24th Australasian Fluid Mechanics Conference

1 – 5 December 2024
Canberra, ACT, Australia
Hotel Realm

Organised by the

Local Organising Committee under AFMS in Canberra

In association with the

Australasian Fluid Mechanics Society (AFMS)

Front Cover Image

Credit: Abbishek Gururaj, mentored by A/Prof. Vrishank Raghav and Dr Sarah Morris, Auburn University, AL, USA

Description: coupled wakes behind a pair of seal-whisker inspired elliptic cylinders (2nd prize, AFMS Photo Competition 2022)

24ᵗʰ Australasian Fluid Mechanics Conference

Conference Booklet

Foreword

We thank you for joining us at the 24th Australasian Fluid Mechanics Conference (AFMC2024), in Canberra, Australia, over 1 to 5 December 2024. This conference has been organised for the Australasian Fluid Mechanics Society (AFMS), and brings together leading Australian, New Zealand and international scientists, engineers, educators and research students with common interests in fluid mechanics.

The city of Canberra offers a number of unique opportunities for this biannual meeting of the Australasian fluid mechanics community. The name Canberra is derived from Kambera, meaning "meeting place" in the local Ngunnawal language. As Australia's meeting place, Canberra is home to - and brings together - the key decision-makers of the nation, including government, industry, the social sector and the media. The program of AFMC2024 will pay homage to these unique features, to provide maximum benefits to our community.

This event will provide excellent opportunities for social networking to strengthen links between Australian and international technical communities in academia, industry and government. The conference covers a broad range of fluid mechanics research and applications, with 268 papers, 7 keynote speakers, 3 laboratory tours and many other events. Of the 350 delegates, about 50% are graduate students and 15% are international delegates from 14 countries.

All listed and unlisted papers and extended abstracts included in the proceedings have undergone formal peer review by the International Scientific Committee, who we thank for their tireless work in getting this together. The full proceedings of this 24th AFMC can be found on the website of the Australasian Fluid Mechanics Society, along with those of the previous twenty-three AFMCs, dating back to 1962.

The Conference Chairs would like to deeply thank the Local Organising Committee for their technical oversight and tireless work over the past year, as well as the Industry Advisory Committee for helping shape several new elements in this AFMC. We also thank the invited speakers, contributing authors, reviewers and participants, for continuing to make the AFMC the premier fluid mechanics meeting of our region.

We are very pleased to acknowledge our major sponsor, UNSW Canberra. We also sincerely thank our corporate sponsors for their support: these include our Platinum Sponsor, the Asian Office of Aerospace Research and Development (AOARD) of the U.S. Air Force; our Gold Sponsor, Hexagon-ScX Solution-PrometTech; our Silver Sponsors, Adept, Bestech, Blink, Dantec/Pixeltec, eImaging, Lastek and LEAP, and our Student Award Sponsors, AOARD, Blink, eImaging, and Hexagon-ScX Solution-PromeTech.

It is our honour to host the AFMC for the first time in Canberra, and we wish you all an enjoyable and fruitful event!

Robert Niven and Maryam Ghodrat

Conference Chairs

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Australasian Fluid Mechanics Society

About the AFMS

The AFMS is an independent non-profit society that supports and fosters interest in fluid mechanics and related disciplines in the Australasian region. This is done by providing a forum for people with a common interest, and by publishing or promoting relevant material. The Society aims to actively represent the views of its members to Government, institutes and the public.

The AFMS supports all those with an interest in Fluid Mechanics including researchers, students and professionals. The Society strives to uphold and improve Equity, Diversity & Inclusion (EDI) in all its activities and seeks to increase indigenous engagement and awareness of traditional knowledge and skills in Fluid Mechanics.

The AFMS oversees and supports the Australasian Fluid Mechanics Conference (AFMC) series. The membership consists of those members of the Society who have indicated their wish to join the Society and who annually retain membership through the payment of designated dues. The AFMS was incorporated in Victoria, Australia on 14 October 2008. Biennial membership of the society membership has been factored into the 24AFMC-conference registration fees.

Society Fellowships

There are currently thirty- five AFMS fellows plus seve late fellows. Further elected fellows will be announced at the 24AFMC conference dinner.

2024 Annual General Meeting

The Annual General Meeting of the Society will be held during the 24AFMC, 4:00- 5:00 pm, Thursday 5th December 2024 in the ballroom at Hotel Realm. All members, including those by virtue of attending the conference are welcome to attend.

Previous Conferences in the AFMC Series

Australasian Conferences on Hydraulics and Fluid Mechanics

1962 University of Western Australia

1965 University of Auckland

1968 University of New South Wales

1971 Monash University

1974 University of Canterbury

1977 University of Adelaide

1980 University of Queensland

Australasian Fluid Mechanics Conferences

1983 University of Newcastle

1986 University of Auckland

1989 University of Melbourne

1992 University of Tasmania

1995 University of Sydney

1998 Monash University

2001University of Adelaide

2004 University of Sydney

2007 The University of Queensland

2010 The University of Auckland

2012 Australian Maritime College and The University of Tasmania

2014 Royal Melbourne Institute of Technology

2016 University of Western Australia

2018 University of Adelaide

2020 Queensland University of Technology and University of Queensland

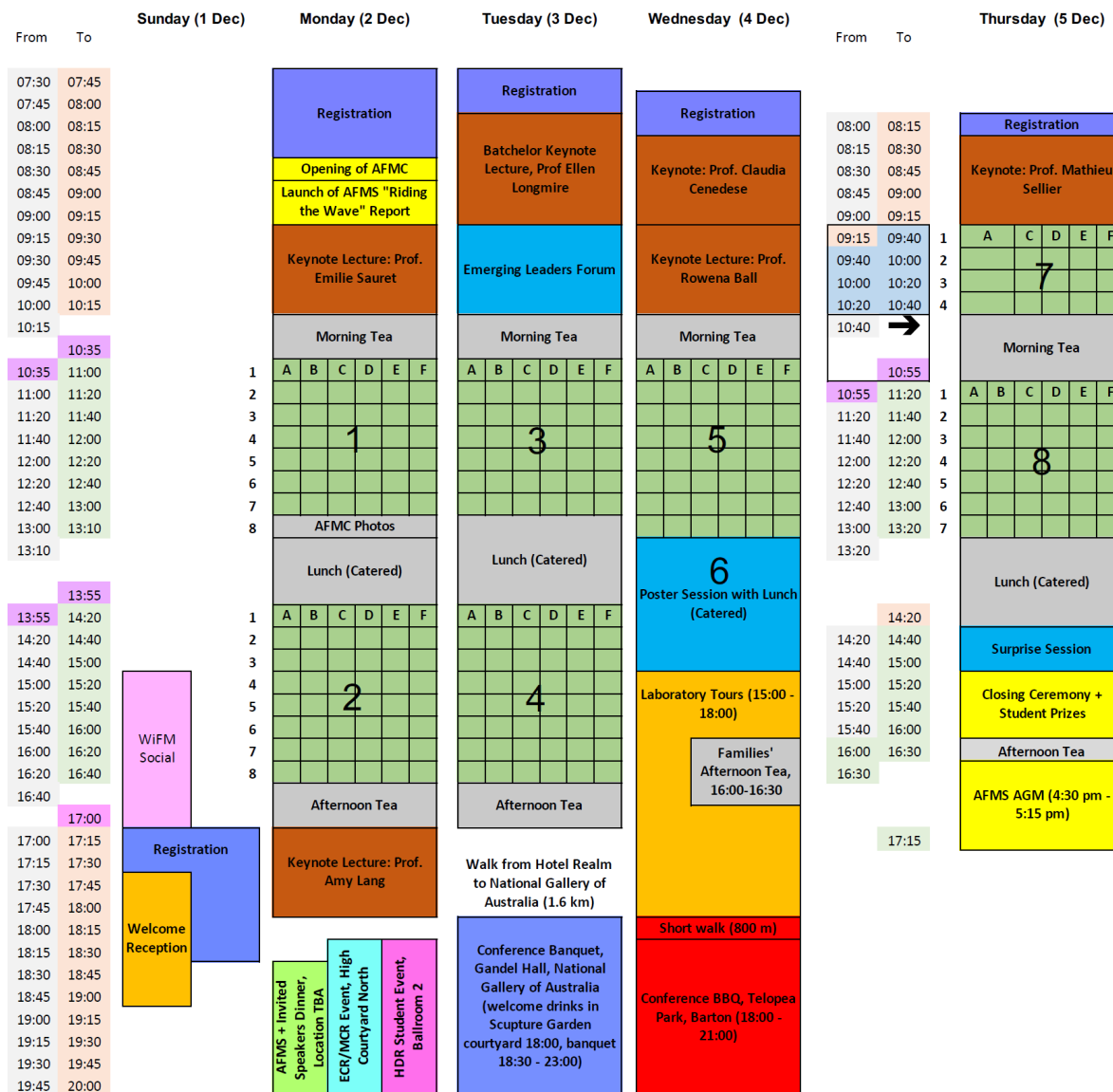2022 University of Sydney

AFMS Website

The AFMS maintains a website at https://www.afms.org.au/index.html that contains resources and information for fluid mechanicians. Included on the website is an archive of past and the present AFMC proceedings.

Program Overview

AFMC2024 Schematic Program

The schematic program grid spans Sunday (1 Dec) through Thursday (5 Dec):

Sunday (1 Dec)
- 15:00–16:40 WiFM Social
- 17:00–17:30 Registration
- 17:30–19:00 Welcome Reception

Monday (2 Dec)
- 07:30–08:30 Registration
- 08:30–08:45 Opening of AFMC
- 08:45–09:15 Launch of AFMS "Riding the Wave" Report
- 09:15–10:15 Keynote Lecture: Prof. Emilie Sauret
- 10:15–10:35 Morning Tea
- 10:35–13:10 Sessions 1 (A B C D E F), slots 1–8
- 13:00 AFMC Photos
- 13:10–13:55 Lunch (Catered)
- 13:55–16:40 Sessions 2 (A B C D E F), slots 1–8
- Afternoon Tea
- Keynote Lecture: Prof. Amy Lang
- AFMS + Invited Speakers Dinner, Location TBA
- ECR/MCR Event, High Courtyard North
- HDR Student Event, Ballroom 2

Tuesday (3 Dec)
- Registration
- Batchelor Keynote Lecture, Prof Ellen Longmire
- Emerging Leaders Forum
- Morning Tea
- Sessions 3 (A B C D E F)
- Lunch (Catered)
- Sessions 4 (A B C D E F)
- Afternoon Tea
- Walk from Hotel Realm to National Gallery of Australia (1.6 km)
- Conference Banquet, Gandel Hall, National Gallery of Australia (welcome drinks in Scupture Garden courtyard 18:00, banquet 18:30 - 23:00)

Wednesday (4 Dec)
- Registration
- Keynote: Prof. Claudia Cenedese
- Keynote Lecture: Prof. Rowena Ball
- Morning Tea
- Sessions 5 (A B C D E F)
- Session 6: Poster Session with Lunch (Catered)
- Laboratory Tours (15:00 - 18:00)
- Families' Afternoon Tea, 16:00-16:30
- Short walk (800 m)
- Conference BBQ, Telopea Park, Barton (18:00 - 21:00)

Thursday (5 Dec)
- 08:00–09:15 Registration
- Keynote: Prof. Mathieu Sellier
- 09:15–10:40 Session 7 (A C D E F), slots 1–4
- Morning Tea
- 10:55–13:20 Session 8 (A B C D E F), slots 1–7
- Lunch (Catered)
- 14:20–15:00 Surprise Session
- Closing Ceremony + Student Prizes
- Afternoon Tea
- AFMS AGM (4:30 pm - 5:15 pm)

Sunday 1st December 2024		
3:00pm – 5:00pm	Women in Fluid Mechanics social, Drink and finger food provided	Ostani Bar, Ground floor, Hotel Realm
5:00pm – 6:30pm	**Registration**	Mezzanine level Hotel Realm
5:30pm – 7:00pm	**Welcome Reception**	Mezzanine level Hotel Realm

Monday 2nd December 2024		
7:30am	**Registration desk opens**	Mezzanine level Hotel Realm
8:30am – 8:45am	**Opening Ceremony**	Ballrooms 2/3
8:45am – 9:15am	Launch of AFMS `Riding the Wave' Report	Ballrooms 2/3
9:15am -10:15am	**Keynote Lecture:** Prof. Emilie Sauret, Queensland University of Technology, Qld, Australia. ***Numerically Exploring Inertialess Multiphysics: From Fundamentals to Applications***	Ballrooms 2/3

10:15am – 10:35am	**Morning Tea**	Mezzanine level Hotel Realm
10:35am – 1:00pm	**Parallel Sessions #1**	Ballrooms 1-4, North and South Courtyards
CFD-I	LEAP Session 1A on Computational Fluid Dynamics I, chaired by Richard Sandberg	Ballroom 1
AERO-I	Session 1B on Aerodynamics, chaired by Gholamreza Kefayati	Ballroom 2
BL-I	Lastek Session 1C on Boundary Layer Flows I, chaired by Ivan Marusic	Ballroom 3
MULTI-I	eImaging Session 1F on Multiphase Flows I, chaired by David Petty	Ballroom 4
Fire-I	Session 1D on Fire and Combustion I, chaired by Maryam Ghodrat	North courtyard
BIO-I	Session 1E on Biofluid and Biomedical Fluid Mechanics I, chaired by Andrew Ooi	South courtyard
1:00pm – 1:10pm	**AFMC Photo shoot**	
1:10pm – 1:55pm	**Lunch**	Mezzanine level Hotel Realm
1:55pm – 4:40pm	**Parallel Sessions #2**	Ballrooms 1-4, North and South Courtyards
CFD-II	Session 2A on Computational Fluid Dynamics II, chaired by Rowan Gollan	Ballroom 1
HYPER-I	AOARD Session 2B on Hypersonics I, chaired by Andrew Neely,	Ballroom 2
BL-II	LaVision Session 2C on Boundary Layer Flows II, chaired by Jason Monty	Ballroom 3
MULTI-II	Session 2F on Multiphase Flows II, chaired by Sarah Morris	Ballroom 4
Fire-II	Session 2D on Fire and Combustion II, chaired by Amna Khraibut	North courtyard
BIO-II	Session 2E on Biofluid and Biomedical Fluid Mechanics II, chaired by Daniel Duke	South courtyard
4:40pm – 5:00pm	**Afternoon Tea**	Mezzanine level Hotel Realm
5:00pm – 6:00pm	**Keynote lecture:** Prof. Amy Lang, University of Alabama, Tuscaloosa, AL, USA *Sharks and Butterflies: Flow Control with Small Scales*	Ballrooms 2/3
6:15pm – 8:00pm	**ECR/MCR Event (ticketed) – canape catering**	North Courtyard
6:15pm – 8:00pm	**HDR Student Event (ticketed) – canape catering**	Ballroom 2
6:30pm – 8:00pm	**Invited speaker dinner (by invitation only)**	
Tuesday 3rd December 2024		
7:30am	**Registration desk opens**	Mezzanine level Hotel Realm
8:00am – 9:10am	**Batchelor lecture (sponsored by AOARD):** Prof. Ellen K Longmire, University of Minnesota, Minneapolis, MN, USA *Particle Motions in Turbulent Flows*	Ballrooms 2/3
9:10am – 9:15am	AOARD sponsorship presentation	Ballrooms 2/3
9:15am – 10:15am	**Emerging Leaders Forum, hosted by Maryam Ghodrat. Speakers:** Dr Bianca Capra, A/Prof. Danielle Moreau	Ballrooms 2/3
10:15am – 10:35am	**Morning Tea**	Mezzanine level Hotel Realm
10:35am – 1:00pm	**Parallel Sessions #3**	Ballrooms 1-4, North and South Courtyards
CFD-III	Session 3A on Computational Fluid Dynamics III and Lattice Boltzmann Methods, chaired by Fangbao Tian	Ballroom 1
HYPER-II	Hexagon Session 3B on Hypersonics and Compressible Flows II, chaired by Vincent Wheatley	Ballroom 2
BL-III	Session 3C on Boundary Layer Flows III, chaired by Matthew Mason	Ballroom 3
MULTI-III	Session 3F on Multiphase Flows III, chaired by Joe Berry	Ballroom 4

HEATMASS-I	Session 3D on Heat and Mass Transfer I, chaired by Chengwang Lei	North courtyard
GEOPHYS-I	Session 3E on Geophysical Flows I, chaired by Richard Manasseh	South courtyard
1:00pm – 1:55pm	**Lunch**	Mezzanine level Hotel Realm
1:55pm – 4:40pm	**Parallel Sessions #4**	Ballrooms 1-4, North and South Courtyards
FSI-I	Session 4A on Fluid Structure Interaction, chaired by Justin Leontini,	Ballroom 1
HYPER-III	Adept Turnkey – Phantom High-Speed Session 4B on Hypersonics and Compressible Flows III), chaired by Matthew Cleary	Ballroom 2
BL-IV	Session 4C on Boundary Layer Flows IV, chaired by Maziar Arjomandi	Ballroom 3
MULTI-IV	Session 4F on Multiphase Flows IV and Rheology, chaired by Jong-Leng Liow	Ballroom 4
HEATMASS-II	Prof. John C. Patterson Memorial Session 4D on Heat and Mass Transfer II, chaired by Juan Felipe Torres	North courtyard
GEOPHYS-II	Session 4E on Geophysical Flows II, chaired by Vassili Kitsios	South courtyard
4:40pm – 5:00pm	**Afternoon Tea**	Mezzanine level Hotel Realm
6:00pm – 11:00pm	**Conference Banquet**	National Gallery of Australia, Parkes Place East, Parkes, ACT

Wednesday 4th December 2024

7:45am	**Registration desk opens**	Mezzanine level Hotel Realm
8:15am – 9:15am	**Keynote Lecture:** Prof. Claudia Cenedese, Woods Hole Oceanographic Institution, Woods Hole, MA, USA **Everything You Always Wanted to Know About Icebergs Melting* (*But Were Afraid to Ask)**	Ballrooms 2/3
9:15am – 10:15am	**Indigenous Keynote lecture:** Prof. Rowena Ball, Australian National University, Canberra Australia; *Chair – Prof Jason Sharples* **Flows of Change and Reconciliation: Wine into the Wide River**	Ballrooms 2/3
10:15am – 10:35am	**Morning Tea**	Mezzanine level Hotel Realm
10:35am – 1:20pm	**Parallel Sessions #5**	Ballrooms 1-4, North and South Courtyards
PROB-I	Session 5A on Probabilistic Methods and Machine Learning I, chaired by Robert Niven	Ballroom 1
ACOUST-I	Session 5B on Aeroacoustics I, chaired by Con Doolan	Ballroom 2
TURB-I	Blink Tech Session 5C on Fluid Turbulence, chaired by Daniel Chung	Ballroom 3
EXPT-I	Dantec / Pixeltech Session 5F on Experimental Techniques & Facilities I, chaired by Julio Soria	Ballroom 4
PLUME-I	Session 5D on Plumes, chaired by Matthew Cleary	North courtyard
ENV-I	Session 5E on Environmental Fluid Dynamics I, chaired by Hubert Chanson	South courtyard
1:20pm – 3:00pm	**Lunch and Poster Session (chaired by Nasrin Taghavi)**	Mezzanine level Hotel Realm Ballrooms 2/3
3:00pm – 6:00pm	**Laboratory Tours, Buses depart Hotel Realm at 3:05 pm sharp.**	ANU CSIRO – Black Mountain UNSW Canberra - ADFA
4:00pm – 4:30 pm	**Families Afternoon Tea served for those not going on Tours**	Mezzanine level Hotel Realm

6:00pm – 9:00pm	**Conference BBQ (ticketed) – volunteers will act as walking guides**	Telopea Park

Thursday 5th December 2024

7:45am	**Registration desk opens**	Mezzanine level Hotel Realm
8:15am – 9:15am	**Keynote lecture:** Prof. Mathieu Sellier, University of Canterbury, Christchurch, New Zealand, chaired by Robert Niven ***Viscometric Free Surface Flows: From Small to Large and From Cold to Hot.***	Ballrooms 2/3
9:15am – 10:40pm	**Parallel Sessions #7**	Ballrooms 1-4, North Courtyard
PROB-II	Session 7A on Probabilistic Methods and Machine Learning II, chaired by Graham Wild	Ballroom 1
JETSWAKES-I	Session 7C on Jets and Wakes, chaired by Callum Atkinson	Ballroom 3
EXPT-II	Bestech Session 7F on Experimental Techniques & Facilities II, chaired by James Venning	Ballroom 4
INSTAB-I	Session 7D on Instabilities and Transitional Flows, chaired by Steven Armfield,	North courtyard
BUILT-I	Session 7E on Built Environments, chaired by Professor Maarten Vanierschot	South courtyard
10:40am – 10:55am	**Morning Tea**	Mezzanine level Hotel Realm
10:55am – 1:20pm	**Parallel Sessions #8**	Ballrooms 1-4, North Courtyard
ACOUST-II	Session 8B on Aeroacoustics II, chaired by Danielle Moreau	Ballroom 2
VORT-I	Session 8C on Vortices, chaired by Charitha de Silva	Ballroom 3
CONTROL-I	Session 8F on Flow Control, chaired by Nicholas Hutchins	Ballroom 4
RENEW-I	Session 8D on Renewable Energy, chaired by Azaadeh Jafari	North courtyard
ENV-II	Session 8E on Environmental Fluid Dynamics II, chaired by Matthias Kramer	South courtyard
1:20pm – 2:20pm	**Lunch**	Mezzanine level Hotel Realm
2:20pm – 3:00pm	**Surprise session**	Ballrooms 2/3
3:00pm – 4:00pm	**Closing Ceremony and Student Prizes**	Ballrooms 2/3
4:00pm – 4:30pm	**Afternoon Tea**	Mezzanine Level Hotel Realm
4:30pm – 5:15pm	**AFMS Business Meeting and AGM**	Ballrooms 2/3

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The 24th Australasian Fluid Mechanics Conference 2024 would like to thank the following sponsors for their support:

UNSW Canberra

Major Sponsor

UNSW is one of Australia's top universities and a founding member of the [Group of Eight (Go8)](). It has a long, comprehensive history of excellence in education and research since its foundation in 1949, ranking as one of the top 50 universities worldwide. It has made an ongoing commitment to improve and transform lives in Australia and globally. Its guiding motto, Scientia Corde Manu et Mente–Knowledge by Heart, Hand and Mind–embodies its commitment to embrace diversity of thought, integrity, innovation, and our deep connections with the community. UNSW's strategic priorities actively address the challenges we face today - from climate change and renewable energies to lifesaving medical treatments and breakthrough technologies. It is committed to serving society through knowledge sharing and new discovery.

