Session Program

July 26, 2026 to August 1, 2026

The 43rd International Symposium on Lattice Field Theory (Lattice 2026)

Quantum computing and quantum information

University of Maryland, College Park
Adele H. Stamp Student Union 3972 Campus Dr College Park, MD 20742, United States

Mon, July 27

2:00 PM

Quantum computing and quantum information

Session | **Location:** Adele H. Stamp Student Union, Margaret Brent A, 3972 Campus Dr, College Park, MD 20742 | **Convener:** Jesse Stryker

2:00 – 2:20 PM

Some Aspects of Quantum Simulations for Bosons and D-brane Scattering

Speaker
Emanuele Mendicelli

2:20 – 2:40 PM

Observation of quantum-field-theory dynamics on a spin-phonon quantum computer

Speaker
Vinay Vikramaditya

2:40 – 3:00 PM

Simulating lattice gauge theories on hybrid qubit-qumode quantum platforms

Speaker
Tommaso Rainaldi

3:00 – 3:20 PM

Measurement-based simulation of lattice gauge theory dynamics with adaptive quantum circuits on a trapped-ion processor

Speaker
Takuya Okuda

3:20 – 3:40 PM

Real Time GEVP on Quantum Hardware

Speaker
Valery Simonyan

3:40 PM

4:10 PM

Quantum computing and quantum information

Session | **Location:** Adele H. Stamp Student Union, Margaret Brent A, 3972 Campus Dr, College Park, MD 20742 | **Convener:** Tommaso Rainaldi

4:10 – 4:30 PM

Simulating Lattice Gauge Theories with Virtual Rishons

Speaker
David Rogerson

4:30 – 4:50 PM

Quantum Simulations of Lattice QCD in the Representation Basis

Speaker
Luis Hidalgo

4:50 – 5:10 PM

Quantum Simulation of Gluon Spin-Orbit Correlations in Single- and Multi-Gluon Systems

Speaker
Juan Antonio Gil Fraile

5:30 PM

Tue, July 28

2:00 PM

Quantum computing and quantum information

Session | **Location:** Adele H. Stamp Student Union, Margaret Brent A, 3972 Campus Dr, College Park, MD 20742 | **Convener:** Raghav G. Jha

2:00 – 2:20 PM **Lattice Field theories with Tensor Networks**

Speaker
Adwait Naravane

2:20 – 2:40 PM
Gauge-invariant PEPS for pure Z_2 gauge theory and its entanglement

Speaker
Etsuko Itou

2:40 – 3:00 PM **Wavelet Matrix Product States for Quantum Fields**

Speaker
Molly Kaplan

3:00 – 3:20 PM
Analyzing the entanglement property of Clifford-circuits augmented MPS

Speaker
Akira Matsumoto

3:20 – 3:40 PM
Fermionic relativistic continuous matrix product states: musings on the Schwinger model

Speaker
Sophie Mutzel

3:40 PM

4:10 PM

Quantum computing and quantum information

Session | **Location:** Adele H. Stamp Student Union, Margaret Brent A, 3972 Campus Dr, College Park, MD 20742 | **Convener:** Emanuele Mendicelli

4:10 – 4:30 PM **QFT Thermodynamics from Entanglement Entropy**

Speaker
Aatu Rajala

4:30 – 4:50 PM
Probing magic and entanglement in 1+1-dimensional SU(2) lattice gauge theory

Speaker
Dr Raghav G. Jha

4:50 – 5:10 PM
Encoding Entropy and Spatial Entanglement in Hamiltonian Lattice Gauge Theory

Speaker
Navya Gupta

5:10 – 5:30 PM **SOCS: Spins on Curved Surfaces**

5:30 PM

Speaker
Abhishek Samlodia

Wed, July 29

9:00 AM

Quantum computing and quantum information

Session | **Location:** Adele H. Stamp Student Union, Margaret Brent A, 3972 Campus Dr, College Park, MD 20742 | **Convener:** Sophie Mutzel

9:00 – 9:20 AM

Quantum State Initialization: Approximating Hamiltonian Eigenstates by One- and Two-Qubit Gates

