



Monday 5th

11:30 13:45 **Arrival/Registration; Lunch at ESLC**

00:10 14:00 14:10 **Opening Remarks - Paul Freathy/John Rees (WES Chair)**

Session 1 Loading & Dynamics 1 (Chair: John Rees)

00:30 14:10 14:40 **KEYNOTE: Capabilities and limitations of large scale test facilities** **Richards, University of Auckland**

00:20 14:40 15:00 The wind engineering of the King's Cross "Siamese triplet" Turpitt, BMT Fluid Mechanics, Teddington

00:20 15:00 15:20 New experimental wind tunnel set up for bridge sectional models Siedziako, Norwegian University of Science and Technology

00:20 15:20 15:40 Fatigue effects of the wind over long span bridges Leon, Mott Macdonald, Croydon

00:20 15:40 16:00 Aerodynamic optimisation of a tall residential tower Viviani, RWDI, Canada

00:20 16:00 16:20 **Tea/Coffee**

Session 2 Urban Effects & Dispersion 1 (Chair: Chris Baker)

00:20 16:20 16:40 Pedestrian level wind microclimate: The impact of urban development Vasan, RWDI, Canada

00:20 16:40 17:00 Development of an appropriate CFD methodology for urban wind distress criteria analysis Flynn, University of Birmingham

00:20 17:00 17:20 Influence of the built environment on airport operations Krus, Cyclone Fluid Dynamics BV

00:20 17:20 17:40 MODITIC wind tunnel experiments Robins, University of Surrey

18:00 19:00 **WES Executive Committee meeting (to be confirmed)**

19:00 20:00 **Evening meal - Lenton & Wortley Hall (only for those staying overnight)**



Tuesday 6th

07:30 08:30 **Breakfast - Lenton & Wortley Hall** (only for those staying overnight)

Session 3 Loading & Dynamics 2 (Chair: John Owen)

00:30 09:00 09:30 **KEYNOTE: Effective wind load distributions for large roofs, with incorporation of resonant components** **Holmes, JDH Consulting**

00:20 09:30 09:50 The unsteady wind pressure field over free form domes in close proximity Hankin, BMT Fluid Mechanics, Teddington

00:20 09:50 10:10 A comparative study of wind action according to select standards Tabar, PZ & W Consulting Engineers, Salisbury

00:20 10:10 10:30 LES on effects of urban and building complexity on wind loading Tamura, Tokyo Institute of Technology, Yokohama

00:20 10:30 10:50 **Tea/Coffee**

Session 4 Wind Structure 1 (Chair: Mark Sterling)

00:20 10:50 11:10 Using anemometers to estimate aerodynamic roughness coefficients Krus, Cyclone Fluid Dynamics BV

00:20 11:10 11:30 Representing surface roughness and the implications upon wind in urban areas Kent, University of Reading

00:20 11:30 11:50 Near surface wind flow characteristics on coastal and inland regions Subramanian, Florida Institute of Technology

00:20 11:50 12:10 Flows within and above an array of blocks in a spatially developing boundary layer Sessa, University of Southampton

00:20 12:10 12:30 A simple vortex model of a thunderstorm downburst Jesson, University of Birmingham

00:50 12:30 13:20 **Lunch - ELSC**



Session 5		Ventilation (Chair: Alan Robins)		
00:20	13:20	13:40	The influence of urban flow on natural ventilation rates measured in a full-scale, simplified test building	Gough, University of Reading
00:20	13:40	14:00	The Silsoe Cubes: CFD modelling single sided and cross-ventilation in naturally ventilated buildings in isolation and in array configuration	King, University of Leeds
00:20	14:00	14:20	Observations of the unsteady natural ventilation dependence on the turbulent urban canopy flows	Haliotis, University of Reading
00:20	14:20	14:40	Impact of Turkish architectural elements in building's energy saving and wind-driven ventilation	Aydin, University of Nottingham

