

Special Issue

Methods and Applications of Uncertainty Quantification in Engineering and Science

Message from the Guest Editors

In the last two decades, uncertainty quantification (UQ) methods have received increasing attention, as real-world problems in most science, technology, and engineering areas are affected significantly by uncertainty. When dealing with simulations of complex physical phenomena, uncertainty generally stems from physical modelling, environmental/operating conditions, and to some extent numerical discretization. To overcome the limitations due to the computational cost associated with UQ, several approaches have been investigated by researchers in different areas. The aim of this Special Issue is to collect state-of-the-art research on the topic of computationally-efficient UQ methods and on their applications to complex problems. The Special Issue is organized in collaboration with the Workshop on Frontiers of Uncertainty Quantification in Fluid Dynamics (FrontUQ 2019, <https://frontuq19.com/>). Contributions from FrontUQ are welcome, as well as papers from other fields of application of UQ and researchers outside the workshop.

Guest Editors

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Prof. Dr. Maria Vittoria Salvetti

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Deadline for manuscript submissions

closed (31 July 2020)



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About the Journal

Message from the Editor-in-Chief

Algorithms are the core of computational mathematics and computer science. The whole area has been considered from different perspectives, which has led to the development of several sub-communities. The aim is to bring together researchers and practitioners from different areas of computational mathematics and computer science and to offer a platform for interdisciplinary applications in different areas of science and technology. In this way, *Algorithms* may become a forum for the exchange of new stimulating ideas between the different sub-communities working in the area of algorithms and their applications and the presentation of high-quality novel algorithmic approaches.

Editor-in-Chief

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