SEM Experimentally Speaking...

VOLUME 16 | ISSUE 2 AUGUST 2025 | SEM.ORG

Message from the President

Junlan Wang, SEM President, 2025-2026

IN THIS ISSUE

Society for Experimental Mechanics, Inc.
7 School Street, Bethel, CT 06801 USA
sem.org | (203) 790-6373

I AM HONORED AND EXCITED to begin my term as the next President of the Society for Experimental Mechanics. It is a privilege to serve this exceptional community, one that has shaped so much of my professional journey and personal growth. I want to begin by expressing my heartfelt gratitude to my recent predecessors—Jim De Clerck, Raman Singh, and Jason Blough—for their steady and thoughtful leadership. Their vision, dedication, and unwavering service have built a strong foundation that I am fortunate to stand on today.

Life often comes full circle in the most unexpected and meaningful ways. Over twenty years ago (twenty-three, to be exact), I attended my first SEM conference in Milwaukee, Wisconsin. It was June 2002. I was a freshly minted Ph.D. graduate, about to step into a postdoctoral position, and I remember how nervous I felt presenting my work in front of scholars whose names filled the literature I had studied for years. That first SEM meeting was unforgettable: the session chairs who welcomed me, the friendly conversations between the sessions, and the moments of inspiration that fueled my sense of possibility. I left that meeting both intimidated and inspired, feelings that remain vivid even now.

Never in my wildest dreams did I imagine that twenty-three years later I would return to the exact same city—not as a student, but as the President of SEM. It's a full-circle moment that fills me with deep gratitude and reminds me of how profoundly this society has shaped my path. SEM has become much more than a professional network—it is a true community. Within it, I have found lifelong mentors, intellectual peers, and cherished friends. SEM has supported my growth not only as a researcher and educator, but also as a leader. It is a uniquely close-knit and welcoming society—one that consistently fosters belonging, generosity, and shared purpose.

"...the session chairs who welcomed me, the friendly conversations between the sessions, and the moments of inspiration that fueled my sense of possibility. "

None of this would be possible without the tremendous efforts of the many individuals who make SEM thrive. I want to take this opportunity to recognize and thank our dedicated staff—Nuno, Jen, Shari, Dan, and Nicole—for their tireless behind-the-scenes work. Their commitment to SEM's mission and members is remarkable. I would like to thank our Treasurer, Kristin Zimmerman, and our Treasurer Emeritus, Jon Rogers, whose long-standing stewardship has placed SEM on sound financial footing, allowing us to think strategically and act boldly in service of our members. Additionally, I extend my sincere thanks to our Executive

continued on next page

Message from the President continued from page 1

Board members, Technical Division (TD) leadership, and Editorial Board members for their dedicated service in keeping our technical programs and journals vibrant and relevant.

As I begin my term, I would like to share two overarching goals that will guide my priorities in the year ahead:

First, I am deeply committed to investing in the future of SEM by supporting our student members and early-career professionals. Just as I was welcomed into SEM as a graduate student, I want to ensure that today's emerging leaders find their place in our society and feel empowered to contribute meaningfully. We must continue to cultivate an environment where students and early-career researchers are mentored, valued, and heard. This includes strengthening mentoring networks, increasing visibility of student accomplishments, expanding support for regional symposia, and encouraging intergenerational collaboration across our meetings and technical divisions. The future of SEM lies in our ability to inspire and nurture the next generation, and it is our shared responsibility to ensure that they feel a strong sense of community and support here.

Second, in conjunction with my role as the new Editor-in-Chief of our flagship journal *Experimental Mechanics*, I am passionate about advancing the quality, visibility, and impact of SEM's journals. Our publications—*Experimental Mechanics*, *Experimental Techniques*, and *Journal of Dynamic Behavior of Materials*—are central to our identity as a technical society. They are more than just publication outlets; they are trusted platforms for disseminating innovation, shaping our field's direction, and amplifying the voice of our community. They are pillars of SEM's reputation and legacy. I am pleased to share that all three journals have seen an increase in their impact factors this year. This is a testament to the hard work of our authors, editors, reviewers, and publishing partners.

But we cannot rest on this success — we must continue to build on this positive momentum. In doing so, I encourage all members to actively engage with our journals: submit your best work, volunteer to serve as a reviewer, and share published papers within your network. Let's also continue to develop timely and interdisciplinary Special Issues that capture emerging research trend and reflect the breadth and depth of our field. Journal vitality is not just about metrics—it's about relevance, rigor, and reach. Together, we can ensure that SEM publications remain at the forefront of experimental mechanics for years to come.

