

TQC 2020 schedule

Time GMT+3	Tuesday, June 9 th		Wednesday, June 10 th		Thursday, June 11 th		Friday, June 12 th						
10:00	Thomas Monz (INVITED TALK) Experimental quantum error correction: from qubit loss to lattice surgery		Quantum physics	Strictly linear light cones in long-range interacting systems of arbitrary dimensions <small>Tomotaka Kuwahara and Keiji Saito</small>		Elena Kirshanova (INVITED TALK) Quantum speed-ups for sieving algorithms for the shortest vector problem		Xin Wang (INVITED TALK) Quantum resource theories of quantum channels					
10:25				Quantum circuit approximations and entanglement renormalization for the Dirac field in 1+1 dimensions <small>Freek Witteveen, Michael Walter, Volkher Scholz and Brian Swingle</small>									
10:50	Information theory	Non-additivity in classical-quantum wiretap channels <small>Arkin Tikku, Mario Berta and Joseph M. Renes</small>	Error correction	On the modified logarithmic Sobolev inequality for the heat-bath dynamics for 1D systems <small>Ivan Bardet, Angela Capel, Angelo Lucia, David Perez-Garcia and Cambyse Rouzé</small>		Information processing	Self-testing of a single quantum device under computational assumptions <small>Tony Metger and Thomas Vidick</small>	Cryptography	A device-independent protocol for XOR oblivious transfer <small>Srijita Kundu, Jamie Sikora and Ernest Y.-Z. Tan</small>				
11:15	Coffee break			Coffee break		Coffee break		Coffee break					
11:45	Computational complexity	Tight Quantum Lower Bound for Approximate Counting with Quantum States <small>Aleksandrs Belovs and Ansis Rosmanis</small>	Error correction	Fault-tolerant quantum gates with defects in topological stabiliser codes <small>Paul Webster and Stephen Bartlett</small>		Information theory	Optimizing the fundamental limits for quantum and private communication & Quantum flags, and new bounds on the quantum capacity of the depolarizing channel <small>Xin Wang & Marco Fanizza, Farzad Kianvash and Vittorio Giovannetti</small>		Information theory	OUTSTANDING PAPER AWARD Quasirandom quantum channels <small>Tom Bannink, Jop Briët, Farrokh Labib and Hans Maassen</small>			
12:10		Quantum algorithms for computational geometry problems <small>Andris Ambainis and Nikita Larka</small>		Non-Pauli Stabilizers from Twisted Quantum Doubles <small>Julio Carlos Magdalena de la Fuente, Nicolas Tarantino and Jens Eisert</small>			Encoding classical information into quantum resources <small>Kamil Korzekwa, Zbigniew Puchała, Marco Tomamichel and Karol Zyczkowski</small>			Convergence rates for the quantum central limit theorem <small>Simon Becker, Nilanjana Datta, Ludovico Lami and Cambyse Rouzé</small>			
12:20		Quantum Coupon Collector <small>Srinivasan Arunachalam, Aleksandrs Belovs, Andrew Childs, Robin Kothari, Ansis Rosmanis and Ronald de Wolf</small>		Quantifying quantum speedups: improved classical simulation from tighter magic monotones <small>James R. Seddon, Bartosz Regula, Hakop Pashayan, Yingkai Ouyang and Earl T. Campbell</small>			Second-order asymptotics of quantum data compression and state merging <small>Dina Abdelhadi and Joseph M. Renes</small>			Extendibility of bosonic Gaussian states <small>Ludovico Lami, Sumeet Khatri, Gerardo Adesso and Mark Wilde</small>			
12:25													
12:35		Lunch break		Lunch break			Poster session			Lunch break			
12:45													
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13:00	Lunch break		Lunch break		Poster session		Lunch break						
13:10	Quantum tomography		Towards Quantum One-Time Memories from Stateless Hardware <small>Anne Broadbent, Sevag Gharibian and Hong-Sheng Zhou</small>		Algorithms		Faster quantum and classical SDP approximations for quadratic binary optimization <small>Daniel Stilck França, Fernando G. S. L. Brandão and Richard Kueng</small>						
