Special Issue

Numerical Modeling and Mechanical Properties Analysis for Building Materials

Message from the Guest Editors

Numerical approaches on building materials are commonly adopted today as indispensable tools to design, monitor, and verify structural safety. From the critical analysis of experimental results to the design of civil engineering structures, numerical simulations not only allow investigating short- and long-term in-service behavior but also predicting failure under extreme situations, such as high-rate dynamic mechanical loadings or multiphysics loadings such as fire or high pressures. Different numerical and analytical techniques are indeed available in the literature to approach the solution of such conditions. The issue accepts high-quality papers presenting original research and case studies on the mechanical and multiphysics behavior of different building materials, such as concrete, masonry and geo-based materials, illustrating different methodologies (discrete elements, finite elements, etc.) at different scales, from the laboratory sample to structural applications.

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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