UNSW comprises of seven faculties: Arts, Design & Architecture; Business School; Engineering; Law & Justice; Medicine & Health; Science; UNSW Canberra. The Canberra campuses are located in Australia's capital, one of Australia's most liveable cities. UNSW Canberra graduates have become part of a highly engaged and influential community. They continue to shape Australia and the international community as leaders in Defence, government and industry.

UNSW Canberra at ADFA is Australia's only academic institution with an integrated Defence focus committed to enhancing the intellectual edge of the Australian Defence Force, supporting the ADF Joint Professional Military Education program, and developing future global leaders. UNSW Canberra's mission is to support lifelong learning through innovation and engagement whilst leveraging our location to build meaningful relationships across Defence, industry, government and academia. This is being achieved by creating inclusive communities focused on solving real-world problems by supporting their people in leadership and research excellence.

UNSW Canberra specialises in high-quality undergraduate and postgraduate courses in all areas relating to military, strategic and defence studies. This allows future leaders of the Navy, Army and Air Force to combine their military and leadership training with world-class university programs and defence industry expertise.

UNSW Canberra schools include Business, Engineering & Technology, Humanities & Social Sciences, Science, Systems & Computing and Professional Studies. The School of Engineering & Technology (SET) is the biggest school at UNSW Canberra consisting of Aeronautical, Mechanical, Civil and Electrical Engineering disciplines as well as research and continuing education in Space, and Systems Engineering. SET offers Bachelor of Engineering (Honours) programs in Aeronautical, Civil, Electrical and Mechanical Engineering and Naval Architecture as well as Bachelor of Technology in Aeronautical Engineering.

The engineering programs are tailored to the educational needs of the Australian Defence Force, alongside military education and training, as well as providing custom-built facilities and the best university student-to-teacher ratio in Australia. SET also accepts civilian students to study alongside defence students.

SET hosts several specialised research laboratories: the Advanced Composite Research Unit (ACRU) Composites Laboratory specialising in the manufacturing of high-quality polymer matrix composite components; the Australian National Concurrent Design Facility (ANCDF) used to accelerate and improve space mission design; the Aviation Safety Studio equipped with two aircraft flight simulators and a large projection screen dedicated to flight simulation for teaching concepts such as aviation safety, aircraft performance, aircraft design, and flight stability and control; a node of the US Air Force Academy's worldwide Falcon Telescope Network Optical for observing spaceborne objects, such as debris and the growing cubesat population; the T-ADFA shock tunnel, an Australian-developed experimental device capable of generating flows with up to 12 times the speed of sound at temperatures that can simulate Earth entry conditions and hypersonic air-breathing flight; a two-stage light gas gun with barrel bore diameters of 22mm and 70mm to accommodate varying projectile sizes over a velocity range of 150 to 1,100 m/s and capable of firing a 22mm diameter projectile to a velocity of 4.5km/s making it the fastest gun in the Southern Hemisphere.

Asian Office of Aerospace Research and Development (AOARD)

Platinum Sponsor, Sponsor of Batchelor Lecture

The Asian Office of Aerospace Research and Development (AOARD) mission is to integrate and support the Air Force Research Laboratory (AFRL) fundamental research with discoveries of emerging foreign science. AOARD's geographical area of responsibility includes Asia and Pacific Rim countries, to include India and Australia. (https://community.apan.org/wg/afosr/w/researchareas/10151/asian-office-of-aerospace-research-and-development-aoard-tokyo-japan/.)

Hexagon, SCX solutions, and Prometech

Gold Sponsor, Sponsor of Hypersonics and Compressible Flows II (HYPER-II)

SCx Solutions leverage simulation technologies to drive forward-thinking solutions, optimizing designs and energy efficiency with CFD. They are passionate about problem-solving, consistently exceeding expectations. Through innovation, they're committed to fostering a sustainable future and enhancing industries. Hexagon works to enable customers to shape reality with precision sensors and software that transform data into real-world outcomes for people, process and the planet. Whether you invent, design, manufacture, test or service products, Hexagon's Manufacturing Intelligence division empowers you to create without limit. Hexagon's technologies remove the barriers to what's possible and empower makers to redefine the world we know through manufacturing innovation. From concept to end of life, our solutions deliver optimisation across the entire value chain, transforming design, simulation, testing, material selection, manufacturing design planning, production, inspection and real-world performance. Hexagon's

smart manufacturing portfolio supports entire product and production lifecycles, unlocking potential, solving problems before they occur, providing significant gains and empowering makers to gain the edge, shape their industry and create lasting change. (https://hexagon.com and https://scx-solutions.com)

Adept Turnkey

Silver Sponsor, Sponsor of Hypersonics and Compressible Flows III (Hyper-III)

Adept Turnkey, Australia's largest independent supplier of machine vision and imaging technology, in partnership with Phantom High-Speed cameras, delivers cutting-edge solutions for fluid mechanics imaging. The broad range of Phantom High-Speed cameras provides unmatched performance in imaging for fluid mechanics by enabling researchers to capture and analyse complex fluid movement with exceptional image quality and sensitivity. With Adept Turnkey's experienced support you can be sure of an optimal solution. Talk to our vision experts today to find out more. (www.adept.net.au)

Bestech

Silver Sponsor, Sponsor of Experimental Techniques & Facilities II (Expt-II)

Founded in Melbourne in 2002, Bestech Australia has become one of the leading providers of sensors, instrumentation, technical teaching equipment and automation solutions in Australia and New Zealand. Bestech Australia specialise in supplying, designing and manufacturing sensors, instrumentation and data acquisition system for test and measurement of physical parameters such as displacement, temperature, pressure, acceleration, vibration colour, level, force, strain and material properties. We provide measurement solutions which could be an individual product or a complete turn-key system. Bestech Australia offers a comprehensive range of vocational training and engineering teaching equipment, accompanied by syllabus for disciplines such as electrotechnology, automotive, smart manufacturing, hydraulics & pneumatics, avionics, instrumentation & control, renewable energy, refrigeration & HVAC, and various engineering fields. (www.bestech.com.au)

Blink Technology Australia

Silver Sponsor/Student Prize Sponsor, Sponsor of Fluid Turbulence I (Turb-I)

Blink Technology specialises in High end imaging, image analysis software and camera accessories across a range of industries. We specialise in sourcing and providing the highest quality products from around the world selling high speed cameras from Photron and AOS Technologies which are capable of shooting from 200 frames per second for sports motion analysis to 2,000,000 frames per second to capture events like welding and ballistics. Our range of products allows us to build a package specific to the needs of our clients. (www.blink.com)

Dantec Dynamics | Pixeltec Dynamics

Silver Plus Sponsor, Sponsor of Experimental Techniques & Facilities I (EXPT-I)

Pixeltec Dynamics offers state-of-the-art measurement solutions for diagnostics and research in fluid mechanics, microfluidics, spray and particle analysis, combustion technology and solid mechanics NDT applications. Dantec Dynamics has been developing flow measurement solutions and is now the world's leading supplier of instrumentation for flow measurement and particle characterisation. Since then Dantec Dynamics has continued to innovate and deliver groundbreaking products to companies and institutions around the world. (staging.pixeltec.com.au)

Eimaging

Silver Sponsor/Student Prize Sponsor, Sponsor of Multiphase Flows I (MULTI-I)

EIMAGING is an independent distributor of high speed video camera equipment, lighting, motion and volumetric capture and motion analysis systems. They offer camera sales, rentals, and specialist consultant services to meet all of your high speed imaging, lighting and motion capture needs. Their intimate knowledge of high-speed imaging applications combined with our years of experience we are able to provide you and your organisation with the knowledge and information to select, source and implement high-speed and machine vision imaging systems. EIMAGING can supply a range of high-speed cameras and accessories for rent. (https://eimaging.com.au)

Lastek and LaVision

Silver Sponsor, Sponsor of Boundary Layer Flows I (BL-I)

Lastek are specialists in Lasers, Spectroscopy and Photonic based systems and are proud distributors of LaVision for the Australian/ New Zealand region. LaVision supplies world leading Laser Imaging Systems and have extensive professional experience in Laser Imaging Spectroscopy and optical techniques such as Laser Induced Fluorescence (LIF), Absorption and Emission Spectroscopy, Raman, Rayleigh and Mie Scattering, Particle Image Velocimetry (PIV), Spray Analysis, Digital Image Correlation (DIC) techniques as well as ultra- fast time- resolved imaging and high- speed image recording.

LaVision also helps to pioneer research in full 3D volumetric techniques such as Tomographic-PIV, Shake-The-Box and Digital Volume Correlation (DVC).

www.lastek.com.au

Leap

Silver Sponsor, Sponsor of Computational Fluid Dynamics I (CFD-I)

For over 25 years, LEAP has successfully supported the best- practice use of engineering simulation software for the thousands of customers across Australia and New Zealand - from global industry leaders, through to small local companies and research groups. Their expert team provides support, training & mentoring with deep expertise in CAE, CFD, & FEA simulation, PLMas well as emerging technologies such as Digital Twins, the Industrial Internet of Things (IoT) and Augmented Reality (AR).

The mission at LEAP is unchanged: a desire to help local companies and researchers to gain technical insights, reduce development costs & improve product quality using software that is best- in- class from industry leaders such as ANSYS, PTC & Rocky. LEAP has the team, tools and experience to solve the problems that no- one else can. (www.leapaust.com.au)

Keynote Speakers

Professor Rowena Ball

Australian National University, Canberra, Australia

Flows of change and reconciliation: Wine into the wide river

Rowena Ball graduated with honours I and the University Medal in 1993, then again with a PhD in 1997 in applied mathematics. She can't remember much about her PhD project, except that it had something to do with complex thermoreactive systems. Anyway, whatever it was, it ended up as several papers in Proc. Roy. Soc. A. After a funny postdoc in the UK working with a Creationist on combustion problems, she moved to ANU where she survived on various ARC fellowships and grants. Turned out that the very same mathematics, with tweaks here and there, was jolly useful for interesting problems such as modelling quasi two-dimensional flows, and the origin of life. She leads an international research and teaching initiative called Mathematics Without Borders, *aka* Mathing a Better World, which is all about Indigenous and non-Western mathematics and truth-telling in mathematics history. Of all her publications, the one she is proudest of was co-authored by students of a remote Indigenous school. About this article, the dreaded ARC Assessor B said 'it is hardly a high-impact output'. She begs to differ.

Professor Claudia Cenedese

Woods Hole Oceanographic Institution, Woods Hole, MA, USA.

Everything You Always Wanted to Know About Icebergs Melting* (*But Were Afraid to Ask)

Claudia Cenedese is a Senior Scientist in the Physical Oceanography Department at the Woods Hole Oceanographic Institution (MA, USA), an adjunct Associate Professor in the College of Engineering at the University of Canterbury (New Zealand), a faculty of the Geophysical Fluid Dynamics Summer School, and a Fellow of the American Physical Society. She earned a PhD at the Department of Applied Mathematics and Theoretical Physics of the University of Cambridge (UK) after a MS+BS in Environmental Engineering at the University of Rome "La Sapienza". The focus of her research is to improve our understanding of how mesoscale and sub mesoscale circulation of the ocean. Recent interests include buoyant plumes generated by melting glaciers and icebergs, microplastic transport and burial, buoyancy driven surface and bottom currents, turbulent mixing and entrainment, river plumes and mesoscale vortices.

Professor Amy W Lang

University of Alabama, Tuscaloosa, AL, USA

Sharks and Butterflies: Flow Control with Small Scales

Amy Lang (PhD in Aeronautics, Caltech, 1997) performs research in experimental fluid dynamics in the area of bio-inspired flow control with a focus on studying shark and butterfly scales as a means of boundary layer control. She has received funding from the National Science Foundation, Lindbergh Foundation, NASA and the Army, and has a dedication to working with undergraduate researchers through her long-time running NSF Research Experience for Undergraduates Site in fluid mechanics at The University of Alabama.

Professor Ellen K Longmire

University of Minnesota, Minneapolis, MN, USA.

Particle Motions in Turbulent Flows

Ellen Longmire received an A.B. in physics from Princeton University and M.S. and Ph.D. degrees in mechanical engineering from Stanford University. Since 1990, she has taught and directed research in the Department of Aerospace Engineering and Mechanics at the University of Minnesota, and recently served as Associate Dean of the College of Science and Engineering. Professor Longmire uses experimentation and analysis to answer fundamental questions in fluid dynamics that affect aerospace, industrial, biomedical, and environmental applications. She is a Fellow of the American Physical Society and received the UM Distinguished Women Scholars Award, the McKnight Land-Grant Professorship, and the NSF National Young Investigator Award. She is currently an Editor-in-Chief for Experiments in Fluids and ex officio member of the US National Committee on Theoretical and Applied Mechanics. She previously served as Chair of the APS Division of Fluid Dynamics and Associate Editor for Physics of Fluids.

Professor Emelie Sauret

Queensland University of Technology, Brisbane, Australia

Numerically Exploring Inertialess Multiphysics: From Fundamentals to Applications

Emilie Sauret is Professor in the School of Mechanical, Medical & Process Engineering, Queensland University of Technology (QUT). She received her PhD in Turbulence Modelling from the University Pierre & Marie Curie, Paris, France in 2004. She spent 5 years in the automotive and oil and gas industry in France and in Australia, before returning to academia in 2009. She has been awarded prestigious fellowships including an ARC-DECRA (2013) and Future Fellowship (2020). Her current research focusses on the development of advanced computational techniques to accurately simulate complex and non-ideal fluid flow behaviours. She currently conducts research on the complexities of inertialess viscoelastic instabilities and intricate microfluidic behaviours in multiphase/multi-component fluid flows.

Professor Mathieu Sellier

University of Canterbury, Christchurch, New Zealand

Viscometric Free Surface Flows: From Small to Large and from Cold to Hot

Mathieu Sellier is Professor of Fluid Mechanics in the Department of Mechanical Engineering at the University of Canterbury. He graduated with a Master in "Modelling and Simulation in Mechanics" from Université Grenoble Alpes (France) in 2000 and PhD from the University of Leeds (UK) in 2003. From 2003 to 2006, he was a postdoctoral researcher at the Fraunhofer Institute for Industrial Mathematics (Kaiserslautern, Germany) in the Marie-Curie Research Training Network MAGICAL (Mathematics for the Glass Industry Computations and Analysis). Prof Sellier started at the University of Canterbury as a lecturer in Theoretical Fluid Mechanics in 2006 and now leads the Interfaces and Inverse Problems lab (I&IP). His research interests include the modelling of free surface or multiphase flow phenomena at small scales (droplets and thin film flows) or at large geophysical scales (river or glacier flows). Prof Sellier's other area of research expertise is related to inverse problems for which one tries to infer the unknown causes of observed phenomena.

Emerging Leaders

Dr Bianca Capra

Deputy Program Lead Space Capability
Defence Science and Technology Group (DSTG)

Dr Bianca Capra is an aerospace engineer leading critical Australian science and technology research projects as the Deputy Program Lead Space Capability at the Defence Science and Technology Group. Bianca is an advocate and strong proponent of increasing diversity, equity and inclusion (DEI) in her technical fields and spheres of influence. She has used the skills developed through her technical background in hypersonic aerothermodynamics (PhD, UQ 2006) across a broad range of science and engineering fields in academia, government and industry. Using skills from her research and technical career, Bianca now leads large multi-disciplinary science and technology projects across the broader science and technology ecosystem. Bianca also has a strong focus on STEM outreach and engagement; supporting diversity through a number of women in STEM ambassador roles including as an STA Superstar of STEM in 2019, and more recently as the Senior Defence Women in STEM ambassador.

Leadership and its implementation in society

Abstract: We are all role models, with more influence then we think. In this keynote session for AFMS Emerging Leaders, I will illustrate how skills developed as a technical expert in fluid mechanics can be leveraged in multi-disciplinary and diverse leadership roles. Through several case studies, I will explore the leadership of STEM engagement and outreach; with a focus on leading equity, diversity and inclusion activities to improve researcher attraction and retention. I will conclude the presentation by providing examples and guidance on how we, as the Australian Fluid Mechanics community, can all get involved to ensure our field attracts, and retains the best minds and talents. Lasting impact starts from one small idea, and we can all use our influence to lead this impact in our technical or broader fields.

Associate Professor Danielle Moreau

UNSW Sydney, School of Mechanical and Manufacturing Engineering

Danielle Moreau is an Associate Professor in the School of Mechanical and Manufacturing Engineering at UNSW Sydney. She obtained her PhD at the University of Adelaide in 2010 on the topic of virtual sensing for active noise control. Her current research is in the field of experimental aeroacoustics and explores the production and control of flow-induced noise. Her major research contributions have been in wall-mounted finite airfoil aeroacoustics, airfoil trailing edge noise production and control and bluff body flow noise.

Leadership in Aeroacoustics

Abstract: Aeroacoustics, the sound generated by aerodynamic flows, is a significant contributor for aircraft, wind turbines, fans, UAVs, and underwater vehicles. This noise arises from unsteady surface pressure generated by interactions between flow structures and the surfaces of objects within the flow. This talk will present examples of recent experimental advances aimed at identifying these flow structures to reveal the mechanisms behind noise generation in complex, three-dimensional low Mach number flows. Additionally, it will highlight recent efforts to promote aeroacoustics and fluid mechanics to a broader audience.

Information for the 24AFMC 2024

This section is a guide to the conference, venue, social events, useful information and conference schedule.

Conference Venue and Time

The conference runs from Sunday 1st of December 2024 through to Thursday 5th of December 2024. The venue is Hotel Realm located at 18 National Circuit, Barton, ACT 2600. The conference will take place in the hotel itself, and a layout of the rooms and facilities are provided in Figure 1.

Registration will be open between 5 – 7 pm on Sunday 1st of December 2024 and between 7:30 – 10:00 am at the first floor of Hotel Realm during the conference. The registration desk can also provide information if you need any assistance.

Lunch will be served each day, as well as refreshments at morning and afternoon tea. A range of meal options will be available, including vegetarian and halal, which you would have indicated preference during registration.

