ASM International

**Residual Stress Technical Committee (ASM-RSTC) - Sept. 1, 2023 – Aug. 31, 2024**

**Beth Snipes – Chair,** **beth.snipes@tec-materialstesting.com**

**Seung-Yub Lee – Vice Chair,** **seungyub.lee@prattwhitney.com**

**Rajan Bhambroo – Secretary,** **Rajan.Bhambroo.18@gmail.com**

**James Pineault – Past Chair,** **xrdlab@protoxrd.com**

**Agenda for ASM-RSTC Meeting 20 March 2024**

Attendees:

Greg Newton, Beth Snipes, Amy Nolan, Jason Sicotte, Chris Misorski, Rajan Bhambroo, Lynn Ferguson, Zhenzhen Yu, Ning Zhu, Gabe Grodzicki, Chase Everett, Scott Henry, Justin Mach, Seung-Yub Lee, Ellie Taghaddos, John Watton, Casey Gales, Paul Shade, Alex, Nicholas Bachus, Joe Rasche, Toshi Suzuki, Jeff Bunn, Toshi Suzuki, Andrew Payzant, Vasisht Venkatesh, Ronnie Rego, Gary Styger, Eckehard Muller, James Pineault, Al Conle, Philippe Bocher

New Members:

Justin Mach, ORNL;

TODAYS AGENDA:

Action items for Members

Subcommittee reports

New Business

Technical Topic

Adjourn

Action items for members:

1. Please see “Relevant Links and Materials” section at the end of this document for relevant links https://www.asminternational.org/residual-stress-technical-committee/
2. Recruit new members, especially developing engineers and students – if you have anyone in mind, feel free to invite them!
3. New members: Please fill in roster information form if you have not already – thanks! Link: <https://forms.gle/3YwCTEWGz9NtG5nHA>
4. Suggest presentation topics for future meetings. Student and “Back to basics” presentations are especially welcome. Please contact Beth Snipes, beth.snipes@tec-materialstesting.com
5. A feedback form/survey was distributed to the membership to solicit feedback – Executive Committee to meet to discuss and take action as needed.

**Standing Agenda for Residual Stress Committee:**

1. Subcommittee reports
	1. Industry Standards (Dale Ball, Chair, dale.l.ball@lmco.com)

SAE AMS RS AS7045 – Completed. Dale Ball is contact.

ISO TC60 - Ronnie Rego is contact. No new Update. Structuring of team with academic and industrial group is in progress.

CEN Technical Committee 138 (NDT) – Nikolaj Zangenberg will update ASM RSTC on CEN Technical Committee when more information is available. Technical Specification (TS) on diffraction using synchrotron – looking for collab. in APS or Chess?

ASTM E08.04.06 Task Group is developing a new “Standard Guide for Incorporating Residual Stresses into Structural Design and Sustainment,” headed by T. J. Spradlin. Any ASTM member can join E08 and assist in editing, voting on ballots, etc.

ASTM E2860 updated version is being developed by the E28.13 subcommittee. Scott McCarthy is heading this effort.

ASTM E1928-13(2019) Standard Practice for Estimating the Approximate Residual Circumferential Stress in Straight Thin-walled Tubing is being updated by the E28.13 subcommittee. Gary Schajer is heading this effort.

* 1. Residual Stress Handbook – Volume 25 (Dave Furrer, Chair, david.furrer@prattwhitney.com Assisted by Amy Nolan at ASM, amy.nolan@asminternational.org)

Articles for the handbook have started to come in. ScholarOne has a new feature. An author must input at least one peer-reviewer recommendation. Division editors and volume editors to recommend additional reviewers to Amy Nolan who will invite the authors.

Invitation process has been completed. 106 articles have been invited in total (52 for Volume 25A and 54 for Volume 25B). One of the articles has been peer-reviewed and Dave Furrer to decide on final recommendation.

At this point we have 12-15 articles which are ear-marked for future publication in ASM Digital Collection.

Dave Furrer to organize a meeting with all the lead authors/ division editors to provide information on the entire handbook.

