Poster Session
Tuesday and Thursday

"Quantum-Aware Software Defined Networks"
Alejandro Aguado, Vicente Martin, Diego Lopez, Momtchil Peev, Jesus Martinez-Mateo, Jose Luis Rosales, Fernando de La Iglesia, Miguel Gomez, Emilio Hugues-Salas, Andrew Lord, Reza Nejabati and Dimitra Simeonidou
Tuesday

"A General Framework for Quantum Secret Sharing Protocols with Ditter Measurements"
Zoé Amblard and Francois Arnault
Tuesday

"Imperfect Oblivious Transfer"
Ryan Amiri, Petros Wallden and Erika Andersson
Thursday

"Estimating the Cost of Generic Quantum Pre-Image Attacks on SHA-2 and SHA-3"
Matthew Amy, Olivia Di Matteo, Vlad Gheorghiu, Michele Mosca, Alex Parent and John Schanck
Thursday

"Simple Implementation of Quantum Key Distribution Based on Single-Photon Bell-State Measurement"
Xuebi An, Wen-Ye Liang, Zhen-Qiang Yin, Wei Chen, Shuang Wang and Zheng-Fu Han
Tuesday

"Multi-user Quantum Key Distribution with Entangled Photons from a Semiconductor Chip"
Claire Autebert, Julien Trapateau, Adeline Orieux, Aristide Lemaitre, Carmen Gomez-Carbonnel, Eleni Diamanti, Isabelle Zaquine and Sara Ducci
Thursday

"Differential Phase-Time Quantum Key Distribution Protocol"
Davide Bacco, Jesper Bjerge Christensen, Mario A. Usuga Castaneda, Yunhong Ding, Karsten Rottwitt and Leif Katsuo Oxenløwe
Tuesday

"Equiangular Quantum Key Distribution in More Than 2 Dimensions"
Radhakrishnan Balu, Paul Koprowski and Kasso Okoudjou
Thursday

"Quantum Key Distribution Using Multiple Gaussian Focused Beams"
Boulat Bash, Nivedita Chandrasekaran, Jeffrey Shapiro and Saikat Guha

Tuesday

"Testing of the Time-Frequency QKD-Protocol Over Different Transmission Channels"
Fabian Beutel, Jasper Rödiger, Nicolas Perlot, Oliver Benson and Ronald Freund
Tuesday

"Detector-Device-Independent QKD: Security Analysis and Fast Implementation"
Alberto Boaron, Boris Korzh, Raphael Houlmann, Gianluca Boso, Charles Ci Wen Lim, Anthony Martin and Hugo Zbinden
Tuesday

"Measurement-Device-Independent Randomness Generation with Arbitrary States"
Felix Bischof, Hermann Kampermann and Dagmar Bruß
Thursday

"Popescu-Rohrlich Correlations Imply Efficient Instantaneous Nonlocal Quantum Computation"
Anne Broadbent
Tuesday

"Cavity Integrated Quantum Key Distribution"
Darius Bunandar, Nicholas Harris, Zheshen Zhang, Catherine Lee, Ran Ding, Tom Baehr-Jones, Michael Hochberg, Jeffrey Shapiro, Franco Wong and Dirk Englund
Tuesday

"Metrology for Quantum-Secured Communications"
Viacheslav Burenkov, David Szwer, Pravin Patel, Christopher Chunnilall and Alastair Sinclair
Thursday

"Finite-Key-Size Effect in Commercial Plug-and-Play QKD System"
Poompong Chaiwongkhot, Shihan Sajeed, Lars Lydersen and Vadim Makarov
Thursday

"Optimal Quantum Algorithm for Polynomial Interpolation"
Andrew Childs, Wim van Dam, Shih-Han Hung and Igor Shparlinski
Tuesday

"Highly Efficient Optical Quantum Memory with Long Coherence Time in Cold Atoms"
Young-Wook Cho, G. T. Campbell, J. L. Everett, J. Bernu, D. B. Higginbottom, M. T. Cao, J. Geng, N. P. Robins, P. K. Lam and B. C. Buchler
Tuesday

"Software for Numerical Calculation of Key Rates"
Patrick Coles, Jie Lin, Adam Winick, Yanbao Zhang, Eric Metodiev, Shouzhen Gu,
Electra Eleftheriadou, Filippo Miatto and Norbert Lutkenhaus
Thursday

