

**IMPACT "Advanced Information Society Infrastructure Linking Quantum Artificial Brains in Quantum Network"
Quantum Information Technologies Workshop (Annual Meeting 2016)
March 28 - 30, 2016 / JST Tokyo Headquarters (K's Gobancho), 1F Hall**

March 28, 2016 (mon)		
9:00 - 9:30	(30)	Opening remarks by Yoshihisa Yamamoto PM
9:30 - 10:00	(30)	Shoko Utsunomiya (National Institute of Informatics) Performance evaluation and improvement of Coherent Ising/XY machine
10:00 - 10:30	(30)	Peter McMahon on behalf of Martin Fejer (Stanford University) Initial results from a 100-bit measurement-feedback Ising machine
10:30 - 10:45		break
10:45 - 11:25	(40)	Hiroki Takesue (NTT) Large-scale coherent Ising machine
11:25 - 11:45	(20)	Kyo Inoue (Osaka University) Quantum measurement feedback circuit
11:45 - 12:05	(20)	Hiroshi Ohta (Alnair Labs) Fiber laser for XY machine
12:05 - 14:00		lunch break
14:00 - 15:00	(60)	Special lecture by Masato Okada (The University of Tokyo, GSFS) Quantum artificial brain and data driven science
15:00 - 15:30	(30)	Kazuyuki Aihara (The University of Tokyo) Neural computation and quantum artificial brain
15:30 - 15:45		break
15:45 - 16:15	(30)	Ken-ichi Kawarabayashi (National Institute of Informatics) Large-scaled algorithms; Theory and Implementation
16:15 - 16:45	(30)	Hidetoshi Nishimori (The Tokyo Institute of Technology) Effects of XX interactions on the efficiency of quantum annealing
16:45 - 17:00		break
17:00 - 19:00		Poster Session: Quantum Artificial Brain & Quantum Secure Network
March 29, 2016 (tue)		
9:00 - 9:30	(30)	Masahide Sasaki (NICT) Architecture of quantum secure network for a long-lived security system
9:30 - 10:00	(30)	Yuichi Nakamura (NEC) Security to sustain social system, and quantum secure network
10:00 - 10:30	(30)	Akira Suzuki (Toshiba) The design of a QKD system for the quantum secure network
10:30 - 10:45		break
10:45 - 11:15	(30)	Mitsuru Matsui (Mitsubishi Electric) Our recent progress on modern quantum and post quantum cryptography
11:15 - 11:45	(30)	Takuya Hirano (Gakushuin University) Quantum key distribution using quadrature amplitude modulation technology
11:45 - 14:00		lunch break
14:00 - 14:30	(30)	Masato Koashi (The University of Tokyo) Quantum key distribution schemes with coherent pulse train
14:30 - 15:00	(30)	Akihisa Tomita (Hokkaido University) Security certification of QKD devices
15:00 - 15:30	(30)	Ryutaroh Matsumoto (Tokyo Institute of Technology) Physical layer security
15:30 - 15:45		break
15:45 - 16:15	(30)	Kiyoshi Tamaki (NTT) Security of quantum key distribution with imperfect devices
16:15 - 16:45	(30)	Tetsuo Ogawa (Osaka University) Quantum measurement and dynamics
16:45 - 17:00		break
17:00 - 19:00		Poster Session: Quantum Secure Network & Quantum Simulation
March 30, 2016 (wed)		
9:00 - 9:30	(30)	Naoto Nagaosa (RIKEN) Diagrammatic quantum Monte Carlos simulation of electron-phonon coupled systems
9:30 - 10:00	(30)	Hideo Aoki (The University of Tokyo) Paths for enhancing Tc in superconductivity with quantum simulations
10:00 - 10:30	(30)	Yoshiro Takahashi (Kyoto University) Cold atom quantum simulation
10:30 - 10:45		break
10:45 - 11:15	(30)	Takeshi Fukuhara (RIKEN) Quantum simulation of spin dynamics with optical lattice systems
11:15 - 11:45	(30)	Yasunobu Nakamura (RIKEN) Quantum simulation using superconducting circuits
11:45 - 14:00		break
14:00 - 15:00	(60)	Special lecture by Ryotaro Arita (RIKEN CEMS) Room temperature superconductors from the perspective of first-principles calculation
15:00 - 15:30	(30)	Franco Nori (RIKEN) Numerically solving open quantum systems
15:30 - 15:45		break
15:45 - 16:15	(30)	Seigo Tarucha (RIKEN) Dynamics and adaptive control of open quantum dot spin systems
16:15 - 16:45	(30)	Sven Höfling (The University of Würzburg) Development of semiconductor-based quantum simulators
16:45 - 17:15	(30)	Jaw-Shen Tsai (RIKEN) Quantum chemistry simulation by superconducting boson sampling system
17:45 - 19:45		Networking Reception