

Poster Session 2

SATURDAY, December 2, 2006

POSTER Session : Quantum Cryptography, Quantum Measurement and Quantum Metrology

| 14:00-16:00

Norbert Luetkenhaus, Chair

Paper

- P2-1 **Osamu Hirota**, Kaoru Kurosawa
"On information theoretic security of Y-00 quantum stream cipher"
- P2-2 **Matthias Heid**, Norbert Luetkenhaus
"Security of coherent state quantum cryptography against collective attacks in the presence of gaussian channel noise"
- P2-3 **Ryo Namiki**, Sahin Kaya Oezdemir, Nobuyuki Imoto
"Entanglement distillation and continuous-variable quantum key distribution using postselection"
- P2-4 **Tatsuya Tomaru**, Masashi Ban
"Secure optical communication using anti-squeezing"
- P2-5 **Kiyoshi Tamaki**, Norbert Luetkenhaus, Masato Koashi, Jamie Batuwantudawe
"Unconditional security of the Bennett 1992 quantum key-distribution scheme with strong reference pulse"
- P2-7 **Erika Andersson**, Marcos Curty, Igor Jex
"Quantum public key distribution with coherent states"
- P2-8 **Taehyun Kim**, Ingo B. Stork gennant Wersborg, Franco N. C. Wong, Jeffrey H. Shapiro
"Complete physical simulation of the Fuchs-Peres-Brandt probe"
- P2-9 **Alexandra Kolla**, Rahul Jain, Gatis Midrijanis, Ben W. Reichardt
"On parallel composition of zero-knowledge proofs with black-box quantum simulators"
- P2-11 **Tetsuya Shimizu**, Genta Masada, Osamu Hirota
"A security analysis of Y-00 quantum stream cipher with practical randomizations"
- P2-12 **Evan R. Jeffrey**, Joseph B. Altepeter, Paul G. Kwiat
"Relativistic quantum cryptography"
- P2-13 **Kentaro Kato**
"A concrete construction of deliberate error randomization for quantum stream cipher by Y-00 protocol"
- P2-14 **Sahin Kaya Oezdemir**, Takashi Yamamoto, Masato Koashi, Nobuyuki Imoto
"Embedding classical watermark on qubit-strings using error correction coding: adversary detection and tamper assessment"

P2-15	Wolfgang Maurer , Christine Silberhorn "Passive decoy-state quantum key distribution"
P2-17	Toyohiro Tsurumaru "Group covariance in quantum string commitment"
P2-18	Koichi Yamazaki , Ranjith Nair, Horace P. Yuen "Problems of the CASCADE protocol and its application to classical and quantum key generation"
P2-19	Horace P. Yuen , Ranjith Nair "On the security of Y00 or the $\alpha\eta$ direct encryption protocol"
P2-20	Ranjith Nair "Side information in quantum cryptographic security proofs"
P2-21	Takami Eguchi , Ranjith Nair "Unicity distance analysis on the quantum cryptographic protocol $\alpha\eta$ "
P2-23	Jun Suzuki , Syed M. Assad, Berthold-Georg Englert "Individual raw data attacks in the Bennett Brassard 1984 protocol with incomplete tomography"
P2-24	Tomoyuki Horikiri , Yuishi Takeno, Atsushi Yabushita, Takayoshi Kobayashi "Improvement of quantum key distribution by a photon number resolved heralded single photon source"
P2-25	A. Tanaka , A. Tomita, W. Maeda, S. Takahashi, A. Tajima "Decoy-State design for use in a High-Speed QKD"
P2-26	J. L. Duligall , M. S. Godfrey, J. G. Rarity, W. J. Munro, K. A. Harrison "Compact and low cost quantum cryptography"
P2-27	Shingo Tokunaga , Kazuya Shirasaki, Takuya Hirano "Free-space continuous-variable quantum cryptography"
P2-28	Shigeto Akutsu , Takeshi Hosoi, Yoshifumi Doi, Makoto Honda, Katsuyoshi Harasawa "Practical implementation of Yuen-2000 quantum stream cipher"
P2-29	Lijian Zhang , Christine Silberhorn, Ian A. Walmsley "Single photon quantum cryptography with continuous variables"
P2-30	C. Weedbrook , A.M. Lance, T. Symul, V. Sharma, P.K. Lam, T. C. Ralph "No-switching continuous-variable quantum key distribution"
P2-31	Yoshihiro Nambu , Ken'ichiro Yoshino, Akihisa Tomita "Quantum key distribution systems without optical switching using planar lightwave circuit"
P2-32	Akio Yoshizawa , Satoru Odate, Hidemi Tsuchida "Low-noise gated-mode single-photon detection at 1550 nm using a cooled InGaAs avalanche photodiode"
P2-33	Alex Hayat , Pavel Ginzburg, Meir Orenstein "IR single-photon detection for quantum communications by two-photon absorption in Si detector"

