Session Program

Aug 18 – 24, 2024

XVIth Quark Confinement and the Hadron Spectrum

Vacuum Structure and Confinement

Cairns, Queensland, Australia
Cairns Convention Centre

Mon, August 19

2:00 PM

Vacuum Structure and Confinement: A1a (Parallel A)

Session | **Location:** M2 | **Convener:** Derek Leinweber

2:00 – 2:30 PM **The standard model and the lattice**

Speaker
Michael Creutz

2:30 – 3:00 PM **Fractional instantons, anomalies, and the gaugino condensate**

Speaker
Erich Poppitz

3:00 – 3:30 PM **Weyl Fermions on a Finite Lattice**

Speaker
Srimoyee Sen

3:30 PM

4:00 PM

Vacuum Structure and Confinement: A1b (Parallel A)

Session | **Location:** M2 | **Convener:** Ivan Horvath

4:00 – 4:20 PM

Boundary states and non-Abelian Casimir effect in lattice Yang-Mills theory

Speaker
Alexey Tanashkin

4:20 – 4:40 PM **Semiclassics for QCD vacuum structure via T^2 compactification**

Speaker
Yui Hayashi

4:40 – 5:00 PM **Confinement in Schwinger model at finite temperature and θ**

Speaker
Dr Hiroki Ohata

5:00 – 5:30 PM

Topological structures with twisted boundary conditions and adjoint mode filtering

Speaker
Georg Bergner

5:30 – 6:00 PM

Understanding the temperature dependence of fractional topological charge objects

Speaker
Jackson Mickley

6:00 PM

Tue, August 20

2:00 PM

Vacuum Structure and Confinement: A2a (Parallel A)

Session | **Location:** M2 | **Convener:** Tamas G. Kovacs

2:00 – 2:30 PM **Centre vortex geometry at finite temperature**

Speaker
Derek Leinweber

2:30 – 3:00 PM

Reassessing the flux tube formation via center-vortex ensembles in the lattice

Speaker
Luis E. Oxman

3:00 – 3:30 PM

Centre vortices and gluon propagators in thermal lattice QCD with dynamical fermions

Speaker
Christopher Roland Allton

3:30 PM

4:00 PM

Vacuum Structure and Confinement: A2b (Parallel A)

Session | **Location:** M2 | **Convener:** Aleksey Cherman

4:00 – 4:20 PM **Color-magnetic correlation in SU(3) lattice QCD**

Speaker
Hideo Suganuma

4:20 – 4:40 PM

Possible scenario of dynamical chiral symmetry breaking in the instanton liquid

Speaker
Yamato Suda

4:40 – 5:00 PM

Further numerical evidences for the gauge-independent separation between Confinement and Higgs phases in lattice SU(2) gauge theory with a scalar field in the fundamental representation

Speaker
Akihiro Shibata

5:00 – 5:30 PM

Does the Z boson have a lighter cousin, and other aspects of gauge Higgs theories

Speaker
Prof. Jeff Greensite

5:30 PM

Thu, August 22

2:00 PM

Vacuum Structure and Confinement: A4b (Parallel A)

Session | **Location:** M2 | **Convener:** Luis E. Oxman

2:00 – 2:30 PM **Symmetries of large N QCD**

Speaker
Aleksey Cherman

2:30 – 3:00 PM **The QCD confining string and the world-sheet axion**

Speaker
Andreas Athenodorou

3:00 – 3:30 PM
Phase diagram of QCD matter with magnetic field: domain-wall Skyrmion chain in chiral soliton lattice

Speaker
Kentaro Nishimura

3:30 PM

4:00 PM

Vacuum Structure and Confinement: A4c (Parallel A)

Session | **Location:** M2 | **Convener:** Srimoyee Sen

4:00 – 4:30 PM **Towards low-dimensionalization of four dimensional QCD**

Speaker
Kei Tohme

4:30 – 4:50 PM **Studying Effective String Theory using deep generative models.**

Speaker
Elia Cellini

4:50 – 5:10 PM **An Almost Complete Yang-Mills Calculation**

Speaker
Seth Grable

5:10 – 5:30 PM
Restoration of residual gauge symmetries due to topological defects and color confinement in the Lorenz, Maximal Abelian and axial-like gauges

Speaker
Naoki Fukushima

5:30 PM