There are lifts available for disabled access to the conference venue and presentation rooms. However, if you have any specific needs or access requirements, please advise us ahead of the event to enable us to accommodate them if resources are available.

The keynote lectures will take place in the ballroom, whereafter we would encourage the attendees to vacate the room for tea so that the room can be rearranged for the session presentations that follow the tea break.

Wifi: Individualised wifi login details will be provided in the material you will receive from the registration desk.

More information on the facilities available at Hotel Realm can be requested directly from the hotel. Website: https://hotelrealm.com.au. Reception: +61 2 61631800.

Information for Presenters

The latest version of the conference program schedule is included at the end of this document.

- You have a maximum of 14 minutes to give your presentation, after which there will be 4 minutes for questions, and 2 minutes for a changeover.
- You are advised to use Powerpoint pptx or pdf format for the presentation. Pdfs backups are recommended. There is no conference presentation template, please use your own. Laptops connected to the audio-visual equipment will be able to display PowerPoint or pdf files.
- If you are loading your presentation onto the laptop connected to the audio-visual equipment, please bring a copy of your presentation on a virus-free USB stick. A HDMI connector will be available for PC laptops, and a USB-C connector will be available for Apple devices.
- The AV system supports presentation in wide screen (16:9) and standard (4:3) aspect ratios.

If you are uploading your presentation onto the seminar room audio-visual equipment, please do so prior to the commencement of your session and do test that your presentation runs smoothly. The rooms will be available from 7:45 am each day. To avoid delays, please use the following guidelines:

If you are presenting during the morning sessions, please upload your presentation to the audio-visual equipment during morning tea or prior to the opening ceremony.

If you are presenting during a later session, please upload your presentation during one of the breaks prior to your session.

If you are using your own laptop or Apple device, please ensure that your presentation is setup prior to moving to the presentation dais.

Emergency information

In case of the fire alarms being activated, you should make your way to towards the hotel lobby and out of the building through the Ostani bar. The mustering point is outside at the corner of Bourke Street and Burbury Close.
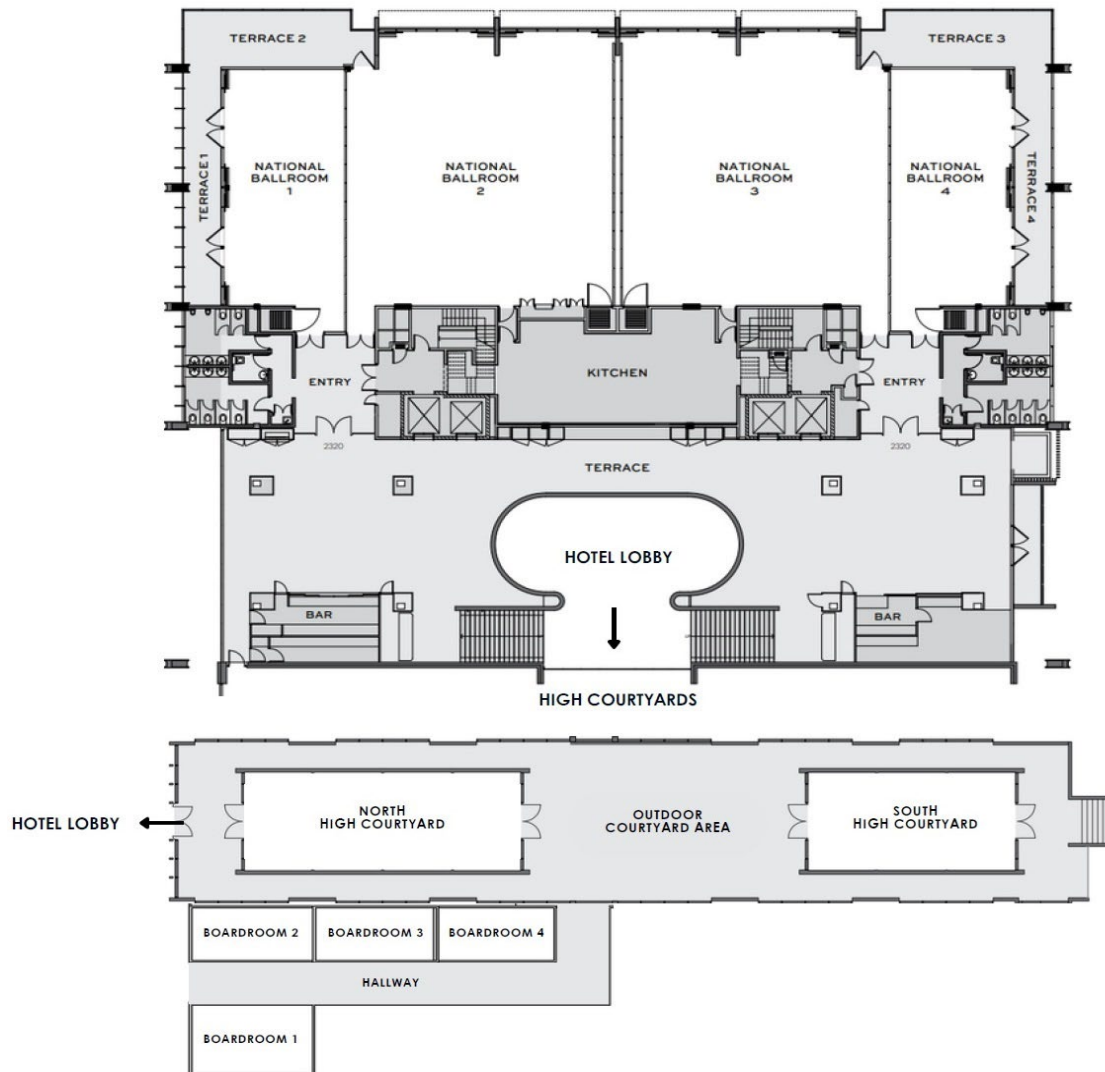
Figure 1: Layout of the conference venue

Transport

Transport from Canberra Airport

Public buses: The Action bus R3 leaves Canberra airport to the City interchange Platform 1 every 15 minutes on weekdays and every 30 minutes on weekends. (R3 continues to Belconnen and Spence). It stops at the Russell Offices bus stop as well. The only bus running along National Circuit past Hotel Realm is No. 59 which departs the City Interchange at platform 11 and stopping at the Russell Offices bus stop before heading along National Circuit on its way to Woden.

See https://www.transport.act.gov.au/getting-around/timetables/routes-by-number for further details.

Taxis: Taxis are available at the airport. The taxi rank is located centrally on the ground floor of the Canberra airport terminal building near the baggage carousels in the Arrivals Hall. Taxi companies include ACT Cabs, CanberraElite, Ezy Cabs, Glide taxi, and Wheelchair accessible taxis. See https://www.canberraairport.com.au/transport/taxis for further details.

Transport from Canberra Train Station

Canberra Train Station is located in Burke Crescent off Wentworth Avenue in Kingston, which is one suburb from Barton. There is no direct public transport link to the conference venue.

Public buses: The Action bus R2 leaves Canberra train station to the City interchange Platform 2 every 12 minutes on weekdays and every 30 minutes on weekends.

Taxis: Taxis are available outside the train station.

Transport from Canberra Coach Terminal

The Coach Terminal is located Jolimont Transit Centre at 65–57 Northbourne Avenue, which is next to Novotel Hotel. To take a bus from the city, walk out of the terminal and cross Northbourne Avenue. The City Interchange bus stops are located between Bunda, Alinga St and London Circuit (along East Row) – you just need to find the correct bus interchange number. The only tram in Canberra is also on Northbourne Avenue when you exit the terminal. This tram runs every 15 minutes and goes north through Dickson and then onto to Gungahlin, a trip that takes about 25 minutes.

Women in Fluid Mechanics (WiFM)

The Australasian Fluid Mechanics Society, recognising that there is a significant lack of gender diversity in fluid mechanics, formed the Women in Fluid Mechanics (WiFM) subcommittee in late 2017. The purpose of this subcommittee is to promote and support female researchers in fluid mechanics in Australasia.

Since its formation, the WiFM has focused on establishing gender equity policies in the AFMC Hosting guidelines. Policy amendments proposed by the WiFM and endorsed by the AFMS include:

- Gender equity for keynote speakers and conference scientific committee. The implemented policy follows the 40-40-20 approach (40% female, 40% male, 20% other including non-binary).
- Inclusion of one gender equity event at the biannual AFMS Conference.
- "Return to Work" Scholarships to support attendance at the biannual AFMS conference for AFMS members returning to work in field of fluid mechanics after an extended leave period.
- Provision of AFMS subsidised childcare at the conference to allow for parents of young children to attend and participate.

In 2020, the subcommittee expanded its membership, and focused on a number of areas including:

- Job application mentoring for female ECRs
- Network building
- Travel scholarships

The subcommittee is presently chaired by Dr. Bianca Capra (UNSW Canberra), with Prof. Jim Denier (Macquarie U), Dr. Emilie Sauret (QUT), Danielle Moreau (UNSW), Daniel Edgington-Mitchell (Monash U), Nicole Jones (UWA) and Dr. Maryam Abdolahpour (UWA) as members.

At the 24AFMC, a WiFM event is being held prior to the welcoming reception between 3 and 5 pm on Sunday 1st December 2024. This will be in the Ostani Bar located on the ground floor of Hotel Realm. Interested attendees are invited to attend this event, where a drink and some nibbles will be provided.

If you are interested in the initiatives and activities of the WiFM subcommittee, please visit the webpage on the AFMS website. https://www.afms.org.au/society.html#WiFM.

Early Career Researchers/Mid-Career Researchers (ECR/MCR) Event

The ECR/MCR Event will be held on the evening of Monday 2 December 2024 at Hotel Realm in the North courtyard area. This event aims to provide valuable opportunities for networking and professional growth through shared experiences with your peers. A light meal will be served during the event. Highlights include:

- Insights and inspiration from Dr Catherine Vreugdenhil (Melbourne) and Dr Daniel Duke (Monash) on how they have navigated challenges at various stages of their careers.
- A grant writing session led by Professor Maziar Arjomandi from the University of Adelaide and/or Professor Ivan Marusic from the University of Melbourne. Learn how to craft compelling proposals that stand out, and gain insider tips and practical advice to increase your chances of securing research funding.
- Interactive discussion sessions to engage in meaningful discussions with experienced academics and industry experts on a range of topics; finding the next employment opportunity, positioning

yourself for grants, enhancing visibility, effective project management, qualities of great research leaders, improving mentorship skills, aligning with industry needs, and effectively communicating your ideas.
- Networking opportunities to connect with peers and potential collaborators, fostering relationships that can lead to future collaborations and career advancement.
- Opportunity to enhance your professional skills, expand your networks, and gain insights that will help you advance in your careers. It offers senior academics and industry professionals a platform to impart expertise on various topics to junior fluid mechanicians, while providing students with early exposure to future challenges and opportunities for adaptation.

The ECR/MCR representative for the conference is Dr Methma Rajamuni.

Higher Degree Research Student (HDR) Event

THE HDR event will be held on the evening of Monday 2 December 2024 at Hotel Realm in the ballroom 2. The theme for this event is `Nobel Insights 2024: Revolutionising Engineering through Machine Learning and Data-Driven Innovation'. It promises to be an engaging and dynamic event designed specifically for Higher Degree by Research (HDR) students at AFMC2024. This event will provide valuable opportunities for networking and professional growth through shared experiences with your peers. A light meal will be served during the event. The agenda is:

- Introduction and Welcome by Professor Sean O'Byrne of ANU. (5 minutes)
- Guest Lecture by Professor Ali Mohammad-Djafari, former research director from CNRS. (15 minutes)
- Case Studies and Panel Discussion chaired by Professor Sean O'Byrne of ANU. This will consist of short presentations from three experts (Amirhossein Sabourishirazi, Yuhang Wang, Stephen Terrington), to discuss innovative AI applications across fields like fluid dynamics, fire safety, and engineering, followed by a panel discussion. (30 minutes)
- Industry Session: invited speakers from industry will discuss their experiences and perspective on AI and ML. (15 minutes)
- Networking Meet and Greet Session. (15 minutes)

The objectives of the HDR Event are:

- To provide a platform for engineers and machine learning experts to share knowledge and best practice.
- To showcase the latest advances in machine learning and its applications in fluid mechanics.
- To facilitate collaboration and networking among attendees from diverse backgrounds.

The target audience consists of all those interested in the intersection of science, engineering and machine learning, including HDR students, industry professionals and researchers.

All HDR students are invited to register for the HDR event. Participation is free of charge.

The HDR representatives are Mostafi Ali (UNSW) and Justin Kin Jun Hew (ANU).

BBQ
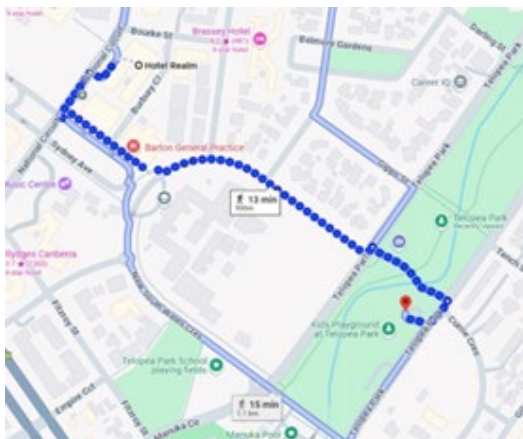
The BBQ will be held in Telopea Park from 6 pm on Wednesday 4 Dec 2024. To get to the park, follow the route as shown on the map to the left which will take you to the BBQ area. Guides will be present at Hotel Realm from 6 pm to provide directions. Please dress accordingly as the weather permits. Please ensure that all waste are placed in the appropriate bins.

Conference Banquet

The conference banquet will be held at the National Gallery of Australia on the Tuesday, 3rd December 2024, 6:00 pm for 6:30 pm. The venue is Gandel Hall which is accessed through the main entrance and located to the right of it, opposite the bookshop. The hall has floor-to-ceiling windows, red ironbark floors, and gold-leaf glass doors. It opens onto the Australian Garden Terrace with views of Lake Burley Griffin and the National Carillon. Gandel Hall will be approached by a side pathway behind the Ourobouros display. Entry will be at the doors will be through the ticket desk. If you are driving to the NGA, there is parking at P1 below the NGA and another 288 carpark spaces near the John Gorton building (where the John Grey Gorton sculpture is located). Free parking start after 5:00 pm.
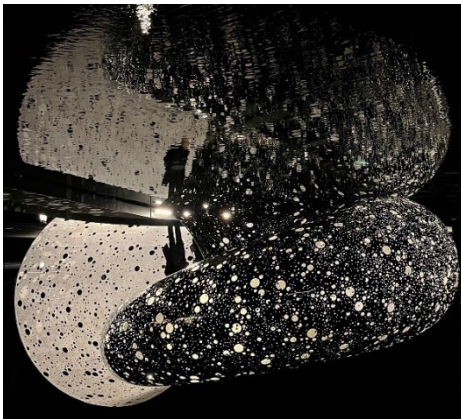
The latest addition to the National Gallery is the Ouroboros, an immersive, public sculpture by Australian artist Lindy Lee, recently unveiled on the National Gallery forecourt. The work is based on the ancient image of a snake eating its own tail; an image seen across cultures and millennia, the symbol of eternal return, of cycles of birth, death and renewal. It is opened day and night and are invited to enter the 'mouth' of the sculpture and walk into the curved space illuminated by light beams emanating from the thousands of perforations on its surface.

The walking route from Hotel Realm to the National Gallery of Australia on the next page. Along the way you will pass:
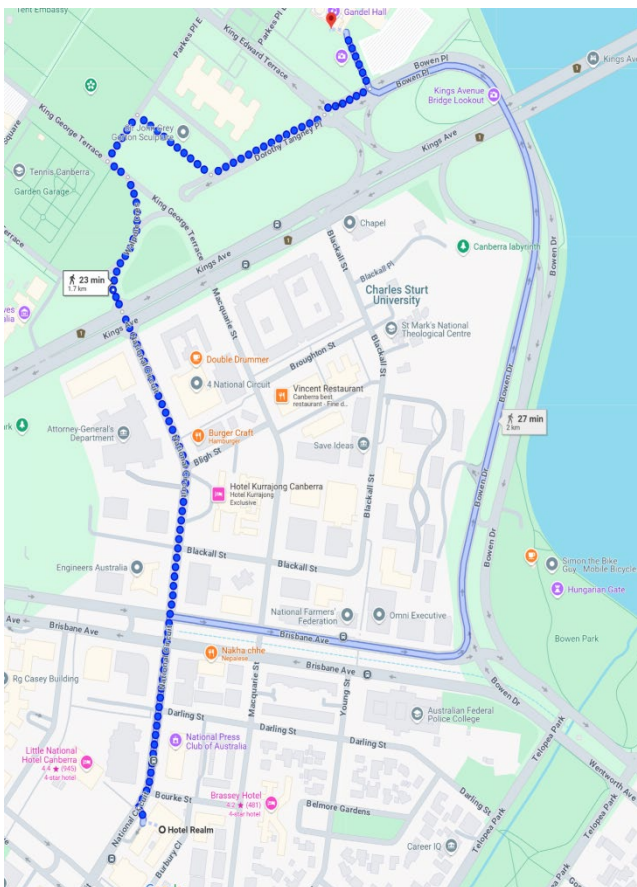
Commonwealth Heritage List.

- the **National Press Club** where public debates and private discussions that shape Australia today and into the future are hosted,
- the **Kurrajong Hotel** which opened in 1926 with the birth of Canberra. It was designed by the Commonwealth Chief Architect, John Smith Murdoch, who also designed the Old Parliament House. It first housed staff transferred from Melbourne to set up the new Parliament and it continued as a residence for Members of Parliament and public servants for years to come. Prime Minister Ben Chifley lived at the hotel throughout his parliamentary career preferring it to The Lodge, including his term as Prime Minister from 1945-1949 and up until his death in 1951, enjoying the 700m walk each morning to Parliament House.
- The **John Gorton Building**, which was the former location of the Department of Finance, but now houses the Department of Climate Change, Energy, the Environment and Water (DCCEEW). Planned in 1924, designed in 1946 in the inter-war Stripped Classical style, it was only completed in 1956. It has symmetrical facades, basic classical column form and subdued spandrels between the storeys to emphasise verticality It is listed on the

Session Details

Session 1: Monday 2nd December 2024 (10:35- 13:00)

