

REPORT OF THE OFFICERS, COMMITTEES, AND DIVISIONS

for the

2020 SEM XIV International Congress Conference and Exposition on Experimental and Applied Mechanics

Virtual Technical Division Meetings:
June 1-5, 2020

Virtual Business Meetings:
June 5, 8-10, 2020

Virtual Conference:
September 14–17, 2020

SOCIETY FOR EXPERIMENTAL MECHANICS, INC.
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Committees:

Nominating	SEM Historian
Honors	SEM Education Foundation
Fellows	SEM Liaison USNC/TAM
Past Presidents	Membership

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Committees:

E/T Advisory Group	JDBM International Advisory Board
E/T Editor-in-Chief	JDBM Editor-in-Chief

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Committees:

Applications	Research
Education	

Technical Divisions:

Biological Systems & Materials	Modal Analysis/Dynamic Systems
Composite, Hybrid and Multifunctional Materials	Model Validation & Uncertainty Quantification
Dynamic Behavior of Materials	Nonlinear Structures & Systems
Dynamics of Civil Structures	Optical Methods
Dynamic Substructures	Residual Stress
Fracture and Fatigue	Sensors and Instrumentation
Inverse Problem Methodologies	Thermomechanics & Infrared Imaging
Micro and Nanotechnology	Time Dependent Materials
	Western Regional Strain Gage Committee

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SOCIETY FOR EXPERIMENTAL MECHANICS, INC.

SEM XIV International Congress and Exposition on Experimental & Applied Mechanics
June 1-5 & 8-10, 2020 | Virtual Meetings

SEM acknowledges the following council, committee and division chairs. President John Lambros and the entire Executive Board thank these individuals for their generous contribution of time and effort on behalf of the Society.

EXECUTIVE BOARD MEMBERS

(terms ending June 11, 2020)

Kathryn Dannemann, Past President
Michael Todd, At-Large Member
Jason Blough, At-Large Member
Raman Singh, At-Large Member
Bonnie Antoun, At-Large Member

ADMINISTRATIVE COUNCIL

Kathryn Dannemann, Chair Administrative Council
Kathryn Dannemann Chair Honors Committee
Peter Avitabile Chair Nominating Committee

NATIONAL MEETINGS COUNCIL

Daniel Rixen, Chair

EDITORIAL COUNCIL

Wendy Crone, Chair through June 2021

TECHNICAL ACTIVITIES COUNCIL

Eric Brown, Chair through June 2021
J. Notbohm, Chair, Biological Systems & Materials
R. Singh, Chair, Composite, Hybrid, and Multifunctional Materials
L. Lamberson, Chair, Dynamic Behavior of Materials
M. Allen, Chair, Dynamic Substructures
S. Xia, Chair, Fracture & Fatigue
S. Kramer, Chair, Inverse Problems Methodology
M.T. Lin Chair, Optical Methods
M. Silberstein, Chair, Time Dependent Materials
K. Grimmelsman, Chair, Dynamics of Civil Structures
N. Karanjgaokar, Chair, Micro and Nanotechnology
G. Kerschen, Chair, Nonlinear Structures & Systems
M. Prime, Chair, Residual Stress
R. Tighe, Chair, Thermomechanics & Infrared Imaging
Z. Mao, Chair, Model Validation & Uncertainty Quantification for Structural Dynamics
B. Dilworth, Chair, Modal Analysis/Dynamics Systems
C. Walber, Chair, Sensors and Instrumentation
H. Jin, Chair, Research Committee
P. Thakre, Chair, Applications Committee
M. Keller, Chair, Education Committee

25 AND 50 YEAR MEMBERS OF SEM

The Society for Experimental Mechanics gratefully acknowledges the following individuals who have been members of the Society for 25 and 50 consecutive years. Each will receive a special certificate commemorating their dedicated support to SEM over the past quarter or half century.

GOLD (50 YEAR) SEM MEMBERS

Rathindra K. Bhattacharya
Wilmott G. Brown
Clarence Chambers
Kenneth McConnell
Reginald Robinson, Jr.
Robert F. Sullivan

SILVER (25 YEAR) SEM MEMBERS

Tim Foley
Motoharu Fujigaki
Cosme Furlong
Michel Grediac
Edward Johnson
Jian Lu
Charlie Pickrel
Michael Prime
Ralph Rietz
Daniel Rittel
Ares Rosakis
Satoru Yoneyama

2020 ANNUAL BUSINESS MEETING

AGENDA

Sunday, June 7, 2020 | To Be Published - SEM Newsletter

- **Welcoming Remarks by SEM President** (John Lambros)
- **Approval of Minutes of the June 2019 Annual Business Meeting held in Reno, NV** (John Lambros)
- **Report of the Executive Director** (Kristin Zimmerman)
- **Report of the Treasurer and Finance Committee** (Jon Rogers)
- **Report of Council Chairs for the Standing Committees** (2019 – 2020)
PLEASE NOTE: Copies of the written statements covering the basic information reported by the various committees are given in the bound booklet “Report of the Officers, Committees and Divisions” distributed at the meeting.
 - **Administrative Council** (Kathryn Dannemann) for the following committees: Honors, Nominating, Membership, Fellows, SEM Historian, USNC/TAM, SEM Education Foundation, Intersociety Liaison, Membership and Past Presidents
 - **Editorial Council** (Wendy Crone) for the following committees: E/M Papers Review, EM, ET, JDBM International Advisory Boards
 - **National Meetings Council** (Daniel Rixen) for the following committees: Exhibits and Technical Program Planning
 - **Technical Activities Council** (Eric Brown) for the following committees: Applications, Education, Research, and technical divisions: Biological Systems & Materials, Composite, Hybrid & Multifunctional Materials, Dynamics of Civil Structures, Dynamic Substructures, Dynamic Behavior of Materials, Fracture and Fatigue, Inverse Problem Methodologies, Micro and Nanotechnology, Modal Analysis/Dynamic Systems, Model Validation & Uncertainty Quantification, Nonlinear Structures and Systems, Optical Methods, Residual Stress, Sensors and Instrumentation, Thermomechanics and Infrared Imaging, Time Dependent Materials, Western Regional Strain Gage Committee
- **Outgoing Executive Board** (John Lambros)
- **Election of National Officers for 2020 – 2021** (John Lambros)
- **Goals and Appointments for 2020 – 2021** (Daniel Rixen)
- **Recognition of 25 and 50-year members** (John Lambros)
- **Old Business**
- **New Business**
- **President’s Closing Comments** (John Lambros)
- **Adjournment**

Prepared by Kristin Zimmerman, Secretary with the approval of (John Lambros), Chair

2019 ANNUAL BUSINESS MEETING

MINUTES

Sunday, June 2, 2019, 7:30 p.m. | Peppermill Resort | Reno, Nevada

- **Welcoming Remarks by SEM President** (Wendy Crone)
President Crone welcomed everyone to the meeting.
- **Approval of Minutes of the June 2018 Annual Business Meeting held in Greenville, SC** (Wendy Crone)
The minutes of the meeting were approved as supplied in the report.
- **Report of the Executive Director** (Kristin Zimmerman)
Kristin Zimmerman referred everyone to the printed report and welcomed input from the members.
- **Report of the Treasurer and Finance Committee** (Jon Rogers)
Jon Rogers referred all to his printed report and commented that the business of the society looked sound and on target to reach goals this year.
- **Report of Council Chairs for the Standing Committees (2019):**
 - **PLEASE NOTE:** Copies of the written statements covering the basic information reported by the various committees are given in the bound booklet “Report of the Officers, Committees and Divisions” distributed at the meeting.
 - **Administrative Council** (Kathryn Dannemann) for the following committees: Honors, Nominating, Membership, Fellows, SEM Historian, USNC/TAM, SEM Education Foundation, Intersociety Liaison, Membership and Past Presidents. Ravi referred all to the printed report.
 - **Editorial Council** (Peter Avitabile) EM, ET, JDBM Editorial Committees and International Advisory Boards, Proceedings and Publications. Pete referred all to the printed report.
 - **National Meetings Council** (Daniel Rixen) for the following committees: Exhibits and Technical Program Planning. Wendy referred all to the printed report and highlighted that in 2018, SEM will be celebrating its 75th Anniversary. We welcome involvement and all ideas to make the celebration special.
- **Technical Activities Council** (John Lambros) for the following committees: Applications, Education, Research, and technical divisions: Biological Systems & Materials, Composite, Hybrid & Multifunctional Materials, Dynamics of Civil Structures, Dynamic Substructures, Dynamic Behavior of Materials, Fracture and Fatigue, Inverse Problem Methodologies, Micro and Nanotechnology, Modal Analysis/Dynamic Systems, Model Validation & Uncertainty Quantification, Nonlinear Structures and Systems, Optical Methods, Residual Stress, Sensors and Instrumentation, Thermomechanics and Infrared Imaging, Time Dependent Materials, Western Regional Strain Gage Committee
- **Outgoing Executive Board** (Wendy Crone)
President Crone presented outgoing Board Members with Certificates of Appreciation.
- **Election of National Officers for 2018 – 2019** (Wendy Crone)
President Crone announced that there were no additional nominations to the Executive Board received by the Secretary. In accordance with Article 9 Section 9 of the SEM Constitution Secretary Kristin Zimmerman cast the vote of the Society in favor of the slate of members as proposed by the Nominating Committee.

The newly elected Executive Board members are:
President. John Lambros 2019-2020
President-Elect Daniel Rixen 2019-2020
Vice-President. Eric Brown 2019-2020
At-large Member Greg Tipton 2019-2021
At-large Member Javad Baqersad 2019-2021
At-large Member Jeff Helm 2019-2021
At-large Member Samantha Daly 2019-2021
- **Goals and Appointments for 2019– 2020** (John Lambros)
When I began preparing these opening remarks, I was a bit unsure of where to start. When I asked our Managing Director Nuno Lopes to give me some idea of the sort of thing that typically is said during this event, he referred me to prior issues of Experimentally Speaking. Well, as helpful as this was, it probably added to my anxiety since now I

also knew that whatever I would say would be recorded for posterity. Looking back, two things became apparent: Firstly, I am awed to be following in the steps of such great Experimental Mechanicians as have held this position before. What more could I add to their achievements for, and contributions to, this society? Secondly, as it turns out, these are universal feelings that for the most part everyone in this position in the past has expressed in one way or another. So, I will be no exception and will start by saying that I am indeed deeply honored, and humbled to have received the confidence of the Society members to hold this position for the upcoming year. I certainly never expected this to be the case when I first joined the society as a student in the early 1990s. The Society was even then referred to as “the friendly society” and that it has remained. So, first and foremost, I think my primary task would be to keep it so.

This is great time for the Society and a great time to be in the Society. We have seen a constantly increasing interest in Society activities (e.g., attendance and presentations at the Annual conference and in IMAC are continuously on the rise). We have also seen an increase and in our presence in print (with now 3 society journals). In part because of this increased interest, and also in large part because of the efforts of our prior presidents, including my immediate predecessor Wendy Crone, managing directors (especially, Kristin Zimmerman), and of course our perennial treasurer, Jon Rodgers, the society is also in a great financial position which, for many years was not the case – we have seen unfortunately several times in the past that the “friendly society” does not necessarily translate to the “rich society”. We need to keep strengthening our position and need to make sure that that things are continuously improving for our members. After all, that’s what it comes down to: having strong and dedicated membership is the basis for every professional society. So, for the next year I would like to concentrate on the following points:

“Strengthening, rather than simply growing, the membership starts with nurturing students who will ultimately become Society members and future leaders.”

Strengthening the membership: I should point out that simply increasing membership numbers is not a goal in itself—a large society is not necessarily a better or a friendlier society. Of course, membership, i.e., people, is the lifeblood of

the society so it cannot be overlooked. Strengthening, rather than simply growing, the membership starts with nurturing students who will ultimately become Society members and future leaders. In turn, strengthening student participation will come from attracting students and therefore I believe, as others in this position have before me have, that a main priority will be to greatly support and increase the SEMEF activities.

Strategic planning: I must admit upfront that I am not a big fan of strategic planning as a specific roadmap to the future. However, the process of strategic planning is helpful in uncovering aspects of an organization may not have been visible before. At a minimum, it allows a broader vision of the Society than what can be obtained in smaller, more specifically focused deliberations. Our society is now in a strong financial position to have some added flexibility to think about things strategically, and this is a great opportunity to develop a Society consensus of how to move forward, which would be in some fashion codified in a strategic plan.

Publications: As I mentioned above, our publications have also grown significantly. We now have three society journals, several successful volumes of IMAC proceedings each year, annual meeting proceedings, special volumes and books, etc. So, another focus should be to continuously improve our publications for the changing world of Mechanics. The field of Mechanics has evolved over the years into what currently is termed Mechanics of Materials. The Society itself has also changed: what was once the society for Strain gauges transformed into the society for photoelasticity, now for DIC. Structural Mechanics and Vibrations, and what was the modal analysis conference of IMAC, have evolved to incorporate fields such as Uncertainty Quantification, Risk Assessment and others. This changing landscape should be represented, or really more accurately I should say reflected, in our publications also. Efforts have already been made in this direction (e.g., a new journal, JDBM, was recently formed), Experimental Techniques has recently substantially revised their aims and scope, and Experimental Mechanics is in the process of considering such a major revision.

Mentoring: Here I will draw from my experience within academia. One very important thing for maintaining the long- term vitality of the Society is mentoring of the younger

MINUTES (CON'T)

members. Perhaps this is something that at a Society level may not have been strongly pursued so far, although within the Society we already do several activities which have a mentoring component. We have started a first-time attendee mixer, both at Annual and at IMAC. At annual we have held very well- received panels on junior and mid-career development in academia and mid-career development in industry. These have been so successful at Annual that they now have been extended to IMAC with great success there as well. These types of events are essentially mentoring activities for our younger members. However, another strategic avenue to think about is how to strengthen such mentoring. For example, it would be of great benefit to our younger members, in academia but not only, for the society to forge a lot more relations with funding agencies (federal and otherwise). When I was a student attending SEM conferences, I remember a strong presence of funding agents from many DOD, DOE and other agencies at our conferences. We should encourage that type of participation again.

International participation: Last but not least, SEM is truly an international society. Past presidents have had specific goals of strengthening the international aspects of the society and have greatly succeeded in that. We should continue to encourage and strengthen international participation in SEM and collaborations with other similar international societies worldwide.

To continue with the management of the society, and help our membership in their efforts, I make the following appointments for the 2019-2020 year:

Kristin Zimmerman as Secretary of the Society
Jon Rogers as Treasurer

Daniel Rixen, President-Elect, as Chair of National Meetings Council

Eric Brown, Vice-President Elect, as Chair of Technical Activities Council

Wendy Crone, Immediate Past President, as Chair of Editorial Council

Kathryn Dannemann, Past-President, as Chair of Administrative Council

Jason Blough, At-Large Board Member as Vice-Chair of Technical Activities Council

Michael Todd, At-Large Board Member as Vice-Chair of Editorial Council

Bonnie Antoun, At-Large Board Member as Vice-Chair of Administrative Council

Raman Singh, At-Large Board Member as Vice-Chair of the Research Committee

Javad Baqersad, At-Large Board Member as Executive Board Representative to IMAC Advisory Board

Greg Tipton, as Vice-Chair of the Applications Committee

Jeff Helm, as Vice-Chair of the Education Committee

Samantha Daly, as Vice-Chair of the National Meetings Council

- **Recognition of 25 and 50-year members** (Wendy Crone)
President Crone recognized the 25 and 50-year members of the Society and presented certificates to those present.
- **Old Business**
There was no old business.
- **New Business**
There was no new business
President's Closing Comments (Wendy Crone)
Wendy thanked the Board and welcomed the incoming President
- **Adjournment**
The meeting was adjourned at 7:15pm.

Prepared by Kristin Zimmerman, Secretary
With the approval of (Wendy Crone), Chair

REPORT OF THE DIRECTORS

KRISTIN B. ZIMMERMAN, EXECUTIVE DIRECTOR NUNO LOPES, MANAGING DIRECTOR

The events of the past few months, due to the global pandemic COVID-19, required SEM to provide alternatives for the SEM XIV International Congress that was to be held in Orlando Florida June 8-11, 2020.

The Directors of SEM submit the following report summarizing the business operations for 2019.

The report is written in five sections touching on the financial position, conferences, journals/proceedings, membership, and SEM employees.

FINANCIAL REPORT

The Society is currently in a very strong financial position and we refer all of you to the Report of the Treasurer that follows this report. Conference attendance continues to grow at a steady pace bringing in annual revenues over \$600,000. Conference expenses also continue to rise, so the SEM team stays very vigilant to be sure that conference expenses are managed carefully and stay within budget. Net revenues for our two conferences in 2019 totaled over \$200,000. Increasing interest in our three peer-reviewed journals remains strong. Membership has stayed flat for the past few years, though our conference attendance continues to grow bringing in over 500 participants per conference. Our membership is a blend of conference attendee and dues paying individuals/corporations. We need to continue to do our best to communicate the value of Membership in SEM. We continue to work with our Executive Board to grow the SEM Strategic Operating Funds which as of December 31, 2019 totaled, \$853k.

CONFERENCE REPORT

The last five years have resulted in very successful conferences, based in large part on the strength of our technical programs. The Tuesday Technical Division pizza lunch/meetings during the conference week continues to work very well for sharing ideas and working together to create initiatives that generate content for the following year's program. It also works well for the first timers to learn how the TDs function and how best to get involved. New emerging areas are being created through the use of focus groups. For example, IMAC 2020 launched a Data Science/ Machine Learning focus group and scheduled over 40 papers. It is still the directors' belief that we want to keep our conferences to a size less than 650 in attendance. Our recent conferences are around 550. We need to stay 'right sized' in order to stay agile and to be able to quickly add emerging areas of the greatest interest to our members and conference attendees.

In the fall of 2019, SEM managed the US-based International Digital Imaging Correlation Society Conference held in Portland, OR. The conference rotates between the US, Europe and Asia, iDICs 2020 is scheduled to be in Nantes France, October 19-22,2020.

The small, focused, open learning environment that our SEM conferences provide is core to the value that our conferences offer and what brings our attendees back. ...yes, this is a key reason why many of our conference attendees and members refer to us as 'the friendly society.'

JOURNALS/PROCEEDINGS REPORT

SEM continues to work with Springer/Nature as our sole publisher of all three peer-reviewed journals and our conference proceedings. Springer/Nature offers SEM conference attendees and members significant leverage by offering a proceedings platform to publish conference presented work that can be streamlined into the publication of articles in any one of our SEM journals directly relating to topics discussed at our conferences. This is exciting and clearly an area of importance and value for our members.

Experimental Mechanics (EM), our flagship journal, focusing on original articles reporting on both fundamental and applied aspects of experimental mechanics that are of interest to our readership, continues to gain in stature under the leadership of our Editor-in-Chief (EIC), Professor Ioannis Chasiotis, University of Illinois. SEM's lucrative ten-year contract with Springer/Nature (started in 2017), continues to offer Professor Chasiotis the opportunity to focus on implementing his five-year plan for strategic growth and stature of EM. In 2019, EM's Impact Factor was 2.256, five year IF 2.518. In 2019, EM worked with its Advisory Board and editors on updating the journal's aims and scope and added a new tagline to define the journal, "An international journal integrating experimental methods with the mechanical behavior of materials and structures." This helps EM to stay relevant to the new areas being covered by SEM conference attendees and members as well as the experimental mechanics technical community.

Experimental Techniques (ET), our applications journal covering new and important experimental mechanics techniques and methods, new developments and practical applications of experimental mechanics and innovative techniques for creating engineering solutions, is under the leadership of our Editor-in-Chief, Professor Paul Reynolds, University of Exeter, UK, and begins its third year of publishing with Springer/Nature. We need

to continue to add Associate Editors and reviewers and invite all interested to contact Professor Reynolds. ET's incoming EIC, starting her term in June 2020, is Dr. Bonnie Antoun of Sandia National Laboratories. With Springer/Nature we look forward to growing ET and guaranteeing publication of papers for our submitting authors within months of submittal for review. ET has updated its aims and scope to enable greater submissions from our IMAC community. We also are in the process of putting in place a standing special IMAC issue each year. In 2019, ET's Impact Factor was 0.779, five year IF 0.899.

