Special Issue

Numerical Modeling and Simulation in Wood-Based Materials

Message from the Guest Editor

The Special Issue, "Numerical Modeling and Simulation in Wood-Based Materials" will address advances in the applications of the finite element method (FEM) for modeling and analyzing various mechanical problems in wood-based materials, joints and fasteners, furniture structures, and other products manufactured of wood-based composites. The use of numerical methods reduces the costs of prototyping and validation, facilitates the diagnosis of damage occurrence, and enables the assessment of product safety. Original articles on the numerical modeling (FEM) (including homogenization) of all types of wood-based materials, structures, joints, etc. under various operating conditions are invited. This collection will provide a complete understanding of how to improve the stiffness and strength of materials as well as improved joints, structural members, and products. Contributions can be submitted in the form of original research papers and review articles.

- finite element method (FEM)
- homogenization
- wood-based materials
- beams, honeycombs, plates, shells
- thin walled structures
- fasteners and joints

Guest Editor

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Deadline for manuscript submissions

closed (10 April 2022)

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About the Journal

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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