

Tentative AGENDA (as of November 15-2013-FINAL)

GeneExpression Systems, Appasani Research Conferences of USA & University of Tokyo Presents:

Quantum Science Symposium ASIA-2013 Meeting

Venue: Sanjo Conference Hall, University of Tokyo, Hongo Campus, Tokyo, JAPAN **Date:** November 25 - 26, 2013

Organizer: Krishnarao Appasani, PhD. GeneExpression Systems, Inc. of USA

	NOVEMBER 25, Monday		NOVEMBER 26, Tuesday
8:30 AM	REGISTRATION OPEN	8:30 AM	REGISTRATION OPEN
9:00 – 11:00 AM	Session I: Quantum Coherent Systems Chair: Cyril BRANCIARD, PhD. AUSTRALIA	9:00 – 10:45 AM	Session V: Semi/Superconductors & Devices - I Chair: Hidekazu KUREBAYASHI, PhD. UNITED KINGDOM
9:00 – 9:10 AM	Welcome Note & Introduction of Keynote Speaker & Session Chair by Organizer Krishnarao APPASANI, PhD, MBA <i>GeneExpression Systems, USA</i>	8:55 – 9:00 AM	Introduction of Session Chair by Organizer Krishnarao APPASANI, PhD, MBA <i>GeneExpression Systems, USA</i>
9:10 – 9:45 AM	Keynote Lecture by: Jaw-Shen TSAI, PhD. Japan RIKEN Advanced Science Institute & NEC Research Laboratories, Japan Title: Progress in the superconducting quantum information processing	9:00 – 9:30 AM	Tetsuo OGAWA, PhD. Plenary Speaker Osaka University, Japan Title: Theory of BEC-BCS-laser crossover in exciton-polariton systems
9:45 – 10:10 AM	Cyril BRANCIARD, PhD. The University of Queensland, Australia Title: How well can one jointly measure two incompatible observables on a given quantum state?	9:30 – 9:55 AM	Katsuya ODA, PhD. Japan Photonics Electronics Technology Research Association Central Research Laboratory, Hitachi, Ltd., Japan Title: Monolithic integrated Ge optical emitters for photonics-electronics conversion systems
10:10 – 10:35 AM	Hiromitsu TAKEUCHI, PhD. Osaka City University, Japan Title: Quantum hydrodynamic instability and projected spontaneous symmetry breaking in superfluid	9:55 – 10:20 AM	Hidekazu KUREBAYASHI, PhD. Cavendish Laboratory, University of Cambridge, United Kingdom Title: Current-induced spin control by the spin-orbit interaction
10:35 – 11:00 AM	Hiroyuki SHIBATA, PhD. NTT Basic Research Labs, Japan Title: Quantum key distribution over a 70-dB channel loss using SSPD with ultralow dark count rate	10:20 – 10:45 AM	Kaoru NARITA, Ph.D. Central Research Laboratories, NEC Corporation, Japan Title: Unique infrared imager based on carbon nanotubes
11:00 – 11:15 AM	15 Minutes AM Break	10:45 – 11:00 AM	15 Minutes AM Break- Visit of Posters
11:15 – 12:35 PM	Session II: Quantum Key Distribution Chair: Paola VERRUCCHI, PhD. ITALY	11:00 – 12:25 PM	Session VI: Semi/Superconductors & Devices - II Chair: Yukio TANAKA, DSc. JAPAN
11:15 – 11:45 AM	Paola VERRUCCHI, PhD. Plenary Speaker CNR & University of Firenze (Florence), Italy Title: Optimal dynamics for quantum-state and entanglement transfer through homogeneous channels	11:00 – 11:30 AM	Yukio TANAKA, DSc. Plenary Speaker Nagoya University, Japan Title: Odd-frequency pairing and Majorana fermion in Nanowire proximity systems
11:45 – 12:10 PM	Kazuo FUJIKAWA, PhD. University of Tokyo & RIKEN Nishina Center, Japan Title: Entanglement and Hidden-Variables Models	11:30 – 11:55 PM	Kiyoshi TAMAKI, PhD. NTT Basic Research Laboratories, Japan Title: Practical security of Quantum Key Distribution
12:10 – 12:35 PM	Takuya HIRANO, PhD. Gakushuin University, Japan Title: Quantum technologies with bosons	11:55 – 12:10 PM	Martin Santiago MIRANDA SHORT Presentation Tokyo Institute of Technology, Japan Title: Quantum microscope with Ytterbium atoms
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12:35 – 1:30 PM	Lunch Break 55 minutes (Lunch Provided)	12:25 – 1:45 PM	Lunch Break 1 hour and 20 min (ON YOUR OWN)