Journal of Dynamic Behavior of Materials (JDBM), includes original articles focusing on the science and engineering of material and structural response to dynamic loading specifically high strain-rate, shock, extreme environments, impact, blast, and penetration. We can thank the leadership of its inaugural Editor-in-Chief, Dr. Eric Brown for his steadfast dedication to the growth of SEM's newest journal. JDBM's new EIC is Dr. Jennifer Jordan of Los Alamos National Laboratories. Jennifer's term as EIC began in January 2020. JDBM launched in 2015 and continues to gain recognition in the experimental mechanics field as the go-to journal for those interested in publishing and learning more about areas spanning dynamic behavior of materials research. The focus for 2020 is to assign JDBM its first Impact Factor.

Conference Proceedings have reached a steady state. The number of articles published is over 200 per conference and the number of downloads continues to increase. Our publication process with Springer/Nature and SEM's copyright ownership strongly support all conference authors who have published their work in our proceedings to submit an extended version of the research discussed in their proceedings paper to one of SEM's three peer-reviewed journals. SEM has enabled the ability to publish an extended abstract in the proceedings rather than a full paper. This gives our authors far more flexibility in publishing their conference/proceedings work in one of SEM's journals. One thing that we will need to stay focused on is the importance of the proceedings to the conference attendee. IMAC conference participants appear to value the proceedings more than the Annual conference participants. Our five-year contract with Springer/Nature expires in 2021. We will start the negotiation process for the next five-year contract in the fall of 2020.

SEM'S STRATEGIC INVESTMENT IN ITS EMPLOYEES

I think you would all agree that one of SEM's most valuable assets is its employees. You, as members, are known by your names, not

as a number. Your families are always welcome to our conferences and we have enjoyed growing older and learning with many of you and your families. SEM has hired two new employees, Dan Trombetta to support communications efforts and Nicole Trombetta to cover bookkeeping, office matters and support the exhibition segment of our conferences.

Please make a point to thank Shari Matthews, Jen Tingets, Kathryn MacAuley, Dan and Nicole for the outstanding work that they do to continue the successful growth of the Society.

It is customary to list the following in our Annual Business Report. Below lists each SEM employee and the years of service with SEM.

Shari Matthews–18

Jen Tingets–17

Nuno Lopes–7

Kathryn McAuley–one year

Dan Trombetta–less than one year

Nicole Trombetta–less than one year

You will note that the list above no longer includes the name Sharon Previs. Sharon passed away on November 26th, 2019, completing over 35 years of service with SEM. Referring to the words that were written in the December 2019 SEM Newsletter "Saying Sharon will be missed, simply does not capture the significance of her loss.... SEM loved Sharon and Sharon loved SEM. Sharon gave her heart and soul to SEM and we will be forever grateful."

The dedication to SEM of these individuals is simply amazing!

We are grateful for the accomplishments of 2019 and look forward to continuing our strong growth trajectory in 2020 and beyond.

Respectfully Submitted,



Kristin B. Zimmerman



Nuno Lopes

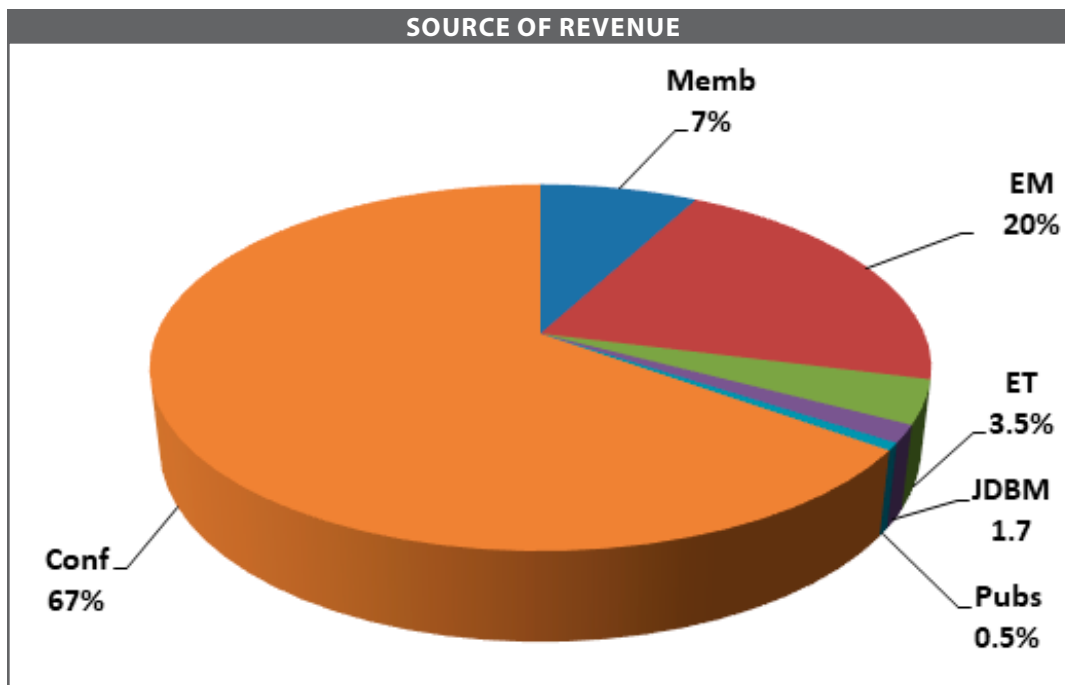
REPORT OF THE TREASURER

JON ROGERS

STATEMENT OF REVENUE & EXPENSE, DECEMBER 31, 2019

	REVENUE	EXPENSE
Membership	\$91,254	\$87,408
Experimental Mechanics	\$248,606	\$68,052
Experimental Techniques	\$45,897	\$57,751
Dynamic Behavior of Materials	\$22,271	\$57,751
Publications	\$5,985	\$28,888
Conferences	\$850,466	\$651,971
Total	\$1,264,479	\$951,822

Surplus: \$312,657



Financially, 2019 was an excellent year for SEM. This was primarily due to outstanding conference revenues and very well managed expenses throughout the year.

Our cash and savings at the end of 2019 totaled \$1,255k compared to \$1,016k at the end of 2018. We do not have any cash flow issues.

To date, SEM has invested \$852,706 of its strategic operating funds into managed portfolios. The Finance Committee and Executive

Board monitor the funds per the quarterly reports to determine if there should be any adjustments to the allocations of the investments over time.

Cash in our restricted accounts (Cloud, CSI Endowment, Dally, DeMichele, Knauss, Nemat-Nasser, SEMEF, Taylor, and Theocaris) totaled \$690k compared to \$629k in 2018.

SEM DONATIONS

For 2019, contributions and withdrawals to our restricted funds managed by MML were:

Contributions to Restricted Awards Fund: \$30

Withdrawals to the Restricted Awards Fund: \$9,133

(Award Distributions: Dally- \$1,269, Theocaris- \$5,000, DeMichele - \$2,610, Knauss- \$254)

Contributions to Restricted SEMEF Fund: \$20,010 (\$10,010 member donations matched by SEM.)

Withdrawals to the Restricted SEMEF Fund: \$2,515

(Distributions: \$2,515 for the Student Symposia.)

Other SEM Contributions:

TW Proulx SEM Development Fund = \$272

International Student Paper Competition = \$10,000 (Correlated Solutions and Michael Sutton)

The Society for Experimental Mechanics, Inc. sincerely thanks all who have donated to an SEM. Your contributions are truly appreciated and will help the Society fulfill its mission.

ADMINISTRATIVE COUNCIL

KATHRYN DANNEMANN, CHAIR BONNIE ANTOUN, VICE-CHAIR

NOMINATING COMMITTEE REPORT

Peter Avitabile, Chair (2020)

The Nominating Committee completed its assigned duties at the 2019 SEM Annual Conference in Reno, Nevada and reported on its recommendations for 2019-2020 SEM Officers and Executive Board to the then current Executive Board. The committee will next meet during the 2020 SEM Annual Conference in Orlando, Florida to develop recommendations of outstanding nominees for 2020-2021.

Input to the Nominating Committee from the Society's membership is both encouraged and solicited. The incoming committee chair: Kathryn Dannemann, (2021).

Nominations for the 2020-2021 SEM Executive Board officers are: President, Daniel Rixen; President-Elect, Eric Brown; and Vice President, James De Clerck. Executive Board Member's At- Large

nominees are: Kendra Van Buren, Brandon Dilworth, Junlan Wang, Janice Barton. These individuals are the official choice of the SEM Nominating Committee.

The Society's bylaws also provide for alternative nominations. Article IX, Section 4, of the SEM constitution states that, "A member may also be nominated by written petition of at least 25 Individual Members of the Society, and submitted to the Secretary, together with the member's consent to serve, if elected, at least 90 days prior to the Annual Business Meeting." The Bylaws also provide that, if no additional nominations are submitted by the membership at large, the Secretary of the Society shall cast an affirmative vote on behalf of the membership at the Society's Annual Business Meeting.

This information is posted on the SEM Website.

HONORS COMMITTEE REPORT

Kathryn Dannemann, Chair (2020)

The Honors Committee met during the 2019 SEM Annual Conference in Reno, NV and identified outstanding recipients for SEM Awards, most of which will be presented at the 2020 SEM Conference in Orlando, FL. These awards and their recipients are:

Murray Medal & Lecturer:..... Janice Dulieu-Barton
Springer Lecture:..... Jacob Notbohm
SAGE Young Engineers Lecture:..... Joe Schoneman
Brewer Award:..... Daniel Casem
Gary Cloud Scholarship Award:..... Carter Barkley
James W. Dally Award:..... Alper Ertuk
Wolfgang Knauss Award..... Meredith Silberstein
Durelli Award:..... Piervincenzo Rizzo
B. J. Lazan Award:..... Herzl Chai
DeMichele Award:..... Scott Cogan
Frocht Award:..... Junlan Wang
F. Zandman Award:..... Veronica Eliasson

*Hetényi Awards:..... V. Rubino, A. J. Rosakis, N. Lapusta, "Full-field Ultrahigh-speed Quantification of Dynamic Shear Ruptures Using Digital Image Correlation", 59(5), pp. 551-582, (2019).

*Harting Award Maren Scheel, Mladen Gibanica and Anders Nord, "State-Space Dynamic Substructuring with the Transmission Simulator Method " (2019)

*Peterson Awards Ganzenmüller, G.C., Patil, S., Maurer, M. et al. "A Simple Glassy Polymer Model." (2019)

The 2020 DeMichele Award and SAGE Young Engineers Lecture were presented at the IMAC-XXXVIII Conference, which was held in Houston, TX in February. The Honors Committee will meet virtually in June.

FELLOWS COMMITTEE

Ken Liechti, Secretary

The meeting was held at 5:00 pm on June 2, 2019 in Reno, NV. It was called to order by Janice Barton (Chair). Also, committee members in attendance were, Hugh Bruck, Igor Emri, Hongbing Lu, Michel Grédiac, Jon Rogers and Kenneth Liechti. Carmine Pappalettere attended in his capacity as a Fellow. Jane Grande-Allen, David Ewins and Carlos Ventura were unable to attend but votes and comments were sent by proxy. Minutes of the 2018 meeting were reviewed and approved.

There was a pool of 8 nominees for Fellow status. The case for each nominee was discussed separately. The Committee decided to recommend Ioannis Chasiotis, Phillip Reu, Satoru

Yoneyama and Kristin Zimmerman. All four were subsequently approved by Executive Board of SEM.

Following the meeting, Janice Barton stepped down as Chair of the Committee of Fellows. She has been succeeded by Hugh Bruck. Jon Rogers agreed to be the new Vice Chair. There was discussion of potential new members of the Committee in view of the pending departures of Janice Barton, Jane Grande Allen and David Ewins after the 2019 meeting. Alan Zehnder, Ghatu Subash and Arun Shukla were approached and agreed to serve in the class of 2020-2022.

COMMITTEE OF FELLOWS REPORT

POSITION	NAME	TENURE
Chair	Hugh Bruck	2018-2020
Vice Chair.....	Jon Rogers	2019-2021
Secretary	Kenneth Liechti	
Member	Igor Emri	2018-2020
Member	Hongbing Lu	2018-2020
Member	Michel Grédiac	2019-2021
Member	Carlos Ventura	2019-2021
Member	Alan Zehnder	2020-2022
Member	Ghatu Subash	2020-2022
Member	Arun Shukla	2020-2022

PAST PRESIDENTS COMMITTEE

Peter Ifju, Chair

The Past Presidents Committee is dedicated to serving the Society by responding to requests for assistance, but also by not giving unsolicited advice to current society officers. The committee currently has two major activities.

The first activity is to organize the SEM International Student Paper Competition (ISPC).

The 2019 ISPC was organized and chaired by Dr. Jon Rogers of Sandia National Laboratories. The following Past Presidents served as judges during the competition:

Randy Allemang (SEM President 2003-2004)
Peter Ifju (SEM President 2011-2012)
Jose Freire (SEM President 2004-2005)
Jon Rogers (SEM President 2000-2001)

The second activity is to enjoy an annual Past Presidents Dinner with friends and colleagues, old and new. The 2019 dinner took place at the Peppermill Resort in Reno, Nevada. It was an enjoyable evening capped off with a group photo in the restaurant.

I am happy to report that the 2019 editions of the International Student Papers Competition and the SEM Past Presidents dinner were both successfully completed and enjoyed by all.

SEM HISTORIAN

Professor Cesar Sciammerella

Professor Sciammerella's narrative of SEM's history is available to the membership. The history was published by Morgan and Claypool in 2018 for SEM's 75th Anniversary.

SEM EDUCATION FOUNDATION (SEMEF)

Peter Ifju, Chair (2019-2020)

William Fourney, Vice-Chair (2019-2020)

Jon Rogers, Treasurer (2019-2020)

Michael Sutton, Secretary (2019-2020)

SEMEF ANNUAL BUSINESS MEETING

6/2/2019 | Reno, Nevada

ATTENDEES

Wendy Crone, Bill Fourney, Jeff Helm, Nuno Lopes, Kristin Zimmerman, Jon Rogers, Peter Ifju, Eric Brown, Kathryn Dannemann, Daniel Rixen, Jim DeClerck, Peter Avitabile, Michael Sutton, John Lambros

AGENDA

Tuesday, June 9, 2020–3:30 p.m–4:30 p.m. | Virtual

- Approve Agenda
- Approved minutes from 2018 SEMEF in Greenville, SC
- SEMEF Budget
- SEMEF webpage updates
- Regional Student Symposiums
- Midwest, U Wisc
- Southeast, Clemson
- BSSM symposium in UK, Glasgow, Scotland
- New Business
- Nominate and select officers
- Action item review
- Adjourn

MINUTES

2018 SEMEF | Greenville, South Carolina

Overview of 2018 SEMEF minutes in Greenville by Peter Ifju...pg 12 of annual report for details

Meeting minutes for 2018 approved by unanimous vote

BUDGET

Discussion by Treasurer, Jon Rogers

- Current budget is \$34,664. Additional \$5,000 has come in and an additional \$10,000 will be transferred to SEMEF this year by SEM.
- Discussion as to whether this \$10,000 is annual or one time. Discussion by Kristin and John indicated that it was a one-time situation but they will watch expenses and see how we are doing to determine how to move forward.
- Discussion ensued as to budget and whether there is a need for more \$\$\$\$. Current return of 2-3% is being accrued according to Kristin on this amount.

SEMEF WEB PAGE

Nuno put the SEMEF web site together and Peter noted it is a major improvement. It includes a list of graduate student symposia, and Peter asked to have mods to include Past Symposia, Recent Symposia and Upcoming Symposia. This would improve visibility of the regional symposia. Wendy asked to put up some photos of attendees, and Bill F. asked to have photos of upcoming campuses to encourage attendance.

ACTION ITEM: Update web page to include photos and other "jazzy" additions improve presentation. Also, be sure that the *Free SEM membership for 1 yr to attendees* is visible and clearly highlighted.

Peter showed the SEM Overview slides that SEM has put together for display at the regional host site for all attendees to see and be aware of SEM as a technical society. Slides show Technical Division and Technical Committee titles, providing student attendees with a listing of areas where they could participate as student members of SEM. Titles had various colors for text, which were not defined. It was suggested that the slide colors be defined (Blue is general, Red is IMAC, Black is SEM Annual). Discussion ensued about fact that IMAC stuff is not represented in SE symposia but are in Midwest symposia.

Jeff suggested adding connection to student paper competition, potentially a link or other visible identifier, on the web site.

Discussion of focus groups and how IMAC grew their TDs was discussed, with added comments by Kristin. Process used by IMAC is roughly as follows: IMAC members identify an area of interest; develop one or two sessions for upcoming IMAC and solicit papers; success of this effort evolves into an active group of attendees designated as a focus group formed; focus group continues to build and additional growth in activity occurs; the focus group eventually evolves into a full Technical Division for the new area.

- Wendy discussed slides and activities of the Graduate Student Symposium (GSS) at University of Wisconsin in Milwaukee, Wisconsin. ... 9 universities were represented, students gave 23 presentations and a total of 48 attendees were present.
- Wendy noted that there were 2 keynote talks from current faculty to give students an overview of activities in their areas. The GSS organizers did ask for abstracts but not all sent them and they did not publish them or use them otherwise so far. The Wisconsin agenda was shown by Peter.
- Peter discussed GSS at Clemson University hosted by Garret Pataky with 7 universities represented. There were 28 student presentations and 36 attendees. The social was quite good on Lake Hartwell. The GSS days were Saturday from noon to 6pm and Sunday from 8:30 until noon. Peter showed program/agenda also.
- Peter discussed the BSSM Post-graduate student symposium in Glasgow, UK. Cost 130lbs and partially supported by Instron, GOM and SEM. Details on website at <http://www.bssm.org>.

Discussion by Daniel Rixen about how travel and lodging are paid for students, with input from Peter, Mike, John and Wendy about how they handled it. Also, Daniel suggested that the talks be taped so that the students see how they presented and can use it to improve in the future.

NEW BUSINESS

Graduate Student Symposia

John asked that we consider increasing amount SEM will reimburse to \$1,500 per symposium. Discussion ensued that this was an approximate maximum already so may not need to increase this number. Mike mentioned that SEMEF has paid more than \$1000 on a few occasions. Discussion wandered into various

topics, including maintaining continuity in who leads next year's symposia, advertising of the GSS. Mike asked whether there was going to be a motion submitted for consideration or not.

MOTION: Increase maximum for reimbursement to \$1,500. The motion passed by hand vote.

Cosme Furlong (NE), Mike Keller and Raman Singh (Texas and Oklahoma), Veronica Eliasson and Michael Todd (California), Babak Moaveni (Tufts) were being contacted by Kathryn Dannemann to try and host Graduate Symposia in their areas. Peter noted that Ravi at Cal Tech would send students to symposia in California if the folks start one of the GSS in their area.

Wendy asked how effective SEM and SEMEF are at converting GSS attendees to student members. Discussion ensued and to how we can (a) initially contact the GSS attendees to keep them in our loop, (b) offer them free memberships and (c) maintain contact on a regular basis. It was noted that a List of Attendees should be provided to SEM and then SEM would invite each attendee to become a free student member. This process of getting list to SEM seems to be working, and so SEM/SEMEF needs to contact them. Once contacted, the individual students would decide whether to take advantage of the membership and then fill out form on line to be a free member.

OFFICERS AND NOMINATIONS

Peter asked about new officers, and it was suggested that current attendees be retained. Current officers (Peter, Mike) agreed to continue and there was approval of a continuation of terms for both for one year.

ADJOURNMENT

Meeting was adjourned at 11:31pm

SUBMITTED BY

Michael A. Sutton, SEMEF Secretary

U.S. NATIONAL COMMITTEE ON THEORETICAL AND APPLIED MECHANICS (USNC/TAM)

Wendy Crone, SEM Representative to the USNC/TAM

THE APRIL MEETING OF THE USNC/TAM WAS CANCELLED DUE TO COVID-19, CORONAVIRUS

MEMBERSHIP COMMITTEE REPORT

Kristin Zimmerman, Executive Director

ATTENDEES

W. Crone, E. Brown, S. Kramer, J. Blough, J. De Clerck, J. Carrol, K. Dannemann, J. Lambros, R. Singh, D. Rixen, J. Considine, and S. Matthews, N. Lopes, K. Zimmeman (SEM)

During SEM 2019, the Membership Committee focused on outreach to the members and conference attendees. It was suggested that a monthly and possible weekly email blast to the members would be good to do if appropriately written and managed. We will continue to pursue this along with use of the most appropriate social media platform to allow our members to stay connected between conferences.

The Membership Committee meeting will be held virtually in June. A large focus for the next two years will be learning how to manage the data in the database so we can quickly learn about member trends, interests, demographics, etc.

