



# Mathematical Problems in Engineering

## Special Issue on **Macroscopic/Mesososcopic Computational Materials Science Modeling and Engineering**

# CALL FOR PAPERS

Several powerful numerical tools exist for the investigation of phenomena in materials science modeling and engineering at the macroscopic and mesoscopic scales. For example, these tools might include first principle calculations, quantum molecular dynamics, molecular dynamics and molecular mechanics simulations, Monte Carlo method, finite element method, finite difference method, finite volume method, spectral element method, boundary element method, computational fluid dynamics, and so forth. The goal of this topic is to provide a platform for discussion and exchange of information/experience on the simulation of phenomena and characteristics of materials at macroscopic and mesoscopic scales. These characteristics may include thermal, electronic, energetic, physical, and chemical properties computed through the use of simulation at various scales. You are welcome to submit your contributions on recent theoretical or computational research related to (but not restricted to) the following subtopics in macroscopic and mesoscopic computational materials science modeling and engineering.

Potential topics include, but are not limited to:

- ▶ Numerical simulation/techniques/algorithms
- ▶ Computational physics/chemistry
- ▶ 3D printing, plastic deformation
- ▶ Modelling of deformation behavior of materials
- ▶ Other related topics

Authors can submit their manuscripts via the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/mpe/cmse/>.

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