List of Technical Papers for 2004 Annual Conference of GTSJ

The Researches on Gas Turbines at GML,MEL and AIST

Aero-engine Technology Development in IHI
Watanabe, Y. : Ishikawajima-Harima Heavy Industries Co., Ltd.

Extended Operating Range of Low-NOx Emissions by Staged Lean Premixed Tubular Flame Combustion
Takagi, K. et al. : Hosei University.

Demonstration of Extended Operating Range of Ultra-Low NOx Emissions of a Liquid-Fueled Gas Turbine Combustor by "LL2" Combustion Concept
Yamada, H. et al. : Japan Aerospace Exploration Agency.

Combustion Characteristics of High Temperature Water and Heavy Oil Mixture Fuel
Hayashi, A. et al. : Hitachi, Ltd.

Study on Low NOx Burner for Gas/Oil Dual Fuel Firing
Hirata, Y. et al. : Hitachi, Ltd.

Characteristics of Diffusion Combustor with Strong Swirl Flow

Development of Premixers for Ultra-Low NOx Emissions Combustor in ESPR Project
Hayashi, S. et al. : Japan Aerospace Exploration Agency.

Suppression of Combustion Noise and Combustion Oscillation by Thermo-acoustic Active Control Using Secondary Flame

Control of Combustion Oscillations in Premixed Combustor -Application of the Resonator for Reducing Oscillations under High Pressure Condition -

Improvement of a Dry Low NOx Gas Turbine Combustor with an Innovative Fuel Supply Concept
Wakabayashi, T. et al. : Osaka Gas Co., Ltd.
The Development of a Gas Turbine Combustor for Dual-Fuel of Liquid and Low-Calorific Gas

Development of a Two-stage Combustor for MGT with Premixed Gas Injected into the Burned Gas from a Tubular Flame
Iwamoto, A. et al. : The University of Tokyo.

Combustion Characteristics of a Gas Turbine Combustor Fueled by Biomass Fuel
Sugiyama, R. et al. : Keio University.

The Influences of Down-sizing of Gas Turbine Combustor on the Combustion Performance
Nakamura, K. et al. : Keio University.

Exhaust Emission Characteristics of Lean Premixed Propane Micro Combustor
Awano, R. et al. : Tokyo Metropolitan Institute of Technology.

Combustion Characteristics of High Swirl Annular Combustor for Ultra Micro Gas Turbine
Murota, S. et al. : Keio University.

Research and Development on Gas Turbine Combustor Panel Utilizing Melt-Growth Composite Material (1)
Matsumoto, K. et al. : Kawasaki Heavy Industry, Ltd.

Development of Combustor of an Ultra-micro Gas Turbine for a Small Conveyable Generator
Araki, S. et al. : Keio University.

The Atomization of the Liquid Fuel by the Pressure Injector for Small Engines
Shimizu, D. et al. : Kogakuin University.

A Feasibility Study and Demonstration of DME as an Alternative Fuel for Micro Gas Turbines

Development of a Dry Low Emissions Combustor for Niigata 300kW Class Recuperated Cycles Gas Turbine Engine
Structure Changes of Single Crystal Superalloy, CMSX-2, by High Thermal Stress

Degradation and Cracking Behaviors of Stage 1 Bucket Coating in 1100C-class Gas Turbine
Yoshioka, Y. et al. : Toshiba Corporation.

Performance Measurement Tests of a Marine Turbocharger And "The Measurement Uncertainty (by ISO)"

Research of Non-Contact Rotating Blade Tip Displacement Measurement
Matsuda, Y. et al. : Japan Aerospace Exploration Agency.

The Relation between Peripheral Temperature of Bearings and Rotor Vibration of a Turbocharger Applied for Floating Bush Bearings
Iwaki, F. et al. : Ishikawajima-Harima Heavy Industries Co., Ltd.

Forward Sweep of Rotor Blade to Expand Throttle Margin of a Subsonic Single-stage Axial Flow Compressor

A Research on the Improvement of Surge Limits on a Centrifugal Compressor
Uchida, H. et al. : Toyota Central R&D Labs.

Numerical Analysis of Flow within Ultra-Highly Loaded Turbine Cascades
Matsuoka, K. et al. : Hosei University.

Characteristics of Unsteady Separation of Flow around an Oscillating Airfoil in Pitching Motion · An Example of Numerical Simulation by a Vortex Method ·
Ootsuka, H. et al. : Takushoku University.

A Reduction of Tip Mach Number in Lift Fan Rotor for Jet VTOL Aircraft
Shiratori, T. et al. : Tokyo Metropolitan Institute of Technology.

Numerical Analysis on Unsteady Aerodynamic Characteristics of a Compressor Cascade at Near-Stall Conditions
Watanabe, T. et al. : The University of Tokyo.
The Development of Centrifugal Compressor for Marine Application (Super Marine Gas Turbine)
Nishihara, A. et al. : Yanmar Co., Ltd.

Investigation on a Highly Loaded Diffuser Passage Compressor
Murooka, T. et al. : Ishikawajima-Harima Heavy Industries Co., Ltd.

The Fan Driven by the Single Rotor Blade Row with Multistage Tip Turbine (2nd Report)
Iwase, S. et al. : Japan Aerospace Exploration Agency.

Optimization of Steam-Injection Swirler Design Process using Genetic Algorithm
Funazaki, K. et al. : Iwate University.

Development of the Micro Turbine Generator
Sasaki, M. et al. : Hitachi, Ltd.

Development of Micro Motor-Generator for Ultra Micro Gas Turbine

Improvement of a Small Reheat Gas Turbine as a Cogeneration System

Evaluations on the Economic Competitiveness of Micro Gas Turbine Cogeneration Systems based on Efficiency and Maintenance Cost

Improvement of Micro Gas Turbine Performance by Steam Injection - Verification of the Effect and Demonstration of Stable Operation -

Co-generation of Digestion Gas by Micro Gas Turbine

Development of a Virtual Gas Turbine Systems for a 1700 Degree Class GT
Saeki, Y. et al. : Toshiba Corporation.

Development of a New Dynamic Simulation Tool for Thermal Power Plants
Performance of Desiccant Air Conditioning System using Waste Heat
Awadu, N. et al. : Hitachi Plant Engineering & Construction Co., Ltd.

Hybrid System of Oxygen Burnt Semi-closed Gas Turbine and MCFC
Koda, E. et al. : Central Research Institute of Electric Power Industry.

Studies on Compound Impingement-Cooling Structures of Turbine Blades ; Flow Field Measurement and Numerical Simulation
Funazaki, K. et al. : Iwate University.

Development of an Integrated Impingement and Pin-Fin Cooling Structure
Fukuyama, Y. et al. : Japan Aerospace exploration Agency.

Measurement of Flow and Heat Transfer in the Triangular Channel with Ribs Simulated a Cooling Pass for Leading Edge of Rotor Blade
Watanabe, K. et al. : Central Research Institute of Electric Power Industry.

Investigation of Heat Transfer Enhancement in Square Ducts with Turbulence Promoter Ribs Using LES
Horiuchi, Y. et al. : Hitachi, Ltd.

Experimental Investigation into Influence of TBC Surface Roughness on Heat Transfer Coefficient
Kuba, S. et al. : Hitachi Engineering Co., Ltd.