Special Issue

Homogenization for Composite Materials

Message from the Guest Editors

Composite materials have excellent mechanical properties, such as specific stiffness and specific strength. Composite material has a structure wherein reinforcing fiber and a matrix, each with unique characteristics, are physically coupled on a microscopic scale. The complicated microstructure and the behaviors of the constituents lead to the inherent characteristics of composite materials, such as strong heterogeneity and anisotropy. The homogenization method is one of the most useful methods to assess the mechanical properties of composite materials, which takes into consideration the behavior of the constituents and their microstructure. The method is a procedure whereby a heterogeneous media is converted into an equivalent material model that is energetically equivalent to the heterogeneous media. This Special Issue will bring together leading researchers in the field of composite materials to introduce the latest research and technology using homogenization techniques. Various studies can be submitted on equivalent properties, thermal conductivity, electrical conductivity, etc. through homogenization techniques of composite materials.

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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.

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