

QIT26 Program

May 21st (Mon), 2012

time	title	speaker	affiliation
9:55- 10:00	Opening		
10:00- 11:20	Session I Quantum Computation, Quantum Algorithms, Quantum Simulation and Others	Chair Fumiaki Morikoshi	NTT
	Improvements in quantum genetic operations	Akira SaiToh[a], Robabeh Rahimi[b], Mikio Nakahara[c]	a:Kinki Univ., Present Add.: NII b:Univ. Waterloo c:Kinki Univ.
	Universal construction of controlled-unitary gates using dynamical decoupling	Shojun Nakayama[a], Akihito Soeda[b], Mio Muraao[a]	a:Univ.Tokyo, b:NUS
	Quantum algorithm for simulating the dissipative dynamics and obtaining the energy spectrum of a physical system	Sahel Ashhab, Hefeng Wang, Franco Nori	RIKEN
	Entanglement generation in the weak-coupling regime of cavity QED	Kazuki Koshino[a] , Yuichiro Matsuzaki[b]	a:Tokyo M&D Univ. b:NTT BRL
	Sp(2,Z) covariant Wigner function on N dimensional vector space	Minoru Horibe, Takaaki Hashimoto, Akihisa Hayashi	Univ. Fukui
11:40- 12:20	Session II	Chair Harumichi Nishimura	Nagoya Univ.
	New models for non-local games <Invited Talk>	Andris Ambainis	Univ. Latvia
12:20- 13:20	Lunch		
13:20- 15:00	Poster Session		
15:20- 16:00	Session III	Chair Kazuhiro Igeta	NTT
	Topological fault-tolerant quantum computation <Tutorial>	Keisuke Fujii	Osaka Univ.
16:20- 18:00	Session IV Quantum Information	Chair Toyohiro Tsurumaru	Mitsubishi Electric Co.
	Optimal entanglement manipulation via coherent-state transmission	Go Kato, Koji Azuma	NTT
	Irreversibility of Entanglement Concentration	Wataru Kumagai[a] , Masahito Hayashi[b]	a:Tohoku Univ, b:Nagoya b:Univ./National Univ. of Singapore)
	Analysis of quantum teleportation using weak measurement statistics	Masanori Hiroishi, Holger F. Hofmann	Hiroshima Univ.
	Phase-random states and their approximate generation	Yoshifumi Nakata, Peter S. Turner, Mio Muraao	Univ. Tokyo
	On proving violation of realism in quantum theory using macroscopic observables	Pawel Kurzynski[a], Akihito Soeda[a], Ravishankar Ramanathan [a], Andrzej Grudka[b], Jayne Thompson[c], Dagomir Kaszlikowski [a]	a:NUS b:Adam Mickiewicz University, c:The University of Melbourne
18:20- 20:20	Banquet		

