Special Issue

Mathematical Models and Control of Biological Systems

Message from the Guest Editor

Biological systems have a variable nature and complex behaviors, making formalizing their performance through mathematics tools an open problem for researchers. In addition, biological systems form networks for their survival, which makes these microcosms intelligent systems. In fact, there is no theoretical basis for any of the reaction mechanisms involved in biological systems proposed in the literature currently available, due to the complexity of the bio-reactions that occur in biological systems and to the exact stoichiometric relationship that allows for theoretically limiting the reaction rates. Therefore, models must be developed on an environmental conditions basis to depict the approximate phenomena under the expected biological systems conditions. Biological systems play a vital role in green industries, producing important chemical and biochemical compounds. In this system, living organisms, also known as microbes, are converted into marketable products. Finally, the application of biological systems control based on mathematical models is reflected in higher productivity, embracing new technologies in intelligent production and industrial growth.

Guest Editor

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Deadline for manuscript submissions

closed (31 January 2025)

Mathematics

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.6

mdpi.com/si/180272

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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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