

CALL FOR PAPERS

2023 ASME Pressure Vessels & Piping Conference

Abstracts Due November 7, 2022

[Extended to November 14, 2022]



JOIN US IN ATLANTA AT THE 2023 ASME PVP CONFERENCE
JULY 16-21, 2023, AT THE WESTIN PEACHTREE PLAZA
ATLANTA, GEORGIA, USA

RE-ENERGIZING THE PRESSURE VESSEL AND PIPING COMMUNITY

Join us in Atlanta, Georgia for the 2023 ASME Pressure Vessels & Piping Conference, as we continue to re-energize the Pressure Vessels & Piping Community. The PVP Conference is the ideal platform to keep up with new technologies, network and interact with experts, practitioners, and peers in the Pressure Vessels & Piping area. The PVP Conference is a recognized international forum with participants from more than 40 countries in Europe, Africa, the Middle East, Asia, the Americas and the Oceania islands. The ASME Pressure Vessels & Piping Division sponsors the PVP Conference with participation by the ASME NDPD Division.

PAPER & PANEL SESSIONS

More than 160 paper and panel sessions are planned, including tutorials and workshops, a Technical Demonstration Forum and Exhibition. General topics will include:

- Codes & Standards
- Computer Technology & Bolted Joints
- Design & Analysis
- Fluid-Structure Interaction
- High-Pressure Technology
- Materials & Fabrication
- Operations, Applications & Components
- Seismic Engineering
- Non-Destructive Examination

SCHEDULE FOR SUBMISSION*

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|-------------------------------|--|
| • November 7, 2022 | Abstracts are due [extended to November 14, 2022] |
| • December 5, 2022 | Abstract Accept/Reject Notification |
| • January 16, 2023 | Submission of Full-Length Paper for Review |
| • February 27, 2023 | Peer Review Comments Returned |
| • April 14, 2023 | Copyright Agreement Form (for each paper) due |
| • April 17, 2023 | Final Manuscripts in ASME format for publication due |

* All final manuscripts must be submitted in the standard ASME format for publication. All presented technical papers will be published as citable documents available post-conference.

FOR MORE INFORMATION

Please visit the 2023 PVP Conference website at <https://event.asme.org/PVP> for additional information. Technical paper abstracts must be submitted electronically via the website.

PVP Conference Chair

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(1) CODES & STANDARDS (C&S)

- Structural Integrity of Pressure Components
- Hydrogen Effects on Material Behavior for Structural Integrity Assessment (Joint with M&F)
- Integrity of Cast Stainless Steel Pipe
- Integrity of Reactor Pressure Vessels and Internals for Codes
- Technical Convergence, Emerging Codes and Standards, and SDO Comparison Code
- API 579/ASME Code Fitness-for-Service Activities
- Recent Developments in ASME Codes and Standards
- ASME Code Section XI Activities
- Recent Developments in Japanese Codes and Standards
- Recent Developments in Chinese Codes and Standards
- Recent Developments in European Codes and Standards
- High Temperature Codes and Standards
- Developments in HDPE, Buried and Non-metallic Pipe Codes and Standards
- International Session for Gen IV Reactor and SMR Design and Construction
- Mechanical Properties of Nuclear Graphite and Their Implementation in Codes and Standards (Joint with M&F)
- Fatigue and Ratcheting Issues in Pressure Vessel and Piping Design
- Environmental Fatigue Issues (Joint with M&F)
- Fatigue Monitoring and Related Assessment Method
- Fracture Toughness and Other Small Specimen Mechanical Properties (Joint with M&F)
- Master Curve Method and Applications
- Constraint Effects on C&S
- Repair, Replacement and Mitigation for Fitness-for-Service Rules
- Improvement of Flaw Characterization Rules for FFS
- Probabilistic and Risk-Informed Methods for Structural Integrity Assessment (Joint with M&F)
- Fatigue and Fracture Assessment & Management – A Probabilistic Perspective
- Advanced Seismic Evaluation and Code (Joint with SE)
- Pressure Vessels for Human Occupancy (joint with M&F)

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(2) COMPUTER TECHNOLOGY & BOLTED JOINTS (CT&BJ)

- Design and Analysis of Bolted Flange Joints
- Packings and Valves
- Leak Tightness and Fugitive Emissions
- Assembly of Bolted Joints
- Threaded Fasteners
- Elevated Temperature Behavior of Bolted Flange Joints
- Computational Applications in Fatigue, Fracture, and Damage Mechanics
- New and Emerging Methods of Analysis and Applications
- Special Application of Bolted Flanged Joints
- Lessons Learned from Bolted Flange Joint Failures
- Computational FEA for Limit Load Elastic-Plastic Analysis and Creep
- Joining of Multi Materials
- Innovative Applications of Commercial FEA Software
- New and Emerging Flange and Non-Metallic Design Codes
- Gasket and Packing Testing Panel Session
- Threaded Connections for Innovative and Light Weight Materials
- Probabilistic and Risk Based Assessment

