling immunothrombosis in cerebral aneurysms <u>Atif Ali</u> <i>University of Leeds, UK</i>
33	Modelling energy-efficient greenhouses: effect of porous media on buoyancy-driven flows <u>Emilie Herpain</u> , Megan S. Davies Wykes, Gary Hunt <i>University of Cambridge, UK</i>
34	Integrating experimental and simulation approaches to model the impact of fractal dimension on the settling velocity of flocs <u>Adrian Bartko</u> , Alexander J. Carey, Katherine Tutty, Timothy N. Hunter, Lee Mortimer, Michael Fairweather, Jeffrey Peakall, Alexander P. G. Lockwood <i>University of Leeds, UK; Sellafield Ltd, UK</i>
35	Effect of wall roughness on coherent flow structures in a semi-filled pipe flow <u>Aaron Kreji</u> <i>University of Sheffield, UK</i>