

AQIS 2018 PROGRAM

The program below contains hyperlinks to all submitted abstracts. By clicking on the title of your interest, your browser will be redirected to the corresponding PDF file.

Oral Presentations

September 8, 2018 (Sat.)

[Invited Talk]

Superconducting quantum circuits: quantum computing and other applications
Yasunobu Nakamura

[Plenary Contributed Talks]

High-dimensional quantum communication with twisted photons propagating in a fiber link
Daniele Cozzolino, Davide Bacco, Beatrice Da Lio, Kasper Ingerslev, Yunhong Ding, Kjeld Dalgaard, Poul Kristensen, Michael Galili, Karsten Rottwitt, Siddharth Ramachandran and Leif Katsuo Oxenløwe

Linear programs for entanglement and key distribution in the quantum internet
Stefan Baeuml, Koji Azuma, Go Kato and David Elkouss

Measurements in two bases are sufficient for certifying high-dimensional entanglement
Jessica Bavaresco, Natalia Herrera Valencia, Claude Klöckl, Matej Pivoluska, Paul Erker, Nicolai Friis, Mehul Malik and Marcus Huber

[Parallel session A]

Fault-tolerant quantum metrology
Animesh Datta and Theodoros Kapourniotis

Uncertainty relations in implementation of unitary operation
Hiroyasu Tajima, Naoto Shiraishi and Keiji Saito

Test one to test many: a unified approach to quantum benchmarks
Ge Bai and Giulio Chiribella

Self-testing mutually unbiased bases in the prepare-and-measure scenario
Máté Farkas

[Parallel session B]

Near-term repeater experiments with NV centers: overcoming the limitations of direct transmission
Kenneth Goodenough, Filip Rozpedek, Raja Yehia, Maximilian Ruf, Peter Humphreys, Ronald Hanson, Stephanie Wehner and David Elkouss

Experimental investigation of contextuality correlations from Platonic graphs
Jin-Shi Xu

Entanglement structure: entanglement partitioning in multipartite systems and its experimental detection using optimizable witnesses
He Lu, Qi Zhao, Zheng-Da Li, Xu-Fei Yin, Xiao Yuan, Jui-Chen Hung, Luo-Kan Chen, Li Li, Nai-Le Liu, Cheng-Zhi Peng, Yeong-Cherng Liang, Xiongfeng Ma, Yu-Ao Chen and Jian-Wei Pan

High-Threshold Fault-Tolerant Quantum Computation with Analog Quantum Error Correction
Kosuke Fukui, Akihisa Tomita, Atshushi Okamoto and Keisuke Fujii

[Invited Talk]

From quantum foundations to applications and back
Nicolas Gisin

[Tutorial]

Multi-time states and multi-time measurements
Sandu Popescu

September 9, 2018 (Sun.)

[Invited Talk]

Quantum speedup in stoquastic adiabatic quantum computation with non-standard measurements
Keisuke Fujii

[Plenary Contributed Talks]

On efficiently solvable cases of Quantum k-SAT
Marco Aldi, Niel De Beaudrap, Sevag Gharibian and Seyran Saeedi

Encoding Electronic Spectra in Quantum Circuits with Linear T Complexity
Ryan Babbush, Craig Gidney, Dominic Berry, Nathan Wiebe, Jarrod McClean, Alexandru Paler, Austin Fowler and Hartmut Nevan

Thermalilty of Quantum Approximate Markov Chains and Locality of Entanglement Spectrum
Kohtaro Kato and Fernando Brandao

[Parallel session A]

Entanglement preserving local thermalization
Chung-Yun Hsieh, Matteo Lostaglio and Antonio Acín

Beyond the thermodynamic limit: finite-size corrections to state interconversion rates
Christopher Chubb, Marco Tomamichel and Kamil Korzekwa

Quantifying memory capacity as a quantum thermodynamic resource
Varun Narasimhachar, Jayne Thompson, Jiajun Ma, Gilad Gour and Mile Gu

On the dynamics of initially correlated open quantum systems: theory and applications
Gerardo Paz Silva, Michael J. W. Hall and Howard Wiseman

[Parallel session B]

Verification of many-qubit states
Yuki Takeuchi and Tomoyuki Morimae

Variational quantum simulation of imaginary time evolution with applications in chemistry and beyond
Sam McArdle, Suguru Endo, Ying Li, Simon Benjamin and Xiao Yuan

[Tutorial]

Solving quantum problems with quantum computers
Ignacio Cirac

September 10, 2018 (Mon.)

