

## Special Issue

# Monte Carlo Simulation in Quantum Science and Applied Physics

### Message from the Guest Editors

The aim is to select some papers for creating a reference publication regarding the state-of-the-art stochastic techniques currently employed within close, nonetheless separate, scientific fields. Hopefully, a large part of the scientific community will benefit from this work, which will provide an account of some of the specific computational strategies and theoretical findings which have been derived on the subject. The manuscripts should cover, but are not limited to, the following topics:

- Radiation transport computational studies exploiting stochastic approaches
- Monte Carlo methods in cold atomic and molecular physics and chemistry
- Hybrid methods coupling molecular dynamics and Monte Carlo simulations
- Review articles on Monte Carlo technique and related stochastic methods
- Experimental approaches combining measures and Monte Carlo simulation
- Monte Carlo approaches in fluid flow simulation
- [Direct simulation of transitional flow for hypersonic reentry conditions](#)
- Monte Carlo techniques for ionizing radiation dosimetry
- Radiation shielding design with Monte Carlo simulations

### Guest Editors

Dr. Davide Bianco

Prof. Dr. Maria Quarto

Dr. Filomena Loffredo

### Deadline for manuscript submissions

closed (20 June 2022)



## Applied Sciences

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## About the Journal

### 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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### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
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