Time	Paper #	Authors	Title	Presenter	Affiliation	Index Code
10:35		**LEAP Session 1A on Computational Fluid Dynamics I (CFD-I), chaired by Richard Sandberg, in Ballroom 1**				
10:40	378	Kenshiro Takahashi, Patrick Russell, Luka Barbaca, Bryce Pearce, James Venning and Paul Brandner	Numerical study on the influence of boundary-layer thickness on tip-leakage flow for a hydrofoil	Kenshiro Takahashi	University of Tasmania, Launceston, Tas., Australia	CFD-I-1 (Student)
11:00	260	Lev Chernyshev, Natalia Kabaliuk, Mark Jermy, Simon Corkery and Dan Bernasconi	Evaluating an Enhanced Hydrodynamic Lifting Line Model of a Hydrofoil	Lev Chernyshev	University of Canterbury, Ilam, Canterbury Region, New Zealand	CFD-I-2 (Student)
11:20	169	Jake Emmerling, Sara Vahaji, David Morton, David Fletcher and Kiao Inthavong	The Suitability of Recently Developed Turbulence Models in Predicting Flow Through Stenosis Geometries	Jake Emmerling	Deakin University, Waurn Ponds, Victoria, Australia	CFD-I-3 (Student)
11:40	194	Wai Kit Lam, Leon Chan, Yicheng Cao, Wilson Lu, Duncan Sutherland, Richard Manasseh, Khalid Moinuddin and Andrew Ooi	Impact of front surface area on the dynamics of planar gravity currents	Wai Kit Lam	The University of Melbourne, Parkville, Victoria, Australia	CFD-I-4 (Student)
12:00	155	Abdallah Berrouk and Ahmed Alatyar	Towards enhancement of the dry hydrodynamic performance of the rotating packed bed	abdallah sofiane berrouk	Khalifa University, Abe Dhabu, United Arab Emirates	CFD-I-5
12:20	66	Yidie Luo, Nick Bennett, Gongli Li, Yuantong Gu, Emilie Sauret, Robert Fitch and Mohammad Islam	Heat Transfer Enhancement: Insights from Large Eddy Simulation with Rectangular Winglet Vortex Generators and Circular Punched Holes	Yidie Luo	University of Technology Sydney, Ultimo, NSW, Australia	CFD-I-6 (Student)
12:40	163	Matthew Cook, Sara Vahaji and Kiao Inthavong	A methodology for mapping flow profiles to reproduce the flow conditions of a truncated upstream geometry	Matthew Cook	RMIT University, Melbourne, Victoria, Australia	CFD-I-7 (Student)
10:35		**Session 1B on Aerodynamics (AERO-I), chaired by Gholamreza Kefayati, in Ballroom B**				
10:40	340	Harrison Howarth, Matthew Ericksen, Nicholas Lawson, Jisheng Zhao and Keith Joiner	A Wind Tunnel Study of the Aerodynamic Performance of a Novel Hybrid Unmanned Aerial Vehicle	Harrison Howarth	UNSW Canberra, Canberra, ACT, Australia	AERO-I-1 (Student)
11:00	255	Muhammed Sadique Parancheerivilakkathil, Shantanu Bhat, John Young, Joseph Lai, John Hrynuk, Fang-Bao Tian, Sridhar Ravi and Jordan Nash	Gust Alleviation of a Passively Pitching Wing Equipped with a Torsional Spring	Muhammed Sadique Parancheerivilakkathil	UNSW Canberra, Canberra, ACT, Australia	AERO-I-2 (Student)
11:20	106	Bruce Ruishu Jin, Gerald Pereira, Sridhar Ravi, John Young and Fang-Bao Tian	The optimal spanwise effective angle of attack in flapping-wing propulsion	Ruishu (Bruce) Jin	CSIRO, Clayton, Victoria, Australia	AERO-I-3
11:40	197	Nathan Widdup, Li Wang, John Young, Vincent Daria, Hao Liu and Fang-Bao Tian	A Numerical Study of Bio-Inspired Flight for Martian Exploration	Nathan Widdup	UNSW Canberra, Canberra, ACT, Australia	AERO-I-4 (Student)
12:00	222	Shantanu Bhat, Tomas O'Shaughnessy, John Hrynuk, John Young, Fang-Bao Tian and Sridhar Ravi	Reynolds number and angle-of-attack effects on a propeller in extraterrestrial environments	Shantanu Bhat	University of NSW, Canberra, ACT, Australia	AERO-I-5
12:20	138	Ali Jraisheh, Lakshmi Siva Kumar Mulpuri, V. R. Kowsik Bodi and T. Chandra Sekar	Numerical Exploration of the Unsteady Sonic Buffet of OAT15A Airfoil	Ali Jraisheh (Withdrawn)	Indian Institute of Technology Bombay, Powai, Maharashtra, India	AERO-I-6
12:40	111	Erik Mueller, John Olsen, Cornelius Doolan and Manuj Awasthi	Designing a Subharmonic Excitation Device for Transverse Jets in Supersonic Crossflow	Erik Mueller	UNSW Sydney, NSW, Australia	AERO-I-7 (Student)
10:35		**Lastek Session 1C on Boundary Layer Flows I (BL-I), chaired by Ivan Marusic, in Ballroom 3**				
10:40	13	Mitchell Lozier, Ahmad Zarei, Rahul Deshpande and Ivan Marusic	Pressure Gradient History Effects in High-Reynolds Number Turbulent Boundary Layers	Mitchell Lozier	The University of Melbourne, Carlton, Victoria, Australia	BL-I-1
11:00	22	Michael Heisel, Rahul Deshpande and Gabriel Katul	Deviations from the log law through the lens of the cospectrum budget	Michael Heisel	The University of Sydney, Camperdown, NSW, Australia	BL-I-2
11:20	54	Yendrew Yauwenas, Tingyi Zhang, Con Doolan and Paul Croaker	Experimental cross-correlation of turbulent boundary-layer velocity and wall-pressure fluctuations	Yendrew Yauwenas	UNSW Sydney, NSW, Australia	BL-I-3
11:40	94	Christian Thomas, Sharon Stephen, Jitesh Gajjar and Paul Griffiths	Hydrodynamic benefits of nanofluids in boundary-layer flow	Christian Thomas	Macquarie University, North Ryde, NSW, Australia	BL-I-4
12:00	102	Rahul Deshpande, Amirreza Rouhi, Alexander J. Smits and Ivan Marusic	Reduction of turbulent skin-friction-drag and wall-pressure fluctuations by spanwise wall forcing	Rahul Deshpande	The University of Melbourne, Parkville, Victoria, Australia	BL-I-5
12:20	180	Jiahao Kong, Bagus Nugroho, Luke Bennetts and Rey Chin	Comparison of turbulent boundary layer streamwise development over two- and three-dimensional rough surfaces	Jiahao Kong	The University of Adelaide, Adelaide, SA, Australia	BL-I-6 (Student)
12:40	205	Aditya Chaudhary and Michael Heisel	Transition in scaling of turbulent variances from the surface to mixed layer in the convective atmosphere	Aditya Chaudhary	The University of Sydney, Camperdown, NSW, Australia	BL-I-7 (Student)

10:35		**Session 1D on Fire and Combustion I (FIRE-I), chaired by Maryam Ghodrat, in North Courtyard**				
10:40	65	Alberto Alonso Pinar, Domenico Uljanic, Alexander Filkov, Alexander Babanin, Joey Voermans, Ronan Paugam and Jean Baptiste Filippi	Wind behaviour in junction fires	Alberto Alonso Pinar	The University of Melbourne, Creswick, Victoria, Australia	FIRE-I-1 (Student)
11:00	69	Manahara Manatunga, Farid Christo, Jorg Schluter and Sergiy Shelyag	A Detailed Species Transport Formulation for Flamelet Models of Hydrogen Diffusion Flames.	Manahara Manatunga	RMIT University, Clayton, Victoria, Australia	FIRE-I-2 (Student)
11:20	78	Tommage Sharin Malisha Fernando, Kha Meng Ng, Mohammadreza Yosri, Eirini Goudeli and Mohsen Talei	Silica nanoparticle formation and deposition during biomethane combustion	Sharin Fernando	The University of Melbourne, Parkville, Victoria, Australia	FIRE-I-3 (Student)
11:40	85	Methma Rajamuni, Duncan Sutherland, Tanvir Saurav and Jason Sharples	Canopy Edge Effects on Ember Storm Dynamics	Duncan Sutherland	UNSW Canberra, Canberra, ACT, Australia	FIRE-I-4
12:00	101	Abdalrazik Essamaldin, Mohsen Talei and Omer L. Gulder	Numerical Simulation of Jet Premixed Flames With an Accurate Representation of the Inflow Turbulence	Abdalrazik Ali	The University of Melbourne, Parkville, Victoria, Australia	FIRE-I-5 (Student)
12:20	121	Osman Eissa and Maryam Ghodrat	Numerical analysis of flame merging characteristics of multiple fire sources	Osman Eissa	UNSW Canberra, Canberra, ACT, Australia	FIRE-I-6 (Student)
12:40	133	Mostafa M.E.H. Ali, Mahmoud Gad and Maryam Ghodrat	Numerical Investigation of Thermal Runaway and Fire Characteristics in Large-Format Lithium-ion Batteries	Mostafa M.E.H. Ali	UNSW Canberra, Canberra, ACT, Australia	FIRE-I-7 (Student)
10:35		**Session 1E on Biofluid and Biomedical Fluid Mechanics I (BIO-I), chaired by Andrew Ooi, in South Courtyard**				
10:40	77	Manideep Roy, Ruth P. Lim, Shuvanan Ray, Andrew Ooi and Suman Chakraborty	Patient-Specific Medical Image Trained 3D and 1D Reduced Order Modelling Simulation of Blood Flow through Rigid and Deformable Carotid Arteries	Manideep Roy	Indian Institute of Technology Kharagpur, Life Science Building, West Bengal, India	BIO-I-1 (Student)
11:00	158	Qiuxiang Huang, Zhe Li and Zhiyong Li	Numerical analysis of aortic valve dynamics in patients with supravalvular aortic stenosis	Qiuxiang Huang	Queensland University of Technology, Runcorn, Qld, Australia	BIO-I-2
11:20	270	Tam Atkins, Navid Freidoonimehr, John Beltrame and Maziar Arjomandi	The impact of pulsation on the accuracy of simulating flow in coronary artery models	Navid Freidoonimehr	Queensland University of Technology, Brisbane, Qld, Australia	BIO-I-3
11:40	118	Zhou Wang, Prateek Bahl, David Trcek, Raina MacIntyre, Con Doolan and Charitha de Silva	Design and Characterisation for the UNSW Cough Simulator	Zhou Wang	UNSW Sydney, NSW, Australia	BIO-I-4 (Student)
12:00	161	Patrick Warfield-McAlpine, Matthew Cook, Brenda Vara Almirall, Sara Vahaji, David Fletcher and Kiao Inthavong	Fluid flow characteristics in an integrated nasal-to-tracheobronchial airway model during breathing	Patrick Warfield-McAlpine	RMIT University, Bundoora, Victoria, Australia	BIO-I-5 (Student)
12:20	199	Chandrika Wanigasekara, Chinthaka Jacob, Justin Leontini and Richard Manasseh	Flow through a realistic airway tree: The impact of frequency and asymmetric waveforms on non-linear mean streaming during high frequency ventilation	Chandrika Wanigasekara	Swinburne University of Technology, Clyde North, Victoria, Australia	BIO-I-6 (Student)
12:40	240	Justin Leontini, Thomas Scott, Chandrika Wanigasekara, Chinthaka Jacob and David Tingay	Scaling and simulation of high frequency ventilation	Justin Leontini	Swinburne University of Technology, Hawthorn, Victoria, Australia	BIO-I-7
10:35		**elmaging Session 1F on Multiphase Flows I (MULTI-I), chaired by David Petty, in Ballroom 4**				
10:40	95	Yi Qi, Enhui Chen, Juan Felipe Torres and Feng Xu	A Jet-Induced Radial Flow on a Wall Under Microgravity	Yi Qi	Beijing Jiaotong University, Haidian, Beijing, China	MULTI-I-1 (Student)
11:00	76	Mohammed Ibrahim, Omar Aref, Methma Rajamuni, Li Chen, John Young and Fang-Bao Tian	Boiling heat transfer of droplet impingement on superheated concave surfaces	Mohammed Ibrahim	UNSW Canberra, Canberra, ACT, Australia	MULTI-I-2 (Student)
11:20	371	Joel Harper-Harris, Assaad Masri, Matthew Cleary and Agisilaos Kourmatzis	Near-field time-series analysis and droplet clustering from effervescent atomizers	Joel Harper-Harris	The University of Sydney, Camperdown, NSW, Australia	MULTI-I-3 (Student)
11:40	267	Reilly Cox, Lalantha Senevirathna, Sean Mulligan and Stefan Felder	Lagrangian validation of CFD models assessing risk for fish injury	Reilly Cox	University of NSW, Manly Vale, NSW, Australia	MULTI-I-4 (Student)
12:00	307	Dinesh Karra, Abdul Rasheed, Dalton Harvie, Raymond Dagastine and Joe Berry	Buoyancy-driven droplet collisions in liquid/liquid systems	Joe Berry	The University of Melbourne, Parkville, Victoria, Australia	MULTI-I-5
12:20	56	Sam Mallinson, Geordie McBain, Glenn Horrocks, Brian Brown and Paul Reichl	The Refill of Droplet-On-Demand Inkjet Firing Chambers	Sam Mallinson	Memjet, Macquarie Park, NSW, Australia	MULTI-I-6
12:40	346	Xiaopeng Bi, Elliott Lewis, Zhiwei Sun and Graham Nathan	High-speed micro-focusing shadowgraphy measuring particle velocities in densely-seeded particle-laden flows	Xiaopeng Bi	The University of Adelaide, Adelaide, SA, Australia	MULTI-I-7 (Student)

Session 2: Monday 2nd December 2024 (13:55 – 16:40)

Time	Paper #	Authors	Title	Presenter	Affiliation	Index Code
13:55		**Session 2A on Computational Fluid Dynamics II (CFD-II), chaired by Rowan Gollan, in Ballroom 1**				
14:00	186	Quynh-Anh Duong and Julio Soria	Direct Numerical Simulation of Turbulent Flow Over Spanwise Roughness Elements Using a Code Developed with Julia	Quynh-Anh Duong	Monash University, Clayton, Victoria, Australia	CFD-II-1 (Student)
14:20	216	Ankith Anil Das, Nicholas Williamson and Steven Armfield	Parallel Multigrid for Reynolds Averaged Navier Stokes on Block Structured Cartesian Grids	Ankith Anil Das	The University of Sydney, Camperdown, NSW, Australia	CFD-II-2 (Student)
14:40	261	Christine Mittler, Rowan Gollan and Peter Jacobs	A comparison of CPU and GPU performance for high-order finite-volume methods for simulating hypersonic transition	Christine Mittler	The University of Queensland, St Lucia, Qld, Australia	CFD-II-3 (Student)
15:00	290	Robert Watt, Peter Jacobs, Rowan Gollan and Shahzeb Imran	Comparison of GPU programming models for computational fluid dynamics	Robert Watt	The University of Queensland, St Lucia, Qld, Australia	CFD-II-4 (Student)
15:20	166	Mark George, Nicholas Williamson and Steven Armfield	Mass-Conserving Immersed Boundary Method for Coupled Incompressible Solvers on Collocated Finite Volume Grids	Mark George	The University of Sydney, Camperdown, NSW, Australia	CFD-II-5 (Student)
15:40	210	Jiyoung Lee, Leon Chan, Wilson Lu, Tony Zahtila, Gianluca Iaccarino, Richard Sandberg and Andrew Ooi	Improved RANS Turbulence Models for Buoyancy-Driven Flows	Jiyoung Lee	The University of Melbourne, Parkville, Victoria, Australia	CFD-II-6 (Student)
16:00	315	Arthur Cato, Melissa Kozul and Richard Sandberg	CFD-driven machine learning to ensure LES wall model consistency	Arthur Cato	The University of Melbourne, Parkville, Victoria, Australia	CFD-II-7 (Student)
16:20	71	Esmaeel Eftekharian, Vassili Kitsios, Ashok Luhar, Paul Feron, Aaron Thornton and Kathryn Emmerson	Large eddy simulation of direct air capture units in an atmospheric boundary layer	Esmaeel Eftekharian	CSIRO, Aspendale, Victoria, Australia	CFD-II-8
13:55		**AOARD Session 2B on Hypersonics I (HYPER-I), chaired by Andrew Neely, in Ballroom 2**				
14:00	203	Hilbert van Pelt, Nicolas Gianellis and Andrew Neely	Validation Datasets for Simulating Hypersonic Glide Vehicles	Hilbert van Pelt	UNSW Canberra, Canberra, ACT, Australia	HYPER-I-1
14:20	171	Nicholas Gibbons and Vincent Wheatley	Effect of Oxygen Enrichment in High Mach Number Scramjet Inlets	Nicholas Gibbons	The University of Queensland, St Lucia, Qld, Australia	HYPER-I-2
14:40	72	Reuben Rankin and Tamas Bykerk	The Influence of a Retro-Propulsion Plume on Vehicle Aerodynamics and Aeroheating during Hypersonic Re-Entry	Reuben Rankin	University of Newcastle, Newcastle, NSW, Australia	HYPER-I-3 (Student)
15:00	31	Ingo Jahn	Towards an efficient method for calculating design parameter derivatives in super- and hypersonic flow	Ingo Jahn	University of Southern Queensland, Springfield Central, Qld, Australia	HYPER-I-4
15:20	213	Tristan Vanyai and Vincent Wheatley	Combustion and Boundary Layer Tripping Effects of an MPIA in a Canonical Axisymmetric Scramjet Flowpath	Tristan Vanyai	The University of Queensland, St Lucia, Qld, Australia	HYPER-I-5
15:40	35	Tamas Bykerk and Tim Horchler	CFD Analysis of a Re-Usable First Stage in the Transonic Regime	Tamas Bykerk	German Aerospace Center (DLR), Göttigen, Lower Saxony, Germany	HYPER-I-6
16:00	52	Zhemin Cai, Matthew Cleary and Ben Thornber	Direct Numerical Simulations of Ethylene-Air Shear Layers and Shock Interactions for Hypersonic Propulsion Applications	Matthew Cleary	The University of Sydney, Camperdown, NSW, Australia	HYPER-I-7
16:20	325	Damian Curran and Vincent Wheatley	Simulation of forced ignition in an accelerator scramjet operating at Mach 5	Vincent Wheatley	The University of Queensland, St Lucia, Qld, Australia	HYPER-I-8
13:55		**LaVision Session 2C on Boundary Layer Flows II (BL-II), chaired by Jason Monty, in Ballroom 3**				
14:00	46	Luka Lindić, Rahul Deshpande, Wagih Abu Rowin and Ivan Marusic	Turbulent/Non-Turbulent Interface Detection in High Reynolds Number APG Turbulent Boundary Layers	Luka Lindic	The University of Melbourne, Parkville, Victoria, Australia	BL-II-1 (Student)
14:20	107	Mohammadreza Mollaei, Jimmy Philip and Joseph C. Klewicki	Turbulence Measurements in a Rotating Disk Boundary Layer up to Re_tau=3000	Mohammadreza Mollaei	The University of Melbourne, Carlton, Victoria, Australia	BL-II-2 (Student)
14:40	198	Christopher Brown, Henry Ng, Pier Marzocca and Christopher Purser	Quantification of the boundary layer on a tripped generic submarine sail	Christopher Brown	RMIT University, Melbourne, Victoria, Australia	BL-II-3
15:00	231	Dezhi Liu, S. L. Tang and R. A. Antonia	Self-preservation in a fully developed channel flow	Dezhi Liu	Harbin Institute of Technology, Shenzhen, Guangdong, China	BL-II-4 (Student)
15:20	234	Ziqi Chen, Bihai Sun, Callum Atkinson and Julio Soria	High Spatial Resolution PIV Measurement of a Self-similar APG Turbulent Boundary Layer	Ziqi Chen	Monash University, Mulgrave, Victoria, Australia	BL-II-5 (Student)
15:40	263	Hugh Russell, David J. Mee and Anand Veeraragavan	BoLT II ground tests with leading edge preheating	Anand Veeraragavan	The University of Queensland, Brisbane, Qld, Australia	BL-II-6
16:00	297	Azadeh Jafari, Elie Bou-Zeid and Maziar Arjomandi	Effects of canopy frontal and plan solidities on the momentum roughness parameters	Azadeh Jafari	The University of Queensland, St Lucia, Qld, Australia	BL-II-7

