



Numerical Methods and Applications for Differential Problems

Guest Editors:

Dr. Justin B. Munyakazi

Department of Mathematics and Applied Mathematics, University of the Western Cape, Cape Town, South Africa

Prof. Dr. Gemechis File Duressa

College of Natural Sciences, Jimma University, Jimma P.O. Box 378, Ethiopia

Prof. Dr. Musa Cakir

Department of Mathematics, Faculty of Science, University of Van Yuzuncu Yil, Van, Turkey

Deadline for manuscript submissions:

closed (30 April 2024)

Message from the Guest Editors

Differential equations arise in several research domains of applied sciences and engineering. These include but are not limited to fluid dynamics, heat conduction with mixed boundary conditions, population dynamics, and epidemiology. In most cases, it is difficult, if not impossible, to determine analytical solutions to the models listed above. Often, researchers have recourse to semi-analytical and numerical methods. However, obtaining a reliable semi-analytical solution involves a number of different elements and can become cumbersome. This difficulty may become more pronounced in the case of singularly perturbed problems. These includes a class of parameter-dependent problems and those presenting multiscale phenomena.

This Special Issue provides a platform where novel numerical methods that can be used to solve ordinary and partial differential equations as well as integro-differential equations will be presented. The stability and accuracy of those methods will be analyzed. Methods will be implemented on applied problems in various domains of science and engineering.





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Editor-in-Chief

Prof. Dr. Francisco Chiclana
School of Computer Science and
Informatics, De Montfort
University, The Gateway,
Leicester LE1 9BH, UK

Message from the Editor-in-Chief

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Mathematics Editorial Office
MDPI, Grosspeteranlage 5
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