Minutes from the 2019 meeting are below:

CATEGORY	MARCH 2020	APRIL 2019	MARCH 2018	APRIL 2017	MARCH 2016	MARCH 2015	APRIL 2014	MAY 2013	MAY 2012	MAY 2011
DUES PAYING										
Individual Members	1,644	1,375	942	715	821	844	840	845	867	842
Graduate Students	227	371	311	105	307	316	334	304	269	237
Undergrad Students	10	10	11	11	33	33	33	34	36	36
Corporate	61	61	61	61	66	66	65	65	63	63
Polish Chapter								15	15	15
BSSM	16	18								
Sub Total	1,958	1,835	1,325	892	1,227	1,259	1,272	1,263	1,250	1,178
NON DUES PAYING										
Honorary Members	9	9	10	11	10	10	10	10	10	10
Life Members	89	88	82	73	74	73	67	63	57	54
Retired Members	151	147	142	136	139	138	138	138	142	140
Comp/Exchange							88	88	89	90
Sub Total	249	244	234	220	223	221	303	299	298	294
Grand Total	2,207	2,079	1,559	1,112	1,450	1,480	1,575	1,547	1,548	1,472

We must continue to work hard to continue to grow conference attendance and better track our first time attendees to learn if they become members. If not, do they return to conferences in subsequent years. We must continue to communicate our member benefits and services. And, continue to find ways to better communicate the value of an SEM membership.

STUDENT CHAPTERS

The current listing of active SEM Student Chapters include:

- IIT Kharagpur, Kharagpur, India;
- CENIDET (Centro Nacional de Investigación y Desarrollo Tecnológico), Cuernavaca, Mexico;
- Catholic University of Rio de Janeiro – PUC-Rio, Brazil;
- College of Electrical and Mechanical Engineering, National University of Sciences and Technology, Pakistan;
- University of Maryland, College Park, Maryland;
- Delhi College of Engineering, New Delhi, India;
- University Rhode Island, Kingston, Rhode Island;
- Michigan Technological University, Houghton, Michigan;
- University of South Carolina, Columbia, South Carolina;
- Texas A&M University, College Station, Texas;
- Ward College of Technology, University of Hartford, West Hartford, Connecticut

The SEM added a new student Chapter in 2016. Our newest Chapter is at the University of Alabama at Tuscaloosa (started in 2016).

Questions:

- How many members stay on after student membership?
- Do we track current symposium members?
- How many 2019 conference attendees overlap for 2020?
- Do we have an age demographic?
- Do we track first timers?

SEM staff will be working to streamline data management and tracking to be able to answer the aforementioned questions.

Current membership statistics are as follows: Our conference attendance is growing while membership remains flat. A large increase in conference registration/attendance is through first time attendees (205 for IMAC 2020). The first-time attendees are largely graduate students and individual members. Graduate students are not inclined to join SEM until they know whether they will be working for a research laboratory or academia after graduation. This lends insight to answering at least part of the question of flat membership while we continue to grow in conference participation and success.

EDITORIAL COUNCIL MEETING

WENDY CRONE, CHAIR

MICHAEL TODD, VICE-CHAIR

AGENDA

Tuesday, June 9, 2020–3:30 p.m-4:30 p.m. | Virtual

MEMBERS OF COUNCIL:

W. Crone (Chair), M. Todd (Vice-Chair), J. Jordan (EIC-JDBM), I. Chasiotis (EIC-EM), P. Reynolds (EIC-ET), H. Tippur (Chair EM-IAB), E. Brown (Chair JDBM-IAB), E. Brown (Chair TAC), K. Zimmerman (Chair ET-IAB), N. Lopes (SEM)

- **Approval of Agenda** (W. Crone)
- **Approval of Minutes of June 4, 2019 Editorial Council Meeting in Reno, NV**
- **Experimental Techniques** (P. Reynolds/B. Antoun)
Status and any outstanding issues
- **Experimental Mechanics** (I. Chasiotis)
Status and any outstanding issues
- **Journal of the Dynamic Behavior of Materials** (J. Jordan)
Status and any outstanding issues
- **Old Business**
- **New Business**
- **Adjournment**

Prepared by Kristin Zimmerman, Secretary
with the approval of W. Crone, Chair

MINUTES

Wednesday, June 4, 2019 | Peppermill Resort | Reno, Nevada

MEMBERS OF COUNCIL

P. Avitabile (Chair), E. Brown (EIC-JDBM), I. Chasiotis (EIC-EM), P. Reynolds (EIC-ET), H. Tippur (Chair EM-IAB), A. Shukla (Chair JDBM-IAB), J. Lambros (Chair TAC), W. Crone, J. Jordan, K. Zimmerman (SEM and Chair ET-IAB)

ATTENDEES

B. Antoun, P. Avitabile, E. Brown, I. Chasiotis, W. Crone, K. Dannemann, J. De Clerck, J. Jordan, J. Kimberley, J. Lambros, P. Reynolds, H. Tippur, A. Shukla, J. Lambros, N. Lopes, K. Zimmerman

- **Approval of Agenda** (P. Avitabile)
- **Approval of Minutes of June 2018 Editorial Council Meeting in Greenville, SC**
- **Experimental Techniques** (P. Reynolds-EIC)
 - Motion to approve Bonnie Antoun as incoming EIC starting June 2020 was approved to go to the Board.
 - Need to improve review time to a target of 60 days
 - There is still a lapse in getting papers to TEs and then to reviewers
 - 200 days to final publishing seems reasonable
 - Need to be sure that reviewers are in the system. IF from outside of the system, then TEs must add to the system.
 - Springer’s transfer desk still does not work. Need to be able to share an out of scope SEM journal with another SEM journal.
 - Good discussion regarding cover art – how to use to advertise the journal
 - Need more TEs...especially coverage in fluid mechanics
 - There is still a move afoot to recruit more IMAC papers... and, create a standing IMAC issue each year. The Aims and Scope and journal tagline have been updated to support this
 - It would be nice to have a full-page ad in the IMAC final program
 - Need to stay mindful of the backlog. It is preferred to have two full issue in the backlog for ET.
- **Experimental Mechanics** (I. Chasiotis- EIC)
 - EM annual papers published is averaging 110. This is lower than the current contract reads. The reason is because the 150 target was an artificial number created by using up years-worth of backlog.
 - Rejection rate is still very high due to low quality papers being submitted to EM
 - Zero backlog
 - There are two special issues planned for 2019. Special issues are typically 10-12 papers rather than the target 14-15 papers.
 - Can Springer help us to understand the new formula for calculating Impact Factor?
 - Aims and scope and new tagline for journal in process
 - Your manuscript your way was discussed
 - EM needs to work hard to reduce paper processing time. Other journals do much better. Options were discussed.
 - Review articles are being recruited
 - Still working to increase submittals from SEM members
 - Reviewed presentation of DIC best practices – good resource tool
 - There was interest in using a special cover image.

▪ **Journal of Dynamic Behavior of Materials** (E. Brown-EIC)

- JDBM is now indexed in SCOPUS and hopefully ISI in the near future.
- Updates to the list of TEs is underway
- JDBM backlog is zero...it is working under very much of a just in time model.
- 2/3 of the submissions are from the USA. 50% are accepted for publication.
- There was a motion made at the JDBM to approve Jennifer Jordan as the incoming JDBM EIC starting January 2020. The motion was approved to go to the Board.

▪ **Old Business**

▪ **New Business**

- iMechanica needs to list/advertise SEM journals
- Springer needs to do a better job of advertising SEM journals at other events
- Springer will look into SEM paper coverage like Elsevier does it
- The journals will be moving to cover images, like JDBM
- What social media site should be used to better advertise SEM journals?
- All journals, except ET, will be reviewing their aims and scopes

▪ **Adjournment**

Prepared by K. Zimmerman on Behalf of P. Avitabile, Council Chair

MINUTES OF THE JOINT EDITORIAL BOARD AND INTERNATIONAL ADVISORY BOARD FOR MEETING OF EXPERIMENTAL TECHNIQUES

June 2019, Reno, Nevada

ATTENDEES

P. Reynolds (EIC), A. Lekhwani (Springer), J. Helm, J. Lambros, C. Furlong, L. Lamberti, X. Li, R. Singh, B. Antoun, P. Avitabile, P. Reu, M. Iadicola, E. Jones, L. Lamberti, J. De Clerck, J. Blough, D. Rixen, I. Chasiotis, N. Lopes and K. Zimmerman (SEM)

ET INTERNATIONAL ADVISORY BOARD MEMBERS

Kristin B. Zimmerman Chair, MedFor: Inc., USA (2021)

Jonathan D. Rogers, Sandia National Laboratory, USA (2021)

José Freire, Pontifical Catholic University of Rio de Janeiro. PUC-Rio (2021)

Nancy Sottos, University of Illinois, Urbana-Champaign, USA, (2021)

Paul Reynolds, E.T. Editor-in-Chief, University of Exeter, UK (2021)

Jeff Helm, Lafayette College, USA (2021)

Raman Singh, Oklahoma State University, USA (2021)

Wei-Chung Wang, National Tsing Hua University, Taiwan (2021)

- **Report from the ET Editor-in-Chief** (Paul Reynolds)
 - Still need to find a Technical Editor with a background in fluids
 - Time was spent reviewing the data in the Officer Report
 - Cover art for the journal was discussed to enhance marketability of the journal
 - Anita was asked to help facilitate fixing the Springer transfer desk issues
 - Looking into a bio series for ET
 - Motion for Bonnie Antoun to become next ET EIC starting June 2020 approved to go to Editorial Council
 - Anita asked for more review articles. They are cited well
- **Report from the Executive Director** (Kristin Zimmerman)
 - We need to keep our finger on the pulse of the backlog and all process issues that delay publication of articles in editorial manager.
 - The aims and scope are now finalized with a tweaking of the language.
- **Report from Springer** (Anita Lekhwani)
 - Time was spent reviewing data submitted by Springer.
- **Old Business**
 - Always keep front and center that the role of the ET International Advisory Board is strategic oversight
- **New Business**
 - Review if iDICs best practices slides by Elizabeth Jones of Sandia Nat Labs
 - Should we place a radio button on the conference paper submittal site (after a paper has been accepted) to encourage the author to submit to one of SEM's three journals?
 - No motions to take to Editorial Council
- **Adjournment**

EXPERIMENTAL TECHNIQUES

Paul Reynolds, University of Exeter, UK, Editor in Chief (2020)

Bonnie Antoun, Sandia National Laboratories incoming Editor in Chief starting June 2020

MANAGING EDITOR

Kathryn MacAulay, SEM

TECHNICAL EDITORS:

Masoud Allahkarami, Oklahoma State University, USA (2022)

Matt Allen, University of Wisconsin-Madison, USA (2022)

Bonnie Antoun, Sandia National Laboratories, USA (2022)

Sezar Atamturktur, Clemson University, USA (2021)

Javad Baqersad, Kettering University, USA (2022)

Juan Caicedo, University of South Carolina, USA (2022)

Yuanchang Chen, Caterpillar Inc, USA (2023)

Alfredo Cigada, Politecnico di Milano, Italy (2021)

Cosme Furlong, Worcester Polytechnic Institute (2021)

Jeffrey Helm, Lafayette College (2022)

Luciano Lamberti, Politecnico di Bari, Italy (2022)

Ricardo Mejia-Alvarez, Michigan State University, USA (2022)

Brian Owens, Sandia National Laboratories, USA (2022)

Wei-Chung Wang, National Tsing Hua University, Taiwan (2022)

Yongfeng Xu, University of Cincinnati, USA (2023)

Xing Zhang, Institute of Metal Research, China (2020)

Kristin B. Zimmerman, MedFor Inc. (2021)

ET INTERNATIONAL ADVISORY BOARD:

Kristin B. Zimmerman Chair, MedFor Inc., USA (2021)

Jonathan D. Rogers, Sandia National Laboratory, USA (2021)

José Freire, Pontifical Catholic University of Rio de Janeiro. PUC-Rio (2021)

Paul Reynolds, E.T. Editor-in-Chief, University of Exeter, UK (2021)

Nancy Sottos, University of Illinois, Urbana-Champaign, USA, (2021)

Jeff Helm, Lafayette College, USA (2021)

Raman Singh, Oklahoma State University, USA (2021)

Wei-Chung Wang, National Tsing Hua University, Taiwan (2021)

MESSAGE FROM THE EDITOR:

In 2019, Experimental Techniques (ET) again achieved a strong impact factor and attracted a record number of manuscript submissions with excellent representation from all around the world. The aims and scope of the journal were recently revised and we have been very pleased with the quantity, quality and range of coverage of new submissions to the journal. In particular, we still aim to be more relevant and open to our IMAC conference attendees and authors, whose focus is largely in the area of structural dynamics.

We are actively developing special issues in the topics of "New Frontiers and Innovative Methods for Hybrid Simulation" and

"Optical Techniques for Vibration Measurement". We very much welcome further ideas for special issues and series; please just get in touch with the editor if you would like to discuss this.

I would like to thank our Technical Editors, whose hard work is absolutely key to the success of the peer review process and of the journal as a whole: Masoud Allahkarami, Matt Allen, Bonnie Antoun, Sezar Atamturktur, Javad Baqersad, Juan Caicedo, Alfredo Cigada, Cosme Furlong, Jeff Helm, Luciano Lamberti, Brian Owens, Xing Zhang, Kristin Zimmerman. I'd also like to welcome our new recruits to the editorial board in the last year; Juan Caicedo, Yuanchang Chen, Ricardo Mejia-Alvarez, Wei-Chung Wang and Yongfeng Xu.

EXPERIMENTAL TECHNIQUES SUMMARY

The following shows statistics on submissions, reviewers and decisions made for *Experimental Techniques* for the last years. Number of submissions and Impact Factor show all historical data.

OF NOTE

The total number of submissions in 2019 was 399. This represents an increase of 2.8% over the 2018 total (388).

Accepted papers in 2019 were 56, a rate of 14% acceptance. This compares to 2018 (18%).

In 2019 we published more articles than we accepted (60 vs. 56).

STATUS (AS OF MAY 28, 2020):

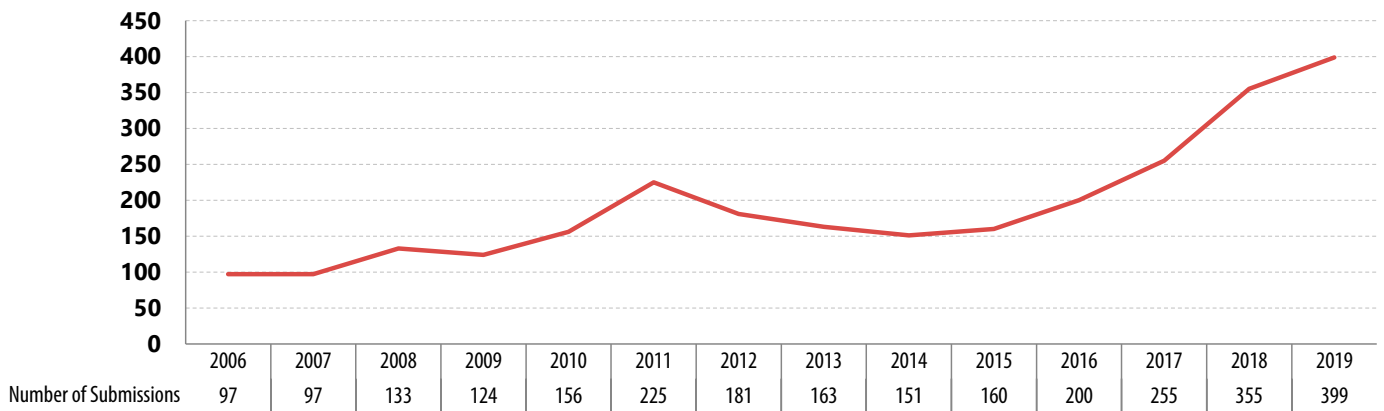
80 papers in process

32 papers out for revision

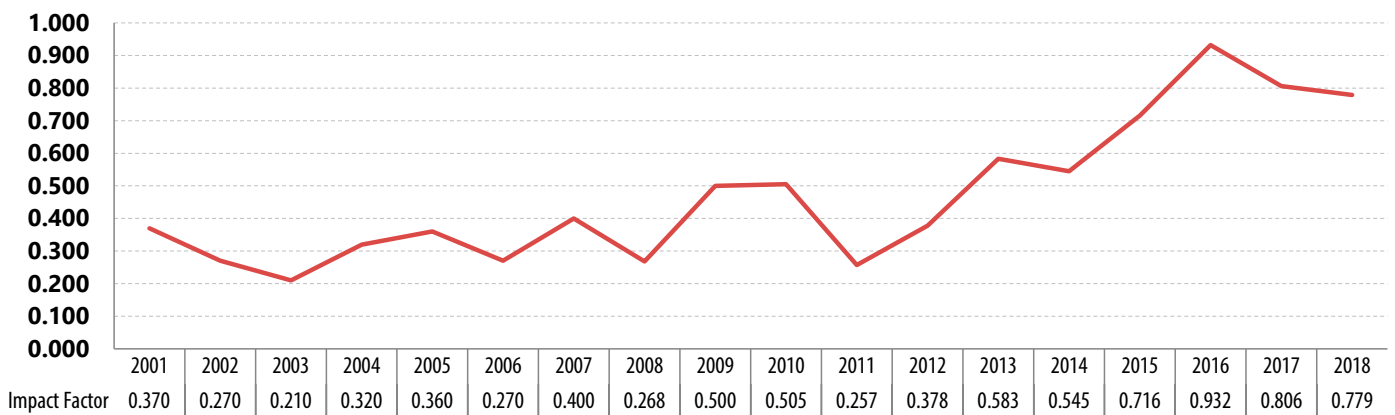
27 papers published online

Issue 44:2 (March/April 2020) = most recent issue published online.

NUMBER OF SUBMISSIONS



IMPACT FACTOR



MANUSCRIPT PUBLICATION

2019	60	764	0
year	manuscripts published	pages published	special issues
2018	65	692	0
2017	60	687	0
2016	145	1,565	0
2015	56	474	0

SUBMISSION STATISTICS

2019	399	141	120	56	133	518	3.4	62.8	49.6
year	new manuscripts	revisions requested	revisions received	accepted	rejected	decisions made	days to editor assignment	days to reviewer invitation	days to first decision
2018	388	208	196	71	226	499	1.4	61	52.5
2017	255	163	151	65	117	385	1.7	45.6	55.7
2016	200	104	87	35	121	185	0.7	39.8	49.1
2015	160			35	89	176			

REVIEWERS

2019	892	324	280	261	27	2.3	26.6	98	13.4	218	10.6
year	total reviewers invited	reviewers completed reviews	declined to review	uninvited reviewers	terminated reviewers	days to respond to invitation	days to complete from invite	number of late reviews	average days late	number of early reviews	average days early
2018	1194	399	420	341	32	2.3	24.2	106	8	295	10.2
2017	1090	380	387	295	28	2.1	23.9	80	10.2	294	10.3
2016	686	243	238	185	19	2.4	25.9	57	10.2	175	10.3

ORIGINAL SUBMISSION DECISION SUMMARY

Avg. Days	94.78	31.27	30.53	129.33	0.00	0.00	26.00	132.83	72.96	73.96
%	10.8%	29.9%	25.7%	6.4%	0.0%	0.0%	7.5%	10.8%	8.9%	100.0%
2019	56	155	133	33	0	0	39	56	46	518
year	accept as is	decline and transfer to transfer desk	reject without review	reject after review	reject encourage resubmission	reject encourage submission to another journal	revise before review	revise major edits	revise minor edits	total decisions
2018	52.7 14.5% 71	21.2 10.1% 39	18.8 15.9% 78	133 5.3% 26	0 0% 0	0 0% 0	85.2 11.6% 57	102.1 18.1% 89	55.3 12.4% 61	58 100% 491
2017	0 0% 0	16.9 10.1% 39	21.2 20.3% 78	123.6 10.1% 39	0 0% 0	0 0% 0	18.6 9.9% 38	94.9 14% 54	60.5 13% 50	52.5 100% 385
2016	258 0.5% 1	10 0.5% 1	13.6 50.3% 93	131.6 11.9% 22	0 0% 0	0 0% 0	15.2 14.1% 26	121 15.1% 28	107.3 7.6% 14	52.5 100% 185

MINUTES OF THE JOINT EDITORIAL BOARD AND INTERNATIONAL ADVISORY BOARD (IAB) MEETING OF EXPERIMENTAL MECHANICS

June 2019, Reno, Nevada

THE FOLLOWING TOPICS WERE DISCUSSED DURING THE JOINT MEETING:

- Four Special Issues have been in the works or just published in 2019. The first Special Issue was co-edited by Professors Yong Zhu and Taher Saif, and Dr. Frank DelRio with title Recent Advances in Micro, Nano, and Cell Mechanics; the second Special Issue, co-edited by Professors Ghatu Subhash, Samantha Daly, and Christian Franck was published in honor of Professor Guruswami (Ravi) Ravichandran on the occasion of his 60th Birthday; the third Special Issue with title Mechanics of Additively Manufactured Materials is co-edited by Drs. Jennifer Jordan and Helena Jin, and Professor Weinong (Wayne) Chen, and the last Special Issue is co-edited by Professors Christian Franck and Jonathan Reichner with title Experimental Advances in Mechanobiology.
- The EIC discussed the process of submitting a proposal to index Experimental Mechanics in PubMed, which could increase the number of downloads of journal papers and its impact factor. According to the requirements to be indexed in PubMed, a certain percentage of the journal articles published every year should be related to the medical field. Two relevant Special Issues are in progress or planned: A Special Issue co-edited by Professors Christian Franck and Jonathan Reichner on Experimental Advances in Mechanobiology which will be published later this year, and a Special Issue co-edited by Professors Susan Lessner and Jonathan Wenk with title Experimental Advances in Cardiovascular Biomechanics.
- The Editorial and International Boards of the journal discussed the possibility to modify the description subtitle of the journal (currently: "An International Journal of the Society for Experimental Mechanics, Inc.") to a subtitle that broadens the scope of the journal, and is still within the general scope of the field of experimental mechanics of materials.
- Dr. Elizabeth Jones presented a proposal to adopt and promote "A good practice guide for DIC" when evaluating manuscripts submitted to SEM sponsored journals.
- Starting in 2019, each Issue of Experimental Mechanics features a full cover image derived from a paper in the current Issue to showcase the unique and pioneering works published in the journal.
- The EIC presented the members of the Editorial and International Boards of Experimental Mechanics with a flyer to advertise the journal to their peers and Institutions.

