

# Journal of Flow Visualization and Image Processing

**Volume 12, 2005**

## Number 1

- 1 Multiphase Flow Visualization in Microchannels Using x-Ray Tomographic Microscopy (XTM) **S. Waelchli, Ph. Rudolf von Rohr, and M. Stampanoni**
- 15 Development of a New Interface for Numerical Gas Flow Visualization in High-Voltage Circuit-Breakers **Ph. Robin-Jouan and F. Madani**
- 21 A Fast Macroblock Mode Selecting Method Based on Spatial-Temporal Correlation for H.264 **Xiang Dong, Zhou Jingli, Yu Shengsheng, and Chen Jiazhong**
- 29 Oscillations and Vortex-Induced Vibrations of a Tethered Sphere in a Flow **M. Provansal, T. Leweke, L. Schouveiler, and C. Aprile**
- 45 Unsteady Development of Vortical Structures in the Symmetric Near Wake of a Cylinder **Giancarlo Alfonsi**
- 73 Numerical Investigation of Gaseous Microchannel Flow in Transition Regimes **Pei-Yuan Tzeng, Ping-Hsuang Chen, and Ming-Ho Liu**
- 95 Numerical Analysis of Thermal-Fluid Flow between Stationary and Rotating Parallel Disks **Shuichi Torii and Wen-Jei Yang**

## Number 2

- 105** Numerical Visualization of Unsteady Vortex Shedding  
**Giancarlo Alfonsi**
- 111** Visualization of Unsteady Flow Phenomena of Wells Turbine during Hysteresis Study  
**M. Mamun, T. Setoguchi, Y. Kinoue, and K. Kaneko**
- 125** Fourier Analysis of the Speckle-Photographic, Density-Sensitive Flow Visualization Method and Application of the "Sharp-Focusing" Effect  
**Axel Hanenkamp and Wolfgang Merzkirch**
- 137** Influence Due to Arrangement of Splitter Plate on Flow Past a Circular Cylinder  
**S. Vengadesan and B. H. Lakshmana Gowda**
- 151** Simultaneous Visualization of Wakes and Internal Waves Generated by Towed Cylinders in Stratified Fluids  
**H.-T. Liu**
- 175** Real Gas Effect on Transient Flow Phenomena in a Reflection Shock Tunnel  
**Jr-Ming Miao, Chun-Chi Li, and Fuh-Lin Lih**

## Number 3

- 197** Flow Visualization Studies of Jets in the Presence of Loud Pure Tones  
**K. Ramamurthi, R. K. Patnaik, A. Radhakrishnan, P. Reddy, R. I. Sujith, and R. N. Govardhan**
- 215** Flow Visualization Studies around a Stationary and Oscillating Square Cylinder with and without Interference  
**R. Ajith Kumar and B. H. L. Gowda**
- 251** Numerical Procedures to Generate and to Visualize Flow Fields from Analytical or Experimental Statistics: Turbulent Velocity, Fluctuating Scalars, and Variable Density Sprays  
**J. Réveillon**
- 271** Numerical Visualization of Turbulent Film Boiling Heat Transfer and Vapor Film Growth on Horizontal Elliptical Tubes  
**Sheng-An Yang, Jung-Yu Lee, and Wen-Jei Yang**
- 285** Optical Catastrophe Applied in Study of Spreading of Evaporating Liquid Drops on a Solid Surface  
**Nengli Zhang, D. F. Chao, and W.-J. Yang**

- 301** Flow Structure in Circular Tubes with Segmental Baffles  
**Mushtak Al-Atabi, S. B. Chin, and X. Y. Luo**
- 313** Formation of Return Flows in Mixed Convective Gas Flow over a  
Model Heated Substrate **Jyh-Long Tuh**

#### **Number 4**

- 331** Thermal-Fluid Flow Transport Phenomena in an Axially Rotating  
Flow Passage with Twin Concentric Orifices **Shuichi Torii  
and Wen-Jei Yang**
- 343** The Three-Dimensional Reconstruction by Fitting a Stereo Adapter  
in Front of the Lens of a Single High-Speed Camera and Its  
Application **C. X. Zhao, J. L. Xu, and Y. Zhang**
- 363** Visualization of the Rayleigh–Taylor Instability **Wayne Kraft,  
Malcolm J. Andrews, Praveen Ramaprabhu, and Dale Snider**
- 377** Probes of Supercritical CO<sub>2</sub> by Deflection of Multiple Beamlets  
**Irina Robu and Erhard W. Rothe**
- 389** Diagnosis of Composite Flow Networks **Shinzaburo Umeda  
and Wen-Jei Yang**
- 409** Influence of Splitter Plate Arrangement on Flow Past Rectangular  
Cylinders of Different Aspect Ratios **S. Vengadesan,  
E. G. Tulapurkara, and D. Pramod Kumar**
- 435** Visualization of Rotor Tip Vortices Generated by a Full-Scale MOD-2  
Wind Turbine **H.-T. Liu**
- 465** Author Index
- 467** Table of Contents