Special Issue

Mathematical Modeling and Data Science for Biology and Medicine

Message from the Guest Editor

This Special Issue is intended to be an attempt to reach these still mysterious matters observed in living things from mathematics. Here is a list of examples of biological questions to which a new mathematical approach is expected. New concepts, models, analysis, predictions, and applications are welcome. - Biological reactions caused by several interactions of stimulations;
- Analysis of the multisensing effect in multi-scale biological events;
- Communications between heterogeneous cells, reactions to organs, and their interactions;
- Biological homeostasis through a reaction network and its breakdown;
- The role of the microenvironment in the malignancy of cancer cells;
- Mathematical modeling of signal transmission, cross-talks of signals inside and outside cells;
- Data science methods to detect biological mechanisms, and applications;
- New diagnosis and therapy using mathematical methods;
- New mathematical concepts motivated by bio/medical events with applications;
- Dealing with social data of healthcare and decease to construct mathematical models for predictions.

Guest Editor

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Deadline for manuscript submissions

closed (15 April 2025)

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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