EXPERIMENTAL MECHANICS

Ioannis Chasiotis, University of Illinois at Urbana-Champaign, Editor-in-Chief (2020)

MANAGING EDITOR

Kathryn MacAulay, SEM

TECHNICAL EDITORS:

Antonio Baldi—Universita di Cagliari, Italy (2022)
Janice Barton—University of Bristol, UK (2022)
Vijay Chalivendra—University of Massachusetts, Dartmouth, USA (2022)
Weinong Chen—Purdue University, USA (2020)
Samantha Daly—University of California - Santa Barbara, USA (2022)
Frank DelRio—National Institute of Standards and Technology, USA (2022)
Adrian DeWald—Hill Engineering, LLC, USA (2022)
Matthew Enloe—General Motors Materials Engineering, USA (2021)
Christian Franck—University of Wisconsin-Madison, USA (2022)
Michel Grédiac—Universite Blaise Pascal – IFMA, France (2022)
Francois Hild—ENS Cachan, France (2022)
Krishna Jonnalagadda—Indian Institute of Technology Bombay, India (2022)

Jamie Kimberley—New Mexico Institute of Mining and Technology, USA (2022)
Francesco Lanza di Scalea—University of California - San Diego, USA (2022)
Hongbing Lu—University of Texas at Dallas, USA (2022)
Michael Mello—California Institute of Technology, USA (2022)
Jonathan Reichner—Brown University, USA (2020)
John Shaw—University of Michigan - Ann Arbor, USA (2021)
Raman Singh—Oklahoma State University, USA (2022)
Junlan Wang—University of Washington, USA (2021)
Huimin Xie—Tsinghua University, People's Republic of China (2020)
Satoru Yoneyama—Aoyama Gakuin University, Japan (2021)
Alan Zehnder—Cornell University, USA (2021)
Yong Zhu—North Carolina State University, USA (2022)

EM: INTERNATIONAL ADVISORY BOARD

Hareesh Tippur (Chair), Auburn University, USA
Ghatu Subhash (Secretary), University of Florida – Gainesville, USA
Randall Allemang–University of Cincinnati, USA
Hugh Bruck–University of Maryland, USA
Horacio Espinosa–Northwestern University, USA
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Timothy C. Miller–US Air Force Research Laboratory, USA
Eann Patterson–University of Liverpool, UK
Guruswami Ravichandran–Caltech, USA
Nancy Sottos–University of Illinois, USA
Xioaping Wu–University of Science and Technology, China

RECENT AND FUTURE SPECIAL ISSUES:

RECENT ADVANCES IN MICRO, NANO, AND CELL MECHANICS

Guest Editors: Yong Zhu, Taher Saif and Frank DelRio
Published in March 2019

SPECIAL ISSUE ON THE OCCASION OF PROFESSOR G. RAVICHANDRAN' 60TH BIRTHDAY

Guest Editors: Ghatu Subhash, Samantha Daly, and Christian Franck
Published in June 2019

MECHANICS OF ADDITIVELY MANUFACTURED MATERIALS

Guest Editors: Jennifer Jordan, Helena Jin, and Wayne Chen
Published in July 2019

EXPERIMENTAL ADVANCES IN MECHANOBIOLOGY

Guest Editors: Jonathan Reichner and Christian Frank
Published in November 2019

EXPERIMENTAL ADVANCES IN CARDIOVASCULAR BIOMECHANICS

Guest Editors: Susan Lessner and Jonathan Wenk
Expected publication in the last quarter of 2020

TRIBOLOGY OF ADVANCED MATERIALS

Guest Editors: Frank DelRio, Alison Dunn, Brandon Krick, Kenneth Liechti
Expected publication in the first quarter of 2021

MESSAGE FROM THE EDITOR:

I would like to thank all of our Technical Editors (TEs), Guest Editors, and SEM staff for their invaluable service in maintaining the standing of Experimental Mechanics (EM). EM's historical reputation in the experimental methods, mechanics of materials and structures, and materials characterization communities as a rigorously peer-reviewed journal continues. An outstanding team of TEs and timely Special Issues are some of the contributing factors, in addition to a competitive turn-around time, to the continued strength of EM. The journal impact factor for 2018 (as reported in June 2019) was 2.256, thanks to the efforts of our Editorial Board and the quality of papers submitted by all authors.

Starting in 2019, each Issue of EM features a full cover image of a select paper in the same Issue to showcase the unique and pioneering works published in the journal. The Editorial and International Boards of EM invite all SEM members to submit their outstanding research and help to further propel the reputation of our Society and continue the lasting contributions of EM.

In 2019, EM published 97 original papers in nine Issues, four of which were Special Issues. Two very exciting Special Issues are in progress in 2020. The remaining journal Issues contained novel works, among others, on Digital Image (DIC) and Digital Volume Correlation (DVC), micro-computed tomography, mechanics of 3D printed materials, thermomechanics, high strain rate experiments, and optical, electron and probe microscopy based experimental methods for the study of a broad range of engineering and novel materials. All papers are available online at <http://link.springer.com/journal/volumesAndIssues/11340>.

Please contact me or any of the TEs of EM with your proposals for Special Issues on new and growing research topics in experimental mechanics and mechanics of materials. I would also like to invite all members of the SEM to submit your best and most exciting research to EM and please spread the word to your colleagues and students about EM! I look forward to continuing success of EM in 2020!

EXPERIMENTAL MECHANICS SUMMARY

The following shows statistics on submissions, reviewers and decisions made for *Experimental Mechanics* for the last years. Number of submissions and Impact Factor show all historical data.

OF NOTE

The total number of submissions in 2019 was 489. This represents a decrease of 10.1% over the 2018 total (544).

Accepted papers in 2019 were 97, a rate of 19.8% acceptance. This compares to 2018 (18%), 2017 (24%) 2016 (26%), 2015 (28.8%).

In 2019 we published more articles than we accepted (101 vs. 97).

STATUS (AS OF MAY 28, 2020):

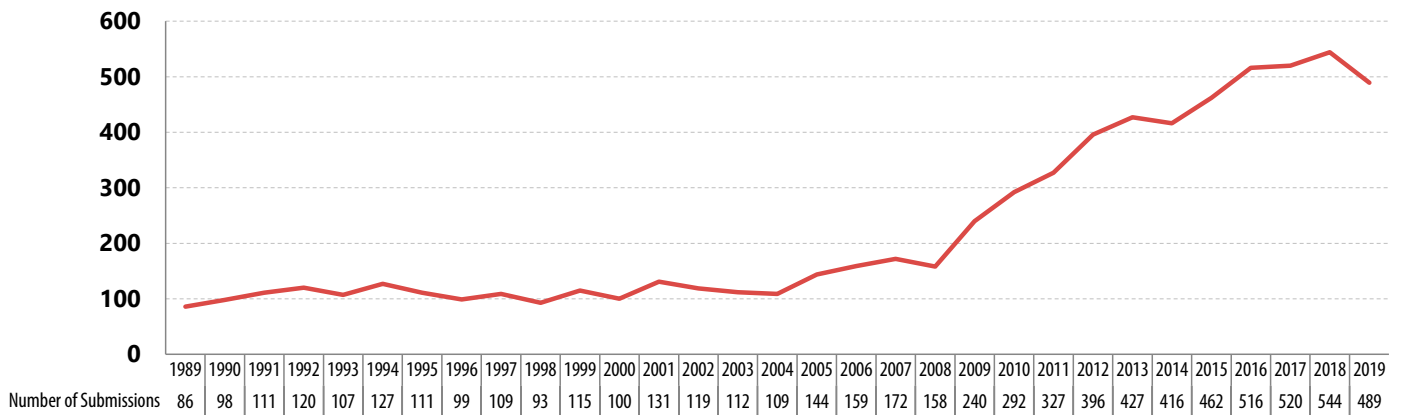
65 papers in process

25 papers out for revision

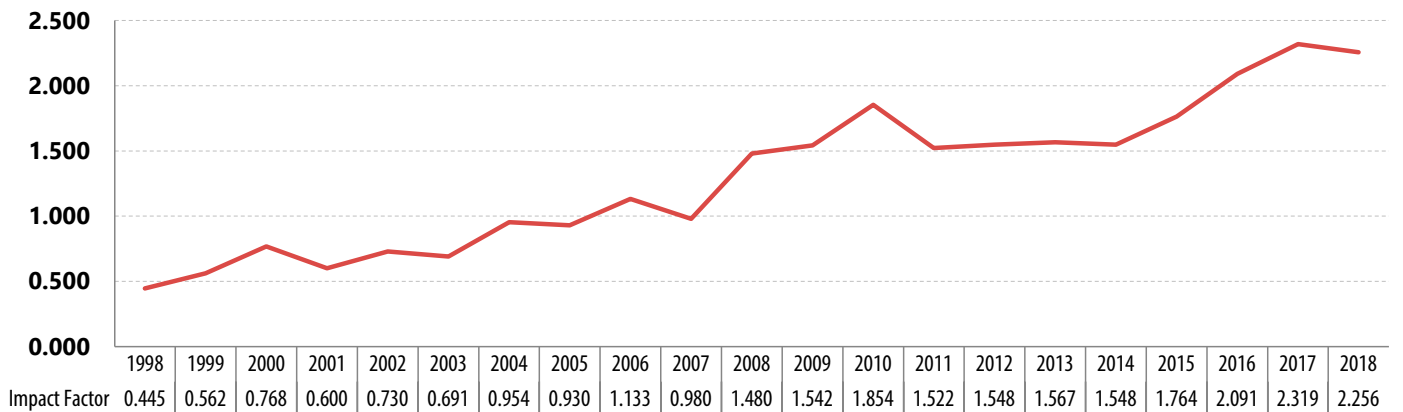
20 papers published online

Issue 60:4 (April 2020) = most recent issue published online.

NUMBER OF SUBMISSIONS



IMPACT FACTOR



MANUSCRIPT PUBLICATION

2018	101	1,334	1
year	manuscripts published	pages published	special issues
2018	110	1,206	2
2017	118	1,516	1
2016	131	1,664	2
2015	151	1,812	2

SUBMISSION STATISTICS

2019	489	169	158	97	251	602	3.8	30.4	42.2
year	new manuscripts	revisions requested	revisions received	accepted	rejected	decisions made	days to editor assignment	days to reviewer invitation	days to first decision
2018	548	207	193	93	393	689	1.2	20.6	32.3
2017	520	208	199	119	317	690	1.7	18.5	26.3
2016	516	280	256	124	97	524	1.3	18	31.1
2015	462	266	253	133	266	688	1.1	13.4	40.6

REVIEWERS

2019	719	394	183	53	89	4	25.6	143	15.4	263	11.3
year	total reviewers invited	reviewers completed reviews	declined to review	uninvited reviewers	terminated reviewers	days to respond to invitation	days to complete from invite	number of late reviews	average days late	number of early reviews	average days early
2018	847	484	201	65	97	4.2	29.2	243	16	244	11.9
2017	864	478	227	87	70	3.8	27.2	216	15.1	267	12
2016	984	533	283	68	99	4	28.5	281	14.7	288	12.8
2015	1311	742	348	71	150	4	27.8	322	5.5	400	13

ORIGINAL SUBMISSION DECISION SUMMARY

Avg. Days	21.38	23.10	81.20	78.67	63.75	21.40	12.00	71.33	50.00	46.98
%	16.1%	17.4%	4.7%	0.5%	4.3%	32.7%	0.2%	14.0%	10.1%	100.0%
2019	97	105	28	3	26	197	1	84	61	602
year	accept as is	decline and transfer to transfer desk	reject without review	reject after review	reject encourage resubmission	reject encourage submission to another journal	revise before review	revise major edits	revise minor edits	total decisions
2018	13.45 13.5% 93	12.95 21.3% 147	70.8 4% 28	54.3 1.2% 8	33.4 5% 35	15.5 29.2% 201	0 0% 0	61.6 15.5% 107	43.58 10.3% 70	22.88 100% 689
2017	12.2 17.1% 118	14.2 12% 83	61.3 4.6% 32		29.6 5.2% 36	39.2 34% 235	21.3 1% 7	38.4 16.9% 117	42.5 8.84% 61	32 100% 690
2016	34.5 0.4% 2	7.1 13% 68	87.5 8.4% 44	30	8 4.4% 23	9 42.6% 223	36.5 1.5% 8	82.4 21.6% 113	85.4 2.5% 13	36.5 100% 524
2015	78.5 0.5% 2		79.9 13.9% 61	31	24.3 7.9% 35	6 43.5% 191	4.3 3% 13	80.8 23.1% 102	90.2 8% 35	42.8 100% 439

MINUTES OF THE JOINT EDITORIAL BOARD AND INTERNATIONAL ADVISORY BOARD MEETING OF THE JOURNAL OF DYNAMIC BEHAVIOR OF MATERIALS

June 2019, Reno, Nevada

JDBM INTERNATIONAL ADVISORY BOARD

Eric Brown, Los Alamos National Laboratory, USA (Chair)

Dana Dattelbaum, Los Alamos National Laboratory, USA

William Fourney, University of Maryland, USA

Yogendra Gupta, Washington State University, USA

K. T. Ramesh, Johns Hopkins University, USA

Naresh Thadhani, Georgia Institute of Technology, USA

Hareesh Tippur, Auburn University, USA

ATTENDEES

Eric Brown–EIC, Daniel Casem–TE, Veronica Eliasson–TE, Jennifer Jordan–TE, Leslie Lamberson–TE, Bo Song–TE, Parameswaran Venkitanarayanan–TE, Arun Shukla–IAB Chair, William Fourney–IAB, K. T. Ramesh–IAB, Jason Blough–SEM Board, Pete Avitabile–SEM Board, Jim DeClerck–SEM Board, Nuno Lopez–SEM, Kristin Zimmerman–SEM, Anita Lekhwani–Springer-Nature, Xu Nie

- Welcome and Introductions
- 2018 JDBM Editorial Board/Advisory Board minutes reviewed and approved
- Updated on JDBM and Officers Report – Eric Brown (15 min)
 - Current Submissions (as of June 2, 2019)
 - 18 active papers in Editorial Manager
 - 2 papers accepted, with 1 paper on OnlineFirst – we continue to be publishing “just-in-time” and have not made progress on moving earlier in the quarters
 - Special Issues – Goal of one per year
 - Dynamic Failure of Composite Materials – Arun Shukla, Yapa Rajapakse, and James LeBlanc – published Vol 4, Iss 3 (Sept 2018)
 - Temperature dependence of material behaviour at high strain-rate - Martina Scapin, Patricia Verleysen, Mikko Hokka, and Nadia Bahloul – 15 papers in various stages of review with a goal of publishing for Vol 5, Iss 3 (Sept 2019)
 - Impact Matters: K.T. Ramesh’s 60th Birthday - Leslie Lamberson and Emily Retzlaff – Getting set up in Editorial Manger, Submission deadline August 31, 2019
 - Dynamic Behavior of Geomaterials – Pascal Forquin and Xu Nie to discuss path forward
 - Ballistic Impact – Dan Casem to look into potential Guest Editors
- Ultrafast Imaging and Tracking Instrumentation, Methods & Applications – Jeph Wang, Wayne Chen, Marcel Demarteau, and Arianna Gleason – cancelled
- New ideas
- Review Papers
 - Past review papers - Do not seem to be highlighted on JDBM website
 - » High Strain Rate Mechanics of Polymers: A Review, Siviour, C.R. & Jordan, J.L. (2016) 2: 15 (most cited JDBM paper – 34 times)
 - » Experimental Methods for Characterizing Dynamic Response of Soft Materials, Chen, W.W. (2016) 2: 2 (tied for 10th most cited JDBM paper – 16 times)
 - » On the Shock Response of Polymers to Extreme Loading, Bourne, N.K. (2016) 2: 33 (tied for 17th most cited JDBM paper – 10 times)
 - » Dynamic Tensile Experimental Techniques for Geomaterials: A Comprehensive Review, Heard, W., Song, B., Williams, B. et al. (2018) 4: 74 (cited 5 times)
 - » Strain Rate Effects in Polymer Matrix Composites Under Shear Loading: A Critical Review, Kidane, A., Gowtham, H.L. & Naik, N.K. (2017) 3: 110 (cited 3 times)

– **Review Papers in the Works**

- Leslie Lamberson, Veronica Eliasson and Hareesh Tippur
- Review of full-field methods in dynamic fracture paper
- Stephen Walley and David Chapman –
Review of Taylor impact method
- Stephen Walley - Review of the history
of high strain rate testing
- Charlie Anderson - TBD
- Yuki Horie - TBD
- Lalit Chhabildas - TBD

– New Ideas

- State of JDBM from Springer’s perspective
given by Anita Lekhwani
- No Old Business
- New Business– All (15 min)
 - Discussion to review the Aims and Scope of JDBM and
consider relationship with APS SCCM, DYMAT, HIVIS, and IJIE
 - New Editor-in-Chief – Jennifer Jordan
 - Suggested a new cover art for each issue
submitted as part of line up
- Discuss new potential Technical Editors and
thank outgoing Technical Editors
 - Tech Editors renewed from 2018
 - Dr. Daniel T. Casem, U.S. Army Research Laboratory
 - Prof. Leslie Lamberson, Drexel University
 - Tech Editors concluded in 2018
 - Dr. Kathryn A. Dannemann, Southwest Research Institute
 - Dr. Mikko Hokka, Tampere University of Technology
 - Dr. Jeffrey Nguyen, Lawrence
Livermore National Laboratory
 - Prof. Takashi Yokoyama, Okayama University of Science
 - New Tech Editors (2019 to 2021)
 - Dr. Minta C. Akin, Lawrence Livermore
National Laboratory <akin1@llnl.gov>
 - Prof. Duane Cronin, University of Waterloo
<duane.cronin@uwaterloo.ca>
 - Dr. Paulo A Rigg, Washington State
University <prigg@wsu.edu>
 - Dr. James M LeBlanc, Naval Undersea Warfare
Center james.m.leblanc@navy.mil
 - Suggestions for new Technical Editors invited
- Input from International Advisory Board given by Arun Shukla
- Adjourn

JOURNAL OF DYNAMIC BEHAVIOR OF MATERIALS

Jennifer L. Jordan, Editor-in-Chief Los Alamos National Laboratory, USA (2024)

MANAGING EDITOR

Nuno Lopes, SEM

TECHNICAL EDITORS (TERMS END IN DECEMBER)

Dr. Minta C. Akin, Lawrence Livermore National Laboratory (2021)
Prof. Nadia Bahlouli, University of Strasbourg (2022)
Prof. Nicola Bonora, University of Cassino and Southern Lazio, Italy (2020)
Dr. Daniel T. Casem, U.S. Army Research Laboratory (2021)
Prof. Duane Cronin, University of Waterloo (2021)
Dr. Daniel Eakins, University of Oxford (2022)
Prof. Veronica Eliasson, University of California San Diego (2020)
Dr. Juan Escobedo-Diaz, UNSW Canberra at the Australian Defence Force Academy (2022)
Prof. Pascal Forquin, Université Joseph Fourier - Grenoble Alpes University, France (2020)
Prof. Leslie Lamberson, Drexel University (2021)
Prof. Yulong Li, Northwestern Polytechnical University, China (2020)
Dr. James M LeBlanc, Naval Undersea Warfare Center (2021)

Prof. Xu Nie, Southern Methodist University (2022)
Dr. Paulo A Rigg, Washington State University (2021)
Prof. Parameswaran Venkitanarayanan, Indian Institute of Technology Kanpur (2022)
Dr. Tracy Vogler, Sandia National Laboratories (2020)
Dr. David Williamson, University of Cambridge (2022)
Dr. Clarissa Yablinsky, Los Alamos National Laboratory (2022)

INTERNATIONAL ADVISORY BOARD

Eric N. Brown, University of Rhode Island, USA (Chair)
Dana Dattelbaum, Los Alamos National Laboratory, USA
William Fourney, University of Maryland, USA
Yogendra Gupta, Washington State University, USA
K. T. Ramesh, Johns Hopkins University, USA
Naresh Thadhani, Georgia Institute of Technology, USA
Hareesh Tippur, Auburn University, USA

MESSAGE FROM THE EDITOR:

We are pleased to share that 2019 was another very successful year for the Journal of Dynamic Behavior of Materials. We published 44 outstanding papers, including a Special Issue on Temperature Dependence of Material Behaviour at High Strain-Rate Edited by Martina Scapin, Patricia Verleysen, Mikko Hokka, and Nadia Bahlouli of Politecnico Di Torino in Italy, Ghent University in Belgium, Tampere University in Finland, and Université de Strasbourg in France respectively. All papers can be found at <https://link.springer.com/journal/40870> or as a free member benefit through the Society for Experimental Mechanics website (SEM.org).

