

QIT33 Program (Nov. 24 Tue., 2015)

Place: NTT Atsugi R&D center

Time	Title	Speaker(s)	Affiliation(s)
9:50-10:00 [Opening]			
10:00-11:00 Session I		Chair: Toshio Ohshima (Fujitsu Lab.)	
	Improving the coherence time of a quantum system via a coupling to a short-lived system	Yuichiro Matsuzaki [a], Xiaobo Zhu [a], Kousuke Kakuyanagi [a], Toida Hiraku [a], Takaaki Shimoka [b], Norikazu Mizuochoi [b], Kae Nemoto [c], Kouichi Semba [d], W. J. Munro [a], Hiroshi Yamaguchi [a], Shiro Saito [a]	a: NTT, b: Osaka Univ., c: NII, d: NICT
	Entanglement Generation by Communication using Phase-Squeezed Light with Photon Loss	Fumiaki Matsuoka, Akihisa Tomita	Hokkaido Univ.
	Quantum analysis of the propagation properties of weak optical signals in a hollow core optical fiber	Akira Kitagawa	Kochi Univ.
11:00-11:20 Break (20 min.)			
11:20-12:40 Session II		Chair: Yoko Miyamoto (UEC)	
	Detection-dependent six-photon NOON state interference	Rui-Bo Jin [a], Mikio Fujiwara [a], Ryosuke Shimizu [b], Taro Yamashita [a], Shigehito Miki [a], Hirotaka Terai [a], Masahiro Takeoka [a], Masahide Sasaki [a]	a: NICT, b: UEC
	Ultrahigh-purity single-photon generator at 1.5 μm using portable refrigerator	Toshiyuki Miyazawa [a], Kazuya Takemoto [b], Yoshihiro Nambu [c], Shigehito Miki [d], Taro Yamashita [d], Hirotaka Terai [d], Mikio Fujiwara [d], Masahide Sasaki [d], Yoshiki Sakuma [e], Motomu Takatsu [b], Tsuyoshi Yamamoto [b], Yasuhiko Arakawa [a]	a: Univ. of Tokyo, b: Fujitsu Labs., c: NEC, d: NICT, e: NIMS
	Easy production of entangled photon pair in polarization	Hsin-Pin Lo [a], Atsushi Yabushita [a], Takayoshi Kobayashi [a,b]	a: NCTU, b: UEC
	Direct observation of pulsed EPR entanglement measured by shaped local oscillators	Ami Shinjo, Sachi Kikuchi, Yujiro Eto, Takuya Hirano	Gakushuin Univ.
12:40-13:40 Lunch (60 min.)			
13:40-15:10 Poster Session			
15:10-16:00 Session III		Chair: Takuya Hirano (Gakushuin Univ.)	
	Hybrid Quantum Systems Based on Collective Excitations in Solids <Tutorial talk>	Yasunobu Nakamura [a,b]	a: Univ. of Tokyo, b: RIKEN
16:00-16:20 Break (20 min.)			
16:20-17:40 Session IV		Chair: Masato Koashi (Univ. of Tokyo)	
	Any time inhomogeneous quantum memoryless process "converges"	Keiji Matsumoto	NII
	The Cost of Randomness for Converting a Tripartite Quantum State to be Approximately Recoverable	Eyuri Wakakuwa	UEC
	Construction of the minimal sufficient POVM on a separable Hilbert space and its uniqueness	Yui Kuramochi	Kyoto Univ.
	What does a quantum measurement measure about an observable?	Masanao Ozawa	Nagoya Univ.
17:40-18:00 Break (20 min.)			
18:00-20:00 Banquet			

[QIT33 Program \(Nov. 25 Wed., 2015\)](#)

