

SQAI-NCTS Workshop on Tensor Network and Quantum Embedding

Wednesday, 27 March 2024

Symposia talks - Koshiba Hall (10:00 - 11:00)

-Conveners: Matthias Gohlke

time	[id] title	presenter
10:00	[46] Optimizing the structure of tree tensor network for quantum generative modeling using mutual information-based approach	Prof. HARADA, Kenji
10:20	[53] Proposal of Channel Attention for Quantum Convolutional Neural Networks	Dr BUDIUTAMA, Gekko
10:40	[40] [CANCELED] Analysis of Data-encoding Induced Barren Plateau in Quantum Machine Learning	KAMISOYAMA, Kensuke

Symposia talks - Koshiba Hall (11:20 - 12:20)

-Conveners: Kenji Harada

time	[id] title	presenter
11:20	[51] Toward tensor renormalization group study of quantum chromodynamics	YOSPRAKOB, Atis
11:40	[38] Parton Distributions in the Schwinger Model with Matrix Product States	SCHNEIDER, Manuel
12:00	[48] Correlation functions of the Ising model on the stacked pentagon lattice	Prof. NISHINO, Tomotoshi

Symposia talks - Koshiba Hall (14:00 - 15:00)

-Conveners: Chisa Hotta

time	[id] title	presenter
14:00	[39] Matrix product state methods for excitations	OSBORNE, Jesse
14:20	[29] Stability of topological solitons in SSH Model under non-Hermitian deformations	MITTAL, Vikash
14:40	[44] Sample complexity in matrix product states at finite temperature	IWAKI, Atsushi

Symposia talks - Koshiba Hall (15:30 - 16:50)

-Conveners: Tomotoshi Nishino

time	[id] title	presenter
15:30	[54] The State Preparation of Multivariate Normal Distributions using Tree Tensor Network	MANABE, Hidetaka
15:50	[36] Designing exact MPS ground state solutions in 1D and 2D	HOTTA, Chisa
16:10	[34] Quantum phase transition between spin liquid and spin nematics in spin-1 Kitaev honeycomb model	MASHIKO, Tohru
16:30	[31] Thermal pure matrix product state in two dimensions: tracking thermal equilibrium from paramagnet down to the Kitaev spin liquid state	GOHLKE, Matthias

Thursday, 28 March 2024

Symposia talks - Koshiha Hall (10:00 - 11:00)

-Conveners: Rongyang Sun

time	[id] title	presenter
10:00	[85] Couteracting errors in early fault-tolerant quantum computing	YOSHIOKA, Nobuyuki
10:20	[56] Nonvariational imaginary-time evolution for first-quantized molecular systems	KOSUGI, Taichi
10:40	[45] Adaptive measurement strategy for quantum subspace methods	NAKAMURA, Yuma

Symposia talks - Koshiha Hall (11:20 - 12:20)

-Conveners: Masahiko G. Yamada

time	[id] title	presenter
11:20	[50] Defect, generalized symmetry and edge modes	FUKUSUMI, Yoshiki
11:40	[55] Entanglement measures in massless Lifshitz field theory with arbitrary anisotropy	Dr CHAKRABORTY, Adrita
12:00	[32] A statistical mechanics approach to holographic renormalization group	OKUNISHI, Kouichi

Symposia talks - Koshiha Hall (14:00 - 15:00)

-Conveners: Kouichi Okunishi

time	[id] title	presenter
14:00	[37] Tensor-network algorithms for nonequilibrium dynamics	Dr EJIMA, Satoshi
14:20	[47] DC electric field-driven discretized excitation spectra in Mott insulators: an infinite matrix-product state approach	SUGIMOTO, Koudai
14:40	[33] Thermal and Spatial Entanglement of Quantum Impurity Systems	KIM, Donghoon

Symposia talks - Koshiha Hall (15:30 - 16:30)

-Conveners: Koudai Sugimoto

time	[id] title	presenter
15:30	[49] Anderson impurity solver integrating tensor network methods with quantum computing	JAMET, Francois
15:50	[41] Developing SUNDMRG.jl	YAMADA, Masahiko G.
16:10	[30] Scalable Quantum Circuits Simulation with Real-Space Parallelizable Tensor Network Methods	Dr SUN, Rongyang