



Modeling and Optimization of Hydraulic Machinery and Its Systems

Guest Editors:

Dr. Wei Dong

College of Water Resources and
Architectural Engineering,
Northwest A&F University,
Yangling 712100, China

Dr. Zhengjing Shen

College of Energy and Power
Engineering, Lanzhou University
of Technology, Lanzhou 730050,
China

Dr. Wei Wang

College of Water Power and
Hydropower, Xi'an University of
Technology, Xi'an 710048, China

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Message from the Guest Editors

Dear Colleagues,

Hydraulic machinery is mechanical equipment for the development and utilization of hydraulic energy resources to realize the mutually efficient conversion of hydraulic energy and mechanical energy, involving fluid dynamics, structural dynamics, mechanics, materials science and other multidisciplinary fields. The research scope covers the design, manufacture, stable operation characteristics and unsteady operation characteristics of hydraulic machinery. The discipline of hydraulic machinery involves a wide range of fields and is related to the sustainable development of energy and ecology:

- Hydraulic machinery energy-saving and efficient operation technology;
- Prediction and control of complex flow in energy conversion systems and energy storage systems;
- Multiphase/Multicomponent Flows in hydraulic machinery;
- Fluid-structure interaction in hydraulic machinery;
- Hydraulic machinery system dynamic characteristics, state monitoring and fault diagnosis;
- Optimization design methods for hydro turbines;
- Analysis of internal flow loss characteristics in hydraulic machinery.





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Editor-in-Chief

Prof. Dr. Enrico Sciubba

Department of Mechanical and
Aerospace Engineering,
University of Roma Sapienza, Via
Eudossiana 18, 00184 Roma, Italy

Message from the Editor-in-Chief

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