



# Metrology Society Of Australasia

*“Realising the Value of Metrology”*

12<sup>th</sup> Biennial Conference, September 12<sup>th</sup> to 14<sup>th</sup> 2017

Brisbane Convention & Exhibition Centre, Merivale St & Glenelg Street,  
South Brisbane QLD 4101

## ***Highlights***

### **Pre-Conference welcome drinks 5:30 to 7:30pm on 11th September**

All registrants are welcome to attend our regular NATA Starter function - 5:30 to 7:30pm on 11th September - drinks and canapes provided by NATA in the trade area amongst our exhibitors/sponsors, mainly in the P2 Room, Plaza Level, Brisbane Convention & Exhibition Centre.

### **Registration**

Registration is open at 5pm on the 11th of September (near the P3 & P4 Rooms, Plaza level Brisbane Convention & Exhibition Centre) and again on Tuesday morning from 8:30 am.

### **Plenary Speakers**

Insights into challenges and changes to our social and economic environments will be presented by world class invited plenary speakers.

### **Over 30 scientific presentations by practising metrologists**

Workers in metrology will present the latest developments in temperature measurement, electrical systems, and legal aspects of measurement regulation. Details are in our scientific programme below.

### **Special interest group workshops**

Workshops discussing current topics concerning temperature, photometric and pressure measurements.

### **Have your say at the Trust or Test Forum**

How much trust should we place in certificates from international suppliers given the number of high profile failures in this system? In Australia and New Zealand there are tightly monitored testing laboratories to do this type of testing.

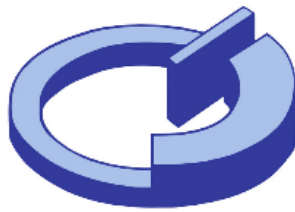
### **Special Site Tour**

A special tour of the XXXX brewery has been arranged followed by a presentation by their Quality Brewer Anthony Clem in the visitors function room.

### **Conference Dinner**

The conference dinner will be held at the Rydges Roof Top Restaurant

Coffee on arrival, lunch, morning and afternoon tea.



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<b>Tuesday 12<sup>th</sup> September</b>	
8:30	Registration
9:00	<b>Conference Opening. D Burke</b>
9:10	<b>Plenary 1 Dr Peter Fisk The Revised SI: What it means for NMI and you</b>
10:00	Delivery of $\pm 1$ mK temperature calibration to the Australian oceanographic community on a commercial scale. R. Kay, M. Sherlock, M. Underwood. CSIRO
10:20	Why characterisation of a measurement method is critical - Sea Level a case study. J. Warne. Bureau of Meteorology.
10:40	Exhibition Morning Tea
11:10	<b>Plenary 2 Dr John Church. Climate Change Measures</b>
12:00	Lunch
1:00	Realisation of the triple point of water at the 20 $\mu$ K level and its practical application. M.K. Ho, R. Kay, I. Dollery, E. van der Ham, M. Ballico. NMIA and CSIRO
1:20	Design and Investigation of Pd-C Eutectic Fixed Point Cells for Thermocouple Calibration at NMIA. F. Jahan, H. Ogura, M. J. Ballico, E.W.M. van der Ham, N. Sasajima. NMIA and NMIJ.
1:40	The type N thermocouple, the good the bad and the ugly. E. S. Webster. Measurement Standards Laboratory NZ
<b>Concurrent Session</b>	
1:00	Immersion effects in thermometer calibration baths. D. R. White and C. L. Jongenelen. MSL and IANZ
1:20	Introduction to proficiency testing and how it can increase confidence in measurements. S. Bobbala. Trading Standards New Zealand
1:40	Flow metrology at NMIA: current and future projects. M. Ballico, K. Chahine, S. Dignan
2:00	<b>Pressure Forum</b>   <b>Fluke 6109A/7109a Calibration Bath training</b>
2:40	Afternoon Tea
3:20	Precision meets Performance. How to optimize your calibration-setup with a technology refresh. Christian Elbert, Wika
3:40	Understanding the uncertainties associated with the Fluke 5128A RHapid Cal portable humidity generator. Mike Lawyer. Fluke
4:00	Heat-flux sensor calibration at high irradiances using a CO <sub>2</sub> laser. E. van der Ham, M. Ballico. NMIA
4:20	<b>Forum: Trust or Test? J. Warne</b>
5:10	<b>Break for Dinner at 6:30 pm Rydges Roof Top</b>