[Invited Talk]

A computationally universal phase of quantum matter

Robert Raussendorf

[Parallel session A]

Architectures for quantum simulation showing a quantum speedup

Juan Bermejo-Vega, Dominik Hangleiter, Martin Schwarz, Robert Raussendorf and Jens Eisert

Interactive Proofs with Polynomial-Time Quantum Prover for Computing the Order of Solvable Groups

Francois Le Gall, Tomoyuki Morimae, Harumichi Nishimura and Yuki Takeuchi

Quantum algorithm for matrix functions by Cauchy's integral formula

Souichi Takahira, Asuka Ohashi, Tomohiro Sogabe and Tsuyoshi Usuda

Oracle complexity classes and local measurements on physical Hamiltonians

Sevag Gharibian, Stephen Piddock and Justin Yirka

[Parallel session B]

Quasi-factorization of the relative entropy

Ángela Capel, Angelo Lucia and David Perez-Garcia

Approximate recovery with locality and symmetry constraints

Cedric Beny, Zoltan Zimboras and Fernando Pastawski

Reversing unknown quantum transformations: A universal protocol for inverting general unitary operations

Marco Túlio Quintino, Qingxiuxiong Dong, Akihito Soeda and Mio Murao

Connections Between Mutually Unbiased Bases and Quantum Random Access Codes

Edgar A Aguilar, Jakub Borkala, Piotr Mironowicz and Marcin Pawłowski

September 11, 2018 (Tue.)

[Invited Talk]

A Cryptographic Test of Quantumness and Certifiable Randomness from a Single Quantum Device
Thomas Vidick

[Plenary Contributed Talks]

Quantum generalizations of the polynomial hierarchy with applications to QMA(2)
Sevag Gharibian, Jamie Sikora, Miklos Santha, Arathi Sundaram and Justin Yirka

Catalytic Quantum Randomness
Paul Boes, Henrik Wilming, Rodrigo Gallego and Jens Eisert

Quantum Probability Estimation for Randomness with Quantum Side Information
Yanbao Zhang, Emanuel Knill and Honghao Fu

[Parallel session A]

Distillation of quantum coherence in non-asymptotic setting
Bartosz Regula, Kun Fang, Xin Wang, Ludovico Lami and Gerardo Adesso

Polynomial measure of coherence
You Zhou, Qi Zhao, Xiao Yuan and Xiongfeng Ma

Convex resource theory of non-Gaussianity
Ryuji Takagi and Quntao Zhuang

[Parallel session B]

Implementation of Practical Unforgeable Quantum Money
Mathieu Bozzio, Adeline Orieux, Luis Trigo Vidarte, Isabelle Zaquine, Iordanis Kerenidis and Eleni Diamanti

Constructions for Communication Efficient Quantum Secret Sharing
Kaushik Senthoor and Pradeep Sarvepalli

Quantum network routing and local complementation
Anna Pappa, Frederik Hahn and Jens Eisert

[Invited Talk]

Generation and manipulation of quantum light with semiconductor quantum dots
Pascale Senellart

Entanglement and non-locality between desperate solid-state quantum memories mediated by photons
Wolfgang Tittel

September 12, 2018 (Wed.)

