

## 2002 Annual Conference of GTSJ

1. **Technology Transfer – Jet Engine**  
Imai, K.
2. **Gas Turbine and its Education at University – In Connection with the Research of Dynamic Characteristics of Gas Turbine –**  
Hayama, S. : Emeritus Professor, University of Tokyo and Toyama Prefectural University
3. **Research and Development of High Speed Compressor, High Loading Turbine and Low Nox Combustion in AMG**  
Hiromatsu, M.: Research Institute of Advanced Material Gas-Generator
4. **Numerical Simulation of Unsteady Flow Phenomena in Turbine Stator-Rotor Flow Field**  
Saiki, K. et al.: National Aerospace Laboratory of Japan
5. **Unsteady Flows in a Contra-Rotating Ultra-Highly Loaded Turbine**  
Yamamoto, A. et al.: National Aerospace Laboratory of Japan
6. **Unsteady Aerodynamic Characteristics of DCA Cascade with Separation Bubble – High Subsonic Flow Case -**  
Aotsuka, M. et al.: Ishikawajima-Harima Heavy Industries Co.,Ltd.
7. **CFD Analysis of Fan Stator Unsteady Loading due to the Rotor-Stator Interaction**  
Yamagata, A. et al.: Ishikawajima-Harima Heavy Industries Co.,Ltd.
8. **Study of Influence of Wedge Angle at Stator Leading Edge against Performance of Transonic Fan Stage**  
Hoshino, G. et al.: Honda R&D Co.,Ltd
9. **Shock Wave Motion near the Blade Surface and Pressure Fluctuation on the Blade Surface of Transonic Compressor Cascade**  
Moriyama,S. et al.: Takushoku University
10. **A Three-Dimensional CFD Analysis on a Turbine Cascade with Multi-Row of Film Cooling Ejections**  
Nishizawa , T. et al.: National Aerospace Laboratory of Japan
11. **Construction of a Cooling Effectiveness Data Base for the Virtual Gas Turbine**  
Matsushita, M. et al.: National Aerospace Laboratory of Japan
12. **Numerical Simulations on Heat Transfer Inside an Integrated Impingement Cooling System for Higher TIT Turbine Blades**  
Funazaki, K. et al.: Iwate University

13. **Coupled Numerical Simulations of Flow around a Turbine Blade and Heat Conduction in Blade Material**  
Yamane, T. et al.: National Aerospace Laboratory of Japan
14. **Development of Large Scale Recuperator**  
Akiyoshi, R. et al.: Ishikawajima-Harima Heavy Industries Co.,Ltd
15. **Research for Technologies of MGC Ultra High-Efficiency Gas-Turbine**  
Kobayashi, K. et al.: Engineering Research Association of High Performance Gas-Turbine
16. **Research of Thermal-Stress Reduction of MGC Turbine Nozzle**  
Tamura, T. et al.: Ishikawajima-Harima Heavy Industries co.,Ltd.
17. **Impact Design Methods for Ceramic Turbine Blades**  
Nagao, M. et al.:Tokai University
18. **Impact Behaviour of Turbine-Grade Ceramic Material**  
Yoshida, H. et al.: National Institute of AIST
19. **Influence of CoNiCrAlY-Type Corrosion Resistance Coating on Thermo-Mechanical Fatigue Strength of Inconel 738LC**  
Negishi, A. et al.: The Kansai Electric Power Co.,Inc., Power Engineering R&D Center
20. **Thermal Stress Analysis of 1400°C Virtual Turbine Vane**  
Chen, J. et al.: National Aerospace Laboratory of Japan
21. **Metallurgical Analysis of In-service Single Crystal Superalloy CMSX-2**  
Yoshioka, Y. et al.:Toshiba Corporation
22. **On Tensile Strength Tests of Anti-Symmetric FRP. Laminates as Smart Materials**  
Ogawa, A. et al.: National Aerospace Laboratory of Japan
23. **Effect of Forward Sweep on Aerodynamic Performance of High Turning Compressor Blade**  
Sakamoto, D. et al.:Waseda University
24. **Possibility of Active Cascade Flutter Control with Smart Structure**  
Kazawa, J. et al.: University of Tokyo
25. **Three-Dimensional Analysis of Shock Wave Effect on Aerodynamic Characteristics of Oscillating Cascade**  
Kato, Y. et al.: University of Tokyo
26. **Numerical Analysis of Stator-Rotor Interaction in Turbine Stages with Bowed Stacking Rotor Blades**  
Watanabe. T. et al.: University of Tokyo
27. **Effect of Volute Configuration on the Stability of Centrifugal Fan**

