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Numerical Modeling and Hybrid Methods for Thermal Management, Storage, and Optimization

Guest Editors:

Prof. Dr. Yuan Dong
1. School of Mechanical Engineering, Hangzhou Dianzi University, Hangzhou 310018, China
2. Department of Mechanical and Aerospace Engineering, University of Missouri, Columbia, MO 65201, USA
3. Laboratory for Thermal Science and Power Engineering of Ministry of Education, Department of Engineering Mechanics, Tsinghua University, Beijing 100084, China

Dr. Yuchao Hua
Laboratoire de Thermique et Énergie de Nantes, University of Nantes, 44300 Nantes, France

Deadline for manuscript submissions:
closed (30 June 2023)

Message from the Guest Editors

Energy has long been at the center of the sustainable development paradigm. Increasing energy efficiency is identified as one of the main challenges for energy systems. Almost all energy systems involve heat. In this sense, thermal management, storage, and optimization play an important role in achieving highly efficient systems, which has attracted the attentions of both the academic and industrial communities. Generally, mathematical modeling is the basis for the study on the heat-related topics. This Special Issue will focus on recent theoretical and computational studies on Thermal Management, Storage, and Optimization. Topics include, but are not limited to:

1. Numerical simulation in heat transfer, including heat conduction, heat convection, and thermal radiation;
2. Modeling and analysis of heat storage process or system;
3. Thermal management and design of electronics;
4. Heat transfer intensification and optimization;
5. Modeling and simulation in energy materials;
6. Modeling and analysis of thermal transport at small scales and non-Fourier regimes;
7. Study of thermal problems using AI/Machine Learning techniques.

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Editor-in-Chief

Prof. Dr. Francisco Chiclana
School of Computer Science and Informatics, De Montfort University, The Gateway, Leicester LE1 9BH, UK

Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

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Mathematics Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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