

Schedule of AQC2021

Japan Standard Time (JST) is UTC+0900, PDT+1600, EDT+1300, BST+0800, and CEST+0700.

Day 1 Tuesday, 6/22/2021, JST

JST / Tue	PDT / Mon-Tue	EDT / Mon-Tue	BST / Tue	CEST / Tue	Title
8:50	16:50	19:50	0:50	1:50	<i>Opening: Hidetoshi Nishimori</i>
					<i>Chair: Elizabeth Crosson</i>
9:00	17:00	20:00	1:00	2:00	Itay Hen (Invited) Non-stoquasticity and non-simulability in AQC
9:30	17:30	20:30	1:30	2:30	Andras Gilyén (Invited) (Sub)Exponential advantage of adiabatic quantum computation with no sign problem
10:00	18:00	21:00	2:00	3:00	Jon A. Nelson Single-qubit fidelity assessment of quantum annealing hardware
10:15	18:15	21:15	2:15	3:15	Andrey Lokhov Programmable quantum annealers as noisy Gibbs samplers
10:30	18:30	21:30	2:30	3:30	Jack Raymond Large neighborhood local search with efficient embeddings
10:45	18:45	21:45	2:45	3:45	Poster A
11:45	19:45	22:45	3:45	4:45	<i>Break</i>
					<i>Chair: Wolfgang Lechner</i>
16:30	0:30	3:30	8:30	9:30	Adolfo del Campo (Invited) Probing the universality of topological defect formation in a quantum annealer
17:00	1:00	4:00	9:00	10:00	Adam Callison Energetic perspective on rapid quenches in quantum annealing
17:15	1:15	4:15	9:15	10:15	Gianluca Passarelli Variational counterdiabatic driving of the p-spin model
17:30	1:30	4:30	9:30	10:30	Daniel O'Connor Testing quantumness in the transverse-field Ising model using the perturbed ferromagnetic chain
17:45	1:45	4:45	9:45	10:45	Poster B
18:45	2:45	5:45	10:45	11:45	<i>End of Day 1</i>
	Shaded: Previous day				

Day 2 Wednesday, 6/23/2021, JST

JST / Wed	PDT / Tue-Wed	EDT / Tue-Wed	BST / Wed	CEST / Wed	Title
					<i>Chair: Richard Harris</i>
9:00	17:00	20:00	1:00	2:00	Peter Love (Invited) Semiclassicality and noncontextuality of Hamiltonians
9:30	17:30	20:30	1:30	2:30	Zhihui Wang (Invited) Symmetry and error mitigation in quantum alternating operator ansatz
10:00	18:00	21:00	2:00	3:00	Steven M. Disseler (Invited) Demonstration of a highly controllable quantum processor for advanced annealing algorithms
10:30	18:30	21:30	2:30	3:30	Shiyu Zhou Experimental realization of spin liquids in a programmable quantum device
10:45	18:45	21:45	2:45	3:45	Luis Zuluaga Characterization of QUBO reformulations for the maximum k-colorable subgraph problem
11:00	19:00	22:00	3:00	4:00	Andrew D. King Kibble-Zurek scaling in the fast-anneal regime
11:15	19:15	22:15	3:15	4:15	Poster C
12:15	20:15	23:15	4:15	5:15	<i>Break</i>

					<i>Chair: Yuichi Nakamura</i>	
					Special session on (inter)national projects for quantum annealing	
13:30	21:30	0:30	5:30	6:30	Daniel A. Lidar	Achievements of the IARPA-QEO and DARPA-QAFS programs, and the prospects for quantum enhancement with quantum annealing
14:00	22:00	1:00	6:00	7:00	Shiro Kawabata	Overview of NEDO projects on quantum annealing machines in Japan
14:30	22:30	1:30	6:30	7:30	Pol Forn-Diaz	Introducing project AVaQus: Annealing-based variational quantum processors
15:00	23:00	2:00	7:00	8:00	<i>Break</i>	
					<i>Chair: Giuseppe Santoro</i>	
16:30	0:30	3:30	8:30	9:30	Hiroataka Tamura	Extended Ising machine for future DAUs
16:45	0:45	3:45	8:45	9:45	Davide Pierangeli	Large-scale optical simulator for spin glasses and adiabatic computing
17:00	1:00	4:00	9:00	10:00	Nicholas Chancellor	A domain wall encoding of variables for quantum annealing
17:15	1:15	4:15	9:15	10:15	<i>End of Day 2</i>	
	Shaded: Previous day					

