

Poster Number  
(Tuesday)

Title

Authors

---

1	Measuring the absence of coherent state	Sushamana Sharma and Rajshri Vyas
2	An Optimal Discrimination of Two Mixed Qubit States with a Fixed Rate of Inconclusive Results	Younghun Kwon, Donghoon Ha and Jihwan Kim
3	Constructing orthonormal bases to distinguish all pure states in finite dimensional	Yu Wang and Yun Shang
4	Entanglement area law for long-range interacting systems	Zhexuan Gong
5	Sufficiency of quantum channels and equality in the data processing inequality for the sandwiched Rényi divergence	Anna Jenčová, Felix Leditzky, Cambyse Rouzé and Nilanjana Datta

6	Markovian Marginals	Isaac Kim
7	Approximating local observables on projected entangled pair states	Martin Schwarz, Oliver Buerschaper and Jens Eisert
8	Multipartite Entanglement in Stabilizer Tensor Networks	Sepehr Nezami and Michael Walter
9	Fast State Transfer and Entanglement Renormalization Using Long-Range Interactions	Zachary Eldredge, Zhe-Xuan Gong, Ali Hamed Mosavian, Michael Foss-Feig and Alexey Gorshkov
10	Sets of n-local correlations are semialgebraic	Denis Rosset, Nicolas Gisin, Yeong-Cherng Liang, Rui-Yang You and Elie Wolfe

11	Entanglement of approximate quantum strategies in XOR games	Dimiter Ostrev and Thomas Vidick
12	A Four-Round LOCC Protocol Outperforms All Two-Round Protocols in Reducing the Entanglement Cost for A Distributed Quantum Information Processing	Eyuri Wakakuwa, Akihito Soeda and Mio Murao
13	Degradable states and one-way entanglement distillation	Felix Leditzky, Nilanjana Datta and Graeme Smith
14	Analytic and nearly optimal self-testing bounds for the Clauser-Horne-Shimony-Holt and Mermin inequalities	Jedrzej Kaniewski
15	Schur complement inequalities for covariance matrices and monogamy of quantum correlations	Ludovico Lami, Christoph Hirche, Gerardo Adesso and Andreas Winter

16	No-Hypersignaling as a Physical Principle	Michele Dall'Arno, Sarah Brandsen, Alessandro Tosini, Francesco Buscemi and Vlatko Vedral
17	Device-independent tests of time-like correlations	Michele Dall'Arno, Sarah Brandsen, Francesco Buscemi and Vlatko Vedral
18	Equivalence between contextuality and negativity of the Wigner function for qudits	Nicolas Delfosse, Cihan Okay, Juan Bermejo-Vega, Dan Browne and Robert Raussendorf
19	Explaining quantum correlations through evolution of causal models	Robin Harper, Robert Chapman, Chris Ferrie, Christopher Granade, Richard Kueng, Daniel Naoumenko, Steven Flammia and Alberto Peruzzo
20	Test for a large amount of entanglement, using few measurements	Rui Chao, Ben Reichardt, Chris Sutherland and Thomas Vidick

21	Product states can be hard to distinguish locally	Sarah Croke and Stephen Barnett
22	Monotonicity of quantum relative entropies under positive maps and their sufficiency	David Reeb and Alexander Müller-Hermes
23	Tripartite-to-Bipartite Entanglement Transformation by SLOCC and the Classification of Matrix Spaces	Yinan Li, Youming Qiao, Xin Wang and Runyao Duan
24	Monogamy relation in no-disturbance theories	Zhih-Ahn Jia, Yuchun Wu and Guang-Can Guo
25	A theory of resource destruction	Zi-Wen Liu, Xueyuan Hu and Seth Lloyd

26	No energy transport without discord	Seth Lloyd, Vazrik Chiloyan, Yongjie Hu, Samuel Huberman, Zi-Wen Liu and Gang Chen
27	Orientation Statistics and Quantum Information	Kevin Schultz
28	Simulating positive-operator-valued measures with projective measurements	Michal Oszmaniec, Leonardo Guerini, Peter Wittek and Antonio Acin
29	Chaos in quantum channels	Pavan Hosur, Xiao-Liang Qi, Dan Roberts and Beni Yoshida
30	The coherent relative entropy: a new parent entropy measure	Philippe Faist and Renato Renner

31	Pretty good measures in quantum information theory	Raban Iten, Joseph M. Renes and David Sutter
32	Information Topologies on Non-Commutative State Spaces	Stephan Weis
33	Efficient unitary designs with nearly time-independent Hamiltonian dynamics	Yoshifumi Nakata, Christoph Hirche, Masato Koashi and Andreas Winter
34	Optimal quantum networks and one-shot entropies	Daniel Ebler and Giulio Chiribella
35	Capacities for Classes of Quantum Multiple Access Channels and Hadamard Broadcast Channels	Qingle Wang, Siddhartha Das and Mark Wilde

