



Experimentally Speaking...

<http://sem.org>

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MESSAGE FROM THE PRESIDENT



Nancy Sottos, SEM President, 2014-2015

SEM activities this year kicked off with IMAC XXXIII, Conference and Exhibition on Structural Dynamics, February 2-5, 2015 in sunny Orlando, FL. With a theme of *Balancing Simulation and Testing*, the conference attracted over 470 attendees and 39 exhibitors. The highlights and photos from this successful conference are featured in this issue of *Experimentally Speaking*. Special acknowledgement and appreciation is in order for the SEM staff and the IMAC Advisory Board for their team efforts this year to organize and ensure seamless operation of this first conference without our former Executive Director, Tom Proulx. I think many of the SEM members, staff and long time conference participants were comforted by the ability to come together at IMAC and share their favorite memories of Tom. His energy and spirit were felt throughout the conference venue.

As professionals in the experimental mechanics community, we benefit significantly from both the technical and personal interactions facilitated by SEM Conferences. We also benefit scientifically from the journals the society maintains, which include *Experimental Mechanics*, *Experimental Techniques* and the new *Journal of Dynamic Behavior of Materials*. Thanks to the dedication and hard work of our membership, SEM conference attendance continues to grow and the journals are thriving. Since our meetings and journals are open to everyone, the entire experimental mechanics community profits from the efforts of SEM and its membership. It is critical for SEM to continue to support our members, encourage new member driven initiatives, and energize our membership base. Over the next few months, we will be reviewing the benefits SEM offers exclusively to its members and soliciting ideas for enhancing our membership. We also aim to improve communication with our members and welcome suggestions.

One proven mechanism for energizing membership is increased involvement of young researchers. Experimental mechanics education and student involvement in SEM activities remain critical to our mission, and we seek new ideas and programs to stay current and effectively capture the interest of the next generation of experimental mechanicians. I would like to highlight three upcoming member-driven initiatives towards this goal:

- The 2015 *Midwest Experimental Mechanics Graduate Student Symposium* will take place March 28-29 at the University of Wisconsin in Madison. Registration information is available at: <http://goo.gl/ErnMlg>
- The 2015 *Southeast Experimental Mechanics Graduate Student Symposium* will take place March 13-14 at the University of South Carolina. Registration information is available at: <http://goo.gl/p1IKTf>
- The first SEM *video paper session* will take place at the annual meeting in Costa Mesa next June. Presentations in this inaugural session will be given entirely on video

In closing, I look forward to seeing many of you at the 2015 Annual Conference and Exposition, June 8-11 in Costa Mesa. The theme for this year's conference is *Experimental Mechanics Spanning Multiple Scientific and Engineering Disciplines*. With over 500 abstracts submitted and the Murray Lecture to be delivered by Prof. K.T. Ramesh, the technical program promises to be outstanding. It is an excellent opportunity to get more involved in our "Friendly Society"!

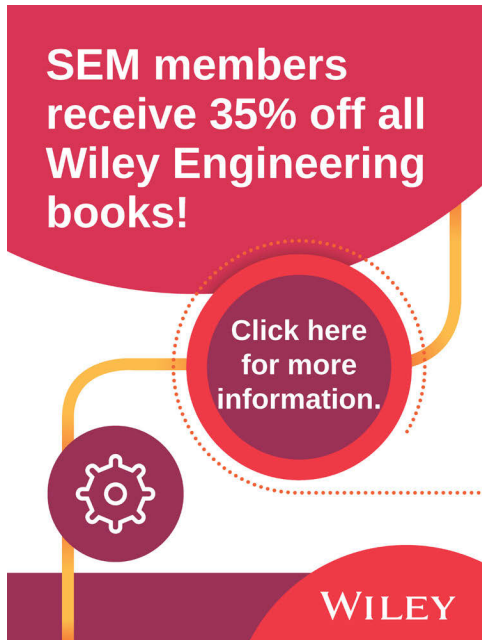
Nancy Sottos
SEM President

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WILEY/SEM SERIES ON EXPERIMENTAL MECHANICS

SEM IS EXCITED TO LAUNCH THE WILEY/SEM SERIES ON EXPERIMENTAL MECHANICS IN COLLABORATION WITH WILEY.



This series covers all aspects of experimental analysis and test methods focusing on the interdisciplinary application, research and development of experimental methods.

Click the image above or go to sem.org/publications.asp for more details.

Series publications closely follow the SEM commitment to the active promotion of experimental methods to increase the knowledge of physical phenomena; further the understanding of the behavior of materials; and provide the necessary physical basis and verification for analytical and computational approaches to the development of engineering solutions.

The series targets publications including upper level undergraduate/graduate textbooks and reference books aimed at students, researchers, and professional engineers.

Readership for this series includes researchers and developmental scientists from industry and academia. This includes experimentalists, design engineers, test engineers, development engineers in Mechanical Engineering, Civil Engineering, Electrical Engineering, Biomedical Engineering and other disciplines.

Wiley is providing SEM members, in good standing, a discount of **35% off** the retail price of Wiley publications (valid on print books only, and excludes major reference works, databases, journals, and digital books).