[Invited Talk]

Local transformation of multipartite entanglement
Barbara Kraus

[Plenary Contributed Talks]

Attaining the ultimate precision limit in quantum state estimation
Yuxiang Yang, Giulio Chiribella and Masahito Hayashi

Emergence of classicality and objectivity in causal physical theories through a generalized decoherence
Roberto Salazar, Carlo Scandolo, Jaroslaw Korbicz and Pawel Horodecki

Optimal Hiding of Quantum Information
Francesco Buscemi

[Parallel session A]

Quantum Computing for Molecular Vibronic Spectra and Gaussian Boson Sampling
Joonsuk Huh and Seungbeom Chin

Power of Uninitialized Qubits in Shallow Quantum Circuits
Yasuhiro Takahashi and Seiichiro Tani

Quantum Circuit Learning: Framework for Machine Learning with Quantum Enhanced Feature Space
Kosuke Mitarai, Makoto Negoro, Masahiro Kitagawa and Keisuke Fujii

Rational proofs for quantum computing
Tomoyuki Morimae and Harumichi Nishimura

[Parallel session B]

Causal Asymmetry in a Quantum World
Jayne Thompson, Andrew Garner, John Mahoney, James Crutchfield, Vlatko Vedral and Mile Gu

The fundamental connection between quantum contextuality and quantum communication
Debashis Saha, Anubhav Chaturvedi, Pawel Horodecki and Marcin Pawłowski

Semi-device-independent characterisation of multipartite entangled states and measurements
Armin Tavakoli, Alastair Abbott, Marc-Olivier Renou, Nicolas Gisin and Nicolas Brunner

Universally Fisher-symmetric informationally complete measurements
Huangjun Zhu and Masahito Hayashi

[Invited Talk]

Experimental tests of quantum non-locality beyond EPR-steering and beyond Bell
Howard Wiseman

Posters

September 9, 2018 (Sun.) [Poster Session A]

Information-Reversibility tradeoff for two-qubit and two-qudit maximally entangled states

Shengli Zhang

Quantifier of nonclassicality beyond steering and its role in quantum information protocols in the presence of finite shared randomness

Debarshi Das, Jebarathinam Chellasamy, Som Kanjilal, Srikanth R, Archan Majumdar, Debasis Sarkar and Indrani Chattopadhyay

Subadditivity of logarithm of violation of geometric Bell inequalities for qudits

Marcin Wieśniak and Palash Pandya

Necessary and sufficient criterion for extremal quantum correlations in the simplest Bell scenario

Satoshi Ishizaka

Controlled Alternate Quantum Walks based Quantum Hash Function

Dan Li, Yu-Guang Yang, Jing-Lin Bi, Jia-Bin Yuan and Juan Xu

Loss of Information in Quantum Guessing Game

Martin Plesch and Matej Pivoluska

Implementation of quantum algorithms with IBM quantum computers: from quantum cryptography on chip to quantum machine learning

Andrey Zhukov, Evgeniy Kiktenko, Danila Babukhin, Andrey Elistratov, Walter Pogosov and Yuriy Lovikov

Generalization of Quantum Private Query Protocols with $O(\log N)$ Communication Complexity

Fang Yu and Daowen Qiu

Secure uniform random number extraction via incoherent strategies

Masahito Hayashi and Huangjun Zhu

Multipartite causally (non)separable quantum processes

Julian Wechs, Alastair A. Abbott and Cyril Branciard

Entanglement Dynamics of Two Qubits in Squeezed Thermal Bath Environments with Channel Memory