P2-34	Mikio Fujiwara , Masahide Sasaki "Photon statistics of intensity-modulated signals by a charge integration photon detector at telecom wavelength"
P2-35	Radhika Rangarajan , Evan R. Jeffrey, Joseph B. Altepeter, Paul G. Kwiat "High-efficiency photon-number resolving detectors"
P2-36	Shigehito Miki , Mikio Fujiwara, Masahide Sasaki, Zhen Wang "Performance evaluation of superconducting NbN single photon detectors prepared on single crystal MgO substrate"
P2-37	Daiji Fukuda , Rathnayaka Mudiyansele Thushara Damayanthi, Akio Yoshizawa, Hidemi Tsuchida, Kuniaki Amemiya, Hiroyuki Takahashi, Masataka Ohkubo "Single photon detectors with titanium transition edge sensors"
P2-38	Kenji Tsujino , Makoto Akiba, Genta Masada, Masahide Sasaki "Charge-integration photon detector with Si APD in the linear mode"
P2-39	Ulrik L. Andersen , Metin Sabuncu, Gerd Leuchs "Experimental continuous variable quantum cloning with a-priori information"
P2-40	Ch. Wittmann , D. Elser, S. Lorenz, U. L. Andersen, P. Marek, R. Filip, G. Leuchs "Experimental distillation of noisy coherent states"
P2-41	Antia Lamas-Linares , Hou Shun Poh, Chune Yang Lum, Ivan Marcikic, Christian Kurtsiefer "Joint spectrum mapping of polarization entanglement in parametric down-conversion"
P2-43	J.B. Altepeter , E. R. Jeffrey, R. Rangarajan, P. G. Kwiat "A loophole-free test of Bell's inequalities"
P2-44	T. Briant , P. -F. Cohadon, O. Arcizet, C. Molinelli, A. Heidmann, M. Pinard "Radiation pressure cooling of a micro-mechanical resonator in a high-finesse optical cavity"
P2-45	Yuuki Tokunaga , Takashi Yamamoto, Masato Koashi, Nobuyuki Imoto "Witness operators for discriminating classes of genuine multipartite entanglement"
P2-46	Robabeh Rahimi , Akira SaiToh, Mikio Nakahara, Masahiro Kitagawa "Single-experiment-detectable multipartite entanglement witness for ensemble quantum computing"
P2-47	Thomas Brougham , Erika Andersson, Stephen M. Barnett "Cloning and joint measurements of incompatible spin components"
P2-50	Joseph Emerson "Efficient randomization method for direct estimation of the probability of k-qubit errors"
P2-51	Stephen D. Bartlett , Agata M. Branczyk, Paulo E. M. F. Mendonca, Alexei Gilchrist, Andrew C. Doherty "Quantum control of a single qubit"
P2-52	Bernhard K. Meister "An extension of the Wigner-Araki-Yanase theorem to multiplicative conserved quantities"
P2-53	Hayato Nakano , Hiroataka Tanaka, Shiro Saito, Kouichi Semba "Practical impossibility of observing a Rabi oscillation in a superconducting flux qubit without averaging over many detections"

- P2-56 **Tomohiro Sawada**, Toshiyuki Tsuchimoto, Tsuyoshi Sasaki Usuda
“Quantum detection of artificial mixed-state signals”
- P2-57 **Thomas Brougham**, Erika Andersson, Stephen M. Barnett, Michael J. W. Hall
“Joint measurements of spin and entropic uncertainty”
- P2-58 **Ladislav Mista**, Jaromir Fiurasek
“Quantum measurements with minimal disturbance”
- P2-59 **Joseph Spring**
“Martingale representation in the clifford and quasi-free sheet”
- P2-60 **Xiao-Zhong Yuan**, Hsi-Sheng Goan
“Dynamics of a driven spin coupled to an antiferromagnetic environment”