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- P1-1 **Lorenzo Maccone**, Vittorio Giovannetti, Seth Lloyd, Jeffrey H. Shapiro  
*"Sub-Rayleigh Quantum Imaging"*
- P1-2 **G. Szawiola**, A. Buczek, W. Koczorowski, D. Kucharski, P. Mazerewicz, A. Walaszyk, E. Stachowska  
*"Concept of a single-ion atomic force sensor"*
- P1-3 **Chang Wang**, Barry C. Sanders, Peng Xue, Weiping Zhang  
*"Measurement of a charge qubit with a nanocantilever"*
- P1-4 **A. Kagawa**, M. Negoro, K. Takeda, M. Kitagawa  
*"Magnetic-field cycling triplet-DNP/NMR system for true quantum computation with hyperpolarized nuclear spins"*
- P1-5 **P. Kumar**, S.R. Skinner  
*"Controlled-NOT Gate in Linear Nearest Neighbor Arrays"*
- P1-6 **M. P. Almeida**, B.P. Lanyon, M. Barbieri, T. Jennewein, T.C. Ralph, K.J. Resch, G.J. Pryde, J.L. O'Brien, A. Gilchrist, A.G. White  
*"Quantum computing using shortcuts through higher dimensions"*
- P1-7 **Till J. Weinhold**, Alexei Gilchrest, Kevin J. Resch, Andrew C. Doherty, Jeremy L. O'Brien, Geoff J. Pryde, Andrew G. White  
*"Measuring the fault-tolerance of an experimental optical quantum gate"*
- P1-8 **J. C. F. Matthews**, A. Politi, A. Laing, A. Stefanov, M.J. Cryan, J.G. Rarity, S. Yu, G.D. Marshall, M. Ams, M. Withford, J.L. O'Brien  
*"Multi-Photon Quantum Optics on a Chip"*
- P1-9 **R. García-Patrón**, S. Pirandola, S. Lloyd, J.H. Shapiro  
*"Reverse Coherent Information"*
- P1-10 **H. Hübel**, M. Hentschel, A. Treiber, A. Poppe, A. Zeilinger  
*"Reliable entanglement based QKD over 25km and 30 hours"*
- P1-11 **G. B. Xavier**, G. Vilela de Faria, G. P. Temporão, J. P. von der Weid  
*"Scattering effects on QKD employing simultaneous classical and quantum channels in telecom optical fibers in the C-band"*
- P1-12 **W. Mauerer**, M. Avenhaus, Ch. Silberhorn  
*"Spectral Properties of Quantum States: What do colours tell on numbers?"*
- P1-13 **M. Halder**, J. Fulconis, A. Clark, J.L. O'Brien, C. Xiong, W.J. Wadsworth, J.G. Rarity  
*"An intrinsically time-bandwidth limited fibre pair photon source"*
- P1-14 **Xingxing Xing**, Florian Wolfgramm, Alessandro Cerè, Ana Predojevic, Aephraim M. Steinberg, Morgan W. Mitchell  
*"An Ultra-bright Source of Pairs of Indistinguishable Photons for Quantum Information"*
- P1-15 **A. Eckstein**, A. Christ, C. Silberhorn  
*"Towards an ultra-bright heralded pure single photon source"*
- P1-16 **T.M. Graham**, P.G. Kwiat  
*"Creation and Tomographic Reconstruction of Pseudoradial Polarization States"*
- P1-17 **J.F. Dynes**, Z.L. Yuan, A.W. Sharpe, A.J. Shields  
*"A High Speed, Intrinsically Bias-Free, Quantum Random Number Generator"*
- P1-18 **S. Rebić**, G.A. Paz-Silva, J. Twamley, T. Duty  
*"Perfect mirror transport in arbitrary dimension"*
- P1-19 **A.V. Nikulov**, V.L. Gurtovoi, V.A. Tulin  
*"Contradiction between measurement results of the quantum oscillations of the critical current and resistance of asymmetric superconductor rings"*

