QTML 2019 Tentative Program Table

	Sunday	Monday	Tuesday	Wednesday	Thursday
9:00 - 9:30 9:30 - 10:00			Session T1 I: M. Degroote S.40: Kristensen	Session W1 P: J. McClean	Session Th1 I: D. Ahn I: R. Raymond
10:00 - 10:30		10:00 - 11:00	S.44: Mendoza S.23: Sim	I: M. Monseni	L.47: Petruccione
10:30 - 11:00		Registration		Break	
11:00 - 11:30		Session M1	Session T2	Session W2	Session Th2
11:30 - 12:10		11:00 Opening 11:10 P: S. Jordan	S.21: Noori S.36: Kewming	S.10: Schuld S.12: Puri	S.9: Beny S.19: Greenberg
12:10 - 14:00			Lunch E	Break	
14:00 - 14:30 14:30 - 15:00 15:00 - 15:30	Tutorial 1 M. Quang	Session M2 I: L. Wossnig L.15: Coyle S.18: Bondarenko	Session T3 L.14: Blank S.4: Sergioli S.25: Mengoni S.31: LaRose		Session Th3 L.22: Quek S.28: Xu S.38: Sinayskiy S.48: Ismail
15:30 - 16:00		Break			Break
16:00 - 16:30	Break	Session M3	(15:30 - 17:10) Session T4	Excursion:	Session Th4
16:30 - 17:00 17:00 - 17:30		L.24: Gerace S.7: Puri	Break & Poster	Park	I1: A. Bayat S.16: Flynn
	Tutorial 2 M. Schuld	S.45: Park S.20: Oberoi	Session T5 I: N. Liu		5.17: Santagati 17:10 Closing
17:30 - 18:00			S.13: Fanizza		
18:00 - 18:30					
18:30 -	Reception	Chair event	Banquet		

P = Plenary (50 min)

I = Invited (30 min)

L = Long (30 min)

$$S = Short (20 min)$$

*The number after L or S is the EasyChair submission number.

QTML 2019 Tentative Program Detail

Day 1:

Sunday, Oct. 20				
Time	Program	Speaker	Title	
14:00 - 16:00	Tutorial 1	Minh Ha Quang	Machine Learning	
16:00 - 16:30	Coffee Break			
16:30 - 18:30	Tutorial 2	Maria Schuld	Quantum Machine Learning	
18:30 -	Reception			

Day 2:

Monday, Oct. 21				
Time	Program (paper ID)	Speaker/Author	Title	
10:00 - 11:00			Registration	
11:00 - 11:10		_	Opening	
11:10 - 12:00	Plenary	Stephen Jordan	Quantum and quantum-inspired methods for artificial intelligence	
12:10 - 14:00		Lunch		
14:00 - 14:30	Invited	Leonard Wossnig	Generative training of quantum Boltzmann machines with hidden units	
14:30 - 15:00	Long (15)	Coyle et al.	The Born supremacy: Quantum advantage and training of an Ising Born machine	
15:00 - 15:20	Short (18)	Bondarenko	Supervised and unsupervised training of deep quantum neural networks with applications	
15:20 - 16:00	Coffee Break			
16:00 - 16:30	Long (24)	Gerace et al.	An artificial neural network implemented on noisy intermediate-scale quantum hardware	
16:30 - 16:50	Short (7)	Puri et al.	Deep quantum support vector machine	
16:50 - 17:10	Short (45)	Park et al.	Quantum-classical reinforcement algorithm for learning parity with noisy classical data and a noisy quantum machine	
17:10 - 17:30	Short (20)	Oberoi et al.	The power of one qubit in machine learning	
18:30	Chair Event			

Day 3:

Tuesday, Oct. 22			
Time	Program (paper ID)	Speaker/Author	Title
9:00 - 9:30	Invited	Matthias Degroote	Inside the latent space of a quantum variational autoencoder
9:30 - 9:50	Short (40)	Kristensen et al.	Artificial quantum spiking neurons
9:50 - 10:10	Short (44)	Mendoza et al.	Quantum autoencoder for symmetries in Hamiltonians
10:10 - 10:30	Short (23)	Sim et al.	Quantifying expressibility and entangling capability of parametrized quantum circuits for variational algorithms
10:30 - 11:00		-	Coffee Break
11:00 - 11:30	Invited	Alexander Zlokapa	Novel machine learning algorithms for quantum annealing with applications in high energy physics
11:30 - 11:50	Short (21)	Noori et al.	Adiabatic quantum random kitchen sink
11:50 - 12:10	Short (36)	Kewming et al.	A detuned parametrically pumped Kerr coherent Ising machine
12:10 - 14:00	Lunch		
14:00 - 14:30	Long (14)	Blank et al.	Quantum classifier with tailored quantum kernel
14:30 - 14:50	Short (4)	Sergioli	A new quantum-like approach to binary classification
14:50 - 15:10	Short (25)	Mengoni et al.	Graph classification with a quantum computer
15:10 - 15:30	Short (31)	LaRose et al.	Robust data encodings for quantum classifiers
15:30 - 17:10	Break & Poster Session		
17:10 - 17:40	Invited	Nana Liu	Adversarial quantum learning
17:40 - 18:00	Short (13)	Fanizza et al.	Beyond the swap test: optimal estimation of quantum state overlap
18:30	Banquet		