If anyone has any ideas for authors or would like to help please contact Dave Furrer via email david.furrer@prattwhitney.com. Amy Nolan is handling ScholarOne and follow up questions: amy.nolan@asminternational.org.

* 1. Newsletter (co-Chairs: Beth Snipes, Beth.Snipes@tec-materialstesting.com , Ben Wang, wang.ben@cummins.com)

We are looking for volunteers to assist with publishing the newsletter.

 Link to current newsletter on ASM RSTC website:
 <https://www.asminternational.org/residual-stress-technical-committee/>

* 1. Education and Chapter Outreach (Jeff Bunn, Chair, bunnjr@ornl.gov)

Members: Bunn, Hill, Ben Salah, Snipes, Sicotte, Styger, Furrer, Belassel

Great progress has been made in developing a format for a residual stress tutorial at IMAT. Next IMAT workshop on Residual Stress will be conducted during the IMAT days. The workshop will be conducted in conjunction with the Residual Stress Symposia. Instead of a pre-conference workshop, the subcommittee will offer “workshops” as sessions. Sessions would include experts giving talks regarding the measurement techniques /modelling methods during the conference. Effort will be made to try to tie as much as possible with the Handbook content. Talks will be followed by a panel discussion.

1.5. Professional Meetings, Conferences, Symposia (Rajan Bhambroo, Chair rajan.bhambroo.18@gmail.com,Toshi Suzuki, Vice Chair, toshi-suzuki@pulstec.co.jp)

If you are interested in joining this sub-committee, please email Rajan. (rajan.bhambroo.18@gmail.com). Rajan is on the planning committee for IMAT, and we have added residual stress as a topic.

The JMEP special issue on Residual Stress has accepted papers to fill the first issue for publication. Remaining papers will be published in a second issue later in the year once the review process is completed.

Residual Stress Summit: Actively discussing the organization of next summit. Looking to coordinate with the RSTC. Hoping to organize the summit in 2024. The main challenge is the location and the host. If there are participants who are interested in becoming the local organizing committee, please reach out to Gary Schajer, Mike Hill or Mike Prime. Cost of organizing the meeting and attending the meetings are kept low. Please don’t hesitate to contact if you are interested in organizing the summit in your local area. The focus of residual stress summit is chosen by the advisory committee and talks are invited to make the overall meeting coherent.

List of Upcoming Conferences and Key Dates:

ECRS-11, Prague, ECRS11, June 3-6, 2024 - Call for papers? Tutorial/ Workshop being currently planned. Anyone interested please reach out to Nikolaj Zangenberg. At ECRS (Prague, May 20-24 2024), a tutorial/workshop on "Quantification and uncertainties in residual stress measurement" workshop is being planned. Nikolaj will provide more information as things progress and may reach out to members for help. [https://www.xray.cz/ecrs11/workshops.htm)](https://www.xray.cz/ecrs11/workshops.htm%29)

SEM Annual Meeting June 3-6 2024 in Vancouver Washington. <http://sem.org/annual> . Abstracts were due October 2nd, 2023. This group has Residual Stress Committee and we should collaborate where possible.

ICRS 2025– Contact Andrew Payzant payzanta@ornl.gov or Mike Prime prime@lanl.gov ASM to link up with ICRS – to be held in Detroit and will co-locate with IMAT in Detroit from October 20-24, 2025.

ICSP will be held at Purdue University in 2025 dates TBD.

American Conference on Neutron Scattering: Knoxville. 23-27 June 2024. <https://ceramics.org/event/american-conference-on-neutron-scattering-acns-2024/> . At least 2 symposiums on engineering materials (one chemistry focused one structural focused) Symposia : Chemistry Focused and Structure Focused. Funds are available for students to register and travel.

Denver X-Ray Conference, August 2024, Colorado; <https://www.dxcicdd.com/>; Abstract Deadline March 21,2024.

18th International Conference on Advances in Experimental Mechanics, Liverpool, <https://www.bssm.org/events/conference/18th-conference-liverpool/>

International institute of Welding, June 2024. <https://iiw2024.com/> in Greece.