The Wiley/SEM book series embraces the full spectrum of topics tied to the application of engineering measurements and test methods, including:

- Applied Photoelasticity
- Model Validation
- & Uncertainty Quantification
- Biological Systems & Materials
- Civil Structures Testing
- Optical Methods
- Composite, Hybrid
- & Multifunctional Materials
- Residual Stress
- Dynamic Behavior of Materials
- Thermomechanics & InfraRed Imaging
- Fracture and Fatigue
- Inverse Problem Methodologies
- Mechanics of Time Dependent Materials
- MEMS and Nanotechnology
- Sensors and Instrumentation
- Modal Analysis/Dynamic Systems
- Nonlinear Dynamics
- Structural Health Monitoring
- Shock and Vibration
- Rotating Machinery
- Biodynamics
- Experimental Dynamics Substructuring
- Wind Turbine Dynamics
- Dynamics of Coupled Structures

ISEM-SOI 2015 GUANAJUATO, MEXICO



You are being invited to submit a paper to the 5th International Symposium on Experimental Mechanics (5-ISEM'2015) and 9th Symposium on Optics in Industry (9-SOI), Guanajuato, Mexico, on August 17-21, 2015. For more details about the conference, please visit <http://congresos.cio.mx/ISEM5/INDEX.html>

IMPORTANT DEADLINES:

Notification of acceptance:	31 March 2015
Deadline for manuscript submission:	30 June 2015
Deadline for early-bird registration:	15 July 2015
Symposia date:	August 17-21, 2015

Special Sessions are already organized on:

DYNAMIC AND STATIC STRUCTURE AND SUBSTRUCTURE TESTING:

Analytical-experimental methods;
Validation and modelling methods;
Numerical analysis

NON-DESTRUCTIVE METHODS:

Moiré Techniques & Structured Light Methods;
Speckle Techniques;
Holographic Techniques;
PIV & LDV;
Lidars;
Ultrasound Techniques;
Other Techniques

ENVIRONMENTAL MEASURING TECHNIQUES:

Underground Resources;
Air Quality;
Restoring Nature's Balance;
Monitoring Resources

MULTI-SCALE FIELDS:

Microstructures;
High-speed Lasers;
Pico-Nano Measurements;
Macro-Giga Measurements

ADVANCED NEW MATERIALS AND THEIR CHARACTERIZATION:

Biological and Biomimetic Materials;
Composites & Multifunctional Materials;
Geo-Materials;
Low-impedance Materials;
Micro-and Nano-structured Materials;
Self-healing Materials;
Time-dependent Materials

ORGANIZING COMMITTEE:

Amalia Martínez-García, CIO, Mexico
General Chair

Cosme Furlong, WPI, USA,
General Co-chair

Ramón Rodríguez-Vera, CIO, Mexico,
Honorary Chair

2015 IMAC-XXXIII CONFERENCE AND EXPOSITION ON STRUCTURAL DYNAMICS

FEBRUARY 2–5, 2015 AT THE ROSEN PLAZA HOTEL, ORLANDO, FLORIDA USA

HIGHLIGHTS AND AWARDS OF IMAC-XXXIII IN ORLANDO, FLORIDA

IMAC Conference Director, Al Wicks, conducted the Awards Luncheon ceremony, presenting various awards in recognition of outstanding achievements in structural dynamics and service to SEM/IMAC.

Our sincerest congratulations to all those who received awards and to the attendees for making this a successful IMAC conference.

With a theme of Balancing Simulation and Testing, the conference attracted over 470 attendees and 39 exhibitors.



Al Wicks—IMAC Conference Director with Herman Van der Auwerær—keynote speaker from Siemens PLM Software and Nancy Sottos—SEM President



Randy Mayes—D.J. DeMichele awardee with sons Joel and Daniel and wife Alicyn



Randy Mayes—D.J. DeMichele awardee with Al Wicks—IMAC Conference Director



AI Wicks—IMAC Conference Director with Charles D. Van Karsen and Mike Pyrkosz—D.R. Harting awardees



Christopher Niezrecki—UMass Lowell with Javad Baqersad—D.J. DeMichele Scholarship winner and Peter Avitabile—UMass Lowell



Pictured from left are Jack LoPiccolo, Tina Dardeno, Tim Marinone, Sergio Obando, Murat Inapolat, Chris Niezrecki, Javad Baqersad, Peter Avitabile, James Ristow, Julie Harvie, Jesus Reyes, Patrick Logan (all UMass Lowell faculty, current students and alumni)



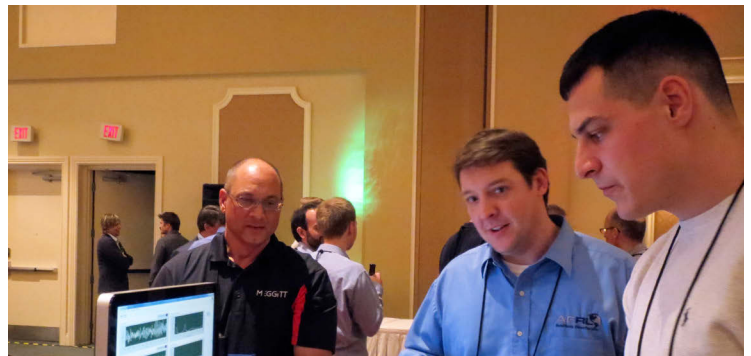
AI Wicks—IMAC Conference Director with Sankaran Mahadevan—SEM Model Validation & Uncertainty Quantification Technical Division's Best Paper winner



AI Wicks—IMAC Conference Director presenting Jason Blough his SEM Silver Certificate of Membership

EVENTS

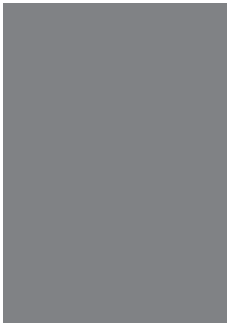
Attendees mingling and interacting with exhibitors during receptions and show hours.



470

Number of attendees
at IMAC-XXXIII in 2015.





IMAC-XXXIII





Experimentally Speaking...

THANK YOU TO OUR SPONSORS

Our sincere thanks goes to the following Exhibitors for their generous IMAC-XXXIII sponsorships:

