Program

10/19 (Thu.)
Session 1 (Chair: Hiroshi Shinaoka)
9:50-10:00: **Hiroshi Shinaoka** Opening

10:00-10:30: **Yusuke Nomura** "Quantum many-body solvers using artificial neural networks"

10:30-11:00: **Aaram J. Kim** "Symmetry-Restoring Homotopic Action for 2d Hubbard Model"

11:00-11:30: Coffee break

Session 2 (Chair: Youhei Yamaji)
11:30-12:00: **Philipp Werner** "Ab-initio GW+DMFT"

12:00-12:30: **Tomoya Naito** "A simple method of multi-body wave function using deep neural network"

12:30-12:50: **Ashish Joshi** "Neural network quantum states and quantum skyrmions"

12:50-14:50: Lunch & discussion

Session 3 (Chair: Ryosuke Akashi)
14:50-15:20: **Anna Kauch** "Two-particle response using parquet equations"

15:20-15:50: **Seung-Sup B. Lee** "Multipoint correlation functions: spectral representation, numerical evaluation, and improved estimators"

15:50-16:10: **Niklas Witt** "Coherence and pairing fluctuations in strongly correlated superconductors" (online)

16:10-18:30: Poster & discussion

10/20 (Fri.)

Session 4 (Chair: Takahiro Misawa)

9:30-10:00: **Nobuyuki Yoshioka** "Quantum advantage in condensed matter physics"

10:00-10:30: **Taichi Kosugi** "Advantage of imaginary-time evolution for first-quantized electronic systems"

10:30-10:50: **Koji Inui** "Inverse Hamiltonian design of highly-entangled quantum systems using automatic differentiation"

10:50-11:20: Coffee break

Session 5 (Chair: Motoharu Kitatani)

11:20-11:50: **Junya Otsuki** "Multipolar susceptibilities within dynamical mean-field theory and its applications"

11:50-12:20: **Shintaro Hoshino** "Spin-orbital dynamics of localized electrons"

12:20-12:40: **Tran Duong Anh-Tai** "Quantum Chaos in interacting Bose-Bose mixtures"

12:40-14:40: Lunch & discussion

Session 6 (Chair: Satoshi Morita)

14:40-15:10: **Gang Li** "Correlation and competing orders in low-dimensional systems"

15:10-15:40: **Yoshi Kamiya** "Ground state analysis of a two-dimensional trimerized quantum magnet: semiclassical and preliminary tensor-network studies"

15:40-16:00: **Yuta Murakami** "Quasi-equilibrium description of photo-doped Mott insulators"

16:00 -16:30: Coffee break

Session 7 (Chair: Atsushi Hariki)

16:30-17:00: **Karsten Held** "Dynamical vertex calculations for nickelate superconductors"

17:00-17:20: **Ryosuke Akashi** "Bragg intersection: A possible source of correlations in nearly uniform electron systems"

17:20-17:25: **Ryosuke Akashi**: Closing

Poster presentations

P1. **Hiroshi Shinaoka** "Multiscale space-time ansatz for correlation functions of quantum systems based on quantics tensor trains"

P2. **Mizuki Furo** "DFT+U and DFT+DMFT study on structural and metal-insulator transition in charge-disproportionated perovskite oxide PbCrO3"

P3. **Takaki Okauchi** "LDA+DMFT approach to core-level x-ray photoemission spectroscopy in correlated 4d and 5d transition-metal compounds"

P4. **Ryota Mizuno** "An efficient impurity solver in dynamical mean field theory: Iterative perturbation theory combined with the parquet equations"

P5. **FONTAINE Mateo Olivier Jean-Marie Michel** "Vector chiral order and symmetry-protected topological phases in a spin-1/2 XXZ ladder with a four-spin interaction"

P6. **Kosuke Nogaki** "The causality preserving analytic continuation based on Nevanlinna theory"

P7. **Fiqhri Heda Murdaka** "Estimation of Muon Sites in the Half-Heusler Compound GdPtBi through Density Functional Theory Analysis"

P8. **Satoshi Morita** "Multi-impurity method for bond-weighted tensor renormalization group"

P9. **Ryuhei Kawase** "Error-mitigated quantum computation of string order parameters across a topological phase transition"

P10. **Kohtaroh Sakaue** "Hybrid Algorithm for Solving Ground States Using Tensor network and Quantum Computer"

P11. **Tomoki Mori** "Higher-order tensor renormalization group approach to quantum spin systems with low symmetry"

P12. **Atsushi Hariki** "DFT+DMFT study on x-ray magnetic circular dichroism in altermagnetic MnTe"

P13. **Rihito Sakurai** "Solving differential equations for chemical kinetics using quantics tensor train"

P14. **Fumiya Kakizawa** "Predicting the self-energy of quantum impurity models using deep learning"

P15. **Ryuta Iwazaki** "Quantitative analyses of kappa-type organic Mott isulators"

P16. **Supparat Charoenphon** "First-principles calculations of structural, electronic, and magnetic properties of pyrochlore iridate Nd2Ir2O7"

P17. **Hirone Ishida** "Numerical Perturbative Calculations of Quantum Impurity Problems using Quantics Tensor Cross Interpolation"

P18. **Motoharu Kitatani** "Possible high-Tc superconductivity in palladium oxides"