Speaker
Yao Ting Su

9:20 – 9:40 AM

Counterdiabatic quantum optimization for gauge theories

Speaker
Ethan Laval

9:40 – 10:00 AM

CaRBM: A Fixed-Depth Quantum Algorithm with Partial Correction for Thermal State Preparation

Speaker
Omar Alsheikh

10:00 – 10:20 AM

Dissipative State Preparation for Lattice Gauge Theories

Speaker
Hersh Kumar

10:20 – 10:40 AM

Quantum data learning of phase transitions

Speaker
Tanmoy Bhattacharya

10:40 AM

11:10 AM

Quantum computing and quantum information

Session | **Location:** Adele H. Stamp Student Union, Margaret Brent A, 3972 Campus Dr, College Park, MD 20742 | **Convener:** Tanmoy Bhattacharya

11:10 – 11:30 AM

Preparation and detection of quasiparticles for quantum simulations of scattering

Speaker
Mattia Morgavi

11:30 – 11:50 AM

Quantum Complexity in Simulations of Scattering in the XZ Heisenberg Model

Speaker
Michael Hite

11:50 AM – 12:10 PM

Finite-Volume Errors on Real-Time Estimators for Scattering Observables

Speaker
Ivan Mauricio Burbano Aldana

12:10 – 12:30 PM

Toward quantum computation of hadronic tensors

12:30 PM

Speaker
Chung-Chun Hsieh

Thu, July 30

2:00 PM

Quantum computing and quantum information

Session | **Location:** Adele H. Stamp Student Union, Margaret Brent A, 3972 Campus Dr, College Park, MD 20742 | **Convener:** Molly Kaplan

2:00 – 2:20 PM

Fuzzy regularization of Hamiltonian CP^N models

Speaker
Andrea Bulgarelli

2:20 – 2:40 PM

Towards the Mass Shift and Discrete Chiral Symmetry in the Lattice QED Hamiltonian

Speaker
Shoto Aoki

2:40 – 3:00 PM

Tensor-Network Study of Confining Flux Tubes and Effective Strings in (2+1)D Compact U(1) Gauge Theory

Speaker
Alessio Negro

3:00 – 3:20 PM

Obtaining continuum physics from dynamical simulations of Hamiltonian lattice gauge theories

Speaker
Christopher Kane

3:20 – 3:40 PM

Confinement and String Breaking in the Compact Abelian Higgs Model

Speaker
Blake Senseman

3:40 PM

4:10 PM

Quantum computing and quantum information

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4:10 – 4:30 PM

Simulating (3+1)D SU(2) Hamiltonian lattice gauge theory with a topological θ-term

Speaker
Lena Funcke

4:30 – 4:50 PM

A Path to Quantum Simulations of (3+1)D U(1) Gauge Theory with a Topological θ-Term

Speaker
Emil Otis Rosanowski

4:50 – 5:10 PM

Quantum Simulations of Topological Phases: (2+1)D Lattice QED with Wilson Fermions

Speaker
Sriram Bharadwaj

5:10 – 5:30 PM **Finite Size Scaling of Probability Distributions**

Speaker
Zane Ozzello

5:30 PM

Fri, July 31

2:00 PM

Quantum computing and quantum information

Session | **Location:** Adele H. Stamp Student Union, Margaret Brent A, 3972 Campus Dr, College Park, MD 20742 | **Convener:** Natalie Klco

2:00 – 2:20 PM

Trapped-ion quantum simulation of (1+1)D SU(2) lattice gauge theory via loop-string-hadron formulation

Speaker
Jesse Stryker

2:20 – 2:40 PM

Arbitrary-Distance Quantum Error Correction with Gauss's Law for Lattice Gauge Theories

Speaker
Neel Modi

2:40 – 3:00 PM

Tightening energy-based boson truncation bound using Monte Carlo-assisted methods

Speaker
Jinghong Yang

3:00 – 3:20 PM

Reducing circuit depth for $SU(3)$ lattice gauge theory with permutation-symmetric $SU(N)$ Clebsch-Gordan coefficients

Speaker
Jason Elhaderi

3:20 – 3:40 PM

Large-N Phase Structure of q-Deformed Yang--Mills Theory in 2+1 Dimensions

Speaker
Hiromasa Watanabe

3:40 PM