

## ICME 2025

### International Conference on Measurements of Energy

23–25 June 2025 Orléans

| Monday 23/6 |   | Tuesday 24/6 |   | Wednesday 25/6 |  |
|-------------|---|--------------|---|----------------|--|
|             |   | 08:30        | <b>Registration</b>   |                |  |
|             |   | 09:00        | <b>Pascale Desgroux</b><br>The challenge of measuring NO in hydrogen and ammonia flames to better understand the NO formation pathways  | 09:00          | <b>Caiying Sun</b><br>Measurement of CO <sub>2</sub> gas-liquid two-phase gas volume fraction using capacitive sensors   |
|             |   | 09:25        | <b>Guillaume Dayma</b><br>An experimental theoretical and modeling study of the pyrolysis and oxidation of neo-pentanol using CO time-history measurements behind reflected shock waves | 09:25          | <b>Lijuan Wang</b><br>Vibration Frequency Measurement of Wind Turbine Blades through Moiré Pattern Analysis  |
|             |   | 09:50        | <b>Olav Werhahn</b><br>Nitrous oxide emissions - monitoring a critical aspect of the energy source diversification  | 09:50          | <b>Jeerasak Pitakarnnop</b><br>Development of a National Facility for Traceable Aerodynamic Testing in Thailand: Advancing National Metrology, Energy and Aerospace Applications through 15 kPa Differential Pressure Standard |
|             |   | 10:15        | <b>Christophe SARRAF</b><br>Development of Primary Standards for High-Frequency Dynamic Pressure Calibration  | 10:15          | <b>Bo Shu</b><br>Simultaneous dynamic NO, H <sub>2</sub> O, and temperature measurement using an intrapulse laser with MHz time resolution in a shock tube   |
|             |   | 10:40        | <b>Coffee Break (posters)</b>   | 10:40          | <b>Coffee Break (posters)</b>  |
|             |   | 11:00        | <b>Philippe Dagaut</b><br>On the characterization of highly oxidized products from cool flames in a continuously-stirred tank reactor   | 11:00          | <b>Maedeh Askarzadehardestani</b><br>Impact of Different Charge and Discharge Profiles on the Aging Behavior of Second-Life Lithium-Ion Batteries: An EIS-Based Approach   |
|             |   | 11:25        | <b>Kai Moshhammer</b><br>Molecular-Beam Mass Spectrometry under the Lens: Uncertainties in Measuring Species Concentrations   | 11:25          | <b>Torben Jennert</b><br>Assessing the safety of lithium-ion batteries using electrochemical impedance spectroscopy: indicators, challenges and measurement techniques   |
|             |   | 12:00        | <b>Zhandong Wang (online)</b><br>Ozone-assisted low-temperature oxidation of C1-C4 alcohols   | 11:50          | <b>Freyja Galina Daragan</b><br>Pressure measurement during thermal runaway of lithium-ion batteries: Comparison of piezoelectric and piezoresistive pressure sensors  |
|             |   | 12:25        | <b>Scott Goldsborough</b><br>Towards quantitative model comparisons against measurements from RCMs and JSRs   | 12:15          | <b>Nattapong Chuewangkam (online)</b><br>Development of a National Shock Tube Facility for Combustion Energy Calibration: Enabling Thailand Advancements in Aerospace Applications and Metrological Infrastructure             |
| 12:00       | <b>Registration</b>   | 12:50        | <b>Lunch (on site)</b>  | 12:40          | <b>End of conference remarks</b>   |
| 13:00       | <b>Welcome address</b>  |              |   |                |  |
| 13:15       | <b>Noud Maes</b><br>Experimental study of hydrogen injections in an Argon Power Cycle   | 14:10        | <b>Scott Goldsborough</b><br>RCM Workshop 3rd Characterization Initiative: Resolving complications of multi-stage ignition  |                |  |
| 13:40       | <b>Liguang Li</b><br>A Novel Hydrogen Energy Storage System: On-site Hydrogen and Oxygen Production from Excess Renewable Power followed by Power Regeneration Employing an Argon Power Cycle | 14:35        | <b>Leopold Seifert</b><br>Preliminary results from the 3rd RCM characterization initiative: Dimethylether investigations at PTB RCM facility  |                |  |
| 14:05       | <b>Robert Dibble</b><br>The Long-Awaited Hydrogen-Fueled Argon Engine with Greater Efficiency Than Fuel Cells, >65% with a path to >70%, May Debut at the End of the World                    | 15:00        | <b>Rana Shebly</b><br>Dimethyl Ether Auto-ignition Delay Measurements in a Rapid Compression Machine  |                |  |
| 14:30       | <b>Nicolas Villenave</b><br>Infrared-Based Determination of Bunsen-Burner Wall Temperature for Hydrogen/Air Laminar Flames  | 15:25        | <b>Florian Hurault</b><br>Uncertainties on Initial conditions and IDT measurements in a Rapid Compression Machine   |                |  |
| 14:55       | <b>Coffee Break (posters)</b>   | 15:50        | <b>Coffee Break (posters)</b>   |                |  |
| 15:15       | <b>Nils Hansen (online)</b><br>Understanding Chemical Transformations in a Closed Carbon Cycle  | 16:10        | <b>Seong-Young Lee</b><br>Resolving Mixture Stratification in Hydrogen SCC Using Calibrated LIBS and Acetone PLIF Measurements  |                |  |
| 15:40       | <b>Yanan Huo</b><br>Experimental and numerical kinetic study of OME2 and OME3 combustion in low-pressure laminar flames   | 16:35        | <b>Vivek Chougale</b><br>Impact of Radiation and Water Vapor on Fundamental Properties of Lean Laminar Hydrogen/Air Flames  |                |  |
| 16:05       | <b>Perla Trad</b><br>Cool flame propagation velocities of DEE: determination in an ozone-seeded stagnation plate burner configuration   | 17:00        | <b>Fabien Halter</b><br>Metals as Future Carbon-Free Energy Carriers  |                |  |
| 16:30       | <b>Jens Brunzendorf</b><br>Remote Sensing of Hydrogen Flames Under Daylight Conditions  | 17:40        | <b>WIMER Session<br/>Women in Metrology and Energy Research</b><br><br>Panelists: Christine Rousselle, Lijuan Wang, Véronique Dias, Caiying Sun, Madlen Chao                            |                |  |
| 16:55       | <b>Seif Zitouni / Joachim Beekman</b><br>On the accuracy of laminar flame speeds and Markstein lengths measured from spherically expanding ammonia/air flames                                 |              |   |                |  |
| 18:00       | <b>Welcome cocktail (Hôtel Grosloot)</b>  | 18:40        | <b>Dinner (Jardin de l'Evêché)</b>  |                |  |