

**Optical Methods Technical Division**  
 2010 SEM Annual Meeting  
 Tuesday, Jun 8, 2010, 12:15pm, Eire Room  
 Crown Plaza Hotel and Conference Center, Indianapolis, Indiana, USA

**Meeting opened at 12:15**

**Officers**

Chair: Arkady Voloshin, Lehigh University (USA), not present  
 Vice-Chair: Katia Genovese, University of Basilicata (Italy), not present  
 Secretary: Helena Jin, Sandia National Labs California (USA), who runs the meeting.

**List of attendees**

<b>Name, Surname</b>	<b>Institution</b>	<b>E-mail address</b>
Cesar A Sciammarella	NIU Illinois	<a href="mailto:sciammarella@iit.edu">sciammarella@iit.edu</a>
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**1. Review of agenda**

**2. Approve minutes of June 3, 2009 technical division meeting in Albuquerque, NM**

**3. Review of activities for 2009-2010:**

(a) **2009 Fall meeting:** Advanced Image-Based Measurement Methods: Recent Developments and Applications in Engineering and Medicine.

Includes two days of presentations – 28 invited papers  
 One day of workshop

(b) **2010 annual conference:**

Fabrice Pierron and Michael Sutton organized a track ‘Application of imaging techniques to mechanics of materials and structures’.

(1) Within this track the following sessions have been organized:

Imaging techniques for - Model identification/inverse problems

- Composites
- Microscale applications
- Biological materials (2 sessions)
- Measuring residual stress
- Infrared imaging and thermomechanics ( 2 sessions)
- Digital Image Correlation
- Full-field volumetric measurement
- Soft materials
- Developments in optical techniques
- High strain rate/Dynamics

- (2) Optical methods for MEMS and Nano – coorganized with MEMS division  
 (3) Recent progress in DIC methodology

**4. Input from Research Committee and Pre-Tech Council meetings:**

- (a) TD chairs or secretary are expected to show up at the research committee and pre-technical council meeting – potential tracks and symposiums.  
 (b) Simultaneous TD meetings – feedback on this new format  
 (c) 2011 annual conference:  
 Theme: Experimental mechanics in the age of modeling and simulation  
 Potential tracks:
- Experimental and applied mechanics
  - Dynamic behavior of materials
  - Time dependent behavior of materials
  - Full-field thermal methods (under discussion)
- Potential symposium:  
 MEMS and nanotechnology  
 Emerging research areas to attract new attendees:  
 Mechanics of multifunctional materials and structures

**5. Potential sessions for 2011 annual conferences:**

- Inverse methodology based on full-field optical methods for applications in biomechanics – Katia Genovese and Stephane Avril
- Optical methods in MEMS and nanotechnology –Cosme Furlong
- Optical methods for high-rate applications – Helena Jin
- Modeling and numerical analysis for optical methods – Prof. Yoshida
- 3D Imaging techniques – Prof. Marie
  - Optical methods in Nano and Micro Micromechanics (3sessions) –Profs. Cesar Sciammarella and Ramon Rodriguez-Vera
- Hybrid optical methods - Dr. Charlotte Kramer and Pin Wu
- Photoelasticity-Prof. Terry Chen

**6. Paper review committee**

**Chair: Cesar Sciammarella**  
**Member: Don Matthys**  
**Member: Sanichiro Yoshida**

**7. Election officers**

The bylaw for optical methods and photoelasticity TD has been revised to introduce a two-year term for the officers.

Chair: Katia Genovese, University of Basilicata, [genovese@unibas.it](mailto:genovese@unibas.it), (2010-12)  
 Vice-Chair: Helena Jin, Sandia National Labs California, [hjin@sandia.gov](mailto:hjin@sandia.gov), (2010-12)  
 Secretary: Sanichiro Yoshida, Southeastern Louisiana University, [syoshida@selu.edu](mailto:syoshida@selu.edu), (2010-12)

**8. Other business and suggestions**

The sessions under general track and the “imaging technique” track are held simultaneously. Hope the organizing committee can solve this issue.

**9. Summary:**

- (1) Overall our TD meeting is very well attended. We have total of 21 attendees;
- (2) We suggest a larger room for Optical TD meeting next year since we are normally well attended.
- (3) We propose at least 10 sessions for 2011 meeeting;
- (4) To coordinate the idea of “emerging multifunctional materials and structures”, we will have a session on “hybrid optical methods”.