Special Issue

Mathematical Methods and Simulations in Mechanics and Engineering

Message from the Guest Editors

The development of new mathematical methods and the extension of existing methods and procedures significantly influence the solution to different problems in theoretical and applied mechanics and engineering. Numerical methods, such as finite element, boundary element, and meshless methods, have played important roles in numerical simulations of complex and coupled problems in engineering mechanics, such as solid–fluid mechanics, parametric optimization, complex stress–strain analysis, the application of new materials, and thermal-solid models in real mechanical systems. This forms the basis for new solutions in engineering design, increasing energy efficiency and effective prediction of the behavior of different mechanical systems under complex real conditions. This Special Issue will focus on advanced and contemporary research in mechanics and engineering, especially on developing advanced applications of new mathematical methods for effective simulations of complex problems, including analytical and numerical methods.

Guest Editors

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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