Day 3 Thursday, 6/24/2021, JST

JST / Thu	PDT / Wed-Thu	EDT / Wed-Thu	BST / Thu	CEST / Thu	Title	
					<i>Chair: Aaron Lott</i>	
9:00	17:00	20:00	1:00	2:00	Patrick Coles (Invited)	Landscapes, trainability, and scalability of variational quantum algorithms
9:30	17:30	20:30	1:30	2:30	Evgeny Mozgunov (Invited)	Adiabatic theorem for unbounded Hamiltonians of superconducting circuits
10:00	18:00	21:00	2:00	3:00	Richard Harris (Invited)	Outrunning the bear: Quantum annealing in the presence of an environment
10:30	18:30	21:30	2:30	3:30	Steven J. Weber	Next-generation quantum annealing testbed
10:45	18:45	21:45	2:45	3:45	Milad Marvian	Universal diabatic quantum annealing
11:00	19:00	22:00	3:00	4:00	Matthew R. C. Fitzpatrick	Numerically exact modelling of flux qubit chains subject to hybrid flux and charge noise
11:15	19:15	22:15	3:15	4:15	Kyle Mills	Finding the ground state of spin Hamiltonians with reinforcement learning
11:30	19:30	22:30	3:30	4:30	Poster D	
12:30	20:30	23:30	4:30	5:30	<i>Break</i>	
					<i>Chair: Paul Warburton</i>	
16:30	0:30	3:30	8:30	9:30	Glen Mbeng (Invited)	Variational counter diabatic drivings in rotating frames
17:00	1:00	4:00	9:00	10:00	Marek Rams	Quantum phase transition dynamics in the two-dimensional transverse Ising model
17:15	1:15	4:15	9:15	10:15	Manuel Pino Garcia	Mediator-assisted cooling in quantum annealing
17:30	1:30	4:30	9:30	10:30	Steven Abel	Implementation of complex physical systems on quantum annealers
17:45	1:45	4:45	9:45	10:45	Poster E	
18:45	2:45	5:45	10:45	11:45	<i>End of Day 3</i>	
	Shaded: Previous day					

Day 4 Friday, 6/25/2021, JST

JST / Fri	PDT / Thu-Fri	EDT / Thu-Fri	BST / Fri	CEST / Fri	Title
					<i>Chair: Daniel Lidar</i>
9:00	17:00	20:00	1:00	2:00	Guido Pagano (Invited) From quantum algorithms to out-of-equilibrium phenomena in interacting spin chains
9:30	17:30	20:30	1:30	2:30	Seth Lloyd (Invited) Quantum machine learning on quantum annealers
10:00	18:00	21:00	2:00	3:00	Mohamed Hibat-Allah Neural simulated classical and quantum annealing
10:15	18:15	21:15	2:15	3:15	Estelle Inack Variational quantum annealing simulations of non-stoquastic Hamiltonians
10:30	18:30	21:30	2:30	3:30	Carleton Coffrin Benchmarking Ising model optimization with corrupted biased ferromagnets
10:45	18:45	21:45	2:45	3:45	Federico M. Spedalieri Quantum annealing with special drivers for circuit fault diagnosis
11:00	19:00	22:00	3:00	4:00	Poster F
12:00	20:00	23:00	4:00	5:00	<i>Break</i>
					<i>Chair: Tadashi Kadowaki</i>
16:30	0:30	3:30	8:30	9:30	Masayuki Ohzeki (Invited) How to perform iterative-structured machine learning by quantum annealer
17:00	1:00	4:00	9:00	10:00	Shusaku Kamei Traffic optimization by quantum annealing
17:15	1:15	4:15	9:15	10:15	Jie Chen Energy efficient mobile network routing using hybrid quantum algorithms
17:30	1:30	4:30	9:30	10:30	Iwan Setiawan Fast forward of quantum annealing model in triangle spin systems.
17:45	1:45	4:45	9:45	10:45	<i>Closing: Hidetoshi Nishimori</i>
17:50	1:50	4:50	9:50	10:50	<i>End of Day 4</i>