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	<b>Wednesday 13<sup>th</sup> September</b>
8:30	Metrology in chemistry and biology – how far have we come? Lindsey MacKay, NMIA. Chair CCQM Organic Analysis Working Group
9:00	The challenge of determining the economic value of metrology. P. Mitchell, J. Mayo. NMIA
9:20	Systemic impediments to quality control of blood pressure measurements. Martin Turner. Macquarie University
9:40	<b>On Your Feet Forum</b>
10:30	Morning Tea
11:10	<b>Plenary 3.</b> <b>Dr Peter Thompson, The impact from metrology. A UK perspective</b>
12:00	Lunch
1:00	<b>MSA Annual General Meeting</b>
2:00	<b>Site Visit XXXX Brewery</b>
6:00	<b>Return from site visit</b>



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Thursday 14 <sup>th</sup> September	
8:30	Electrical metrology and the revised SI. M. D. Early and I Budovsky MSL and NMIA
8:50	kVA measurement for capacity based network tariffs. D. Sheppard. Metering Dynamics
9:10	Roll out of smart energy meters in NZ. R Beatty and T Stewart. Electricity Authority of NZ and MSL.
9:30	Underpinning the energy sector of the 21st century – new electrical energy standards at NMI Australia. I. Budovsky, Y. Li, F. Emms, D. Georgakopoulos, V. Balakrishnan, L. Willems Van Beveren, W. Yan and G. Gubler. NMIA and VNIM
9:50	Performance evaluation of the NMI's AX1007CP 1-kg constant-pressure automatic mass comparator. K. Fen, M. Ballico, B. Ward. NMIA
10:10	NMIA's New Ultra-High-Accuracy 670L PVTt System for the Calibration of Critical Flow Venturi Nozzles. K. Chahine and S. Wang. NMIA
<b>Concurrent Session</b>	
8:30	Introduction to ISO 17034 general requirements for the competence of reference material producers. P. McMullen. NATA
8:50	Advances in the NMI pressure scale. N. Owen
9:10	Electrical measurements for the characterisation of solid state lighting devices. I. Budovski and D. Georgakopoulos. NMIA
9:30	FDIS ISO/IEC 17025 vs. ISO/IEC 17025:2005: An initial overview of changes in the new standard. C. Jongenelen. International Accreditation New Zealand
9:50	Dimensional measurements of a reference piston gauge. P. Cox. NMIA
10:10	A facility for the calibration of flow meters using LPG at near-boiling conditions. S. Dignan, S. Matalaka and M. Ballico. NMIA
10:30	Morning Tea
11:10	<b>Plenary 4</b> <b>Professor Andre Luiten, Applying Metrology to the Real World</b>
12:00	Lunch
1:00	Photometric testing: the value of observations. S. M. Mander, C. H. Chitty. Massey University, NZ.
1:20	Influence of air speed on photometry of LED lighting devices A. Bergen, S.E. Jenkins, L. Tissot. Photometric Solutions International and Steve Jenkins & Associates.
1:40	Spectral mismatch of illuminance meters and the effect under a variety of light sources. N. Swift presented by Françoise Shindo. MSL NZ.
<b>Concurrent Session</b>	
1:00	The Henry Hindley clock pendulum. L. Felix. Consultant.
1:20	Development of a harmonic phase measurement system traceable to a Josephson waveform synthesiser. D. Georgakopoulos, I. Budovsky, S. P. Benz and G. B. Gubler. NMIA
1:40	A 400 kV Reference Switching Impulse Divider for on-site calibration. W. Yan and Y. Li. NMIA
2:00	Forum LED Measurements
	Temperature Forum
2:40	Afternoon Tea
3:30	Conference Ends