16:20	326	Jinshuyang Lu	Comparisons of Turbulence Modelling for Vertical Natural Convection Boundary Layer	Jinshuyang Lu	The University of Sydney, Camperdown, NSW, Australia	BL-II-8 (Student)
13:55		**Session 2D on Fire and Combustion II (FIRE-II), chaired by Amna Khraibut, in North Courtyard**				
14:00	154	Ahmad Hassan, Gilbert Accary and Khalid Moinuddin	CFD analysis of laboratory-scale junction fire's behaviour	Ahmad Hassan	Victoria University/National Hazards Research Australia, Werribee, Victoria, Australia	FIRE-II-1 (Student)
14:20	159	Mohamad Sadeghi, Maryam Ghodrat, Duncan Sutherland, Albert Simeoni and Harald Kleine	The Effect of the Fuel Packing Ratio on Convective Heating and Cooling of Excelsior Particles	Mohamad Sadeghi	UNSW Canberra, Canberra, ACT, Australia	FIRE-II-2 (Student)
14:40	207	Kevin Liu, Callum Atkinson and Julio Soria	Parameter sensitivity analysis via direct numerical simulation of boundary layer flow with heat release model as an analogy to bushfires.	Kevin Liu	Monash University, Mitcham, Victoria, Australia	FIRE-II-3 (Student)
15:00	214	Osman Eissa, Mahmoud Waly and Maryam Ghodrat	Effect of fire intensity and burner size on thermal and flame merging characteristics of two parallel fire sources	Mahmoud Waly	UNSW Canberra, Canberra, ACT, Australia	FIRE-II-4 (Student)
15:20	294	Ali Edalati Nejad, Maryam Ghodrat and Jason Sharples	Drying Process, Thermal Behaviour, and Ignition Patterns of Horizontally aligned Moisturized Cellulosic Leaves: A Computational Study	Ali Edalatinejad	UNSW Canberra, Canberra, ACT, Australia	FIRE-II-5 (Student)
15:40	299	Misarah Abdelaziz and Andrew Sullivan	The Modification and Characterisation of the CSIRO Vertical Wind Tunnel for the study of untethered freefalling firebrands	Misarah Abdelaziz	CSIRO, Black Mountain, ACT, Australia	FIRE-II-6
16:00	366	Sajan Thapa, Binoe E. Abuan and Jon Dewitt E. Dalisay	Effects of Ammonia or Methane Addition on the Combustion Characteristics of a Jet-A Fueled Model Combustor	Jon Dewitt Dalisay	University of the Philippines Diliman, Quezon City, Metro Manila, Philippines	FIRE-II-7
16:20	145	Seyed Mohsen Hashem Zadeh, Li Wang, John Young and Fang-Bao Tian	An efficient hybrid lattice Boltzmann-volumetric heating source model for fire impact modelling	Seyed Mohsen Hashem Zadeh	UNSW, Canberra, ACT, Australia	FIRE-II-8 (Student)
13:55		**Session 2E on Biofluid and Biomedical Fluid Mechanics II (BIO-II), chaired by Daniel Duke, in South Courtyard**				
14:00	33	Daniel Duke and David Schmidt	Multiphase Large Eddy Simulation of Metered Dose Inhaler Sprays	Daniel Duke	Monash University, Clayton, Victoria, Australia	BIO-II-1
14:20	351	Xinlei Huang and Suvash Saha	Large Eddy Simulation of Heat and Mass Transfer in a Human Respiratory Tract in a Cold Environment	Xinlei Huang	University of Technology, Ultimo, NSW, Australia	BIO-II-2 (Student)
14:40	43	Mohamed Mahmoud Abdelkareem Mahmoud, Andre Fellipe De Araujo Aquino, Prateek Bahl, Raina MacIntyre, Donna Green, Con Doolan and Charitha de Silva	Infection risk assessment in a classroom environment: A CFD approach with in situ aerosol concentration measurements	Mohamed Mahmoud Abdelkareem Mahmoud	UNSW Sydney, NSW, Australia	BIO-II-3 (Student)
15:00	92	Brenda Vara Almirall, Hua Qian Ang, Hadrien Calmet, Narinder Singh, Daniela Traini, Kiao Inthavong and Chun Yuen Jerry Wong	Oral inhalation airway geometry for inhaled particles in drug delivery	Brenda Vara Almirall	RMIT University, Melbourne, Victoria, Australia	BIO-II-4 (Student)
15:20	109	Uri Hauben, Isabella Burdon, Sarah Vreugde, Alkis Psaltis, Peter-John Wormald and Oveis Pourmehran	Optimising Meshing for Computational Fluid Dynamic Analysis of Nasal Airflow: Balancing Efficiency and Mesh Independence	Uri Hauben	The University of Adelaide, Adelaide, SA, Australia	BIO-II-5 (Student)
15:40	122	Arman Mirzaaghaian, Ming Zhao and Kejun Dong	Deposition efficiency and location of aerosols in human lung under different transient breathing patterns	Mir Arman Mirzaaghaian Amiry	Western Sydney University, Kingswood, NSW, Australia	BIO-II-6 (Student)
16:00	204	Rina Perven, Vishal Chaugule, Victor J. Cadarso and Julio Soria	Zero-Net-Mass-Flux Jet Assisted Dry Powder Inhaler Mouthpiece Exit Flow Dynamics	Rina Perven	Monash University, Mulgrave, Victoria, Australia	BIO-II-7 (Student)
16:20	160	James Van Strien, Sara Vahaji, David Morton, Svetlana Stevanovic and Kiao Inthavong	Predicting Spray Cone Angle from Nasal Sprays Using Inviscid Analysis	James Van Strien	Deakin University, Somerville, Victoria, Australia	BIO-II-8 (Student)
13:55		**Session 2F on Multiphase Flows II (MULTI-II), chaired by Sarah Morris, in Ballroom 4**				
14:00	112	Xueyu Ji, Hongjie An, Antony McNamee and Michael Simmonds	The role of the surface bubble on the cavitation bubble collapse	Xueyu Ji	Griffith University, Nathan, Qld, Australia	MULTI-II-1
14:20	144	Sanjiv Gunasekera, Tyrone Rossouw, James Puli and Daniel Duke	The effect of dissolved non-condensable gas on cavitation within a nozzle	Sanjiv Gunasekera	Monash University, Clayton, Victoria, Australia	MULTI-II-2
14:40	353	Ali Bayat, Prodip Das, Goutam Saha and Suvash Saha	Parametric Study of PEM Water Electrolyzer for Green Hydrogen Production	Ali Bayat	University of Technology Sydney, Ultimo, NSW, Australia	MULTI-II-3 (Student)
15:00	235	Sherman Cheung and Lili Li	Impact of nanobubble coalescence on the nucleation mechanism: a molecular dynamics investigation	Sherman Cheung	RMIT University, Bundoora, Victoria, Australia	MULTI-II-4
15:20	12	Thien Xuan Dinh and Peter Witt	Simulation of supersonic quenching of metallic vapors	Thien Dinh	Mineral Resources, CSIRO, Clayton South, Victoria, Australia	MULTI-II-5
15:40	27	Deng Liu, John Cater, Christina Dunker and Michael MacDonald	Direct Numerical Simulation of Turbulent Radiation Fog	Deng Liu	The University of Auckland, Auckland, New Zealand	MULTI-II-6 (Student)

Time	Paper #	Authors	Title	Presenter	Affiliation	Index Code
16:00	178	Richard Manasseh, Alex Skvortsov, John Allen and Andrew Ooi	Acoustic resonances of two-dimensional bubbly rings	Richard Manasseh	Swinburne University of Technology, Hawthorn, Victoria, Australia	MULTI-II-7
16:20	191	Filippo Nelli, Chinthaka Jacob, Andrew Ooi and Richard Manasseh	Numerical and experimental pressure fields of nozzle-generated underwater bubbles	Filippo Nelli	Swinburne University of Technology, Hawthorn, Victoria, Australia	MULTI-II-8

Session 3: Tuesday 3rd December 2024 (10:35- 13:00)

Time	Paper #	Authors	Title	Presenter	Affiliation	Index Code
10:35		Session 3A on Computational Fluid Dynamics III and Lattice Boltzmann Methods (CFD-III), chaired by Fangbao Tian, in Ballroom 1				
10:40	74	Gholamreza Kefayati	A mesoscopic vorticity-velocity formulation for viscoplastic fluids	Gholamreza Kefayati	University of Tasmania, Sandy Bay, Tas., Australia	CFD-III-1
11:00	82	Gerald Pereira, Peter Cook and Bruce Jin	Modelling of complex microscale flows with the lattice Boltzmann method	Gerald Pereira	CSIRO, Clayton, Victoria, Australia	CFD-III-2
11:20	130	Vigneshwaran Rajendran, Jingtao Ma, Li Wang, Sridhar Ravi and Fang-Bao Tian	An Immersed Boundary-Lattice Boltzmann Method for Compressible Flows	Vigneshwaran Rajendran	UNSW Canberra, Canberra, ACT, Australia	CFD-III-3 (Student)
11:40	193	Travis Mitchell and Markus Holzer	Development of a Phase-Field Lattice Boltzmann Model for Droplet Control and Manipulation Through Thermocapillary Forces	Travis Mitchell	The University of Queensland, Brisbane, Qld, Australia	CFD-III-4
12:00	236	Nicholas Paraskevas, Thomas Rufford, Christopher Leonardi and Travis Mitchell	Lattice-Boltzmann Modelling of Flooding in Gas Diffusion Electrodes for Stable Electrochemical Carbon Dioxide Reduction (CO2R)	Nicholas Paraskevas	The University of Queensland, St Lucia, Qld, Australia	CFD-III-5 (Student)
12:20	244	Arturo Delgado-Gutiérrez, Michael Candon, Lin Tian and Pier Marzocca	Multi-Grid and GPU-accelerated simulation of an underwater hull based on the Single-Step and Simplified Lattice Boltzmann Method	Arturo Delgado-Guti√©rrez	RMIT University, Mill Park, Victoria, Australia	CFD-III-6
12:40	345	Radhika Achikanath Chirakkara, Christoph Federrath and Amit Seta	A new ion cooling method for hybrid particle-in-cell codes	Radhika Achikanath Chirakkara	Australian National University, Stromlo, ACT, Australia	CFD-III-7 (Student)
10:35		Session 3B on Hypersonics and Compressible Flows II (HYPER-II), chaired by Vincent Wheatley, in Ballroom 2				
10:40	129	Dale Pullin, Vincent Wheatley and Shahzeb Imran	Out-flux boundary conditions for electron-emission from metal surfaces, for use in multi-fluid plasma solvers	Dale Pullin	California Institute of Technology, Pasadena, California, USA	HYPER-II-1
11:00	295	Shahzeb Imran, Dale Pullin and Vincent Wheatley	Implementation of thermionic emission boundary conditions in a five-moment multifluid plasma model	Shahzeb Imran	The University of Queensland, St Lucia, Qld, Australia	HYPER-II-2 (Student)
11:20	157	Nitay Ben-Shachar, Joseph Johnson, Mahyar Madadi, Douglas Brumley, Jason Nassios and John Sader	Near-hydrodynamic flow of electrons in state-of-the-art two-dimensional devices	Nitay Ben Shachar	The University of Melbourne, Parkville, Victoria, Australia	HYPER-II-3 (Student)
11:40	305	Caiyu Xie, Rowan Gollan, Nicholas Gibbons, Carolyn Jacobs and Peter Jacobs	Investigation of non-Boltzmann distribution in hypersonic nozzle flows of nitrogen	Caiyu Xie	The University of Queensland, St Lucia, Qld, Australia	HYPER-II-4 (Student)
12:00	212	Ramprakash Ananthapadmanaban, James Wallington, Keill Hopkins, Nicholas Gibbons, Takahiko Toki, Carlo Scalo, David Gildfind, Christopher James, David J. Mee and Ananthanarayanan Veeraragavan	Investigation of Post-Shock Fluctuation Levels in Non-Equilibrium Hypersonic Flow Conditions	Ramprakash Ananthapadmanaban	The University of Queensland, St Lucia, Qld, Australia	HYPER-II-5
12:20	225	Javad Mohammadpour, Xuefang Li and Fatemeh Salehi	Modelling Cryogenic Hydrogen Jet Dispersion: CFD-POD-ML Insights	Javad Mohammadpour	Macquarie University, North Ryde, NSW, Australia	HYPER-II-6
12:40	314	Deepak Saini, Mohsen Talei, Yi Yang, Richard Sandberg and Joseph Berry	Enhancing Hydrogen Fuel Safety via Numerical Simulations	Deepak Saini	The University of Melbourne, Carlton, Victoria, Australia	HYPER-II-7
10:35		Session 3C on Boundary Layer Flows III (BL-III), chaired by Mathew Mason, in Ballroom 3				
10:40	59	Ahmad Zarei, Mitchell Lozier, Rahul Deshpande and Ivan Marusic	Streamwise Evolution of an Adverse Pressure Gradient Turbulent Boundary Layer from a Canonical Upstream Condition	Ahmad Zarei	The University of Melbourne, Parkville, Victoria, Australia	BL-III-1 (Student)
11:00	110	Vijaya Gudla, Rahul Deshpande and Joseph Klewicki	Wall-pressure-velocity couplings in turbulent boundary layers spanning three orders of magnitude in Reynolds number	Vijaya Gudla	The University of Melbourne, Carlton, Victoria, Australia	BL-III-2
11:20	238	Mohammad Reza Rastan, Xiaoyu Guo and Benlong Wang	On the contribution of saguaro cactus biological features in its aerodynamic advantages – A wind tunnel study	Mohammad Reza Rastan	Shanghai Jiao Tong University, MInhang, Shanghai, China	BL-III-3
11:40	298	Azadeh Jafari, Navid Freidoonimehr, Van Thuan Hoang and Maziar Arjomandi	Attenuation of wall-normal velocity statistics in a turbulent boundary layer by a passive perforated surface	Maziar Arjomandi	The University of Adelaide, Adelaide, SA, Australia	BL-III-4

12:00	323	Jelle B. Will, Isnain Aliman, Bagus Nugroho, Hendriyadi, Trisnadi Mulia, I Ketut Suastika, I Ketut A.P. Utama, Michael P. Schultz, Jason P. Monty and Nicholas Hutchins	The roughness induced drag-penalty of an operational tanker ship	Jelle Will	The University of Melbourne, Parkville, Victoria, Australia	BL-III-5
12:20	373	Connor Worth, Svetlana Tkachenko, Zibo Zhou, Angus Gentle, Charitha de Silva and Victoria Timchenko	The Effect of Roof Shapes on Cooling of Roof-Mounted PV Modules at Different Wind Conditions	Svetlana Tkachenko	UNSW Sydney, NSW, Australia	BL-III-6
12:40	380	Matthew Mason	Measurements of the sub-urban roughness sublayer during tropical cyclones	Matthew Mason	The University of Queensland, St Lucia, Qld, Australia	BL-III-7
10:35		**Session 3D on Heat and Mass Transfer I (HEATMASS I), chaired by Chengwang Lei, in North Courtyard**				
10:40	55	Abdolvahab Ravanji, Ann Lee, Javad Mohammadpour, Shaokoon Cheng and Saeid Hejri	Improving Thermohydraulic Performance of Microchannel Pin Fins through Shape Optimization with Deep Reinforcement Learning	Abdolvahab Ravanji	Macquarie University, North Ryde, NSW, Australia	HEATMASS-I-1 (Student)
11:00	90	Amirhossein Sabourishirazi, Jong-Leng Liow and Maryam Ghodrat	Evaluation of Geometric Parameter Effects on Outer Channel Mean Hydraulic Diameter of Pillow-Plate Heat Exchangers	Amirhossein Sabourishirazi	UNSW Canberra, Canberra, ACT, Australia	HEATMASS-I-2 (Student)
11:20	91	Mohammad Arqam, Laryssa Sueza Raffa, Mohammad S. Islam and Nick S. Bennett	Thermal management of electronics using paraffin wax based radial fin heat sink	Mohammad Arqam	University of Technology Sydney, Ultimo, NSW, Australia	HEATMASS-I-3
11:40	120	Kazuhisa Yuki, Kohei Yuki, Ryohei Kubota, Tetsuro Ogushi, Masaaki Murakami, Tomiyuki Numata and Takuya Ide	Heat Transfer Characteristics of Corrugated Lotus Copper Porous Fins utilizing Breathing Phenomenon	Kazuhisa Yuki	Tokyo University of Science - Yamaguchi, Sanyo-Onoda, Yamaguchi Prefecture, JP	HEATMASS-I-4
14:00	162	Saurav B. Koirala, David Buttsworth, Fabian Zandar and Ingo H.J. Jahn	Comparison of Methods for efficient calculation of transient Conjugate Heat Transfer in Hypersonic Flows	Saurav Koirala	University of Southern Queensland, Toowoomba, Qld, Australia	HEATMASS-I-5 (Student)
14:20	220	Amirhossein Sabourishirazi, Jong Leng Liow and Maryam Ghodrat	A Novel Correlation for Mean Hydraulic Diameter in Single-Embossed Channels of Pillow-Plate Heat Exchangers	Maryam Ghodrat	UNSW Canberra, Canberra, ACT, Australia	HEATMASS-I-6
10:35		**Session 3E on Geophysical Flows I (GEOPHYS-I), chaired by Richard Manasseh, in South Courtyard**				
10:40	185	Clarence Collins, Alex Babanin, Alexei Skvortsov and Ian Young	Directional Spectra of Surface Waves from Spatial Arrays: Positional Uncertainty	Clarence Collins	USA Army Engineer Research and Development Center, Southbank, Victoria, Australia	GEOPHYS-I-1
11:00	221	Ian Milne and Lachlan Astfalck	Heave response spectra for a semisubmersible in long period swell	Ian Milne	The University of Western Australia, Crawley, WA, Australia	GEOPHYS-I-2
11:20	24	Lev Ostrovsky and Yury Stepanyants	Complex Dynamics of Solitary Waves in a Rotating Ocean	Yury Stepanyants	University of Southern Queensland, Toowoomba, Qld, Australia	GEOPHYS-I-3
11:40	224	Thomas Valentini, Joseph Klewicki, Vassili Kitsios and Jimmy Philip	On the Dimensionless Numbers Governing Trapped Waves in Stratified Flows over Mountains	Thomas Valentini	The University of Melbourne, Parkville, Victoria, Australia	GEOPHYS-I-4 (Student)
12:00	39	David Muchiri, Mathieu Sellier, James N. Hewett, Miguel Moyers-Gonzalez and Jerome Monnier	Comparing lubrication model with shallow water equations for viscoplastic flows	David Muchiri	University of Canterbury, Upper Riccarton, Christchurch, Canterbury Region, New Zealand	GEOPHYS-I-5 (Student)
12:20	97	Wangpeng Gui, Catherine Vreugdenhil and Bishakhdatta Gayen	Estimating the basal melting of ice shelves affected by submesoscale dynamics	Wangpeng Gui	The University of Melbourne, Carlton, Victoria, Australia	GEOPHYS-I-6 (Student)
12:40	173	Pamoda Herath, Saurabh Pathak, Bishakhdatta Gayen, Joseph Klewicki and Jimmy Philip	Buoyancy-driven turbulent boundary layer of a melting vertical ice face: Role of salinity and temperature diffusivity	Pamoda Herath	The University of Melbourne, Parkville, Victoria, Australia	GEOPHYS-I-7 (Student)
10:35		**Session 3F on Multiphase Flows III (MULTI-III), chaired by Joe Berry, in Ballroom 4**				
10:40	338	Dalton Harvie, Mohammad Noori and Joseph Berry	Shear induced migration in bi-disperse suspensions	Dalton Harvie	The University of Melbourne, Parkville, Victoria, Australia	MULTI-III-1
11:00	242	Deping Sun and Michael MacDonald	Numerical simulation of large spheres moving in vertical turbulent pipe flow	Deping Sun	The University of Auckland; Tianjin University, Auckland, Auckland Region, New Zealand	MULTI-III-2 (Student)
11:20	312	Christopher Leonardi, Łukasz Łaniewski-Wołłk and Nathan Di Vaira	Direct Numerical Simulation of Angular Particle Suspension Transport in Rough Fractures	Christopher Leonardi	The University of Queensland, St Lucia, Qld, Australia	MULTI-III-3
11:40	319	Lachlan Jensen, Łukasz Łaniewski-Wołłk, Nathan Di Vaira and Christopher Leonardi	Direct Numerical Simulation of Suspended Particle Filtration in Geometrically-Complex Porous Media	Lachlan Jensen	The University of Queensland, St Lucia, Qld, Australia	MULTI-III-4 (Student)
12:00	184	Matthew Zhang, Rey Chin and Graham Nathan	Particle distribution in bi-disperse particle-laden jets	Matthew Xinchen Zhang	The University of Adelaide, Adelaide, SA, Australia	MULTI-III-5

Time	Paper #	Authors	Title	Presenter	Affiliation	Index Code
12:20	142	Kari Perry, James Luo, Chk Williamson and Sarah Morris	Melt dynamics of ice cylinders in cross-flow environments	Sarah Morris	Montana State University, Bozeman, Montana, USA	MULTI-III-6
12:40	316	Dmytro Sashko, Travis Mitchell, Lukasz Laniewski-Wollk and Christopher Leonardi	Towards Quantifying the Uncertainty of Relative Permeability Estimates for Rough Fractures	Dmytro Sashko	The University of Queensland, St Lucia, Qld, Australia	MULTI-III-7 (Student)

Session 4: Tuesday 3rd December 2024 (13:35- 16:40)

