Special Issue

Mathematical Modeling and Its Application in Medicine

Message from the Guest Editors

This Special Issue aims to publish original research articles covering advances in mathematical modeling in medicine and healthcare. In particular, how to improve upon existing models or create new models, dynamics, and flow networks will be discussed, as well as applications in machine learning, algorithm design, and complexity optimization. Mathematical models in medicine and healthcare have gained a great deal of attention in recent years. On one hand, these models can be applied to analyze mood disorders (depression, bipolar, anxiety, etc.), neuro diseases (Alzheimer's disease, Parkinson's disease), and many other related issues. On the other hand, there are models to analyze thee behavior of a disease on the population. The application of these models can be used to detect the abovementioned issues at an early stage for better and effective treatment as well as to analyze the evolution of an issue along with the population. Advances in machine learning algorithms have recently seen a wide use of predictive systems and expert systems. In this way, this Special Issue focuses on the use of mathematical modeling and its application in medicine and other related areas.

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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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