

# EMPRESS 2 Workshop



*A one-day online conference on enhanced temperature measurement techniques for improved process control held on Thursday 7 October 2021*

**All times BST (CET)**

<b>09.00-11.15 Session 1 – Introduction &amp; phosphor thermometry</b>		
9.00 (10:00)	Welcome and introduction	Jonathan Pearce, <i>NPL</i>
9.10 (10:10)	Keynote: The redefinition of the kelvin	Graham Machin, <i>NPL</i>
9.35 (10:35)	Keynote: Development of a practical Johnson noise thermometer: latest progress	Paul Bramley, <i>Metrosol</i>
10.00 (11:00)	Overview of WP1: Phosphor thermometry	Aurik Andreu, <i>AFRC</i>
10.25 (11:25)	Temperature measurement techniques for gas and liquid flows using thermographic phosphor particles	Christopher Abram, <i>Princeton University / HiT Nano</i>
10.50 (11:50)	Phosphor Thermometry for Nuclear Decommissioning and Storage	Gavin Sutton, <i>NPL</i>

<b>11.45-13.00 Session 2 – Thermocouples</b>		
11.45 (12:45)	Overview of WP2: Low-drift thermocouples	Frank Edler, <i>Physikalisch-Technische Bundesanstalt</i>
12.10 (13:10)	Flame fusion of quartz at 2000 °C	Matthew Swithenbank, <i>Heraeus Conamic UK</i>
12.35 (13:35)	The INSEVA thermocouple and current status	Trevor Ford and Phillip Williams, <i>CCPI Europe</i>

<b>14.00-15.15 Session 3 – Combustion thermometry</b>		
14.00 (15:00)	Overview of WP3: Combustion thermometry	Alex Fateev, <i>Danmarks Tekniske Universitet</i>
14.25 (15:25)	Thermal imaging of flames	Fiona Turner, <i>Land Instruments</i>
14.50 (15:50)	Gas Species and Temperature Measurements in Harsh Environments using Tunable Diode Laser Spectroscopy	Michael Lengden, <i>University of Strathclyde</i>

<b>15.45-17.00 Session 4 – Fibre-optic thermometry</b>		
15.45 (16:45)	Overview of WP4: Fibre-optic thermometry	Gavin Sutton, <i>NPL</i>
16.10 (17:10)	Long-term stability testing of an optical temperature probe at 1100 °C	Ralf Pechstedt, <i>Oxsensis Ltd</i>
16.35 (17:35)	Hollow-core optical fibres for harsh environment thermometry	Eric Numkam-Fokoua, <i>University of Southampton</i>

