Session Program

26–30 Jul 2021

The 38th International Symposium on Lattice Field Theory

QCD in searches for physics beyond the Standard Model

Monday 26 July

13:00

QCD in searches for physics beyond the Standard Model

Session | **Convener:** Thomas Blum

13:00–13:15

Finite size effects in the leading hadronic vacuum polarisation contribution to $ (g-2)_\mu$

Speaker
Dr Finn M. Stokes

13:15–13:30

Continuum extrapolation of the hadronic vacuum polarization

Speaker
Kalman Szabo

13:30–13:45

Hadronic vacuum polarization of the muon on 2+1+1-flavor HISQ ensembles: an update.

Speaker
Shaun Lahert

13:45–14:00

The muon g-2 with four flavors of staggered quarks

Speaker
Prof. Christopher Aubin

14:00–14:15

High precision scale setting on the lattice

Speaker
Lukas Varnhorst

14:15–14:30

Ruling Out the Massless Up-Quark Solution to the Strong CP Problem by Computing the Topological Mass Contribution with Lattice QCD

Speaker
Lena Funcke

14:30–14:45

Proton decay amplitudes at the physical point with chirally symmetric quarks

Speaker
Sergey Syritsyn

14:45–15:00

Near Physical Point Lattice Calculation of Isospin-Breaking Corrections to $K_{\ell2}/\pi_{\ell2}$

Speaker
Andrew Zhen Ning Yong

15:00

21:00

QCD in searches for physics beyond the Standard Model

Session | **Convener:** Maarten Golterman

21:00–21:15

Lattice QCD calculation of the electroweak box diagrams for the kaon semileptonic decays

Speaker
Pengxiang Ma

21:15–21:30

$B \to D^{(*)}\ell\nu$ semileptonic decays in lattice QCD with domain-wall heavy quarks

Speaker
Takashi Kaneko

21:30–21:45

Calculation of kaon semileptonic form factor with the PACS10 configurations

Speaker
Takeshi Yamazaki

21:45–22:00

Controlling unwanted exponentials in lattice calculations of radiative leptonic decays

Speaker
Christopher Kane

22:00–22:15

$K \to \pi\pi$ decay matrix elements at the physical point with periodic boundary conditions

Speaker
Masaaki Tomii

22:15–22:30

Towards determining the short-distance contribution to neutrinoless double-beta decay from lattice QCD.

Speaker
Saurabh Kadam

22:30–22:45

Calculation of neutron electric dipole moment due to the QCD topological term, Weinberg three-gluon operator and the quark chromoelectric moment

Speaker
Dr Tanmoy Bhattacharya

22:45–23:00 **Neutron Electric Dipole Moment with Enhanced Low Mode Statistics**

Speaker
Michael Abramczyk

23:00

Tuesday 27 July

05:00

QCD in searches for physics beyond the Standard Model

Session | **Conveners:** Vera Guelpers, Finn Stokes

05:00–05:15

Hadronic vacuum polarization contribution to the muon g-2 from the Mainz collaboration

Speaker
Hartmut Wittig

05:15–05:30

Consistency of lattice and R-ratio determinations of the HVP: Update from RBC/UKQCD

Speaker
Christoph Lehner

05:30–05:45

Window contributions to the muon hadronic vacuum polarization with twisted-mass fermions

Speaker
Davide Giusti

05:45–06:00

Multi-level computation of the hadronic vacuum polarization contribution to $(g_\mu-2)$

Speaker
Leonardo Giusti

06:00–06:15

Leading isospin breaking effects in the HVP contribution to a_{μ} and to the running of α

Speaker
Andreas Risch

06:15–06:30

QED and strong isospin corrections in the hardonic vacuum polarization contribution to the anomalous magnetic moment of the muon

Speaker
Letizia Parato

06:30–06:45

Pseudoscalar transition form factors and the hadronic light-by-light contribution to the muon g-2

Speaker
Willem Verplanke

06:45–07:00

Pion Pole Contribution to HLbL from Twisted Mass Lattice QCD at the physical point

Speaker
Sebastian Andreas Burri

07:00–07:15
Hadronic light-by-light contribution to $(g-2)_\mu$ from lattice QCD: a complete calculation

Speaker
En-Hung Chao

07:15–07:30 **Cutoff effects in short-distance quantities in lattice QCD**

Speaker
Tim Harris

07:30–07:45
Hadronic contributions to the running of electromagnetic and weak couplings

Speaker
Miguel Teseo San José Pérez

07:45–08:00
HVP contribution to Running Coupling and Electroweak Precision Science

Speaker
Kohtaroh Miura

08:00

Wednesday 28 July

05:00

QCD in searches for physics beyond the Standard Model

Session | **Conveners:** Davide Giusti, Takashi Kaneko

05:15–05:30

Comparison of lattice QCD+QED predictions for radiative leptonic decays of light mesons with experimental data

Speakers
Silvano Simula, Silvano Simula

05:30–05:45

Calculating the $K\rightarrow\pi\ell^{+}\ell^{-}$ Rare Kaon Decay Amplitude at the Physical Point

Speaker
Fionn O hOgain

05:45–06:00

Towards a lattice determination of the form factors of the rare hyperon decay $ \Sigma^+ \to p \ell^+ \ell^-$

Speaker
Mr Raoul Hodgson

06:00–06:15

All HISQ $B\to K$ form factors

Speaker
Dr Chris Bouchard

06:15–06:30

BSM $B - \bar{B}$ mixing

Speaker
Felix Erben

06:30–06:45

Neutron Electric Dipole Moment from Overlap Fermions

Speaker
Jian Liang

06:45–07:00

Tensor Charges and their Impact on Physics Beyond the Standard Model

Speaker
Rose Smail

07:00–07:15

The neutron electric dipole moment revisited

Speaker
Gerrit Schierholz

07:15–07:30

Neutron electric dipole moment using lattice QCD simulations at the physical point

Speaker
Antonino Todaro

07:30–07:45

Renormalization with the Gradient Flow: A Novel Method for Calculating Loop Integrals

Speaker
Matthew Rizik

07:45–08:00

Power divergences of the quark-chromo electric dipole moment operator with the gradient flow

Speaker
Dr Jangho Kim

08:00