

The 2nd Japan-China Joint Workshop on Fluid Power 2012 in Tokyo
— Sustainable Future on Fluid Power —
May 23, 2012

Chair: Prof. Yutaka Tanaka (田中 豊教授), Prof. Zongxia Jiao (焦 宗夏教授)

Venue: Kensyu-Room 1(研修 1), Kikai Shinko Kaikan (機械振興会館)

- 13:00-13:10 **Opening Address** Prof. Shinichi Yokota (横田 眞一教授)
- 13:10-14:30 **Session 1 “Hydraulic Pump and Energy-Saving”**
Chair: Prof. Kazuhisa Ito (伊藤 和寿教授)
- 13:10-13:30 Huang Jiahai, Quan Long, Zhang Xiaogang
Compared Analysis and Testing Research on the Flow Distributing Performance of Three Outlets Axial Piston Pump
- 13:30-13:50 Rikiya Inoguchi, Kazuhisa Ito, Shigeru Ikeo
Pure-Hydraulic Hybrid Cylinder Drive System with Hydraulic Transformer
- 13:50-14:10 Shaoping Wang, Zhaomin He
Residual Life Prediction of Hydraulic Pump
- 14:10-14:30 Hiroshi Kosodo
Development of Micro Pump and Micro-HST for Hydraulics
- 14:30-14:50 **Break**
- 14:50-15:30 **Session 2 “Cavitation and Micro-TAS”**
Chair: Prof. Zongxia Jiao (焦 宗夏教授)
- 14:50-15:10 Songjing Li, Jian Cao, Xinzhi Xue
Visualization of Cavitation in Flow Field between Flapper and Nozzle in a Hydraulic Servo-valve
- 15:10-15:30 Yoko Abe, Kenjiro Takemura, Shinichi Yokota, Kazuya Edamura
Active Flow Channel Matrix Using Electro-conjugate Fluid for μ TAS Application
- 15:30-16:50 **Session 3 “Components and Measurements”**
Chair: Prof. Yutaka Tanaka (田中 豊教授)
- 15:30-15:50 Bing Xu, Ruqi Ding, Wei Liu
The Hydraulic Operating Mechanism for High Voltage Circuit Breaker
: Development Status and Key Technologies
- 15:50-16:10 Toshiharu Kagawa, Chong Youn, Lei Lei Ooo, Huping Zhang
Temperature and Pressure Change in Pneumatic Cylinder Spring Compression Process
- 16:10-16:30 Wenqi Ma, Longxing Chen, Wei Xiong
Research of Design and Characteristics of Aerodynamic Thrust Bearing
- 16:30-16:50 Tomonori Kato, Takashi Owaku, Hirohisa Sakuma, Toshiharu Kagawa
Introduction of a Newly Developed Arbitrary Pressure Pulsation Generating Device for Evaluating the Characteristics of Gas Flow Meters and Sensors
- 16:50-17:00 **Closing Address** Prof. Toshiharu Kagawa (香川 利春教授)
- 18:00-20:30 **Welcome banquet**

24 May, 2012

Domestic Annual Spring Conference of JFPS (in Japanese)

Technical visit in Tokyo area

25 May, 2012

Domestic Annual Spring Conference of JFPS (in Japanese)

13:00-14:00 Special Lecture

Technical visit and sightseeing in Tokyo area

18:00-20:00 Conference Banquet

26 May, 2012

Post conference tour to Fuji-Hakone area (Extra Charge)

Accommodation

Official hotel: Tokyo Prince Hotel

东京王子大饭店 <http://www.princehotels.com/zh-cn/tokyo/>

Papers from Japan

Hydraulics

Paper 1

Title: Development of Micro Pump and Micro-HST for Hydraulics

Author: Hiroshi Kosodo (TAKAKO INDUSTRIES, INC.)

Paper 2

Title: Pure-Hydraulic Hybrid Cylinder Drive System with Hydraulic Transformer

Authors: Rikiya Inoguchi, Kazuhisa ITO (Shibaura Institute of Technology), Shigeru IKEO (Sophia University)

Pneumatics

Paper 3

Title: Introduction of a newly developed arbitrary pressure pulsation generating device for evaluating the characteristics of gas flow meters and sensors

Authors: Tomonori Kato (Fukuoka Institute of Technology), Takashi Owaku, Hirohisa Sakuma (Tokyo Gas Co., Ltd.), Toshiharu Kagawa (Tokyo Institute of Technology)

Paper 4

Title: Temperature and Pressure Change in Pneumatic Cylinder Spring Compression Process

Authors: Toshiharu Kagawa (Tokyo Institute of Technology), Chong Youn, Lei Lei Oo, Huping Zhang

Micro-fluid

Paper 5

Title: Active Flow Channel Matrix using Electro-conjugate Fluid for μ TAS application

Authors: Yoko Abe, Kenjiro Takemura (Keio University), Shinichi Yokota (Tokyo Institute of Technology), Kazuya Edamura (New Technology Management, Co., Ltd)

Papers from China

Paper 1

Title: The Design and Characteristics Research on Spiral Groove Structured Aerodynamic Gas Thrust Bearing

Authors: Wenqi MA , Longxing CHEN, Wei XIONG

Paper 2

Title: The Hydraulic Operating Mechanisms for High Voltage Circuit Breaker

Development Status and Key Technologies -

Authors: Bing Xu, RuqiDing and Wei Liu

Paper 3

Title: Residual Life Prediction of Hydraulic Pump

Authors: Shaoping Wang, Du Jun

Paper 4

Title: Compared Analysis and Testing Research on the Flow Distributing Performance of Three Outlets Axial Piston

Authors: Huang Jiahai Quan Long Zhang Xiaogang

Paper 5

Title: Visualization of Cavitation in Flow Field Between Flapper and Nozzle in a Hydraulic Servo-valve

Authors: Songjing Li, Jian Cao, Xinzhi Xue