	Authors	Titles
Plenary talks		
1	Hsin-Yuan Huang, Richard Kueng, Giacomo Torlai, Victor V. Albert and John Preskill	Provably efficient machine learning for quantum many-body problems
2	Hamoon Mousavi, Seyed Sajjad Nezhadi and Henry Yuen	Nonlocal Games, Compression Theorems, and the Arithmetical Hierarchy
3	Omri Shmueli	Public-Key Quantum Money with a Classical Bank
Short plenary talks		
4	Marc-Olivier Renou, David Trillo, Mirjam Weilenmann, Thinh Le Phuc, Armin Tavakoli, Nicolas Gisin, Antonio Acin and Miguel Navascues	Quantum Theory Needs Complex Numbers
5	Rahul Jain and Srijita Kundu	A direct product theorem for quantum communication complexity with applications to device-independent QKD
6	Isaac Kim, Bowen Shi, Kohtaro Kato and Victor Albert	Chiral central charge from a single wavefunction
7	John Kallaugher	A Quantum Advantage for a Natural Streaming Problem
8	Nikolas Breuckmann and Jens Eberhardt	Balanced Product Quantum Codes
9	Ludovico Lami and Bartosz Regula	Irreversibility of entanglement manipulation from first principles: no second law of entanglement theory after all
10	Scott Aaronson, Devon Ingram and William Kretschmer	The Acrobatics of BQP
Merged short plenary talks		
11.A	James Watson and Toby Cubitt	Computational Complexity of the Ground State Energy Density Problem
	Merged with	
11.B	Dorit Aharonov and Sandy Irani	Hamiltonian Complexity in the Thermodynamic Limit
12.A	Taiga Hiroka, Tomoyuki Morimae, Ryo Nishimaki and Takashi Yamakawa	Certified Deletion for Public Key Encryption, Zero-Knowledge, and More
	Merged with	
12.B	Alexander Poremba	Quantum Proofs of Deletion for Learning with Errors
Regular parallel talks		
13	Paolo Abiuso, Stefan Baeuml, Daniel Cavalcanti and Antonio Acin	Measurement-device-independent entanglement detection for continuous-variable systems
14	Andreas Bluhm, Ángela Capel and Antonio Pérez Hernández	Exponential Decay of Mutual Information for Gibbs states of local Hamiltonians
15	Anurag Anshu, Itai Arad and David Gosset	An area law for 2D frustration-free spin systems
16	Armin Tavakoli, Jef Pauwels, Erik Woodhead and Stefano Pironio	Correlations in entanglement-assisted prepare-and-measure scenarios
17	Satvik Singh and Nilanjana Datta	Detecting positive quantum capacities of quantum channels
18	Shyan Akmal and Ce Jin	Near-Optimal Quantum Algorithms for String Problems
19	Tomotaka Kuwahara and Keiji Saito	Exponential clustering of bipartite quantum entanglement at arbitrary temperatures
20	Hsin-Yuan Huang, Steven T. Flammia and John Preskill	Learning from noisy quantum experiments
21	Christophe Piveteau, David Sutter, Sergey Bravyi, Jay Gambetta and Kristan Temme	Error mitigation for universal gates on encoded qubits
22	Jelle Don, Serge Fehr, Christian Majenz and Christian Schaffner	Online-Extractability in the Quantum Random-Oracle Model
23	Bartosz Regula	Probabilistic transformations of quantum resources
24	Lisa Hänggli and Robert Koenig	Oscillator-to-oscillator codes do not have a threshold
25	Kianna Wan, Mario Berta and Earl T. Campbell	A randomized quantum algorithm for statistical phase estimation
26	Ulysse Chabaud and Saeed Mehraban	Holomorphic Quantum Computing
27	Yu Tong, Victor Albert, Jarrod McClean, John Preskill and Yuan Su	Provably accurate simulation of gauge theories and bosonic systems
28	Matthew Hastings and Ryan O'Donnell	Optimizing Strongly Interacting Fermionic Hamiltonians