- P1-20 **Peng Xue**, Barry C. Sanders, Alexandre Blais, Kevin Lalumiere  
*"Quantum walks on circles in phase space via superconducting circuit quantum electrodynamics"*
- P1-21 **Yu-Li Dong**, Xu-Bo Zou, Guang-Can Guo  
*"A nonlocal single-mode amplification process using linear optics"*
- P1-22 **M. Kawamura**, H. Sakai, Y. Manmoto  
*"Linear preparation method of pseudo-pure states while correcting errors and enhancing signals for NMR quantum computer"*
- P1-23 **M.W. Mitchell**, A. Cerè, M. Kubasik, M. Koschorreck, M. Napolitano, E.S. Polzik, J. Eschner, A. Predojevic, F. Wolfgramm  
*"Next-generation atomic ensembles for quantum information"*
- P1-24 **M. Muecke**, J. Bochmann, D. L. Moehring, G. Rempe  
*"Fast Excitation of a Coupled Atom-Cavity System"*
- P1-25 **René Stock**, Daniel F.V. James  
*"One-way quantum computation in ion traps with fast measurement and readout"*
- P1-26 **G. Shu**, N. Kurz, M. Dietrich, R. Bowler, J. Salacka, V. Mirgon, P. Green, G. Howell, A. Kleczewski, N. Pegram, B.B. Blinov  
*"Single Trapped  $^{137}\text{Ba}^+$  as a Hyperfine Qubit"*
- P1-27 **M. Hennrich**, K. Kim, T. Monz, A.S. Villar, P. Schindler, M. Chwalla, M. Riebe, R. Blatt  
*"Universal ion trap quantum computation on logical qubits"*
- P1-28 **Syed Abdullah Aljunid**, Tey Meng Khoon, Florian Huber, Brenda Chng, Zilong Chen, Gleb Maslennikov, Christian Kurtsiefer  
*"Interfacing Light and Single Atom with a Lens"*
- P1-29 **M. Sondermann**, R. Maiwald, G. Leuchs, J.C. Bergquist, D. Leibfried, J. Britton, D.J. Wineland  
*"Ion trap for efficient single ion-photon coupling in free space"*
- P1-30 **E. Figueroa**, J. Appel, D. Korystov, M. Lobino, C. Kupchak, A.I. Lvovsky  
*"Electromagnetically-induced transparency and squeezed light"*
- P1-31 **D. Höckel**, M. Scholz, O. Benson  
*"Phase-locked laser system for electromagnetically induced transparency experiments in cesium vapor"*
- P1-32 **Genta Masada**, Koyo Nagashima, Hajime Arao, Yuishi Takeno, Hidehiro Yonezawa, Akira Furusawa  
*"Generation of highly squeezed light at 860 nm"*
- P1-33 **Mojtaba Jafarpour**, Ahmad Akhound  
*"Optimal and critical squeezing fields for a multi-qubit spin system"*
- P1-34 **R. Okubo**, M. Hirano, Y. Zhang, T. Hirano  
*"Pulse resolved measurements of quadrature phase amplitudes of squeezed pulse train at 76MHz repetition rate"*
- P1-35 **G. Campbell**, C. Healey, J. Appel, K.-P. Marzlin, A. I. Lvovsky  
*"Generation of Squeezed Vacuum States via Polarization Self-Rotation"*
- P1-36 **Thomas Gerrits**, Tracy Clement, Scott Glancy, Sae Woo Nam, Richard Mirin, Manny Knill  
*"Homodyne Detection of Optical Cat States Generated by Squeezed Light Photon Subtraction"*
- P1-37 **Xiao-song Ma**, Angie Qarry, Nuray Tetik, Johannes Kofler, Thomas Jennewein, Anton Zeilinger  
*"Entanglement-assisted Delayed-Choice Experiment"*
- P1-38 **M. Lassen**, R. Dong, J. Heersink, C. Marquardt, R. Filip, G. Leuchs, U.L. Andersen  
*"Continuous Variable Entanglement Distillation of Non-Gaussian States"*

- P1-39 **Alex Hayat**, Pavel Ginzburg, Meir Orenstein  
*"Photon Energy Entanglement Characterization by Electronic Transition Interference"*
- P1-40 **R. Ukai**, M. Yukawa, S.C. Armstrong, J. Yoshikawa, P. van Loock, A. Furusawa  
*"Generation of four-mode continuous-variable cluster states"*
- P1-41 **K. T. McCusker**, P. G. Kwiat  
*"Efficient Generation of Large Number-Path Entangled Optical States"*
- P1-42 **F. Bussi eres**, J.A. Slater, N. Godbout, W. Tittel  
*"Hybrid entanglement for quantum communication"*
- P1-43 **Yujiro Eto**, Akihiro Nonaka, Yun Zhang, Takuya Hirano  
*"Stable generation of continuous-variable entanglement using a ring interferometer"*
- P1-44 **Martin J. Stevens**, Eric A. Dauler, Burm Baek, Richard Molnar, Scott A. Hamilton, Karl K. Berggren, Richard P. Mirin, Sae Woo Nam  
*"Hanbury Brown-Twiss interferometry without a beamsplitter"*
- P1-45 **D. P erez-Garc a**, M.M. Wolf, C. Palazuelos, I. Villanueva, Marius Junge  
*"Unbounded Violation of Tripartite Bell Inequalities"*
- P1-46 **M. Ali Can**, Alexander A. Klyachko, Sinem Binicio lu, Alexander S. Shumovsky  
*"Local systems can violate Bell's conditions"*
- P1-47 **S. C. Fletcher**  
*"Characterization of the Quantum States Simulable with Two Popescu-Rohrlich Boxes"*
- P1-48 **Giulio Chiribella**, Giacomo Mauro D'Ariano, Paolo Perinotti  
*"Optimal cloning of an undisclosed quantum algorithm"*
- P1-49 **Abubakr Muhammad**  
*"Communication-limited Stabilization in Quantum Feedback Control"*
- P1-50 **T. Sagawa**, M. Ueda  
*"Second Law of Thermodynamics with Discrete Quantum Feedback Control"*
- P1-51 **Quan-Fang Wang**  
*"Theoretical design of controlling nucleon and meson in Klein-Gordon-Schr odinger dynamics with perturbation in control field"*
- P1-52 **T. Sawada**, T. S. Usuda  
*"Pseudo-classicality of square-root measurement"*
- P1-53 **Y. Shikano**, A. Hosoya  
*"Optimal Covariant Measurement of Momentum on a Half Line"*
- P1-54 **Esther H anggi**, Matthias Fitz, Valerio Scarani, Stefan Wolf  
*"How Non-Local Are  $n$  Noisy Popescu-Rohrlich Machines?"*
- P1-55 **William J. Spring**  
*"Quantum Stochastic Processes"*
- P1-56 **M. Piani**, P. Horodecki, C.E. Mora, M. Christandl  
*"Monogamy of correlations for broadcast copies of entangled states"*
- P1-57 **B. R. Gadway**  
*"Arbitrary Quantum Logic Gates for Bipartite Orbital Angular Momentum States"*
- P1-58 **J. Jacak**, I. J ozwiak, L. Jacak  
*"Quantum and classical information processing in terms of braid group formalism"*
- P1-59 **Byung-Soo Choi**  
*"The Gray-Coded Layout of  $n$ -Qubit Complete Binary Tree Quantum Circuit on LNN Structure"*
- P1-60 **Keisuke Fujii**, Katsuji Yamamoto  
*"Fault-tolerant quantum computation in concatenation of verified cluster states"*