Day 4:

Wednesday, Oct. 23			
Time	Program (paper ID)	Speaker/Author	Title
9:00 - 9:50	Plenary	Jarrod McClean	Challenges and possible resolutions in variational algorithms on near-term quantum devices
10:00 - 10:30	Invited	Masoud Mohseni (Webinar)	
10:30 - 11:00			Coffee Break
11:00 - 11:30	Invited	Jacques Carolan	Large-scale Integrated Quantum Photonics: Quantum for ML and ML for Quantum

Wednesday, Oct. 23			
Time	Program (paper ID)	Speaker/Author	Title
11:30 - 11:50	Short (10)	Schuld et al.	How to use Gaussian Boson sampler to learn from graph- structured data
11:50 - 12:10	Short (12)	Puri et al.	Optical GAN: Generative adversarial networks for continuous variable quantum computation
12:10 - 14:00	Lunch		
14:00 -	Excursion		

Day 5:

Thursday, Oct. 24			
Time	Program (paper ID)	Speaker/Author	Title
9:00 - 9:30	Invited	Doyeol Ahn	
9:30 - 10:00	Invited	Rudy Raymond	
10:00 - 10:30	Long (47)	Petruccione et al.	Parallel unravelling for simulating open quantum systems
10:30 - 11:00			Coffee Break
11:00 - 11:30	Invited	Patrick Rebentrost	Quantum algorithms for online learning and hedging
11:30 - 11:50	Short (9)	Beny	Learning small rank representations of channels
11:50 - 12:10	Short (19)	Phan et al.	Quantum kernel clustering
12:10 - 14:00	Lunch		
14:00 - 14:30	Long (22)	Quek et al.	Adaptive quantum state tomography with neural networks
14:30 - 14:50	Short (28)	Xu	Experimental simultaneous learning of multiple non- classical correlation
14:50 - 15:10	Short (38)	Sinayskiy et al.	Prediction of the steady state properties of the dissipative driven systems using machine learning techniques
15:10 - 15:30	Short (48)	Ismail et al.	Exploiting supervised machine learning techniques to monitor quantum links
15:30 - 16:00	Coffee Break		
16:00 - 16:30	Invited	Abolfazl Bayat	Machine-learning-assisted negativity measurement in analog quantum simulators
16:30 - 16:50	Short (16)	Flynn et al.	Quantum Model Learning: characterizing quantum systems through machine learning
16:50 - 17:10	Short (17)	Santagati et al.	Learning magnetic fields with nanoscale quantum sensors and quantum Hamiltonian learning

QTML 2019 Program: Poster Session

Tuesday, Oct. 22			
Paper ID	Presenter/Author	Title	
2	Pavlovskiy et al.	Superposition as Data Augmentation using LSTM and HMM in small training sets	
5	Babukhin et al.	Nondestructive classification of quantum states and pattern recognition in noisy data from NISQ devices	
6	Loft et al.	A four qubit quantum gate and its application to quantum variational eigensolving	
8	Abbas et al.	Learning a quantum feature map	
11	Casonato et al.	EUMESTAT Survey for Quantum Machine Learning Use Cases	
27	Choi et al.	A Quantum Approach to Max-Weight Independent Set Problem	
29	Bienias	Control and characterization of Long-Range Interacting Spin Systems via machine learning	
30	Suzuki et al.	Ensemble learning method with kernel-based quantum classifier	
32	Bhatia et al.	Tensor Train Quantum Classifier	
33	Henderson et al.	Generation of industry-relevant synthetic data using simulated quantum annealing- trained Boltzmann machines	
34	Bhatia et al.	HQPSO: A Hybrid Quantum-behaved Particle Swarm Optimization Algorithm with Cauchy Distribution and Natural Selection Method for Engineering Design Problems	
37	Kechrimparis et al.	Channel Coding of a Quantum Measurement	
39	Musa et al.	Multiphoton spectroscopy of a three level atom strongly interacting with a one or two modes of a cavities	
41	Jerbi et al.	A framework for deep energy-based reinforcement learning with quantum speed-up	
42	Dendukuri et al.	Defining Quantum Neural Networks via Quantum Time Evolution	
43	Dendukuri et al.	Image Processing in Quantum Computers	
46	Lamarre	Learning Quantum Circuit with Classical Gradient Descent	
49	Anand et al.	Experimental Realization of Quantum Generative Adversarial Networks	
50	Tacchino et al.	A model for artificial neurons based on quantum hypergraph states	