Time	Paper #	Authors	Title	Presenter	Affiliation	Index Code
13:55		**Session 4A on Fluid Structure Interaction (FSI-I), chaired by Justin Leontini, in Ballroom 1**				
14:00	349	Adrian Cordero Obando, Kerry Hourigan, Mark C. Thompson and Jisheng Zhao	Effect of mass ratio on the flow-induced vibration response of an elastically mounted oblate spheroid	Adrian Cordero Obando	Monash University, Clayton, Victoria, Australia	FSI-I-1 (Student)
14:20	21	Liu Jian and Md Mahbub Alam	Flow-induced vibration of an inelastic cylinder in wake	MD MAHBUB ALAM	Harbin Institute of Technology, Shenzhen, Guangdong, China	FSI-I-2
14:40	9	Nishanth Menakath, Nicholas Lawson and Gareth Vio	Comparative analysis of the wake structures surrounding rigid and flexible hemispheres immersed within a turbulent boundary layer	Nishanth Menakath	The University of Sydney, Camperdown, NSW, Australia	FSI-I-3 (Student)
15:00	20	Luke Pollock, Harald Kleine, Andrew Neely and Graham Wild	An experimental study of the fluid-structure interaction of a cantilever panel with reflected shock impingement	Graham Wild	UNSW Canberra, Canberra, ACT, Australia	FSI-I-4
15:20	19	Luke Pollock, Harald Kleine, Andrew Neely and Graham Wild	Numerical modelling of the fluid-structure interaction of a cantilever panel with reflected shock impingement	Luke Pollock	UNSW Canberra, Canberra, ACT, Australia	FSI-I-5 (Student)
15:40	258	Xinying Liu, Aeryne Lee, Yiqi Wang, Luke Mosse, Nils Karajan, Sina Naficy and David Fletcher	FSI Analysis of a Bioinspired Heart Valve: A Study of the Effect of Fluid and Conduit Properties	Xinying Liu	The University of Sydney, Camperdown, NSW, Australia	FSI-I-6
16:00	190	Omar Aref, Zaher Rahimi, Qiuxiang Huang, Li Wang, John Young and Fang-Bao Tian	Dynamic behavior for stenosed channel: An FSI study	Omar Aref	UNSW Canberra, Canberra, ACT, Australia	FSI-I-7 (Student)
16:20	75	Jack Park, Daniel Linton and Ben Thornber	Wind turbine/farm simulations using an immersed boundary method	Jack Park	German Aerospace Center (DLR), Dresden, Saxony, DE	FSI-I-8
13:55		**Adept Turnkey – Phantom High-Speed Session 4B on Hypersonics and Compressible Flows III), chaired by Matthew Cleary, in Ballroom 2**				
14:00	230	Srinath Lakshman, David J. Mee, Carolyn Jacobs, Peter Jacobs and Ananthanarayanan Veeraragavan	Numerical investigations of three-dimensional shock-wave/boundary-layer interactions at Mach 6 hypersonic flow	Srinath Lakshman	The University of Queensland, St Lucia, Qld, Australia	HYPER-III-1
14:20	265	Dylan Dooner, Nicholas Giannelis and Andrew Neely	Aerothermoelastic effects on a clamped-free-clamped-free panel experiment	Dylan Dooner	UNSW Canberra, Canberra, ACT, Australia	HYPER-III-2
14:40	354	Chi Co Tran, Astrid Moses, Petrônio Nogueira and Daniel Edgington-Mitchell	Shock separation and resonance in rocket nozzles	Chi Tran	Monash University, Clayton, Victoria, Australia	HYPER-III-3 (Student)
15:00	114	Subhajit Das and Duvvuri Subrahmanyam	Attenuation of large-scale unsteadiness in high-speed double cone flow	Subhajit Das	Indian Institute of Science (IISc), Bengaluru, India	HYPER-III-4 (Student)
15:20	291	Akshay Kumar Nandhan, Krishna Murali Talluru and Sudhir Gai	Unsteady wake behind a circular cylinder in a supersonic flow	Akshay Kumar Nandhan	UNSW Canberra, Canberra, ACT, Australia	HYPER-III-5 (Student)
15:40	381	Hunter Hoodcamp, Cameron Roan and Harald Kleine	Shock Attenuation In Baffle Systems	Hunter Hoodcamp	UNSW Canberra, Canberra, ACT, Australia	HYPER-III-6 (Student)
16:00	16	Hans Hornung, Peter Jacobs and Rowan Gollan	Collision of two plates in a gas	Hans Hornung	California Institute of Technology, Pasadena, California, USA	HYPER-III-7
16:20	269	Bikalpa Bomjan Gurung, Krishna Talluru Murali, Sudhir Gai and Amna Khraibut	Interaction of expansion fan with conical shock at Mach 2	Bikalpa Bomjan Gurung	UNSW Canberra, Canberra, ACT, Australia	HYPER-III-8 (Student)
13:55		**Session 4C on Boundary Layer Flows IV (BL-IV), chaired by Maziar Arjomandi, in Ballroom 3**				
14:00	87	Peter Manovski, Dominic Loveday, Matteo Giacobello, Charitha de Silva, Nicholas Hutchins and Ivan Marusic	3D Lagrangian Particle Tracking of a Turbulent Boundary Layer over an Axisymmetric Body of Revolution	Peter Manovski	Defence Science and Technology Group, Fishermans Bend, Victoria, Australia	BL-IV-1 (Student)
14:20	117	Matthew Marano, Azadeh Jafari, Matthew Emes and Maziar Arjomandi	Characterisation of Edge Canopy Flow Within a Linearly Staggered Heliostat Array	Matthew Marano	The University of Adelaide, Adelaide, SA, Australia	BL-IV-2 (Student)
14:40	156	Van Thuan Hoang, Azadeh Jafari, Benjamin Cazzolato and Maziar Arjomandi	Attenuation of near-wall turbulence in turbulent boundary layers over a perforated surface	Van Thuan Hoang	The University of Adelaide, Adelaide, SA, Australia	BL-IV-3 (Student)
15:00	250	Xin Zhang, Xiao Hui Wei, En Dong Zhang, Han Feng Wang and Yu Zhou	Skin-friction reduction in a high-Reynolds-number turbulent boundary layer using spanwise-microjet arrays	EnDong Zhang	Harbin Institute of Technology (Shenzhen),	BL-IV-4

					None, Guangdong, China	
15:20	302	Setyo Nugroho, Bagus Nugroho, Eric Fusil and Rey Chin	Influence of Roughness Height Distribution on Drag in Turbulent Boundary Layers	Setyo Nugroho	The University of Adelaide, Adelaide, SA, Australia	BL-IV-5 (Student)
15:40	333	Sharon Stephen, Zoe Woodard and Christian Thomas	Effect of partial-slip on unsteady crossflow vortices	Sharon Stephen	The University of Sydney, Camperdown, NSW, Australia	BL-IV-6
16:00	336	Isnain Aliman, Jelle B. Will, Bagus Nugroho, Jason P. Monty and Nicholas Hutchins	Uncovering the origin of the out-of-dry-dock drag penalty of a tanker ship	Isnain Aliman	The University of Melbourne, Coburg North, Victoria, Australia	BL-IV-7 (Student)
16:20	339	Junliang Huo, Zhanying Zheng and Yi Ao	LES Simulations of Microbubble Drag Reduction to Smooth and Rough Walls	Zhanying Zheng 9withdrawn)	Harbin Institute of Technology, Shenzhen, Guangdong, China	BL-IV-8
13:55		**Prof. John C. Patterson Memorial Session 4D on Heat and Mass Transfer II (HEATMASS II), chaired by Juan Felipe Torres , in North Courtyard**				
14:00	219	Takuma Koizumi, Takuma Kogawa, Juan Felipe Torres, Steven Armfield and Atsuki Komiya	Oscillation Behaviour of a Moderate Laminar Jet Impinging on a Vertical Natural Convection Boundary Layer	Takuma Koizumi	Tohoku University, Katahira, Miyagi Prefecture, Japan	HEATMASS-II-1 (Student)
14:20	275	Siyu Ji, Quang Duy Nguyen and Chengwang Lei	Blockage Effects in a Vertical Channel Subjected to Constant Heating	Siyu Ji	The University of Sydney, Camperdown, NSW, Australia	HEATMASS-II-2 (Student)
14:40	277	Quang Duy Nguyen and Chengwang Lei	Vortex-Induced Vibration of a Circular Cylinder Confined in a Convective Flow Channel at a Low Rayleigh Number	Quang Duy Nguyen	The University of Sydney, Camperdown, NSW, Australia	HEATMASS-II-3
15:00	135	Simen Bootsma, Dehao Xu, Roberto Verzicco, Detlef Lohse and Sander Huisman	Surface morphology of a vertical ice cylinder melting in a saline environment	Sander Huisman	University of Twente, Enschede, Overijssel, Netherlands	HEATMASS-II-4
15:20	146	Miraz Rossy, Ba Phuoc Huynh and Dipannita Mushfiq	Investigation on Low-Pressure Desalination Method	Miraz Rossy	University of Technology Sydney, Ultimo, NSW, Australia	HEATMASS-II-5 (Student)
15:40	296	Mariia Timofeeva, Ellen Otte and Dalton Harvie	Shear rates during the scale-up of pharmaceutical bioreactors.	Mariia Timofeeva	The University of Melbourne, Carlton, Victoria, Australia	HEATMASS-II-6
16:00	116	Lin Tian, Arturo Delgado-Gutiérrez and Pier Marzocca	MicroFiber Transport and Deposition Simulation using Traditional and Single-Step and Simplified Lattice Boltzmann Method	Lin Tian	RMIT University, Bundoora, Victoria, Australia	HEATMASS-II-7
13:55		**Session 4E on Geophysical Flows II (GEOPHYS-II), chaired by Vassili Kitsios, in South Courtyard**				
14:00	15	Vassili Kitsios, Laurent Cordier and Terence O'Kane	Proper orthogonal decomposition reduced-order model of a hydrostatic atmosphere	Vassili Kitsios	CSIRO, Aspendale, Victoria, Australia	GEOPHYS-II-1
14:20	247	Sivakunalan Inparaja, Catherine Vreugdenhil and Bishakhdatta Gayen	The Role of Convection in Downslope Flow over a Continental Shelf	Sivakunalan Inparaja	The University of Melbourne, Parkville, Victoria, Australia	GEOPHYS-II-2 (Student)
14:40	254	Bahman Ghasemi, Bishakhdatta Gayen and Catherine A. Vreugdenhil	Heat and Freshwater Transport in the Ocean: Insights from Convection Resolving Simulations	Bahman Ghasemi	The University of Melbourne, Parkville, Victoria, Australia	GEOPHYS-II-3
15:00	262	Bajrang Chidhambaranathan, Bishakhdatta Gayen and Catherine Vreugdenhil	Dynamics of Southern Ocean Circulation through Direct Numerical Simulations	Bajrang Chidhambaranath an	The University of Melbourne, Parkville, Victoria, Australia	GEOPHYS-II-4 (Student)
15:20	292	Catherine Vreugdenhil, Bahman Ghasemi and Bishakhdatta Gayen	Direct Numerical Simulations of Upwelling and Downwelling in the North Atlantic Ocean	Catherine Vreugdenhil	The University of Melbourne, Parkville, Victoria, Australia	GEOPHYS-II-5
15:40	285	Wilson Lu, Wai Kit Lam, Tony Zahtila, Leon Chan, Duncan Sutherland, Khalid Moinuddin, Richard Manasseh, Gianluca Iaccarino and Andrew Ooi	Modelling the effects of gravity current propagation in a nonlinearly stratified ambient with shallow-water-type equations	Wilson Lu	The University of Melbourne, Parkville, Victoria, Australia	GEOPHYS-II-6
16:00	358	Juan Felipe Torres, Shuqi Xu, Yongling Zhao and Daniel Henry	Prediction and Creation of Hidden Convection in Natural Convection	Juan Felipe Torres	Australian National University, Canberra, ACT, Australia	GEOPHYS-II-7
13:55		**Session 4F on Multiphase Flows IV and Rheology (MULTI-IV), chaired by Jong-Leng Liow, in Ballroom 4**				
14:00	187	Zhongzheng Wang and Emilie Sauret	Simultaneous Determination of Viscosity and Interfacial Tension through a Haines Jump in a Dual-Channel Multiphase System	Zhongzheng Wang	Queensland University of Technology, Brisbane, Qld, Australia	MULTI-IV-1
14:20	172	Joydip Mondal, Shen Long and Jie Wu	Role of acoustic frequency on gypsum scale mitigation in laboratory-scale mixing tanks	Joydip Mondal	Commonwealth Scientific and Industrial Research Organisation, Clayton, Victoria, Australia	MULTI-IV-2
14:40	246	Noman Yousuf, Daniel Lester, Murray Rudman and Nicky Eshtiaghi	Turbulent Pipe Flow of Thixotropic Fluids	Noman Yousuf	RMIT University, St Albans, Victoria, Australia	MULTI-IV-3 (Student)
15:00	328	Bryce Hill, Travis Mitchell, Saiied Aminossadati and Christopher Leonardi	Non-Newtonian Herschel-Bulkley fluids in three dimensional porous media using a phase-field lattice Boltzmann method	Bryce Hill	The University of Queensland, St Lucia, Qld, Australia	MULTI-IV-4 (Student)
15:20	228	Jong-Leng Liow and Michael Abdel-Messih	Viscoelastic properties of silly putty with hollow glass microspheres	Jong Leng Liow	UNSW Canberra, Canberra, ACT, Australia	MULTI-IV-5

Time	Paper #	Authors	Title	Presenter	Affiliation	Index Code
15:40	4	Cuong Bui and Stephan Matthai	Non-Newtonian Fluid Transport in Geological Fracture Network	Cuong Bui	The University of Melbourne, Parkville, Victoria, Australia	MULTI-IV-6 (Student)
16:00	60	Javane Javaherchian, Reza Nosrati, Farzan Akbaridoust and Ivan Marusic	Single Sperm Entrapment and Analysis Using a Microfluidic Cross-slot Trap	Javane Javaherchian	The University of Melbourne, Parkville, Victoria, Australia	MULTI-IV-7 (Student)
16:20	196	Jack Khallahle	Numerical Simulations of Wall and Interfacial Shear Stress of Gas Flow over Stationary Liquid Surface in a Horizontal Pipe using Semi-Mechanistic Model	Jack Khallahle	The University of Sydney, Camperdown, NSW, Australia	MULTI-IV-8 (Student)

Session 5: Wednesday 4th December 2024 (10:35- 13:20)

Time	Paper #	Authors	Title	Presenter	Affiliation	Index Code
10:35		**Session 5A on Probabilistic Methods and Machine Learning I (PROB-I), chaired by Robert Niven, in Ballroom 1**				
10:40	382	Ali Mohammad-Djafari, Ning Chu and Robert K. Niven	Physics Informed Deep Neural Networks for Inverse Problems and Dynamical System Identification	Ali Mohammad-Djafari	Formerly CNRS, CentraleSupélec, Gif-sur-Yvette, France.	PROB-I-1
11:00	192	Robert K. Niven, Laurent Cordier, Ali Mohammad-Djafari, Markus Abel and Markus Quade	A Bayesian Framework for Dynamical System Model Selection from Time-Series Data	Robert Niven	UNSW, Canberra, ACT, Australia	PROB-I-2
11:20	284	Nasrin Taghavi, Robert K Niven, Matthias Kramer and David J Paull	Model Ranking Metrics for Groundwater Vulnerability Assessment Using Bayesian Inference	Nasrin Taghavi	UNSW Canberra, Canberra, ACT, Australia	PROB-I-3 (Student)
11:40	132	Yuhang Wang, Sergiy Shelyag and Jorg Schluter	Towards A Machine Learning-based Approach for Inferring Unobserved Small Scales in Turbulent Channel Flows	Yuhang Wang	Deakin University, Collingwood, Victoria, Australia	PROB-I-4 (Student)
12:00	108	Rounak Saha Niloy, Md. Shariful Islam, Abrar Jahin, Md Rahat Mozumder and Rakin Ahmed	Machine Learning-Based Resistance Prediction of AMECRC Hull	Rounak Saha Niloy	UNSW Sydney, NSW, Australia	PROB-I-5 (Student)
12:20	23	Ao Li, Shadi Abpeikar, Min Wang, Terry Frankcombe and Maryam Ghodrat	An Exploratory Review on Lithium-Ion Battery Fire Risk Mitigation Using Deep Learning Approaches	Ao Li	UNSW Sydney, NSW, Australia	PROB-I-6
12:40	365	Genhe Chang, Shunlin Tang, Dewei Fan and Yu Zhou	AI-based multi-objective-optimization of drag reduction of a maglev train model	Shunlin Tang	Harbin Institute of Technology, Shenzhen, Guangdong, China	PROB-I-7
13:00	208	Andrew Ooi, Richard Sandberg, Jiyoung Lee, Wilson Lu, Leon Chan, Marco Junarta, Deniz Bezgin, Aaron Buhendwa and Vassili Kitsios	Ensemble Kalman Filter for State and Parameter Estimation of Low Dissipation Systems	Andrew Ooi	The University of Melbourne, Parkville, Victoria, Australia	PROB-I-8
10:35		**Session 5B on Aeroacoustics I (ACOUST-I), chaired by Con Doolan, in Ballroom 2**				
10:40	18	Rowena Dixon, Chaoyang Jiang, Charitha de Silva, Con Doolan and Danielle Moreau	Experimental Generation of Anisotropic Turbulence for Aeroacoustic Studies	Rowena Dixon	UNSW Sydney, NSW, Australia	ACOUST-I-1 (Student)
11:00	58	Sophia Nicole Rueda Pablo, Angus Wills, Con Doolan, Charitha de Silva and Danielle Moreau	Anisotropic Turbulence Interaction with an Airfoil Serrated Leading-edge	Sophia Nicole Pablo	UNSW Sydney, NSW, Australia	ACOUST-I-2 (Student)
11:20	256	Ravee Sainia, Daniel Edgington-Mitchell, Petrônio Nogueira and Peter Jordan	Isolating acoustic source terms in turbulent jets	Ravee Sainia	Monash University, Clayton, Victoria, Australia	ACOUST-I-3 (Student)
11:40	36	Angus Wills, Danielle Moreau, Charitha de Silva and Con Doolan	Deconvolution Methods in Three-dimensional Beamforming of Flow Noise Source	Angus Wills	UNSW Sydney, NSW, Australia	ACOUST-I-4
12:00	170	Jingang Li, Yendrew Yauwenas, Danielle Moreau and Con Doolan	Experimental Investigation on the Effect of the Duct Length and Propeller Position on Drone Propeller Noise	Jingang Li	UNSW Sydney, Sydney, NSW, Australia	ACOUST-I-5 (Student)
12:20	257	Daniel Edgington-Mitchell, Petronio Nogueira, Joel Weightman and Kamal Viswanath	Competing symmetries in supersonic canted twin jets	Daniel Edgington-Mitchell	Monash University, Clayton, Victoria, Australia	ACOUST-I-6
10:35		**Blink Tech Session 5C on Fluid Turbulence (TURB-I), chaired by Daniel Chung, in Ballroom 3**				
10:40	47	Ha Bao Ngoc Tran, Peter Richards and Rajnish Sharma	Turbulence Simulation for Wind Tunnel Testing of a Fixed-Wing Unmanned Aerial Vehicle	Ha Tran	University of Auckland, Auckland, New Zealand	TURB-I-1 (Student)
11:00	62	Ahmed Osama Mahgoub, Chaoyang Jiang, Danielle Moreau, Con Doolan and Charitha de Silva	Examining the Distortion of Isotropic Turbulent Structures Interacting with an Airfoil's Leading-Edge.	Ahmed Osama Mahgoub	UNSW Sydney, NSW, Australia	TURB-I-2 (Student)
11:20	119	Moustafa Ali, Matthew Cleary and Ben Thornber	Shear Layer Interactions and Mixing Evolution: A DNS Study	Moustafa Ali	The University of Sydney, Sydney, NSW, Australia	TURB-I-3 (Student)
11:40	126	Austin Palya, Nicholas Hutchins and Simon Illingworth	An analysis of nonlinear transfer of energy during transition	Austin Palya	The University of Melbourne, Parkville, Victoria, Australia	TURB-I-4 (Student)

