

Special Issue

Mathematical Modeling and Numerical Optimization with Its Applications

Message from the Guest Editor

Mathematical models, as part of the scientific method, are mathematical pictures of reality and represent a description of an object or system by applying particular mathematical concepts and symbols. They are often expressed in terms of ordinary differential equations and partial differential equations. Mathematical models can also be statistical models, fuzzy logic models, and empirical relationships. In fact, any model description using mathematical language can be called a mathematical model. On the other hand, numerical optimization, also called mathematical programming, is an area of applied mathematics that allows for finding “the best” alternative for a given situation through the systematic analysis of the possible alternatives of the situation at hand.

Good mathematical models and the proper use of classical and modern mathematical theory, as well as current numerical optimization techniques, are of vital importance to improve reliability and precision in the management of practical applications in real life.

Guest Editor

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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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