

Special Issue

Selected Papers from the 14th Southern Conference on Computational Mechanics

Message from the Guest Editors

The 14th Southern Computational Mechanics Academic Conference (SCCM-14) will be held from April 18 to 20, 2025, in Nanjing, Jiangsu Province. As a core driver integrating theoretical modeling and numerical simulation, computational mechanics has deeply penetrated the entire R&D chain of materials science, structural engineering, industrial, and technological innovation, becoming a key enabler in tackling interdisciplinary challenges such as multi-scale material behavior prediction and structural failure analysis under extreme operating conditions. This Special Issue will select papers from the 14th Southern Conference on Computational Mechanics for publication. Original research and review articles are welcome in this Special Issue. Potential topics include the following:

- Novel theories in computational mechanics and cross-scale modeling;
- Numerical algorithms and high-performance computing;
- Smart materials and machine learning-enabled advancements;
- Biomechanics and nanomechanics;
- Fatigue fracture mechanics and composite material simulations;
- Fluid–structure interactions and granular material mechanics;
- Multiphysics coupling under extreme environments;
- ...

Guest Editors

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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