Youngmin Jeong, Hyundong Shin and Moe Z. Win

Benchmark for the quantum-enhanced learning of a reversible dynamics

Yin Mo and Giulio Chiribella

Quantifying Identical-Particle Entanglement

Enrico Sindici and Marco Piani

Teleportation via derivative of coherent states

Anas Othman

Phase measurement via two-photon interference

Yaokun Xu, Shihai Sun and Weitao Liu

Maximizing α -order Mutual Rényi Information for group covariant SIC Ensemble

Keisuke Sato, Souichi Takahira, Kenji Nakahira and Tsuyoshi Usuda

Mapping to 2D Nearest Neighbor Architecture by a SAT solver and A* algorithm

Wakaki Hattori and Shigeru Yamashita

Compaction of Topological Quantum Circuits by Modularization

Kota Asai and Shigeru Yamashita

High fidelity entanglement distribution using quantum multiplexing

Nicolo Lo Piparo, Kae Nemoto and William Munro

- Sequential state discrimination of various states which can be used for multi-party quantum key distribution
Min Namkung and Younghun Kwon
- Superdense Coding via Semi-Counterfactual Bell-State Analysis
Fakhar Zaman, Youngmin Jeong and Hyundong Shin
- End-to-End Connection Setup in a Quantum Internet
Clement Durand, Takaaki Matsuo and Rodney Van Meter
- Rank of contextuality
Karol Horodecki, Jingfang Zhou, Pawel Horodecki, Robert Raussendorf, Ryszard Horodecki and Ravishanker Ramanathan
- Arbitrarily loss-tolerant verification of steering without trustfulness
Inu Jeon and Hyunseok Jeong
- Quantum state merging for arbitrarily-small-dimensional systems
Hayata Yamasaki and Mio Muraio
- Role of entanglement on vortex-vortex dynamics in the hydrodynamic representation: Time-dependent variational principle
Satoya Imai
- High rate entanglement distribution between quantum repeater nodes
Daisuke Yoshida, Kazuya Niizeki, Shuhei Tamura and Tomoyuki Horikiri
- Indistinguishability as nonlocality constraint
Cassio Amorim
- QMA(2) with postselection equals to NEXP
Yusuke Kinoshita
- New bounds for Mutually unbiased maximally entangled bases in $C^d \times C^{kd}$
Xiaoya Cheng and Yun Shang
- Quantum frequency conversion for distributing entanglement between long-separated quantum memories
Shuhei Tamura, Takuto Miyashita, Kohei Ikeda, Kotaro Okamura, Kazumichi Yoshii, Feng-Lei Hong, Hideo Kosaka and Tomoyuki Horikiri
- Unitary and covariant dynamics of relativistic qubits
Pawel Caban and Jakub Rembielinski
- Separability Criterion for Quantum Effects
Ikko Hamamura
- On stationary and entangled chains of Gaussian states
Ritabrata Sengupta
- Automatic Quantum Circuit Generator by Genetic Programming and Three-qubit Superdense Coding to Transmit Three Classical Bit Codes
Makoto Kubodera and Hidemitsu Awai
- Classification and characterization of quantum parametric models in quantum estimation theory
Jun Suzuki
- Exact and Approximate Exact Synthesis of Nearest Neighbor Compliant Quantum Circuits in 2-D architectures
Jingwen Ding and Shigeru Yamashita
- Constructions of Quantum Random Access Codes
Takashi Imamichi and Rudy Raymond
- Classical multiparty computation using quantum resources
Anna Pappa, Marco Clementi, Andreas Eckstein, Ian A. Walmsley, Elham Kashefi and Stephanie Barz
- Information Flow of Open Quantum Systems in Quantum Algorithms
Sudipto Roy and Joonwoo Bae