"Kilometer Transmission Range Quantum Digital Signatures"
Robert Collins, Ross Donaldson, Ryan Amiri, Mikio Fujiwara, Toshimori Honjo, Kaoru
Shimizu, Kiyoshi Tamaki, Masahiro Takeoka, Petros Wallden, Vedran Dunjko,
Masahide Sasaki, Erika Andersson, John Jeffers and Gerald Buller
Thursday

"Free-Space Quantum Signatures Using Heterodyne Measurements"
Callum Croal, Matthew Thornton, Christian Peuntinger, Bettina Heim, Imgran Khan,
Christoph Marqurdt, Gerd Leuchs, Petros Wallden, Erika Andersson and Natalia
Korolkova
Thursday

**"Quantum Secure Direct Communication Using Differential Quadrature Phase-
shift Quantum Key Distribution"**
Ranara Louise Damasceno, Antônio Geovan Guerra and Rubens Viana
Tuesday

**"Software-Defined Classical Metadata Control Channel for Quantum Network
Applications"**
Venkat Dasari, Ronald Sadlier, Ryan Prout, Brian Williams and Travis Humble
Thursday

**"Phase Stabilization of Deployed Telecom Fiber Links for Entanglement
Distribution"**
P. Ben Dixon, Matt Grein, Catherine Lee, Ryan Murphy, Mark Stevens, Dirk Englund and
Scott Hamilton
Thursday

"Forgetting Boosts the Private Capacity"
David Elkouss and Sergii Strelchuk
Tuesday

"Distribution of Graph States via Quantum Routers with Network Coding"
Michael Epping, Hermann Kampermann and Dagmar Bruß
Tuesday

**"Scheme for Practical Server-Client COW-QKD Based on Auto-Compensated
Fiber Interferometer"**
Ignacio Hernán López Grande and Miguel Antonio Larotonda
Thursday

"Efficient Characterization of Multi-Qubit States and their Application to Demonstrate Measurement Only Blind Quantum Computing"
Chiara Greganti, Marie-Christine Roehsner, Stefanie Barz, Tomoyuki Morimae, Mordecai Waegell and Philip Walther
Thursday

"Differential Phase Shift QKD Protocol with Small Number of Random Delays"
Yuki Hatakeyama, Akihiro Mizutani, Nobuyuki Imoto and Kiyoshi Tamaki
Thursday

"Design of the Bhattacharyya Parameter of Polar Codes for Quantum Key Distribution"
Tianjian He, Gan Wang, Zhengyu Li, Yaxiong Liu, Tian Liu, Xiang Peng and Hong Guo
Thursday

"Free-Space Quantum Cryptography in a Turbulent Atmosphere"
Alexander Hill, Bradley Christensen and Paul Kwiat
Thursday

"Coexistence Scheme for Entanglement Based QKD in a Wavelength Multiplexed PON"
Florian Hipp, Michael Hentschel, Slavisa Aleksic, Andreas Poppe and Hannes Hübel
Tuesday

"Device-Independent Secret Key Rates for Quantum Repeater Setups"
Timo Holz, Hermann Kampermann and Dagmar Bruß
Tuesday

"An Advanced Eve of QKD: Breaking a Security Assumption and Hacking a Black Box"
Anqi Huang, Shihan Sajeed, Poompong Chaiwongkhot, Mathilde Soucarros, Matthieu Legre and Vadim Makarov
Tuesday

"Field Implementation of Continuous-variable Quantum Key Distribution Network in Shanghai"
Duan Huang, Peng Huang, Tao Wang, Huasheng Li, Yingming Zhou and Guihua Zeng
Tuesday

"Single Quadrature Continuous Variable Quantum Key Distribution with a Local Local Oscillator"
Timur Iskhakov, Christian Jacobsen, Mikkel Pedersen, Tobias Gehring and Ulrik Andersen
Tuesday

"High-Dimensional Quantum Key Distribution with Decoy States Using Discrete-Variable Time-Frequency States"
Nurul Islam, Clinton Cahall, Andres Aragoneses, Charles Lim, Michael Allman, Varun Verma, Sae Woo Nam, Jungsang Kim and Daniel Gauthier
Tuesday

"Key Rate Enhancement Using Qutrit States for Uncharacterized Quantum Key Distribution"
Yonggi Jo and Wonmin Son
Thursday

"Quantum Bitcoin: An Anonymous and Distributed Currency Secured by the No-Cloning Theorem of Quantum Mechanics"
Jonathan Jogenfors
Thursday

"Robust Quantum Key Distribution Systems Using a Dual-Parallel Modulator"
Yu Kadosawa, Kensuke Nakata, Akihisa Tomita, Kazuhisa Ogawa and Atsushi Okamoto
Thursday