We continue to be highly international with manuscripts published with authors from Australia, Belgium, Canada, Finland, France, Germany, India, Iran, Italy, Malta, Morocco, Norway, Poland, Russia, Spain, Switzerland, Turkey, United Kingdom, and

the United States of America. Thanks to robust submissions of high-quality papers we continue to publishing full outstanding issues while maintaining our ability to offer timely reviews and prompt publication.

In January 2020, the Editor-in-Chief position passed from Eric Brown to Jennifer Jordan, as selected by the SEM Board. This is the first change in Editor-in-Chief for the Journal of Dynamic Behavior of Materials. We bid a fond farewell to Arun Shukla as Chair of the International Advisory Board and welcome Eric Brown as the new Chair. We thank the Technical Editors who ended their terms in December 2019: Neil K. Bourne, Ellen K. Cerreta, Trevor Cloete, and Bo Song. The success of the journal would not have been possible without the authors, Technical Editors, and International Advisory Board.

SPECIAL ISSUES

DYNAMIC FAILURE OF COMPOSITES

Guest Editors: Arun Shula, Yapa Rajapakse, and James LeBlanc
Published March 2018 (4:3)

TEMPERATURE DEPENDENCE OF MATERIAL BEHAVIOUR AT HIGH STRAIN RATE

Guest Editors: Martina Scapin, Patricia Verleysen, Mikko Hokka, and Nadia Bahlouli

Published March 2019 (5:3)

IMPACT MATTERS

Guest Editors: Leslie Lamberson and Emily Retzlaff
In-progress

DYNAMIC BEHAVIOR OF GEOMATERIALS

Guest Editors: Pascal Forquin and Wayne Chen
In-progress

BALLISTIC IMPACT

Guest Editors: Dan Casem
In-progress

HIGH-PRESSURE STRENGTH

Guest Editors: Justin Brown, Curt Bronkhorst, Tracy Vogler
In-progress

DYNAMIC BEHAVIOR OF MATERIALS SUMMARY

The following shows statistics on submissions, reviewers and decisions made for the *Journal of Dynamic Behavior of Materials* for the last years. Number of submissions and Impact Factor show all historical data.

OF NOTE

The total number of submissions in 2019 was 104. This represents an increase of 31.6% over the 2018 total (79).

Accepted papers in 2019 were 47, a rate of 45.2% acceptance. This compares to 2018 (46.8%).

In 2019 we published less articles than we accepted (44 vs. 47).

STATUS (AS OF MAY 28, 2020):

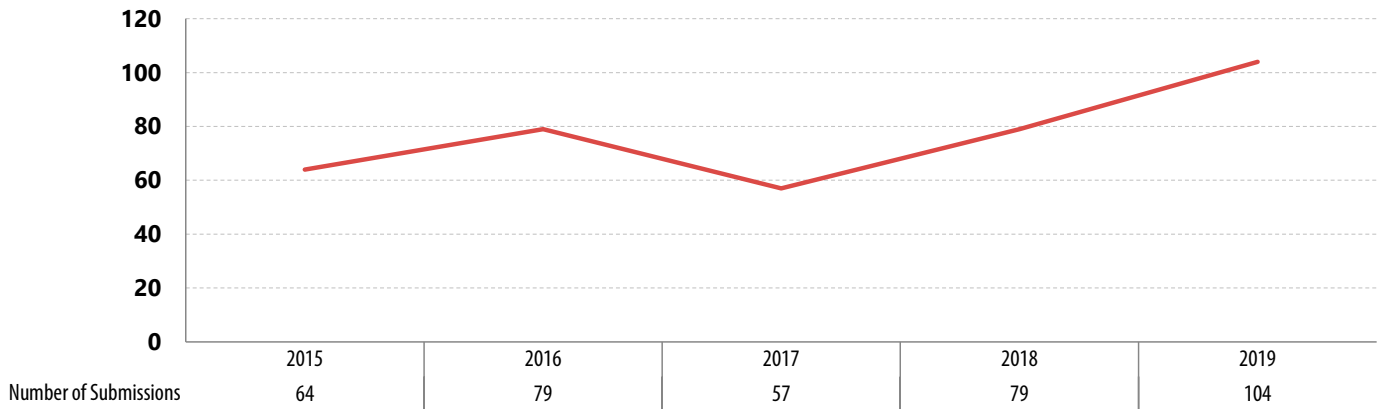
26 papers in process

6 papers out for revision

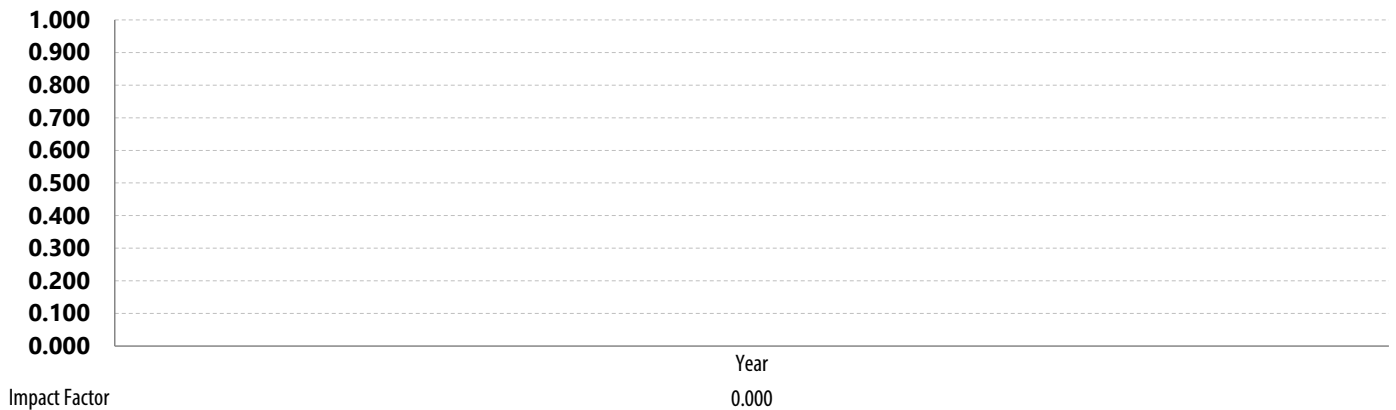
5 paper published online

Issue 6:2 (June 2020) = most recent issue published online.

NUMBER OF SUBMISSIONS



IMPACT FACTOR



MANUSCRIPT PUBLICATION

2019	44	503	1
year	manuscripts published	pages published	special issues
2018	43	440	1
2017	48	574	1
2016	46	531	1
2015	40	471	0

SUBMISSION STATISTICS

2019	104	71	65	47	26	174	1.5	15	51.1
year	new manuscripts	revisions requested	revisions received	accepted	rejected	decisions made	days to editor assignment	days to reviewer invitation	days to first decision
2018	79	53	52	37	24	117	0.9	11.6	51.3
2017	56	83	87	49	16	152	1.6	5.8	44.3
2016	79	69	61	49	16	71	0.8	4.1	36.6
2015	64	62	61	40	14	63	0.8	3.6	31.7

REVIEWERS

2019	383	192	87	86	19	2.3	18.9	76	14.4	115	7.1
year	total reviewers invited	reviewers completed reviews	declined to review	uninvited reviewers	terminated reviewers	days to respond to invitation	days to complete from invite	number of late reviews	average days late	number of early reviews	average days early
2018	226	134	37	47	8	2.9	17.9	42	13.6	84	7.1
2017	222	151	38	31	2	2.7	16	70	7.5	87	8.4
2016	272	178	40	45	9	2.8	15.9	56	7.9	126	7.3
2015	212	134	32	32	14	2.5	14.9	41	5	85	6.8

ORIGINAL SUBMISSION DECISION SUMMARY

Avg. Days	10.55	2.30	10.70	74.37	0.00	0.00	11.50	55.75	41.70	29.55
%	27.0%	1.7%	14.9%	15.5%	0.0%	0.0%	1.1%	22.4%	17.2%	100.0%
2019	47	3	26	27	0	0	2	39	30	174
year	accept as is	decline and transfer to transfer desk	reject without review	reject after review	reject encourage resubmission	reject encourage submission to another journal	revise before review	revise major edits	revise minor edits	total decisions
2018	0	4	6.7	56.95	0	0	12	62.4	20.88	43.8
	0%	%	12.99%	16.88%	0%	0%	1.3%	19.48%	48.05%	100%
	0	1	10	13	0	0	1	15	37	77
2017	0	.07	5.7	48.6	0	0	1	33.7	32.1	16.7
	0%	2%	5.3%	6.6%	0%	0%	0.7%	18.4%	34.2%	100%
	0	3	8	10	0	0	1	28	52	152
2016	0	1	3.5	34.1	0	0	0	35.3	35.7	33
	0%	1.4%	5.6%	16.9%	0%	0%	0%	31%	45.1%	100%
	0	1	4	12	0	0	0	22	32	71
2015	1	0	2.8	37.8	0	20.3	0	31.5	36.7	30.3
	1.6%	0%	6.3%	6.3%	0%	6.3%	0%	36.5%	39.7%	100%
	1	0	4	4	0	4	0	23	25	63

TECHNICAL ACTIVITIES COUNCIL

ERIC BROWN, CHAIR

JASON BLOUGH, VICE-CHAIR

AGENDA

Wednesday, June 10, 2020 – 9:00 a.m.-11:00 a.m. | Virtual

- Approval of Agenda
- Approval of Minutes of June 4, 2019 Technical Activities Council meeting in Reno, NV
- Technical Division Activity Reports to include both Conference Programming activities and any other matters.
 - Applications Committees
 - Education Committees
 - Research Committees
 - Biological Systems and Materials
 - Composite, Hybrid and Multifunctional Materials
 - Dynamic Behavior of Materials
 - Dynamics of Civil Structures (IMAC)
 - Dynamic Substructures (IMAC)
 - Fracture & Fatigue
 - Inverse Problem Methodologies
 - Micro and Nanotechnology
 - Modal Analysis/Dynamic Systems (IMAC)
 - Model Validation and Quantification for Structural Dynamics (IMAC)
 - Nonlinear Structures and Systems (IMAC)
 - Optical Methods
 - Residual Stress
 - Sensors and Instrumentation (IMAC)
 - Thermomechanics & Infrared Imaging,
 - Time Dependent Materials
 - WRS GC
- Old Business
- New Business
- Adjournment

Prepared by Kristin Zimmerman, Secretary with the approval of Eric Brown, Chair

MINUTES

Tuesday, June 4, 2019 – 4-6:00pm. | Peppermill Resort | Reno, NV | Greenville, SC

TAC committee Chair Lambros called the meeting to order and thanked all of the TDs for coming and putting together an excellent conference.

- **Vote to approve the agenda**

- Approved

- **Vote to approve the minutes from the 2018 TAC**

- Approved

- **Committee Reports June 2019**

- Applications, Education and Research Committees met after the TAC meeting. This is done to draw more of a strategic focus to the Committee meetings. The multi-TD sponsored track on Additive Manufacturing led by the Research Committee is growing well and providing wonderful results. They are looking to form a new TD soon. There was conversation about starting a new DIC related convergence track. Stay tuned as the 2020 program comes together with the coordinated efforts of our track and session organizers.

- **Technical Division Information**

- SEE TD PAGES ON THE SEM WEBSITE: www.sem.org
- There was one course on Residual Stress at the Annual Conference in 2019. The course had 12 registered participants and 5 instructors.
- SEM TD/Committee leadership needs to nominate outstanding SEM members for awards. Put this on your TD forms.
- Report of the TD meetings by representative TD Chairs (see minutes on the following pages)
- Concluded Review of TD Reports

- **Old Business**

- None to report

- **New Business**

- TD Pages need updating after each Annual Conference.
- Theme for 2020: No theme
- Continue to pursue the process for forming the new TD called, "Mechanics of Advanced Manufacturing and Materials."

- **Meeting adjourned by 6pm**

APPLICATIONS COMMITTEE

Chair: Piyush Thakre – The Dow Chemical Corporation

ATTENDEES

Kristin Zimmerman, Piyush Thakre, Jeff Helm, John Lambros, Eric Brown, Nuno Lopes, Wendy Crone, Paul Reynolds, Jason Blough

MINUTES

Wednesday, June 5, 2019, 10.30 a.m.–11 a.m.

- Jeff Helms stepped down as vice chair so need to find another officer.
 - Proposed name: Evan Breedlove, 3M Corporate Research Analytical Lab
Email: elbreedlove@mmm.com
 - Evan to confirm after talking to his manager at 3M
- Overview of past year (2019)
 - Two sessions organized on
 - Technology Applications
 - Applications
- Proposal for 2020 conference
 - Continue with organizing ‘Technology Applications’ session
 - Suggestion to organize session with invited talks on “Application Challenges” by industry
 - Co-host or coordinate with other TDs to provide keynotes on application challenges to specific TDs
 - Suggestion for panel discussion on ‘Application Challenges or Industry Challenges’
 - Target past attendees from industry to find speakers for invited talks
 - Nuno suggested to provide participant list from SEM for potential speakers for invited talks. Such invited talk should not be a sales pitch.
- Identify current global application challenges from industry, academia, labs
 - Examples include sustainability, new materials, health, medical, new test technologies, machine learning, etc.
 - Email TDs for help on identifying application challenges in their area
 - Email past industry participants at SEM to identify application challenges
- Paul R. to forward by-laws to Piyush to check for needed updates
- Remind industry participants to post available job openings on SEM website
- Check for interest on pre-conference courses or tutorials

EDUCATION COMMITTEE

Chair: Michael W. Keller, The University of Tulsa

Vice - Chair: Meg Grady, University of Kentucky

Secretary: Ryan Berke, Utah State University

ATTENDEES

Wendy Crone, Nuno Lopes, Kimberley MacDonald, Veronica Eliasson, Jeff Helm, Raman Singh, Jason Blough, Pete Avitabile, Mike Keller, Ryan Berke, Meg Grady, John Lambros, Kristin Zimmerman, Eric Brown, K.T. Ramesh, Peter Ifju, Addis Kidane, Gina Miller

MINUTES

Wednesday, June 5, 2019

- Minutes Approved
- Overview of activities this year and discussion of implementation for next year
- First time attendee social
 - First time attendee meeting, 30 -50 attendees and many students and a few non-students first time attendees. Suggestion to move to Monday evening, agree to move First time attendee reception to Monday evening.
 - Plan to have a 2020 First time attendee social on Monday evening.
 - 161 first time attendees, about 100 of those are students
- “Basics of” series of talks
 - “Basics of” session was well attended, packed, Tuesday programming, oscillated between 40-60
 - Propose to repeat the format of 3 30-min talks, Mix of students and faculty/industry but heavy on the student side, estimated 20% was non-student
 - Ideas: high rate testing, Dan Casein?, two other options, x-ray? spectroscopy?, optical methods?, Data Sciences (AI, machine learning), Advanced Manufacturing, Biomechanics for metal-minded people, Basics of AFM, How to write a paper? suggested to keep it focused on techniques
 - Keller selected top 4 ideas: Data Sciences, Advanced Manufacturing (talk to Charlotte), AFM (talk to Ioannis Chasiotis), High rate testing (Dan Casein)
 - Pick three of these four suggested topics for “Basics of”
 - Mechanism to get feedback from students at attending “Basics of” ? Wendy suggested surveys in the room, online surveys have very low response rate
 - Surveys within the room are proposed
 - Survey for “Let’s talk postdoc” tomorrow will try to be implemented on paper
 - Changing your research trajectory was suggested as a panel outside of “The basics of...”
- Tutorial videos and Social Media discussion
 - Tutorial videos produced by SEM members on behalf of the society is challenging to get people interested and to execute a video. Short clips of people discussing “Why do you come to SEM?”
- Graduate students who’s job is to be point of contact/ambassador to do these kinds of things. Awards students with badge flag,
- Possible position for “social media”
- Register as social media correspondent and show twitter feeds around the conference, special hashtags created for conference
- Possible ways to create social media correspondents, create a profile for SEM but does not tweet themselves.
- Easy to start one, keep it current and going/consistent is much harder
- Raman suggested the Executive Board look at need for social media presence
- Attendee engagement would be a good idea
- Wendy suggested it gets brought up at the Open Executive Meeting
- Remember to revive it at each new conference
- Journal twitter feed could keep it going throughout the year
- Coffee Sessions
 - “Let’s talk Postdoc” to be run during coffee break Thursday, has been promoted through an e-mail to all student registrants and a flyer placed in bags
 - Speed-dating for trying to find a postdoc or faculty trying to hire a postdoc
 - TV screen running of slides provided by faculty/postdoc
 - How do we facilitate face to face meetings?
 - Looking to hire a postdoc or looking for a postdoc, require time and space?
 - Post positions on sticky notes on a board split into halves
 - “Terrifying Tenure” coffee break planned for 2020
- Officer Elections
 - Mike Keller is Chair
 - Meg Grady is Vice Chair
 - Ryan Berke is Secretary
- Panels
 - Panels on rotation, next year is Industry and National Lab panels, defer to Research TD for planning
- Regional Graduate Student Conferences
 - Glasgow UK
 - Madison, Wisconsin
 - Clemson, SC
 - These were successful, plans for upcoming conferences and expanding new conferences and regions:
 - Southeast conference in discussion:
 - Georgia Tech
 - Auburn
 - Midwest has possible locations
 - MidSouth/Central, Regional will occur Nov 1&2
 - SoCal Regional Conference is being planned
 - Reminder that \$1500 is available for programming/materials
- Motion to adjourn

RESEARCH COMMITTEE

Chair: Helena Jin, Sandia National Laboratories, California, USA

Vice-Chair: Jennifer Jordan, Los Alamos National Laboratory, New Mexico, USA

Secretary: Piyush Thakre, Dow, Texas, USA

RESEARCH COMMITTEE MEETING

Wednesday, June 5, 2019 8-9:00 a.m.

