Mathematical Models and Simulations

Guest Editor:

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Message from the Guest Editor

Mathematical models constitute a fundamental tool for the understanding of physical phenomena, biological systems, and finance and engineering. In addition to theoretical aspects, simulations play a primary role in applications, because they allow for the prediction of the behavior of quantities of interest.

The scope of this Special Issue is to collect papers in the field of mathematical physics, where different categories of mathematical models are presented both deterministic. Including but not limited to:

- mathematical models;
- ordinary differential equations;
- partial differential equations;
- stochastic processes;
- stochastic differential equations;
- finite difference schemes;
- finite volume schemes;
- finite element method;
- discontinuous Galerkin method;
- Monte Carlo method.

Special Issue