- P1-61 **G. Vallone**, A. Rossi, R. Ceccarelli, F. De Martini, P. Mataloni  
*"Experiments with 2-photon multiqubit cluster states: from nonlocality to one-way quantum computation"*
- P1-62 **S. Shelly Sharma**, N.K. Sharma  
*"The partial  $K$ -way negativities and entanglement of  $N$  qubit states"*
- P1-63 **S.Y. Mirafzali**, Mohsen Sarbishaei  
*"The effect of anisotropy and external magnetic field on the thermal entanglement in two spin-one system"*
- P1-64 **C. Cormick**, J. P. Paz  
*"Decoherence of Bell states by local interactions with a dynamical spin environment"*
- P1-65 **F. Plastina**, T.J.G. Apollaro, A. Cuccoli, A. Fubini, P. Verrucchi  
*"Local control of magnetic and entanglement properties in a spin chain"*
- P1-66 **Dariusz Chruściński**  
*"Circulant decompositions for bipartite quantum systems"*
- P1-67 **Ahmad Akhound**, Mojtaba Jafarpour  
*"Multi-qubit entanglement and the critical entangling field"*
- P1-68 **Tzu-Chieh Wei**  
*"Relative entropy of entanglement for some multi-qubit states"*
- P1-69 **M. Zukowski**, P. Badziag, C. Brukner, W. Laskowski, T. Paterek  
*"Experimentally friendly geometric condition for entanglement"*
- P1-70 **Jeong Woon Choi**, Dong Pyo Chi, Kabgyun Jeong, Jeong San Kim, Taewan Kim, Soojoon Lee  
*"Monogamy equality in  $2 \otimes 2 \otimes d$  quantum systems"*
- P1-71 **Jeong San Kim**, Barry C. Sanders  
*"Generalized  $W$ -Class State and its Monogamy Relation"*
- P1-72 **O. V. Pilyavets**, V.G. Zborovskii, S. Mancini  
*"Lossy Bosonic Memory Channel"*
- P1-73 **V. Giovannetti**, S. Montangero, R. Fazio  
*"Quantum MERA Channels"*
- P1-74 **Z. Kurucz**, M.W. Sørensen, D. Dzsojtjan, J.M. Taylor, M.D. Lukin, M. Fleischhauer  
*"Qubit protection in nuclear-spin quantum dot memories"*
- P1-75 **I. Akhalwaya**, J. Wouters, M. Fannes, F. Petruccione  
*"Poster: The Algebraic Measure of a Hidden Markov Quantum Memory Channel"*
- P1-76 **R. Namiki**, M. Koashi, N. Imoto  
*"Fidelity criterion for quantum-domain transmission and storage of coherent states beyond unit-gain constraint"*
- P1-77 **Koji Azuma**, Masato Koashi, Nobuyuki Imoto  
*"Quantum catalysis of information"*
- P1-78 **S. Bose**, A. Bayat, C. Hadley, H. Wichterich  
*"Many-Body Systems as Quantum Communication Channels"*
- P1-79 **Giulio Chiribella**, Giacomo M. D'Ariano, Paolo Perinotti  
*"Memory effects in quantum channel discrimination"*
- P1-80 **O. Maurhart**, M. Peev, Th. Themel, A. Happe, Th. Länger, Th. Lorünser, A. Poppe  
*"Implementation and Functionality of the Nodes of the SECOQC QKD-Network in Vienna"*
- P1-81 **D. Markham**, A. Roy, B. Sanders  
*"Secret Sharing using Graph States"*

- P1-82 **Kentaro Kato**  
*"On the Deliberate Error Randomization for PSK-based Quantum Stream Cipher by Y-00 Protocol"*
- P1-83 **M. Tsang**, J.H. Shapiro, S. Lloyd  
*"Instantaneous Frequency Operator"*
- P1-84 **G. A. White**, J.A. Vaccaro, H.M. Wiseman  
*"The Consumption of a Reference Frame"*
- P1-85 **N. Dutil**, P. Hayden  
*"Assisted One-Way Entanglement of Distillation for Mixed States"*
- P1-86 **Borzumehr Toloui Semnani**, Gilad Gour  
*"SSR-Resource Theory In The Presence Of Partial Prior Knowledge"*