ATTENDEES

Helena Jin, Jennifer Jordan, Piyush Thakre, John Lambros, Raman Singh, Kristin Zimmerman, Nuno Lopes, Ioannis Chasiotis, Charlotte Kramer, Wendy Crone, Nikhil Karanjgaokar, Pete Avitabile, Paul Allison, Junlan Wang, Ryan Berke, Alireza Amirkhizi, Jacob Notbohm, Chi-Hung Hwang, KT Ramesh

- Approved agenda and minutes
- Election of Secretary (2020-2021)
 - Piyush Thakre
- Track on Mechanics of Additive and Advanced Manufacturing
 - Overview of this year's track
 - Proposal to create focus group for 2020
 - Mechanics of Advanced Manufacturing Technology (MAMT)
 - Work towards separate TD formation for 2021
 - Talk to Jen to get room for MAMT focus group for 2020 conference
 - Advertise at multiple conferences/CoE centers in Fall 2019 and Spring 2020
 - Get keynote speakers finalized before advertising
 - Coordinate with TDs for joint sessions
- Career Panels 2020
 - Junior Career Development Panel on National Labs
 - Industrial R&D Career Development Panel
 - Proposed professional development session instead of mid-career panel in 2021 (Jen Jordan)
 - Idea: Speed dating/ mentoring concept (KT Ramesh)
- Submission to SEM journals
 - Remind TD officers to recommend good presentations and papers for publication at EM, ET or JDBM
 - Special issue planned for Experimental Mechanics
 - 11 papers – organized by Jen Jordan, Helena Jin
- New Business
 - Target session on "Data Science" (artificial intelligence, big data, machine learning)
 - Need write up for this area
 - Focused area under research committee (Jen Jordan volunteered to head this area)
 - Suggestion to invite program managers/ directors as keynote speakers
 - Suggestion to organize relevant tutorials at the beginning of TD sessions, like the one on 'DIC basics' this year (40 mins)
 - Job posting section available on the SEM website. Remind TD officers to send email for available job postings.

BIOLOGICAL SYSTEMS AND MATERIALS DIVISION

Chair: Jacob Notbohm, University of Wisconsin-Madison

Vice-Chair: Christian Franck, University of Wisconsin-Madison

Secretary: Karen Kasza, Columbia University

2019 MINUTES

- Introduction, welcome by Meg Grady
- Summary of this year's symposium: 28 talks, 2 of which are key notes
- Motion: Meg Grady rotate off as chair. Jacob Notbohm become chair. Christian Franck become vice chair. Vote: 18 yes; 0 no; 2 abstain
- 2 nominations for secretary: Karen Kasza (Columbia) and Chandler Benjamin (Texas A&M). After discussion, Karen Kasza was elected by a majority in ballot voting.
 - Jonathan Estrada (Michigan) and Chandler Benjamin indicated interest in secretary position for the future
- Planning for next year
 - Expect two full days of presentations with two keynotes
 - Sessions: same as this year plus Experimental techniques in biomechanics, Multiscale mechanics of biomaterials spanning molecular to cell to tissue scales; Failure of biological materials
 - Coordinate with other TDs for possible joint sessions
 - » Optical methods approached us stating interest in a session titled "Experimental mechanics techniques for investigations on cancer cells"
 - Listed possible names for keynotes
- Ioannis Chasiotis discussed publishing in Experimental Mechanics
 - Another special issue in bio? (10th anniversary special issue?)
 - Exp Mechanics wants to pursue getting listed on Pubmed 1.5 years from now. This will require at least 20% of articles be in bio. 1 more special issue probably won't be sufficient. We should encourage people from our TD to publish in Exp Mech. An opportunity for this is November, when we're reviewing abstracts.
- Brainstorming ideas for a 10th anniversary event
 - Casual meet up at a bar/restaurant? Invite-only event (would require us identifying sources of funding)? TD leadership will decide on this and organize if necessary.
 - Bio TD calendar. Several attendees were willing to share images for a calendar. We'd have to offset printing costs through advertisers. Unclear whether advertisers would be interested in this. Unclear on cost (expensive, but not sure how expensive).

COMPOSITE, HYBRID AND MULTIFUNCTIONAL MATERIALS DIVISION

Chair: Raman P. Singh, Oklahoma State University, USA

Vice Chair: Vijaya Chalivendra, University of Massachusetts – Dartmouth, USA

Secretary: Frank Gardea, U.S. Army Research Laboratory – Aberdeen Proving Ground, USA

ATTENDEES

Raman Singh, Vijaya Chalivendra, Piyush Thakre, Sandeep Abotula, Frank Gardea, Brian Werner, Ole Thomsen, Kevin Connolly, Matthias Merzkirch, Amy Engerbrecht-Wiggans, Gnana Saurya Vankayalapati, Lisa Mariani, P. Venketanarayanan, A. Burak Irez, Matlock Mennu, Bhavana Swaminathan, Blaze Heckert, Libin K. Babu, Emin Bayraktar, Ibrahim Miskiogui, Michael Keller, Gina Miller, G.L. Easwara Prasad, Kara Peters, Fabio Gatamorta

TD MEETING: COMPOSITE, HYBRID, AND MULTIFUNCTIONAL MATERIALS

SEM Annual Conference, June 4, 2019

- Review of past year: highest number of abstracts in 2018. 40 abstracts in 2019
- Certificates to session chairs/organizers
- Robust interaction in TD
- New website and video
- Areas for improvement: finding new focus areas, more involvement. More collaboration with Fracture and Fatigue TD, time dependent materials TD
- Plan for 2020 Orlando
 - Multifunctional Materials: 2 sessions (+ 1 more if possible), Piyush, Laurance, Frank, Rabbi, Mike. Target at least 3 sessions for next year.
 - Composite interfaces: 1 session, Nibin, Raman
 - Damage detection: 1 session, Vijaya, Sandeep, Kevin Connolly
 - Tunable composites: 1 session, Frank, Piyush
 - Recycled composites: 2 sessions, Ernin, Ibrahim
 - Bio-based composites: 1 session
 - Mechanics of Composites (include issues in manufacturing): 1 session, Gina (maybe), Mike, Kara Peters, Matlock Mennu
 - Possible new session: Integration of experiments and simulation (collaborate with Fracture and Fatigue). Combine with advanced imaging of composites. Ole Thomsen, Bhavana Swaminathan
 - Suggestion: Mechanics of time dependent composites (combined session with time dependent materials), Brian Werner
- Push for publications. Not many submissions in composites.
 - Idea: when abstract are submitted and there is high quality work, contact Rama to encourage publication. Do not wait until paper is presented at conference.
 - Review papers get highly cited. Encourage publishing review papers
 - Possibility to get publication image on cover page
- Work on TD flyer (1 pager)
- Thematic theme for Fall conferences. Do we need them?
 - No financial risk.
 - Question is what amount of effort this will take?
 - Need 2-year lead time
 - 2021 Fall
 - Possible theme: Integration of Experiments and Simulation
- Structural Integrity Society in Europe: Give them info to advertise this TD. Fracture and fatigue. Contact: A. Burak Irez

DYNAMIC BEHAVIOR OF MATERIALS

Chair: Leslie Lamberson, Colorado School of Mines

Vice-Chair: Steven Mates, National Institute of Standards and Technology.

Secretary: Veronica Eliasson, University of Southern California

MINUTES

Dynamic Behavior of Materials Track Meeting | SEM Annual Conference, June 4, 2019

- Very brief introductions of the Chair, Vice-Chair and Secretary were made. The attendees were encouraged to update their information at <https://tinyurl.com/SEM-DBM> or, if they were new attendees, to enter their contact information.
- TD updates
 - Attendees were reminded of the upcoming election of a new secretary in 2020. TD will send out a reminder some time before the 2020 meeting.
- JDBM update from Dr. Eric Brown
 - The journal is 5 years old and doing very well.
 - Eric Brown thanked all those who have contributed manuscripts and served as reviewers.
 - New Editor-in-Chief starting January 2020 is Dr. Jennifer L. Jordan.
- TD Bylaw Review
 - The bylaws were reviewed and the only suggested change was to update the bylaws as suggested with roles for the Chair, the Vice-Chair and the Secretary. The motion passed unanimously.
- Paper Requirement Revisited
 - The Chair opened a discussion to review the current Dynamic TD policy of requiring at least an extended abstract to be accepted into the technical program. The result among all attendees was to keep as is with the extended abstract being an option. No other opinions were voiced at this time.
 - The template for a full paper and extended abstract is the same. Could this be improved such that there is one template for each kind in the future?
 - When submitting the abstract, can SEM add the option to opt out of the Springer Submission by adding an e.g. check box with that option on the submission website? Currently this is done by emailing Shari Mathews directly with email subject line "Do NOT send my submission to Springer" and paper number and title.
 - Confusion about which track authors should choose when submitting to a track that is a collaboration with two TDs. Which TD rules should be followed (e.g. full paper required or not etc.)?
- 2020 TD Planning
 - TD is looking for keynote lecture suggestions.
 - The Chair made an announcement to keep the Session Chairs diverse, and to encourage a more senior Chair together with a newer member being Chair for each Session. Only one Session to organize per member is encouraged to provide room for everybody that want to have the chance to help organize Sessions to do so.
 - Jennifer Jordan suggested that TD send out a single-track advertisement email from the TD instead of each Session organizer(s) sending out individual emails. Combine email lists from all Sessions to add to one single list. Straw vote was held and the motion passed unanimously.
 - When submitting the abstract, please remember to add Session and Session organizer last name to get the abstract sorted correctly. If submitter do not know to what Session to submit, then leave blank. One suggestion was to add a drop-down menu to the submission website with the available alternatives. This would greatly help the sorting of abstracts into Sessions when putting the conference schedule together.
 - Session organizers for 2020
 - **Material Modeling:**
P. Allison, Costas Fountzoulas
This session will discuss recent advances in material models that seek to incorporate data from, or are based upon, high fidelity experimental observations.
 - **Shock and Blast:**
B. Koohbor, S. Ravindran
This session focuses on the response of materials/ structures to mechanical shock and blast loadings.
 - **Quantitative Visualization of Dynamic Events:**
N. Lorenzo, P. Jannotti
This session focuses on recent developments and applications of advanced quantitative imaging techniques for investigating dynamic events.
 - **Dynamic Response of Geomaterials:**
X. Nie, B. Williams, C. Loeffler
This session seeks to further the understanding of the response of geomaterials subjected to dynamic loading. Naturally occurring materials (e.g. sand, competent rock) as well as manufactured materials composed of geologic materials (e.g. concrete) are of interest.

- **Dynamic Response of Low-impedance Materials:**

L. Shannahan, C. Siviour

This session focuses on the dynamic response of low impedance materials such as polymers, elastomers, gels, and biological materials.

- **Structural Energetic Materials:**

J. Kimberley, C. Meredith

Add info about session

- **Dynamic Fracture & Fragmentation:**

B. Aydelotte, B. Sundaram

This session requests papers that study the fracture and fragmentation of materials under dynamic loading. Contributions covering all classes of materials systems (e.g. ductile metals, brittle ceramics) are encouraged.

- **Novel Experimental Techniques:**

J.E. Cline, O.T. Kingstedt

This session provides a forum for discussing recent advances in dynamic testing techniques and methodologies.

- **Dynamic Response of Advanced/ Additively Manufactured Materials:**

E. Retzlaff, P. Allison

This session focuses on the dynamic response of materials that are on the leading edge of materials development/processing such as high entropy alloys, and additively manufactured materials.

- **Synchrotron applications/advanced imaging:**

A. Mandal, C. Williams

This session highlights recent developments in the use of advanced light sources to investigate the response of materials under high-rate loading.

- **Experimental computations:**

T. Weerasooriya, S. Sockalingham

This session provides a forum to discuss studies that require very close integration between experimental and computational methods e.g., using simulations to interpret data from complex experiment configurations.

- **Dynamic Behavior of Composites:**

M. Pankow, C Meyers

Add info about session

- **Industrial Applications:**

No one volunteered to organize this session

- New Business:

- Leslie Lamberson announces faculty opening at URI on behalf of Arun Shukla
- Matt Shaeffer (JHU) provided the TD with another update on the ongoing efforts to develop an ASTM standard for Kolsky bar testing. He stated that ASTM is interested in developing a standard, and a group of TD members will continue to work with ASTM to navigate the standardization process.

- The meeting was adjourned at 1:49pm.

DYNAMICS OF CIVIL STRUCTURES DIVISION

Chair: Kirk Grimmelsman, Intelligent Infrastructure Systems, USA

Vice-Chair: Hae Young Noh, Carnegie Mellon University, USA

Secretary: Matthew Whelan, University of North Carolina, Charlotte, USA

ATTENDEES

Kirk Grimmelsman, Matthew Whelan, Hae Young Noh, Anders Ronnquise, Alex Pavic, Knut Andreas Kvale, Charles Riley, Rory White, Shamim Pakzad, Paul Reynolds, Laura Redmond, Sajad Javadinasab, Abdollah Javidialesaadi, Chuanzhi Dong, F. Necati Catbas, Alexander Mendler, James Woodall, Philippe Duffour, Carlos Ventura, Ron Aquino, Chao Sun, Fernando Moreu, Babak Moaveni

DYNAMICS OF CIVIL STRUCTURES TD MEETING

IMAC XXXVIII, February 11, 2020

- Meeting started 1:00PM: Kirk introduced the officers, the role of the TD, and agenda for the meeting
- Solicitation of topic and expert authors for critical review
 - “AI and Machine Learning for Civil Structures”
 - interest from Chao Sun, Fernando Moreu, Hae Young Noh, and Shamim Pakzad
 - Paul Reynolds noted the benefit to both the authors and SEM journals provided by critical review papers, which are usually well cited
 - There was discussion around the need to keep the focus central to civil structures
 - The sessions organized for IMAC XXXVIII were reviewed and relevant papers in other sessions were also highlighted by attendees. No additional topics for critical review were identified
- Any plans the TD has for the future
 - Kirk asked if there were any plans or interest to organize a tutorial or short course
 - Babak Moaveni suggested a tutorial to be provided by someone that hasn't been to IMAC before
 - A recommendation was made to organize all of the student paper competition papers into a single session. The reasons why this was not possible this year were reviewed (student papers were organized into sessions, but withdrawn papers affected the schedule)
 - Babak Moaveni noted that there were two SHM sessions that were not organized by this TD. He suggested using keyword searches on the submitted abstracts and papers to find SHM research that may be more relevant to our TD and invite them to submit to our sessions next year
 - Alex Pavic noted the difference between structural performance monitoring and structural health monitoring. He suggested that we start using the term structural performance monitoring to better characterize and distinguish what we are doing versus what researchers in other disciplines are doing. Much of our “SHM” work is actually structural performance monitoring and there are opportunities and advantages of in-service monitoring that extend beyond the traditional definition of “health” monitoring
 - Fernando Moreu recommended Bill Spencer as an invited speaker. He volunteered to invite him and indicated that he would contact Kirk with the response.
 - No short courses were planned from this TD. Hae Young Noh and Fernando Moreu will be organizing a short course through the data science TD.
- Material and leadership for development of TD video for SEM website
 - A request was made for video clips and input on how to structure the video for our TD that will be hosted on the SEM website
 - There were no volunteers to develop the video. Babak Moaveni indicated that the officers of the TD should take the lead in developing the video
- Student Paper Competition
 - Hae Young Noh reviewed the process and scoring criteria used this year for our first student paper competition (innovation, technical, writing, presentation).
 - We had 8 abstracts and 5 papers submitted. This was reduced to 4 after one author was unable to present their submission.
 - A \$500 prize has been provided by Intelligent Infrastructure Systems
 - Noted that all TD members could vote on the presentation score if we held the presentations in one session.
 - Plan to organize double blind review for the future
 - Kirk reminded all faculty to encourage their students to submit
- IMAC XXXIX Sessions
 - Alex Pavic – Vibration Serviceability
 - Carlos Ventura – Nonlinear Vibrations in Civil Structures
 - Fernando Moreu, Hae Yong Noh, Laura Redmond – SHM of Civil Structures
 - Chao Sun – Structural Control of Civil Structures
 - Volunteers to serve as chairs: Laura Redmond, Fernando Moreu, Alexander Mendler
 - Hae Young Noh suggested pairing graduate students with industry professionals to co-chair a session

- Complaints, Compliments, Improvements
 - Rooms were noted to be too small for some of the sessions, especially for sessions on topics that were expected to be of high interest
 - Alex Pavic noted that there was frequently too limited time to ask questions and open the floor to discussion after presentations. This is a missed opportunity.
 - Carlos Ventura felt that there was a loss of quality from prior conferences. He noted specifically that the index of the program had errors and was not easy to navigate, the session chairs were not provided with time markers like in prior conferences, which made time management difficult, and that there was a general lack of quality control in how the conference was managed this year.
- Announcements
 - Alex Pavic announced the 55th Conference on Human Responses to Vibration, which will be held 9-10 September 2020 in Exeter
 - Carlos Ventura announced that IOMAC 2021 will be held in Vancouver. He will share the official announcement when it is available
- Hae Young Noh announced that the European Workshop on SHM (EWSHM) will be held in Palermo, Italy from July 6-9, 2020
- Fernando Moreu and Hae Young Noh announced that the ASCE EMI conference to be held at Columbia University will have sessions for civil structure monitoring and human structure interaction.
- Eurodyn 2020 will be held June 22-24 in Athens, Greece
- Other Business
 - Carlos Ventura suggested a Webex meeting or teleconference after the call for abstracts to improve participation and firm up commitments
 - Alex Pavic suggested that an online messaging tool be used instead so that it does not need to be simultaneous, since many of us are in very different time zones. This would avoid a potentially annoying email chain while still providing a written record.
- Kirk adjourned the meeting at 2:00pm.

DYNAMIC SUBSTRUCTURES

Chair: Matt Allen, University of Wisconsin, USA

Vice Chair: Walter D'Ambrogio, Università dell'Anquila, Italy

Secretary: Dan Roettgen, Sandia National Labs

Historian: Maarten van der Seijs, Vibes Technology

MINUTES

IMAC 2020

- Items discussed included the following:
 - A short course on dynamic substructuring
 - A tutorial on dynamic substructuring is proposed in case the short course does not take place
 - Ideas for a video to be placed on the SEM website on the TD webpage were discussed.
 - Update WIKI page
 - Develop a black box benchmark for substructuring
 - A student competition is in the process of being established.
- Sessions planned for 2020 include:
 - Dynamic Substructuring
 - Uncertainty Propagation in Dynamic Substructuring coordinated with MVUQ
 - Industrial Applications of Dynamic Substructuring
 - Experimental Dynamic Substructuring
 - Hybrid and Real-Time Substructuring
 - Transfer Path Analysis & Vehicle NVH
- Detailed list of discussion topics:
 - Introductions
 - Approval of Agenda
 - Election for new officers
 - Past Chair: Andreas Linderholt, Linneaus University
 - Chair: Matt Allen, University of Wisconsin, USA
 - Vice Chair: Walter D'Ambrogio, Università dell'Anquila, Italy
 - Secretary: Dan Roettgen, Sandia National Labs
 - Historian: Maarten van der Seijs, Vibes Technology
- 2019 Session Recap
 - 3 Sessions Wednesday
 - 4 Sessions Thursday
 - Other talks throughout IMAC
- 2020 Session brainstorming (see above)
- Potential Session Chairs
 - Andreas Linderholt
 - Francesco Trainotti (TUM)
 - Nimish Pandiya (KUL)
 - Christina Insem (TUM)
- SEM Website Video – Roettgen to send out email early in March
- Wiki Page Update – Potentially move to the SEM website
 - Cost about \$500/year, SEM is willing to pay. Are we interested?
- Flyer – TD Officers to create advertising flyer in April
- New Benchmark Structure Webinar hosted by SNL on April 13th
- Discuss potential for future: best student paper award, skyper regional workshops, panels and discussion groups

FRACTURE AND FATIGUE DIVISION

Chair: Shuman Xia, Georgia Technological University, USA

Vice-Chair: Allison Beese, The Pennsylvania State University, USA

Secretary: Ryan Berke, Utah State University, USA

Abstract Chair: Garrett Pataky, Clemson University, USA

2020 PLANS AND COMMENTS

- The goal of the Fracture and Fatigue Division is to promote and support within SEM issues that deal not only with fracture and fatigue of materials, but also failure, damage evolution, novel materials and the influence of microstructure on failure phenomena. Activities include organizing sessions and symposia, and reports and publications on these topics. The division met in Reno, NV during the 2019 SEM summer meeting and discussed the previous and upcoming activities. Thirty-three division members and interested participants attended the meeting.
- No workshops or short courses are planned.
- The 2020 program will be organized by Shuman Xia, Allison Beese, Ryan Berke, Garrett Pataky, Jay Carroll, Scott Grutzik, Shelby Hutchens, Siva Nadimpalli, Onome Scott-Emuakpor, Phillip Noell, Kavan Hazeli, Will LePage, and Bala Sundaram
- The 2020 program will focus on advancing scientific understanding and experimental techniques relating to fracture and fatigue. This includes a wide range of related areas such as microstructures, plasticity, interfaces, extreme environments, and model/experiment integration. Work on a diverse set of materials will be presented including:
 - Metals
 - Ceramics
 - Composites
 - Soft materials
 - Energy materials
 - Additively manufactured materials
- Sessions planned include:
 - In Situ Techniques and Microscale Effects on Mechanical Behaviors
 - Fatigue and Fracture under Extreme Environments
 - Mechanics of Energy Materials
 - Vibration Effects and High Cycle Fatigue in Fracture and Fatigue
 - Fracture and Fatigue in Additive Manufacturing
 - Interfacial and Mixed-Mode Fracture
 - Integration of Models and Experiments
 - Fracture and Fatigue in Brittle Materials
 - Fracture and Fatigue in Elastomers and Gels
 - Damage Initiation Mechanisms and the Influence of Incipient Damage
 - Advances in Mechanics of Deformation, Plasticity and Failure

INVERSE PROBLEM METHODOLOGIES DIVISION

Chair: Sharlotte Kramer, Sandia National Laboratories

Vice-Chair: John Considine, USDA,

Secretary: Johan Hoefnagels, Secretary (term ends 2020), Eindhoven University of Technology

ATTENDEES

Sharlotte Kramer (chair), John Considine (vice-chair), Johan Hoefnagels (Secretary), Sven Bossuyt, Elizabeth Jones, Amanda Jones, Marco Rossi, Marco Sassi, Thomas Jailin, Clement Jailin, Pascal Lava, Florent Matthieu, Douglas Ivanoff, Chris Montgomery, Michel Gradiac, Santoru Yoneyama.

