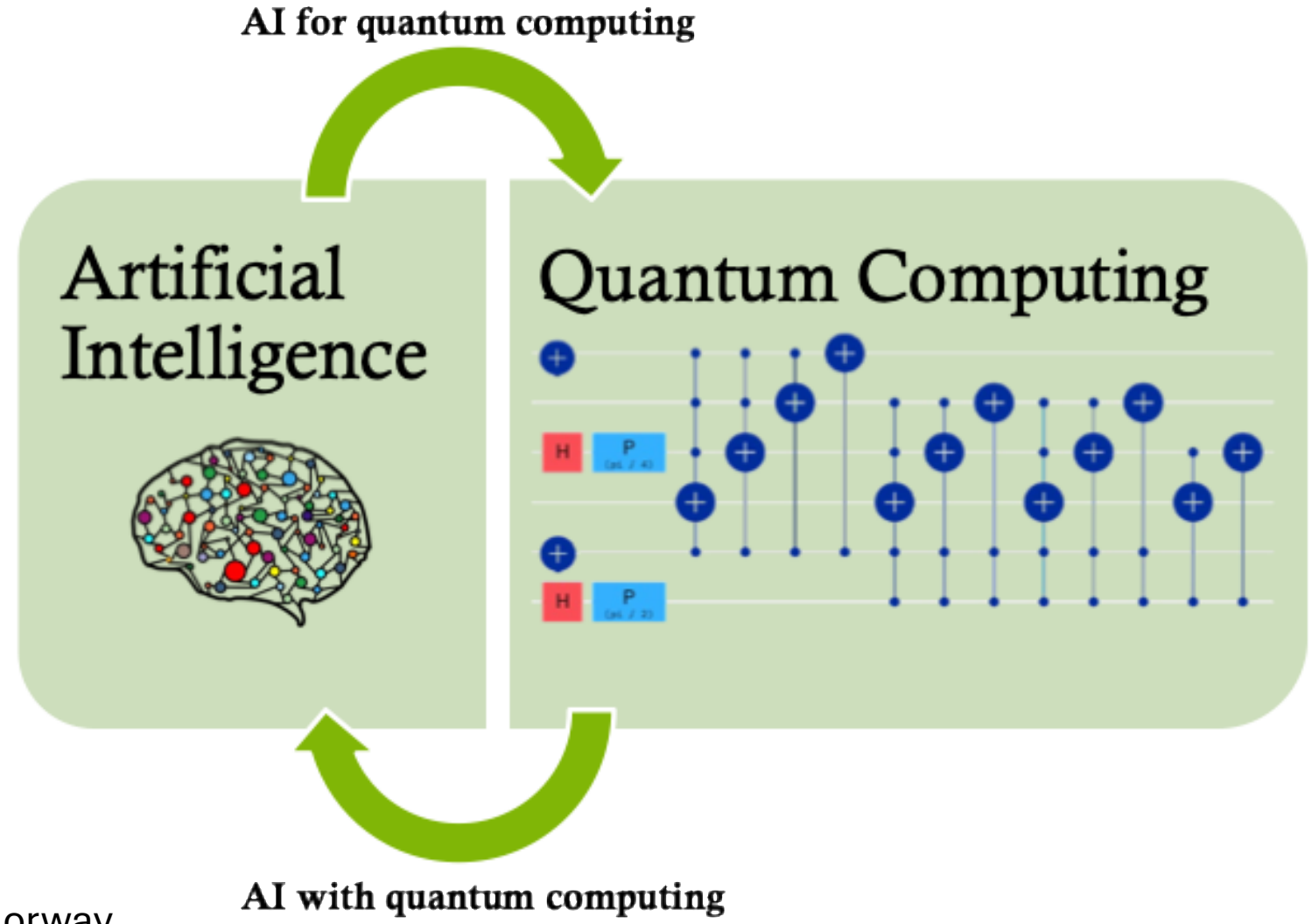

QC+AI 2025 @ AAAI
March 3, 2025
First International Workshop on Quantum Computing and Artificial Intelligence (QC+AI 2025)
at the 39th Annual AAAI Conference on Artificial Intelligence (AAAI 2025)
Philadelphia, Pennsylvania

