OS 7 : Tohoku U. - KAIST Joint Workshop on Aerospace Engineering

TOKIWA

November 7, 2006

OS7-1   Pseudo-Shock Waves Produced by Heat and Mass Addition in
15:00-15:30   Diverging Duct
             Goro Masuya, M. Goto, H. Mizushima and B. Choi
             (Tohoku University, Japan)

OS7-2   Hydrogen Peroxide Thrusters for Small Satellites
15:30-16:00   Sungyong An, Hayong Im and Sejin Kwon
             (Korea Advanced Institute of Science and Technology, Korea)

OS7-3   The Numerical Study on Supersonic Combustion with Various Case of
16:00-16:20   2D Double Shear Layer
  Dong Min Kim and Seung Wook Baek
             (Korea Advanced Institute of Science and Technology, Korea)

OS7-4   Nonequilibrium Blast Wave Simulation in a Gas-Driven Type Laser
16:20-16:40   Propulsion
             Yousuke Ogino, Naofumi Ohnishi and Keisuke Sawada
              (Tohoku University, Japan)

16:40-16:50   Breaks

OS7-5   Shape and Motion Optimization of Flapping Airfoil
16:50-17:10   Shun Takahashi and Kazuhiro Nakahashi (Tohoku University, Japan)

OS7-6   Experimental Study on the Aerodynamic Characteristics of a
17:10-17:30   Biomimetic Flapping Wing
  Dae-Kwan Kim, Hong-Il Kim and Jae-Hung Han
             (Korea Advanced Institute of Science and Technology, Korea)

OS7-7   **Flutter Analysis of the Cylindrical Composite Shell Structures with**
17:30-17:50   **Shape Memory Alloys**
               Sung-Kak Cho, Jin-Ho Roh and In Lee Baek
               (Korea Advanced Institute of Science and Technology, Korea)

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OS7-8   **Structural Vibration Control Using Piezoelectric Actuation**
09:30-10:00   Jae-Hung Han
               (Korea Advanced Institute of Science and Technology, Korea)

OS7-9   **UAV research activities at KAIST**
10:00-10:20   Dong-Jin Lee, Hyo-Choong Bang and IL-Hyoung Lee
               (Korea Advanced Institute of Science and Technology, Korea)

OS7-10   **Dynamic Modeling and Attitude Stabilization of the Quadrotor UAV**
10:20-10:40   Dae-Yeon Won and Min-Jea Tahk
               (Korea Advanced Institute of Science and Technology, Korea)

10:40-10:50   Breaks

OS7-11   **Application of Pressure Sensitive Paint to Hypersonic and Unsteady**
10:50-11:20   **Flows**
               Keisuke Asai and Hiroki Nagai
               (Tohoku University, Japan)

OS7-12   **Measurement of Refractive Index in Liquid Mixture Using Fiber**
11:20-11:40   **Optic Sensors**
               Seong-Hee Choi, Sang-Oh Park, Sang-Wuk Park, Chun-Gon Kim
               (Korea Advanced Institute of Science and Technology, Korea)

OS7-13   **Computational analysis on vascular endothelial cell physiology by**
11:50-12:00   **modulated by blood flow**
  HyungGoo Kang, KeunShik Chang & EunBo Shim
               (Korea Advanced Institute of Science and Technology, Korea)

12:00-13:30   Lunch

OS7-14   **Shape Design Optimizaton Using CFD**

13:30-14:00   Jang-Hyuk Kwon
                 (Korea Advanced Institute of Science and Technology, Korea)

OS7-15   **Multidisciplinary Optimization of Wing Shape with Engine Nacelle**

14:00-14:20   Takayasu Kumano, Shinkyu Jeong, Shigeru Obayashi (Tohoku
                 University, Japan), Yasushi Ito (University of Alabama at Birmingham,
                 USA), Keita Hatanaka, Hiroyuki Morino (Mitsubishi Heavy Industries,
                 Ltd. Japan)

OS7-16   **Application of Automatic Differentiation in Engineering Computations**

14:40-15:00   Jaehun Lee and Jang-Hyuk Kwon
                 (Korea Advanced Institute of Science and Technology, Korea)

OS7-17   **Multi-Objective Optimization for Robust Airfoil Des Considering**

15:00-15:20   **Design Errors and Uncertainties**
                 Koji Shimoyama (Tohoku University, Japan), Akira Oyama, Kozo Fuji
                 (Japan Aerospace Exploration Agency, Japan)

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OS7-18   **Study of Autogiro using Free wake method and Wind tunnel tests**

10:10-10:30   Ji-Sung Jang, Jae-Hyuk Choi and Duck-Joo Lee
                 (Korea Advanced Institute of Science and Technology, Korea)

OS7-19   **A Comparative Study About the Finite-Volume and Discontinuous**

10:30-10:50   **Galerkin Methods on Unstructured Meshes**
                 Hee Dong Lee and Oh Joon Kwon
                 (Korea Advanced Institute of Science and Technology, Korea)

OS7-20   **LES and DES of an open cavity flow within a fully developed turbulent**

10:50-11:10   **channel**
                 Kyoungsik Chang, Seung-O Park and George Constantinescu
                 (Korea Advanced Institute of Science and Technology, Korea)

OS7-21	**Unsteady Flow Measurements of a Slender Delta Wing in Wing Rock**
11:10-11:30	**Motion**
	Yuuichi Hirose, <u>Hiroki Nagai</u>, Daisuke Kurashina and Keisuke Asai
	(Tohoku University, Japan)