MINUTES

SEM 2019 TD 'Inverse Problem Methodologies' Meeting

- Short introduction of all attendants
- What session next year?
 - General session on inverse methods; emphasize on other measurement data (TSA; MRI data (Sharlotte Kramer)
 - VFM (Frabrice Pierron; with help from Pascal Lava)
 - Test design (John Considine)
 - Plasticity (Elizabeth Jones; with help from Johan Hoefnagels)
 - Inverse Methods on Additive Manufacturing (Marco Rossi)
 - Advanced solution methods for inverse methods (Sven Bossuyt)
- Keynote: Antonio Andrade-Campos (Portugal), design optimization of butterfly shape. Sharlotte will send the request to the keynote SEM chair; do the formal paperwork. Marco Rossi will ask him personally; ask for
- 2-minute Movie to present our TD (Amanda Jones). All contact emails addresses give to Amanda. She will send around email to everyone. Content should be sent before end of July.
- For new people at the TD meeting, it is found beneficial if they chair a session. Sharlotte wrote down names.

MICRO AND NANOTECHNOLOGY TECHNICAL DIVISION

Chair: Nikhil Karanjgaokar, Worcester Polytechnic Institute | Vice-Chair: Frank DelRio, National Institute of Standards

Secretary: Mohammad Naraghi, Texas A&M University

ATTENDEES

Jennifer Hay, Nikhil Karanjgaokar, Frank DelRio, Kejie Zhao, Mohammad Naraghi, Rodrigo Bernal, Ram Thevamaran, Gordon Shaw, Jason Killgore, Changhong Ke, Thomas Berfield, LaVern Starman, Ioannis Chasiotis, Debashish Das, Korhan Sahin, Maarten de Boer, Scott Mao

MINUTES Technical Divisions Meeting | June 4, 2019

- Purpose: The International Symposium on Micro- and Nanomechanics (ISMAN) is aimed to provide a forum to foster the exchange of ideas and information among scientists and engineers who are involved in the research and analysis of the mechanics of materials, structures, and devices relevant to the fields of MEMS and Nanotechnology. The MEMS and Nanotechnology fields are specialized scientific areas that involve the miniaturization of conventional scale components and systems to take advantage of the inherent reduced size, weight, power and/or enhanced performance or novel functionality. The mechanics of structures and materials in these fields involves the application of principles ranging from the micro-scale down to individual atoms and require the development of novel experimental tools and techniques. These principles often involve new physical and/or chemical phenomena governed by novel material laws and impart new properties to exploit. The investigation of the various factors controlling the material and structural response of components at these length scales is critical in developing new applications as well as assessing their reliability and functionality under a wide range of mechanical, electrical, and thermal loading conditions.
- Secretary Nominations
 - Kejie Zhao, Purdue University, kjzhao@purdue.edu
 - Mohammad Naraghi, Texas A&M University, naraghi@tamu.edu
- Secretary Vote
 - Vote 1: resulted in a tie between the two candidates (tie, 6-6)
 - Vote 2: resulted in a candidate being selected (Mohammad Naraghi, 9-7)
- Officer Introductions
 - Nikhil Karanjgaokar, Worcester Polytechnic Institute, nikhiljk@gmail.com
 - Frank DelRio, NIST, frank.delrio@nist.gov
 - Mohammad Naraghi, Texas A&M University, naraghi@tamu.edu
- Video
 - Need material for MEMS and Nanotechnology TD video, 5-10 s videos of experiments and simulations.
 - Nikhil Karanjgaokar to contact attendees to collect videos that demonstrate TD breadth.
- Current Activities (2019)
 - Summary:
 - 20th ISMAN (International Symposium on Micro and Nanomechanics)
 - “Best Papers” will be awarded at student and professional levels.
 - 29 presentations (c.f. 2018: 29 papers; 2017: 29 papers; 2016: 31 papers; 2015: 14 papers)
- Current Sessions (2019)
 - Sessions:
 - ISMAN at 20 years (Keynote: Maarten de Boer)
 - Mechanics of 1D and 2D Materials
 - MEMS for Actuation, Sensing, and Characterization
 - Micro- and Nanoscale Deformation Mechanisms
 - In-situ Nanomechanics (Keynote: Olivier Pierron)
 - Extreme Nanomechanics
 - Micro- and Nanoscale Deformation Mechanisms
 - Expanding Boundaries in Metrology
- Future Activities (2020)
 - Keynotes:
 - Chris Schuh (MIT, Novel Materials, High-Entropy Alloys)
 - Julia Greer (Caltech, Hierarchical Materials)
 - Jeff Baur (AFRL, Multifunctional Materials)
 - Andy Minor (Berkeley, LBNL, In-situ Nanomechanics)
 - Rob Carpick (University of Pennsylvania, AFM Nanomechanics)
 - Garrett Cole (industry, need contact information and focus area)
 - Mark Sheplak (University of Florida, MEMS-based Sensors and Actuators)
 - Laurene Tetard (UCF, AFM Nanomechanics, 2D Materials)
 - Tim Rupert (UCI, Mechanics of Nanostructured Materials)
 - Daniel Gianola (UCSB, In-situ Nanomechanics)
 - Jason Trelewicz (Stony Brook University, Engineered Microstructures and Radiation Effects)
 - Sessions:
 - Mechanics of 1D and 2D Materials (Mohammad Naraghi, Changhong Ke)
 - MEMS Devices for Actuation, Sensing, and Characterization (LaVern Starman)
 - Micro- and Nanoscale Deformation Mechanisms (Marissa Linne, Ram Thevamaran)
 - Tribology and Wear (Maarten de Boer, Jennifer Hay)
 - In-situ Nanomechanics (Frank DelRio)
 - Extreme Nanomechanics (Frank DelRio)
 - Novel Materials, High-Entropy Alloys (Maarten de Boer)
 - Mechanics of AM Materials (Jennifer Hay)
- Other Business: None
- Adjourn

MODAL ANALYSIS/DYNAMIC SYSTEMS DIVISION

Chair: Brandon Dilworth, MIT Lincoln Laboratory, USA

Vice Chair: Tim Marinone, ATA Engineering, Inc, USA

Secretary: Michael Mains, University of Cincinnati, USA

MINUTES

2020 IMAC XXXVIII

NUMBER OF ATTENDEES: 17

- This Technical Division, one that is core to the IMAC conference, continues to support the field of Modal Analysis and Structural Dynamics as it continues to evolve and mature. Several technical sessions are organized each year with papers presenting state-of-the-art advances and authored by some of the leading researchers in the field.
- For IMAC XXVIV (2021) the Modal TD will again sponsor the Basics of Modal Analysis Sessions:
 - Monday Lecture sessions:
 - SDOF and MDOF Theory: Jason Blough
 - Modal Measurements: Brandon Dilworth
 - Excitation Techniques: Tim Marinone
 - Parameter Estimation: Mike Mains
 - Vendor presentations were removed from the session in 2020 (compared to 2019), and will likely also not be included in 2021 to provide more session availability for papers.
- We will again sponsor two Career Growth and Development Panels (early and mid-career) organized by Mike Mains, Chuck Farrar and Sez Atamturktur and done in a format that is similar to what was done this year at IMAC and what has been historically done at SEM Annual. These were well-attended panels with several individuals offering positive feedback.
- For the 39th IMAC the Modal TD will organize the following sessions:
 - Additive Manufacturing, organized by Jason Blough and Mike Mains.
 - Aerospace Applications by Tim Marinone
 - Rotor Dynamics and Torsional Vibration Sessions by Brian Damiano and Jason Blough
 - Biomedical Structural Dynamics by Sheyda Davaria
 - Discussion to have the Biomedical track better advertised under the Modal TD – took the action to discuss during the planning meeting, and was well-received
 - Several sessions for 2020 were organized by individuals that were not at the Modal TD – the Modal TD will reach out to them individually to inquire about planning for 2021
- Modal TD video – Tim Marinone to take the lead
 - Non-IP Images and video
 - Narrative to be developed
- TD/Committee Papers Review: Brandon Dilworth & Tim Marinone
- Potential Chairs and Co-Chairs: Jason Blough, Sheyd Davaria, Eric Stasiunas

MODEL VALIDATION AND UNCERTAINTY QUANTIFICATION DIVISION

Chair: Zhu Mao, University of Massachusetts-Lowell, USA

Vice Chair: Roland Platz–Fraunhofer Institute for Structural Durability and System Reliability LBF,Germany

Secretary: Garrison Flynn, Los Alamos Laboratory, USA

MINUTES

2020 IMAC XXXVIII

NUMBER OF ATTENDEES: 27

- Introductions
 - Introduction of the TD functions and committee members. All meeting participants introduce themselves.
- Discussion of scheduling with other relevant TDs and focus groups.
 - Data Science Engineering is a new focus group started by members of the MVUQ TD in 2019. Due to similarity in our TD, members feel we need to be careful scheduling these sessions to reduce conflict. This year MVUQ filled every session and we were unable to avoid parallel sessions with Data Science. The MVUQ and Data Science officers will continue to work together to mitigate conflicting sessions for IMAC XXXIV. Also discussed is the avoidance of topic areas with Data Science focus group.
- Discussion of MVUQ-TD Visibility.
 - Attendees of the last 3 years TD meetings will be invited to the LinkedIn group. Garrison Flynn will get access to the LinkedIn management from the Past Chair Sez Atamturktur.
 - MVUQ TD webpage is out of date. Officers will work with SEM to update the website and add a promotion with details of the best paper prize.
- Summary of MV&UQ related contributions during IMAC XXXVIII
- 13 sessions this year, 64 presentations/papers were organized:

No.	Session Title	Organizer/Chair	Papers
5, 61	Recursive Bayesian Estimation for Real-Time Monitoring and Maintenance I-II	Eleni Chatzi–ETH Zürich; Saeed Eftekhari Azam–University of Nebraska Lincoln; Vasilis Dertimanis–ETH Zurich	9
29, 37, 99	Uncertainty Quantification & Propagation in Structural Dynamics I, II, III	Babak Moaveni–Tufts University; Costas Papadimitriou–University of Thessaly	13
69	Fusion of Test & Analysis	Ibrahim Sever–Rolls-Royce	5
77	MVUQ & Decision Making	Benjamin Schroeder–Sandia National Laboratories	3
21, 45	MVUQ Best Paper Award	Kyle Neal – Vanderbilt University	9
92	Digital Twin	Robert Barthorpe–The University of Sheffield	5
53	Uncertainty in Early Stage Design	Garrison Flynn–Los Alamos National Laboratory; Roland Platz–Fraunhofer Institute for Structural Durability and System Reliability LBF	3
13	Quantification of Model Form Uncertainty in Structural Dynamic Systems	Roland Platz–Fraunhofer Institute for Structural Durability and System Reliability LBF	6
85	MVUQ in Action	Zhu Mao–University of Massachusetts Lowell	5

- Uncertainty Quantification & Propagation in Structural Dynamics Keynote (Session 29, 40 minutes): An Output-Only Bayesian Identification Approach for Nonlinear Structural and Mechanical Systems by A. S. Nagarajaiah-Rice University; K. Erazo-Santo Domingo Institute of Technology
 - Pre-conference Course: Bayesian Filtering by Eleni Chatzi-ETH Zürich; Saeed Eftekhar Azam-University of Nebraska Lincoln; Vasilis Dertimanis-ETH Zurich
 - Plans for IMAC XXXIV sessions
 - Proposed sessions for IMAC XXXIV:
 - Continuing Sessions:
 - » Bayesian Type Filters for Real Time Identification - Eleni Chatzi, ETH Zürich; Saeed Eftekhar Azam, University of Nebraska Lincoln; Vasilis Dertimanis, ETH Zurich
 - » Uncertainty Quantification & Propagation in Structural Dynamics, Babak Moaveni-Tufts University; Costas Papadimitriou-University of Thessaly
 - » Fusion of Test & Analysis - Ibrahim Sever, Rolls-Royce; Elif Ecem Bas, University of Nevada Reno
 - » Digital Twins for Structural Dynamics – The University of Sheffield (Rob Barthorpe was volunteered)
 - » Model Form Uncertainty – Roland Platz, Fraunhofer Institute for Structural Durability and System Reliability LBF
 - » MVUQ and Decision Making – Benjamin Schroeder, Sandia National Laboratories; Garrison Flynn, Los Alamos National Laboratory
 - New Sessions:
 - » Robust Analysis – Scott Cogan, FEMTO-ST Institute
 - » Applications of MVUQ in Cultural Heritage – Scott Cogan, FEMTO-ST Institute
 - » MVUQ in Multiphysics – Andy Brown, NASA
 - Best paper prize
 - For the past two IMACs, nominees self-nominated their papers for the MVUQ-Best Paper competition session by choosing the Best Paper competition when submitting their abstract, which prevented them from submitting to another technical track. The current TD officers review the contribution. There has been an issue with few papers being self-nominated in this format.
- Feedback from contributors and TD members is that having a special session discourages contributions. Presenters would rather be in a session specifically related to their topic to ensure a relevant audience.
- Officers' proposal for revised Best Paper process:
 - There will be no stand-alone best paper session(s) in 2021
 - Authors will select their session based on topic and also have the option to check "Consider for MVUQ Best Paper", which needs to be figured out with SEM on the submission system.
 - Soon after submission: MVUQ TD chair will e-mail authors, asking them to write a short abstract about why they think their contribution qualifies for best paper (first filter for downsizing, if needed)
 - Soon after responses: TD MVUQ deselects to five finalists (second filter for downsizing, if needed)
 - Chair lays out the MVUQ sessions such that those with the five nominees will be Monday and Tuesday of the conference
 - TD MVUQ visits all presentations together
 - TD MVUQ evaluates the nominated papers and presentations until Tuesday afternoon
 - TD MVUQ determines the best paper Tuesday afternoon after all presentations are concluded
 - Award announcement during Wednesday Luncheon
 - Updated scoring criteria:
 - Requirements for eligibility: Submission of a full paper (not extended abstract) and principle author must give the presentation at IMAC.
 - Scoring breakdown:
 - » 30%: Editorial Quality: Was the paper well written (no typos, etc.) and easy to read?
 - » 30%: Quality of the Presentation: Was the presentation well organized and clear?
 - » 40%: Relevancy, Impact and Creativity: Was the work of interest to the MVUQ community at IMAC? Does the work present new ideas? What is the novelty of the work?

■ Minutes by Garrison Stevens Flynn, February 18, 2020

NONLINEAR STRUCTURES & SYSTEMS

Chair: Gaetan Kerschen, University of Liege, Belgium

Vice Chair: Matthew Brake, Rice University, USA

Secretary: Ludovic Renson, Imperial College, UK

MINUTES

2020 IMAC XXXVIII

- Plans for IMAC 2021 include the following sessions, tutorials and short courses:
 - 10 sessions (from 4-20 papers depending on the specific session)
 - Joints, Damping and Friction
 - Nonlinear Modes & Modal Interactions
 - Nonlinear System Identification
 - Exploiting Nonlinearity
 - Nonlinear Reduced-Order Modelling
 - Nonlinear Fluid-Structure Interaction
 - Nonlinear Dynamics in Industry
 - Experimental Nonlinear Dynamics
 - Nonlinearity in Biomedical Systems
 - Student Paper Competition
 - 4 tutorials:
 - Nonlinear Oscillations, D. Adams
 - Perturbation Methods, D. Quinn
 - Nonlinear Vibration Mitigation, M. Krack
 - Nonlinearity in Biomedical Systems, M. Kurt
 - 1 short course on Nonlinearity in Structural Dynamics. Instructor: G. Kerschen

OPTICAL METHODS DIVISION

Chair: Ming-Tzer Lin, National Chung Hsing University, Taiwan

Vice Chair: Cosme Furlong-Vazquez, Worcester Polytechnic Institute

Secretary: Chi Hung Hwang, ITRC, NARlabs, Taiwan

MINUTES

June 2019 meeting of the "Optical Methods & Applied Photoelasticity" technical division

- Ming-Tzer Lin: expressed thanks to all members involved in organization of the Symposium in Honor of C.A Sciammarella's 95 Birthday and other sessions. There were 40 papers presented this year. The submission is good.
- C. A. Sciammanrella: expressed his thanks to all symposium attendees, and hoped the young generation can join the optical methods continuously.
- Old business:
 - This year the optical methods TD successfully organized a big Symposium to honor Prof. Scimmanarella.
 - Number of paper submission is good.
- New business (Sessions for next year)
 - 2020 will be international congress; for optical methods TD, following by the tradition, we have to invite international societies for organizing special sessions.
 - The sessions proposed last year will be reminded.
 - Proposed Sessions:
 - Lucian Lamberti and C. A. Sciammarella will organize optical method for multi-scale problems;
 - Lucian Lamberti and C. A. Sciammarella will help on organizing micro-optics and microscopic systems;
 - inviting international societies for organizing special sessions; Wei-Chung Wang for Taiwan special session; Lucian Lamberti for European Society; Satoru Yoneyama for Japan special session; Yu-Lung Lo for Asian experimental mechanics Society.
 - Phillip Reu and Helena Jin will organize DIC method and its application;
 - Helena Jin and Phillip Reu will organize DIC and its applications for inverse problems;
 - Terry Y. F. Chen and Wei-Chung Wang will organize photoelasticity and interferometry applications
 - Jian Tu will organize AI, neuro-networking, machine learning method on optical analysis
 - optical method for bio-medical applications remains a session
 - others session proposals for optical methods are welcomed
- Motion to close the meeting.
- Meeting closed at 13:20.
- All attendees had birthday cake with Prof. Sciammarella.
- Group photos taken.

RESIDUAL STRESS DIVISION

Chair: Mike Prime, Los Alamos National Laboratory, USA

- The Residual Stress Technical Division (RSTD) focuses on experimental techniques for residual stress measurement and experimental characterization of residual stress effects on the performance of materials and engineering systems. Activities include organizing sessions, symposia, short courses, and reports and publications on these topics. The division meets each year at the SEM Annual Conference.
- The RSTD met in Reno, NV during the 2019 SEM Annual Meeting and discussed the previous and upcoming activities.
- The RSTD taught a pre-conference course Residual Stress 101 this year in Reno that had about a dozen attendees and was successful.
- Michael Prime was elected Chair and Daulton Isaac co-chair, both for a two-year term that will end in 2021.
- Because the International Conference on Residual Stresses is held in 2020, we do not plan to organize special sessions next year. We expect we might get 1-2 sessions from general submissions. We do plan to organize sessions in 2021.
- From now on, we will allow oral only presentations to any of our sessions.
- We are discussing possible special issues of EM on residual stress possibly organized by Cev Noyan or Maria Strantza. No firm plans yet.
- Can we use the TD web page to communicate our plans for session organizing? For now something like: *We plan to organize significant residual stress sessions for the 2021 annual conference. We will also accept submissions for 2020 but expect fewer sessions. Anyone interested in organizing sessions or symposia for either year should contact us.*

JIM F. LALLY SENSORS AND INSTRUMENTATION DIVISION

Chair: Chad Walber, PCB, USA

Vice Chair: Matt Stefanski, US Airforce, USA

- At IMAC XXXVII the Sensors and Instrumentation sponsored Technology Application presentations and 2 sessions of papers and presentations dealing with such diverse topics as data acquisition, high temperature sensors, cabling, calibration, sampling synchronization, and optical measurements.
- First order of business was to discuss the passing of Jim Lally and to begin discussions of naming this division in his honor due to the outstanding support he gave the dynamic testing community over the past 50 years.
- Also discussed was the idea of having a student paper award that shows novel use of sensors and instrumentation. This was discussed further in the TD meeting on Wednesday. Need instruction on how to move forward on this.
- Sensors and Instrumentation was a big success this year with several very good tutorials as well as a 1 hour "What Went Wrong" Session with Pete Avitabile. Would like to feature another well-known member of the community next year in a similar fashion. The short list includes Bill Shapton, Jim DeClerck, Randy Allemang, or Chuck VanKarsen.
- 2021 will be similarly sculpted trying to transition into more diverse testing. This year we had papers on mass data collection, shock measurements and high temperature accelerometers. Next year we discussed having members of the group talk more about more medium experienced problems, signal conditioning, and even a comparison of Doppler Laser Vibrometers.
- Sessions Planned:
 - Sensors: Use of accelerometers in novel ways or use of other sensing technologies with respect to dynamics.
 - Instrumentation: Everything but the sensor. Cabling, Signal Conditioning, Data Acquisition, Automated data analysis.
 - Vendor Technology Applications: Vendor Commercial presentations of new technologies.

