

## Special Issue

# Advanced Aerodynamic Design and Flow Control in Turbomachinery

### Message from the Guest Editors

With the increasing demand for sustainable and cost-effective energy solutions, the importance of aerodynamic optimization has become more prominent than ever. As part of this Special Issue, cutting-edge research pertaining to advanced aerodynamic designs and flow control approaches, together with related engineering applications, is most welcome. Both theoretical and experimental investigations are within the scope of this Special Issue, in addition to comprehensive reviews and survey papers. We welcome original research articles, case studies, and comprehensive reviews that cover, but are not limited to, the following:

- Aerodynamic optimization techniques
- Boundary layer and separation control
- Flow instability and transition mechanisms
- Computational and experimental flow analysis
- Multi-disciplinary design approaches (e.g., aero-thermal and aero-structural)
- Novel concepts in turbomachinery blade and stage design
- The application of machine learning or AI in aerodynamic design

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### Guest Editors

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### Deadline for manuscript submissions

31 December 2025



## 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

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