

## **Session Program**

**Oct 16 - 18, 2023**



## **Young Scientists Meeting of the CRC TRR 257**

### **Young Scientists Talks**

Campus Unteres Schloss | University of Siegen, Seminarzentrum  
Obergraben 25 57072 Siegen

# Mon, October 16

1:45 PM

## Young Scientists Talks

**Session** |**Location:** Campus Unteres Schloss | University of Siegen, Seminarzentrum, Obergraben 25 57072 Siegen |**Convener:** Maria Laura Piscopo

13:45 - 14:15

### Using Gradient Flow to Renormalise Matrix Elements for Meson Mixing and Lifetimes

**Speaker**

Matthew Black

14:15 - 14:45

### Progress in N3LO zero-jettiness soft functions calculation

**Speaker**

Andrey Pikelner

14:45 - 15:15

### Higgs Production With Full Quark Mass Dependence

**Speaker**

Tom Schellenberger

15:15 - 15:45

### Dimension-6 HQET Sum Rules for Beyond the Standard Model

**Speaker**

Zachary Wüthrich

3:45 PM

## Tue, October 17

9:00 AM

### Young Scientists Talks

**Session** |

**Location:** Campus Unterer Schloss | University of Siegen, Seminarzentrum, Obergraben 25 57072 Siegen

09:00 – 09:30

**Inclusive  $B \rightarrow X_c \ell \bar{\nu}$  to order  $1/m^5$  and the precision determination of  $V_{cb}$**

**Speaker**

Mr Ilija Milutin

09:30 – 10:00

**NLO electroweak corrections to  $gg \rightarrow HH$**

**Speaker**

Hantian Zhang

10:00 – 10:30

**Non-factorizable corrections to Higgs production in Vector Boson Fusion**

**Speaker**

Dr Mingming Long

10:30 AM

11:00 AM

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**Session** |

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**Convener:** Gilberto Tetlalmatzi-Xolocotzi

11:00 – 11:30

**Top-quark pair production with two isolated photons at NLO QCD**

**Speaker**

Daniel Stremmer

11:30 – 12:00

**Linear power corrections to hadron collider processes with top-quarks**

**Speaker**

Sergei Makarov

12:00 – 12:30

**Four top final states with NLO accuracy in perturbative QCD: 4 lepton decay channel**

**Speaker**

Mr Nikolaos Dimitrakopoulos

12:30 PM

3:00 PM

### Young Scientists Talks

**Session** |

**Location:** Campus Unterer Schloss | University of Siegen, Seminarzentrum, Obergraben 25 57072 Siegen |

**Convener:** Vladyslav Shtabovenko

15:00 – 15:30

**Subleading effects in soft-gluon emission at one-loop in QCD**

**Speaker**

Felix Eschment

4:30 PM

15:30 – 16:00

**Numerical Multi-Loop Calculations with pySecDec****Speaker**

Anton Olsson

16:00 – 16:30

**NLO QCD predictions for off-shell  $t\bar{t}W$  production in association with a light jet at the LHC****Speaker**

Minos Reinartz

5:00 PM

**Young Scientists Talks****Session** |**Location:** Campus Unteres Schloss | University of Siegen, Seminarzentrum, Obergraben 25 57072 Siegen |**Convener:** Magnus Schaaf

17:00 – 17:30

**Implications of the B-Mesogenesis on the Phenomenological Observables of B Mesons****Speaker**

Ali Mohamed

17:30 – 18:00

**Phenomenological Aspects of Flavoured Majorana Dark Matter****Speaker**

Lena Rathmann

6:00 PM

## Wed, October 18

9:00 AM

### Young Scientists Talks

**Session** |

**Location:** Campus Unteres Schloss | University of Siegen, Seminarzentrum, Obergraben 25 57072 Siegen |

**Convener:** Oliver Witzel

09:00 – 09:30

#### Top-quark loops for precision Higgs physics

**Speaker**

Marco Vitti

09:30 – 10:00

#### Higgsstrahlung and Higgs production beyond the Standard Model

**Speaker**

Sven Yannick Klein

10:00 AM

11:00 AM

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**Convener:** Felix Wilsch

11:00 – 11:30

#### Rare $B_s \rightarrow l^+ l^-$ decays in a two-Higgs-doublet model with Three Spurious

**Speaker**

Martin Lang

11:30 – 12:00

#### Looking for Massive ALPs from SN1987A with Cherenkov Detectors

**Speaker**

Mr Tim Kretz

12:00 – 12:30

#### Axion-like particle reconstruction and experimental design with simulation-based inference

**Speaker**

Dr Alessandro Morandini

12:30 PM

1:30 PM

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**Convener:** Alessandro Morandini

13:30 – 14:00

#### Back to the Roots: Tree-Based Algorithms for Weakly Supervised Anomaly Detection

**Speaker**

Marie Hein

14:00 – 14:30

#### Anomalies, Representations and Self-Supervision

**Speaker**

Luigi Favaro

14:30 - 15:00

**Diagrammatic resummation of double logarithms in  $B_c \rightarrow \eta_c$  form factors**

**Speaker**

Dennis Horstmann

15:00 - 15:30

**Precision tests of the Standard Model in global SMEFT analyses: Fitting with a CLEW**

**Speaker**

Tom Tong

3:30 PM