International Journal of Rotating Machinery

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Special Issue on

Advances in Measurement Techniques for Turbomachinery Flow, Heat Transfer, and Acoustics

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Flow in turbomachines is highly three-dimensional and complex. The flow may be incompressible, compressible, or mixed flow. The flow is further complicated by the high temperatures of working fluids. Large gradients of pressure, velocity, angle, temperature, and density in all directions and with time occur in most of turbomachinery. Two-phase flow is also encountered in many turbomachines. Although CFD is being extensively used to predict flow in turbomachines, it is essential that CFD results must be validated experimentally. A wide variety of measurement techniques are required starting with simple performance measurements to most complex measurements in the rotating blade rows of turbomachines. Substantial advances are made in different measurement techniques used for measurement of turbomachinery flow, heat transfer, and acoustics. The present special issue addresses these advances for the use of researchers in academia, industry, and R&D laboratories.

We invite investigators to contribute original research articles as well as review articles that address various measurement techniques in turbomachinery. Potential topics include, but are not limited to:

Research articles using these techniques are also welcome. Special emphasis will be given to articles that validate CFD results against experimental results using the advanced measurement techniques.

Authors can submit their manuscripts via the Manuscript Tracking System at http://mts.hindawi.com/submit/journals/ijrm/amtt/.

Lead Guest Editor
Nekkanti Sitaram, Department of Mechanical Engineering, Indian Institute of Technology Madras, Chennai, Tamil Nadu, India
nsitaram.iitm@gmail.com

Guest Editors
G. M. Carlomagno, Department of Industrial Engineering, University of Naples Federico II, Naples, Italy
carmagno@unina.it

T. Matsunuma, Turbomachinery Group, Energy Technology Research Institute, AIST, Tsukuba, Ibaraki, Japan
t-matsunuma@aist.go.jp

Mark McQuilling, Parks College of Engineering, Aviation and Technology, Saint Louis University, Saint Louis, MO, USA
mmcquil2@slu.edu

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