## Poster Session 2: Thursday, August 21

- P2-1 **S. Akutsu**, Y. Doi, T. Hosoi, M. Honda, K. Harasawa, O. Hirota, T. Katayama  
*"192km relay transmission and HDTV transmission experiments by Yuen-2000 transceiver"*
- P2-2 **S.A. Moiseev**, W. Tittel  
*"Quantum compression and decompression of light pulses based on photon echo with generalized CRIB"*
- P2-3 **T.E. Chapuran**, P. Toliver, R.J. Runser, N.A. Peters, M.S. Goodman, J. Jackel, S. McNown, R.J. Hughes, C.G. Peterson, K. McCabe, J.E. Nordholt, K. Tyagi, D. Rosenberg, N. Dallman  
*"Quantum Key Distribution in Optical Fiber Networks"*
- P2-4 **Burm Baek**, Lijun Ma, Alan Mink, Xiao Tang, Sae Woo Nam  
*"Time window optimization for a differential-phase-shift quantum key distribution system using superconducting single photon detectors"*
- P2-5 **Z.L. Yuan**, A.R. Dixon, J.F. Dynes, A.W. Sharpe, A.J. Shields  
*"InGaAs avalanche photodiodes for GHz quantum key distribution"*
- P2-6 **J.J. Choquette**, K.-P. Marzlin, R. Stock, B.C. Sanders  
*"Cooperative emission into surface plasmons"*
- P2-7 **Mathieu Larqu e**, Isabelle Robert-Philip, Alexios Beveratos  
*"Bell inequalities and density matrix for polarization entangled photons out of a two-photon cascade in a single quantum dot"*
- P2-8 **E. Kyoseva**, J. Busch, M. Trupke, A. Beige  
*"Entangling distant quantum dots with classical interference"*
- P2-9 **M. Boissonneault**, J. Gambetta, A. Blais  
*"Non-linear dispersive regime of the transmon qubit, a three-level system coupled to a resonator"*
- P2-10 **S. Reick**, W. Alt, T. Kampschulte, M. Khudaverdyan, K. Sch orner, A. Thobe, A. Widera, D. Meschede  
*"Controlled insertion and retrieval of single atoms strongly coupled to a high-finesse optical resonator"*
- P2-11 **S.J. Devitt**, A.G. Fowler, A.M. Stephens, A.D. Greentree, Z.W.E. Evans, W.J. Munro, J.L. O'Brien, R. Ionicioiu, L.C.L. Hollenberg, K. Nemoto  
*"Topological optical quantum computation with Photonic chips"*
- P2-12 **Juan Carlos Garcia-Escartin**, Pedro Chamorro-Posada  
*"Optical CNOT gates with Quantum Interrogation"*
- P2-13 **T. Nagata**, R. Okamoto, H. F. Hofmann, K. Sasaki, S. Takeuchi  
*"Analysis of errors in an optical Controlled-NOT gate"*
- P2-14 **T. Tashima**, T. Wakatsuki, S.K.  zdemir, T. Yamamoto, M. Koashi, N. Imoto  
*"Local transformation of two EPR photon pairs into a three-photon W state"*
- P2-15 **Yechao Zhu**, Siqing Yu, Ye Yeo  
*"Quantum Information Processing with Quantum Dots - Effects of Hyperfine Interaction Induced Decoherence"*
- P2-16 **Y. Miwa**, J. Yoshikawa, A. Huck, U.L. Andersen, P. van Loock, A. Furusawa  
*"Demonstration of unit-gain quantum nondemolition interaction"*
- P2-17 **Krishna Mohan Rupavatharam**, W.R. Babbitt  
*"Quantum information processing with Rare earth doped spectral holeburning solid systems: Principles, Progress and Potential"*
- P2-18 **Alex Hayat**, Pavel Ginzburg, Pavel Gurevich, David Neiman, Serge Rosenblum, Meir Orenstein  
*"Quantum-optical sources via semiconductor two-photon emission"*

- P2-19 **Shesha Raghunathan**, Todd Brun  
*“Continuous monitoring can improve indistinguishability of a single-photon source”*
- P2-20 **Martin Hendrych**, Xiaojuan Shi, Alejandra Valencia, Juan P. Torres  
*“Generation of indistinguishable and pure heralded single photons with tunable bandwidth”*
- P2-21 **Shellee D. Dyer**, Martin J. Stevens, Burm Baek, and Sae Woo Nam  
*“Ultra-Low-Noise All-Fiber Photon Pair Source”*
- P2-22 **Y. Takahashi**, J. Söderholm, S. Komatsu, S. Inoue  
*“Detector imperfections in a recent scheme for Schrödinger-cat generation”*
- P2-23 **S. Glancy**, T. Gerrits, E. Knill  
*“Calibration for slightly unbalanced homodyne detection”*
- P2-24 **Onur Kuzucu**, Franco N.C. Wong, Sunao Kurimura, Sergey Tovstonog  
*“Sub-picosecond two-photon joint temporal density measurements”*
- P2-25 **G. Brida**, A. Meda, M. Genovese, I. Ruo-Berchera  
*“Tailoring PDC Speckle Structure Toward Quantum Imaging of Weak Objects”*
- P2-26 **M. Lobino**, E. Figueroa, D. Korystov, C. Kupchak, B.C. Sanders, A.I. Lvovsky  
*“Coherent States Characterization of Quantum-Optical Processes”*
- P2-27 **A. Feito**, J. Lundeen, H. Coldenstrodt-Ronge, K. Pregnell, T. Ralph, Ch. Silberhorn, J. Eisert, M.B. Plenio, I.A. Walmsley  
*“Quantum Measurement Measured”*
- P2-28 **J. Jeffers**, C.S. Hamilton  
*“Noisy optical preamplification of inefficient detectors for high-delity postselection”*
- P2-29 **M. Fujiwara**, S. Miki, M. Sasaki, Z. Wang  
*“Multi-channeled NbN superconducting single photon detectors (SSPDs) system with large area NbN meander nanowires”*
- P2-30 **M. Akiba**, K. Tsujino, M. Sasaki  
*“High repetition rate, low dark count multipixel silicon APD operated at liquid nitrogen temperature”*
- P2-31 **Alex Hayat**, Pavel Ginzburg, David Neiman, Serge Rosenblum, Meir Orenstein  
*“Nondemolition Photon-Hole Measurement by Quantum Interference”*
- P2-32 **Z. L. Yuan**, B.E. Kardynal, A.J. Shields  
*“High speed near-infrared single photon detection with photon-number-resolution using In-GaAs avalanche photodiodes”*
- P2-33 **Mohan Sarovar**, Kevin C. Young, Thomas Schenkel, K. Birgitta Whaley  
*“Quantum non-demolition measurements of single donor spins in semiconductors”*
- P2-34 **S. Adachi**, N. Namekata, S. Inoue  
*“Telecom-band single-photon detector with a gigahertz repetition frequency using a sinusoidally gated avalanche photodiode”*
- P2-35 **H. Kobayashi**, T. Nakanishi, K. Sugiyama, M. Kitano  
*“Photon-pair detection using two-photon absorption in photomultiplier tubes”*
- P2-36 **K. Kuntz**, B. Braverman, M. Lobino, A. I. Lvovsky  
*“Limited-Diffraction Bessel Beams”*
- P2-37 **A. Predojevic**, Z. Zhai, E.S. Polzik, M.W. Mitchell  
*“Narrowband Rb-Resonant Diode Laser-Based Squeezing Source for Quantum Memories”*
- P2-38 **C. P. Meaney**, R.H. McKenzie, G.J. Milburn  
*“Quantum correlations in a nanomechanical Jahn-Teller model with dissipation”*
- P2-39 **J. Bourassa**, A. Blais, J. Gambetta, D. Schuster, M. Devoret, R. Schoelkopf  
*“Circuit QED with phase-biased qubits”*