QIT26 Program

May 22nd (Tue), 2012

time	title	speaker	affiliation
9:20– 10:20	Session V Quantum Control and Others	Chair Shigeki Takeuchi	Hokkaido Univ.
	Application of an integer-type algorithm for ODEs to quantum optics	Hiroaki Ashiki, Fuminori Sakaguchi	Univ. Fukui
	Numerical optimization method of dynamical decoupling sequences	Yutaka Tabuchi, Masahiro Kitagawa	Osaka Univ.
	Reduced Concatenated Composite Quantum Gates	Masamitsu Bando[a], Tsubasa Ichikawa[b], Yasushi Kondo[a], Mikio Nakahara[a]	a:Kinki Univ., b:Gakushuin Univ.
10:40– 11:40	Session VI Quantum Cryptography, Quantum Communications, Quantum Computation, Quantum Algorithms, and Quantum Simulation	Chair Takashi Yamamoto	Osaka Univ.
	Phase encoding schemes for measurement device independent quantum key distribution with basis information flaw	Kiyoshi Tamaki [a], Hoi-Kwong Lo[b], Chi-Hang Fred Fung[c], Bing Qi [b]	a:NTT BRL, b:Univ. of Toronto, c:Hong Kong Univ.
	Precise evaluation of leaked information with universal2 privacy amplification in the presence of quantum attacker	Masahito Hayashi	Nagoya Univ.
	Entanglement generation in the weak-coupling regime of cavity QED	Kazuki Koshino[a] , Yuichiro Matsuzaki[b]	a:Tokyo M&D Univ. b:NTT BRL
11:40– 13:30	Lunch		
13:30– 14:30	Session VII	Chair Masahiro Kitagawa	Osaka Univ.
	Heisenberg's Uncertainty Principle <Tutorial>	Masanao Ozawa	Nagoya Univ.
14:50– 16:10	Session VIII Quantum Measurement, Quantum Metrology and Quantum Estimation	Chair Masahito Hayashi	Nagoya Univ.
	Measurement uncertainties in the quantum formalism -- quasi-realities of individual systems --	Holger F. Hofmann	Hiroshima Univ.
	On the Minimal Model for Purity-measuring and the Dimension of Quantum Systems	Toru Tanaka[a], Gen Kimura[b], Hiromichi Nakazato[a]	a:Waseda Univ. b:Shibaura Inst.
	Systematic approaches for implementation of general measurements in linear optical and solid-state qubits	Yukihiro Ota, Sahel Ashhab, Franco Nori	RIKEN
	A Solution to the Mean King's Problem using Quantum Error-Correcting Codes	Masakazu Yoshida[a], Takayuki Miyadera[b], Gen Kimura [c], Hideki Imai[a]	a:Chuo Univ., b:Kyoto Univ. c:Shibaura Inst. of Tech.
16:10– 16:15	Closing		

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13:20- 15:00

Poster (13F Meeting room)

1	Superactivation of Zero-Capacity Quantum Channels is Limited by the Quantum Relative Entropy Function	Laszlo Gyongyosi, Sandor Imre	Budapest Univ. of Technology and Economics
2	Quantum metrology with identical particles and their indistinguishability	Koji Matsuoka, Kazuya Yuasa	Waseda Univ.
3	Disrimination with error margin -- Case of three symmetric mixed states --	Hiroyuki Sugimoto, Yuta Taninaka, Akihisa Hayashi	Univ. of Fukui
4	Purification limit in spin networks via local operation	Yuzuru Kato, Naoki Yamamoto	Keio Univ.
5	Multi-party clock synchronization with GHZ states	Changliang Ren, Holger F. Hofmann	Hiroshima Univ.
6	Spin Amplification in Random Coupling Network	Makoto Negoro, Kenichiro Tateishi, Akinori Kagawa, Masahiro Kitagawa	Osaka Univ.
7	Generation of entanglement between two qubits with Mach-Zehnder interferometer	Kouichi Inaba, Kazuya Yuasa	Waseda Univ.
8	State preparation for two-level systems via adaptive Zeno measurement	Yuzuru Kato, Naoki Yamamoto	Keio Univ.
9	Evaluation of polarization entanglement with multi-pairs using four single-photon detectors	kio Yoshizawa, Dajji Fukuda, Hidemi Tsuchida	AIST
10	Distribution of polarization-entangled photon-pairs generated by cascaded SHG/SPDC over standard single-mode fibers	Shin Arahira, Hitoshi Murai	OKI
11	The Pilot Quantum Error-Correction Protocol	Laszlo Gyongyosi, Sandor Imre	Budapest Univ. of Technology and Economics
12	Ancilla-Driven Universal Blind Quantum Computation	Takahiro Sueki[a], Takeshi Koshiba[a], Tomoyuki Morimae[b]	a:Saitama Univ. b:Imperial col.
13	Heralded optical quantum gate assisted by path entanglement	Ryo Okamoto, Shigeki Takeuchi	Hokkaido Univ.
14	Symplectic covariance of the Fano operator on the lattice	Hiroyuki Ashida, Takaaki Hashimoto, Minoru Horibe, Akihisa Hayashi	univ of Fukui
15	Application of an integer-type algorithm for ODEs to quantum mechanics --for Schrodinger equations with periodic potential functions --	Masao Kato[a], Fuminori Sakaguchi[b]	a:Fukui City Hall b:Univ. Fukui