12:00	293	Isuru Gunaratne, Byron Guerrero, Martin Lambert and Rey Chin	Uniform momentum zones in low and high Reynolds number accelerating turbulent pipe flows	Isuru Gunaratne	The University of Adelaide, Adelaide, SA, Australia	TURB-I-5 (Student)
12:20	372	Bradley Pascoe, Michael Groom and Ben Thornber	Turbulence modelling of the Richtmyer-Meshkov instability under anisotropic strain	Bradley Pascoe	The University of Sydney, Camperdown, NSW, Australia	TURB-I-6 (Student)
12:40	96	Krishna Reddy Maryada, Steven Armfield, Michael MacDonald, Priyanka Dhopade and Stuart Norris	Inner-layer turbulence of a vertical buoyancy layer	Krishna Reddy Maryada	The University of Auckland, Auckland, New Zealand	TURB-I-7
13:00	100	Jitong Ding, Daniel Chung and Simon Illingworth	Coherent structures related to turbulent convection in channel flows	Jitong Ding	The University of Melbourne, Parkville, Victoria, Australia	TURB-I-8 (Student)
10:35	**Session 5D on Plumes (PLUME-I), chaired by Matthew Cleary, in North Courtyard**					
10:40	202	Manikandan Balasubramaniyan, Joseph Klewicki, Andrew Western and Jimmy Philip	Turbulent Entrainment and Mixing in a Density Stratified Fluid	Manikandan Balasubramaniyan	The University of Melbourne, Parkville, Victoria, Australia	PLUME-I-1
11:00	289	Miaoyan Pang, Kapil Chauhan and Krishna Talluru	Wall-normal scalar flux within a buoyant plume in a turbulent boundary layer	Miaoyan Pang	The University of Sydney, Camperdown, NSW, Australia	PLUME-I-2
11:20	363	Javad Vashahri and Yuanshen Lu	Application of Large Scale Schlieren in Characterization of Swirling Plume Shape And Characteristics	Yuanshen Lu	The University of Queensland, St Lucia, Qld, Australia	PLUME-I-3
11:40	309	George Bowden, Luke Pollock and Melrose Brown	Hybrid CFD/DSMC modelling of high-altitude rocket plumes	George Bowden	UNSW Canberra, Canberra, ACT, Australia	PLUME-I-4
12:00	321	Xinbei Dou, Deepak Saini, Mohsen Talei, Yi Yang, Richard Sandberg and Joseph Berry	Numerical Simulations of the Horizontal Release of Cryogenic Hydrogen into Air	Xinbei Dou	The University of Melbourne, Parkville, Victoria, Australia	PLUME-I-5
12:20	165	Javad Vashahri and Yuanshen Lu	Numerical investigation of crosswind effects on small scale natural draft dry cooling tower with swirling enhancement	Mohamad Javad Vashahri Ghamsari	The University of Queensland, Oxley, Qld, Australia	PLUME-I-6 (Student)
12:40	329	Esra'a Khasawneh and Kapil Chauhan	Identifying Lagrangian Coherent Structures Using Finite Time Lyapunov Exponents in a Buoyancy-Driven Flow	Esra'a Khasawneh	The University of Sydney, Camperdown, NSW, Australia	PLUME-I-7 (Student)
10:35	**Session 5E on Environmental Fluid Dynamics I (ENV-I), chaired by Hubert Chanson, in South Courtyard**					
10:40	6	Hubert Chanson	Non-linearities at Circular Weirs under Environmental Flow Conditions	Hubert Chanson	The University of Queensland, Brisbane, Qld, Australia	ENV-I-1
11:00	10	Jiayue Hu and Hubert Chanson	Free-surface turbulence in hydraulic jump breaking roller at low inflow Froude number	Jiayue Hu	The University of Queensland, Brisbane, Qld, Australia	ENV-I-2 (Student)
11:20	17	Hui Ling Wong and Hubert Chanson	Turbulence and Secondary Motion in Rectangular Channels: Implications for Upstream Fish Passage at Road Crossings	Hui Ling Wong	University of Queensland, St Lucia, Qld, Australia	ENV-I-3 (Student)
11:40	83	Vassili Issaev, Steven Armfield and Nicholas Williamson	The effects of Reynolds and Prandtl number on mixing at the turbulent/non-turbulent interface in stably stratified shear flow	Vassili Issaev	The University of Sydney, Camperdown, NSW, Australia	ENV-I-4
12:00	93	Lulu Liu, Ian Milne, Hugh Wolgamot, Wenhua Zhao and Raúl Guanche	Investigation of viscous damping effect on the resonant heave response of a floating wind turbine	LULU LIU	The University of Western Australia, Crawley, WA, Australia	ENV-I-5 (Student)
12:20	189	Yunong Wang, Wagih Abu Rowin, Ivan Marusic and Jason Monty	Turbulent Airflow above Non-breaking Long Regular Waves under Low Wind Speed	Yunong Wang	The University of Melbourne, Parkville, Victoria, Australia	ENV-I-6 (Student)
12:40	232	Yunpeng Xue, Yongling Zhao, Shuo-Jun Mei, Yuan Chao and Jan Carmeliet	Unravelling the Impact of Urban Morphology on Non-Isothermal Flow Dynamics	Yunpeng Xue	ETH Zurich Singapore, South West Community Development Council, Singapore	ENV-I-7
13:00	61	Qingyun Wu, Yuhan Huang and Peter Irga	CFD simulation of thermal and flow behaviours in a street canyon during a heat wave event in Sydney	Qingyun Wu	University of Technology Sydney, Ultimo, NSW, Australia	ENV-I-8 (Student)
10:35	**Dantec / Pixeltech Session 5F on Experimental Techniques & Facilities I (EXPT-I), chaired by Julio Soria, in Ballroom 4**					
10:40	28	Jason Harley and Hubert Chanson	Hybrid Velocity Measurements: A Comparison of the roving Preston tube and Prandtl-Pitot tube	Jason Harley	The University of Queensland, St Lucia, Qld, Australia	EXPT-I-1 (Student)
11:00	45	Mukai Toru, Takahashi Mamoru, Fujikura Komei, Tsujimoto Koichi and Ando Toshitake	Quantification of Dissimilar Destruction between Turbulent Momentum and Heat Fluxes Using Hot- and Cold-Wires	Toru Mukai	Mie University, Tsu, Mie Prefecture, Japan	EXPT-I-2 (Student)
11:20	80	Michael Boyko, Joel Denis, Arshjot Brar, David Sumner, Lope Tabil and Martin Roberge	Development of a portable vertical wind tunnel for field use	Michael Boyko	University of Saskatchewan, Saskatoon, Saskatchewan, CA	EXPT-I-3 (Student)
11:40	103	Yuxin Yang, Will Robertson, Azadeh Jafari and Maziar Arjomandi	A novel technical solution for using the magnetic levitation technique to measure skin friction drag	Yuxin Yang	The University of Adelaide, Adelaide, SA, Australia	EXPT-I-4 (Student)
12:00	134	Shanil Jayawardena, Steven Armfield and Nicholas Williamson	A Novel Aquatic Eddy Covariance System for Measuring Turbulent Heat Flux using Underwater Particle Image Velocimetry and FP07 Thermistors	Shanil Jayawardena	The University of Sydney, Camperdown, NSW, Australia	EXPT-I-5 (Student)

Time	Paper #	Authors	Title	Presenter	Affiliation	Index Code
12:20	344	Krishna Talluru and Pugazhendhi Someswaran	Simultaneous displacement and strain measurements	Krishna Talluru	UNSW Canberra, Canberra, ACT, Australia	EXPT-I-6
12:40	375	James Venning, Bryce Pearce and Paul Brandner	Scalar-image based decomposition technique for cavitating flows.	James Venning	University of Tasmania, Newnham, Tas., Australia	EXPT-I-7
13:00	383	S. D. J. Sheran Nanayakkara, Kerry Hourigan, Jisheng Zhao, Mark C. Thompson and Stephen Terrington	Contribution of rolling resistance to the drag coefficient of short-span cylinders freely rolling on a rough inclined surface	Jisheng Zhao	UNSW Canberra, Canberra, ACT, Australia	EXPT-I-8

Session 7: Thursday 5th December 2024 (9:15- 10:40)

Time	Paper #	Authors	Title	Presenter	Affiliation	Index Code
9:15		**Session 7A on Probabilistic Methods and Machine Learning II (PROB-II), chaired by Graham Wild, in Ballroom 1**				
9:20	176	Matthew Kratzer, Suresh Bhatia and Alexander Klimenko	Incorporating Fluid-Surface Interactions in the Fokker-Planck Hydrodynamics	Matthew Kratzer	The University of Queensland, St Lucia, Qld, Australia	PROB-II-1
9:40	268	Saleen Bhattarai, David Petty, Sean O'Byrne and Edwin Peters	Parallel Implementation of Direct Simulation Monte Carlo Using Field Programmable Gate Arrays	Saleen Bhattarai	UNSW Canberra, Canberra, ACT, Australia	PROB-II-2 (Student)
10:00	300	Stephen Terrington, Mark Thompson and Kerry Hourigan	De-noising and super-resolution of experimental velocity measurements by optimizing a discrete loss (ODIL)	Stephen Terrington	Monash University, Clayton, Victoria, Australia	PROB-II-3
10:00	370	Justin Kin Jun Hew, David N Hosking and Christoph Federrath	Conservation of magnetic helicity fluctuations by spatial decorrelations in freely decaying, strongly magnetised turbulence	Justin Kin Jun Hew	Australian National University, Canberra, ACT, Australia	PROB-II-4 (Student)
9:15		**Session 7C on Jets and Wakes (JETSWAKES I), chaired by Callum Atkinson, in Ballroom 3**				
9:20	41	Bagus Nugroho, Kevin Kevin, Jason Monty and Rey Chin	Hydrodynamic simulation of rough-walled submarine far field turbulent wakes.	Bagus Nugroho	The University of Melbourne, Parkville, Victoria, Australia	JETSWAKES-I-1
9:40	153	Shaun Davey, Callum Atkinson and Julio Soria	The Effect of a Sustained Plastron on the Wake of a Sphere with Superhydrophobic Treatment	Shaun Davey	Monash University, Mulgrave, Victoria, Australia	JETSWAKES-I-2 (Student)
10:00	347	Fei He, Hongwei An, Liang Cheng and Chengjiao Ren	Three dimensionality of flow past a line of cylinders	Fei He	The University of Western Australia, Crawley, WA, Australia	JETSWAKES-I-3 (Student)
10:20	368	Dewei Fan, Jianjun Du and Yu Zhou	Reynolds number effect and scaling of a turbulent jet manipulated using six distributed unsteady minijets	Yu Zhou	Eastern Institute of Technology, Ningbo, Zhejiang, China	JETSWAKES-I-4
9:15		**Session 7D on Instabilities and Transitional Flows (INSTAB-I), chaired by Steven Armfield, in North Courtyard**				
9:20	53	Junhao Ke, Steven Armfield and Nicholas Williamson	Non-Oberbeck--Boussinesq effects on the linear stability of a vertical natural convection boundary layer	Junhao Ke	The University of Sydney, Camperdown, NSW, Australia	INSTAB-I-1
9:40	217	Thomas Scott, Chinthaka Jacob, Richard Manasseh and Justin Leontini	Global stability of flows through bifurcating networks	Thomas Scott	Swinburne University of Technology, Hawthorn, Victoria, Australia	INSTAB-I-2 (Student)
10:00	274	Fanrui Cheng, Richard Manasseh and Justin Leontini	The impact of geometric structure on global stability in reciprocating flow through a 90-degree bend	Fanrui Cheng	Swinburne University of Technology, Hawthorn, Victoria, Australia	INSTAB-I-3 (Student)
10:20	287	Romain Peron, Olivier Marquet, Justin Leontini and Vincent Mons	Linear analyses of turbulent mean flow improved with data-assimilation: application to transitional flow around airfoil at low angles of attack	Romain Peron	Swinburne University of Technology, Hawthorn, Victoria, Australia	INSTAB-I-4 (Student)
9:15		**Session 7E on Built Environments (BUILT-I), chaired by Professor Maarten Vanierschot, in South Courtyard**				
9:20	331	Justine Hupkes, Richard Brown, Lindy Osborne Burton, Zhiyong Li and Lidia Morawska	Building Ventilation: Development of a Taxonomy	Justine Hupkes	Queensland University of Technology, Brisbane, Qld, Australia	BUILT-I-1 (Student)
9:40	168	Ren Paulo Estaquio, Neil Astrologo, Sarah Mae Montecillo, Heinrich Gasacao, Job Immanuel Encarnacion, Joshua Agar, Julius Rhoan Lustro and Joseph Gerard Reyes	Determination of Optimal Placement of Indoor CO_2 Sensors Using Computational Fluid Dynamics	Julius Rhoan Lustro	University of the Philippines Diliman, Diliman, Quezon City, Metro Manila, Philippines	BUILT-I-2
10:00	364	Mheriel Ann C. Alba, Robert G. Jamilano, Ren Paulo C. Estaquio, Virgel M. Arocena, Ken Bryan A. Fernandez and Julius Rhoan T. Lustro	CFD Analysis of the Effects of Opening of Doors on the Carbon Dioxide Concentration in Public Utility Buses	Julius Rhoan Lustro	University of the Philippines Diliman, Quezon City, Metro Manila, Philippines	BUILT-I-3
10:20	148	Miraz Rossy and Dipannita Mushfiq	Effect of Filtration and Self-Cleaning Filter In Air Conditioning	Dipannita Mushfiq	University of Technology Sydney, Ultimo, NSW, Australia	BUILT-I-4 (Student)
9:15		**Bestech Session 7F on Experimental Techniques & Facilities II (EXPT-II), chaired by James Venning, in Ballroom 4**				
9:20	137	Bihai Sun, Callum Atkinson and Julio Soria	Three-component Three-dimensional Velocity Field Measurement of a High Reynolds Number Turbulent Channel Flow by Digital Holographic PIV/PTV	Bihai Sun	Monash University, Mulgrave, Victoria, Australia	EXPT-II-1 (Student)

9:40	226	Alexis Duddridge, Vishal Chaugule, Callum Atkinson and Julio Soria	Spatio-temporal dynamics of a supersonic jet flow via dynamic mode decomposition and dual 2C-2D PIV measurements	Alexis Duddridge	Monash University, Mulgrave, Victoria, Australia	EXPT-II-2 (Student)
10:00	264	Swapneel Roy and Sean O'Byrne	Doppler-free Velocimetry as a High-Speed Flow Diagnostic	Swapneel Roy	Australian National University, Canberra, ACT, Australia	EXPT-II-3 (Student)
10:20	310	Shishir Kulkarni and Krishna Talluru	Assessment criteria for temporal response of stereo digital image correlation algorithms.	Shishir Kulkarni	UNSW Canberra, Canberra, ACT, Australia	EXPT-II-4 (Student)

Session 8: Thursday 5th December 2024 (10:55- 13:20)

Time	Paper #	Authors	Title	Presenter	Affiliation	Index Code
10:55			**Session 8B on Aeroacoustics II (ACOUST-II), chaired by Danielle Moreau, in Ballroom 2**			
11:00	32	Justin Malkki, Yendrew Yauwenas, Con Doolan and Danielle Moreau	Far-field noise directivity of a small rotor undergoing edgewise forward flight collected by a new rotating arc array arm	Justin Malkki	UNSW Sydney, NSW, Australia	ACOUST-II-1 (Student)
11:20	64	Tingyi Zhang, Yendrew Yauwenas, Con Doolan, Charitha de Silva and Danielle Moreau	Fluctuating surface pressure and its correlation with far-field noise in the wing tip region	Tingyi Zhang	UNSW Sydney, NSW, Australia	ACOUST-II-2 (Student)
11:40	283	Zhang Yingqing, Chu Ning and Cheng Yuanyuan	Separation of Aeroacoustic and stationary noise	Yingqing CHU	Taiyuan University of Technology, Yu Ci, Shanxi, China	ACOUST-II-3 (Student)
12:00	38	Mohammed Alkuraysi, Charitha de Silva, Danielle J. Moreau and Con Doolan	Experimental Measurement of Overall Sound Pressure Levels of Vertical Axis Wind Turbines	Mohammed Alkuraysi	UNSW Sydney, NSW, Australia	ACOUST-II-4 (Student)
12:20	88	Chaoyang Jiang, Charitha de Silva, Con Doolan and Danielle Moreau	On the implementation of simultaneous unsteady surface pressure, far-field noise and PIV flow measurements in an anechoic wind tunnel	Chaoyang Jiang	UNSW Sydney, NSW, Australia	ACOUST-II-5 (Student)
12:40	42	Andre Vumbaca, Manuj Awasthi, Charitha de Silva, Danielle Moreau and Con Doolan	Characterisation of a Laser-Induced Acoustic Source in an Anechoic Wind Tunnel	Andre Vumbaca	UNSW Sydney, NSW, Australia	ACOUST-II-6 (Student)
10:55			**Session 8C on Vortices (VORT-I), chaired by Charitha de Silva, in Ballroom 3**			
11:00	63	Guoqian Deng, Ishan Ray Chaudhury, Tingyi Zhang, Zibo Zhou, Svetlana Tkachenko, Victoria Timchenko and Charitha de Silva	An Investigation of using Vortex Generators to Enhance Cooling of Roof-Mounted PV Modules under Forced Convection	Guoqian Deng	UNSW Sydney, NSW, Australia	VORT-I-1 (Student)
11:20	81	John Sader, Edward Hinton, Wei Hou, Anthony Leonard, Tim Colonius and Dale Pullin	Starting vortices generated by arbitrary bodies with sharp edges	John Sader	California Institute of Technology, Pasadena, California, USA	VORT-I-2
11:40	143	Ziyang Wang, Neil Hawkes, Michael MacDonald, John Cater and Richard Flay	Experimental Investigation on the Near-ground Flow Structure of Buoyancy Induced Vortices	Ziyang Wang	The University of Auckland, Auckland, New Zealand	VORT-I-3 (Student)
12:00	151	Borhan Alhosseinihamedani, Jimmy Philip and Joseph Klewicki	Necklace Vortex Generation from the Interaction of Shear Wake with a Circular Cylinder	Borhan Alhosseinihamedani	The University of Melbourne, Abbotsford, Victoria, Australia	VORT-I-4 (Student)
12:20	245	Maarten Vanierschot, Wu Ouyang and Bao Liu	Vortical structures in the wake of a rim-driven thruster operating at maximum efficiency	Maarten Vanierschot	KU Leuven, Leuven, Flemish Brabant, Belgium	VORT-I-5
12:40	280	Karthick Dhileep, Fang-Bao Tian, John Young, Joseph Lai and Sridhar Ravi	Role of Flexion Ratio on the Hydrodynamic Performance of Bio-inspired Propulsive Fins	Karthick Dhileep	UNSW Canberra, Canberra, ACT, Australia	VORT-I-6 (Student)
13:00	282	Chengjiao Ren, Feifei Tong, Jisheng Zhao, Fei He and Liang Cheng	Vortex-induced inline vibration of a circular cylinder at intermediate Reynolds numbers	Chengjiao Ren	The University of Western Australia, Crawley, WA, Australia	VORT-I-7
10:55			**Session 8D on Renewable Energy, chaired by Azaadeh Jafari, in North Courtyard**			
11:00	278	Jack Park, Sebastian Spinner, Dennis Keller, Arne Stürmer and Arthur Stück	Validation of Virtual Blade Model in CODA for Efficient Modelling of Aircraft Propellers and Wind Turbine Blades	Jack Park	German Aerospace Center (DLR), Dresden, Saxony, Germany	RENEW-I-1
11:20	8	Christopher Banzon, Trishell Mae Canaya, Job Immanuel Encarnacion, Louis Angelo Danao and Binoe Abuan	Effect of Tubercle leading and Trailing Edge (TLTE) on the Efficiency of a Vertical-Axis Wind Turbine	Job Immanuel Encarnacion	University of the Philippines Diliman, Quezon City, Metro Manila, Philippines	RENEW-I-2
11:40	124	Nosare Maika, Wenxian Lin and Mehdi Khatamifar	Preliminary Numerical Investigation on Varying Vortex Flow Field and Power Output of Gravitational Water Vortex Power Plant	Nosare Maika	James Cook University, Townsville, Qld, Australia	RENEW-I-3 (Student)
12:00	320	Jai N. Goundar	Performance of Ducted Savonius Turbines with different blade configurations and at different Turbulence intensities for Tidal Current Energy Extraction	Jai Goundar	The University of the South Pacific, Suva, Central Division, Fiji	RENEW-I-4
12:20	181	Shen Long, Joydip Mondal, Yuqing Feng and Jie Wu	The effect of impeller speed on scale formation within a swirling flow tank	Shen Long	CSIRO, Clayton South, Victoria, Australia	RENEW-I-5
12:40	239	Lidong Cui, Justin Leontini and Richard Manasseh	Optimising layout of wave energy converter arrays with respect to wave amplitude gradients associated with beach erosion	Lidong Cui	Swinburne University of Technology, Hawthorn, Victoria, Australia	RENEW-I-6
10:55			**Session 8E on Environmental Fluid Dynamics II (ENV-II), chaired by Matthias Kramer, in South Courtyard**			