As I reflect on this new chapter of leadership, beginning from the very place where my SEM journey started, I felt a profound sense of purpose. Much has changed over the past two decades: the tools we use, the challenges we face, the way we connect as a global community. Yet what has remained constant is the spirit of SEM: a society built on curiosity, collaboration, mentorship, and mutual respect. It is this spirit that will guide us forward.

In the coming year, I look forward to working with all of you — our Executive Board, Technical Divisions, Editorial Boards, and all the members. I welcome your ideas, your feedback, and your partnership as we continue to grow this society and strengthen our collective impact. Whether you're a first-time conference attendee or a long-time volunteer, your voice matters and your engagement makes SEM stronger.

Thank you for your trust, your service, and your shared commitment to the future of SEM. I look forward to seeing you at both the IMAC and Annual Conferences.

SEM Executive Board Appointments for 2025-2026:

- **Nuno Lopes** as Secretary
- **Kristin Zimmerman** as Treasurer
- **Sez Atamturktur Russcher,** President-Elect as Chair of National Meetings Council
- **Samantha Daly,** Vice President as Chair of the Technical Advisory Council
- **Jason Blough,** Immediate Past President as Chair of Editorial Council
- **Raman Singh,** Past President as Chair of Administrative Council
- **Anders Brandt,** At-Large Board Member as Appointed Representative to the Research Committee
- **Garrison Flynn,** At-Large Board Member as Executive Board Representative to IMAC Advisory Board
- **Jennifer Jordan,** At-Large Board Member as Vice Chair of National Meetings Council
- **Michael Keller,** At-Large Board Member, as Appointed Representative to the Education Committee
- **Emeline Sadoulet-Reboul,** At-Large Board Member as Appointed Representative to the Applications Committee
- **Tyler Schoenherr,** At-Large Board Member as Vice-Chair of Technical Activities Council
- **Meredith Silberstein,** At-Large Board Member as Vice-Chair of Administrative Council
- **Rachael Tighe,** At-Large Board Member as Vice Chair of Editorial Council

Junlan Wang
SEM President 2025-2026 ■

Message from the Director

IT IS BOTH A PRIVILEGE AND A JOY to reflect on the success of our 2025 Annual Conference; an event that brought together more than 400 attendees, 350 contributing authors, and 330 presentations. These numbers alone are a testament to the strength, diversity, and vibrancy of our community. But beyond the numbers, what truly made this event extraordinary was the spirit of collaboration, innovation, and generosity that each of you brought to the table.

The quality and depth of submissions we received surpassed expectations, covering a wide array of timely, impactful topics centered around the 15th International Symposium on the Mechanics of Biological Systems and Materials, 26th International Symposium on Micro- and Nanomechanics (ISMAN), 11th International Symposium on the Mechanics of Composite and Multifunctional Materials, Additive and Advanced Manufacturing, Advancement of Optical Methods in Experimental Mechanics, Applications/Challenges in Industry, Dynamic Behavior of Materials, Education, Fracture and Fatigue, Inverse Methods and Machine Learning, Research, Residual Stress, Thermomechanics and Infrared Imaging, Time-Dependent Materials and the Michael Sutton International Student Paper Competition. Our authors, many of whom joined us from around the globe, demonstrated excellence not only in their research and presentations but also in their willingness to share insights, engage with attendees, and foster new professional connections.

Of course, none of this would have been possible without our organizers, session chairs and all those involved in putting our conference together. Their tireless efforts (many of which occurred behind the scenes) ensured that every session ran smoothly and every participant felt welcomed and supported. To each and every one of you: thank you. Your dedication is the foundation upon which Annual was built.

"To each and every one of you: thank you. Your dedication is the foundation upon which Annual was built."

I also want to extend appreciation to our sponsors and institutional partners, all of whom contributed invaluable support and solutions in helping us realize this vision.

The pre-conference course titled Machine Learning for Mechanics given by Sharlotte Kramer, Marco Rossi, Jean-Charles Stinville, Neal Brodnik and Michael MacIsaac on Sunday was well attended, as were the Springer/Nature Young Investigator Lecture titled "Embedded Material Intelligence: From Impact Mitigation to Tailored Wave Dynamics by Engineered Dissipation" presented by Ramathasan Thevamaran of the University of Wisconsin - Madison and the William M. Murray Lecture titled "Static and Dynamic Fracture Mechanics of Printed Aluminum Lattices" presented by Daniel Rittel of Technion, IIT.