- P2-40 **I. E. Linington**, N. V. Vitanov  
*"Robust creation of arbitrary-sized Dicke states of trapped ions by collective adiabatic passage"*
- P2-41 **M. Heurs**, E.H. Huntington, S.Z. Sayed Hassen, I.R. Petersen, M.R. James  
*"Laser Frequency Locking to an Optical Cavity using LQG Control"*
- P2-42 **Sergey A. Moiseev**, Ali Kamli, Barry C. Sanders  
*"Control of slow surface polaritons in left-handed materials"*
- P2-43 **S. Merkel**, C. Riofrio, S. Flammia, G. K. Brennen, P. Jessen, I. H. Deutsch  
*"Control and Measurement of Hyperfine Spins with Coherent Electromagnetic Fields"*
- P2-44 **N. Matsuda**, R. Shimizu, Y. Mitsumori, H. Kosaka, K. Edamatsu  
*"Measurement of cross-Kerr nonlinearity induced by a single-photon-level coherent pulse in a photonic crystal fiber"*
- P2-45 **Andrew J. Scott**, Carlton M. Caves  
*"Teleportation fidelity as a probe of sub-Planck phase-space structure"*
- P2-46 **M. Hotta**  
*"Quantum Energy Teleportation"*
- P2-47 **Masaki Sohma**, Yuki Nagasako, Osamu Hirota  
*"Effects of antisqueezing for ASK-type Y00 cryptosystem"*
- P2-48 **T. Tsurumaru**, A. Soujaeff, S. Takeuchi  
*"Exact minimum and maximum of yield with a finite number of decoy light intensities"*
- P2-49 **M. Koashi**, Y. Adachi, T. Yamamoto, N. Imoto  
*"Security of entanglement-based quantum key distribution with practical detectors"*
- P2-50 **L. Mišta, Jr.**, N. Korolkova  
*"Seperable Gaussian states can be used to distribute continuous-variable entanglement"*
- P2-51 **C. S. Hamilton**, H. Lavicka, E. Andersson, I. Jex, J. Jeffers  
*"Quantum public key distribution with imperfect device components"*
- P2-52 **Romain Alléaume**, François Roueff, Mehrdad Dianati, Anthony Leverrier, David Elkouss, Marco Nicoletti, Eleni Diamanti, Thomas Länger, Thomas Lorünser, Oliver Maurhart, Momtchil Peev, Andreas Poppe, Norbert Lütkenhaus  
*"Deployment of global QKD networks: considering quantum communications from a telecom viewpoint"*
- P2-53 **D. Sych**, G. Leuchs  
*"QKD with multiletter alphabets forming regular polygons in phase space"*
- P2-54 **Anthony Leverrier**, Romain Alléaume, Joseph Boutros, Gilles Zémor, Simon Fossier, Thierry Debuisschert, Eleni Diamanti, Rosa Tualle-Brouri, Philippe Grangier  
*"Multidimensional reconciliation for continuous-variable quantum key distribution"*
- P2-55 **M. Curty**, K. Tamaki, T. Moroder, H. Gómez-Sousa  
*"Upper bounds for the security of differential-phase-shift quantum key distribution with weak coherent states"*
- P2-56 **H. Häselser**, N. Lütkenhaus  
*"Testing Continuous-Variable Quantum Memories via Entanglement Verification"*
- P2-57 **C. La Mela**, A. Delfan, W. Tittel  
*"Non-orthogonal state discrimination in a photon echo based optical memory"*
- P2-58 **O.S. Mishina**, A.S. Sørensen  
*"Quantum memory for light based on an atomic assemble in a narrow band cavity"*
- P2-59 **M.S. Underwood**, K.-P. Marzlin, S.A. Moiseev, W. Tittel  
*"Adapting CRIB-based memories to photon state manipulation"*
- P2-60 **R.I. Karasik**, K.-P. Marzlin, B.C. Sanders, K.B. Whaley  
*"Decoherence free subspaces and incoherently generated coherences"*