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Poster session of AQC2021

Day 1 Tuesday, 6/22/2021, JST

Shaded: Previous day

JST	PDT	EDT	BST	CEST	Name	Affiliation	Title
10:45	18:45	21:45	2:45	3:45	Poster A		
					1	Marian R. Lingsch Rosenfeld	LMU Munich Towards a quantum game of life
					2	Tadashi Kadowaki	DENSO CORPORATION Quantum greedy optimization
					3	Shunta Arai	Tohoku university Adiabatic reverse annealing does not overcome the hard phase in CDMA multiuser detection
					4	Daisuke Saida	National Institute of Advanced In Demonstrations of native implementation of boolean logic Hamiltonian for quantum annealing
					5	Narendra N. Hegade	Shanghai University Digital-adiabatic quantum factorization using counter-diabatic driving
					6	Tatsuhiko Shirai	Waseda University Quantum annealing in transverse-field Ising chains with a correlated disorder
					7	Kotaro Tanahashi	Recruit Co., Ltd. Augmented lagrangian method for constrained optimization problems in quantum annealing
					8	Yuta Yachi	Waseda University An effective combination scheme of coefficient bit-width reducing methods on annealing

11:45 19:45 22:45 3:45 4:45 Break

JST	PDT	EDT	BST	CEST	Name	Affiliation	Title
17:45	1:45	4:45	9:45	10:45	Poster B		
					1	Chae-Yeun Park	University of Cologne Are neural quantum states good at solving non-stoquastic spin Hamiltonians?
					2	Yasuhiro Yamada	NTT Basic Research Laboratorie Dissipative quantum dynamics in coherent Ising machine with measurement-feedback spin-spin couplings
					3	Jemma E Bennett	Durham University Error suppression in continuous-time quantum computing
					4	Louis Fry-Bouriaux	University College London Stoquastic diabatic quantum annealing: a coherence testing tool.
					5	Shuta Kikuchi	Keio University Dynamical process on the bit-width-reduced Ising model and tuned method in simulated annealing
					6	Yosuke Mukasa	Waseda University Scalable algorithm for capacitated vehicle routing problem using Ising machines
					7	Kohji Nishimura	Jij Inc. A simple and constructive method to obtain counter-diabatic terms for quantum annealing
					8	Kazue Kudo	Ochanomizu University Pattern formation simulation using an Ising machine

18:45 2:45 5:45 10:45 11:45 End of Day 1

Day 2 Wednesday, 6/23/2021, JST Shaded: Previous day

JST	PDT	EDT	BST	CEST	Name	Affiliation	Title
11:15	19:15	22:15	3:15	4:15	Poster C		
					1 Renichiro Haba	Tohoku University	Quick delivery routing of automated guided vehicles with reverse annealing approach
					2 Eihiro Saishu	Groovenauts, Inc.	Applied use cases of quantum annealing at Groovenauts
					3 Shohei Watabe	Tokyo University of Science	Quantum annealing in a degenerate two-level system
					4 Siya Bao	Waseda University	A spin fixation method for the balanced pick-up service problem using an Ising machine
					5 Nasa Matsumoto	Ochanomizu University	Clustering with an Ising machine
					6 Geguang Miao	Waseda University	Prime factorization with fewer qubits by combining quantum annealing and classical algorithm
					7 Masashi Tawada	Waseda University	Software platform development using quantum and classical computing as accelerators
					8 Toufan D. Tambunan	Bandung Institute of Technology	Vehicle routing optimization using a quantum annealing
					9 Yuta Otsubo	Keio University	Effect of additional operations for constrained quantum annealing
12:15	20:15	23:15	4:15	5:15	Break		

