

## Conference Programme

Draft 23/01/2020 - Subject to change

### Programme summary

Monday 02/03/2020		
Start	End	
6:30 PM	8:30 PM	Welcome Reception

Tuesday 03/03/2020			
Start	End	Who / what	Title
9:00 AM	9:20 AM	MSA President, NATA (Sponsor)	Welcome, introductory statements, housekeeping
9:20 AM	10:00 AM	Dr Barry Inglis	Keynote address
10:00 AM	10:30 AM		Morning tea
10:30 AM	11:10 AM	Dr Murray Early	Invited talk
11:10 AM	12:30 PM	Session 1 (4 talks)	Traceability and the SI Revision
12:30 PM	1:30 PM		Lunch
1:30 PM	2:30 PM	Session 2 (3 talks)	Temperature
2:30 PM	3:15 PM	Workshop 1	Method for Dry Block Spatial Surveys (Temperature)
3:15 PM	3:45 PM		Afternoon tea
3:45 PM	4:30 PM	Workshop 2	Calibration of Microwave Furnaces (Temperature)
4:30 PM	5:00 PM	Fluke (Sponsor Session)	MET/CAL MET/TEAM
6:30 PM	10:30 PM		MCG Tour and Conference Dinner

Wednesday 04/03/2020			
Start	End	Who / what	Title
8:30 AM	9:30 AM	Session 3 (3 talks)	Lab Management and MU
9:30 AM	10:10 AM	Session 4 (2 talks)	Anti-doping analysis
10:10 AM	10:40 AM		Morning tea
10:40 AM	11:20 AM	Dr Jonathan Mittaz	Invited talk
11:20 AM	12:20 PM	Session 5 (3 talks)	Environment
12:20 PM	1:20 PM		Lunch
1:20 PM	2:20 PM	Session 6 (3 talks)	Dimension and Pressure
2:20 PM	3:05 PM	Workshop 3	Pressure Interest Group
3:05 PM	3:35 PM		Afternoon tea
3:35 PM	4:15 PM	Session 7 (2 talks)	Humidity
4:15 PM	5:00 PM	Workshop 4	Humidity (Aus-NZ cooperation to facilitate consistency)
5:00 PM	6:00 PM		MSA AGM
6:00 PM	7:00 PM		Drinks and canapes

Thursday 05/03/2020			
Start	End	Who / what	Title
8:30 AM	9:50 AM	Session 8 (4 talks)	Electrical (1)
9:50 AM	10:20 AM		Morning tea
10:20 AM	11:00 AM	Dr Colin Allison	Invited talk
11:00 AM	12:00 PM	Session 9 (3 talks)	Electrical (2)
12:00 PM	1:00 PM		Lunch
1:00 PM	2:20 PM	Session 10 (4 talks)	Flow
2:20 PM	3:00 PM	Session 11 (2 talks)	Education and outreach
3:00 PM	3:30 PM		Afternoon tea
3:30 PM	4:15 PM	Workshop 5	Can model-based testing be accredited and is it traceable?
4:15 PM	4:20 PM	MSA President	Closing remarks

Legend:	Special sessions: keynote/invited talk, opening, closing
	Oral presentation sessions
	Workshops and sponsor sessions
	Breaks
	Social activities
	MSA Annual General Meeting

## Programme Detail - Monday 02/03/2020

Start	End	
6:30 PM	8:30 PM	Welcome Reception
		Conference registration opens

The welcome reception will be held at the conference venue: The Angliss Conference Centre  
Level 5, 555 LaTrobe St, Melbourne

## Programme Detail - Tuesday 03/03/2020

Start	End	Who / what	Title
8:30 AM			Registration
9:00 AM	9:20 AM	MSA President, NATA (Sponsor)	Welcome, introductory statements, housekeeping
9:20 AM	10:00 AM	Keynote address: Dr Barry Inglis	The international bureau of weights and measures (BIPM) and its role in the 21st century
10:00 AM	10:30 AM		Morning tea
10:30 AM	11:10 AM	Invited talk: Dr Murray Early	The 2019 SI redefinition: now what?
			<b>Session 1: Traceability and the SI Revision</b>
11:10 AM	11:30 AM	Peter McDowall	A pressure-based Kibble balance for realising New Zealand's kilogram
11:30 AM	11:50 AM	Tony Bergen	Calibration of photometers – impact of the SI revision and future directions
11:50 AM	12:10 PM	Robert J. Williams	Verifying stopwatches using the NMIA webtimer
12:10 PM	12:30 PM	Calla Klafas	Transitioning to the new re-definition of the SI units
12:30 PM	1:30 PM		Lunch
			<b>Session 2: Temperature</b>
1:30 PM	1:50 PM	Nigel Gibson	Optimising an 16bit digital to analog converter for a low cost 2 decimal point thermometer
1:50 PM	2:10 PM	Daryl Pettit	High temperature calibration of thermocouples
2:10 PM	2:30 PM	Rod White	Hysteresis in bimetallic dial thermometers
2:30 PM	3:15 PM	Workshop 1	Method for Dry Block Spatial Surveys (Temperature)
3:15 PM	3:45 PM		Afternoon tea
3:45 PM	4:30 PM	Workshop 2	Calibration of Microwave Furnaces (Temperature)
4:30 PM	5:00 PM	Fluke (Sponsor Session)	MET/CAL MET/TEAM
6:00 PM			Buses leave to MCG
6:30 PM	7:30 PM		Tour of the MCG
7:30 PM	10:30 PM		Conference Dinner - Olympic Room, MCG