- Ichimiya, T. et al.: Science University of Tokyo
28. **Multi-Objective Optimization for Outlet Guide Vane at Low-Reynolds Number Condition**  
Yamaguchi, Y. et al.: Honda R&D Co., Ltd.
29. **Investigation of Compromization between Noise Reduction and Aerodynamic Performance for Transonic Fan**  
Umeyama, R. et al.: Ishikawajima-Harima Heavy Industries Co., Ltd.
30. **Visualization of Internal Flow in Ultra-Highly Loaded Turbine Blades by PIV Method –Control of Secondary Flow by Tripping -Wire-**  
Ibuka, T. et al.: Hosei University
31. **Modernizations and Upgrades for Current Gas Turbine**  
Arimura, H. et al.: Mitsubishi Heavy Industries, Ltd.
32. **Development and Shop Test Results of M701G2 Gas Turbine**  
Maekawa, A. et al.: Mitsubishi Heavy Industries, Ltd.
33. **The Mini Turbo-Jet Engine Testing Set for Mechanical Engineering Experimentation**  
Watanabe, T.: Nippon Institute of Technology
34. **Study of Recuperation-Cycle with Steam**  
Furutani, H. et al.: National Institute of Advanced Industrial Science and Technology
35. **Study on the Highly Efficient Closed-Cycle Gas Turbine System for CO<sub>2</sub> Collection**  
Koda, E. et al.: Central Research Institute of Electric Power Industry
36. **Study on SOFC and Gas Turbine Combined Cycle**  
Takahashi, T. et al.: Central Research Institute of Electric Power Industry
37. **Development of Combustor Pressure Fluctuation Automatic Tuning System**  
Nomura, M. et al.: Mitsubishi Heavy Industries, Ltd.
38. **Characterization of Combustion Oscillation (V)**  
Shiota, K. et al.: Toshiba Corporation
39. **Characterization of Combustion Oscillations (IV)**  
Yamanaka, S. et al.: Toshiba Corporation
40. **An Experimental Study on Combustion Oscillation with Two Premixed Tubes**  
Sato, K. et al.: Ishikawajima-Harima Heavy Industries Co., Ltd.
41. **Sound Emission from Laminar Diffusion Flame with Controlled Oscillatory Fuel Flow**  
Harumi, K. et al.: National Maritime Research Institute
42. **Fuel Concentration measurement in the Space of Spark Plug-Gap by Infrared**

- Absorption Method  
Idota, Y. et al.: Toyota Central R&D Labs.,Inc
43. **Study on Combustion Diagnostic by Flame Emission Light**  
Kashihara, H. et al.: Kawasaki Heavy Industries, Ltd
44. **Combustion Characteristics of a Flat-Flame Micro-Combustor for UMG**  
Oshimi, K. et al.: Tokyo Metropolitan Institute of Technology
45. **Effects of Swirler Configuration on Combustion Characteristics of a Sector Micro Combustor**  
Uehara, M. et al.: Tokyo Metropolitan Institute of Technology
46. **Development of Dimethyl-Ether Gas Turbine Combustor**  
Koizumi, H. et al.: Hitachi Ltd.
47. **Development of a Steam Injection Correspondence Type Combustor Which Uses Premixed DLE Combustor as a Base**  
Yoshida, T., et al.: Ishikawajima-Harima Heavy Industries Co., Ltd.
48. **Combustion Characteristics of Conical Flameholder with Pilot Burner**  
Yamamoto, T. et al.: National Aerospace Laboratory of Japan
49. **Development of Mounting System for CMC Combustor Liner**  
Yoshimura, T. et al.: Kawasaki Heavy Industries, Ltd.
50. **Autoignition Characteristics of LPP Mainburner at High Temperature and High Pressure Conditions**  
Oda, T. et al.: Kawasaki Heavy Industries, Ltd
51. **Emission Characteristics of Low Nox Gas Turbine Combustor with Axial-Staged Flames**  
Maeda, F., et al.: Toshiba Corporation
52. **Combustion Technology for Reducing both Fuel- and Thermal-Nox Emissions for Oxygen-blown Medium-Btu Fueled Gas Turbine Combustor**  
Hasegawa, T. et al.: Central Research Institute of Electric Power Industry
53. **“Flameless Combustion” for Extending Range of Ultra-Low NOx Emissions of Gas Turbine Combustors**  
Hayashi, S., et al.: National Aerospace Laboratory of Japan
54. **Development of a Low-Nox Combustor for a Liquid –Fueled Small Gas Turbine**  
Yamada, H. et al.: National Aerospace Laboratory of Japan
55. **Combustion and Nox Formation of Vaporized Fuel-Air Mixtures Injected into Hot Burned Gas**  
Aida, N. et al.: Hosei University, Faculty of Engineering
56. **Study of Catalytic Combustion of Oil Fuel**

Yoshida, S. et al.: Hitachi Ltd.

57. **Study of Atomaization Characteristics on Spray Nozzle**

Hirata, Y. et al.: Hitachi Ltd.