



## Multiscale Theories, Models and Applications for Engineering Systems

Guest Editors:

**Dr. Yucheng Fu**

Pacific Northwest National  
Laboratory, Richland, WA 99352,  
USA

**Dr. Zhijie Xu**

Pacific Northwest National  
Laboratory, Richland, WA 99352,  
USA

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### Message from the Guest Editors

The modeling of a complex engineering system by covering different spatial and temporal scales, from microscopic to macroscopic, is a challenging task. Without a fundamental understanding of the physics and proper modeling techniques, the efforts and computational costs can grow exponentially when trying to solve the problem of simultaneously crossing different scales. Multiscale mathematics and theories can bridge the gaps between different scales and put the modeling on a solid footing. The successful development of new multiscale models always comes with a careful selection of models and theories, while bearing related physics constraints in mind. The efficiency of information passing and integration is also critical for controlling the computational costs of a multiscale model to provide practical solutions. This Special Issue aims to publish original and novel theories, models and applications related to multiscale and multiphysics problems. Potential topics of interest include, but are not limited to, fluid dynamics, materials, meteorology, physics, mathematics, and chemistry. The adoption of multiscale methods to interdisciplinary applications is also encouraged.





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University, The Gateway,  
Leicester LE1 9BH, UK

## Message from the Editor-in-Chief

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*Mathematics* Editorial Office  
MDPI, St. Alban-Anlage 66  
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