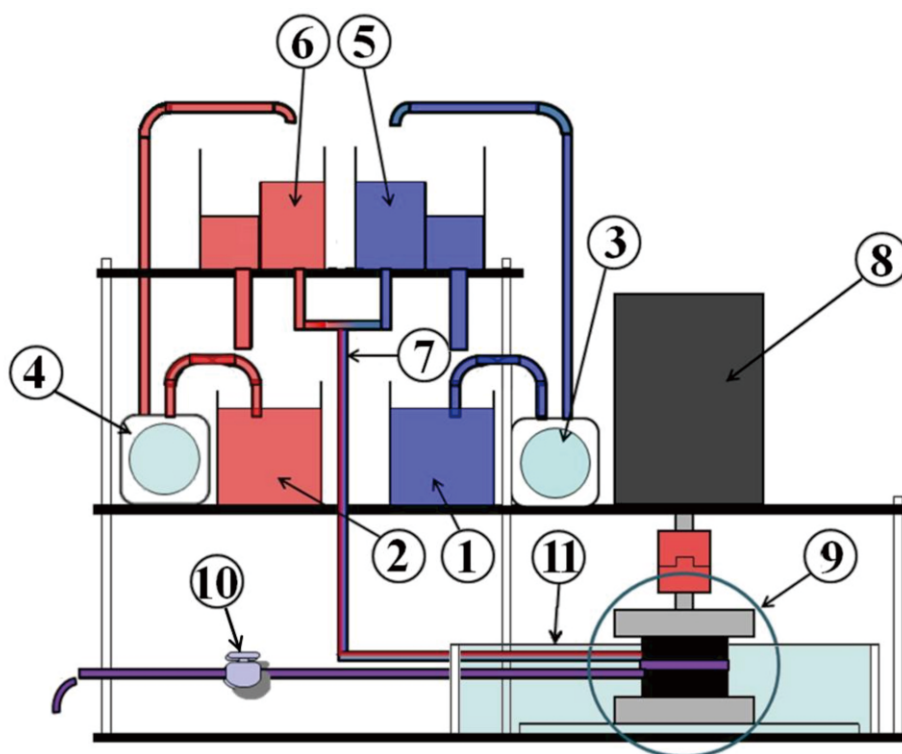
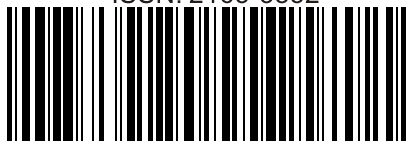




Open Journal of Fluid Dynamics



ISSN: 2165-3852



977216538520204A

Journal Editorial Board

ISSN: 2165-3852 (print) ISSN: 2165-3860 (online)

<http://www.scirp.org/journal/ojfd>

Editor-in-Chief

Prof. Heuy-Dong Kim

Andong National University, South Korea

Associate Editor

Dr. Mohammad Mehdi Rashidi

Bu-Ali Sina University, Iran

Editorial Board

Prof. Saeid Abbasbandy

Imam Khomeini International University, Iran

Prof. William E. Acree, Jr.

