Special Issue

Multiscale Heat and Mass Transfer and Artificial Intelligence

Message from the Guest Editors

Heat and mass transfer is an important research area that is relevant to a variety of emerging technologies in the fields of energy, low-carbon energy utilization, chemical engineering and aerospace engineering, etc. Multiscale simulation techniques and complement experimental studies from atomic to macroscopic scale brought about numerous breakthroughs. Recently, cutting-edge artificial intelligence (AI) technologies have emerged as powerful tools to accelerate fundamental physics-based understanding and applications in heat and mass transfer research. In view of these achievements, this Special Issue is devoted to showcasing cutting-edge research and developments in the field of multiscale heat and mass transfer and AI technologies.

Keywords:
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multiscale modelling
multidisciplinary energy conversion
temperature reconstruction
flow dynamics
physics-informed neural network

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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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