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Research Papers

Unsteady Effect in a Nozzled Turbocharger Turbine

Srithar Rajoo and R. F. Martinez-Botas

J. Turbomach. 2010;132(3):031001-031001-9. doi:10.1115/1.3142862.

Observations of Transition Phenomena on a Controlled Diffusion Compressor Stator With a Circular Arc Leading Edge

Alan D. Henderson and Gregory J. Walker

J. Turbomach. 2010;132(3):031002-031002-9. doi:10.1115/1.3144163.

Film Cooling in a Separated Flow Field on a Novel Lightweight Turbine Blade

Yoji Okita, Chiyuki Nakamata, Masaya Kumada and Masahiro Ikeda

J. Turbomach. 2010;132(3):031003-031003-12. doi:10.1115/1.3144165.

Multidisciplinary Optimization of a Radial Compressor for Microgas Turbine Applications

T. Verstraete, Z. Alsalihi and R. A. Van den Braembussche

J. Turbomach. 2010;132(3):031004-031004-7. doi:10.1115/1.3144162.

Shaping of Tip End-Plate to Control Leakage Vortex Swirl in Axial Flow Fans

Alessandro Corsini, Franco Rispoli and A. G. Sheard

J. Turbomach. 2010;132(3):031005-031005-9. doi:10.1115/1.3145017.

Thermodynamic Analysis of Buoyancy-Induced Flow in Rotating Cavities

J. Michael Owen

J. Turbomach. 2010;132(3):031006-031006-7. doi:10.1115/1.2988170.

Internal Losses and Flow Behavior of a Turbofan Stage at Windmill

Dilip Prasad and Wesley K. Lord

J. Turbomach. 2010;132(3):031007-031007-10. doi:10.1115/1.3147106.

Designing Low Pressure Turbines for Optimized Airfoil Lift

Jochen Gier, Matthias Franke, Norbert Hübner and Thomas Schröder

J. Turbomach. 2010;132(3):031008-031008-12. doi:10.1115/1.3148476.

3D Numerical Investigation of Tandem Airfoils for a Core Compressor Rotor

Jonathan McGlumphy, Wing-Fai Ng, Steven R. Wellborn and Severin Kempf

J. Turbomach. 2010;132(3):031009-031009-9. doi:10.1115/1.3149283.

Heat Transfer Augmentation Downstream of Rows of Various Dimple Geometries on the Suction Side of a Gas Turbine Airfoil

Jason E. Dees, David G. Bogard and Ronald S. Bunker

J. Turbomach. 2010;132(3):031010-031010-7. doi:10.1115/1.3149284.

Considerations of a Double-Wall Cooling Design to Reduce Sand Blockage

Camron C. Land, Chris Joe and Karen A. Thole

J. Turbomach. 2010;132(3):031011-031011-8. doi:10.1115/1.3153308.

Numerical Simulation of the Flow Pulsations Origin in Cascades of the Rear Blade Rows in a Gas Turbine Axial Compressor Using Low Calorific Fuel

Vaclav Cyrus and Jiri Polansky

J. Turbomach. 2010;132(3):031012-031012-11. doi:10.1115/1.3153306.

Interaction of Wheel-space Coolant and Main Flow in a New Aeroderivative Low Pressure Turbine

F. Montomoli, M. Massini, N. Maceli, M. Cirri, L. Lombardi, A. Ciani, M. D'Ercole and R. De Prosperis

J. Turbomach. 2010;132(3):031013-031013-7. doi:10.1115/1.3195036.

Establishing a Methodology for Resolving Convective Heat Transfer From Complex Geometries

Jason K. Ostanek, J. Prausa, A. Van Suetendael and Karen A. Thole

J. Turbomach. 2010;132(3):031014-031014-10. doi:10.1115/1.3144989.

Unsteady Computational Fluid Dynamics Investigation on Inlet Distortion in a Centrifugal Compressor

Armin Zemp, Albert Kammerer and Reza S. Abhari

J. Turbomach. 2010;132(3):031015-031015-9. doi:10.1115/1.3147104.

Efficient Finite Element Analysis/Computational Fluid Dynamics Thermal Coupling for Engineering Applications

Zixiang Sun, John W. Chew, Nicholas J. Hills, Konstantin N. Volkov and Christopher J. Barnes

J. Turbomach. 2010;132(3):031016-031016-9. doi:10.1115/1.3147105.

Comparison of Discharge Coefficient Measurements and Correlations for Orifices With Cross-Flow and Rotation

Marcus Hüning

J. Turbomach. 2010;132(3):031017-031017-10. doi:10.1115/1.3147102.

Effect of Roughness and Unsteadiness on the Performance of a New Low Pressure Turbine Blade at Low Reynolds Numbers

Francesco Montomoli, Howard Hodson and Frank Haselbach

J. Turbomach. 2010;132(3):031018-031018-9. doi:10.1115/1.3148475.

Study on Advanced Internal Cooling Technologies for the Development of Next-

Generation Small-Class Aircraft Engines

Shu Fujimoto, Yoji Okita, Yoshitaka Fukuyama, Takashi Yamane, Fujio Mimura, Masahiro Matsushita and Toyoaki Yoshida

J. Turbomach. 2010;132(3):031019-031019-10. doi:10.1115/1.3151602.

Aerodynamic Performance of Suction-Side Gill Region Film Cooling

Justin Chappell, Phil Ligrani, Sri Sreekanth, Terry Lucas and Edward Vlasic

J. Turbomach. 2010;132(3):031020-031020-11. doi:10.1115/1.3151603.

A New Streamline Curvature Throughflow Method for Radial Turbomachinery

Michael Casey and Chris Robinson

J. Turbomach. 2010;132(3):031021-031021-10. doi:10.1115/1.3151601.

Suction-Side Gill Region Film Cooling: Effects of Hole Shape and Orientation on Adiabatic Effectiveness and Heat Transfer Coefficient

Justin Chappell, Phil Ligrani, Sri Sreekanth and Terry Lucas

J. Turbomach. 2010;132(3):031022-031022-11. doi:10.1115/1.3151600.

Computational Modeling of Tip Heat Transfer to a Superscale Model of an Unshrouded Gas Turbine Blade

Brian M. T. Tang, Pepe Palafox, Brian C. Y. Cheong, Martin L. G. Oldfield and David R. H. Gillespie

J. Turbomach. 2010;132(3):031023-031023-8. doi:10.1115/1.3153307.