

TABLE OF CONTENTS

Volume 2 Number 4A

December 2012

Effects of Supersonic Nozzle Geometry on Characteristics of Shock Wave Structure

- S. Matsuo, K. Kanesaki, J. Nagao, Md. T. I. Khan, T. Setoguchi, H. D. Kim.....181

Effects of Orbital Motion on the Boundary Layer Flow on a Spinning Disk

- M. Munekata, N. Jobi, K. Ikebe, H. Yoshikawa.....187

A Micromixer Using the Chaos of Secondary Flow: Rotation Effect of Channel on the Chaos of Secondary Flow

- Y. Hayamizu, S. Yanase, S. Morita, S. Ohtsuka, T. Gonda, K. Nishida, K. Yamamoto.....195

Precise Measurement of Moving Object by Moiré-Based Image Processing Technique

- Md. T. I. Khan, M. Kazuhiko, K. Teramoto, Md. M. Hasan.....202

Shape Optimization of a Regenerative Blower Used for Building Fuel Cell System

- C.-M. Jang, J.-S. Lee.....208

Experimental Investigation of Performance of the Wind Turbine with the Flanged-Diffuser Shroud in Sinusoidally Oscillating and Fluctuating Velocity Flows

- K. Toshimitsu, H. Kikugawa, K. Sato, T. Sato.....215

Aerodynamic Sound and Flow Field Generated from Combinational Inclined Tapered Cylinder

- K. Sato, R. Machida, T. Aoki.....222

Correlation between Aerodynamic Noise and Velocity Fluctuation of Tip Leakage Flow of Axial Flow Fan

- H. Hamakawa, M. Shiotsuki, T. Adachi, E. Kurihara.....228

Computational Study on Micro Shock Tube Flows with Gradual Diaphragm Rupture Process

- A. K. Rajagopal, H. D. Kim, T. Setoguchi.....235

A Computational Study of the Gas-Solid Suspension Flow through a Supersonic Nozzle

- J. G. Sun, H. D. Kim, J. O. Park, Y. Z. Jin.....242

Study of Secondary Flow Modifications at Impeller Exit of a Centrifugal Compressor

- S. Anish, N. Sitaram, H. D. Kim.....248

Characteristics of Unsteady Boundary Layer Induced by the Compression Wave Propagating in a Tunnel

- T. Tanaka, T. Aoki.....257

Aerodynamic Simulation of Low Mach Turbulent Jets with Lattice Boltzmann Models

- Y. C. Tu, S. S. Zhang, J. L. Xie, K. Q. Wu.....264

Simulation and Experimental Study on the Atomization Character of the Pressure-Swirl Nozzle

- J. B. Zhao, L. J. Yang.....271

Transient Response Characteristics of Separated Flow and Heat Transfer in Enlarged Rectangular Channel

- H. Yoshikawa, S. Shirakura, M. Munekata.....278

The Feature of Weak Shock Wave Propagated in a Overlong Tunnel

X. Hu, T. Aoki, N. Tokura.....285

An Experimental and Numerical Study on Wake Vortex Noise of a Low Speed Propeller Fan

S. Sasaki, I. Torise, H. Hayashi.....290

Spray Atomization and Structure of Supersonic Liquid Jet with Various Viscosities of Non-Newtonian Fluids

J. H. Shin, I. Lee, H. Kim, J. Koo.....297

Influence of Additional Device on Performance of the Marine Current Turbine

B. L. Cui, Z. W. Song, Y. L. Zhang, Y. Z. Jin, Y. G. Lin.....305

Effect of Arrangement of Tube Banks on Acoustic Resonance

H. Hamakawa, T. Nakamura, K. Asakura, E. Nishida, E. Kurihara.....311

Study on Contra-Rotating Small-Sized Axial Flow Hydro Turbine

R. Sonohata, J. Fukutomi, T. Shigemitsu.....318

Arteriovenous Graft Modeling and Hemodynamic Interpretation

H.-H. Kim, Y. H. Choi, S.-H. Suh, J. S. Lee, Y. H. Jung, Y. H. So.....324

Numerical Analysis of Horizontal-Axis Wind Turbine Characteristics in Yawed Conditions

M. Suzuki.....331

Study of Interaction between Supersonic Flow and Rods or Jets Surrounded by Porous Cavity

N. Kuniyoshi, M. Yaga, A. Koda, I. Teruya, M. Ishikawa.....337

A Twin Unidirectional Impulse Turbine for Wave Energy Conversion

S. Okuhara, M. Takao, A. Takami, T. Setoguchi.....343

Transient Hydraulic Performance and Numerical Simulation of a Centrifugal Pump with an Open Impeller during Shutting Down

Y. L. Zhang, Z. C. Zhu, Y. Z. Jin, B. L. Cui.....348

Nanoparticle Transportation and Brownian Diffusion in Planar Jet Flow via Large Eddy Simulation

P. F. Lin, D. C. Wu, Z. F. Zhu.....354

Numerical Investigation on Vortex Structure and Aerodynamic Noise Performance of Small Axial Flow Fan

L. Zhang, Y. Z. Jin.....359

Performances of Volume-PTV and Tomo-PIV

D. H. Doh, C. J. Lee, G. R. Cho, K. R. Moon.....368

Performances and Rotating Flows of Rotary Jet Pump

K. Komaki, T. Kanemoto, K. Sagara.....375

The figure on the front cover is from the article published in Open Journal of Fluid Dynamics, 2012, Vol. 2, No. 4A, pp. 195-201 by Yasutaka Hayamizu, *et al.*