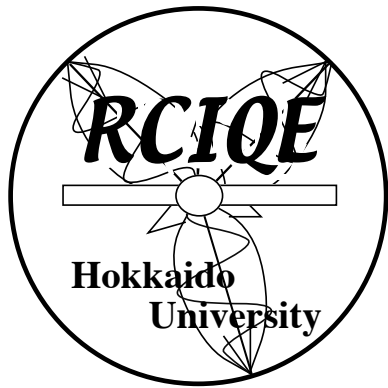


2003 RCIQE International Seminar on "Quantum Nanoelectronics for Meme-Media-Based Information Technologies"



February 12th-14th, 2003
Conference Hall, Hokkaido University

日時：平成15年 2月12日10:00 ～ 2月14日11:30
場所：北海道大学学術交流会館
主催：北海道大学量子集積エレクトロニクス研究センター
北海道大学21世紀COEプログラム(知識メディアを基盤とする次世代ITの研究)

Program

(February 12th)

10:00 - 10:10 "Introductory Talk"
Hideki Hasegawa, Hokkaido University
- Plenary -
10:10 - 10:50 "Meme-Media Technology Approach to the R&D
of Next-Generation Information Technologies"
Yuzuru Tanaka, Hokkaido University
10:50 - 11:10 Break
11:10 - 11:50 "III-V Nanoelectronics and Its Application to
Intelligent Quantum Nanochips"
Hideki Hasegawa, Hokkaido University
11:50 - 12:30 "Trends of Latest Wireless Communication
Technologies: Software Defined Radio (SDR) and
Ultra Wideband (UWB) Wireless Communications"
Ryuji Kono, Yokohama National University
12:30 - 13:40 Lunch Break
- Quantum Nanoelectronics -
13:40 - 14:20 "Ferromagnet-Semiconductor Heterostructures"
Klaus H. Ploog, Paul Drude Institute
14:20 - 15:00 "Evolution of Nanostructures on Surface"
*Enge Wang, Institute of Physics, Chinese Academy
of Science*
15:00 - 15:20 Break
15:20 - 16:00 "Magnetotransport Properties of Two-Dimensional
Electron Gases Containing Quantum Dots and
Wires"
Gil-Ho Kim, Sungkyunkwan University
16:00 - 16:40 "New Electronic Bands in Semiconductor
Heterostructures"
Hyunsik Im, Dongguk University
16:40 - 17:40 Lab Tour to RCIQE

(February 13th)

- Novel Architecture for Quantum Nanoelectronics -
9:10 - 9:50 "Resonant-Tunneling Diode and Its Application to
Multi-GHz Analog-to-Digital Converters",
Takao Waho, Sophia University
9:50 - 10:30 "An Efficient Clustering Algorithm Using
Stochastic Association and Its Implementation
Using 3D-Nanodot-Array Structures"
Takashi Morie, Tomohiro Matsuura**, and
Atsushi Iwata**, *Kyushu Institute of Technology,
**Hiroshima University*

10:30 - 10:50 Break
10:50 - 11:30 "Reaction-Diffusion Systems on Excitable
Semiconductor Medium"
*Tetsuya Asai and Yoshihito Amemiya, Hokkaido
University*
11:30 - 12:10 "Quantum Computation System Using Quantum-Dot
Cell Networks"
*Nan-Jian Wu, Institute of Semiconductor, Chinese
Academy of Science*
12:10 - 13:30 Lunch Break
- Nanostructure Fabrication -
13:30 - 14:10 "Formation of High-Density Quantum Nanostructures
by MOVPE Growth and Their Device Application"
Takashi Fukui, Hokkaido University
14:10 - 14:50 "Micro-ORIGAMI Technology - Strain-Driven Self-
Positioning of Nanostructures"
*Pablo O. Vaccaro, ATR Adaptive Communications
Research Laboratories*
14:50 - 15:10 Break
15:10 - 15:50 "Fabrication and Characterization of InAs-Based
Electromechanical Systems"
*Hiroshi Yamaguchi, NTT Basic Research
Laboratories*
15:50 - 16:30 "Selectively Grown Si Micro-Probe Array Chip on
Si(111) with Signal Processing Circuits"
*Makoto Ishida, Takeshi Kawano, Hidekuni Takao,
and Kazuaki Sawada, Toyohashi University of
Technology*
16:30 - 18:00 Poster Session
18:30 - 20:30 Reception (Centennial Hall, Hokkaido University)

(February 14th)

- Next-Generation Communication Technology -
9:10 - 9:50 "Challenges for Broadband Wireless Technology"
Fumiyuki Adachi, Tohoku University
9:50 - 10:30 "Near-Infrared Intersubband Transitions in GaN/AlN
Multiple Quantum Wells for Ultrafast Optical
Switches"
*Nobuo Suzuki, Norio Iizuka, and Kei Kaneko,
Toshiba Corp.*
10:30 - 10:50 Break
10:50 - 11:30 "Unique Properties of Microstructured Optical Fibers
and Their Applications to Communication Systems",
Masanori Koshihara, Hokkaido University

聴講料無料、懇親会参加費 1,000円

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