Special Issue

5th Anniversary of Nanotechnology and Applied Nanosciences Section—Recent Advances in Carbon Composites and Complex Materials

Message from the Guest Editors

The recent requirements in the design and manufacturing of nanosystems and nanotechnology have encouraged the use of carbon-based nanomaterials, particularly carbon nanotubes (CNTs) and graphene, due to their outstanding mechanical properties, high electrical and thermal conductivity, and reduced flammability. In such a context, this Special Issue aims at gathering together experts and researchers for the mechanical modeling of micro/nanomaterials at different scales, as useful for biosensors, resonators, valves, pumps, porous structures, energy harvesters, and advanced composite structures. The well-known size dependance of most physical and mechanical properties of small-scale structures has favored the use of nonlocal continuum mechanics to simulate complicated scale phenomena in a consistent manner, both from a theoretical and computational standpoint. Advanced theories and high-performance computational models are welcome for the static and dynamic study of nanosystems and nanostructures, involving enhanced nonlocal damage and fracturing models, able to capture the size-dependent formation and propagation of internal cracks in complex heterogeneous materials and interfaces.

Guest Editors

Dr. Francesco Tornabene

Department of Innovation Engineering, University of Salento, 73100 Lecce, Italy

Dr. Rossana Dimitri

Department of Innovation Engineering, University of Salento, 73100 Lecce, Italy

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Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applsci@mdpi.com

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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

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

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