



Applications of Fluid Machinery with Symmetry

Guest Editor:

Prof. Dr. Zhengwei Wang

State Key Laboratory of Hydro
Science and Engineering &
Department of Thermal
Engineering, Tsinghua University,
Beijing 100084, China

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Message from the Guest Editor

Dear Colleagues,

The internal flows of fluid machinery during operations exhibit not only symmetrical but also complex asymmetrical characteristics. Based on this, many studies on the theoretical models and simulation calculations of multiphase flow and multiphysics coupling characteristics of fluid machinery have been carried out in order to explore the performance changes caused by both symmetrical and asymmetrical characteristics. These studies have also been combined with engineering practice so that theoretical and technical research such as multiobject flow channel optimization design, multiphysics coupling dynamic characteristics analysis, and optimization performance analysis can also be developed. Topics of interest include:

- Performance changes caused by asymmetrical characteristics
- Hydraulic technology and hydraulic machinery
- Multiphysics coupling
- Optimal design of hydraulic machinery
- Mathematical model and simulation technology
- Experimental test technology

Dr. Zhengwei Wang
Guest Editor





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1. Institució Catalana de Recerca
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2. Institute of Space Sciences
(ICE-CSIC), C. Can Magrans s/n,
08193 Barcelona, Spain

Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

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Symmetry Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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symmetry@mdpi.com
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