36	The Non-coherence-generating Channels	Xueyuan Hu
37	Relative Entropy Bounds on Quantum, Private and Repeater Capacities	Alexander Müller-Hermes and Matthias Christandl
38	Physical Correlations from Statistical Inference Bounds	Avishy Carmi, Eliahu Cohen, and Daniel Moskovich
39	Decomposition of Quantum Markov Chains and Zero-error Capacity	Ji Guan, Yuan Feng and Mingsheng Ying
40	The additive classical capacity of quantum channels assisted by noisy entanglement	Quntao Zhuang, Yechao Zhu and Peter Shor



41	Hierarchy of Universal Entanglement in 2D Measurement-based Quantum Computation	Jacob Miller and Akimasa Miyake
42	Qudit quantum computation on matrix product states with global symmetry	Dongsheng Wang, David Stephen and Robert Raussendorf
43	Determining the computational power of symmetry protected topological phases	David Stephen, Dongsheng Wang, Abhishodh Prakash, Tzu-Chieh Wei and Robert Raussendorf
44	Quantum algorithm for multivariate polynomial interpolation	Jianxin Chen, Andrew Childs and Shih-Han Hung
45	Span Programs, Formula Evaluation, and Graph Connectivity	Stacey Jeffery and Shelby Kimmel

46	Extended Learning Graphs for Triangle Finding	Titouan Carette, Mathieu Lauriere and Frederic Magniez
47	Quantum Graph Isomorphisms	Albert Atserias, Laura Mancinska, David Roberson, Robert Samal, Simone Severini and Antonios Varvitsiotis
48	Lower bounds for quantum solvers for SDPs and LPs	Joran van Apeldoorn, Andras Gilyen, Sander Gribling and Ronald de Wolf
49	Characterizations of promise problems with exact quantum query complexity	Daowen Qiu and Shenggen Zheng
50	Fast Mixing with Quantum Walks vs. Classical Processes	Simon Apers, Alain Sarlette and Francesco Ticozzi

51	Universal computation by multiparticle quantum walk with improved error bounds	Zak Webb
52	Autonomous quantum machines and finite sized clocks	Mischa Woods, Ralph Silva and Jonathan Oppenheim
53	Irreconcilable Difference Between Quantum Walks and Adiabatic Quantum Computing	Thomas Wong and David Meyer
54	Quantum Walks via Quantum Cellular Automata	Pedro Costa, Renato Portugal and Fernando de Melo
55	Computing quopit Clifford circuit amplitudes via sum-over-paths	Dax Koh, Mark Penney and Robert Spekkens

56	Bounding the costs of quantum simulation of many-body physics in real space	Ian Kivlichan, Nathan Wiebe, Ryan Babbush and Alán Aspuru-Guzik
57	Quantum Circuits for Quantum Channels	Raban Iten, Roger Colbeck and Matthias Christandl
58	Efficient quantum algorithms for simulating Lindblad evolution	Richard Cleve and Chunhao Wang
59	Hamiltonian Simulation with Optimal Sample Complexity	Shelby Kimmel, Cedric Yen-Yu Lin, Guang Hao Low, Maris Ozols and Theodore Yoder
60	Exact sampling hardness of Ising spin models	Bill Fefferman, Alexey Gorshkov and Michael Foss-Feig

- |    |   |   |
|----|---|---|
| 61 | Approximate symmetries of Hamiltonians  | Christopher Chubb and Steven Flammia            |
| 62 | Hardness of traversing the ground space of commuting Hamiltonians               | David Gosset, Jenish C. Mehta and Thomas Vidick |
| 63 | The Complexity of Translationally-Invariant Low-Dimensional Spin Lattices in 3D | Johannes Bausch and Stephen Piddock             |
| 64 | The complexity of estimating local physical quantities                          | Sevag Gharibian and Justin Yirka                |
| 65 | Neural-Network Quantum States: Do Machines Dream of Schroedinger's Cat?         | Giuseppe Carleo and Matthias Troyer             |

66	A Neural Decoder for Topological Codes	Giacomo Torlai and Roger Melko
67	Informational content of compressed sensing measurements in quantum tomography	Amir Kalev, Charles Baldwin, Robert Kosut and Ivan Deutsch
68	Discrimination power of a quantum detector	Christoph Hirche, Masahito Hayashi, Emilio Bagan and John Calsamiglia
69	Error regions in quantum state tomography: computational complexity caused by the geometry of quantum states	Daniel Suess, Łukasz Rudnicki, Thiago O. Maciel and David Gross
70	Compatibility in Multiparameter Quantum Metrology	Sammy Ragy, Rafał Demkowicz-Dobrzański and Marcin Jarzyna

71	Computational Notions of Quantum Min-Entropy	Yi-Hsiu Chen, Kai-Min Chung, Ching-Yi Lai, Salil Vadhan and Xiaodi Wu
72	Multi-mode multi-bosonic interference	Abdullah Khalid, Dylan Spivak, Barry Sanders and Hubert de Guise
73	Complexity of sampling as an order parameter	Abhinav Deshpande, Bill Fefferman, Michael Foss-Feig and Alexey Gorshkov
74	Performance of QAOA on Typical Instances of Constraint Satisfaction Problems with Bounded Degree	Yechao Zhu and Cedric Yen-Yu Lin
75	Linear Optical Proofs for the Hardness of Matrix Permanents	Daniel Grier and Luke Schaeffer