13:15			Spectral Quantum Tomography <small>Jonas Helsen, Francesco Battistel and Barbara Terhal</small>				Uncloable Quantum Encryption via Oracles <small>Anne Broadbent and Sébastien Lord</small>		Quantum Distributed Algorithm for Triangle Finding in the CONGEST Model <small>Taisuke Izumi, Francois Le Gall and Frederic Magniez</small>				
15:00	Building trust for continuous variable quantum states <small>Ulysse Chabaud, Tom Douce, Frédéric Grosshans, Elham Kashefi and Damian Markham</small>		Cryptography	Towards Quantum One-Time Memories from Stateless Hardware <small>Anne Broadbent, Sevag Gharibian and Hong-Sheng Zhou</small>		Algorithms		Faster quantum and classical SDP approximations for quadratic binary optimization <small>Daniel Stilck França, Fernando G. S. L. Brandão and Richard Kueng</small>					
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15:50	Coffee break		Coffee break		Coffee break		Coffee break						
16:20	Hamiltonian complexity	Improved local spectral gap thresholds for lattices of finite dimension <small>Anurag Anshu</small>		Henry Yuen (INVITED TALK) How to compress a nonlocal game		Computational complexity		Approximate tensor decompositions: disappearance of all separations <small>Andreas Klingler, Gemma De Las Cuevas and Tim Netzer</small>					
16:45		Slightly beyond product state approximations for a quantum analogue of Max Cut <small>Anurag Anshu, David Gosset and Karen Morenz</small>		Playing Games with Multiple Access Channels <small>Felix Leditzky, Mohammad A. Alhejji, Joshua Levin and Graeme Smith</small>				Exponential quantum communication reductions from generalizations of the Boolean Hidden Matching problem <small>João Fernando Doriguello and Ashley Montanaro</small>					
17:10		Computing partition functions in the one clean qubit model <small>Anirban Chowdhury, Rolando Somma and Yigit Subasi</small>						Information theory	On the complexity of zero gap MIP* <small>Hamoon Mousavi, Seyed Sajjad Nezhadi and Henry Yuen</small>				
17:35		Optimal Protocols in Quantum Annealing and QAOA Problems <small>Lucas Brady, Christopher Baldwin, Aniruddha Bapat, Alexey Gorbakov and Yaroslav Kharkov</small>		Coffee break				Coffee break					
17:40	Coffee break		Coffee break		Coffee break		Coffee break						
18:00	Coffee break		Coffee break		Coffee break		Coffee break						
18:05	Error correction		Information processing	Semi-device-independent certification of indefinite causal order <small>Jessica Bavaresco, Mateus Araújo, Caslav Brukner and Marco Túlio Quintino</small>		Computational complexity	A Framework of Quantum Strong Exponential-Time Hypotheses <small>Harry Buhrman, Subhasree Patro and Florian Speelman</small>		Quantum circuits	Efficient unitary designs with a system size independent number of non-Clifford gates <small>Jonas Haferkamp, Felipe Montealegre-Mora, Markus Heinrich, Jens Eisert, David Gross and Ingo Roth</small>			
18:30				A Scalable Decoder Micro-architecture for Fault-Tolerant Quantum Computing <small>Das Poulami, Christopher Pattison, Sripatha Manne, Doug Carmean, Krysta Svore, Moinuddin Qureshi and Nicolas Delfosse</small>			Beyond the swap test: efficient estimation of distances between quantum states <small>Marco Fanizza, Matteo Rosati, Michalis Skotiniotis, John Calsamiglia and Vittorio Giovannetti</small>			On Quantum Complexity for Closest Pair and Orthogonal Vectors <small>Scott Aaronson, Nai-Hui Chia, Han-Hsuan Lin, Chunhao Wang and Ruizhe Zhang</small>		Unitary designs from statistical mechanics in random quantum circuits <small>Nicholas Hunter-Jones</small>	
18:55				Fast and effective techniques for T-count reduction via spider nest identities <small>Niel De Beaudrap, Xiaoning Bian and Quanlong Wang</small>			Simpler Proofs of Quantumness <small>Zvika Brakerski, Venkata Koppula, Umesh Vazirani and Thomas Vidick</small>			Improved Approximate Degree Bounds For k-distinctness <small>Nikhil Mande, Justin Thaler and Shuchen Zhu</small>		Models of quantum complexity growth <small>Nicholas Hunter-Jones, Richard Kueng, Wissam Chemissany, Fernando Brandao and John Preskill</small>	
19:20	End		End		End		End						