- Optimizing practical entanglement distillation
Filip Rozpedek, Thomas Schiet, Le Phuc Thinh, David Elkouss, Andrew C. Doherty and Stephanie Wehner
- Wigner Function Flow in Generalized Quantum Harmonic Oscillators
Popo Yang, Shin-Tza Wu and Ray-Kuang Lee
- Geometric extension of Clauser-Horne inequality to more qubits
Arijit Dutta, Tschang-Uh Nahm, Jinhyoung Lee and Marek Zukowski
- Genuine multipartite qudit entanglement does not need multipartite correlations
Waldemar Klobus, Wieslaw Laskowski, Tomasz Paterek and Marcin Wiesniak
- NMR system for studying a magnetic sensor in noisy environment
Ho Le Bin and Yasushi Kondo
- Efficient online quantum state estimation using a matrix-exponentiated gradient method
Akram Youssry, Christopher Ferrie and Marco Tomamichel
- Positive Partial Transpose criterion in Symplectic geometry
Yi-Ting Tu and Ray-Kuang Lee
- Quantum secure direct communication: Different models lead to practical applications
Chitra Shukla and Gui-Lu Long
- Minimum-error discrimination of Partially symmetric three pure states and its application to nonlocality without entanglement
Donghoon Ha, Jihwan Kim and Younghun Kwon
- Minimax quantum state estimation under Bregman divergence
Maria Quadeer, Christopher Ferrie and Marco Tomamichel
- Detection of itinerant single microwave photons using superconducting qubits
Kazuki Koshino, Kunihiro Inomata, Shingo Kono, Zhirong Lin, Tsuyoshi Yamamoto and Yasunobu Nakamura
- Thermal Operations Involving a Single-mode Bosonic Bath
Xueyuan Hu
- Nonlocality as a resource for improving the capacity of interference channel
Jiyoung Yun and Joonwoo Bae
- Work extraction in the presence of quantum phase transitions
Raul Amaury Robles Robles and Ray-Kuang Lee
- Challenges in Simulating the Quantum Internet
Takaaki Matsuo, Clement Durand, Takahiko Satoh, Shota Nagayama, Shigeya Suzuki and Rodney Van Meter
- Algebraic structure for lattice gauge systems and entanglement order under LOCC
Minjeong Song and Cedric Beny
- An operational resource theory of continuous-variable nonclassicality
Benjamin Yadin, Felix Binder, Jayne Thompson, Varun Narasimhachar, Mile Gu and Myungshik Kim

Quantum Inspired Community Detection in Mobile Social Networks

M Saravanan and Lokesh Kumar

The problem of spin magnitude in hidden variable theories

Pawel Kurzynski, Wieslaw Laskowski, Junghee Ryu, Adrian Kolodziejski, Karoly Pal and Tamas Vertesi

Implementing positive maps with multiple copies of an input state

Qingxiuxiong Dong, Marco Túlio Quintino, Akihito Soeda and Mio Murao

High Fidelity Qubit Mapping for IBM Q

Shin Nishio, Takahiko Satoh and Rodney Van Meter

Equivalence determination of unitary operations

Atsushi Shimbo, Akihito Soeda and Mio Murao

September 11, 2018 (Tue.) [Poster Session B]

- Purification of Single Photons from Room-Temperature Quantum Dots
Chun-Yuan Cheng, Shih-Wen Feng, Chen-Yeh Wei, Jen-Hung Yang, Yen-Ru Chen, Ya-Wen Chuang, Yang-Hsiung Fan and Chih-Sung Chuu
- Non-classical correlations in local quantum thermometry
Akira Sone, Quntao Zhuang and Paola Cappellaro
- Asymptotically Decoupling and Mixing Properties in Quantum System
Yuuya Yoshida and Masahito Hayashi
- Experimental Demonstration of Einstein-Podolsky-Rosen Steering via Enhanced Subchannel Discrimination
Kai Sun and Kai Sun
- Practical gigahertz quantum key distribution robust against channel disturbance
Shuang Wang, Wei Chen, Zhenqiang Yin, Deyong He, Cong Hui, Penglei Hao, Yuanguanjie Fan, Chao Wang, Lijun Zhang, Jie Kuang, Shufeng Liu, Zheng Zhou, Yonggang Wang, Guangcan Guo and Zhengfu Han
- Secure Quantum Network Code without Classical Communication
Seunghoan Song and Masahito Hayashi
- Ultrabright Biphotons for Light-Matter Interaction
Chih-Hsiang Wu, Tsung-Yao Wu, Yung-Chin Yeh, Po-Hui Liu, Chin-Hsuan Chang, Chiao-Kai Liu, Ting Cheng and Chih-Sung Chuu
- Quantum compiling with diffusive sets of gates
Aikaterini Mandilara, Yertay Zhiyebayev and Vladimir Akulin
- Non-Asymptotic Classical Data Compression with Quantum Side Information
Hao-Chung Cheng, Eric Hanson, Nilanjana Datta and Min-Hsiu Hsieh
- Heisenberg's error-disturbance relations: a joint measurement-based experimental test
Yuan-Yuan Zhao, Pawel Kurzynski and Guoyong Xiang
- Quantum-enhanced metrology based on modular-value measurements with spin coherent pointers
Bin Ho Le and Yasushi Kondo
- Dynamics of the operator entanglement in Grover's search algorithm
Minghua Pan and Daowen Qiu
- Clock Synchronization in Distributed Quantum Networks
Muhammad Asad Ullah, Youngmin Jeong and Hyundong Shin
- Correspondence between maximally entangled states in discrete and Gaussian regimes
Youngrong Lim, Jaewan Kim, Soojoon Lee and Kabgyun Jeong
- Generalized exceptional quantum walk search on the cycle
Meng Li and Yun Shang
- Practical Quantum Error Mitigation for Near-Future Applications
Suguru Endo, Simon Benjamin and Ying Li
- Optimal Gaussian measurements for phase estimation in single-mode Gaussian metrology
Changhun Oh, Changhyoup Lee, Carsten Rockstuhl, Hyunseok Jeong, Jaewan Kim, Hyunchul Nha and Su-Yong Lee
- Measurement-device-independent measure of steerability and witnesses for all steerable resources
Huan-Yu Ku, Shin-Liang Chen, Hong-Bin Chen, Yueh-Nan Chen and Franco Nori
- Open-System Quantum Error Correction
Yink Loong Len and Hui Khoon Ng
- State exchange with quantum side information
Yonghae Lee and Soojoon Lee

