Special Issue

Numerical Simulation for Next Generation Engines

Message from the Guest Editors

Modern internal combustion engines must fulfill increasingly strict standards in view of a lowering of pollutant and CO2 emissions. On one hand, innovative ideas and technologies must comply with fast-changing targets. On the other hand, the increasing engine complexity implies a greater number of parameters to be controlled and the need for a deeper understanding of mutual interactions between different subsystems. Numerical simulations play a key role in understanding the physics of more complex systems and in providing flexible virtual testing to explore multiple solutions in a limited time. The use of computational techniques is mandatory to predict, optimize and verify the expected performance. The special issue aims to gather recent advances with particular attention to high efficiency powertrain concepts. Topics of interest include (but are not limited to) the development and the application of simulation approaches for:

- Advanced Hybrid Powertrains
- Fuel Cells
- Alternative and Advanced Fuels
- Thermal Management
- Alternative and Novel Combustion Concepts
- Engine Boosting Systems
- Driving Cycle Emissions Control
- Fuel Injection and Sprays

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Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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