University of North Texas, USA

Prof. Ramesh K. Agarwal

Washington University in St. Louis, USA

Prof. Mostafa Barigou

The University of Birmingham, UK

Prof. Bin Chen

Xi'an Jiaotong University, China

Prof. Juergen Czarske

University of Technology, Germany

Dr. Jiannong Fang

École Polytechnique Fédérale de Lausanne, Switzerland

Dr. Sandip Ghosal

Northwestern University, USA

Dr. Anup Gokarn

Flow Science Inc., USA

Prof. Mohamed Abdel-Aziz Mostafa Habib

Fahd University of Petroleum and Minerals, Saudi Arabia

Prof. Yong-Jun Jian

Inner Mongolia University, China

Prof. Russell G. Keanini

University of North Carolina, USA

Dr. Rajan Kumar

Florida State University, USA

Prof. Chao-An Lin

National Tsing Hua University, Chinese Taipei

Dr. Zhanke Liu

Schlumberger Technology Corporation, USA

Prof. Mario Mlsale

University of Genoa, Italy

Dr. Khaled A. Sallam

Oklahoma State University, USA

Prof. Richard Saurel

Aix-Marseille University, France

Prof. José R. Serrano

Universidad Politécnica de Valencia, Spain

Prof. Zhi-Qiang Shao

Fuzhou University, China

Prof. Gui-Hua Tang

Xi'an Jiaotong University, China

Dr. Makoto Umeki

University of Tokyo, Japan

Dr. Guiren Wang

University of South Carolina, USA

Prof. Lian-Ping Wang

College of Engineering, USA

Dr. Bai Wei

National University of Singapore, Singapore

Prof. Jin-Jia Wei

Xi'an Jiaotong University, China

Prof. Chao Yang

Chinese Academy of Sciences, China

Prof. Hamit Yurtseven

Middle East Technical University, Turkey

TABLE OF CONTENTS

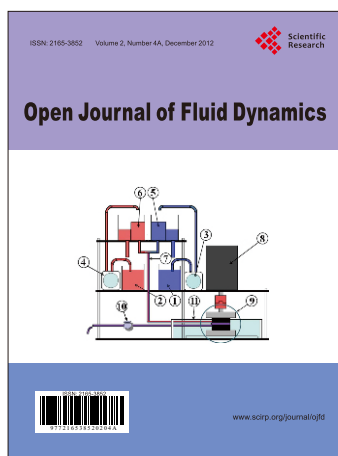
Volume 2 Number 4A

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.*



Open Journal of Fluid Dynamics

ISSN: 2165-3852 (print) ISSN: 2165-3860 (online)

www.scirp.org/journal/ojfd

Open Journal of Fluid Dynamics (OJFD) is an international journal dedicated to the latest advancement of fluid dynamics. The goal of this journal is to provide a platform for scientists and academicians all over the world to promote, share, and discuss various new issues and developments in different areas of applied science.

Editor-in-Chief

Prof. Heuy-Dong Kim

Andong National University, South Korea

Associate Editor

Dr. Mohammad Mehdi Rashidi

Bu-Ali Sina University, Iran

Editorial Board

Prof. Saeid Abbasbandy

Prof. William E. Acree, Jr.

Prof. Ramesh K. Agarwal

Prof. Mostafa Barigou

Prof. Bin Chen

Prof. Juergen Czarske

Dr. Jiannong Fang

Dr. Sandip Ghosal

Dr. Anup Gokarn

Prof. Mohamed Abdel-Aziz Mostafa Habib

Prof. Yong-Jun Jian

Prof. Russell G. Keanini

Dr. Rajan Kumar

Prof. Chao-An Lin

Dr. Zhanke Liu

Prof. Mario Mlsale

Dr. Khaled A. Sallam

Prof. Richard Saurel

Prof. José R. Serrano

Prof. Zhi-Qiang Shao

Prof. Gui-Hua Tang

Dr. Makoto Umeki

Dr. Guiren Wang

Prof. Lian-Ping Wang

Dr. Bai Wei

Prof. Jin-Jia Wei

Prof. Chao Yang

Prof. Hamit Yurtseven

Subject Coverage

All manuscripts must be prepared in English, and are subject to a rigorous and fair peer-review process. Accepted papers will immediately appear online followed by printed hard copy. The journal publishes original papers including but not limited to the following fields:

Aerodynamics
Bio-Fluid Mechanics
Boundary Layer Flow
Combustion and Reacting Flow
Compressible Flow
Computational Fluid Dynamics
Environmental Fluid Dynamics
Environmental Fluid Mechanics
Experimental Fluid Mechanics
Fluid Mechanics Fluid Mechanics
Fluid-Structure Interaction

Free Shear Layer Flow
Heat and Mass Transfer
High-Speed Flow
Hydrodynamic
Jet and Wake Flow
Magnetic Fluid
Micro and Nano Fluidics
Micro Fluid Dynamics
Multi-Phase Flow
Multiphase Fluid Dynamics
Naval Hydrodynamics

Non-Newtonian Flow
Non-Newtonian Fluid Mechanics
Physical-Chemical Hydrodynamics
Plasma Dynamics
Radiation Hydrodynamics
Rotating and Stratified Fluid
Rotating Flow
Seepage Mechanics
Theoretical Fluid Dynamics
Turbulence Theory
Viscous Fluid

We are also interested in: 1) Short Reports—2-5 page papers where an author can either present an idea with theoretical background but has not yet completed the research needed for a complete paper or preliminary data; 2) Book Reviews—Comments and critiques.

Notes for Prospective Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. All papers are refereed through a peer review process. For more details about the submissions, please access the website.

Website and E-Mail

<http://www.scirp.org/journal/ojfd>

E-Mail: ojfd@scirp.org