

SQAI-NCTS Workshop on Quantum Technologies and Machine Learning

Monday, 25 August 2025

Invited talk: Frank Pollmann (09:30 - 10:30)

time	[id] title	presenter
09:30	[145] Probing Quantum Phases of Matter on Quantum Processors	Prof. POLLMANN, Frank

Invited talk: Koji Hashimoto (11:00 - 12:00)

time	[id] title	presenter
11:00	[160] Quantum gravity and Machine learning	Prof. HASHIMOTO, Koji

Invited talk: Marcello Dalmonte (14:00 - 15:00)

time	[id] title	presenter
14:00	[152] Complexity beyond entanglement - magic of many-body systems	Prof. DALMONTE, Marcello

Invited talk: Pochung Chen (16:30 - 17:30)

time	[id] title	presenter
16:30	[162] Extraction of Conformal Data in Critical Two-Dimensional Classical Models using Tensor Networks Renormalization	Prof. CHEN, Po-Chung

Tuesday, 26 August 2025

Invited talk (09:30 - 10:30)

time	[id] title	presenter
09:30	[143] Quantum Computational Physics	Prof. TREBST, Simon

Invited talk (11:00 - 12:00)

time	[id] title	presenter
11:00	[153] Neural Network and Its Applications to Emergent Quantum Phenomena	Prof. IMADA, Masatoshi

Invited talk (14:00 - 15:00)

time	[id] title	presenter
14:00	[142] Prethermal time crystalline phases and noise-induced dynamics on digital quantum computers.	Prof. YUNOKI, Seiji

Wednesday, 27 August 2025

Invited talk (09:30 - 10:30)

time	[id] title	presenter
09:30	[146] Neural Canonical Transformations	Prof. WANG, Lei

Invited talk (11:00 - 12:00)

time	[id] title	presenter
11:00	[151] Generative quantum advantage for classical and quantum problems	Prof. HUANG, Robert (Hsin-Yuan)

Thursday, 28 August 2025

Invited talk (09:30 - 10:30)

time	[id] title	presenter
09:30	[111] Tensor network methods for solving nonlinear PDEs	DOLGOV, Sergey

Invited talk (11:00 - 12:00)

time	[id] title	presenter
11:00	[141] Quantum-HPC Hybrid Simulation for Quantum Chemistry.	Prof. SHIRAKAWA, Tomonori

Invited talk: TBA(Prof. Ian McCulloch) (14:00 - 15:00)

time	[id] title	presenter
14:00	[161] The structure of dynamical quantum critical points	Prof. MCCULLOCH, Ian

Friday, 29 August 2025

Invited talk: Synge Todo (09:30 - 10:30)

time	[id] title	presenter
09:30	[159] Advanced tensor network algorithms for quantum many-body problems and quantum computation	Prof. TODO, Synge

Invited talk: Naoki Yamamoto (11:00 - 12:00)

time	[id] title	presenter
11:00	[158] Quantum algorithmic primitive for quantum machine learning	Prof. YAMAMOTO, Naoki

Invited talk (14:00 - 15:00)

time	[id] title	presenter
14:00	[155] Probing Quantum Dynamics using NISQ Devices: From Ground States to Exotic Symmetries	Prof. KAO, Ying Jer

Invited talk (16:30 - 17:30)

time	[id] title	presenter
16:30	[136] Flow Matching at Scale: A Machine Learning Framework for Efficient Large-Size Sampling of a Many-Body System	Mr LEE, Qian-Rui