BIOMATHEMATICS APPLICATIONS

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ABSTRACT

Biomathematics applications (BA) have been highly developed during the past decade. There is a wide range of BA including medicine and health, ecology and environment, biotechnology, basic and applied research, among others. These BA impact in a great variety of human activities and could be vital for the prevalence of mankind in the near future.

The objective of this mini symposium is to present the mathematical and computational modelling of biomathematics applications. It includes such topics as epidemiology, tumour research, biostatistics, physiology, population dynamics, bacterial/virus consortia, bioprocesses, food safety, understanding of complex biological phenomena, etc. Analysis and modelling of Multiphysics phenomena are welcome as well. Each paper or presentation must contain as a minimum a model description, mathematical formulation, the numerical strategy for solution, results (including graphs if applicable), future work, and conclusions. It is possible to select any numerical method available in the market to solve the mathematical model. Thus, the Finite Element Method, meshless methods, the Finite Volume Method, or any other method can be used with an appropriate justification. It is possible to utilize commercial software as well as self-designed programs.

It is expected that each author can briefly explain the main contribution of his/her work and how it facilitates development of humanity.

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