- P2-61 **P.S. Turner**, S.D. Bartlett, T.R. Rudolph, R.W. Spekkens  
*"Effective decoherence from bounded quantum reference frames"*
- P2-62 **T. Yamamoto**, K. Hayashi, Ş.K. Özdemir, M. Koashi, N. Imoto  
*"Robust entanglement distribution via decoherence-free subspace"*
- P2-63 **C.R. Myers**, T. Karasawa, W.J. Munro, K. Nemoto  
*"Quantum Bus Mediated QIP via Cascaded Cavities"*
- P2-64 **Y. J. Wang**, B.M. Bai, X.M. Wang  
*"Entanglement-Assisted Quantum Error-Correcting Codes Based on Irregular Repeat Accumulate Codes"*
- P2-65 **M. Razavi**, M. Piani, N. Lütkenhaus  
*"Rate degradation in quantum repeaters with imperfect memories"*
- P2-66 **C.A. Ryan**, M. Laforest, R. Laflamme  
*"Benchmarking single and multi-qubit control in liquid state NMR quantum information processing"*
- P2-67 **Ş.K. Özdemir**, T. Yamamoto, T. Tashima, M. Koashi, and N. Imoto  
*"Simple optical gates for the preparation and fusion of W-states"*
- P2-68 **M.S. Tame**  
*"Limited-resource measurement-based quantum computing"*
- P2-69 **Lokendra Singh Umrao**, Vasudev Dehalwar, Dr. K.R. Pardasani  
*"Analysis of Quantum Algorithm to find the solution of Integer factorization problem"*
- P2-70 **Anne Broadbent**, Joseph Fitzsimons, Elham Kashefi  
*"Universal Blind Quantum Computation"*
- P2-71 **A.J. Landahl**, B.A. Chase  
*"Universal quantum computing via always-on interactions in a spin chain"*
- P2-72 **Mayer A. Landau**, Carlos R. Stroud Jr.  
*"Convex Roof Calculations of the Entanglement of Harmonic Oscillator Mixed State Density Matrices"*
- P2-73 **Yuval R. Sanders**, Gilad Gour  
*"Concurrence monotones as conditions for entanglement catalysis"*
- P2-74 **A.R.R. Carvalho**, J.J. Hope  
*"Entanglement generation and stabilization via feedback"*
- P2-75 **J.A. Vaccaro**, S.M. Barnett  
*"Landauer's Information Erasure for Various Conserved Quantities"*
- P2-76 **Alessandro Zavatta**, Valentina Parigi, Marco Bellini  
*"Probing quantum rules by the experimental implementation of single-photon creation and annihilation operators"*
- P2-77 **Masoud Mohseni**, Ali Rezakhani  
*"Theory of Superoperator Dynamics for Identification and Control of Quantum Hamiltonian Systems"*
- P2-78 **G. Gilbert**, Y.S. Weinstein, V. Aggarwal, A. Robert Calderbank  
*"A Universal Operator Theoretic Framework for Quantum Fault Tolerance"*
- P2-79 **R. Fargetton**, P. Arrighi  
*"The Bloch Representation of quantum states"*
- P2-80 **I.G. Kovalenko**, D.V. Dodin  
*"Control of subspaces of quantum states"*
- P2-81 **Mile Gu**, Christian Weedbrook, Alvaro Perales, Michael A. Nielsen  
*"More Really is Different"*

- P2-82 **L.G. Pedraza-Saavedra**  
*"Quantum Variational Inequalities for the Electromagnetic Field"*
- P2-83 **M. Ali Can**, Alexander A. Klyachko, Sinem Biniciođlu, Alexander S. Shumovsky  
*"A simple test for hidden variables in spin-1 system"*
- P2-84 **Géza Tóth**, Christian Knapp, Otfried Gühne, Hans J. Briegel  
*"Optimal spin squeezing inequalities detect bound entanglement in spin models"*
- P2-85 **M. Skotiniotis**, G. Gour, A. Roy, B. C. Sanders  
*"A contextual epistemic toy theory"*
- P2-86 **Hayato Nakano**, Shiro Saito, Kouichi Semba, Hideaki Takayanagi  
*"Quantum Evolution in a Josephson Bifurcation Amplifier during Qubit Readout Process"*
- P2-87 **Kazunori Nishio**, Kenji Kashima, Jun-ichi Imura  
*"Feedback Control of Noiseless Subsystems"*
- P2-88 **B.L. Higgins**, B.M. Booth, A.C. Doherty, S.D. Bartlett, H.M. Wiseman, G.J. Pryde  
*"Adaptive State Discrimination"*
- P2-89 **M.S. Leifer**, D. Poulin  
*"Quantum Graphical Models and Belief Propagation"*
- P2-90 **Shiqi Jin**  
*"The optics character of coherent quantum control two atoms"*

