

Program

DAY 1: Wednesday, March 5, 2008

9:00 ~ 9:10 Opening Remarks

Oral Session 1 9:10 - 11:30 < Nano Bio-Electronics >

9:10 ~ 9:40 [O1-1] "Use of a glutamate-sensitive microelectrode to probe mechanisms of synaptic plasticity in the hippocampus"
Tim V. P. Bliss, Michael L. Errington, Masao Sugawara, Ayumi Hirano
National Institute for Medical Research, UK

9:40 ~ 10:10 [O1-2] "Smart DNA nanodevices based on i-motif structures"
Dongsheng Liu
National Centre for NanoScience & Technology, China

Break

10:20 ~ 10:50 [O1-3] "Bioelectronics for future applications in information technology and live science"
Andreas Offenhäusser, Sven Ingebrandt, Dirk Mayer, Simone Meffert
Institute of Bio- & Nanosystems- Bioelectronics, Research Centre Jülich, Germany

10:50 ~ 11:10 [O1-4] "Optical properties of silver nanosheet"
Koji Otsuka, Kanae Michioka, Xinheng Li, Chang-Dae Keum, Kaoru Tamada
Tohoku University, Japan

11:10 ~ 11:30 [O1-5] "Infrared spectroscopic study of a cell adhesion and metabolism on Si surfaces"
Takami Muto, Ko-ichiro Miyamoto, Parida Yamada, Ryo-taro Yamaguchi, Ayumi Hirano, Yasuo Kimura, Michio Niwano, Hiroko Isoda
Tohoku University, Japan

11:30 ~ 13:00 Lunch

13:00 ~ 14:30 **Poster Session 1**

Oral Session 2 14:30 - 16:30 < Hearing Science and Acoustical Techonogy >

14:30 ~ 15:00 [O2-1] "Physiological measures of the auditory brain in humans"
Stefan Uppenkamp
Universität Oldenburg, Germany

15:00 ~ 15:30 [O2-2] "Bone-conducted ultrasonic perception: Elucidation of perception mechanisms and development of a novel hearing-aid for the profoundly deaf"
Seiji Nakagawa
National Institute of Advanced Industrial Science and Technology, Japan

15:30 ~ 16:00 [O2-3] "Biomimicry sound source localization sensors"
Nobutaka Ono, Shigeru Ando
The University of Tokyo, Japan

16:00 ~ 16:30 [O2-4] "Audio-visual speech for impaired listeners"
Tetsuaki Kawase, Yoko Hori, Keiichiro Yamaguchi, Masatoshi Itoh, Toshikatsu Fujii, Shuichi Sakamoto, Yôiti Suzuki, Toshimitsu Kobayashi
Tohoku University, Japan

Break

Oral Session 3 16:50 - 18:50 < Neural Engineering >

16:50 ~ 17:20 [O3-1] "Functional electrical stimulation (FES) for motor disabled patients"
Takashi Watanabe
Tohoku University, Japan

17:20 ~ 17:50 [O3-2] "Application of knowledge engineering and fuzzy system in realizing cycle-to-cycle control method for swing phase of FES-induced gait"
Achmad Arifin, Takashi Watanabe, Tomoya Masuko
Institute of Technology Sepuluh Nopember, Indonesia

17:50 ~ 18:20 [O3-3] "Brain-computer interface: Bridging brain and computer"
Shin'ichiro Kanoh, Ko-ichiro Miyamoto, Tatsuo Yoshinobu
Tohoku University, Japan

18:20 ~ 18:50 [O3-4] "The Graz-brain-computer interface: Navigation through virtual worlds by thoughts"
Robert Leeb, Gert Pfurtscheller
Graz University of Technology, Austria

19:00 ~ 21:00 Banquet

DAY 2: Thursday, March 6, 2008

Oral Session 4 9:00 - 11:50 < Biomedical Applications of Ultrasound >

- 9:00 ~ 9:30 [O4-1] "High intensity focused ultrasound treatment enhanced with nano- to micro-particles"
Shin-ichiro Umemura, Shin Yoshizawa, Kazuaki Sasaki, Ken-ichi Kawabata
Tohoku University, Japan
- 9:30 ~ 10:00 [O4-2] "New insights into high frequency ultrasonic tissue scattering"
Michael C. Kolios, Gregory J. Czarnota
Ryerson University, Canada
- 10:00 ~ 10:30 [O4-3] "Measurements of the longitudinal movement and the roughness of the arterial wall – New approaches in arterial characterisation"
Magnus Cinthio, Åsa Rydén Ahlgren, Hideyuki Hasegawa, Tomas Jansson, Hans W. Persson, Kjell Lindström, Hiroshi Kanai
Lund Institute of Technology, Lund University, Sweden
- Break
- 10:40 ~ 11:00 [O4-4] "Ultrasonic measurement of transient change in viscoelastic property of radial arterial wall due to Flow-mediated dilation"
Kazuki Ikeshita, Hideyuki Hasegawa, Hiroshi Kanai
Tohoku University, Japan
- 11:00 ~ 11:20 [O4-5] "Automated segmentation of heart wall based on coherence among ultrasonic RF echoes"
Takaomi Kinugawa, Hideyuki Hasegawa, Hiroshi Kanai
Tohoku University, Japan
- 11:20 ~ 11:50 [O4-6] "Methods for myocardial strain imaging"
Jan D'hooge
Catholic University of Leuven, Belgium

11:50 ~ 13:20 Lunch

13:20 ~ 14:50 **Poster Session 2**

Oral Session 5 14:50 - 17:40 < Nano-Electronics >

- 14:50 ~ 15:20 [O5-1] "Preparation and biomedical applications of ferrite nanoparticles"
Masanori Abe
Tokyo Institute of Technology, Japan
- 15:20 ~ 15:50 [O5-2] "Magnetic nanostructures in biomedical applications"
Young Keum Kim
Korea University, Korea
- 15:50 ~ 16:20 [O5-3] "Transport mechanisms in magnetic tunnel junctions"
Joao Oliveira Ventura, J. M. Teixeira, J. P. Araujo, J. B. Sousa, R. Ferreira, P. Wisniowski, P. P. Freitas
Instituto de Fisica dos Materiais da Universidade do Porto, Portugal
- 16:20 ~ 16:50 [O5-4] "Effect of thirds elements addition and multilayers on the ordering process of FePt thin films"
Chan-Gyu Lee, Young Min Lee, Se Young O, Nguyen Dan Phuong, Keesam Shin, S. Okamoto, O. Kitakami, Y. Shimada
Changwon National University, Korea
- 16:50 ~ 17:20 [O5-5] "STT microwave oscillation on spin valve film with self-assembling nano-confined domain wall structure"
Masaaki Doi, Hiroaki Endo, Kazushige Shirafuji, Hiroaki Suzuki, Masashi Sahashi
Tohoku University, Japan
- 17:20 ~ 17:40 [O5-6] "High spin polarization of epitaxial films with artificial alternate monatomic [Fe/Co]_n superlattice"
In Chang Chu, Ammanabrolu Rajanikanth, Yukiko Takahashi, Kazuhiro Hono, Masaaki Doi, Masashi Sahashi
Tohoku University, Japan
- 17:40 ~ Closing Remarks