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Modelling of Deformation Characteristics of Materials or Structures

Guest Editor:

Prof. Dr. Tomasz Strek
Institute of Applied Mechanics, Poznan University of Technology, 60-965 Poznan, Poland

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Message from the Guest Editor

Nowadays, simulation techniques and numerical methods have been rapidly evolving in order to apply increasingly complex models and to meet the growing requirements of engineering applications. Also, newly developed analytical solutions have covered a wider range of scientific problems and are benchmark solutions for numerical simulations.

This Special Issue of Materials is devoted to analytical and computational methods in the modelling of material characteristics. Among others, the following topics are the main fields of interest of this Issue: linear and non-linear behavior elasticity and plasticity models; materials with anomalous characteristics; metamaterials; auxetic cellular materials; smart materials; porous materials; functionally graded materials, dynamics and fatigue of materials; the topological optimization of structures; heat transfer in materials and structures; as well as other topics relating to computational methods in the engineering and modelling of materials. We invite you to submit research articles concerning the latest research work in these areas, with an emphasis on applications in all areas of materials and mechanics engineering.

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Editor-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Message from the Editor-in-Chief

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Contact Us

Materials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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