As has been the case at past Annual Conferences, the hallway conversations, informal gatherings, and collaborative spirit throughout reminded us that the power of convening, of coming together in a shared purpose, cannot be overstated. Looking ahead, we are energized by the momentum this conference has created. The connections made here will foster new partnerships, and the ideas exchanged will evolve into next-generation research and practices. We are more connected, more informed, and more inspired than ever before.

To all who attended, contributed, and supported us, thank you for making this year's conference a success. We are deeply grateful for your continued commitment and look forward to building on this success together in the years to come.

Nuno Lopes | Executive Director ■

2025 SEM Annual: Awards and Accolades

June 2-5, 2025 at the Hyatt Regency Milwaukee, Milwaukee, WI

WE WOULD LIKE TO EXPRESS our gratitude to all of the attendees, organizers, chairs and exhibitors who helped make this another successful annual. SEM is able to maintain its commitment to offering a stimulating environment for the exchange of research and ideas because of their diligence and hard work.

We hope to see you in Norfolk, Virginia in June 2026. ■

Above: SEM Fellow Awardee–Christian Francke with SEM President–Jason Blough
Top-Right: Michael Sutton International Student Paper Competition participants
Middle (left to right): Best Paper: Dynamic Behavior of Materials winner–Mahavir Singh (and family); William M. Murray Medal Lecturer–Daniel Rittel with Jason Blough;
Bottom: D. R. Harting Awardees–Caroline Winters, Samuel Fayad, M. C. Jones with Jason Blough

Opposite page (top row/left to right): 2025 SEM Annual Student Ambassadors–Prajwal Bharadwaj, Carter Fietek, Hammad Rehman; Springer/Nature Publishing Young Investigator Lecturer–Ramathasan Thevamaran with Jason Blough

Opposite page (middle row/left to right): S. Nemat-Nasser Awardee–Barton Prorok with Jason Blough; SEM Fellow Awardee–Helena Jin; A. J. Durelli Awardee–Kejie Zhao; F. Zandman Awardee–Adrian DeWald;

Opposite page (bottom row/left to right): G. L. Cloud Scholarship recipients–Filipe Zanini, Jonathan Oliveira-Luiz, Mitchell Josvai with Gary Cloud; F. G. Tatnall Awardee–Peter Ifju with Jason Blough


SEM
Ramathasan Thavamaran


SEM
Experimental
Mechanics

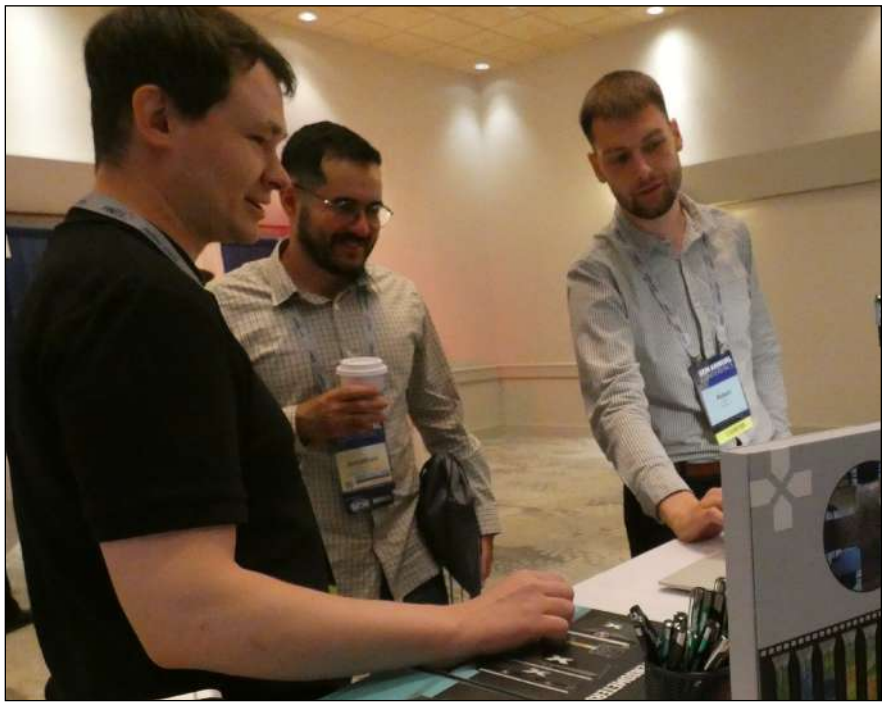

Helena Jin


Mechanics


Experimental
Mechanics
SEM

2025 SEM ANNUAL CONFERENCE MOMENTS

MILWAUKEE, WI | JUNE 2025



See You Next Year at 2026 SEM Annual in Norfolk, VA!