29	Gorjan Alagic, Chen Bai, Jonanthan Katz and Christian Majenz	Post-Quantum Security of the Even-Mansour Cipher
30	Roberto Rubboli and Marco Tomamichel	Fundamental Limits on Correlated Catalytic State Transformations
31	Isaac Kim	Entropy scaling law and the quantum marginal problem
32	Haonan Zhang	A variational method and its applications in quantum information theory
33	Keren Censor-Hillel, Orr Fischer, Francois Le Gall, Dean Leitersdorf and Rotem Oshman	Quantum Distributed Algorithms for Detection of Cliques
34	Anurag Anshu, David Gosset, Karen J. Morenz Korol and Mehdi Soleimanifar	Improved approximation algorithms for bounded-degree local Hamiltonians
35	Yilei Chen, Qipeng Liu and Mark Zhandry	Quantum Algorithms for Variants of Average-Case Lattice Problems via Filtering
36	Jiahui Liu, Qipeng Liu and Luowen Qian	Beating Classical Impossibility of Position Verification
37	Andrea Coladangelo, Eric Culf, Jiahui Liu, Qipeng Liu, Thomas Vidick and Mark Zhandry	Hidden Cosets and Applications to Unclonable Cryptography
38	Nai-Hui Chia, Kai-Min Chung, Qipeng Liu and Takashi Yamakawa	On the Post-Quantum Black-Box Zero-Knowledge in Constant Rounds
39	James Bartusek and Giulio Malavolta	Indistinguishability Obfuscation of Null Quantum Circuits and Applications
40	Jeongwan Haah, Robin Kothari and Ewin Tang	Optimal learning of quantum Hamiltonians from high-temperature Gibbs states
41	Sitan Chen, Jerry Li and Ryan O'Donnell	Toward Instance-Optimal Quantum State Certification With Incoherent Measurements
42	Divesh Aggarwal, Yanlin Chen, Rajendra Kumar and Yixin Shen	Improved Classical and Quantum Algorithms for the Shortest VectorProblem via Bounded Distance Decoding
43	Nouédyn Baspin and Anirudh Krishna	Abstract and physical constraints on quantum low-density parity-check (LDPC) codes
44	Sayantan Chakraborty, Pranab Sen and Aditya Nema	One-shot inner bounds for sending private classical information over a quantum MAC
45	Christian Majenz, Maris Ozols, Christian Schaffner and Mehrdad Tahmasbi	Local Simultaneous State Discrimination -- Characterization and Applications to Uncloneable Cryptography
46	Sevag Gharibian and Francois Le Gall	Dequantizing the Quantum Singular Value Transformation: Hardness and Applications to Quantum Chemistry and the Quantum PCP Conjecture
47	Sergey Bravyi, Anirban Chowdhury, David Gosset and Pawel Wocjan	On the complexity of quantum partition functions
48	Patryk Lipka-Bartosik and Paul Skrzypczyk	Catalytic quantum teleportation
49	Xavier Bonnetain, Ferdinand Sibleyras and André Schrottenloher	Beyond quadratic speedups in quantum attacks on symmetric schemes
50	Anne Broadbent and Eric Culf	Rigidity for Monogamy-of-Entanglement Games
51	Yanlin Chen and Ronald de Wolf	Quantum Algorithms and Lower Bounds for Linear Regression with Norm Constraints
52	Lorenzo Piroli, Georgios Styliaris and J. Ignacio Cirac	Quantum Circuits assisted by LOCC: Transformations and Phases of Matter
53	Kamil Korzekwa and Matteo Lostaglio	Optimizing thermalizations
54	Li Gao and Cambyse Rouzé	Complete entropic inequalities for quantum Markov chains
55	Frédéric Dupuis, Philippe Lamontagne and Louis Salvail	Fiat-Shamir for Proofs Lacks a Proof Even in the Presence of Shared Entanglement
56	Sergey Bravyi, David Gosset, Daniel Grier and Luke Schaeffer	Classical algorithms for forrelation
57	Alessandro Chiesa, Fermi Ma, Nicholas Spooner and Mark Zhandry	Post-Quantum Succinct Arguments: Breaking the Quantum Rewinding Barrier
