

Session Program

Aug 8 - 13, 2022



The 39th International Symposium on Lattice Field Theory (Lattice 2022)

Theoretical Developments

Hörsaalzentrum Poppelsdorf, Alle Räume
Endenicher Allee 19 C, 52115 Bonn, Germany

Mon, August 8

2:00 PM

Theoretical Developments: Theoretical Developments I

Session | **Location:** CP1-HSZ, CP1-HSZ/1.001 (CP1-HSZ) - HS5 | **Convener:** Simon Catterall

2:00 - 2:20 PM

General kinematics three-gluon vertex in Landau-gauge from quenched-lattice QCD

Speaker

Fernando Pinto Gómez

2:20 - 2:40 PM

Extracting Non-Abelian Coulomb Potential from SU(3) N=4 Lattice SYM

Speaker

Goksu Toga

2:40 - 3:00 PM

Translating topological benefits in very cold master-field simulations

Speaker

Anthony Francis

3:00 - 3:20 PM

Study of SU(2) gauge theories with multiple Higgs fields in different representations

Speaker

Mugdha Sarkar

3:20 - 3:40 PM

Probing center vortices and deconfinement in SU(2) lattice gauge theory with persistent homology

Speaker

Nicholas Sale

3:40 - 4:00 PM

Loop-string-hadron formulation of an SU(3) gauge theory with dynamical quarks

Speaker

Saurabh Vasant Kadam

4:00 PM

4:30 PM

Theoretical Developments: Theoretical Developments II

Session | **Location:** CP1-HSZ, CP1-HSZ/1.001 (CP1-HSZ) - HS5 | **Convener:** Alexander Rothkopf

4:30 - 4:50 PM

Lattice Non-Linear Sigma Model on the Supersphere

Speaker

Ilaria Costa

4:50 - 5:10 PM

A new type of lattice gauge theory through self-adjoint extensions

Speaker

Alessandro Mariani

5:10 - 5:30 PM

Numerical studies on the finite-temperature CP restoration in 4D SU(N) gauge theory at $\theta = \pi$ **Speaker**

Dr Akira Matsumoto

5:30 - 5:50 PM

Computing the Central Charge of the 3D Ising CFT Using Quantum Finite Elements**Speaker**

Anna-Maria Elisabeth Glück

5:50 - 6:10 PM

The critical Ising model on an affine plane**Speaker**

Evan Owen

6:10 - 6:30 PM

Massless Schwinger model with a 4-fermi-interaction at topological angle $\theta = \pi$ **Speaker**

Dominic Hirtler

6:30 PM

Wed, August 10

2:00 PM

Theoretical Developments: Theoretical Developments III

Session | Location: CP1-HSZ, CP1-HSZ/1.001 (CP1-HSZ) - HS5 | Convener: Leonardo Giusti

2:00 - 2:20 PM 't Hooft anomalies for staggered fermions

Speaker

Simon Catterall

2:20 - 2:40 PM

Reformulation of anomaly inflow on the lattice and construction of lattice chiral gauge theories

Speaker

Juan William Pedersen

2:40 - 3:00 PM Casimir effect for fermions on the lattice

Speaker

Katsumasa Nakayama

3:00 - 3:20 PM Adjoint fermions at large- N_c on the lattice

Speaker

Pietro Butti

3:20 - 3:40 PM

Density profiles and correlations of harmonically trapped ultracold fermions

Speaker

Marc Bauer

3:40 - 4:00 PM

Four-dimensional domain decomposition for the factorization of the fermion determinant

Speaker

Mr Matteo Saccardi

4:00 PM

4:30 PM

Theoretical Developments: Theoretical Developments IV

Session | Location: CP1-HSZ, CP1-HSZ/1.001 (CP1-HSZ) - HS5 | Convener: Roberto Frezzotti

4:30 - 4:50 PM

Probing the singularities of the Landau gauge gluon and ghost propagators with rational approximants

Speaker

Cristiane Yumi London

4:50 - 5:10 PM The de Sitter Instanton from Euclidean Dynamical Triangulations

Speaker

Marc Schiffer

5:10 - 5:30 PM

Clifford Fourier Transforms in (2+1)D Lattice Simulations of Soliton Propagations

Speaker

Dr Sadataka Furui

5:30 - 5:50 PM

Testing universality of gauge theories

Speakers

Alberto Ramos, Alberto Ramos Martinez

6:30 PM

Thu, August 11

9:00 AM

Theoretical Developments: Theoretical Developments V

Session | Location: CP1-HSZ, CP1-HSZ/1.001 (CP1-HSZ) - HS5 | Convener: Alberto Ramos Martinez

9:00 - 9:20 AM

Simulation of self-dual U(1) lattice gauge theory with electric and magnetic matter

Speaker

Maria Anosova

9:20 - 9:40 AM

Thermal QCD for non-perturbative renormalization of composite operators

Speaker

Matteo Bresciani

9:40 - 10:00 AM

Numerical Stochastic Perturbation Theory around instantons

Speaker

Paolo Baglioni

10:00 - 10:20 AM

Towards symmetric discretization schemes via weak boundary conditions

Speaker

Alexander Rothkopf

10:20 - 10:40 AM

What is the best way to quantize non-linear electrodynamics?

Speaker

Marina Krstic Marinkovic

10:40 - 11:00 AM

The gradient flow formulation of the electroweak Hamiltonian

Speaker

Fabian Lange

11:00 AM

11:30 AM

Theoretical Developments: Theoretical Developments VI

Session | Location: CP1-HSZ, CP1-HSZ/1.001 (CP1-HSZ) - HS5 | Convener: Marina Krstic Marinkovic

11:30 - 11:50 AM

The emergence of expanding space-time in a novel large- N limit of the Lorentzian type IIB matrix model

Speaker

Dr Mitsuaki Hirasawa

11:50 AM - 12:10 PM

The influence of gauge field smearing on discretisation effects

Speaker

Andreas Risch

12:10 - 12:30 PM

Real time evolution of scalar fields in semiclassical gravity

12:50 PM

Speaker
Lukas Varnhorst