

ICEM·16

16th International Conference on Experimental Mechanics

July 7-11 2014 • University of Cambridge, UK

*Organised by the British
Society for Strain
Measurement on behalf of
the European Society for
Experimental Mechanics*



Call for Papers

*Established in 1959, the conference
is the premier event to showcase
novel and innovative research in
Experimental Mechanics*



Conference Highlights

- Three thematic tracks on:
 - Assessment of composite materials and structures*
 - High strain rate, shock, impact and blast testing incorporating the Hopkinson pressure bar centenary symposium organised by DYMAT*
 - Volume-based experimental solid mechanics*
- Two day interactive exhibition of state of the art instrumentation
- Early career researchers to showcase their work in the BSSM Young Stress Analyst competition
- 50th Anniversary celebrations for BSSM and the journal Strain
- Reception at the Fitzwilliam Museum
- Banquet under the wings of Concorde at the world famous Duxford Museum
- An opportunity to see the Tour de France, the world renowned cycle race (Monday 7th in Cambridge)!



www.icem16.org



BRITISH SOCIETY FOR
STRAIN MEASUREMENT

Key Dates

Deadline for abstract submission 1st November 2013

Notification of acceptance 14th February 2014

Deadline for reduced conference fees 31st March 2014

Plenary speakers

BSSM Measurements lecturer:

Professor John P. Dear - Imperial College London, UK - *Materials at their limit*

Professor Philip V. Bayly - Washington University, St Louis - United States - *Probing the mechanical response of the brain with magnetic resonance elastography*

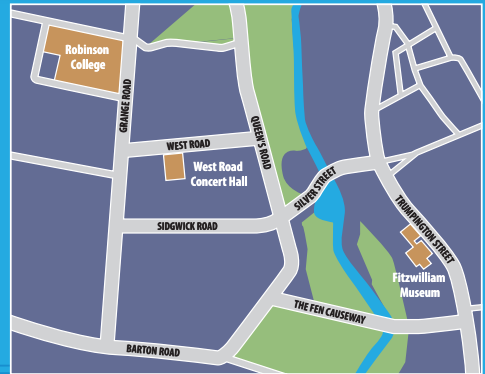
Professor Nancy R. Sottos - University Of Illinois Urbana-Champaign, United States - *Molecular tailoring of interfacial failure in composites*

Dr Albert Wong – DSTO Melbourne, Australia - *Seeing stresses through the thermoelastic lens – a retrospective and prospective from an Australian viewpoint*

Dr Magnus Langseth – NTNU Trondheim, Norway - *Crashworthiness of aluminium structures*

Venue

The conference will take place in Cambridge with the accommodation at Robinson College and the technical sessions at both Robinson College and the West Road Concert Hall. There will be parallel sessions at both venues with the plenary lectures taking place in the West Road Concert Hall. West Road is a pleasant five minute walk from Robinson College. Refreshments will be served at both venues. The exhibition will take place at both sites.



Co-sponsors



www.e-i-s.org.uk



Associazione Italiana per l'Analisi delle Sollecitazioni



NAFEMS

IOP

Institute of Physics Applied Mechanics Group

Institution of MECHANICAL ENGINEERS



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Programme *The conference covers all areas in experimental solid mechanics and abstracts are welcome on any topic that falls within this broad scope. The conference is organised such that the programme includes three tracks covering key areas of current interest in experimental mechanics. The conference will also have numerous thematic sessions on specialist and emerging areas in experimental mechanics. The sessions within the tracks and the thematic sessions are organised by international leaders in the area.*

Examples of thematic sessions topics are listed below:

Materials

- Biomaterials and tissues
- Cellular materials / foams
- Concrete, civil engineering
- Glass/brittle materials
- Elastomers
- Multifunctional materials
- Polymers
- Rock and soil mechanics
- Shape memory alloys
- Sheet metal forming
- Thin films
- Welds
- Wood

Techniques

- Acoustic emission
- Digital image correlation
- Fibre Bragg sensors
- Infra-red imaging and thermomechanics
- Interferometry (speckle, moiré, holography etc.)
- Micro and nano-scale test methods
- Photoelasticity
- Strain gauges
- Structured light

Track 1: Assessment of composite materials and structures

Track 2: High strain rate, shock, impact and blast testing incorporating the Hopkinson pressure bar centenary symposium organized by DYMAT

Track 3: Volume-based experimental solid mechanics

Applications

- Creep
- Experimental Mechanics in art and conservation
- Identification from full-field measurements
- Fatigue and Fracture
- Model validation
- NDT
- Residual stresses
- SHM
- Structural testing
- Ultrasonics



Conference Secretariat

Dr. Paul Tomlins

secretariat@icem16.org



Organising Committee

Prof. Janice Barton (Conference Chair)
University of Southampton, United Kingdom

Prof. Fabrice Pierron (Chair of the scientific committee)
University of Southampton, United Kingdom

Dr. Vincent Lozano (Web administrator), LTDS ENISE, France

Dr. Jerry Lord National Physical Laboratory, United Kingdom

Prof. Margaret Lucas University of Glasgow, United Kingdom

Dr. Simon Quinn University of Southampton, United Kingdom

Prof. Ole Thybo Thomsen University of Southampton, United Kingdom

Prof. Chris Truman University of Bristol, United Kingdom

Dr. Stephen Walley University of Cambridge, United Kingdom

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The Scientific Committee of the conference to date has over 100 members these are listed on the conference web site <http://www.icem16.org/contenu.php?page=comites>



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