Special Issue

Mesh Methods—Numerical Analysis and Experiments II

Message from the Guest Editor

Mathematical models of different natural processes are described by the differential equations, systems of PDEs and integral equations. In most cases, it turns out that the exact solution of such problems cannot be determined, so we have to use mesh methods to calculate approximate solutions using highperformance computational complexes. First of all, these methods include the finite element method, the finite difference method, the finite volume method and the combined methods. In this Special Issue, it is proposed to publish qualitative works on theoretical studies of grid methods on the approximation, stability, and convergence, as well as the results of numerical experiments confirming the effectiveness of the developed methods. New methods for boundary value problems with singularity, with the complex geometry of the domain boundary and for non-linear equations are under particular interest. Articles concerning the analysis of the numerical methods developed for the computation of the mathematical models in different areas of applied science and engineering applications will be welcome.

Guest Editor

Prof. Dr. Viktor A. Rukavishnikov

Computing Center of Far-Eastern Branch, Russian Academy of Sciences, Kim-Yu-Chen Str. 65, Khabarovsk 680000, Russia

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MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
symmetry@mdpi.com

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Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

Editor-in-Chief

Prof. Dr. Sergei Odintsov

- 1. Institució Catalana de Recerca i Estudis Avançats (ICREA), Passeig Luis Companys, 23, 08010 Barcelona, Spain
- 2. Institute of Space Sciences (ICE-CSIC), C. Can Magrans s/n, 08193 Barcelona, Spain

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