THERMOMECHANICS & INFRARED IMAGING DIVISION

Chair: Rachael Tighe, University of Waikato, New Zealand

Vice-Chair: Jose Freire, Pontifical Catholic University of Rio de Janeiro

Secretary: Wael Samad, Rochester Institute of Technology, USA

MINUTES

Annual TD meeting June 2019 held in Reno, NV

- Sessions at the next SEM annual conference should include 4 regular sessions and 1 educational session:
 - 4 sessions:
 - New Advances in IR systems and data processing
 - Structural applications of thermography
 - Thermography in NDE
 - Integration of thermography with complimentary techniques (if we get enough papers in this session it could split into analytical and experimental)
 - Suggestion for Educational session (40 min):
 - “Thermography in Experimental Mechanics” concerning infrared thermography applied to experimental mechanics, including presentation of infrared systems, thermal image processing, applications in non-destructive evaluation and thermomechanics of materials.
- 2019-2020 Officers:
 - Chair: Rachael Tighe, rachael.tighe@waikato.ac.nz (Term Ending Year: 2021)
 - Vice-Chair: Jose Freire, jlfreire@puc-rio.br (Term Ending Year: 2021)
 - Secretary: Wael A. Samad, wascad@rit.edu (Term Ending Year: 2021)

TIME DEPENDENT MATERIALS DIVISION

Chair: Meredith Silberstein, Cornell University, USA

Vice-Chair: Alireza Amirkhizi, UMASS Lowell, USA

Secretary: Jevan Furmanski, Exxon Mobil, USA

MINUTES

June 4, 2019, Reno, Nevada

- Introductions (15 attendees)
- Minutes from 2018 read and approved unanimously
- A note from chair encouraging promotion of our 2019 keynote talks
- We had 3 co-organized sessions, and this was successful. A discussion proceeded on the low overall submission rate (40 in 2018) and the need to increase this in future. Several aspects were discussed:
 - New email list. Alireza will work to improve the mailing list, making sure it is current and will send an email to members asking for recommendations of colleagues to be added to the email list
 - Alireza will also check the SEM membership list to add to our list.
 - Organizers of topic areas are expected to personally invite potential speakers and take an active role in building their sessions.
- A report out on the Research Committee meeting from 2018
 - A discussion on AM and potential to co-organize
- Discussion on various formats of courses offered by MTDM TD. Long form Sunday, tutorial keynotes, other in-session tutorials. Alireza and/or Meredith will check with SEM Research and Education committees on issues regarding space charges/policies regarding options. Potential to co-organize tutorials with other TDs. Other tracks had dual-slot tutorials without calling them keynotes. Proposals for tutorials will be solicited by the TD leadership
- Potential Keynote speakers were discussed
 - McKenna, Gilman, Forster. Meredith will solicit for recommendations shortly.
- Topics and chairs
 - Alireza mentioned that we had enough composites papers to run a session but the TD didn't have enough time and so they were given to Composites TD
 - b. Topics and chairs are as follows:
 - Structure/function: A. Forster and M. Silberstein
 - Composites: R. Hall and A. Arzoumanidis
 - Characterization: H. Lu and JH Lee
 - Extreme environments A. Amirkhizi and R. Hall
 - Metals: B. Antoun and R. Hall
 - Damage, fatigue, fracture, durability: T. Sakai and J. Furmanski
 - Soft materials: M. Silberstein and Y. Hu
 - Viscoelasticity/Viscoplasticity: A. Arzoumanidis and A. Amirkhizi
 - Renewable/green etc: Will not be organized

WESTERN REGIONAL STRAIN GAGE COMMITTEE (WRSGC)

Vice Chair/Secretary: Aida Rahim

THE MARCH WRSGC MEETINGS WERE NOT HELD DUE TO COVID-19, CORONAVIRUS

NATIONAL MEETINGS COUNCIL

DANIEL RIXEN, CHAIR

SAMANTHA DALY, VICE-CHAIR

AGENDA

June 10, 2020 – 2:30pm-3:30pm | Virtual

- Approval of Agenda (Daniel Rixen)
- Approval of Minutes of June 2019 National Meetings Council in Reno, NV
- Chair's Report (Daniel Rixen)
 - Preliminary report on 2020 Annual Meeting
- Technical Activities Council's report for the 2020 SEM Annual Conference (Eric Brown)
- Exhibits Committee Report (Kristin Zimmerman)
- Progress Report on IMAC (Kristin Zimmerman/Nuno Lopes)
 - 2020: Feb 10-13, Hyatt Regency, Houston, TX
 - 2021: Feb 8-11, Rosen Plaza Hotel, Orlando, FL
 - 2022: Feb 6-10, Rosen Plaza Hotel, Orlando, FL
- Facilities Report on Current & Future Annual Conferences (Kristin Zimmerman/Nuno Lopes)
 - 2020: June 7-11, Rosen Plaza Hotel, Orlando, FL
 - 2021: June 14-17, Hyatt Regency Albuquerque, Albuquerque, NM
 - 2022: June 13-16, Omini Hotel, Pittsburgh, PA
- Old Business
- New Business
- Adjournment

Prepared by Kristin Zimmerman, Secretary with the approval of Daniel Rixen, Chair

NATIONAL MEETINGS COUNCIL

DANIEL RIXEN, CHAIR K.T. RAMESH, VICE-CHAIR

ATTENDEES

W. Crone, K. Dannemann, J. Lambros, E. Brown, J. Blough, R. Singh, J. De Clerck, J. Helm, S. Kramer, J. Tingets, N. Lopes & K. Zimmerman (SEM)

MINUTES

June 5, 2019, 3:30 p.m. - 4:30 p.m. | Peppermill Resort | Reno, NV USA

- Approval of the Agenda – Approved as written
- Approval of Minutes – Approved as written
- Chair’s Report (Daniel Rixen)
 - Kristin Zimmerman presented a table with the estimated revenue for the 2019 Annual conference. All estimates were above budget.
 - Great attendance
 - Not likely to hold conference in Casino again
 - Good feedback from Exhibitors
- Technical Activities Council Report (John Lambros)
 - TD meetings were well attended. Tables were full and much pizza was consumed
 - 8 parallel sessions made for a very busy conference.
 - Additive track still doing very well. Feedback from a former TD chair mentioned watching to make the Additive area a new TD.
 - No courses this conference. It was determined that the courses at Annual are too focused. There is a new move afoot to recruit “how to” courses for 2019. TD’s will be asked for tutorial ideas.
 - All conference inputs are required to submit an abstract.
 - Career planner/mixer worked well
 - New focus groups forming. New area of interest Data Science/Machine Learning. Look to grow this in 2020.
- Exhibits Committee Report (Kristin Zimmerman)
 - President’s Reception in the exhibit hall was “well” received, by the vendors.
 - Getting harder to recruit exhibitors to Annual Conference.
 - iDICs to be held in October in Portland, OR. Need to be sure that we are not losing exhibitors to iDICs
- Progress Report on IMAC (Kristin Zimmerman)
 - 2020: Feb 10-13, Hyatt Regency, Houston, TX
 - 2021: Feb 8-11, Rosen Plaza Hotel, Orlando, FL
 - 2022: Feb 6-10, Rosen Plaza Hotel, Orlando, FL
- Facilities Report on Current & Future Annual Conferences (Kristin Zimmerman)
 - 2020: June 7-11, Rosen Plaza Hotel, Orlando, FL
 - 2021: June TBD, Omni Hotel, Pittsburgh, PA
 - What about 2022? We should look MW or West.
- Old Business:
 - None reported
- Meeting Adjourned at 4:30

NATIONAL MEETINGS COUNCIL

DANIEL RIXEN, CHAIR

SAMANTHA DALY, VICE-CHAIR

2020

IMAC-XXXVIII: A CONFERENCE AND EXPOSITION ON STRUCTURAL DYNAMICS

FEBRUARY 9, 2020, PRECONFERENCE COURSES

FEBRUARY 10-13, 2020 CONFERENCE

HYATT REGENCY HOUSTON, HOUSTON, TEXAS

THEME: ADVANCING SPACE TECHNOLOGIES FOR HUMANITY

**SEM INTERNATIONAL CONGRESS AND EXPOSITION ON EXPERIMENTAL AND APPLIED MECHANICS
[VIRTUAL CONFERENCE]**

SEPTEMBER 13, 2020, PRECONFERENCE COURSES

SEPTEMBER 14-17, 2020 CONFERENCE

THEME: NONE

NATIONAL MEETINGS COUNCIL

2021

IMAC-XXXIX: A CONFERENCE AND EXPOSITION ON STRUCTURAL DYNAMICS

FEBRUARY 6-7, 2021, PRECONFERENCE COURSES
FEBRUARY 8-11, 2021 CONFERENCE

THEME: NEXT FRONTIER IN STRUCTURAL DYNAMICS

KEYNOTE: INVITE A DATA SCIENCE/MACHINE LEARNING EXPERT

ANNUAL CONFERENCE AND EXPOSITION ON EXPERIMENTAL AND APPLIED MECHANICS

JUNE 13, 2021 PRECONFERENCE COURSES
JUNE 14-17, 2021 CONFERENCE

HYATT REGENCY ALBUQUERQUE
ALBUQUERQUE, NEW MEXICO, USA

THEME: NONE

NATIONAL MEETINGS COUNCIL

EXHIBITS COMMITTEE

Jennifer Tingets, Exhibit Manager

SEM ANNUAL CONFERENCE

Exhibit Statistics for 1990-2020:

Year	# Exhibiting Companies
2020.....	.XX [Virtual Conference]
2019.....	.24
2018.....	.22
2017.....	.20
2016.....	.22
2015.....	.20
2014.....	.20
2013.....	.22
2012.....	.27
2011.....	.28
2010.....	.23
2009.....	.16
2008.....	.22
2007.....	.22
2006.....	.20
2005.....	.21
2004.....	.23
2003.....	.17
2002.....	.21
2001.....	.18
2000.....	.19
1999.....	.29
1998.....	.19
1997.....	.29
1996.....	.26
1995.....	.26
1994.....	.25
1993.....	.30
1992.....	.20
1991.....	.28
1990.....	.13

2019 SEM ANNUAL CONFERENCE & EXPOSITION, PEPPERMILL RESORT, RENO, NV

SEM Annual Exhibiting companies had a great show with 22 companies participating. Just like the IMAC Exhibitors, the SEM Annual Exhibitors are extremely grateful for having the Tuesday Evening Reception in the Exposition Area. There were several requests to continue the "Technology Application Sessions" so we will continue to do so.

NATIONAL MEETINGS COUNCIL

IMAC

Exhibit Statistics for 1990-2020:

Year	# Exhibiting Companies	#Exhibit Spaces Purchased
2020	32	52
2019	37	49
2018	39	50
2017	37	55
2016	39	59
2015	39	56
2014	37	51
2013	41	54
2012	33	44
2011	36	47
2010	41	53
2009	45	59
2008	51	66
2007	44	66
2006	44	60 (MTS canceled 4 spaces)
2005	48	64
2004	54	71
2003	46	66
2002	49	72
2001	51	71
2000	51	69
1999	48	67
1998	52	69
1997	48	64
1996	50	
1995	30	
1994	13 (Hawaii Location)	
1993	28	
1992	30	
1991	Canceled due to Gulf War	
1990	40	

2020 IMAC XXXVIII A CONFERENCE & EXPOSITION ON STRUCTURAL DYNAMICS, HOUSTON, TX

SEM IMAC was again a great success with sales and sponsorships producing close to \$100,000 in revenue to the Society. The "Exposition Passport" program continues to be popular and will be continued. Once again, the exhibitors were extremely pleased with having the IMAC Welcome Reception and the Thursday Morning Breakfast in the Exposition Hall.

OPEN EXECUTIVE BOARD MEETING

AGENDA

Wednesday, June 10, 2020 – 3:30 p.m. | Virtual

- Approval of Agenda (John Lambros)
- Approval of Minutes of the June 2019 Executive Board Meeting (John Lambros)
- Comments by President (John Lambros)
- Report of the Executive Director (Kristin Zimmerman)
- Report of the Treasurer and Finance Committee (Jon Rogers)
- Report of Council Chairs for the Standing Committees
 - Administrative Council (Kathryn Dannemann) for the following committees: Honors, Nominating, Membership, Fellows, SEM Historian, SEM Past Presidents, USNC/TAM, and SEM Education Foundation.
 - Editorial Council (Wendy Crone) for the following committees: E/M Papers Review, E/M International Advisory Board, E/T Editorial Committee, E/T Advisory Group.
 - National Meetings Council (Daniel Rixen) for the following committees: Exhibits and Technical Program Planning.
 - Technical Activities Council (Eric Brown) for the following committees: Applications, Education and Research, and Technical Divisions: Biological Systems & Materials, Dynamics of Civil Structures, Composite, Hybrid & Multifunctional Materials, Dynamic Behavior of Materials, Dynamic Substructures, Fracture and Fatigue, Inverse Problem Methodologies, Micro and Nanotechnology, Modal Analysis/Dynamic Systems, Model Validation & Uncertainty Quantification, Optical Methods, Nonlinear Structures and Systems, Residual Stress, Sensors and Instrumentation, Structural Testing, Thermomechanics and Infrared Imaging, Time Dependent Materials, Western Regional Strain Gage Committee
- Old Business
- New Business
- President's Closing Comments (John Lambros)
- Adjournment

Prepared by Kristin Zimmerman, Secretary
with the approval of John Lambros, President

OPEN EXECUTIVE BOARD MEETING

MINUTES

June 5, 2019 3:30pm | Peppermill Resort | Reno Nevada

ATTENDEES

K. Dannemann, E. Brown, R. Singh, J. Blough, J. Helm, W. Crone, B. Antoun, J. Lambros, J. Tingets, N. Lopes, K. Zimmerman (SEM)

- Approval of Agenda - Approved as written
- Approval of Minutes of the June 2018 Open Executive Board Meeting – Approved as written
- Comments by President Wendy Crone
 - Thanked everyone for the excellent technical program and successful conference.
- Report of the Executive Director (Kristin Zimmerman)
 - Overall participation and revenues look positive
 - First look at expenses seem on target
- Report of the Treasurer and Finance Committee (Kristin Zimmerman for Jon Rogers)
 - Pleased with the numbers for the conference
 - SEM will be matching funds up to \$10,000 (one time only) in support of SEMEF’s campaign to raise funds in support of student symposia.
 - SEM will fund SEMEF Student Symposium presenters with one-year of free student membership if names and information is submitted by symposium hosts.
 - SEMEF will increase the funds to support student symposium to up to \$1,500 per symposium.
 - SEM will look into strategic investment options in addition to:
 - hiring a full-time employee at HQ
 - use of the funds generated by the growth of the newly invested \$600k in the managed portfolio
- Report of Council Chairs for the Standing Committees
 - Administrative Council (K. Dannemann) for the following committees: Honors, Nominating, Membership, Fellows, SEM Historian, SEM Past Presidents, USNC/TAM, and SEM Education Foundation.
 - Honors and Nominating committee met and selected awardees and nominations for the Executive Board VP and Member at Large positions. Letters from SEM HQ will be sent immediately.
 - SEMEF:
 - » Excellent SEMEF meeting in strong support of more Student Symposia.
 - » See above, SEM will fund one-year of student membership for symposium presenters and will increase symposium funding up to \$1,500 per symposium.
 - There was a lot of interest in analyzing the membership data that we now have.
 - Editorial Council (K. Zimmerman for P. Avitabile) for the following committees: EM, ET, JDBM.
 - » Excellent in-depth meetings for all journals
 - » Referred to Editorial Council Report in the Officer’s Report.
 - » The journals will continue to run their Editorial and IAB meetings together.
 - » SEM will continue to confer the Hetenyi, Harting and Peterson awards for best papers from the previous year. Notification letters to awardees must be sent out in December.
 - » Each EIC will continue to promote SEM members and conference attendees publishing in SEM journals.
 - » The EC brought forth the motion to approve the appointment of Bonnie Antoun to take over as EIC of ET starting June 2020. The motion was unanimously approved by the Board.
 - » SEM’s new Springer Journal point of contact is Anita Lehwani. We were very pleased with Anita’s participation and engagement in the meetings held.
 - » Springer needs to assist with fixes for all SEM journals to the Transfer Desk and assist with the process for implementing and marketing cover art.
 - » SEM will continue to pursue options for conference proceedings and the next contract negotiations in 2021.
 - » There is interest in capturing a special IMAC compendium of papers that will be peer reviewed and published by Springer.
 - » Author guidelines for all three journals should be the same and they need updating.
 - » There is interest in adding a button on the SEM website for those authors with accepted abstracts to select an SEM journal to submit their work.
 - National Meetings Council (K.T Ramesh for D. Rixen) for the following committees: Exhibits and Technical Program Planning.

OPEN EXECUTIVE BOARD MEETING

- » K.T. referred the meeting attendees to the Officer's Report.
 - » The 2019 Annual Conference has been a success in technical program and exhibits based on the financials shared by the Treasurer, the comments of the Executive Director and the conference participants.
 - » Theme for 2020: The Board approved a 'no theme' approach for 2020
 - » SEM staff will review Annual venues for 2021/22 and will send a short list to Board members for review and comment. Final contracting to be done by SEM HQ by mid-summer.
 - » iDICs will be held October 14-17,2019 in Portland, Oregon. SEM will be managing the conference.
- Technical Activities Council (John Lambros) for the following committees: Applications, Education, Research, and Technical Divisions: Biological Systems & Materials, Dynamics of Civil Structures, Composite, Hybrid and Multifunctional Materials, Dynamic Behavior of Materials, Fracture and Fatigue, Inverse Problem Methodologies, MEMS and Nanotechnology, Modal Analysis/Dynamic Systems, Model Validation & Uncertainty Quantification, Optical Methods, Residual Stress, Sensors and Instrumentation, Thermomechanics and Infrared Imaging, Time Dependent Materials, Western Regional Strain Gage Committee
- » TDs all doing well
 - » The TAC meeting was well attended and all were very engaged in learning how best to coordinate amongst themselves.
 - » This was the fourth year that we had the Committees (Education, Research and Applications) meet after the TAC meeting. It works very well.
 - » There was a good discussion on how to bring in more industry involvement. We should see an uptick in the 2020 technical program and conference attendance.
 - » TD chairs and session organizers encouraged to seek out outstanding papers presented, follow up with the authors, and coordinate the information with the journal EICs. We need more papers being published in our journals after conferences.
 - » TD chairs also encouraged to seek out outstanding SEM members to nominate for awards
 - » There was good discussion regarding the role of courses vs tutorials. We may see more tutorials in the 2020 program for Annual.
 - » First time attendee mixer went well. Will likely move to another night though.
 - » SEM needs to manage social media. There is a student interested in assisting SEM with this.
 - » Should we video capture the education tutorials and put them on the SEM website?
 - » Applications Committee wants to invite talks from Industry reps.
- » The Research Committee launched the Additive Manufacturing track and is interested in forming a new Technical Division called "Mechanics of Advanced Manufacturing and Materials"
- Old Business - None to Report
 - New Business
 - President's Closing Comments (Wendy Crone)
 - Wendy thanked all of us present and handed the role of President over to John Lambros.
 - Adjournment

**Prepared by Kristin Zimmerman, Secretary
with the approval of Wendy Crone, President**