



## Advanced Theoretical and Computational Methods for Complex Materials and Structures

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Deadline for manuscript  
submissions:

**closed (31 January 2020)**

### Message from the Guest Editors

Dear Colleagues,

In recent decades, composite materials have been increasingly applied in many engineering applications, e.g., aerospace components, aircrafts, boat hulls and sails, car bodies, long span roofs, as well as biomedical prostheses, electronic devices, and drones. Accordingly, this Special Issue aims at gathering together experts and young researchers in modeling heterogeneous materials and structures at different scales.

### Keywords:

Adhesion  
Advanced computational methods  
Auxetic materials  
Buckling behavior  
Carbon nanotubes  
Complex materials  
Composite beams, plates, and shells  
Constitutive models  
Damage, Delamination, Dynamics  
Fracture mechanics  
Functionally graded materials  
Homogenization techniques  
Metamaterials  
Nanostructures  
Smart materials  
Statics  
Theoretical, numerical, and experimental strategies





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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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