**Session Program**

**2–6 Aug 2021**

# A Virtual Tribute to Quark Confinement and the Hadron Spectrum 2021

# Parallels Track H

online

# Monday 2 August

17:00

## Parallels Track H: Parallel I
**Session** | **Location:** online

17:00–17:30 **Review of statistical practices in CMS**

**Speaker**
Andrea Carlo Marini

17:30–18:00 **Statistical methods at LHCb**

**Speaker**
Matthew Kenzie

18:00

# Tuesday 3 August

09:00

## Parallels Track H: Parallel II
**Session** | **Location:** online

09:00–09:20 **Tensor Renormalization Group for interacting quantum fields**

**Speaker**
Esperanza Lopez

09:20–09:40 **High-energy physics at ultracold temperatures**

**Speaker**
Daniel González Cuadra

09:40–10:00
**Collective Monte Carlo updates through tensor network renormalization**

**Speaker**
Dr Sofyan Iblisdir

10:00

# Wednesday 4 August

17:00

## Parallels Track H: Parallel III
**Session** | **Location:** online

3

### 17:00–17:20
**Machine learning regression and error quantification for lattice QCD Monte Carlo observables**

**Speaker**
Boram Yoon

### 17:20–17:40
**Progress towards dynamical fermions in flow-based MCMC for lattice ensemble generation**

**Speaker**
Gurtej Kanwar

### 17:40–18:00
**Finding the deconfinement temperature in lattice Yang-Mills theories from outside the scaling window with machine learning**

**Speaker**
Mr Nikolai Gerasimenuik

18:00

# Thursday 5 August

09:00

## Parallels Track H: Parallel IV
**Session** | **Location:** online

**09:00–09:20**    **RanBox: Anomaly Detection in the Copula Space**

**Speaker**
Tommaso Dorigo

**09:20–09:40**

**Unfolding by Folding: a Bayesian resampling approach to the problem of matrix inversion without actually inverting any matrix**

**Speaker**
Pietro Vischia

**09:40–10:00**

**Deep Reinforcement Learning based numerical analytic continuation of one-loop diagrams**

**Speaker**
Andreas Windisch

10:00

10:10

## Parallels Track H: Parallel V
**Session** | **Location:** online

**10:10–10:30**    **Mitigation of systematic errors induced biases in ML-based selection**

**Speaker**
Francisco Matorras

**10:30–10:50**

**Effect of Systematic Uncertainty Estimation on the Muon $g-2$ Anomaly**

**Speaker**
Glen Cowan

**10:50–11:10**

**Evaluating extremely low p-values with importance sampling techniques in discovery-oriented HEP analyses.**

**Speaker**
Francisco Matorras

11:10

# Friday 6 August

14:30

## Parallels Track H: Parallel VI
**Session** | **Location:** online

**14:50–15:10**  **Preserving gauge invariance in neural networks**

**Speaker**
David Müller

**15:10–15:30**  **Equivariance and generalization in neural networks**

**Speaker**
Matteo Favoni

15:30

15:40

## Parallels Track H: Parallel VII
**Session** | **Location:** online

**15:40–16:00**  **Highlights of gradient methods for simulation-based inference**

**Speaker**
Andrey Ustyuzhanin

**16:00–16:20**

**Detector Reconstruction and Fast Simulation in High-Energy Physics using Graph Generative Models**

**Speaker**
Mrs Darya Dyachkova

**16:20–16:40**  **Machine learning for Lattice QCD**

**Speaker**
Dr Tomiya Akio

16:40