### Poster Session 3: Saturday, August 23

- P3-1 **Valentina Schettini**, Giorgio Brida, Ivo Pietro Degiovanni, Marco Genovese, Sergey Polyakov, Alan Migdall  
*"Experimental test of quantumness for a single particle"*
- P3-2 **V. D'Auria**, G. Keller, T. Amri, N. Treps, T. Coudreau, J. Laurat, C. Fabre  
*"Levels of Quantum Correlations in the Continuous Variable Regime: Review and Experimental Illustrations with OPOs"*
- P3-3 **E.R. Jeffrey**, D. Kleckner, I. Pikovski, D. Bouwmeester  
*"Probing quantum behavior in a micro-mechanical cantilever"*
- P3-4 **Xiongfeng Ma**, Hoi-Kwong Lo  
*"Quantum cryptography with passive decoy states"*
- P3-5 **Y. Okubo**, F. Buscemi, A. Tomita  
*"Proposal of an eavesdropping experiment for BB84 QKD protocol with linear optical 1→3 phase-covariant cloner"*
- P3-6 **Yi Zhao**, Bing Qi, Hoi-Kwong Lo  
*"Quantum Key Distribution (QKD) with an Unknown and Untrusted Source"*
- P3-7 **X. Mo**, I. Lucio Martinez, P. Chan, S. Hosier, W. Tittel  
*"Towards GHz clocked QKD in telecommunication networks"*
- P3-8 **Y. Zhang**, R. Okubo, M. Hirano, T. Hirano  
*"Measurement of entanglement in the time domain and Einstein-Podolsky-Rosen paradox with continuous variable using laser pulses"*
- P3-9 **R. Okamoto**, J.L. O'Brien, H.F. Hofmann, Tomohisa Nagata, K. Sasaki, S. Takeuchi  
*"Demonstration of a non-local quantum filter"*
- P3-10 **Y.-X. Gong**, X.-B. Zou, X.-L. Niu, J. Li, Y.-F. Huang, G.-C. Guo  
*"Generating arbitrary four-qubit decoherence-free states via two singlet states and a partial exchanging device"*
- P3-11 **Rohan B. Dalton**, Geoff Gillett, Marco Barbieri, Marcelo P. Almeida, Andrew G. White  
*"Experimental Control of a Photonic Qubit."*
- P3-12 **Kaoru Shimizu**, Daisuke Hashimoto  
*"Pair-wise entanglement characterizing a quantum state of an atomic ensemble storing a squeezed light"*
- P3-13 **N.A. Peters**, T.E. Chapuran  
*"Entanglement-based Quantum Key Distribution (EQKD) in Optical Networks"*
- P3-14 **G. Howard**, B.C. Sanders  
*"Entanglement swapping with imperfect sources and detectors"*
- P3-15 **Jaewoo Joo**, Anthony Laing, Terry Rudolph, Jeremy L. O'Brien  
*"Bell's inequality test with an optical two-qutrit entangled state"*
- P3-16 **W. Wieczorek**, Ch. Schmid, N. Kiesel, R. Pohlner, J. Pachos, H. Weinfurter  
*"Experimental demonstration of anyonic statistics with multi-photon entanglement"*
- P3-17 **W. Wieczorek**, Ch. Schmid, N. Kiesel, R. Pohlner, R. Krischek, O. Gühne, H. Weinfurter  
*"Experimental observation of an entire family of four-photon, highly entangled states"*
- P3-18 **Y. Tokunaga**, S. Kuwashiro, T. Yamamoto, M. Koashi, N. Imoto  
*"Process characterization of optical cluster state quantum computing"*
- P3-19 **Steven T. Flammia**, Nicolas C. Menicucci, Olivier Pfister  
*"One-way quantum computation in the optical frequency comb"*
- P3-20 **M. Takeoka**, K. Tsujino, M. Sasaki  
*"Near-optimal quantum receivers for the coherent state discrimination"*

- P3-21 **Zachary Dutton**, John M. Myers, Jeffrey H. Shapiro  
*"Resolution limits of classical and quantum enhanced sensors"*
- P3-22 **D. Fukuda**, G. Fujii, A. Yoshizawa, H. Tsuchida, T. Numata, H. Fujino, H. Ishii, T. Itatani, S. Inoue, T. Zama  
*"Photon number resolving detection at near-infrared wavelength over 1 MHz counting rate"*
- P3-23 **J.B. Altepeter**, M. Medic, P. Kumar  
*"Tailoring quantum process tomography to linear optical gates"*
- P3-24 **J. Řeháček**, Z. Hradil, L.L. Sanchez-Soto  
*"Full tomography of vortex fields by means of compatible measurements"*
- P3-25 **SunHyun Youn**, Nitin Jain, A.I. Lvovsky  
*"Quantum tomography of the single-photon state generated by down-conversion in a periodically poled KTP crystal"*
- P3-26 **T. Takano**, R. Namiki, T. Takahashi  
*"Realization of Quantum Non-Demolition Measurement of Nuclear Spin 1/2 of Cold Ytterbium Atom"*
- P3-27 **N.V. Larionov**, O.S. Mishina, A.S. Sheremet, I.M. Sokolov, D.V. Kupriyanov  
*"Coherent Raman process in a scattering medium in application to quantum memory scheme"*
- P3-28 **Byoung S. Ham**  
*"A quantum memory protocol for ultralong storage"*
- P3-29 **Jonas Söderholm**, Shuichiro Inoue  
*"Simple class of nonclassical states generated by seeded down-conversion and imperfect photon detection"*
- P3-30 **A.E.B. Nielsen**, K. Mølmer  
*"Measurement induced preparation of non-classical states of light and atoms"*
- P3-31 **A.V. Nikulov**  
*"Quantum measurements on atomic and macroscopic levels"*
- P3-32 **Alessandro Cerè**, Valentina Parigi, Marta Abad, Florian Wolfgramm, Ana Predojevic, Morgan W. Mitchell  
*"Interaction-Free Measurement of the Degree of Polarization of an Atomic Ensemble"*
- P3-33 **C. J. Chunnillall**, A.R. Beaumont, J.Y. Cheung, P.J. Thomas  
*"Quantum Optical Metrology"*
- P3-34 **Z.-B. Wang**, K.-P. Marzlin, S.A. Moiseev, B.C. Sanders  
*"Giant Cross-Phase Modulation in double Electromagnetically Induced Transparency and its applications"*
- P3-35 **Iyad Mahmoud**, Karl-Peter Marzlin, Barry C. Sanders  
*"Refractive index of Driven Dense Atomic Gases"*
- P3-36 **A. MacRae**, G. Campbell, Z.-B. Wang, B.C. Sanders, K.-P. Marzlin, A.I. Lvovsky  
*"Towards Giant Optical Nonlinearities using Double Electromagnetically-Induced Transparency"*
- P3-37 **R. Singh**, M. Swillo, S. Sauge, T. Velociter, Q. Wang, M. Tengner, A. Karlsson, M. Nordlöf, C. Canalias, F. Laurell  
*"Source of Photon Pairs in Two-Dimensional PPKTP Crystal"*
- P3-38 **T. Nakanishi**, K. Sakemi, H. Kobayashi, K. Sugiyama, M. Kitano  
*"Two-photon interference with photon pairs created in photonic crystal fiber"*
- P3-39 **Friedrich Koenig**, Thomas G. Philbin, Christopher E. Kuklewicz, Scott Robertson, Stephen Hill, Ulf Leonhardt  
*"Fiber-optical analogue of the event horizon"*