"Encoding Secret Information in Measurement Settings"
Amir Kalev and Syed Assad
Thursday

"Quantum Password Authentication Against Man-in-the-Middle Attack"
Evgueni Karpov
Tuesday

"Security of Differential Quadrature Phase Shift Quantum Key Distribution"
Shun Kawakami, Toshihiko Sasaki and Masato Koashi
Tuesday

"Practical Long-Distance Quantum Key Distribution Using Concatenated Entanglement Swapping"
Aeysha Khalique and Barry C. Sanders
Tuesday

"Continuous-Variable Quantum Communication at 10 GHz and Compatible with Telecom Networks"
Imran Khan, Birgit Stiller, Kevin Jaksch, Kevin Günthner, Christian Peuntinger, Jonas Geyer-Ramsteck, Dominique Elser, Christoph Pacher, Christoph Marquardt and Gerd Leuchs
Thursday

"Security Improvements of B92 QKD Systems Using Multi-Qubit Scheme Against Unambiguous State Discrimination Attack"
Heasin Ko, Byeong-Seok Choi, Joong-Seon Choe and Chun-Ju Youn
Tuesday

"Experimental Realization of a Relativistic QKD System with One-Way Quantum Communication"
Konstantin Kravtsov, Igor Radchenko, Sergei Kulik and Sergei Molotkov
Tuesday

"Mismatched Measurements and Quantum Key Distribution"
Walter Krawec
Tuesday

"Continuous Variable Quantum Key Distribution with Displaced Coherent State"
Rupesh Kumar, Xinke Tang, Rameez Asif, Adrian Wonfor, Richard Penty, Seb Savory and Ian White
Tuesday

"QKD Authentication and Detector Hack Protection with Secret Basis Shift"
Yury Kurochkin, Alexey Fedorov, Vasily Ustimchik, Anton Losev, Alan Kanapin, Alexander Sokolov, Alexander Miller and Vladimir Kurochkin
Thursday

"CVsim: A Novel CV-QKD Simulation Tool"
Fabian Laudenbach, Christoph Pacher, Chi-Hang Fred Fung, Momtchil Peev, Andreas Poppe and Hannes Hübel
Thursday

"Security of Continuous-Variable Quantum Key Distribution with Coarse-Grained Detector"
Zhengyu Li, Yichen Zhang, Christian Weedbrook and Hong Guo
Tuesday

"Measurement-Device-Independent Quantum Coin Tossing"
Zhao Liangyuan, Yin Zhenqiang, Wang Shuang, Chen Wei, Chen Hua, Guo Guangcan and Han Zhengfu
Tuesday

"Laser Annealing Heals Radiation Damage in Single-photon Avalanche Photodiodes"
Jin Gyu Lim, Elena Anisimova, Thomas Jennewein and Vadim Makarov
Tuesday

"Superadditivity of a Reverse Private Capacity in Quantum Channels"

Kyongchun Lim, Changho Suh and June-Koo Kevin Rhee
Tuesday

"502 Gbits/s Quantum Random Number Generation with Simple and Compact Structure"
Jinlu Liu, Jie Yang, Zhengyu Li, Wei Huang and Bingjie Xu
Tuesday

"Experimental Quantum Data Locking"
Yang Liu, Zhu Cao, Cheng Wu, Daiji Fukuda, Lixing You, Jiaqiang Zhong, Takayuki Numata, Sijing Chen, Weijun Zhang, Sheng-Cai Shi, Chao-Yang Lu, Zhen Wang, Xiongfeng Ma, Jingyun Fan, Qiang Zhang and Jian-Wei Pan
Thursday

"QKD Information Leakage Due to Blackflashes in Single Photon Avalanche Photodiodes"
Colin Lualdi, Daniel Stack and Stephen Pappas
Tuesday

"Physical Components Modeling in Quantum Key Distribution Towards Security Analysis"
Xilong Mao, Yan Li, Yan Peng and Baokang Zhao
Thursday

"Source-Device-Independent Ultra-Fast Quantum Random Number Generation"
Davide Marangon, Giuseppe Vallone and Paolo Villoresi
Thursday

"Performance of Parallelization of the Open Source AIT QKD Software R10 for QKD Post Processing"
Oliver Maurhart, Christoph Pacher and Manuel Warum
Tuesday

