Day 1	Thursday, 30 June 2022
0820 - 0830	WELCOME TO 12AHMTC
0830 - 0930	KEYNOTE PRESENTATION (60 mins): ATSUKI KOMIYA Possibility of Mass Diffusion Control: Effect of Pore Size of Separated Membrane Chair: CHENGWANG LEI
0930 - 1000	MORNING TEA (30 mins)
1000 - 1200	SESSION A (120 mins) Chair: ATSUKI KOMIYA
1000 - 1015	TAKUMA KOIZUMI [63] Evaluation of the Heat Transfer Mechanism in a Natural Convection Boundary Layer Perturbed by a Local Mixed Convection Regime
1015 - 1030	STEVE ARMFIELD [59] Three-dimensional Linear Stability of Natural Convection Boundary Layer in a Stably Stratified Medium
1030 - 1045	JUAN F. TORRES [27] Visualisation and Measurement of Laminar Boundary Layer on the Surface of an Isothermal Section Triangular Roof
1045 - 1100	STUART NORRIS [60] Evaluating the Performance of a Multi-Resolution Scheme for Modelling High Prandtl Number Fluids
1100 - 1115	LAYTH A. AWIN [45] Numerical Simulations of Forced Turbulent Fountains
1115 - 1130	ESRA'A KHASAWNEH [64] Direct Numerical Simulations of Natural Convection in Near Shore Regions
1130 - 1145	WAGIH ABU ROWIN [46] Turbulent forced convection over roughness with different heights and densities
1145 - 1200	SNEHA MURALI [05] Repeated wedge-shaped protrusions in quasi-two-dimensional magnetohydrodynamic duct flows for heat transfer enhancement
1200 - 1300	LUNCH (60 mins)
1300 - 1345	INVITED TALK I (45 mins): GARY ROSENGARTEN When Surfaces Matter: Using Nano-scaled Surface Features to Control Macro-scale Transport Chair: JOHN PATTERSON
1345 - 1500	SESSION B (75 mins) Chair: GARY ROSENGARTEN
1345 - 1400	ANKIT BHADOURIYA [52] The impact of Open-Ocean Convection on the dynamics of particulate and dissolved organic matter
1400 - 1415	SUART NORRIS [24] Dynamics of the Primary Instability in the Stably Stratified Cavity
1415 - 1430	ANDREW OOI [14] Entrainment and Mixing of Gravity Currents in a Stratified Ambient
1430 - 1445	WAI KIT LAM [12] Numerical Study of the Dynamics of Stratified Gravity Current
1445 - 1500	XIAOWEI XU [11] RANS Models for Natural Convection via CFD-driven Machine Learning
1500 - 1530	AFTERNOON TEA (30 mins)
1530 - 1730	SESSION C (120 mins) Chair: ANDREW OOI
1530 - 1545	CHAO ZHONG [55] Measuring Mass Transfer Coefficients of Glucose Tablets in Different In-vitro Digestion Models
1545 - 1600	SHU CHENG [56] The Mass Transfer Resistance of Sausage Casings as Examples of Real Gut Systems
1600 - 1615	JUAN D. PELAEZ-RESTREPO [62] Evaporation Study of Sputum Droplets
1615 - 1630	CHUNRONG ZHAO [01] Simulations on PCM Melting Enhancement Using a Metallic Periodic Structure
1630 - 1645	TAO DENG [18] Numerical investigation on the performance of an automatic water mist system used in a road tunnel under the effect of longitudinal ventilation
1645 - 1700	DECLAN KEOGH [23] Effects of the buoyancy force on mass-transport optimisation strategies in liquid metal batteries
1700 - 1715	SAMUEL MALLINSON [28] Heating Prior to Nucleation in Thermal Inkjet Actuators
1715 - 1730	MOHAMMAD S. ISLAM [32] Design Optimisation of Film Cooling on a Turbine Blade
	END OF DAY 1
1730 - 1800	TRANSIT TO CONFERENCE DINNER
1800 - 2230	**CONFERENCE DINNER**

Day 2	Friday, 1 July 2022
