# **Special Issue**

## Differential Models, Numerical Simulations and Applications

#### Message from the Guest Editor

Differential models, numerical methods and computer simulations are playing an increasingly important role in applied sciences. Indeed, most of the differential models inspired by real world applications have no analytical solutions. For this reason, the development of numerical methods and efficient simulation algorithms have a key role in the computation of the solutions to such problems. Moreover, since the parameters in differential models have interesting scientific interpretations and their values are often unknown, estimation techniques need to be developed for parameter identification against the measured data of observed phenomena. Finally, computational mathematics paves the way for the validation of mathematical models and the investigation of control problems. This Special Issue will include high-quality articles containing original research results and survey articles including prospective discussion focusing on, but not limited to, differential models, integro-differential models, numerical methods for the computation of numerical solutions and efficient algorithms for parameter estimation.

#### Guest Editor

Dr. Gabriella Bretti Istituto per le Applicazioni del Calcolo "M. Picone" Consiglio Nazionale delle Ricerche, via dei Taurini 19, 00185 Rome, Italy

#### Deadline for manuscript submissions

closed (31 March 2021)



an Open Access Journal by MDPI

#### **Impact Factor 1.6**



mdpi.com/si/56752

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

#### mdpi.com/journal/

axioms





# Axioms

an Open Access Journal by MDPI

#### Impact Factor 1.6



axioms



## About the Journal

### Message from the Editor-in-Chief

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

#### **Author Benefits**

#### **Open Access**

- free for readers, with article processing charges (APC) paid by authors or their institutions.

#### High visibility:

indexed within SCIE (Web of Science), dblp, and other databases.

## Journal Rank:

JCR - Q2 (Mathematics, Applied)