Special Issue

Numerical and Experimental Analysis of Advanced Concrete Materials

Message from the Guest Editors

In modern engineering, more different types of concrete structures are used. Current applications in the construction of modern structures, require the analysis of structures of different material properties and shapes exposed to different types of loads. In practice, several experimental tests exist that provide new insights into concrete as a material. However, such tests are expensive, and new numerical models within which these results can be implemented and then used for further analysis, have a great advantage. The development of new numerical models based on experimental results can simulate the behavior of concrete as a building material with improved properties. Also numerical models can simulate the behavior of concrete structures whose load capacity can be increased form of fastening. The aim of this special edition is to collect and present new numerical simulations of the behavior of concrete as materials and concrete structures as well and thus provide a better understanding of the basic principles of cracking and propagation of cracks in concrete structures exposed to different types of loads. Dr. Nikolina Zivaljic

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Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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