



Aerodynamic Design and Optimization for Turbomachinery

Guest Editors:

Prof. Dr. Jingyin Li

National Engineering Research
Center of Fluid Machinery and
Compressors, Department of
Fluid Machinery, School of Energy
and Power Engineering, Xi'an
Jiaotong University, Xi'an 710049,
China

Dr. Lei Tan

State Key Laboratory of
Hydroscience and Engineering,
Department of Energy and Power
Engineering, Tsinghua University,
Beijing 100084, China

Deadline for manuscript
submissions:

closed (15 January 2024)

Message from the Guest Editors

The proposed Special Issue particularly fits the following
scopes of MDPI's *Machines* journal:

- All aspects of turbomachinery design and optimization methods;
- New turbomachinery design method/theory/modified empirical formula;
- Turbomachinery aerodynamic performance test platform and experimental research;
- Advances in fluid dynamics of turbomachinery and high-precision numerical simulation methods;
- Application of multi/many objectives optimization algorithm in turbomachinery optimization;
- Design optimization methods and CFD analysis of turbomachinery components;
- Multidisciplinary design of turbomachinery (e.g., efficiency, acoustics, strength, and vibration);
- Two-phase flow and multi-phase flow in turbomachinery;
- Vortex dynamics and boundary layers in turbomachinery;
- The prediction of stall and surge condition, and flow range extension method of turbomachinery





an Open Access Journal by MDPI

Editor-in-Chief

**Prof. Dr. Antonio J. Marques
Cardoso**

CISE—Electromechatronic
Systems Research Centre,
University of Beira Interior,
Calçada Fonte do Lameiro, P -
6201-001 Covilhã, Portugal

Message from the Editor-in-Chief

Machines is an international, peer reviewed journal on machinery and engineering. It publishes research articles, reviews and communications.

Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the length of the papers. Full experimental and/or methodical details must be provided.

There are, in addition, unique features of this journal: Manuscripts regarding research proposals and research ideas will be particularly welcomed; Electronic files or software regarding the full details of the calculation and experimental procedure - if unable to be published in a normal way can be deposited as supplementary material.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within *Scopus*, *SCIE (Web of Science)*, *Inspec*, and other databases.

Journal Rank: JCR - Q2 (*Engineering, Mechanical*)

Contact Us

Machines Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/machines
machines@mdpi.com
[X@Machines_MDPI](https://twitter.com/Machines_MDPI)