

| Rapid-Tech MSA2025 Preliminary Programme* |                                                                                                                  |                                                                                                                                |                            |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Monday 25 August                          |                                                                                                                  |                                                                                                                                |                            |
| 1:00 PM                                   | NMIA Site Tour - Coach transport departs Mercure Sydney (tickets must be purchased for this)                     |                                                                                                                                |                            |
| 6:00 PM                                   | Welcome Function - Terrace Bar, Mercure Sydney - Sponsored by Scientific Devices                                 |                                                                                                                                |                            |
| Tuesday 26 August                         |                                                                                                                  |                                                                                                                                |                            |
| Start                                     | Session title                                                                                                    | Presentation topic                                                                                                             | Presenter                  |
| 8:00 AM                                   | Registration opens - Level 2 Conference Foyer                                                                    |                                                                                                                                |                            |
| 9:00 AM                                   | Conference Opening Welcome                                                                                       |                                                                                                                                | Tony Bergen                |
| 9:10 AM                                   | Keynote 1                                                                                                        | Post redefinition – how close are we to realising the dream?                                                                   | Annette Koo                |
| 10:00 AM                                  |                                                                                                                  | The BIPM – 150 years of maintaining units                                                                                      | Tony Bergen                |
| 10:30 AM                                  | Morning tea                                                                                                      |                                                                                                                                |                            |
| 11:00 AM                                  | Electrical metrology                                                                                             | Setting the Power – Science that Underpins Electrical Energy Measurements in Australia                                         | Ilya Budovsky              |
| 11:40 AM                                  |                                                                                                                  | A new method of measuring fast transient impulses in high-voltage substations                                                  | Hugo Adams                 |
| 12:05 PM                                  |                                                                                                                  | The primary SI ampere standard on a commercial 22-nm FDSOI process technology                                                  | Ajit Dash                  |
| 12:30 PM                                  | Lunch                                                                                                            |                                                                                                                                |                            |
| 1:30 PM                                   |                                                                                                                  | Rapid-Tech Sponsor spotlight                                                                                                   |                            |
| 1:40 PM                                   | Keynote 2                                                                                                        | Developments in space access and re-entry technologies                                                                         | Eduardo Trifoni            |
| 2:30 PM                                   | Hydrogen Economy                                                                                                 | Metrological Challenges for the Hydrogen Economy                                                                               | Wodek Jakubik/Victor Chim  |
| 3:20 PM                                   | Afternoon tea                                                                                                    |                                                                                                                                |                            |
| 3:45 PM                                   | Temperature and Humidity                                                                                         | A history of the realisation of the ITS-90 subrange -189.3442°C to 961.78°C in Australia                                       | Mong-Kim Ho/Julien Langley |
| 4:10 PM                                   |                                                                                                                  | Realization of New Zealand’s national humidity standard                                                                        | Ben Sherson                |
| 4:35 PM                                   |                                                                                                                  | Calculating thermocouple inhomogeneity at low immersions by numerical post-measurement correction of thermal conduction errors | Massoud Aghili Yajadda     |
| 5:00 PM                                   | Day one close                                                                                                    |                                                                                                                                |                            |
| 7:00 PM                                   | Conference Dinner - Sydney Harbour Cruise - Departing Kings Street Wharf, Darling Harbour - Sponsored by Trescal |                                                                                                                                |                            |
| Wednesday 27 August                       |                                                                                                                  |                                                                                                                                |                            |
| Start                                     | Session title                                                                                                    | Presentation topic                                                                                                             | Presenter                  |
| 9:00 AM                                   | Keynote 3                                                                                                        | Invisible but Essential: The Future of Accreditation in a Changing Landscape                                                   | Jennifer Evans             |
| 9:50 AM                                   |                                                                                                                  | Fluke Sponsor Spotlight                                                                                                        |                            |
| 10:00 AM                                  | Laboratory                                                                                                       | Beyond the spec sheet: understanding real-world uncertainty in CMMs                                                            | Lenice Evergreen           |

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| 10:25 AM                                               | practice, MU and PT (1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Proficiency testing – investigation of borderline comparison outcome facilitates measurement improvement – a case study in pressure measurement | Kevin Mapson      |
| 10:50 AM                                               | Morning tea                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                 |                   |
| 11:20 AM                                               | Optical Metrology                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Measuring appearance                                                                                                                            | Ellie Molloy      |
| 11:45 AM                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | On the challenges of metrological traceability and measurement uncertainty in the age of AI                                                     | Tony Bergen       |
| 12:10 PM                                               | Lunch                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                 |                   |
| 1:00 PM                                                | Special session: Metrology 101 – Fundamentals of the SI system and laboratory practice, Part 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                 |                   |
| 3:00 PM                                                | Afternoon tea                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                 |                   |
| 3:30 PM                                                | Special session: Metrology 101 – Fundamentals of the SI system and laboratory practice, Part 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                 |                   |
| 5:30 PM                                                | Day two close                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                 |                   |
| Thursday 28 August                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                 |                   |
| 7:00 AM                                                | MSA AGM - Breakfast (Attendance must be listed at Registration)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                 |                   |
| 9:00 AM                                                | Keynote 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | The GPT Revolution                                                                                                                              | Adam Spencer      |
| 10:15 AM                                               | Morning tea                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                 |                   |
| 10:45 AM                                               | Impedance and surface tension metrology                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Advances in impedance metrology                                                                                                                 | Brady Shearan     |
| 11:10 AM                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | A high-current resistance measurement system - shunting the path to traceability                                                                | Owen Brace        |
| 11:35 AM                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Recent development of measurement facility for liquid surface tension at National Measurement Institute                                         | Weichen Wang      |
| 12:00 PM                                               | Lunch                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                 |                   |
| 1:00 PM                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Zedflo Sponsor Spotlight                                                                                                                        |                   |
| 1:10 PM                                                | Laboratory practice, MU and PT (2)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 376.5 days, 3,765 hours, in a third tier laboratory                                                                                             | Daryl Pettit      |
| 1:35 PM                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Cosine error: A case study in the use of advanced statistics for uncertainty estimation                                                         | Douglas J. Little |
| 2:00 PM                                                | Afternoon tea                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                 |                   |
| 2:20 PM                                                | Panel session: NATA/IANZ Workshop on measurement-related ISO/IEC 17025 requirements<br>Join the crew from IANZ and NATA to discuss and share your expertise on the intricacies of ISO/IEC 17025 and interpretation by Accreditation Bodies. While this workshop is not the place to discuss specific issues experienced during an accreditation assessment, this workshop may help clarify general topics that come up amongst the calibration laboratories.<br>* Meeting Proficiency Testing requirements<br>* Method validation<br>* Formulating Calibration and Measurement Capabilities<br>* Decision rules |                                                                                                                                                 |                   |
| 4:00 PM                                                | Conference Closing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                 |                   |
| *Please note that the programme is subject the change. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                 |                   |