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# **Advanced Numerical Methods for Differential Equations**

Guest Editors:

### **Message from the Guest Editors**

Dr. Praveen Agarwal

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Deadline for manuscript submissions: closed (15 April 2022) Differential equations, in general, have attracted more and more attention in mathematical, scientific, and engineering communities due to their wide real-life applications in mathematical modeling physical/engineering/biological systems, and many other areas.

In general, it is difficult to solve some kind of mathematical model due to the complexity. These models are governed by differential equations whose solutions make it easy to understand real-life problems and can be applied to engineering and science disciplines. This Special Issue is mainly focused to address a wide range of computational methods ranging from efficient finite element and finite difference methods, adaptive methods, multi-scale methods, to spectral methods and kinetic Monte Carlo simulations. Computational challenges will be discussed, and new computational techniques will be introduced for various applications. Engineers, mathematicians. scientists. researchers working real-life and on mathematical problems will find this special issue useful.









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## **Editor-in-Chief**

#### Prof. Dr. Kevin H. Knuth

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### Message from the Editor-in-Chief

The concept of entropy is traditionally a quantity in physics that has to do with temperature. However, it is now clear that entropy is deeply related to information theory and the process of inference. As such, entropic techniques have found broad application in the sciences.

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