Legend:	Special sessions: keynote/invited talk, opening, closing
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	Breaks
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### Programme Detail - Wednesday 04/03/2020

Start	End	Who / what	Title
<b>Session 3: Lab Management and MU</b>			
8:30 AM	8:50 AM	Paul McMullen	Transition to ISO/IEC 17025:2017 & ISO 17034:2016, an accreditation point of view
8:50 AM	9:10 AM	Allister Prosser	Implementation of an integrated management system to meet world best practice
9:10 AM	9:30 AM	Tony Bergen	Monte Carlo analysis of complex measurement uncertainty tasks
<b>Session 4: Anti-doping analysis</b>			
9:30 AM	9:50 AM	Fong-Ha Liu	A new steroid reference material to underpin stable carbon isotope ratio measurement in anti-doping analysis
9:50 AM	10:10 AM	Somanath Bhat	Fairness in sport - a DNA test for detecting gene doping in athlete blood samples
10:10 AM	10:40 AM	Morning tea	
10:40 AM	11:20 AM	Invited talk: Dr Jonathan Mittaz	Applying principles of metrology to earth observation satellite data
<b>Session 5: Environment</b>			
11:20 AM	11:40 AM	Giorgio Buonanno	On the influence of different methodologies in the estimate of ultrafine particle dose received by population in all-day activities
11:40 AM	12:00 PM	Robert Kay	Intercomparison of CSIRO (Au) – JAMSTEC (Japan) – NCOSM (China) oceanographic calibrations facilities
12:00 PM	12:20 PM	Jane Warne	Consistent measurement in a dynamic world, measuring temperature in the real world
12:20 PM	1:20 PM	Lunch	
<b>Session 6: Dimension and Pressure</b>			
1:20 PM	1:40 PM	Neil Sturrock	The development of an automated dimensional calibration system to verify the performance of radial gauges
1:40 PM	2:00 PM	Richard Crendal	Alternative methodology for establishing a vacuum scale using a static expansion system
2:00 PM	2:20 PM	Robert Clayton	Zeroing absolute pressure transducers
2:20 PM	3:05 PM	Workshop 3	Pressure Interest Group
3:05 PM	3:35 PM	Afternoon tea	
<b>Session 7: Humidity</b>			
3:35 PM	3:55 PM	Wenwen Lei	Hysteresis effects on capacitance humidity sensors
3:55 PM	4:15 PM	Jarkko Ruonala	Improving the performance of relative humidity measurements in high-humidity environments.
4:15 PM	5:00 PM	Workshop 4	Humidity (Aus-NZ cooperation to facilitate consistency)
5:00 PM	6:00 PM	Metrology Society of Australasia Annual General Meeting	
6:00 PM	7:00 PM	Drinks and canapes	

Legend:	Special sessions: keynote/invited talk, opening, closing
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## Programme Detail - Thursday 05/03/2020

Start	End	Who / what	Title
<b>Session 8: Electrical (1)</b>			
8:30 AM	8:50 AM	Bill Spath	PMU calibration - why and how?
8:50 AM	9:10 AM	Adam Knight	Modelling the errors of a transfer power standard for improved calibration efficiency
9:10 AM	9:30 AM	Tieren Zhang	Calibration techniques for new-generation digital multimeters and calibrators
9:30 AM	9:50 AM	Wei Yan	Calibration of high-voltage modules of electromagnetic compatibility test sets
9:50 AM	10:20 AM	Morning tea	
10:20 AM	11:00 AM	Invited talk: Dr Colin Allison	Chemical metrology of atmospheric greenhouse gas measurements
<b>Session 9: Electrical (2)</b>			
11:00 AM	11:20 AM	Ilya Budovsky	NMI standard of electrical power as a reference for phase measurement and characterisation of voltage and current scaling
11:20 AM	11:40 AM	Wei Yan	Traceable calibration for partial discharge calibrators
11:40 AM	12:00 PM	Jane Warne	Electrical calibration of field electronics under a range of environmental conditions and scaling the process to deal with hundreds of units
12:00 PM	1:00 PM	Lunch	
<b>Session 10: Flow</b>			
1:00 PM	1:20 PM	Simon Dignan	Preliminary results of Coriolis meter testing over a wide viscosity range
1:20 PM	1:40 PM	Salam Matalaka	A facility for the calibration of flow meters using high viscosity fluids
1:40 PM	2:00 PM	Zhe Wang	Thermal modelling of a piston prover volumetric flow standard
2:00 PM	2:20 PM	Khaled Chahine	Establishment of a 7000 m <sup>3</sup> h <sup>-1</sup> critical flow venturi nozzle array for high-flow low-pressure calibration at NMIA
<b>Session 11: Education and outreach</b>			
2:20 PM	2:40 PM	Cynthia Lendrum	Outreach – why, what and how?
2:40 PM	3:00 PM	Lenice Evergreen	Boosting the metrology workforce – one apprentice at a time
3:00 PM	3:30 PM	Afternoon tea	
3:30 PM	4:15 PM	Workshop 5	Can model-based testing be accredited and is it traceable?
4:15 PM	4:20 PM	MSA President	Closing remarks

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