

ULTRA PRECISION ENGINEERING CONFERENCE

Institute for Manufacturing, 17 Charles Babbage Road, Cambridge CB3 0FS

MONDAY 9 MAY 2016

PROGRAMME

- 08:45 **Registration & sign-up for lab tours during lunch**
- 09:25 **Welcome from the MRes conference team**
- 09:30 **Introduction to the Centre for Innovative Manufacturing in Ultra Precision**
Martin O'Hara, National Strategy Manager, Cranfield University
- 09:50 **Challenges in Ultra Precision Manufacture**
Professor Paul Shore, Head of Engineering Divisions, National Physical Laboratory
- 10:20 **Precision for Nuclear Fusion: Challenges, Solutions & Opportunities**
Michael Porton, Head of Engineering Realisation, Culham Centre for Fusion Energy
- 10:50 **Morning Break**
- 11:10 **Challenges and Opportunities for Ultra Precision in a Space and Aerospace Context**
Martin Agnew, CIS R&T and Innovations Coordinator, Airbus Defence and Space
- 11:40 **Microtargetry Challenges for Enabling Future Beam Sources**
Martin Tolley, Target Fabrication Group Leader, STFC Rutherford Appleton Laboratory
- 12:10 **Lunch and Tours**
- 13:10 **High Density Electrical Interconnect and Microfluidic Packaging of MEMs Devices**
Gary Truett, Prototype Manager, Xaar Plc.
- 13:40 **Precision Manufacturing of Nano-photonic Holograms**
Professor Tim Wilkinson, Professor of Photonic Engineering, University of Cambridge
- 14:10 **Helium Ion Microscopy: High Resolution Imaging and sub-10 nm Nanostructuring**
Peter Gnauck, Business Development Manager, Carl Zeiss
- 14:40 **Afternoon Break**
- 15:00 **Femtosecond Lasers for Precision Frequency and Distance Metrology**
Professor Derryck Reid, Head of Photonics and Quantum Sciences Research Institute, Heriot Watt University
- 15:30 **Ultrafast to Ultra Precision**
Joris van Nunen, Product Marketing Manager, Coherent Inc.
- 16:00 **Closing Remarks**
Professor Bill O'Neill, Course Director: Centre for Doctoral Training in Ultra Precision
- 16:05 **Drinks and Canapés**