1:30 – 4:05 PM	Session III: Quantum Information & Communications Chair: Koji AZUMA, PhD. JAPAN	1:45 – 3:45 PM	Session VII: Quantum Walks, Quantum Cryptography & Quantum computers Chair: J. McCALLUM, PhD. AUSTRALIA
1:30 – 2:00 PM	Koji AZUMA, PhD. Plenary Speaker NTT Basic Research Laboratories, Japan Title: What is really required in quantum repeaters?	1:45 – 2:15 PM	Toyohiro TSURUMARU, PhD. Plenary Speaker Mitsubishi Electric Corporation, Japan Title: Dual universality of hash functions and its applications to quantum cryptography
2:00 – 2:25 PM	Mohammad AL-AMRI, PhD. King Abdulaziz City for Sci. & Technology, Saudi Arabia Title: An adventure in direct counterfactual quantum communication	2:15 – 2:40 PM	Takeshi KOSHIBA, DSc. Saitama University, Japan Title: Composable security of blind computation
2:25 – 2:50 PM	Ikuo SUEMUNE, Dr.Engg. Hokkaido University, Japan Title: Semiconductor photon sources of single photons and entangled photon pairs for quantum information and communication	2:40 – 3:05 PM	Jeffrey McCALLUM, PhD. University of Melbourne, Australia Title: A Hybrid Optical-Electrical Pathway to Quantum Computing in Silicon
2:50 – 3:15 PM	Shigeki TAKEUCHI, PhD. Hokkaido University & Osaka University, Japan Title: Photonic quantum circuits and quantum metrologies	3:05 – 3:30 PM	Norio KAWAKAMI, PhD. Kyoto University, Japan Title: Quantum Walk: Applications to quantum phenomena in condensed matter physics
3:15 – 3:40 PM	Masato KOASHI, PhD. The University of Tokyo, Japan Title: What is the origin of quantum nonlocality without entanglement?	3:30 – 3:45 PM	Etsuo SEGAWA, Dr.Engg. SHORT Presentation Tohoku University, Japan Title: Asymptotic behaviors of quantum walks on one-dimensional lattice
3:40 – 4:05 PM	Rina KANAMOTO, PhD. Meiji University, Japan Title: Cavity optomechanics of a quantum degenerate gas	—	—
4:05 – 4:20 PM	PM Break 15 min - Visit of Posters	3:45 – 4:00 PM	PM Break 15 min - Visit of Posters
4:20 – 6:30 PM	Session IV: Nanostructures & Graphenes Chair: Javier Garcia de ABAJO, PhD. SPAIN	4:00 – 6:30 PM	Session VIII: Quantum Metrology & Quantum Photonics Chair: Michael SCHEIBNER, PhD. USA
4:20 – 4:50 PM	Javier Garcia de ABAJO, PhD. Plenary Speaker Institute of Photonic Sciences, Spain Title: Graphene plasmonics: Challenges and opportunities	4:00 – 4:30 PM	Matthew J. SELLARS, PhD. Plenary Speaker Australian National University, Australia Title: Maximizing spin coherence times in rare earth optical centers
4:50 – 5:15 PM	Masao NAGASE, Dr. Engg. The University of Tokushima, Japan Title: Nano-electrical and mechanical properties of graphene on SiC substrate	4:30 – 4:55 PM	Michael SCHEIBNER, PhD. University of California at Merced, USA Title: Phonons in quantum dot molecules
5:15 – 5:40 PM	Toshimasa FUJISAWA, PhD. Tokyo Institute of Technology, Japan Title: Plasmon wavepacket in edge channels of GaAs and graphene	4:55 – 5:10 PM	Keisuke FUJII, PhD. SHORT Presentation Kyoto University, Japan Title: Measurement-free topological protection using dissipative feedback
5:40 – 6:05 PM	Atsufumi HIROHATA, PhD. University of York, United Kingdom Title: Nano-Spintronics	5:10 – 5:25 PM	Ms. Jasmin MEINECKE SHORT Presentation University of Bristol, Bristol, United Kingdom Title: Integrated quantum photonics
6:05 – 6:30 PM	Makoto KOHDA, PhD. Tohoku University, Japan Title: Spin orbit induced Stern-Gerlach experiment in semi-conductor nanostructures	5:25 – 5:50 PM	Denis KONSTANTINOV, PhD. Okinawa Institute of Science & Technology, Japan Title: Electrons on helium: towards quantum engineering
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6:30 PM End of 1st day session		6:30 PM End of Conference CLOSING REMARKS	