



Applied Mechanics

The Division of Applied Mechanics strives to foster the intelligent use of mechanics by engineers and to develop this science to serve the needs of the engineering community.

Focus

- Founded in 1927 by Professor Stephen P. Timoshenko, the Applied Mechanics Division is one of the oldest and largest Divisions within ASME.
- The Applied Mechanics Division strives to foster the intelligent use of mechanics by engineers and to develop this science to serve the needs of the engineering community. Areas of activity cover all aspects of mechanics, irrespective of approach, including theoretical, experimental, and computational methodology. Applied mechanics is construed to include the fundamental fields of biomechanics, composite materials, computing methods, dynamics, elasticity, experimental methods, fracture, geomechanics, hydrodynamics, lubrication, fluid mechanics, fluid-structure interaction, mechanical properties of materials, micromechanics, plasticity and failure, plates and shells, wave propagation and related fields.
- These subjects cover a large part of engineering and overlap with the fields of interest of many other divisions of the Society; members engage in productive collaborations with other divisions.
- Membership in the Division is open to all ASME members.

Organization and Structure

- The responsibility for guiding the Applied Mechanics Division, within the framework of the Constitution, Bylaws, and Rules of the Society, is vested in an **Executive Committee**
 - Five members with five year terms; One member is appointed each year by the ASME Council for a term of five years, with all terms beginning and ending at the conclusion of the Summer Meeting of the Executive Committee.
 - The Executive committee meets twice each year: at or about the time of the Summer Meeting and at the IMECE.
- **Standing Committees.** The Standing Committees shall be as follows: General Committee, Publications Committee, Program Committee, and Hughes, Belytschko, Caughey, Timoshenko, Koiter and Drucker Medal Committees.
- **Division Technical Committees.** These committees help with developing the technical program at the meetings the Division is involved with, especially the IMECE Track “Mechanics of Solids, Structures and Fluids”.
 - Applied Mechanics Education
 - Composites
 - Computing in Applied Mechanics
 - Constitutive Equations
 - Dynamic Response of Materials
 - Dynamics and Control of Structures and Systems
 - Elasticity
 - Experimental Mechanics
 - Fluid Mechanics
 - Fluid-Structure Interaction
 - Fracture and Failure Mechanics
 - Geomechanics
 - Instability in Solids and Structures
 - Materials Processing and Manufacturing
 - Mechanics of Integrated Structures
 - Mechanics in Biology and Medicine
 - Transportation
 - Uncertainty and Probabilistics

Activities — Meetings

- **IMECE:** The Division takes an active part in the annual Congress of the ASME IMECE, through the following activities
 - Development of technical sessions for the IMECE tracks, especially the Track “Mechanics of Solids, Structures and Fluids”
 - Meetings of the Technical Committees
 - Annual Awards Banquet of the Division
- **Summer Meetings.**
 - The Division participates in the US National Committee on Theoretical and Applied Mechanics every four years (2006, 2010,...)
 - In the years when the International Union of Theoretical and Applied Mechanics holds their meeting, the AMD does not schedule a summer meeting (2004, 2008,...)
 - In the odd years (2003, 2007,...) the AMD holds a joint meeting with the Materials Division, usually in a University campus
 - In the odd years (2005,2009,...), the AMD and the MD join with the Engineering Mechanics Division of the American Society of Civil Engineers, and the Society for Engineering Science to organize the summer meeting, typically in a University campus.

Activities — Publications

- **Journal of Applied Mechanics**
 - The Journal was initiated in 1933 and the Applied Mechanics Division has been responsible for its operation. Such operation is directed by the Editor of the Journal of Applied Mechanics; Professor McMeeking is the Technical Editor
- **Applied Mechanics Reviews**
 - The Applied Mechanics Division is responsible for the operation of the Applied Mechanics Reviews. Such operation is directed by the Editor of Applied Mechanics Reviews; Professor Reddy is the Editor
- **Newsletter**
 - The Applied Mechanics Division prepares a newsletter annually that is emailed to all members of the Division. The content of the Newsletter is determined by the Newsletter Editor, subject to approval by the Chair of the Division. The Newsletter is available on the Division’s website
- **Website**
 - An website (<http://divisions.asme.org/amd/>) is maintained to keep the applied mechanics community informed of the activities of the Division

Activities — Awards

- **Division Level Awards**
 - Thomas J.R. Hughes Young Investigator Award
 - A special achievement award for young investigators in Applied Mechanics, under the age of 40.
 - Ted Belytschko Applied Mechanics Award
 - Awarded to an outstanding individual for significant contributions in the practice of engineering mechanics; contributions may result from innovation, research, design, leadership or education.
 - Thomas K. Caughey Dynamics Award
 - Awarded in recognition of significant contributions to the field of nonlinear dynamics through practice, research, teaching, and/or outstanding leadership.
- **Society Level Awards**
 - Daniel C. Drucker Award
 - Awarded in recognition of distinguished contributions to the field of applied mechanics and mechanical engineering through research, teaching and service to the community over a substantial period of time.
 - Warner T. Koiter Medal
 - Awarded in recognition of distinguished contributions to the field of solid mechanics with special emphasis on the effective blending of theoretical and applied elements of the discipline, and on a high degree of leadership in the international solid mechanics community.
 - Timoshenko Medal
 - Conferred in recognition of distinguished contributions to the field of applied mechanics.

Division Chairs

- 2010–2011: Tayfun E. Tezduyar, Rice University
- 2011–2012: Ares J. Rosakis, California Institute of Technology
- 2012–2013: Kenneth M. Liechti, University of Texas at Austin
- 2013–2014: Lawrence A. Bergman, University of Illinois at Urbana-Champaign
- 2014–2015: Huajian Gao, Brown University