

Announcement

ETHZ-HU Joint Academic Seminar: AECOR6

26th September 2016 at Hokkaido University, N13W8, Sapporo, Hokkaido, Japan

Place: Seminar Room A1-17 at Engineering School Building

Program



9:20 - 9:50

Visiting Dean's Office

Toyoharu Nawa, Dean of Faculty of Engineering, HU

10:00-10:05

Welcome Address

Itsuro Kajiwara, Head of Department of Mechanical Intelligence Systems, Faculty of Engineering, HU

10:05-10:10

Address on behalf of ETHZ

Erich J. Windhab, Head of Food Processing Laboratory, ETHZ

10:10-10:20

History of AECOR Series

Yuichi Murai, Prof., Chair of Laboratory for Flow Control, HU

10:30-12:10

Invited Lectures (25 min x 4: about 20 min for each presentation)

- **Non-invasive detection of velocity fields and complete set of stress tensor components in complex flows by a novel CT-assisted DEformed BUbble Tracking method (DEBUT)**
Erich J. Windhab, and Fabian Birbaum
Presented by **Erich J. Windhab, Prof., Chair of HEST, ETHZ**
- **Negative shear viscosity observed in the presence of electroconvection of nematic liquid crystal**
Hiroshi Orihara, Yuko Harada, Yuji Sasaki, Shuji Fujii, Tomoyuki Nagaya, Yoshimoto Goto, and Yoshiki Hidaka
Presented by **Hiroshi Orihara, Prof., Chair of Soft Matter Laboratory, HU**
- **A new physics for frictionless motion: mechanism, materials and applications**
Steven Wang, and Erich Windhab
Presented by **Steven Wang, Assistant Prof., Dept. Chem. Eng., Newcastle University, UK**
- **Study on microscopic water transport phenomena and structure of micro-porous layer for high performance polymer electrolyte fuel cells**
Takemi Chikahisa
Presented by **Takemi Chikahisa, Prof., Chair of Energy Conversion System Laboratory, HU**

12:10-12:20

Group photo in front of Entrance

12:20-13:30

Lunch at Restaurant "Enreisou" (on Campus)

13:30-15:10

Technical Presentations (20 min x 5: 15 min for each presentation)

- **Mechanical characterization of migrating cells using microchannel device**
Toshiro Ohashi
Presented by **Toshiro Ohashi, Prof., Chair of Micro-Nano Mechanics Laboratory, HU**
- **Go with the flow - from dough to bread**
Simon Kuster, Tania Steiner Sais, Sabina Hofstetter, and Elisabeth Preute
Presented by **Simon Kuster, Dr., ETHZ**

- **Biomechanical study on bone tissue as mineral/organic composite by X-ray diffraction technique**
Masahiro Todoh
Presented by Masahiro Todoh, Dr., Biomechanics Laboratory, HU
- **Symmetry of Taylor Couette Flow**
Yasushi Takeda, Lea Pokorny, Erich Windhab
Presented by Yasushi Takeda, Dr., ETHZ (Emeritus Professor of HU)
- **Multi-objective optimization of laminated composite fabricated by using curvilinear fibers**
Shinya Honda and Yoshihiro Narita
Presented by Shinya Honda, Dr., Intelligent System Design Laboratory, HU

15:10-15:30 *Coffee Break*

15:30-16:45 *Young Researchers' Presentations* (15 min x 5: 10 min for each presentation)

- **A membrane foaming device and its flow characteristics**
Lea Pokorny, Yasushi Takeda, and Erich J. Windhab
Presented by Lea Pokorny, Ph.D. Student, ETHZ
- **Repetitive bubble injection for promotion of frictional drag reduction**
Hyun-Jin Park, Yuji Tasaka, and Yuichi Murai
Presented by Hyun-Jin Park, Dr., HU
- **Study of the rheological properties of the retropulsive jet built by the antral contraction wave in a simplified artificial stomach**
Damian DuFour, Franz X. Tanner, Yasushi Takeda, Stéphane Fischer and Erich J. Windhab
Presented by Damian Dufour, Ph.D. Student, ETHZ
- **Ultrasonic velocity profiler for three-phase pipe flows**
Jumpei Hitomi, Taiki Yoshida, Megumi, Akashi, Hyun-Jin Park, Yuji Tasaka, and Yuichi Murai
Presented by Jumpei Hitomi, LFC undergraduate student, HU
- **Color 3D Particle tracking of macro-bubbles trapped in flow instabilities**
Susanne Frey, Steven Wang, Yuichi Murai, and Erich J. Windhab
Presented by Susanne Frey, MC Student, ETHZ

17:00-18:00 *Laboratory Tour*

- Hydrodynamics laboratory (Ultrasound Doppler, etc.)
- Wind tunnel laboratory (Color PTV, etc.)
- Biomechanics laboratory (X-ray tomography, etc.)



18:30-20:30 *Dinner*

Sapporo Grand Hotel (Banquet Room "Sou-un" on 17th Floor, East Building), N1W4, Sapporo

<http://www.grand1934.com/banq/list/banqc1.html>

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