Session Program

4-8 Sept 2023

795. Wilhelm and Else Heraeus Seminar on Simulations of Quantum Field Theories

Talks

Monday 4 September

Talks Session	Location: Oberwölz, Austria
09:40-	10:30 Simulating lattice QCD, challenges and novel ideas
Speak Rajan G	er iupta
Talks Session	Location: Oberwölz, Austria
11:00- Quant Simula	11:50 um Link Models: A Resource-Efficient Framework for the Quantum ation and Computation of Gauge Theories
Speak Uwe-Je	er ns Wiese
Talks Session	Location: Oberwölz, Austria
15:40-	16:30
Testin	g Quantum Computer Controllability via Dimensional Expressivity
Tobias I	artung
Talks Session	Location: Oberwölz, Austria
17:00-	17:50 Wormhole Teleportation
Speak	er
loseph	David Lykken

Tuesday 5 September

08:45	Talks Session Location: Oberwölz, Austria
	08:45-09:35 Tensor Networks of High-Dimensional Nonzero Density Speaker Simone Montangero
10:25	09:35-10:25 Complex Langevin simulations for QFTs Speaker Dénes Sexty
11:00	Talks Session Location: Oberwölz, Austria
	11:00-11:50 Opportunities with classical-statistical simulations Speaker Kirill Boguslavski
	11:50-12:20Towards computing real-time observables from first principlesSpeaker Paul Hotzy
13:00	12:20-12:50 Aspects of Quantum Algorithms for Lattice Gauge Theories Speaker Michael Fromm
14:45	Talks: Talks Session Location: Oberwölz, Austria
	14:45-15:35 Simulating Scattering Amplitudes Speaker Simon Platzer
16:25	15:35-16:25 Quantum Computing to Simulate Parton Showers and Reconstruct Particle Trajectories Speaker SARAH MALIK
17:00	Talks: Talks Session Location: Oberwölz, Austria
	17:00-17:50 Two-Dimensional QCD on the Lattice Speaker Rajamani Narayanan

	17:50-18:30	Simulations of QCD like theories at colliders
Speaker Suchita Kulkarni		
		ni

Wednesday 6 September

08:45	Talks Session Location: Oberwölz, Austria
	08:45-09:35 Cold Atoms Quantum Simulation of the Sachdev-Ye- Kitaev Model
	Speaker Philipp Hauke
	09:35-10:25 A Conformally Symmetric View from a Fuzzy Sphere
10:25	Speaker Emilie Huffman
11:00	Talks Session Location: Oberwölz, Austria
	11:00-11:40 Exotic hadrons with functional methods
	Speaker Gernot Eichmann
	11:40-12:20 The Width of the T_cc Dimeson
12:20	Speaker Mitja Rosina

Thursday 7 September

08:45	Talks Session Location: Oberwölz, Austria
	08:45-09:35 Matching Monte Carlo and Quantum computing Speaker Karl Jansen
10:30	09:35-10:25 Quantum Machine Learning for HEP Speaker Michael Spannowsky
11:00	Talks Session Location: Oberwölz, Austria
	11:00-11:50 SNAQ: Spin Network Algorithms for Q-deformed Kogut-Susskind gauge theories Speaker Torsten Zache
13:00	11:50-12:40 Quantum Information Science as a tool for exploring an extended Higgs Sector Speaker Marcela Silvia Carena Lopez
14:45	Talks: H. Fritzsch Memorial Session Session Location: Oberwölz, Austria
	14:45-15:35 Harald Fritzsch: The physicist's life and scientific achievements Speaker Prof. Willibald Plessas
16:25	15:35-16:25 Effective Field-Theory Methods for Higgs Properties Speaker Gerhard Buchalla
17:00	Talks: H. Fritzsch Memorial Session Session Location: Oberwölz, Austria
	17:00-17:50 Harald Fritzsch's Pioneering Contributions to Neutrino Physics Speaker Zhi-zhong Xing
18:40	17:50-18:40 Compositeness vs. Grand Unification Speaker Wilfried Buchmuller

Friday 8 September

08:45	Talks Session Location: Oberwölz, Austria
	08:45-09:35 Solving the sign problem for a toy model of two-dimensional baryons Speaker Robert Pisarski
10:25	09:35-10:25 Birdtracks for SU(N) Speaker Malin Sjödahl
11:00	Talks Session Location: Oberwölz, Austria
	11:00-11:50 Exploring Large-Scale Entanglement in Quantum Simulation Speaker Christian Kokail
13:00	11:50-12:40 Event Generation on Quantum Computers Speaker Simon Williams
14:45	Talks Session Location: Oberwölz, Austria
	14:45-15:35 Hardware-Efficient Quantum Simulation of Lattice Gauge Theories with Neutral Atom Arrays
	Speaker Daniel González Cuadra
16:30	15:35-16:25 Hamiltonian Learning of Quantum and Classical Field Theories Speaker Robert Ott
17:00	Talks Session Location: Oberwölz, Austria
	17:00-17:50 Cluster Algorithms for Gauge Theories: Satisfying Gauss' Law with Cluster Updates
	Speaker Joao C. Pinto Barros
	17:50-18:40 Time Scales in Particle Production from Fields