Special Issue

Applied Mathematics and Numerical Analysis

Message from the Guest Editors

Mathematical modeling and numerical methods are applied as a rule to solve a wide variety of problems in applied mathematics, mathematical physics, and technology. In the study of distributed mechanical systems, it is necessary take into account nanoeffects, the influence of temperature, magnetic, noise, and electric fields, as well as neutron irradiation. To solve this problem, the study of nanostructures necessary to create new mathematical models. As a rule, they lead to systems of nonlinear partial differential equations. Also necessary is the justification of the correctness of the governing systems of PDEs, as well as the proof of existence and uniqueness theorems of the solution, if possible. Finally, it is also necessary to create new effective methods of computation and prove the convergence of solutions obtained using these methods. The aim of this Special Issue is to collect high-quality articles that address the role of applied mathematics and numerical methods in the study of nonlinear problems nanoscaled and macroscaled distributed mechanical systems.

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About the Journal

Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

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