- P3-40 **V. Scholz**, R.F. Werner  
*"Tensor norms of operator systems and Tsirelson's problem"*
- P3-41 **R. Rahimi**, A. SaiToh, M. Nakahara  
*"Multiparty Controlled Quantum Teleportation of an Arbitrary Quantum State via W-State"*
- P3-42 **Mosayeb Naseri**  
*"Secure Communication Network Using Quantum Teleportation"*
- P3-43 **Satoshi Ishizaka**  
*"Composability of biased quantum coin flipping"*
- P3-44 **Guido Berlín**, Gilles Brassard, Félix Bussi eres, Nicolas Godbout  
*"A Fair Loss-Tolerant Quantum Coin Flipping Protocol"*
- P3-45 **T. Franz**, R.F. Werner  
*"On dimension independent bounds for Quantum Cryptography"*
- P3-46 **S. Ghose**, N. Sinclair  
*"Relationship between tripartite entanglement and a test of tripartite nonlocality in 3-qubit states"*
- P3-47 **G. O. Myhr**, N. L utkenhaus, A.C. Doherty, J.M. Renes  
*"Symmetric extension and its application in QKD"*
- P3-48 **Joseph M. Renes**, Jean-Christian Boileau  
*"Entanglement and Secret-Key Distillation from a Complementary Information Tradeoff"*
- P3-49 **Taewan Kim**, Dong Pyo Chi, Jeong Woon Choi, Jeong San Kim, Soojoon Lee  
*"Quantum states for perfectly secure secret sharing"*
- P3-50 **Yuki Nagasako**, Masaki Sohma, Osamu Hirota  
*"Sub optimum quantum measurement for M-ary ASK applicable to Y-00 cryptosystem"*
- P3-51 **M. Hotta**, M. Ozawa  
*"A Protocol for Secure Quantum Passwords"*
- P3-52 **H. Fujita**  
*"Using Enlarged Calderbank-Shor-Steane Codes in Quantum Cryptography"*
- P3-53 **Yi-Bo Zhao**, Chi-Hang Fred Fung, Zheng-Fu Han, Guang-Can Guo  
*"Security proof for the differential phase shift quantum key distribution under the non-bit-error case"*
- P3-54 **C.-E. Mora**, M. Piani, M. Van den Nest, A. Miyake, W. D ur, H.-J. Briegel  
*"Universal resources for approximate and stochastic measurement-based quantum computation"*
- P3-55 **Nathan Wiebe**, Dominic Berry, Peter H oyer, Barry C. Sanders  
*"Quantum Computer Simulation of Time Dependent Hamiltonians"*
- P3-56 **J. Helm**, W. T. Strunz  
*"Dephasing of two qubits"*
- P3-57 **Ying-Dan Wang**, K. Semba  
*"Dynamic quantum gate of superconducting flux qubits at optimal point"*
- P3-58 **T. Karasawa**, M. Ozawa, K. Nemoto  
*"Theoretical constraints on implementations of arbitrary single qubit gates under conservation laws"*
- P3-59 **Aidan Roy**, Martin R otteler, Chris Godsil  
*"Quantum State Tomography Using Two-Outcome Measurements"*
- P3-60 **A. Ac ın**, A. Boyer de la Giroday, S. Massar, S. Pironio  
*"Randomness vs non-locality in quantum systems"*
- P3-61 **Eric G. Cavalcanti**, Margaret D. Reid, Peter D. Drummond, Hans A. Bachor  
*"Entanglement decoherence and the EPR-Bohm paradox"*

- P3-62 **Byung-Soo Choi**  
*"Impossibility of  $O(\log n)$ -Depth Quantum Adder on the LNN and 2D Structures"*
- P3-63 **Xie Chen**, Bei Zeng, Isaac L. Chuang  
*"Nonbinary Codeword Stabilized Quantum Codes"*
- P3-64 **Joshua Combes**, H.M. Wiseman, Kurt Jacobs  
*"Protocols for Rapid Measurement, Purification and Cooling"*
- P3-65 **Jeongho Bang**, Seokwon Ryu, James Lim, M.S. Kim, Jinhyoung Lee  
*"An approach of quantum learning machine to develop deterministic algorithms"*
- P3-66 **David Collins**  
*"Discrimination of Unitary Transformations and Quantum Algorithms"*
- P3-67 **A.J.F. Hayes**, H.L. Haselgrove, A. Gilchrist, T.C. Ralph  
*"General fault-tolerance in linear optical quantum circuits"*
- P3-68 **M. Sabuncu**, R. Filip, G. Leuchs, U.L. Andersen  
*"Environmental Assisted Noise Erasure for Continuous Variables"*
- P3-69 **D.V. Dodin**, I.G. Kovalenko  
*"Decomposition of non-composite quantum systems"*
- P3-70 **Akira SaiToh**, Robabeh Rahimi, and Mikio Nakahara  
*"Quantum metagame of a noncooperative bimatrix game"*
- P3-71 **Manuel Forster**, Stefan Wolf  
*"The Universality of Non-Local Boxes"*
- P3-72 **Joseph Spring**  
*"Quantum Divisors"*
- P3-73 **N. Brunner**, S. Pironio, A. Acín, N. Gisin, A. Méthot, V. Scarani  
*"Testing the Hilbert space dimension"*
- P3-74 **N. Schuch**, F. Verstraete  
*"Interacting electrons, Density Functional Theory, and Quantum Merlin Arthur"*
- P3-75 **R. Portugal**, C.M.M. Cosme  
*"Hidden subgroup problem on semidirect product of cyclic groups"*