"In-line Quantum Repeaters"
Filippo Miatto and Norbert Lutkenhaus
Thursday

"Quantum Error-Correcting Codes for a Bosonic Mode"
Marios H. Michael, Matti Silveri, R. T. Brierley, Victor V. Albert, Juha Salmilehto, Liang Jiang and S. M. Girvin
Thursday

"Randomness in Nonlocal Games Between Mistrustful Players"
Carl Miller and Yaoyun Shi
Tuesday

"Quantum Steering and CHSH-Type Nonlocality of Quantum Vortex State Under Thermal Environment"
Devendra K. Mishra, Manish K. Gupta, Hwang Lee and Jonathan P. Dowling
Tuesday

"Visualization of Qutrit States"
Vinod Mishra
Tuesday

"Robustness of Round-Robin Differential-Phase-Shift Quantum-Key-Distribution Protocol Against Source Flaws"
Akihiro Mizutani, Nobuyuki Imoto and Kiyoshi Tamaki
Thursday

"Practical Implementation of MDI-QKD with Plug-and-play Architecture"
Sung Moon, Sang-Wook Han and Yong-Su Kim
Tuesday

"Security of the Bennett 1992 Quantum Key Distribution Protocol Estimating Eavesdropper's Information Without the Bit Error Rate"
Toshiyuki Nakamura, Kensuke Nakata, Akihisa Tomita, Kazuhisa Ogawa and Atsushi Okamoto
Tuesday

"Finite-key Analysis for Time-Energy High-Dimensional Quantum Key Distribution"
Murphy Yuezhen Niu, Feihu Xu, Fabian Furrer and Jeffrey H. Shapiro
Tuesday

"Quantum Homomorphic Encryption from Quantum Codes"
Yingkai Ouyang, Si-Hui Tan and Joseph Fitzsimons
Thursday

"On-Chip Detection and Modulation for Continuous-Variable Quantum Key Distribution"
Mauro Persechino, Melissa Ziebell, Paul Crozat, André Villing, Delphine Marris-Morini, Laurent Vivien, Eleni Diamanti and Philippe Grangier
Thursday

"Toward Feasible Long-Distance Quantum Communications Systems"
Nicolo Lo Piparo, Mohsen Razavi and William Munro
Thursday

"Towards the Deployment of Quantum Key Distribution Systems in a Software Defined Networking Environment"

Alasdair Price, Alejandro Aguado, Emilio Hugues-Salas, Paul Haigh, Philip Sibson, Jaume Marhuenda, Jake Kennard, John Rarity, Mark Thompson, Reza Nejabati, Dimitra Simeonidou and Chris Erven
Thursday

"Measurement-Device-Independent Quantum Digital Signatures"
Ittoop Puthoor, Ryan Amiri, Petros Wallden, Marcos Curty and Erika Andersson
Thursday

"Parameter Optimization in a Three-Party Measurement-Device-Independent Quantum Key Distribution System"
Yucheng Qiao, Zhengyu Li, Gan Wang, Xiang Peng and Hong Guo
Thursday

"Studying the Effects of Atmospheric Propagation on QKD Using a Scintillation Playback System"
William Rabinovich, Rita Mahon, Mark Bashkansky and John Reintjes
Thursday

"Device-Independence for Two-Party Cryptography and Position Verification"
Jérémy Ribeiro, Phuc Thinh Le, Jędrzej Kaniewski, Jonas Helsen and Stephanie Wehner
Tuesday

"Proposing a Quantum Simulator for Integer Factorization"
Jose Luis Rosales and Vicente Martin-Ayuso
Tuesday

"Applicability of a Post-Quantum Signature in a QKD Public Channel"
Roberto Roscino, Kevin Layat, Bruno Huttner, Grègoire Ribordy and Dario Caselunghe
Thursday

"Realistic Parameter Regimes for a Sequential Single-Node Quantum Repeater"
Filip Rozpędek, Kenneth Goodenough, Jeremy Ribeiro, Valentina Caprara Vivoli, Andreas Reiserer, David Elkouss and Stephanie Wehner
Tuesday

"Modeling and Studying Measurement Device-Independent Quantum Key Distribution Systems"
Matthew Russell, Logan Mailloux, Michael Grimaila and Douglas Hodson
Thursday

"Quantum Key Distribution Protocol with Slow Basis Change"
Toshihiko Sasaki, Kiyoshi Tamaki and Masato Koashi
Thursday

"Experimental Realization of Equiangular Three State Quantum Key Distribution"
Matteo Schiavon, Giuseppe Vallone and Paolo Villoresi
Tuesday

