Special Issue

Recent Advances in Mathematical Modeling of COVID-19 and Other Infectious Diseases

Message from the Guest Editors

Mathematical modeling is a valuable tool in understanding the dynamics of infectious diseases (such as the coronavirus disease COVID-19). This involves using mathematical equations to represent the transmission and control of infectious diseases at the population level. The mathematical analysis of continuous models, the construction of their various time-discrete variants, and the solving of appropriate inverse problems are important tools for uncovering the behaviors over time of many crucial parameters that characterize the diseases' dynamics. These models are essential for assessing the effectiveness of vaccination strategies, determining the best vaccination ages and target groups, and predicting future growth patterns of infectious diseases. This Special Issue welcomes the submission of research and review articles that address the development of novel mathematical modeling and its applications.

Guest Editors

Prof. Dr. Nedyu Popivanov

1. Department of Mathematics and Informatics, University of Sofia, 1164 Sofia, Bulgaria
2. Institute of Information and Communication Technologies, Bulgarian Academy of Sciences, 1113 Sofia, Bulgaria

Dr. Tsvetan D. Hristov

Faculty of Mathematics and Informatics, University of Sofia, 1164 Sofia, Bulgaria

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Axioms
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
axioms@mdpi.com

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Axioms is dedicated to the foundations (structure and axiomatic basis, in particular) of mathematical theories, not only from a crisp or strictly classical sense, but also from a fuzzy and generalized sense. This includes the more innovative current scientific trends, devoted to discover and solve new challenging problems. The prime goal of *Axioms* is to publish first-class, original research articles under an open access policy with minimal fees for the authors. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. Humberto Bustince
Department of Statistics, Computer Science and Mathematics, Public University of Navarra, 31006 Pamplona, Spain

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