

**Session Program**

**26-30 Jul 2021**



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

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

# Monday 26 July

13:00

## Vacuum Structure, Confinement, and Chiral Symmetry

Session | Convener: Jeff Greensite

13:00–13:15

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

**Speaker**

Jakob Simeth

13:15–13:30

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

**Speaker**

Prof. Gunnar Bali

13:30–13:45

### The flux tube profile in full QCD

**Speaker**

Leonardo Cosmai

13:45–14:00

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

**Speaker**

Lee Loveridge

14:00–14:15

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

**Speaker**

Andreas Athenodorou

14:15–14:30

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

**Speaker**

Paolo Stornati

14:30–14:45

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

**Speaker**

Dallas DeMartini

14:45–15:00

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

**Speaker**

Michele Caselle

15:00

22:00

## Vacuum Structure, Confinement, and Chiral Symmetry

Session | Convener: Waseem Kamleh

22:00–22:15

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

**Speaker**

Tsuneo Suzuki

22:15-22:30

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

**Speaker**

Ryu Ikeda

22:30-22:45

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

**Speaker**

Norikazu Yamada

23:00

## Tuesday 27 July

21:00

### Vacuum Structure, Confinement, and Chiral Symmetry

Session | Convener: Zhaofeng Liu

21:00–21:15 **The dual Meissner effect due to Abelian Dirac-type monopoles in QCD**

**Speaker**

Atsuki Hiraguchi

21:15–21:30

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

**Speaker**

Akihiro Shibata

21:30–21:45

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

**Speaker**

Dr Waseem Kamleh

21:45–22:00

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

**Speaker**

Derek Leinweber

22:00–22:15

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

**Speaker**

James Biddle

22:15–22:30

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

**Speaker**

Adam Virgili

22:30–22:45

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

**Speaker**

Kai Watanabe

22:45–23:00

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

**Speaker**

Sunky Lee

23:00

# Thursday 29 July

05:00

## Vacuum Structure, Confinement, and Chiral Symmetry

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

05:00–05:15

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

**Speaker**

Gergely Marko

05:15–05:30

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

**Speaker**

Orlando Oliveira

05:30–05:45

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

**Speaker**

Paulo Silva

05:45–06:00

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

**Speaker**

Jon-Ivar Skullerud

06:00–06:15

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

**Speaker**

Yui Hayashi

06:15–06:30

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

**Speaker**

Mr Sebastian Steinbeißer

06:30–06:45

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

**Speaker**

Marco Cardinali

06:45–07:00

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

**Speaker**

Rasmus Larsen

07:00–07:15

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

**Speaker**

Ivan Hip

07:15–07:30

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

**Speaker**

Christof Gattringer

07:30–07:45

**Reconstructing QCD Spectral Functions with Gaussian Processes**

**Speaker**

Julian Urban

07:45–08:00

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

**Speaker**

Dr Masayasu Hasegawa

08:00