Welcome

Thanks to:

- Authors
- Keynote speaker: Samuel Yen-Chi Chen
- Reviewers
- Attendees



Organizers team

- Shaukat Ali, Simula Research Laboratory, Norway
- Francisco Chicano, University of Malaga, Spain
- Alberto Moraglio, University of Exeter, UK

https://sites.google.com/view/qcai2025

Keynote

Quantum Machine Learning: Bridging Quantum Computing and Artificial Intelligence

Samuel Yen-Chi Chen, Wells Fargo

Paper presentations

- 14 full
- 2 short

Statistics

- 18 full paper submissions
- 1 abstract

Start	End	Session	Chair
9:00 am	10:30 am	Session I: Welcome, Keynote, and Paper Presentations	Francisco Chicano
10:30 am	11:00 am	Coffee Break	
11:00 am	12:30 pm	Session II: Quantum Machine Learning	Francisco Chicano
12:30 pm	2:00 pm	Lunch (on your own; no sponsored lunch provided)	
2:00 pm	3:30 pm	Session III: Quantum Neural Networks	Toshiaki Koike-Akino
3:30 pm	4:00 pm	Coffee Break	
4:00 pm	5:00 pm	Session IV: Optimization and Search, and closing	José A. Lázaro

Start	End	Title	Presenter
9:00 am	9:10 am	Welcome	Organizers
9:10 am	10:00 am	Keynote: *Quantum Machine Learning: Bridging Quantum Computing and Artificial Intelligence*	Samuel Yen-Chi Chen
10:00 am	10:07 am	[Short] *Quantum generative adversarial networks for gluon-initiated jets generation*	Konstantin T. Matchev
10:08 am	10:15 am	[Short] *Quantum circuit generation for combinatorial optimization problems*	Shunya Minami

Start	End	Title	Presenter
11:00 am	11:13 am	[Full] *Quantum Diffusion Models for Few-Shot Learning*	Toshiaki Koike-Akino
11:15 am	11:28 am	[Full] *Quantum Machine Learning Techniques for Network Intrusion Detection in Software-Defined Networks*	Joan Lo, José A. Lázaro
11:30 am	11:43 am	[Full] *The Theory of Learning from Data as a Function of Noise*	Bikram Khanal
11:45 am	11:58 am	[Full] *Ensembling Personalized Quantum Models with Local Differential Privacy via Meta-Learning*	Flavjo Xhelollari
12:00 pm	12:13 pm	[Full] *Enhancing Circuit Trainability with Selective Gate Activation Strategy*	Jeihee Cho

Start	End	Title	Presenter
2:00 pm	2:13 pm	[Full] *Quantum Generative Adversarial Networks: Generating and Detecting Quantum Product States*	Elizabeth Behrman
2:15 pm	2:28 pm	[Full] *A Scalable Quantum-enhanced Neural Network with Non-local Connections*	Vaneet Aggarwal
2:30 pm	2:43 pm	[Full] *Quantum Attention for Vision Transformers in High Energy Physics*	Konstantin T. Matchev
2:45 pm	2:58 pm	[Full] *Predicting Chaotic Systems with Quantum Echo-state Networks*	Erik Connerty
3:00 pm	3:13 pm	[Full] *Quantum Implicit Neural Compression*	Toshiaki Koike-Akino
3:15 pm	3:28 pm	[Full] *Quantum-Classical Graph Neural Networks and Jet Tagging*	Konstantin T. Matchev

Start	End	Title	Presenter
4:00 pm	4:13 pm	[Full] *Arc Interdiction Vehicle Routing Problem using Quantum Annealing*	Vaneet Aggarwal
4:15 pm	4:28 pm	[Full] *Nested Qubit Routing*	Tristan Cazenave
4:30 pm	4:43 pm	[Full] *A Bi-directional Quantum Search Algorithm*	Vaneet Aggarwal
4:45 pm	5:00 pm	Closing	Organizers