0845 - 0930	INVITED TALK II (45 mins): EMILIE SAURET Hybrid Lattice Boltzmann method for viscoelastic fluid flow instabilities and elastic turbulence Chair: STEVE ARMFIELD
0930 - 1000	MORNING TEA (30 mins)
1000 - 1200	SESSION D (120 mins) Chair: EMILIE SAURET
1000 - 1015	CALLUM ATKINSON [06] Three-Dimensional Density Measurements of a Heated Jet Using Laser-Speckle Tomographic Background-Oriented Schlieren
1015 - 1030	MEHDI KHATAMIFAR [19] An experimental study of the influence of orientation and geometry on additive manufactured LED heat sinks
1030 - 1045	JING KONG [26] Temperature Field Measurement in Natural Convection Flow Using Schlieren Technique
1045 - 1100	TILAK T. CHANDRATILLEKE [54] Experimental Investigation of PCM-Assisted Heat Sinks in Natural and Forced Convection
1100 - 1115	DANIEL J. DUKE [30] X-ray Scattering Techniques in Spray Research
1115 - 1130	PAMODA HERATH [33] High Resolution Velocity and Temperature Measurements in the Laminar Boundary Layer of a Melting Vertical Ice Face
1130 - 1145	KRISHNA M. TALLURU [02] Froude number dependence of fountain-top entrainment
1145 - 1200	PAULA A. PETRINI [41] Microchannel Heat Transfer Using Ferrofluid and Magnetic Field Combinations
1200 - 1300	LUNCH (60 mins)
1300 - 1345	INVITED TALK III (45 mins): NICHOLAS WILLIAMSON Turbulent Vertical Natural Convection Boundary Layers – Insights Gained from DNS up to Grd = 1.8 x 10^8 Chair: KAPIL CHAUHAN
1345 - 1500	SESSION E (75 mins) Chair: NICHOLAS WILLIAMSON
1345 - 1400	JUNHAO KE [22] Turbulence Statistics in a Temporally Evolving Turbulent Natural Convection Boundary Layer
1400 - 1415	BIHAI SUN [37] The Convergence of POD Modes for High-Resolution 2C-2D Velocity Fields
1415 - 1430	BIHAI SUN [42] Turbulent Boundary Layer Skin Friction Analysis Based On The Renard & Deck Decomposition And Proper Orthogonal Decomposition
1430 - 1445	JAVAD MOHAMMADPOUR [57] Performance Improvement of PV Modules Using NEPCM Impingement Jets
1445 - 1500	SVETLANA TKACHENKO [61] A numerical study on the impacts of wind direction on the cooling of rooftop-mounted photovoltaic (PV) panels
1500 - 1530	AFTERNOON TEA (30 mins)
1530 - 1730	SESSION F (120 mins) Chair: VICTORIA TIMCHENKO
1530 - 1545	TILAK CHANDRATILLEKE [44] Sensitivity Assessment of Thermal Conductivity in Metal-hydride Energy Storage
1545 - 1600	EZHILSABAREESH KANNADASAN [15] Effect of inflow boundary conditions with limited spatial resolution on the direct numerical simulation of turbulent channel flow
1600 - 1615	DUY NGUYEN [51] Analysis of Effects of Meander Sinuosity in Thermally Stratified Turbulent Open-channel Flow
1615 - 1630	HARRY N SCOTT [47] The Production and Evaporation of HFA152a Droplets from the Plateau-Rayleigh Instability
1630 - 1645	RAVI KOIRALA [50] Influence of interphase interaction area on thermal performance of Eductor for prospective application in water desalination system
1645 - 1700	SOUDEH MAZHARMANESH [58] Fluid-structure-thermal Interaction in Natural Convection Over an Isothermally Heated Vertical Surface with a Flexible Baffle
1700 - 1715	WEI LI [21] Investigation of Key Geometrical Parameters Affecting Building Roof Cavity Ventilation
1715 - 1730	JING KONG [04] Pedestrian-level Wind Profiles in Urban Outdoor Spaces and Convective Heat Loss from Human Body
1730 - 1745	12AHMTC CLOSING
	END OF 12AHMTC