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(3) DESIGN & ANALYSIS (D&A)

- Design and Analysis of Pressure Vessels, Heat Exchangers, and Components
- Design and Analysis of Piping and Components
- Fatigue
- Inelastic, Nonlinear, and Limit Load Analysis
- Small Modular Reactor Design
- Thermal Stresses and Elevated Temperature Design
- Fitness for Service Evaluations
- Piping and Equipment Dynamics and Dynamic Response Analysis
- Design and Analysis of Bolted Joints
- Computational Fluid Dynamics in Design and Analysis
- Fracture
- 7th International Symposium on Coke Drum Life Cycle Management
- Vessel Design Philosophy
- Composite Materials and Structures
- Special Considerations in the Design and Analysis of Supports, Restraints, and Welded Attachments
- Additive Manufactured Pressure Vessel Development
- Design and Analysis of Hydrogen Pressure Equipment

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(4) FLUID-STRUCTURE INTERACTION (FSI)

- Thermal Hydraulic Phenomena with Vessels, Piping and Components
- Flow-Induced Vibration
- Structures Under Extreme Loading Conditions
- FSI Design for Industry
- Renewable Energy Transport

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(5) HIGH-PRESSURE TECHNOLOGY (HPT)

- Design, Analysis and Life Prediction of High-Pressure Vessels and Equipment
- Structures under Extreme Loading Conditions (Joint Topic with FSI)
- Fitness for Service and NDE of High-Pressure Vessels and Piping
- Design and Analysis of High-Pressure Equipment for Industry
- Materials for the High-Pressure Industry
- Design and Analysis of High-Pressure Equipment for Oil and Gas Exploration and Production
- Design and Analysis of High-Pressure Hydrogen Equipment

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(6) MATERIALS AND FABRICATION (M&F)

- Application of Fracture Mechanics in Failure Assessment
- Materials for Hydrogen Service (Joint with C&S)
- Welding Residual Stress and Distortion Simulation and Measurement
- European Programs in Structural Integrity
- Fitness-For-Service and Failure Assessment
- Materials and Technologies for Nuclear Power Plants
- Code Fatigue Design Criteria and Environmental Effects (Joint with C&S, D&A, HPT)
- Development of Stress Intensity Factor Solutions (Joint with C&S)
- Mechanistic Modelling of Deformation and Fracture
- Pipeline Integrity
- Small-Scale and Miniature Mechanical Testing (Joint with C&S)
- Leak Before Break
- Composite and Non-Metallic Systems for Pressure Vessels and Piping (Joint with D&A)
- Probabilistic Assessment of Failure (Joint with C&S)
- Fatigue and Fracture of Welds and Heat Affected Zones
- Creep and Creep-Fatigue Interaction
- Advanced and Additive Manufacturing and Material Technologies (Joint with D&A)
- Asian Programs in Structural Integrity
- Material Quality and Failure Analysis
- In-service Inspection and Monitoring (Joint with NDPD)
- 3D Crack Growth Simulation Using FEA
- Structural Integrity for Spent Fuel Canisters
- Materials and Fabrication for Refining
- High Strength Steels for Pressure Vessels and Piping Applications
- Collaborative Digital Framework for Asset Lifecycle Management
- Emerging Manufacturing and Mitigation Process Simulation
- Mechanical Properties of Nuclear Graphite and their Implementation in Codes and Standards (Joint with C&S)
- Cryogenic Pressure Vessels and Piping
- Pressure Vessels for Human Occupancy (joint with C&S)
- General Papers

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(7) OPERATIONS, APPLICATIONS & COMPONENTS (OAC)

- Safety, Reliability, and Risk Management
- Qualification and Testing
- Monitoring, Diagnostics and Inspection
- Storage and Transportation of Radioactive and Other Hazardous Materials
- Pumps and Valves
- Operation and Maintenance of Pressure Vessels, Heat Exchangers, Piping and Supports
- Plant Life Extension Aging and Life Management

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(8) SEISMIC ENGINEERING

- Earthquake Resistance and Seismic Margin
- Seismic isolation
- Damping and Vibration Control
- Machine Learning for Seismic Analysis of Industrial Facilities
- Structural Dynamics
- Seismic Analysis and Design of Piping System
- Seismic Evaluation of Systems, Structures and Components
- Multi-Hazards and Margins
- Advanced Seismic Evaluation and Code

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(9) ASME NON-DESTRUCTIVE EVALUATION, DIAGNOSIS AND PROGNOSIS DIVISION (NDPD)

