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COMPETITION (ISPC)?

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IMPORTANT DATES

October 17, 2017

Abstracts due to SEM

End of December 2017

Authors notified, via e-mail, of acceptance/rejection

February 26, 2018

Accepted authors are required to submit final paper electronically

LOCATION INFORMATION

Details can be found on the SEM web site, sem.org.
Contact the hotel directly for reservations:

HYATT REGENCY GREENVILLE

220 North Main Street
Greenville, SC 29601
(864) 235-1234
www.greenville.hyatt.com

SEM Conference Rate: \$165+ Single/Double

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Organized by the
Society for Experimental Mechanics, Inc.
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75TH ANNIVERSARY

2018 SEM ANNUAL

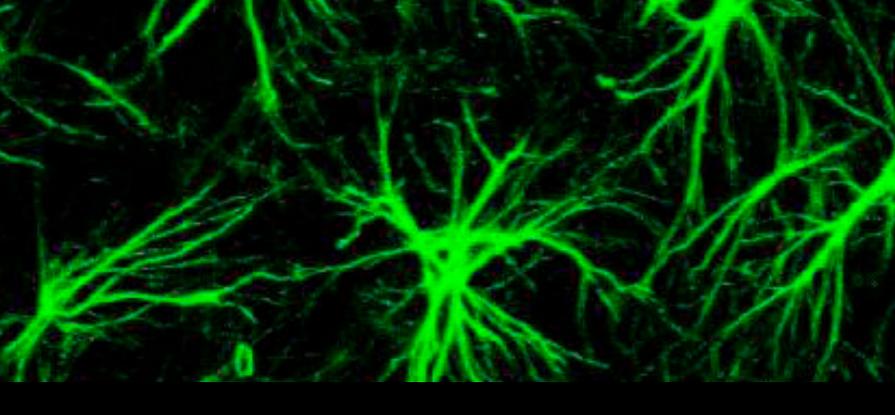


ANNUAL CONFERENCE AND EXPOSITION ON EXPERIMENTAL AND APPLIED MECHANICS

75TH ANNIVERSARY OF SEM: CELEBRATING PAST
ACCOMPLISHMENTS AND EXPLORING NEW
FRONTIERS IN EXPERIMENTAL MECHANICS

JUNE 4-7, 2018 | GREENVILLE, SOUTH CAROLINA

CALL FOR PAPERS



Dynamic Behavior of Materials

Organized by: Jamie Kimberley—*New Mexico Institute of Mining and Technology*; Leslie Lamberson—*Drexel University*; Steven P. Mates—*National Institute of Standards and Technology*

This track covers a broad range of topics related to the dynamic response of materials including: material properties, structural response, advanced testing methods and diagnostics, as well as hybrid experimental/computational methods. Loading conditions span the range from low-speed impacts to shock and blast. This track also provides an open platform for the discussion of leading-edge and interdisciplinary topics related to the dynamic behavior of materials and structures.

Challenges in Mechanics of Time-Dependent Materials

Organized by: Meredith Silberstein—*Cornell University*; Alex Arzoumanidis—*Psylotech*; Alireza Amirkhizi—*University of Massachusetts Lowell*; Bonnie Antoun—*Sandia National Laboratories*; Jevan Furmanski—*ExxonMobil*; Richard Hall—*Air Force Research Laboratory*; Yuhang Hu—*University of Illinois at Urbana-Champaign*; Hongbing Lu—*University of Texas-Dallas*; Yong Zhu—*North Carolina State University*

We seek papers related to 1/experiment, 2/theory and 3/practical applications of time and rate dependence in materials, including polymers, metals, biomaterials, granular materials, gels, foams and glasses. Time dependence may involve damage, fracture, fatigue or durability, or papers may consider environmental effects, such as high pressure or solvent exposure. Characterization across length scales is encouraged, including effects of inhomogeneities and interfaces. Experimentally informed constitutive models and papers on additive manufacturing are welcome.

Advancement of Optical Methods in Experimental Mechanics

Organized by: Luciano Lamberti—*Politecnico di Bari*; Ming-Tzer Lin—*National Chung Hsing University*; Cosme Furlong—*Worcester Polytechnic Institute*

Optical methods are widely used in the Experimental Mechanics community. This track aims to encourage researchers to exchange ideas and promote cross-fertilization of various disciplines. The track will cover a wide range of optical methods ranging from traditional interferometry to more recent DIC and DVC techniques as well as hybrid methods. A special commemorative session celebrating the 75th anniversary of SEM will be held to bridge history and new frontiers in development and applications of optical methods.