- Theoretical study on microwave circulator based on Gebhard-Ruckenstein hopping
Shumpei Masuda, Shingo Kono, Keishi Suzuki, Yuuki Tokunaga, Yasunobu Nakamura and Kazuki Koshino
- Effect of incomplete phase shift on quantum reading using a quasi-Bell state in non-symmetric loss model
Keita Ishikawa, Tiancheng Wang and Tsuyoshi Usuda
- Relation among Measurement Time, Energy-Difference Uncertainty and Signal-to-Noise Ratio
Shogo Tanimura
- Quantum computer for high energy physics. From Heisenberg-like magnets to hadron scattering.
Leonid Bork, Andrey Zhukov and Walter Pogsov
- Telecom Narrow-Band Two-Photon Source with High Brightness for Long Distance Quantum Communication
Kazuya Niizeki, Daisuke Yoshida, Kohei Ikeda, Mingyang Zheng, Xiuping Xie, Kotaro Okamura,
Nobuyuki Takei, Naoto Namekata, Shuichiro Inoue, Hideo Kosaka and Tomoyuki Horikiri
- Error performance of optimum quantum measurement in the presence of non-Gaussian noise and Gaussian noise
Tiancheng Wang, Nakahira Kenji and Tsuyoshi Usuda
- Open-destination measurement-device-independent quantum key distribution network
Wen-Fei Cao, Yi-Zheng Zhen, Yu-Lin Zheng, Shuai Zhao, Feihu Xu, Li Li, Zeng-Bing Chen, Nai-Le Liu
and Kai Chen
- Tightness of Monogamy for Multipartite Entanglement in Quantum Networks
Ahmad Farooq, Youngmin Jeong and Hyundong Shin
- Reference-Frame-Independent measurement-device-independent quantum key distribution using hybrid logical basis
Chen Dong, Shuwen Chen and Wei Li
- Linking Entanglement Detection and State Tomography via Quantum 2-Design
Joonwoo Bae, Beatrix Hiesmayr and Daniel McNulty
- Complementarity analysis of interference between frequency-shifted photonic wave packets
Guilherme Temporao, Gustavo Amaral, Jean Pierre Von Der Weid and Elisa Carneiro
- Statistical Comparison of Quantum Correlations in Time: A Resource Theory of Quantum Memories
Denis Rosset, Francesco Buscemi, Yeong-Cherng Liang
- Discovering spectra with variational imaginary time evolution
Tyson Jones, Suguru Endo, Sam McArdle, Xiao Yuan and Simon Benjamin
- Security problems in quantum secret sharing
Minjin Choi, Yonghae Lee and Soojoon Lee
- Quantum Advantages in Hypercube Game
Xiaoyu He, Kun Fang, Xiaoming Sun and Runyao Duan
- Regularizing data for practical randomness generation
Boris Bourdoncle, Pei-Sheng Lin, Denis Rosset, Antonio Acín and Yeong-Cherng Liang
- Local discrimination of three generalized Bell states
Guojing Tian
- Experimental implementation of fully controlled dephasing dynamics and synthetic spectral densities
Zhaodi Liu, Yongnan Sun and Chuanfeng Li
- Quantum Sockets for the NISQ Era Quantum Internet
Takahiko Satoh and Rodney Van Meter
- Span Program for Non-binary Functions
Leila Taghavi and Salman Beigi

