

International Symposium on Photonics and Electronics Science and Engineering 2015

March 9 (Mon), 2015

Katsura-Hall, Katsura-Campus, Kyoto University, Kyoto, Japan

Opening (10:00 - 10:15)

10:00-10:05 Opening

10:05-10:15 Overview of Photonics and Electronics Science and Engineering
Susumu Noda and Tsunenobu Kimoto (Kyoto University)

Session 1: Photonics, Electronics, and Spintronics (10:15 - 12:05)

10:15-10:45 Next Generation Gallium Nitride Devices: Quantum Transport and Polarization Engineering (Invited)

Siddharth Rajan (The Ohio State University)

10:45-11:10 Factors That Determine the Emission Internal Efficiency in AlGaIn Quantum Wells
Mitsuru Funato and Yoichi Kawakami (Kyoto University)

11:10-11:40 High Frequency Electronic Devices Using Spin Dynamics in Nanomagnets (Invited)
Shinji Miwa (Osaka University)

11:40-12:05 Spin Function in Topological Insulator Based Devices
Yuichiro Ando (Kyoto University)

Lunch (12:05 - 13:00)

Poster Session (13:00 - 14:20)

Session 2: Superconductors and Applications (14:30 - 16:20)

14:30-15:00 Physics of High-Tc Superconductor Josephson Junctions: Background, Perspectives and Inspiration (Invited)

Francesco Tafuri (Second University of Naples)

15:00-15:25 Multi-Functional Terahertz Emitting Devices of High-Tc Superconductors
Manabu Tsujimoto and Itsuhiro Kakeya (Kyoto University)

15:25-15:55 Characterization of High Temperature Superconductor Bulk Materials and Its Applications (Invited)
Mark Ainslie (University of Cambridge)

15:55-16:20 Applied Nonlinear Dynamics of Superconductivity in Transportation Systems
Taketsune Nakamura (Kyoto University)

Break (16:20-16:35)

Session 3: Fundamentals (16:35 - 17:30)

16:35-17:05 Phase Reduction Approach to Synchronization of Coupled Oscillator Networks (Invited)
Hiroya Nakao (Tokyo Institute of Technology)

17:05-17:30 Applied Nonlinear Dynamics in Energy Systems Technology
Yoshihiko Susuki (Kyoto University)

Closing (17:30 - 17:40)

Reception (18:00 – 19:30)