Time	ID	Authors	Title	Presenter	Affiliation	Code
11:00	7	Leon Chan, Fabien Margairaz, Eric Pardyjak, Rob Stoll, Alex Hill, Omar Ilaya, Joseph Klewicki, Andrew Ooi and Jimmy Philip	Quick Environmental Simulation: Benchmark with JU2003	Leon Chan	The University of Melbourne, Parkville, Victoria, Australia	ENV-II-1
11:20	113	Felipe Condo-Colcha, Robert K Niven and Matthias Kramer	Effects of aspect ratio on the incipient motion of plastics in open-channel flows	Felipe Condo	UNSW Canberra, Canberra, ACT, Australia	ENV-II-2 (Student)
11:40	115	Charuni Wickramarachchi, Robert K. Niven and Matthias Kramer	On the boundary conditions for Lagrangian plastic transport models	Charuni Wickramarachchige	UNSW Canberra, Canberra, ACT, Australia	ENV-II-3 (Student)
12:00	50	Michele Trevisson, Marco Ghisalberti and Gregory Ivey	Predicting in-canopy velocity from free-stream velocity in obstructed environmental shear flows	Michele Trevisson	The University of Western Australia, Crawley, WA, Australia	ENV-II-4
12:20	99	Lehan Chen, Chao Mai, Yuhan Huang, Arezoo Shirazi, Nimish Biloria and Leena Thomas	Effects of unevenly distributed trees and footbridge on traffic pollutant dispersion in a real-world street canyon	Lehan Chen	University of Technology Sydney, Ultimo, NSW, Australia	ENV-II-5 (Student)
10:55	**Session 8F on Flow Control (CONTROL-II), chaired by Nicholas Hutchins, in Ballroom 4**					
11:00	73	Guoming Deng, Lingchu Xi, Zhourui Wan and Yu Zhou	Surrogate-model-based drag reduction of a SUBOFF model using blowing and suction	Guoming Deng	Shenzhen Technology University, Shenzhen, Guangdong, China	CONTROL-I-1
11:20	84	Methma Rajamuni, Joseph Lai, John Young, Sridhar Ravi and Fang-Bao Tian	Passive controllers of vortex-induced vibration of a cylinder and their effect on the acoustic generation	Methma Rajamuni	UNSW Canberra, Canberra, ACT, Australia	CONTROL-I-2
11:40	167	Xiaohui Wei, Kai Zhang and Yu Zhou	Skin-friction drag reduction using miniature vortex generators	Xiaohui Wei	Harbin Institute of Technology, Shenzhen, Guangdong, China	CONTROL-I-3 (Student)
12:00	288	Christopher Camobreco, Jeremy Wong, Henry Bilinsky, Nicholas Hutchins and Daniel Chung	Predicting the Drag Reduction of Damaged Riblets	Christopher Camobreco	The University of Melbourne, Parkville, Victoria, Australia	CONTROL-I-4

Poster Session 6: Wednesday 4th December 2024 (13:20- 14:30)

Time	Sub #	Authors	Title	Presenter	Affiliation	Index Code
13:20	Session 6A on Posters, chaired by Nasrin Taghavi, in Mezzanine Level					
13:20	5	Hubert Chanson	Self-aeration and Surface Velocities in Very-High Reynolds Number Free-Surface Flows	Hubert Chanson	The University of Queensland, Brisbane, Qld, Australia	POSTER-I-1
13:20	25	Sungchan Yun	Numerical investigation on impact dynamics of unequal-size coalesced droplets on a substrate	Sungchan Yun	Korea National University of Transportation, Chungju, North Chungcheong Province, Korea	POSTER-I-2
13:20	34	Italo Guilherme, Lingzhe Rao and Daniel Duke	Experimental investigation of flash atomisation in metered dose medical inhaler sprays	√çtalo Guilherme	Monash University, Clayton, Victoria, Australia	POSTER-I-3 (Student)
13:20	98	Mostafa M. Elarabi and Maryam Ghodrat	Thermal Runaway and Venting Dynamics in Lithium-ion Batteries: A subjective Review	Mostafa Ali	UNSW Canberra, Canberra, ACT, Australia	POSTER-I-4 (Student)
13:20	150	Miraz Rossy, Dipannita Mushfiq and Ba Phuoc Huynh	Implementation of A Simplified Coil-Based Condenser Design To Achieve Multiple Effect Distillation (MED) At Room Temperature	Miraz Rossy	University of Technology Sydney, Ultimo, NSW, Australia	POSTER-I-5 (Student)
13:20	177	Michele Trevisson and Olivier Eiff	The morphodynamics of fine-sediment ribbons over a uniform bed	Michele Trevisson	The University of Western Australia, Crawley, WA, Australia	POSTER-I-6
13:20	188	Mahmoud Waly and Maryam Ghodrat	Understanding Fire Exposure to Structures: A Synthesis of Experimental Studies in Wildland and Settlement Environments	Mahmoud Waly	UNSW Sydney, NSW, Australia	POSTER-I-7 (Student)
13:20	200	Chandrika Wanigasekara, Chinthaka Jacob, Justin Leontini and Richard Manasseh	Reynolds-averaged Navier–Stokes (RANS) Modeling of The Flow in Airways	Chandrika Wanigasekara	Swinburne University of Technology, Clyde North, Victoria, Australia	POSTER-I-8 (Student)
13:20	201	Yanan Zhao, Miaoyan Pang, Kapil Chauhan, Gabriel Katul and Michael Heisel	Experimental investigation of turbulent eddy structure and mean profile shape above homogeneous canopy roughness	Miaoyan Pang (withdrawn)	The University of Sydney, Camperdown, NSW, Australia	POSTER-I-9 (Student)
13:20	229	Rohnan Scott and Maryam Ghodrat	Smouldering Combustion of Fiber Insulation Materials	Maryam Ghodrat	UNSW Canberra, Canberra, ACT, Australia	POSTER-I-10
13:20	241	Isadora Montenegro Bugarin, Steven Armfield, Michael Kirkpatrick and Nicholas Williamson	Modelling influence of trees in urban environments using lattice Boltzmann	Isadora Montenegro Bugarin	The University of Sydney, Camperdown, NSW, Australia	POSTER-I-11 (Student)
13:20	279	Chama Dayajeewa, Shantanu Bhat and Sridhar Ravi	Exploiting Rapidly Actuated Control Surfaces	Sridhar Ravi	UNSW Canberra, Canberra, ACT, Australia	POSTER-I-12
13:20	313	Morgan Stuthridge, John Cater and Stephen Campbell	Benchmarks for Aerodynamic Modelling of Hypersonic Vehicles	Morgan Stuthridge	University of Canterbury, Ilam, Canterbury Region, New Zealand	POSTER-I-13 (Student)
13:20	352	Juan Felipe Torres, Panayiotis Morogiannis, Milad Mohsenzadeh and Harald Kleine	Supersonic Flow Effects for a Corrugated Wedge and Semi-Cylinder	Juan Felipe Torres	Australian National University, Canberra, ACT, Australia	POSTER-I-14
13:20	379	Wenlong Zhao, Raheela Razaq, Yu Zhou and Guoming Deng	AI-based shape optimization for the drag reduction of an axisymmetric body	Guoming Deng	Shenzhen Technology University, Shenzhen, Guangdong, China	POSTER-I-15

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Ji, Xueyu	MU-II-1
Jian, Liu	FSI-I-2
Jiang, Chaoyang	AC-I-1, AC-II-5, TURB-I-2
Jin, Bruce Ruishu	AERO-I-3, CFD-III-2
Johnson, Joseph	HYPER-II-3
Joiner, Keith	AERO-I-1
Jordan, Peter	AC-I-3
Jraisheh, Ali	AERO-I-6
Junarta, Marco	PROB-I-8
Kabaliuk, Natalia	CFD-I-2
Karajan, Nils	FSI-I-6
Karra, Dinesh	MU-I-5
Katul, Gabriel	BL-I-2, PO-I-9
Ke, Junhao	IN-I-1
Kefayati, Gholamreza	CFD-III-1
Keller, Dennis	RENEW-I-1
Kevin,	JW-I-1
Khallahle, Jack	MU-IV-8
Khasawneh, Esra'a	PLUME-I-7
Khatamifar, Mehdi	RENEW-I-3
Khraibut, Amna	HYPER-III-8
Kirkpatrick, Michael	PO-I-11
Kitsios, Vassili	CFD-II-8, GP-I-4, GP-II-1, PROB-I-8
Kleine, Harald	FIRE-II-2, FSI-I-4, FSI-I-5, HYPER-III-6, PO-I-14
Klewicki, Joseph	BL-II-2, ENV-II-1, GP-I-4, GP-I-7, PLUME-I-1, VORT-I-4, BL-II-2
Klimenko, Alexander	PROB-II-1
Kogawa, Takuma	HM-II-1
Koichi, Tsujimoto	EXPT-I-2
Koirala, Saurav B.	HM-I-5
Koizumi, Takuma	HM-II-1
Komei, Fujikura	EXPT-I-2
Komiya, Atsuki	HM-II-1
Kong, Jiahao	BL-I-6
Kourmatzis, Agisilaos	MU-I-3
Kozul, Melissa	CFD-II-7
Kramer, Matthias	ENV-II-2, ENV-II-3, PROB-I-3
Kratzer, Matthew	PROB-II-1
Kubota, Ryohei	HM-I-4
Kulkarni, Shishir	EXPT-II-4
Lai, Joseph	AERO-I-2, CTL-I-2, VORT-I-6
Lakshman, Srinath	HYPER-III-1
Lam, Wai Kit	CFD-I-4, GP-II-6
Lambert, Martin	TURB-I-5
Laniewski-Wollk, Lukasz	MU-III-3, MU-III-4, MU-III-7
Lawson, Nicholas	AERO-I-1, FSI-I-3
Lee, Aeryne	FSI-I-6
Lee, Ann	HM-I-1
Lee, Jiyoung	CFD-I-6, PROB-I-8
Lei, Chengwang	HM-II-2, HM-II-3
Leonard, Anthony	VORT-I-2
Leonardi, Christopher	CFD-III-5, MU-III-3, MU-III-4, MU-III-7, MU-IV-4
Leontini, Justin	BIO-I-6, BIO-I-7, IN-I-2, IN-I-3, IN-I-4, PO-I-8, RENEW-I-6
Lester, Daniel	MU-IV-3
Lewis, Elliott	MU-I-7
Li, Ao	PROB-I-6
Li, Gongli	CFD-I-6
Li, Jingang	AC-I-5
Li, li	MU-II-4
Li, Xuefang	HYPER-II-6
Li, Zhe	BIO-I-2
Li, Zhiyong	BIO-I-2, BUILT-I-1

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Lindi, Luka	BL-II-1
Linton, Daniel	FSI-I-8
Liow, Jong Leng	HM-I-2, HM-I-6, MU-IV-5
Liu, Bao	VORT-I-5
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Liu, Dezhi	BL-II-4
Liu, Hao	AERO-I-4
Liu, Kevin	FIRE-II-3
Liu, Lulu	ENV-I-5
Liu, Xinying	FSI-I-6
Lohse, Detlef	HM-II-4
Long, Shen	MU-IV-2, RENEW-I-5
Loveday, Dominic	BL-IV-1
Lozier, Mitchell	BL-I-1, BL-III-1
Lu, Jinshuyang	BL-II-8
Lu, Wilson	CFD-I-4, CFD-II-6, GP-II-6, PROB-I-8
Lu, Yuanshen	PLUME-I-3, PLUME-I-6
Luhar, Ashok	CFD-II-8
Luo, James	MU-III-6
Luo, Yidie	CFD-I-6
Lustro, Julius Rhoan	BUILT-I-2, BUILT-I-3
Ma, Jingtao	CFD-III-3
MacDonald, Michael	MU-II-6 , MU-III-2 , TURB-I-7, VORT-I-3
MacIntyre, Raina	BIO-I-4, BIO-II-3
Madadi, Mahyar	HYPER-II-3
Mahgoub, Ahmed Osama	TURB-I-2
Mahmoud, Mohamed Abdelkareem	BIO-II-3
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Maika, Nosare	RENEW-I-3
Malkki, Justin	AC-II-1
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Manasseh, Richard	BIO-I-6, CFD-I-4, GP-II-6, IN-I-2, IN-I-3, MU-II-7, MU-II-8, PO-I-8, RENEW-I-6
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Manovski, Peter	BL-IV-1
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Margairaz, Fabien	ENV-II-1
Marquet, Olivier	IN-I-4
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Mason, Matthew	BL-III-7
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Matthai, Stephan	MU-IV-6
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Milne, Ian	ENV-I-5, GP-I-2
Mirzaaghaian, Arman	BIO-II-6
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Monnier, Jerome	GP-I-5
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Monty, Jason P.	ENV-I-6, JW-I-1, BL-III-5, BL-IV-7
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Petty, David	PROB-II-2

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Pourmehran, Oveis	BIO-II-5
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Roy, Swapneel	EXPT-II-3
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Sabourishirazi, Amirhossein	HM-I-2, HM-I-6
Sadeghi, Mohamad	FIRE-II-2
Sader, John	HYPER-II-3, VORT-I-2
Saha, Goutam	MU-II-3
Saha, Suvash	BIO-II-2, MU-II-3
Saini, Deepak	HYPER-II-7, PLUME-I-5
Sainia, Ravee	AC-I-3
Salehi, Fatemeh	HYPER-II-6
Sandberg, Richard	CFD-II-6, CFD-II-7, HYPER-II-7, PLUME-I-5, PROB-I-8
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Sauret, Emilie	CFD-I-6, MU-IV-1
Scalo, Carlo	HYPER-II-5
Schluter, Jorg	FIRE-I-2, PROB-I-4
Schmidt, David	BIO-II-1
Schultz, Michael P.	BL-III-5
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Scott, Thomas	BIO-I-7, IN-I-2
Sekar, T. Chandra	AERO-I-6
Sellier, Mathieu	GP-I-5
Senevirathna, Lalantha	MU-I-4
Seta, Amit	CFD-III-7
Sharma, Rajnish	TURB-I-1
Sharples, Jason	FIRE-I-4, FIRE-II-5
Shelyag, Sergiy	FIRE-I-2, PROB-I-4
Shirazi, Arezoo	ENV-I-6
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Simeoni, Albert	FIRE-II-2
Simmonds, Michael	MU-II-1
Singh, Narinder	BIO-II-4

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Skvortsov, Alexei	GP-I-1, MU-II-7
Smits, Alexander J.	BL-I-5
Someswaran, Pugazhendhi	EXPT-I-6
Soria, Julio	BIO-II-7, BL-II-5, CFD-II-1, EXPT-II-1, EXPT-II-2, FIRE-II-3, JW-I-2
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Stepanyants, Yury	GP-I-3
Stephen, Sharon	BL-I-4, BL-IV-6
Stevanovic, Svetlana	BIO-II-8
Stoll, Rob	ENV-II-1
Strien, James Van	BIO-II-8
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Stürmer, Arne	RENEW-I-1
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Subrahmanyam, Duvvuri	HYPER-III-4
Sullivan, Andrew	FIRE-II-6
Sumner, David	EXPT-I-3
Sun, Bihai	BL-II-5, EXPT-II-1
Sun, Deping	MU-III-2
Sun, Zhiwei	MU-I-7
Sutherland, Duncan	CFD-I-4, FIRE-I-4, FIRE-II-2, GP-II-6
Tabil, Lope	EXPT-I-3
Taghavi, Nasrin	PROB-I-3
Takahashi, Kenshiro	CFD-I-1
Talei, Mohsen	FIRE-I-3, FIRE-I-5, HYPER-II-7, PLUME-I-5
Talluru, Krishna	EXPT-I-6, EXPT-II-4, PLUME-I-2, HYPER-III-5
Tang, S. L.	BL-II-4
Tang, Shunlin	PROB-I-7
Terrington, Stephen	EXPT-I-8, PROB-II-3
Thapa, Sajan	FIRE-II-7
Thomas, Christian	BL-I-4, BL-IV-6
Thomas, Leena	ENV-II-5
Thompson, Mark	EXPT-I-8, FSI-I-1, PROB-II-3
Thornber, Ben	FSI-I-8, HYPER-I-7, TURB-I-3, TURB-I-6
Thornton, Aaron	CFD-II-8
Tian, Fang-Bao	AERO-I-2, AERO-I-3, AERO-I-4, AERO-I-5, CFD-III-3, CTL-I-2, FIRE-II-8, FSI-I-7, MU-I-2, VORT-I-6
Tian, Lin	CFD-III-6, HM-II-7
Timchenko, Victoria	BL-III-6, VORT-I-1
Timofeeva, Mariia	HM-II-6
Tingay, David	BIO-I-7
Tkachenko, Svetlana	BL-III-6, VORT-I-1
Toki, Takahiko	HYPER-II-5
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Torres, Juan Felipe	GP-II-7, HM-II-1, MU-I-1, PO-I-14
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Toshitake, Ando	EXPT-I-2
Traini, Daniela	BIO-II-4
Tran, Chi Co	HYPER-III-3
Tran, Ha Bao Ngoc	TURB-I-1
Trcek, David	BIO-I-4
Trevisson, Michele	ENV-II-4 , PO-I-6
Uljanic, Domenico	FIRE-I-1
Utama, I Ketut A.P.	BL-III-5
Vahaji, Sara	BIO-I-5, BIO-II-8, CFD-I-3, CFD-I-7
Vaira, Nathan Di	MU-III-3, MU-III-4
Valentini, Thomas	GP-I-4
Vanierschot, Maarten	VORT-I-5
Vanyai, Tristan	HYPER-I-5
Vashahri, Javad	PLUME-I-3, PLUME-I-6
Veeraragavan, Anand	BL-II-6
Veeraragavan, Ananthanarayanan	HYPER-II-5, HYPER-III-1
Venning, James	CFD-I-1, EXPT-I-7
Verzicco, Roberto	HM-II-4
Vio, Gareth	FSI-I-3
Viswanath, Kamal	AC-I-6
Voermans, Joey	FIRE-I-1
Vreugde, Sarah	BIO-II-5

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Vumbaca, Andre	AC-II-6
Wallington, James	HYPER-II-5
Waly, Mahmoud	FIRE-II-4, PO-I-7
Wan, Zhourui	CTL-I-1
Wang, Benlong	BL-III-3
Wang, Han Feng	BL-IV-4
Wang, Li	AERO-I-4, CFD-III-3, FIRE-II-8, FSI-I-7
Wang, Min	PROB-I-6
Wang, Yiqi	FSI-I-6
Wang, Yuhang	PROB-I-4
Wang, Yunong	ENV-I-6
Wang, Zhongzheng	MU-IV-1
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Wanigasekara, Chandrika	BIO-I-6, BIO-I-7, PO-I-8
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Wei, Xiaohui	BL-IV-4, CTL-I-3
Weightman, Joel	AC-I-6
Western, Andrew	PLUME-I-1
Wheatley, Vincent	HYPER-I-2, HYPER-I-5, HYPER-I-8, HYPER-II-1, HYPER-II-2
Wickramarachchi, Charuni	ENV-II-3
Widdup, Nathan	AERO-I-4

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Witt, Peter	MU-I-5
Wolgamot, Hugh	ENV-I-5
Wong, Chun Yuen Jerry	BIO-II-4
Wong, Hui Ling	ENV-I-3
Wong, Jeremy	CTL-I-4
Woodard, Zoe	BL-IV-6
Wormald, Peter-John	BIO-II-5
Worth, Connor	BL-III-6
Wu, Jie	MU-IV-2, RENEW-I-5
Wu, Qingyun	ENV-I-8
Xi, Lingchu	CTL-I-1
Xie, Caiyu	HYPER-II-4
Xu, Dehao	HM-II-4
Xu, Feng	MU-I-1
Xu, Shuqi	GP-II-7
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Yang, Yi	HYPER-II-7, PLUME-I-5
Yang, Yuxin	EXPT-I-4
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Yuki, Kohei	HM-I-4
Yun, Sungchan	PO-I-2
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Zarei, Ahmad	BL-I-1, BL-III-1
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Zhang, Kai	CTL-I-3
Zhang, Matthew	MU-III-5
Zhang, Tingyi	AC-II-2, BL-I-3, VORT-I-1
Zhang, Xin	BL-IV-4
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