* 1. University Outreach Subcommittee (Joe Rasche, ad hoc Chair joe.rasche@ansys.com)

Joe still working on formalizing site. Dave F. and Joe R. worked on interfacing with Ansys’ Director Global Academic Programs. Ansys has volunteered to manage a hosting site that we can post to via the ASM site (i.e. no need for ASM to support) to connect Academia and Industry thus enabling a global reach. Looking for projects – is there anything you need looked at/analyzed? Need real problem statements from Organizations/Individuals that are very focused and well defined, then match Students and Faculty with projects. Contact Dave F. (david.furrer@prattwhitney.com) or Joe R. (joe.rasche@ansys.com) with ideas or topics.

If you know any students who want to participate in RSTC activities, please reach out to Beth Snipes.

* 1. **Technical Collaboration Sub-committee** [Chair: Mike Hill]

Goal of the Technical Collaboration Subcommittee engages with other committees, industry groups, and organizations to develop and execute collaborative programs, share expertise, and advance awareness about residual stresses

Mike Hill would like some help with this committee. Anyone interested please reach out to Mike Hill.

Will organize a meeting in the new year to kick-start this initiative.

ASTM E28.13 – Gary Schajer (Beth S., James P.)

ASTM E08 – Fatigue and Fracture – Mark James has been authorized to be liaison with Executive Committee bring items of potential interest to RSTC.

ASME Pressure Vessel and Piping Division (PVP) oversees the PVP Code. Residual stress issues, notably welding and fracture mechanics (crack growth and fracture), are frequently discussed in the Materials and Fabrication committee (PVP M&F). Mike Hill has links to M&F and can provide introductions to interested RSTC members. New members are added to M&F each July at the annual PVP Conference - John Cline is interested in being in the loop especially pipeline/pressure vessel related activity – also offered that numerous case studies could be made available – TBD.

SAE FD&E – Casey Gales and Peter Huffman. Casey to liaison and invite Peter to RSTC activities.

SEM – Mike Hill to reach out.

AWS (American Welding Society): Zhenzhen Yu (Colorado School of Mines) will be contact.

 Note: This sub-committee will be a collaborative effort and we would like to encourage members who are active in other technical organizations to be actively involved in the sub-committee activities.

No Technical Talk this month. We do have a technical talk scheduled for April.

Job Opportunities:

Pratt & Whitney is looking for an XRD or Residual Stress Engineer. Please reach out to Seung-Yub Lee for any questions. Details can be found at the link below.

<https://globalhr.wd5.myworkdayjobs.com/REC_RTX_Ext_Gateway/job/PW100-East-Hartford-400-Main-Street-East-Hartford-CT-06118-USA/X-Ray-Diffraction---Residual-Stress-Engineer--Onsite-_01666436>

TEC is looking for a residual stress engineer with an XRD background to assist with the Materials Testing Lab. Please contact Beth Snipes with questions/interest.

NOTE: Next meeting will be held on 17 April 2024.

**Relevant Links and Materials:**

**New members:** Please fill in roster information form <https://forms.gle/3YwCTEWGz9NtG5nHA>

**New web page:** Please feel free to share web page link for ASM-RSTC <https://www.asminternational.org/residual-stress-technical-committee>

**Advertising:** Please consider advertising the ASM-RSTC when presenting at professional meetings – Link to PowerPoint: <https://rb.gy/ojigo> Link to PDF: <https://rb.gy/v2l4s>

**LinkedIn shout-out:** Members please share/forward to improve visibility. <https://www.linkedin.com/posts/asm-international_the-asm-residual-stress-technical-committee-activity-6970438123017101312-97rt?utm_source=share&utm_medium=member_desktop>

**Student intro/outreach letter:** Please contact Beth Snipes beth.snipes@tec-materialstesting.com

**Newsletter ideas:** Please feel free to send newsletter ideas to Ben Wang wang.ben@cummins.com: always looking for contributions, i.e. Members in the News, Did you know? Trivia items, any fun reading ideas welcome, ideas for new features. The newsletters past and current can also be found on the ASDM-RSTC webpage: <https://www.asminternational.org/residual-stress-technical-committee>

**Outreach Poster:** Please contact Scott Henry if you have ideas for Mat. Sci. organizations you think might benefit from it scott.henry@asminternational.org