58	Sathyawageeswar Subramanian, Tom Gur and Min-Hsiu Hsieh	Sublinear quantum algorithms for estimating von Neumann entropy
59	Alexander Stottmeister and Tobias Osborne	Quantum simulation of conformal field theory
60	Daniel Stilck França, Cambyse Rouze and Giacomo de Palma	A refinement of Pinsker's inequality and applications to state tomography and equivalence of ensembles
61	Changhao Yi and Elizabeth Crosson	Spectral Analysis of Product Formulas for Quantum Simulation
62	Matthew Hastings and Jeongwan Haah	Floquet Codes
63	Nikolaos Koukoulekidis and David Jennings	Constraints on magic state protocols from the statistical mechanics of Wigner negativity
64	Mehdi Soleimanifar and John Wright	Testing matrix product states
65	Michal Oszmaniec, Ninnat Dangniam, Mauro Morales and Zoltan Zimboras	Fermion Sampling: a robust quantum computational advantage scheme using fermionic linear optics and magic input states
66	Connor Paddock	Rounding near-optimal quantum strategies for nonlocal games to strategies using maximally entangled states
67	Sevag Gharibian and Dorian Rudolph	Quantum space, ground space traversal, and how to embed multi-prover interactive proofs into unentanglement
68	Gregory Rosenthal and Henry Yuen	Interactive Proofs for Synthesizing Quantum States and Unitaries
69	Martin Larocca, Marco Vinicio Sebastian de la Roca, Patrick Coles, Kunal Sharma, Piotr Czarnik, Gopikrishnan Muraleedharan, Diego Garcia-Martin and Nathan Ju	Analyzing the Loss Landscape of Quantum Neural Networks: Barren Plateaus and Overparametrization

70	Daniel Grier, Daniel Brod, Juan Miguel Arrazola, Marcos Benicio de Andrade Alonso and Nicolás Quesada	The Complexity of Bipartite Gaussian Boson Sampling
71	Matthew Amy, Matthew Crawford, Andrew Glaudell, Melissa Macasieb, Samuel Mendelson and Neil Ross	Unitary embeddings: Linking gate teleportation to circuit synthesis
72	Sandy Irani, Anand Natarajan, Chinmay Nirkhe, Sujit Rao and Henry Yuen	Quantum search-to-decision reductions and the state synthesis problem
73	Felix Leditzky, Debbie Leung, Vikesh Siddhu, Graeme Smith and John A. Smolin	The platypus of the quantum channel zoo
74	Jiayu Zhang	Succinct Blind Quantum Computation Using a Random Oracle
75	Guanyu Zhu, Tomas Jochym-O'Connor and Arpit Dua	Quantum codes, Topological Order, and Quantum Computation on Fractal Geometries
76	Hlér Kristjánsson, Wenxu Mao and Giulio Chiribella	Witnessing latent time correlations with a single quantum particle
77	Anurag Anshu, Zeph Landau and Yunchao Liu	Distributed quantum inner product estimation
78	Arjan Cornelissen, Yassine Hamoudi and Sofiene Jerbi	Near-Optimal Quantum Algorithms for Multivariate Mean Estimation
79	Zi-Wen Liu and Sisi Zhou	Quantum error correction meets continuous symmetries: fundamental trade-offs and case studies
80	Sepehr Nezami	Permanent of Random Matrices from Representation Theory
81	Pedro C.S. Costa, Dong An, Yuval R. Sanders, Yuan Su, Ryan Babbush and Dominic W. Berry	Optimal scaling quantum linear systems solver via discrete adiabatic theorem
82	Wilbur Shirley, Yu-An Chen, Arpit Dua, Tyler Ellison, Nathanan Tantivasadakarn and Dominic Williamson	Three-dimensional quantum cellular automata and chiral semion surface topological order
83	Ankit Garg, Robin Kothari, Praneeth Netrapalli and Suhail Sherif	Near-Optimal Classical and Quantum Lower Bounds For Convex Optimization For All Orders of Smoothness
84	Milán Mosonyi, Zsombor Szilágyi and Mihály Weiner	On the error exponents of binary state discrimination with composite hypotheses
