July 16, 2020

# Welcome!

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BERKELEY LAB

BERKELEY EXPERIMENTAL PARTICLE PHYSICS

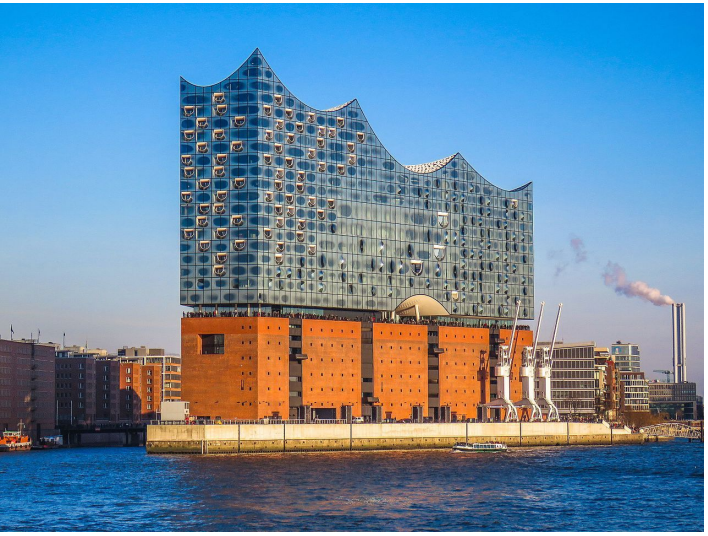
Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG

Emmy Noether-Programm
DFG

CLUSTER OF EXCELLENCE
QUANTUM UNIVERSE

# Welcome to virtual Hamburg


*Planten un Blomen - A park 2' from the original workshop location*



*The Elbphilharmonie*

*The main building of Hamburg University*

# Code of Conduct

We strive to build an inclusive, welcoming environment. Harassment in any form will not be tolerated. We will abide by the IRIS-HEP code of conduct:

https://iris-hep.org/about/code-of-conduct

Complaints can be sent to any of the workshop organizers.

# Agenda

## Thursday

16:00
- **Introduction** — *Gregor KASIECZKA et al.* — Virtual — 16:00 - 16:20
- **Dijet resonance search with weak supervision using sqrt(s)=13 TeV TeV pp collisions in the ATLAS detector** — *Flavia DIAS et al.*
- **Anomaly detection with convolutional autoencoders and latent space analysis** — *David JAROSLAWSKI et al.* — Virtual — 16:40 - 17:00

17:00
- **Anomaly Searches with Tag N' Train** — *Oz AMRAM* — Virtual — 17:00 - 17:20
- **Anomaly Detection with Normalizing Flows and Latent Variable Models** — *Justin TAN* — Virtual — 17:20 - 17:40
- **Break** — Virtual — 17:40 - 18:00

18:00
- **Learning the latent structure of collider events** — *Dr. Barry DILLON* — Virtual — 18:00 - 18:20
- **Anomaly detection and embedding clustering** — *Vinicius MIKUNI* — Virtual — 18:20 - 18:40
- **Deep Learning as a Tool for Generic Searches at Colliders** — *Rute PEDRO* — Virtual — 18:40 - 19:00

19:00

## Friday (note start at 15:40!!!)

- **Via Machinae: Anomaly Detection of Stellar Streams** — *Prof. Matthew BUCKLEY* — Virtual — 15:40 - 16:00

16:00
- **Anomaly detection with RanBox** — *Tommaso DORIGO* — Virtual — 16:00 - 16:20
- **Anomaly Awareness for new physics searches** — *Charanjit Kaur KHOSA* — Virtual — 16:20 - 16:40
- **QUAK : Quasi Anomalous Knowledge for Anomaly Detection** — *Mr. Sangeon PARK* — Virtual — 16:40 - 17:00

17:00
- **Event-level Anomaly Detection methods using reconstruction error and likelihood** — *Ioan DINU* — Virtual — 17:00 - 17:20
- **Break** — Virtual — 17:20 - 17:40
- **LHCO-motivated anomaly detection exploration** — *Taoli CHENG* — Virtual — 17:40 - 18:00

18:00
- **Anomaly Detection via Sequence Modeling** — *Alan KAHN* — Virtual — 18:00 - 18:20
- **Summary and Outlook** — *Gregor KASIECZKA et al.* — Virtual — 18:20 - 18:40
- **Discussion** — Virtual — 18:40 - 19:00

19:00

**Unveil black-boxes**

We have a packed agenda!

There is some time for questions after each presentation, but we can additionally use Slack for further questions and there will be some discussion time at the end of the second day.

Please join our Slack channel