



Advances in Modelling and Simulation of Materials in Applied Sciences

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Message from the Guest Editor

Dear Colleagues,

Advances in materials science and engineering, as well as in computer science, have opened new avenues for physicists and engineers to explore novel material processing and material characterization methods on macro-, micro-, and nanoscales; thus, modelling and simulation have become indispensable tools in this regard, complementing experimental measurements.

This Special Issue is dedicated to exploring the recent advances in the modelling and simulation of materials within various applied sciences applications. Specific methods, fields of applications, and materials include, but are not limited to:

- Finite element method;
- Boundary element method;
- Finite difference method;
- Molecular dynamics;
- Multi-scale modelling;
- Coupled multiphysics problems;
- Ab initio modelling and simulations;
- Magnetohydrodynamics and hydrodynamics;
- Artificial intelligence and neural networks;
- Optimization methods;
- Acoustics, vibro-acoustics, sound, and vibration;
- Materials science and engineering;
- Material characterization and non-destructive testing;





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Message from the Editor-in-Chief

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