85	Samuel Elman, Adrian Chapman and Steven Flammia	Free fermions behind the disguise
86	Adam Bouland and Tudor Giurgica-Tiron	An inverse-free Solovay-Kitaev algorithm
87	Jonas Haferkamp, Philippe Faist, Naga B. T. Kothakonda, Jens Eisert and Nicole Yunger Halpern	Linear growth of quantum circuit complexity
88	Harry Buhrman, Bruno Loff, Subhasree Patro and Florian Speelman	Limits of quantum speed-ups for computational geometry and other problems: Fine-grained complexity via quantum walks
89	Ojas Parekh and Kevin Thompson	Quantum Approximation Algorithms via the Level-2 Quantum Lasserre Hierarchy
90	Peter Brown, Hamza Fawzi and Omar Fawzi	Variational bounds on the relative entropy and their applications
91	Shir Peleg, Amir Shpilka and Ben Lee Volk	Lower Bounds on Stabilizer Rank
92	Benjamin Lovitz and Vincent Steffan	New techniques for bounding stabilizer rank
93	Sitan Chen, Jordan Cotler, Hsin-Yuan Huang and Jerry Li	Exponential separations between learning with and without quantum memory
94	Qi Zhao, You Zhou, Alexander F. Shaw, Tongyang Li and Andrew M. Childs	Hamiltonian simulation with random inputs
95	Samuel Slezak and Elizabeth Crosson	Eigenstate Thermalization and Quantum Metropolis Sampling
96	Angus Lowe and Ashwin Nayak	Improved lower bounds for learning quantum states with unentangled measurements
97	Chi-Fang Chen and Fernando Brandao	Concentration for Trotter error
98	Chi-Fang Chen and Fernando Brandao	Fast Thermalization from the Eigenstate Thermalization Hypothesis
99	Alexander Dalzell, Nicholas Hunter-Jones and Fernando Brandao	Random quantum circuits transform local noise into global white noise
100	Abhinav Deshpande, Bill Fefferman, Alexey Gorshkov, Michael Gullans, Pradeep Niroula and Oles Shtanko	Tight bounds on the convergence of noisy random circuits to uniform

Merged regular parallel talks

101.A	Shuichi Hirahara and Francois Le Gall	Test of Quantumness with Small-Depth Quantum Circuits
	Merged with	
101.B	Alexandru Gheorghiu and Zhenning Liu	Depth-efficient proofs of quantumness
102.A	Laurens Lootens, Bram Vancraeynest-De Cuiper, Norbert Schuch and Frank Verstraete	Mapping between Morita equivalent string-net states with finite depth quantum circuits
	Merged with	
102.B	Laurens Lootens, Jürgen Fuchs, Jutho Haegeman, Christoph Schweigert and Frank Verstraete	Matrix product operators: symmetries, intertwiners and domain walls for topological and conformal field theories
103.A	Ke Li and Yongsheng Yao	Reliability Function of Quantum Information Decoupling and Privacy Amplification Via the Sandwiched Renyi Divergence
	Merged with	
103.B	Frédéric Dupuis	Privacy amplification and decoupling without smoothing
104.A	Iman Marvian, Hanqing Liu and Austin Hulse	Qudit circuits with SU(d) symmetry: Locality imposes additional conservation laws
	Merged with	
104.B	Iman Marvian	Local Symmetric Quantum Circuits: How, in the presence of symmetry, locality restricts realizable unitaries
105.A	Benjamin Villalonga, Murphy Yuezhen Niu, Li Li, Hartmut Neven, John C. Platt, Vadim N. Smelyanskiy and Sergio Boixo	Efficient approximation of experimental Gaussian boson sampling
	Merged with	
105.B	Jacob Bulmer, Bryn Bell, Rachel Chadwick, Alex Jones, Diana Moise, Alessandro Rigazzi, Jan Thorbecke, Utz-Uwe Haus, Thomas Van Vaerenbergh, Raj Patel, Ian Walmsley and Anthony Laing	The Boundary for Quantum Advantage in Gaussian Boson Sampling