Day 3 Thursday, 6/24/2021, JST Shaded: Previous day

JST	PDT	EDT	BST	CEST	Name	Affiliation	Title
11:30	19:30	22:30	3:30	4:30	Poster D		
					1 Andriyan Bayu Suksmono	Institut Teknologi Bandung	Finding high-order Hadamard matrices by using quantum computers
					2 Kazuki Ikeda	Kyocera Corporation	Diagnosing first and second order phase transitions with probes of quantum chaos
					3 Raouf Dridi	Quantum Computing Inc.	Domain-wall encoding versus one-hot encoding in quantum annealing
					4 Mohammad Bagherbeik	University of Toronto and Fujitsu	Integer Boltzmann machines for future generation Digital Annealing Units
					5 Aki Dote	Fujitsu Ltd.	Rejection-free MCMC for QUBO optimization and Boltzmann sampling
					6 Siya Bao	Waseda University	Vehicle routing problem with balanced pick-up using an Ising machine
					7 Kazushi Kawamura	Tokyo Institute of Technology	Improvement in convergence speed of fully-parallel annealing algorithm with spin-update restriction
					8 Takashi Imoto	National Institute of Advanced In	Improving accuracy of energy estimation by combining quantum annealing with classical computation
12:30	20:30	23:30	4:30	5:30	Break		

JST	PDT	EDT	BST	CEST	Name	Affiliation	Title	
17:45	1:45	4:45	9:45	10:45	Poster E			
					1	Procolo Lucignano	Universita' di Napoli Federico II	Pausing and reverse annealing of the p-spin model in a dissipative environment
					2	Chiayin Liu	Tohoku University	Quantitative evaluation of an FPGA-based SQA accelerator exploiting Trotter-slice parallelism
					3	Tomokazu Yoshimura	Waseda University	Global optimization algorithm for QUBO problems by deforming their energy function at run-time
					4	Maria Hita Perez	Instituto de Fisica Fundamental	3-Josephson junction flux qubit couplings and non-stoquasticity
					5	Masashi Tawada	Waseda University	Reconstruction of combinatorial optimization problems from Ising models
					6	Puya Mirkarimi	Durham University	Comparing quantum and classical algorithms for MAX 2-SAT
					7	Nedeen AlSharif	University College London	Hybrid quantum annealing and quantum walk
					8	Viv Kendon	Durham University	Continuous-time quantum search at low temperature in the symmetric subspace
18:45	2:45	5:45	10:45	11:45	End of Day 3			

Day 4 Friday, 6/25/2021, JST Shaded: Previous day

JST	PDT	EDT	BST	CEST	Name	Affiliation	Title	
11:00	19:00	22:00	3:00	4:00	Poster F			
					1	Lucas T. Brady	Joint Center for Quantum Inform	Behavior of analog quantum algorithms
					2	Matthieu Parizy	Fujitsu Ltd.	Analysis and acceleration of optimization problems with inequality constraints on Ising machines
					3	Yuya Seki	National Institute of Advanced In	Binary and gray code encoding for Ising problem
					4	Keisuke Fukada	Waseda University	Solving slot placement problems using an Ising machine with the initial process and its evaluation
					5	Kotaro Takahashi	Keio University	Hybridization of quantum and thermal effect in Ising machines
					6	Shota Miyagi	Waseda University	Execution time estimation of remote quantum annealing servers
					7	Syun Izawa	The University of Tokyo	Continuous black-box optimization with quantum annealing and random subspace coding
					8	Takanori Ishii	Tokyo University of Science	Dissipation effects on fidelity and entanglement in quantum annealing at finite temperature
12:00	20:00	23:00	4:00	5:00	Break			