MEMBER SPOTLIGHT

Rachael Tighe

University of Waikato, New Zealand

SEM Member Since 2012

FUN FACT:
I've mapped a very small section of cave in the UK – mainly because I was small enough to fit!

WHY DID YOU JOIN SEM?
As a PhD student, my supervisor Janice Barton encouraged me to attend SEM and get involved with the Society. I did just that, but I keep coming back because of the sense of community that exists within SEM and the positive experiences I've had at every conference.

WHAT INTERESTING RESEARCH/PROJECTS ARE YOU CURRENTLY WORKING ON?
My team are working across a range of projects to improve material characterisation, particularly defect detection and residual structural performance from non-destructive measurements. Our work centres around thermographic techniques, however these are often coupled with complementary approaches such as acoustic emission, DIC and heat source reconstruction. Our applications are across traditional materials, composite and additively manufactured metals including functionally graded materials.

BRIEF BACKGROUND
I completed a PhD at the University of Southampton, UK, on the thermographic detection of kissing defects in adhesive bonds. I then held an EPSRC Doctoral Prize and Research Fellowship at Southampton, working on infrared imaging for gas cylinders inspection, in-situ weld inspection in power stations, and modelling camera performance. I then joined the UK Ministry of Defence before emigrating to New Zealand and joining the University of Waikato and securing Marsden Funding from the Royal Society. ■

SEM Handbooks Series: The Split-Hopkinson Bar

THE SEM HANDBOOKS SERIES announces the publication of its first Handbook in the new series titled, The Split-Hopkinson Bar: Techniques, Applications and Methods by Professor Clive Siviour from the University of Oxford, UK. Click here to access Clive's book.

A clip from the SpringerLink site states:

This book provides a concise practical introduction to the split-Hopkinson bar, by giving an overview of both the basic technique and a wide range of topics relevant to its application. The split-Hopkinson pressure bar (SHPB) has become the key apparatus for the characterization of the mechanical response of materials at high strain rates. Systems have been used at rates from approximately 100 to 1,000,000 s-1, to test materials ranging from low modulus elastomers to high strength superalloys. The power of the system is its suitability, with appropriate practice, to be used on many materials and in conjunction with a wide range of different diagnostic systems. Each chapter provides information and guidance for practitioners to perform high-quality experiments, whilst also introducing the resources required to engage in a deeper exploration of the topic.

SEM congratulates Clive for his outstanding work and dedication in writing this book to launch the SEM Handbooks Series.

Access to the book is available through your institutional subscriptions or directly through SpringerLink. ■

SEM Conference Proceedings Publisher Seeks EJCM Participants

RIVER PUBLISHERS, publishers of the SEM Conference Proceedings is seeking authors, editors, and reviewers to participate in its European Journal of Computational Mechanics. If there is enough interest from SEM members, then SEM will plan to editorially sponsor two issues annually with a minimum of 5 articles per issue. Our issues will focus on computational mechanics using mathematical modeling and computer simulation to predict behavior; a potential emerging and complementary area of interest to SEM's work across all of its technical divisions. Many modern engineering problems require both approaches working together. River Publishers is starting an Experimental Mechanics track in the European Journal of Computational Mechanics and we welcome papers that explore the intersection between the topics. SEM members will be given a 50% discount on the Article Processing Charge for the Journal. If you are interested in participating as an author, technical editor, reviewer, or Editor-in-Chief of these issues, please e-mail SEM Executive Director, Nuno Lopes and Brent Beckley. ■

Upcoming Events

2026

IMAC-XLIV | **January 19–22, 2026**
Riviera Resort & Spa Palm Springs
Palm Springs, CA, USA

2026 SEM Annual Conference | **June 1–4, 2026**
Hilton Norfolk The Main
Norfolk, VA, USA

2027

IMAC-XLV | **February 1–4, 2027**
Embassy Suites by Hilton Orlando Lake Buena Vista South
Kissimmee, FL, USA

2027 SEM Annual Conference | **June 7–10, 2027**
Hilton Vancouver Washington
Vancouver, WA, USA