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Computer Simulation of Quantum and Classical Systems

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Deadline for manuscript submissions:
closed (25 April 2022)

Message from the Guest Editors

Notwithstanding the promises of quantum computing, classical simulations are still the method of choice for non-perturbative calculations in quantum and classical many-body systems. Classical simulations are closer to our intuition and can provide great insight. Hence, they will remain useful even after the coming of age of quantum computers.

There is a very strong connection between simulations of quantum and classical systems. This link is founded on very general grounds: quantum systems are often mapped onto classical models. Hence, the techniques used in simulations of classical systems are also useful for quantum systems and vice versa. Important advancements may be made when simulations of classical systems overcome the problems of multiscale modeling, long-time dynamics, and sampling of rare events. Papers dealing with the above topics are welcome for submission to this Special Issue.

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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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