00:20 14:40 15:00 **Tea/Coffee**

Session 6		Wind Structure 2 (Chair: John Macdonald)		
00:20	15:00	15:20	Tornado wind fields as experienced by a stationary observer	Baker, School of Engineering, University of Birmingham
00:20	15:20	15:40	The use of particle tracking velocimetry to characterise the vortex structure in a tornado simulator	Bourriez, University of Birmingham
00:20	15:40	16:00	Wind tunnel simulation of stable atmospheric boundary layers for fundamental studies in dispersion and wind power	Marucci, University of Surrey

00:05 16:00 16:05 **Break**

Session 7		Loading & Dynamics 3 (Chair: Ender Ozkan)		
00:20	16:05	16:25	Galloping of prismatic structures: Theory vs experimental results	Bisio, BMT Fluid Mechanics, Teddington
00:20	16:25	16:45	Unsteady pressures on rectangular cylinders subjected to transient wind fields	Mason, University of Queensland
00:20	16:45	17:05	Lift-oscillator model of vortex-induced vibration: A comparison of model parameters extracted from wind tunnel and computational studies for a 5:1 rectangular cylinder	Nguyen, University of Nottingham
00:20	17:05	17:25	Aeroelastic stability of a 3DOF system with eccentric mass based on quasi-steady theory	He, University of Bristol

Poster Papers (on display throughout the conference)

- An analysis of the influence of a tornado generator's geometry on the flow field - Gillmeier, University of Birmingham
- Towards validation of high-resolution models for the dispersion of inertial particles in the microscale - Wittemeier, University of Southampton
- Experimental study of wind loads on unique buildings and structures in Russia - Pavel, Moscow State University
- Fragility of offshore wind turbines to extreme wind and wave conditions: Preliminary results - Wilkie, University College London
- Modelling the air flow at the Clifton Suspension Bridge site - Limbrey, University of Southampton

19:30 **Conference Dinner - Trent Building Council Room**



Wednesday 7th

07:30 08:45 **Breakfast - Lenton & Wortley Hall** (only for those staying overnight)

Session 8 Urban Effects & Dispersion 2 (Chair: David Hargreaves)

00:30	09:00	09:30	KEYNOTE: Urban dispersion: problems, processes and modelling approaches	Coceal, University of Reading
00:20	09:30	09:50	Turbulence statistics and its parameterisation over Hong Kong downtown areas: A wind tunnel study	Ho, University of Hong Kong
00:20	09:50	10:10	Wind tunnel experiments in the DIPLOS project	Carpentieri, University of Surrey
00:20	10:10	10:30	Study of chemically reactive pollutant transport over urban roughness in the atmospheric boundary layer	Wu, University of Hong Kong
00:20	10:30	10:50	Tea/Coffee	

Session 9 Trains (Chair: Zheng Tong Xie)

00:20	10:50	11:10	Aerodynamics of a freight train passing through a tunnel	Iliadis, University of Birmingham
00:20	11:10	11:30	Investigation of ballast flight under aerodynamic flow using computation fluid dynamics	Pardoe, University of Southampton
00:20	11:30	11:50	The measurement of aerodynamic flow beneath a train	Soper, University of Birmingham
00:10	11:50	12:00	Break	

Session 10 Wind Structure 3 (Chair: Stefano Cammelli)

00:20	11:50	12:10	Extreme wind atlas for the North Sea	Bredesen, Kjeller Vindteknikk AS
00:20	12:10	12:30	Measuring and modelling wind conditions in Norwegian fjords	Harstveit, Kjeller Vindteknikk AS
00:20	12:30	12:50	Wind field characteristics at Hardanger Bridge site	Fenerci, Norwegian University of Science and Technology
00:20	12:50	13:10	Investigating short-term power fluctuations of large offshore wind farms	Drew, University of Reading
00:05	13:10	13:15	Closing Remarks - John Rees (WES Chair)	

00:45 13:15 14:00 **Lunch at ESLC & depart**