

RESEARCH PAPERS

Gas Turbines: Ceramics

- 121301 On the Performance of Porous Sound Absorbent Material in High Temperature Applications
Frank Giese, Hans-Christoph Ries, and Christian Eigenbrod

Gas Turbines: Combustion, Fuels, and Emissions

- 121501 Effects of Acoustic Excitation on a Swirling Diffusion Flame
Michael E. Loretero and Rong F. Huang
- 121502 Comparison of Linear Stability Analysis With Experiments by Actively Tuning the Acoustic Boundary Conditions of a Premixed Combustor
Mirko R. Bothien, Jonas P. Moeck, and Christian Oliver Paschereit
- 121503 FLOX[®] Combustion at High Power Density and High Flame Temperatures
Oliver Lammel, Harald Schütz, Guido Schmitz, Rainer Lücknerath, Michael Stöhr, Berthold Noll, Manfred Aigner, Matthias Hase, and Werner Krebs

Gas Turbines: Controls, Diagnostics, and Instrumentation

- 121601 Measurement Selection for Engine Transients by Parameter Signatures
James R. McCusker and Kourosh Danaei

Gas Turbines: Heat Transfer

- 121901 Time Averaged Net Heat Flux Reduction for Unsteady Film Cooling
James L. Rutledge, Paul I. King, and Richard Rivir

Gas Turbines: Microturbines and Small Turbomachinery

- 122301 Assessment of Tesla Turbine Performance for Small Scale Rankine Combined Heat and Power Systems
Van P. Carey

Gas Turbines: Structures and Dynamics

- 122501 Mistuning Forced Response Characteristics Analysis of Mistuned Bladed Disks
Haitao Liao, Jianjun Wang, Jianyao Yao, and Qihan Li
- 122502 Constrained Design Optimization of Rotor-Tilting Pad Bearing Systems
Costin D. Untaroiu and Alexandrina Untaroiu
- 122503 A Multiobjective Adaptive Controller for Magnetic Bearing Systems
M. Necip Sahinkaya, Abdul-Hadi G. Abulrub, Clifford R. Burrows, and Patrick S. Keogh
- 122504 Design of Three-Pad Hybrid Air Foil Bearing and Experimental Investigation on Static Performance at Zero Running Speed
Daejong Kim and Donghyun Lee
- 122505 The Cumulative Effects of Forcing Function, Damping, and Mistuning on Blade Forced Response in a High Speed Centrifugal Compressor With Inlet Distortion
Albert Kammerer and Reza S. Abhari

(Contents continued on inside back cover)

Editor
D. R. BALLAL (2011)

Assistant to the Editor
S. D. BALLAL

Associate Editors
Gas Turbines (Review Chairs)
T. BATTELMAYER (2010)
K. THOLE (2010)

Coal, Biomass & Alternative Fuels
K. ANNAMALAI (2013)

Combustion & Fuels
H. K. RECK (2012)
T. BATTELMAYER (2012)

Controls, Diagnostics, & Instrumentation
A. VOLPONI (2013)

Cycle Innovation
W. SAHJ (2013)

Electric Power
R. CHESBA (2011)

Oil and Gas Applications
K. BRUN (2013)

Structures and Dynamics
R. S. KROGH (2013)
J. SZWEDOWICZ (2013)

Internal Combustion Engines
C. RUTLAND (2012)
J. WALLACE (2011)
M. WOOLDRIDGE (2011)

Nuclear Engineering
J. KUNZE (2011)
I. PIGNO (2011)

PUBLICATIONS COMMITTEE
Chair, S. RAVANI

OFFICERS OF THE ASME
President, ROBERT T. BRIDGEMAN

Executive Director,
T. G. LOUGHLIN

Treasurer,
W. WARDEN

PUBLISHING STAFF

Managing Director, Publishing
P. DI VIETRO

Manager, Journals
C. MCATEER

Production Coordinator
J. SHERMAN

Transactions of the ASME, Journal of Engineering for Gas Turbines and Power (ISSN 0742-4795) is published monthly by The American Society of Mechanical Engineers, Three Park Avenue, New York, NY 10016. Periodicals postage paid at New York, NY and additional mailing offices.

POSTMASTER: Send address changes to Transactions of the ASME, Journal of Engineering for Gas Turbines and Power, c/o THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS, 36 Lay Drive, Box 2300, Fairfield, NJ 07007-2300.

CHANGES OF ADDRESS must be received at Society headquarters seven weeks before they are to be effective.

Please send old labels and new address.

ENTIRETY from S.M.E. The Society does not be responsible for statements or opinions published in papers.

It is printed in the United States (07-1) (10-1).

Copyright © 2010 by the American Society of Mechanical Engineers. For authorization to photocopy items for internal or personal use, or the internal or personal use of specific clients, contact the Copyright Clearance Center (CCC), 222 Rosewood Drive, Danvers, MA 01923.

For further information, contact the Copyright Clearance Center (CCC), 222 Rosewood Drive, Danvers, MA 01923, Tel: 978-750-8400, www.copyright.com.

Canadian Goods & Services Tax Registration #R123192948