

# 10th International Conference on Advances in Experimental Mechanics

1-3 September 2015  
Heriot-Watt University, Edinburgh, UK



**IOP** Institute of Physics  
Applied Mechanics Group

## Call for Abstracts

The British Society for Strain Measurement's 10th International Conference on Advances in Experimental Mechanics will offer industry and academia the opportunity to present current developments in experimental mechanics.

The BSSM sits at the interface between industry, academia and the wider engineering community and promotes their interaction to ensure the wide dissemination of new ideas and best practice in the field of engineering measurement.

The conference focuses on research which advances experimental techniques across the very widest range of applications in mechanics, including stress, strain and vibration analysis.



*Photo courtesy of Marketing Edinburgh*

The BSSM conference will be partnered by the Institute of Physics Applied Mechanics Group to incorporate Modern Practice in Stress and Vibration Analysis (MPSVA).

### Sponsored by



### Co-sponsors



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British Gear Association



**IOP** Institute of Physics  
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European Working Group on  
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[www.e-i-s.org.uk](http://www.e-i-s.org.uk)



**NAFEMS**

## Conference highlights

### Plenary lectures

Prof Olof Lindahl  
Umeå University, Sweden

*"Tactile resonant sensors for the measurement of human soft tissue stiffness"*

Prof Peter Woodward  
Heriot-Watt University, UK

*"The effects of shear strain on the determination of the track critical velocity for high-speed trains"*

Prof John Mottershead  
University of Liverpool, UK

*"Image analysis of full-field vibration and strain data"*

### The BSSM Measurements Lecture:

Prof Fabrice Pierron  
University of Southampton, UK  
*"New opportunities in high strain rate testing based on full-field measurements"*

### Other highlights include

EMex, the BSSM's annual Exhibition of Experimental Mechanics. EMex is the premier UK exhibition for manufacturers and suppliers of strain measurement and stress analysis equipment. The exhibition will take place on the middle day of the conference. For further details please visit [www.bssm.org/emex15](http://www.bssm.org/emex15)

### BSSM Young Stress Analyst Competition

Sponsored by Airbus

The annual Young Stress Analyst Competition reaches its final stage at the Conference. Four finalists will be invited to present their work. The competition is open to final year undergraduate (or equivalent) students, MSc students, PhD students who have not submitted their final thesis and industry-based personnel.

Full details can be found at [www.bssm.org/ysa15](http://www.bssm.org/ysa15)

**EMex15**  
Exhibition of Experimental Mechanics

**YSA**  
Young Stress Analyst Competition

## Key dates

15 January 2015 Deadline for on-line submission of 2-page extended abstracts  
Please go to [www.bssm.org/conf2015](http://www.bssm.org/conf2015)

1 March 2015 Author notification

## BSSM short courses

Short courses on the following experimental techniques will be offered on the first morning of the conference. The conference will start in the afternoon of the first day, allowing those delegates wishing to attend both the conference and the short courses to do so.

### Virtual Fields Method

Prof Fabrice Pierron, University of Southampton, UK

### Infra-red Thermography

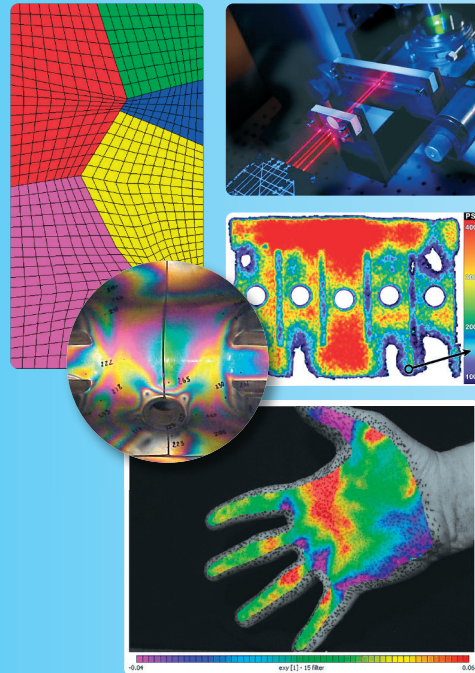
Prof Janice Barton, University of Southampton, UK

### Digital Image Correlation

Dr Pascal Lava, KU Leuven, Belgium

### Acoustic Emission

Tim Bradshaw, Mistras Group, UK



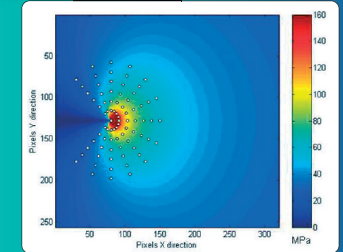
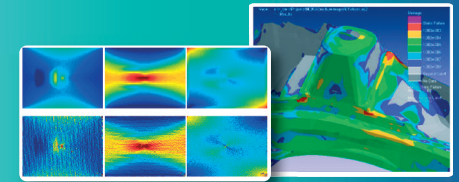
## Conference themes

The conference focuses on research which advances experimental techniques across the very widest range of applications in mechanics, including stress, strain and vibration analysis.

- Measurement techniques and their application
- Mechanics in challenging environments
- Mechanics of composites
- Fatigue and fracture
- Mechanics in biology and medicine
- Dynamic testing
- Condition monitoring
- Stress and strain analysis techniques
- Vibration analysis techniques

### Abstract Submission

Two-page extended abstracts should be submitted on-line.  
Please go to [www.bssm.org/conf2015](http://www.bssm.org/conf2015)



### Accommodation

Delegate accommodation is available on campus during the conference.  
3 nights including bed and breakfast for £150. Early booking is advised.

[www.bssm.org/conf2015](http://www.bssm.org/conf2015)

### Conference Fees (includes VAT)

**Full conference:** £400 members £450 non-members  
- includes refreshments, drinks reception, lunches and conference dinner.

**Student rate:** £250 members £300 non-members  
- includes refreshments, drinks reception, lunches and conference dinner.

### Exhibition Fees (includes VAT)

	Exhibition only	Additional delegate rate for exhibitor
Corporate 1 Members	£200	Free
Corporate 2 Members	£300	£185
Non-members	£500	£355

### Workshop Fees (includes VAT)

Delegates	£100	Members	£150	Non-members	£200
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## Conference Secretariat

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## Organising Committee:

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Prof Bob Reuben, Heriot-Watt University  
Prof Margaret Lucas, Glasgow University  
Dr Simon Quinn, University of Southampton  
Dr Yuhang Chen, Heriot-Watt University  
Dr Will Shu, Heriot-Watt University  
Dr Rachael Waugh, University of Southampton  
Dr Cristinel Mares, Brunel University  
Amanda Boaler, BSSM  
Biana Gale, BSSM

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