

Journal of Experimental Mechanics

Aims and Scope

Experimental Mechanics is the official journal of the Society for Experimental Mechanics that publishes papers in all areas of experimentation including its theoretical and computational analysis. The journal covers research in design and implementation of novel or improved experiments to characterize materials, structures and systems. Articles extending the frontiers of experimental mechanics at large and small scales are particularly welcome.

Coverage extends from research in solid and fluids mechanics to fields at the intersection of disciplines including physics, chemistry and biology. Development of new devices and technologies for metrology applications in a wide range of industrial sectors (e.g., manufacturing, high-performance materials, aerospace, information technology, medicine, energy and environmental technologies) is also covered.

Research areas covered in the journal are:

- Optical and electron microscopy techniques
- Sensors and actuators
- Health monitoring of structures and systems
- Reliability and failure analysis
- Micro and nanoelectromechanical systems (MEMS and NEMS)
- Electronic, optical, magnetic and thermal properties of materials and devices
- Mechanics of materials
- Metrology and instrumentation
- Molecular machines, self-assembly and self-organization
- Experiments in bio and nanotechnologies
- Single cell, tissue and biosystem experimentation
- Characterization of synthesis and processing of materials and devices
- Smart materials and structures
- System identification and inverse problems
- Micro and nanofluidics
- Multiphysics and multiscale modeling of experiments

In addition to primary research articles, *Experimental Mechanics* also publishes review articles, brief technical notes, and applications articles on emerging technologies of high societal impact, e.g., nanomaterials for energy applications, microsystems technology applied to medicine. The journal aims to be the voice of the worldwide experimental mechanics community.