"Shortcuts to Quantum Network Routing"
Eddie Schoute, Laura Mancinska, Tanvirul Islam, Iordanis Kerenidis and Stephanie Wehner
Thursday

"Pilot-Assisted Local Oscillator Synchronisation for CV-QKD"
Bernhard Schrenk and Hannes Hübel
Thursday

"Integrated Photon Pair Source Based on SOI Micro-Ring Resonators"
Bernhard Schrenk, Fabian Laudenbach, Paul Müllner, Daivid Fowler, Rainer Hainberger and Hannes Hübel
Tuesday

"Nonlocal Correlations of Entangled Two-Qudit States Using Energy-Time Entangled Photons"
Sacha Schwarz, Bänz Bessire, Alberto Montina, Stefan Wolf, Yeong-Cherng Liang and André Stefanov
Tuesday

"Measurement Uncertainty Relations for Finite Observables"
René Schwonnek, David Reeb and Reinhard F. Werner
Thursday

"Opportunistic Quantum Network Coding Based on Quantum Teleportation"
Tao Shang, Gang Du and Jian-Wei Liu
Tuesday

"Quantum Homomorphic Signature"
Tao Shang, Xiao-Jie Zhao, Chao Wang and Jian-Wei Liu
Tuesday

"A Novel Readout System for Free-running Negative Feedback Avalanche Diodes to Significantly Suppress Afterpulsing Effect"
Nigar Sultana and Thomas Jennewein
Tuesday

"An Overview of the Quantum Communication Project at NIST"
Xiao Tang, Oliver Slattery, Lijun Ma, Paulina Kuo, Alan Mink and Barry Hershman
Tuesday

"Practical Challenges in Classical Coherent Receivers for Detecting High Speed CV-QKD Signals"
Xinke Tang, Rameez Asif, Rupesh Kumar, Adrian Wonfor, Seb Savory, Ian White and Richard Penty
Tuesday

"High-Speed Implementation of Privacy Amplification in Quantum Key Distribution"
Ririka Takahashi, Yoshimichi Tanizawa and Alexander Dixon
Tuesday

"Practically Verifiable Blind Quantum Computation with Error Tolerance"
Yuki Takeuchi, Keisuke Fujii, Tomoyuki Morimae and Nobuyuki Imoto
Thursday

"Weak Value Assisted Quantum Key Distribution"
James Troupe and Jacob Farinholt
Thursday

"Collapse-Binding Commitments in the Standard Model"
Dominique Unruh
Tuesday

"Quantum Security of the Fiat-Shamir Transform"
Dominique Unruh
Tuesday

"Towards Macroscopic Quantum Key Distribution"
Vladyslav Usenko, Kirill Spasibko, Laszlo Ruppert, Maria Chekhova, Radim Filip and Gerd Leuchs
Tuesday

"Proof-of-Principle Study of Self-Coherent Continuous-Variable Quantum Key Distribution"
Luis Trigo Vidarte, Adrien Marie, Romain Alléaume and Eleni Diamanti
Thursday

"Efficient Rate-Adaptive Reconciliation for Continuous-Variable Quantum Key Distribution"
Xiangyu Wang, Yichen Zhang, Zhengyu Li, Bingjie Xu, Song Yu and Hong Guo
Thursday

"Amplifying the Randomness of Weak Sources Correlated with Devices"
Hanna Wojewodka, Fernando G.S.L. Brandao, Andrzej Grudka, Karol Horodecki, Michal Horodecki, Pawel Horodecki, Marcin Pawlowski and Ravishankar Ramanathan
Tuesday

"Experimental Fast Quantum Random Number Generation Using High-Dimensional Entanglement with Semi-Self-Testing"
Feihu Xu, Jeffrey Shapiro and Franco Wong
Thursday

"Software Defined Quantum Key Distribution Network"
Zhe Yan
Thursday

"Secure Quantum Key Distribution Against Pattern Effects of Optical Pulse Intensities"
Ken-Ichiro Yoshino, Mikio Fujiwara, Kensuke Nakata, Akihisa Tomita and Akio Tajima
Tuesday

"Composable Security Analysis for Continuous Variable Measurement-Device-Independent Quantum Key Distribution"
Yichen Zhang, Zhengyu Li, Song Yu and Hong Guo
Thursday

"Application of Virtual Photon Subtraction in Two-Way Continuous-Variable Quantum Cryptography"
Yijia Zhao, Yi-Chen Zhang, Zhengyu Li, Song Yu and Hong Guo
Tuesday