76	Further extensions of Clifford circuits and their classical simulation complexities	Dax Koh
77	Achieving quantum supremacy with sparse and noisy commuting quantum computations	Michael Bremner, Ashley Montanaro and Dan Shepherd
78	The Computational Complexity of Ball Permutations	Scott Aaronson, Adam Bouland, Greg Kuperberg and Saeed Mehraban
79	Fixed-Point Adiabatic Quantum Search	Alexander Dalzell, Theodore Yoder and Isaac Chuang
80	Increasing the quantum UNSAT penalty of the circuit-to-Hamiltonian construction	Johannes Bausch and Elizabeth Crosson



81	Recent progress in integrated development environments for hybrid classical-quantum computing workflows	Kathleen Hamilton, Travis Humble, Keith Britt, Alexander McCaskey, Jonathan Schrock and Neena Imam
82	Modernizing Quantum Annealing	Nicholas Chancellor
83	Tunable excitation spectrum in quantum double models	Anna Komar and Olivier Landon-Cardinal
84	Versatile lattice code surgery	Christophe Vuillot and Barbara Terhal
85	Thresholds for universal concatenated quantum codes	Christopher Chamberland, Tomas Jochym-OConnor and Raymond Laflamme

86	Improvements on Color-to-Surface Code Switching	Ciaran Ryan-Anderson
87	Modeling the Surface 17 with Ion Traps	Colin Trout, Muyuan Li, Mauricio Gutierrez and Kenneth Brown
88	Optimization of Lattice Surgery is hard	Daniel Herr, Franco Nori and Simon Devitt
89	Efficient Fault-Tolerant Conversion between the Steane and Reed-Muller Quantum Codes	Dongxiao Quan, Changxing Pei and Barry C. Sanders
90	Detecting Topological Order with Ribbon Operators	Jacob C Bridgeman, Steven T Flammia and David Poulin

91	Transversal Clifford gates on folded surface codes	Jonathan Moussa
92	Topological One-Way Quantum Computation with the GKP Code States using Highly-Reliable Post-Selected Measurement	Kosuke Fukui, Akihisa Tomita and Atsushi Okamoto
93	Properties of a [7,1,3] Non-CSS Stabilizer Code	Muyuan Li, Mauricio Gutierrez, Kenneth Brown and Andrew Cross
94	Performance of Hyperbolic Surface Codes	Nikolas Breuckmann, Anirudh Krishna and Barbara Terhal
95	Locality Preserving Logical Gates in Topological Stabiliser Codes	Paul Webster and Stephen D. Bartlett

96	On the Effect of Coherence of Noise in Quantum Error Correction	Yasunari Suzuki, Keisuke Fujii and Masato Koashi
97	Tensor-network simulations of the surface code under realistic noise	Andrew Darmawan and David Poulin
98	Privacy Amplification Against Active Quantum Adversaries	Gil Cohen and Thomas Vidick
99	Simple, near-optimal quantum protocols for die-rolling	Jamie Sikora
100	Fully general device-independence for two-party cryptography and position verification	Jérémy Ribeiro, Gláucia Murta and Stephanie Wehner

101	Theory of the quantum internet	Koji Azuma, Akihiro Mizutani, Hoi-Kwong Lo and Go Kato
102	Asymmetric de Finetti Theorem for Infinite-dimensional Quantum Systems	Murphy Yuezhen Niu
103	Quantum Tokens for Digital Signatures	Shalev Ben-David and Or Sattath
104	Fundamental limitation on quantum broadcast networks	Stefan Baeuml and Koji Azuma
105	Quantum homomorphic signature with repeatable verification	Tao Shang, Zhuang Pei, Ke Li and Jianwei Liu

106	Secure quantum cloud computing with practical verification	Yuki Takeuchi, Keisuke Fujii, Tomoyuki Morimae and Nobuyuki Imoto
107	More Randomness from a Prepare-and-Measure Scenario with Independent Devices	Yun-Guang Han, Zhen-Qiang Yin, Hong-Wei Li, Wei Chen, Shuang Wang, Guang-Can Guo and Zheng-Fu Han
108	Device-independent characterizations of the quantum state in a Bell experiment	Zhaohui Wei and Jamie Sikora
109	Security Analysis of Stochastic Routing Scheme in Grid-Shaped Partially-Trusted Relay Quantum Key Distribution Network	Xingtong Liu, Jian Wang and Ruilin Li
110	A wave function approach to gradient density estimation using the higher dimensional stationary phase approximation	Karthik Gurumoorthy, Anand Rangarajan and John Corring

111

Continuous-variable quantum network  
coding using coherent states

Ke Li, Tao Shang, Gang Du and Jianwei  
Liu

112