- Emerging Non-Destructive Evaluation and Prognostic Techniques and Applications
- NDE Techniques and Applications for Petrochemical and Power Plant Components
- NDE Reliability - Modeling and Experimental Analysis
- Predictive Non-Destructive Evaluation and Structural Health Monitoring of Complex Materials and Structures
- Risk Assessment of Aging Structures

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GUIDELINES FOR AUTHORS:

The Program Committee will observe the following criteria in selecting papers for the Conference:

1. The paper must not have had prior extensive publication or circulation. Publication in trade periodicals or other professional or technical journals is considered extensive publication.
2. The paper must be technically correct and should be of interest to a reasonable number of people working in the field of pressure vessels and piping. It may be theoretical, or may present the results of laboratory studies, and it may state or analyze a problem. The paper may also be a review-type paper but must be of significant value to the technical field. The paper should contain new knowledge or experience in some field related to pressure vessels and piping.
3. The paper may present information about equipment, tools, and software used in PVP technology. Such papers must show the definite applications and limitations of such equipment, tools, or software, and must avoid any commercialism.
4. The abstract must have the necessary clearance before submittal. Prospective authors should provide information on any clearance problems when the abstract is submitted.
5. Both theoretical papers in various fields, and application papers presenting solutions to problems, are desired. Program time is limited, so the Program Committee will emphasize the quality of the contribution and its value in the field of PVP Technology.
6. The Program Committee has a stated policy against the use of commercial trade names, company names, or language that is commercial in tone in paper titles, figures, and slides, and these must be avoided. Trade names can only be identified once in a paper to explain details for processes or methods, allowing other researchers to reproduce the results. Beyond this exception, the presence of commercialism in the text of papers is cause for removal of the paper from the program.
7. In accordance with U.S. Copyright Laws, ASME must receive, and maintain on file, a copy of the Transfer of Copyright Form with the final paper, signed by all authors, for papers to be presented at the Conference, and published in Conference Volumes.
8. The final day for abstract submittals is ~~November 7, 2022~~ **extended to November 14, 2022.**
9. Authors offering papers for the program should fully understand that a manuscript prepared to ASME specifications is required for each technical paper selected for the Conference. The manuscript will be published in an electronic format. Printed Conference Volumes may be available after the Conference. The maximum desirable length for any paper is about 10 pages, fully formatted.
10. The last day to submit Draft Papers to the Webtool for Review is **January 16, 2023.**
11. Final Papers are due no later than **April 17, 2023.** Once a final paper is submitted, no subsequent revisions will be accepted.
12. Instructions on preparation of manuscripts and presentation materials are available at:
<https://www.asme.org/publications-submissions/proceedings/author-guidelines>.

GUIDELINES FOR TECHNICAL PROGRAM

REPRESENTATIVES (TPRs, TRACK ORGANIZERS)

1. Remind Topic Organizers and Session Developers of the due date for abstract submittal: ~~November 7, 2022~~ **extended to November 14, 2022.**
2. Ensure that authors of paper abstracts selected for the

Conference are notified by **December 5, 2022.**

3. Check the wording of the title for each paper in your track.
4. Follow the key dates:
 - Draft Papers are due to the webtool for review by **January 16, 2023.**
 - Copyright Agreement Forms are due by **April 14, 2023.**
 - Final Papers are due no later than **April 17, 2023.**
5. Ensure that Topic Organizers and Session Developers have assigned Session Chairs and Vice Chairs.
6. Communicate with Topic Organizers and Session Developers on a regular basis.

GUIDELINES FOR TOPIC ORGANIZERS (TOs) AND SESSION DEVELOPERS (SDs)

1. Assign Session Chairs and Vice Chairs to your Sessions, once they are created, **as soon as possible.**
2. Assign abstracts/papers to a Session. The final day for abstract submittals is **November 7, 2022** **extended to November 14, 2022.**
3. Notify the authors of papers selected for the Conference by **December 5, 2022.**
4. Communicate with the authors on a regular basis. The last day to submit Draft Papers is **January 16, 2023.**
5. Assign a **minimum** of two (2) Reviewers for each paper.
6. Communicate with the Reviewers on a regular basis.
7. Monitor activities related to:
8. Paper reviews — **Two (2) independent Reviewers for each paper. No one can be the reviewer for all the papers in their Topics(s) or Session(s).**
9. The Copyright Agreement Form submittals are due no later than **April 14, 2023.**
10. Final manuscripts submittals are due no later than **April 17, 2023.**
11. Follow the key dates.
12. Consolidate Sessions when necessary. Ideally, a Session should have four (4) papers. Avoid having Sessions with less than three (3) or more than five (5) papers.

Plan ahead for 2024 ASME PVP 2024 CONFERENCE

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