Time	Title	Speaker(s)	Affiliation(s)
10:00-10:50 Session V Chair: Yasuhiro Takahashi (NTT)			
	Computational Complexity of Quantum NP and Quantum AM <Invited talk>	Harumichi Nishimura	Nagoya Univ.
10:50-11:10 Break (20 min.)			
11:10-12:30 Session VI Chair: Akinori Kawachi (Tokushima Univ.)			
	Quantum Algorithm for Triangle Finding in Sparse Graphs	Francois Le Gall, Shogo Nakajima	Univ. of Tokyo
	Quantum interpretation of AWPP	Tomoyuki Morimae [a], Harumichi Nishimura [b]	a: Gunma Univ., b: Nagoya Univ.
	No error-free implementation of quantum controlled-gates is possible without prior knowledge of the target gate	Akihito Soeda [a], Shojun Nakayama [a,b], Mio Mura0 [a]	a: Univ. of Tokyo, b: NII
	Quantum calculation using Spin-Vortex Induced Loop Currents as qubits — Numerical simulation of Shor's algorithm and decoherence by external current as the coupler —	Hikaru Wakaura, Tubasa Morisaki, Hiroyasu Koizumi	Tsukuba Univ.
12:30-13:30 Lunch (60 min.)			
13:30-14:20 Session VII Chair: Akihisa Tomita (Hokkaido Univ.)			
	Quantum key distribution without monitoring disturbance <Invited talk>	Masato Koashi	Univ. of Tokyo
14:20-14:40 Break (20 min.)			
14:40-15:40 Session VIII Chair: Satoshi Ishizaka (Hiroshima Univ.)			
	Robustness of round-robin differential phase-shift quantum key distribution protocol against source flaws	Akihiro Mizutani [a], Nobuyuki Imoto [a], Kiyoshi Tamaki [b]	a: Osaka Univ., b: NTT
	Robust decoy state generation with a Nested Modulator	Kensuke Nakata, Akihisa Tomita, Atsushi Okamoto	Hokkaido Univ.
	Security of Quantum Key Distribution from Attacker's View	Takehisa Iwakoshi	Tamagawa Univ.
15:40-16:00 Break (20 min.)			
16:00-17:00 Session IX Chair: Naoki Yamamoto (Keio Univ.)			
	Nuisance parameter problem in quantum parameter estimation theory	Jun Suzuki	UEC
	No-Cloning of Quantum Steering	Che-Ming Li, Ching-Yi Chiu	NCKU
	Localization and Fractality in Inhomogeneous Quantum Walks with Self-Duality	Yutaka Shikano	IMS, NINS/Inst. Quantum Studies, Chapman Univ. /Tokyo Tech MRL
17:00-17:10 [Closing]			

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13:40 –
15:10

Poster

1	Theoretical Analysis Coherent Dynamics in an Inhomogeneous V-type 3-Level System of Quantum Dots	Sayaka Kitazawa [a], Kouichi Akahane [b], Shota Ichikawa [a], Yuto Arai [a], Junko Ishi-Hayase [a]	a:Keio Univ., b: NICT
2	An analysis of degenerate optical parametric oscillators network by truncated Wigner function method	Daiki Maruo [a,b], Shoko Utsunomiya [b], Yoshihisa Yamamoto [b,c]	a: Univ. of Tokyo, b: NII, c: IMPACT
3	Distributed Construction of Multipartite Entangled States over Quantum Networks	Hayata Yamasaki, Akihito Soeda, Mio Murao	Univ. of Tokyo
4	Distinguishability of countably many states	Ryuitiro Kawakubo, Tatsuhiko Koike	Keio Univ.
5	Perfect State Transfer for Linear Quantum Memory by Optimal Control	Hideaki Nakao, Naoki Yamamoto	Keio Univ.
6	Generation of physical random numbers by using homodyne detection	Kodai Hirakawa [a], Yusuke Oguri [a], Kaori Kono [a], Shota Oya [a], Takumi Nakano [a], Tsubasa Ichikawa [a], Takuya Hirano [a], Toyohiro Tsurumaru [b]	a: Gakushuin Univ., b: Mitsubishi Electric
7	On the measurement uncertainty via weak-value amplification for the Spin Hall Effect of Light	Noritomo Morisawa [a], Lee Jaeha [a], Izumi Tsutsui [b]	a: Univ. of Tokyo, b: KEK
8	Approximate back-action evasion via coherent H_2 control	Yu Yokotera, Naoki Yamamoto	Keio Univ.
9	Dispersion-cancelled and artifact-background-free optical coherence tomography	Kazuhiisa Ogawa [a,b], Masao Kitano [a]	a: Kyoto Univ., b: Hokkaido Univ.
10	Solution to the Mean King's Problem in Qubit-Systems Using Higher-Dimensional Quantum Error-Correcting Codes	Toru Kuriyama, Masakazu Yoshida, Jun Cheng	Doshisha Univ.
11	Conditional dynamics of two level system confined by a single photon detector	Yuta Ohyama, Yasuhiro Tokura	Tsukuba Univ.