- Quantum secure scalar product with continuous-variable clusters
Yuanjia Wang and Guangqiang He
- Quantum Dynamical Mutual Entropy for Quantum Markovian Sources
Kyouhei Ohmura and Noboru Watanabe
- One-shot assisted concentration of coherence
Madhav Krishnan V, Min-Hsiu Hsieh and Eric Chitambar
- Self-consistent quantum tomography for reliable characterization of super-accurate quantum operations
Takanori Sugiyama, Shinpei Imori and Fuyuhiko Tanaka
- Correlations mediated by quantum systems
Tomasz Paterek
- Zero-error classical capacity in low-dimensional quantum systems
Jeonghoon Park and Jun Heo
- Secure quantum communication with pseudo-single photon states
Seung-Woo Lee and Jaewan Kim
- The realization of a reference-frame-independent decoy BB84 quantum key distribution based on Sagnac-interferometers
Ya-Ping Li, Fang-Xiang Wang and Wei Chen
- Universal entanglement detection in two mode Gaussian states
Arijit Dutta, Sibasish Ghosh, Jaewan Kim and Ritabrata Sengupta
- An efficient quantum algorithm for solving continuous hidden translation problem
Eunok Bae and Soojoon Lee
- Distributed teleportation and robust quantum secret sharing without a shared key
Amitava Datta
- Pretty Good State Transfer via Adaptive Quantum Error Correction
Akshaya Jayashankar and Prabha Mandayam
- Relation between quantumness and the approximation accuracy of the minimum error probability
Naoya Matsumoto, Souichi Takahira and Tsuyoshi Usuda
- Characterizing optimal unitary attacks in quantum cryptography
Atanu Acharyya and Goutam Paul
- Robust control of two-qubit Hamiltonian dynamics
Ryosuke Sakai, Akihito Soeda, Mio Murao and Daniel Burgarth
- Equiprobability: Faster Algorithms for Subset-Sum Variants
Gustavo Banegas, Matthias Minihold and Răzvan Roşie
- Projecting 3D color codes on to 3D toric codes
Arun B. Alosious and Pradeep Sarvepalli
- Simulated Quantum Annealing versus Breakout Local Search for Benchmark Dataset on NP-hard Problems
Kanto Teranishi, Hidefumi Hiraishi and Hiroshi Imai
- Conditions Which Determine Quantum Network Coding Useful in the Butterfly Network
Shota Nagayama, Zhikuan Zhao and Takahiko Satoh
- Error-Disturbance Relation in Stern–Gerlach Measurements
Yuki Inoue and Masanao Ozawa

Robust device-independent certification of the building blocks of quantum networks

Pavel Sekatski, Jean-Daniel Bancal, Sebastian Wagner and Nicolas Sangouard

Analytic approach to the tightness of Bells inequalities in bi-partite high-dimensional system

Kwangil Bae and Wonmin Son

Numerical evaluation of the localizable entanglement in 1D spin chain model

Dongkeun Lee and Wonmin Son

Closing the detection loophole in multipartite Bell experiments with a limited number of efficient detectors

Kamil Kostrzewa

A Quantum Secret Sharing based on Round-robin Differential-phase-shift Quantum Key Distribution

Shengmei Zhao, Le Wang, Qianping Mao and Jozef Gruska