Fatigue and Fracture

Organized by: Jay Carroll—*Sandia National Laboratories*; Shuman Xia—*Georgia Institute of Technology*; Allison Beese—*Pennsylvania State University*; Ryan Berke—*Utah State University*; Garrett Pataky—*Clemson University*

This track will focus on advancing scientific understanding and experimental techniques related to fracture and fatigue. This includes a wide range of related phenomena such as microstructure, plasticity, interfaces, extreme environments, and model/experiment integration. Work on a diverse set of materials will be presented including polymers, metals, ceramics, composites, energy materials, and additively manufactured materials.

Mechanics of Additive and Advanced Manufacturing

Organized by: Sharlotte Kramer—*Sandia National Laboratories*; Helena Jin—*Sandia National Laboratories*; Jennifer Jordan—*Los Alamos National Laboratory*; Junlan Wang—*University of Washington*; Piyush Thakre—*Dow-Dupont Company*; Jay Carroll—*Sandia National Laboratories*; Allison Beese—*Pennsylvania State University*; Garrett Pataky—*Clemson University*; Ryan Berke—*Utah State University*; Brittany Branch—*Los Alamos National Laboratory*; Emily Retzlaff—*United States Naval Academy*; Paul Allison—*University of Alabama*; Bonnie Antoun—*Sandia National Laboratories*; Xavier Balandraud—*Clermont Auvergne University*

Papers are sought in the area of additive and advanced manufacturing including design, optimization, microstructure, experiments, computation, and materials for advanced manufacturing processes (3D printing, micro-nano manufacturing, powder bed fusion, directed energy deposition, etc.) with a particular focus on the mechanics aspects (e.g. mechanical properties, residual stress, deformation, failure, etc.). This track will feature keynote presentations by leading experts in the field.

19th International Symposium on Micro- and Nanomechanics

Organized by: LaVern Starman—*Air Force Research Laboratory*; Jennifer Hay—*Nanomechanics, Inc*; Nikhil Karanjgaokar—*Worcester Polytechnic Institute*; Gordon A. Shaw—*National Institute of Standards and Technology*

Broadly, SEM is committed to the promotion of scientific methods which further the understanding of the behavior of materials, structures, and systems, and practical engineering solutions which facilitate or incorporate such knowledge. The International Symposium on Micro- and Nanomechanics (ISMAN) pursues these same goals as they relate to small-scale phenomena. We press conventional theories and experimental techniques to their small-scale limits, and we search for new physical insights and exploits at the nano-scale.

4th International Symposium on the Mechanics of Composite and Multifunctional Materials

Organized by: Piyush R. Thakre—*Dow-Dupont Company*; Raman P. Singh—*Oklahoma State University*; Geoffrey Slipper—*US Army Research Lab*

Composites and multifunctional materials continue to revolutionize industrial applications due to superior structural performance, light weight and ability to tailor multiple functional properties. This symposium is focused on advancements in the fundamental and applications development of composite, multifunctional and hybrid materials. Session topics include: multifunctional materials, fracture & fatigue, recycled constituent composites, nano & particulate composites, hybrid composites, damage detection & NDE, manufacturing innovations, joining of composites, additive manufacturing, and novel composites for aerospace, automotive, & wind energy applications. A major goal of this symposium is to promote the development of new experimental techniques to address real-life applications and provide a platform for collaboration.

8th International Symposium on the Mechanics of Biological Systems and Materials

Organized by: Martha E. Grady—*University of Kentucky*, Majid Minary—*University of Texas at Dallas*, Jacob Notbohm—*University of Wisconsin Madison*

This symposium is motivated by the need for cross talk between experimental mechanics, materials science, biology, and medicine. The symposium fosters the exchange of ideas and information among scientists and engineers involved in the research and analysis of how mechanical loads interact with the structure, properties, and function of living matter and their constituents. The scope includes experimental, imaging, numerical and mathematical techniques and tools spanning various length and time scales which provide insight into biological systems and materials.