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Computer Methods and Experimental Testing for Advanced Structural Materials

Guest Editors:

Dr. Jakub Krzysztof Grabski

Dr. Vladimir Buljak

Dr. Aram Cornaggia

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Message from the Guest Editors

Dear Colleagues,

Recent trends in engineering research are seeing diverse computer methods being applied for structural simulations involving advanced materials that are usually subjected to nonlinear deformation. In these problems, the selection of the appropriate constitutive model for describing the material's mechanical response is crucial, which has to be supported by a robust computational framework (e.g., finite element method, boundary element method or meshless methods) in order to yield reliable simulated results both at the material point and at the overall structural scale. These methods are being applied in vast engineering and scientific branches, modelling a large diversity of materials, ranging from bio-materials, eco-materials, composites, textiles, glass, timber, paperboard to more commonly used materials such as metals, ceramics or concrete.

This Special Issue is devoted to the application of some of the abovementioned methods combined with experimental techniques in diverse applications, including (but not limited to) aeronautical, biomechanical, civil and mechanical engineering.

Dr. Jakub Krzysztof Grabski
Dr. Vladimir Buljak
Dr. Aram Cornaggia
Guest Editors

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Special Issue

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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, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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