

**Session Program**

**Jul 26 - 30, 2021**



**The 38th International Symposium on  
Lattice Field Theory**

***Vacuum Structure, Confinement, and Chiral  
Symmetry***

# Mon, July 26

1:00 PM

## Vacuum Structure, Confinement, and Chiral Symmetry

Session | Convener: Jeff Greensite

1:00 - 1:15 PM

### Properties of the $\eta$ and $\eta'$ mesons Part I: Masses and decay constants

**Speaker**

Jakob Simeth

1:15 - 1:30 PM

### Properties of the $\eta$ and $\eta'$ mesons Part II: Gluonic matrix elements

**Speaker**

Prof. Gunnar Bali

1:30 - 1:45 PM

### The flux tube profile in full QCD

**Speaker**

Leonardo Cosmai

1:45 - 2:00 PM

### Manifestations of Confinement/Deconfinement in 4D compact QED on the lattice.

**Speaker**

Lee Loveridge

2:00 - 2:15 PM

### The torelon spectrum and the world-sheet axion

**Speaker**

Andreas Athenodorou

2:15 - 2:30 PM

### Phases at finite winding number of an Abelian lattice gauge theory

**Speaker**

Paolo Stornati

2:30 - 2:45 PM

### Confinement from Interacting SU(3) Instanton-dyons

**Speaker**

Dallas DeMartini

2:45 - 3:00 PM

### On the behaviour of the interquark potential in the vicinity of the deconfinement transition.

**Speaker**

Michele Caselle

3:00 PM

10:00 PM

## Vacuum Structure, Confinement, and Chiral Symmetry

Session | Convener: Waseem Kamleh

10:00 - 10:15 PM

### Monopoles of the Dirac type and color confinement in QCD

**Speaker**

Tsuneo Suzuki

10:15 - 10:30 PM

**Investigating quark confinement from the viewpoint of lattice gauge scalar models**

**Speaker**

Ryu Ikeda

10:30 - 10:45 PM

**Peeking into the theta vacuum of 4d Yang-Mills theory**

**Speaker**

Norikazu Yamada

11:00 PM

## Tue, July 27

9:00 PM

### Vacuum Structure, Confinement, and Chiral Symmetry

Session | Convener: Zhaofeng Liu

9:00 – 9:15 PM

#### The dual Meissner effect due to Abelian Dirac-type monopoles in QCD

**Speaker**

Atsuki Hiraguchi

9:15 – 9:30 PM

#### Magnetic monopole dominance for the Wilson loops in higher representations

**Speaker**

Akihiro Shibata

9:30 – 9:45 PM

#### Emergent phenomena from centre vortices in lattice QCD

**Speaker**

Dr Waseem Kamleh

9:45 – 10:00 PM

#### Impact of Dynamical Fermions on Centre Vortex Structure

**Speaker**

Derek Leinweber

10:00 – 10:15 PM

#### Centre Vortex Structure in 2+1 Flavour QCD

**Speaker**

James Biddle

10:15 – 10:30 PM

#### Impact of center vortex removal on the Landau gauge quark propagator in dynamical QCD

**Speaker**

Adam Virgili

10:30 – 10:45 PM

#### Construction of a non-relativistic quark-diquark model from LQCD

**Speaker**

Kai Watanabe

10:45 – 11:00 PM

#### Deep learning study on the Dirac eigenvalue spectrum of staggered quarks

**Speaker**

Sunky Lee

11:00 PM

## Thu, July 29

5:00 AM

### Vacuum Structure, Confinement, and Chiral Symmetry

**Session** | **Conveners:** Andreas Athenodorou, Jon-Ivar Skullerud

5:00 – 5:15 AM

#### Role of inhomogeneities in the flattening of the quantum effective potential

**Speaker**

Gergely Marko

5:15 – 5:30 AM

#### Looking at the analytic structure of Landau gauge propagators

**Speaker**

Orlando Oliveira

5:30 – 5:45 AM

#### Another look at the three-gluon vertex in the minimal Landau gauge

**Speaker**

Paulo Silva

5:45 – 6:00 AM

#### Quark-gluon vertex with 2 flavours of $O(a)$ improved Wilson fermions

**Speaker**

Jon-Ivar Skullerud

6:00 – 6:15 AM

#### Complex poles of Landau-gauge QCD propagators and general properties

**Speaker**

Yui Hayashi

6:15 – 6:30 AM

#### The static potential in 2+1+1-flavor QCD

**Speaker**

Mr Sebastian Steinbeißer

6:30 – 6:45 AM

#### Glueballs, localization and thermal monopoles in trace-deformed Yang-Mills theory.

**Speaker**

Marco Cardinali

6:45 – 7:00 AM

#### The behavior of Topological objects above the chiral crossover transition in QCD

**Speaker**

Rasmus Larsen

7:00 – 7:15 AM

#### Finite temperature and delta-regime in the Schwinger model

**Speaker**

Ivan Hip

7:15 – 7:30 AM

#### Density of states techniques for lattice field theory with topological terms

**Speaker**

Christof Gattringer

7:30 - 7:45 AM

**Reconstructing QCD Spectral Functions with Gaussian Processes**

**Speaker**

Julian Urban

7:45 - 8:00 AM

**Instanton effects on chiral symmetry breaking and hadron spectroscopy**

**Speaker**

Dr Masayasu Hasegawa

8:00 AM