

# **Anomalies and Precision in the Belle II Era - Workshop**

## **Report of Contributions**

Contribution ID: 1

Type: **not specified**

## Welcome by the organizers

*Monday 8 September 2025 10:00 (10 minutes)*

**Presenter:** INGUGLIA, gianluca

**Session Classification:** Monday 1

Contribution ID: 2

Type: **not specified**

## **Status of flavour as of 2025: “BSM”(35+10)**

*Monday 8 September 2025 11:30 (45 minutes)*

**Presenter:** MARZOCCA, David (INFN Trieste)

**Session Classification:** Monday 2

Contribution ID: 3

Type: **not specified**

## **Status of flavour as of 2025: “SM”(35+10)**

*Monday 8 September 2025 12:15 (45 minutes)*

**Presenter:** GORBAHN, Martin (Liverpool University)

**Session Classification:** Monday 2

Contribution ID: 4

Type: **not specified**

## **Belle II status and prospects (40+10)**

*Monday 8 September 2025 10:10 (50 minutes)*

**Presenter:** PRELL, Soeren Andre (Iowa State University (US))

**Session Classification:** Monday 1

Contribution ID: 5

Type: **not specified**

## $B \rightarrow K(^*) \mu \mu$ at Belle II (20+10)

*Monday 8 September 2025 14:30 (30 minutes)*

**Presenter:** SANTOS, Corentin (IPHC - Strasbourg)

**Session Classification:** Monday 3

Contribution ID: 6

Type: **not specified**

## $B^+ \rightarrow K^+ \nu \bar{\nu}$ at Belle (20+10)

*Monday 8 September 2025 15:00 (30 minutes)*

**Presenter:** MASLOVA, Nadiia

**Session Classification:** Monday 3

Contribution ID: 7

Type: **not specified**

## **Impact of new invisible particles on $B \rightarrow K(^*)E$ (20+10)**

*Monday 8 September 2025 15:30 (30 minutes)*

**Presenter:** BOLTON, Patrick (Jožef Stefan Institute)

**Session Classification:** Monday 3

Contribution ID: 8

Type: **not specified**

## **K-> pi nu nu at NA62 and KOTO (20+10)**

*Monday 8 September 2025 16:30 (30 minutes)*

**Presenter:** FANTECHI, Riccardo

**Session Classification:** Monday 4

Contribution ID: 9

Type: **not specified**

## **NP interpretation of $B \rightarrow K \nu \nu$ and $K \rightarrow \pi \nu \nu$ data (20+10)**

*Monday 8 September 2025 17:00 (30 minutes)*

**Presenter:** ALLWICHER, Lukas

**Session Classification:** Monday 4

Contribution ID: **10**

Type: **not specified**

## **Opportunities in $c \rightarrow u\bar{u}u$ transitions (20+10)**

*Monday 8 September 2025 17:30 (30 minutes)*

**Presenter:** SUELMANN, Dominik

**Session Classification:** Monday 4

Contribution ID: **11**

Type: **not specified**

## **Theory challenges in CKM determination (30+10)**

*Tuesday 9 September 2025 14:00 (40 minutes)*

**Presenter:** FAEL, Matteo

**Session Classification:** Tuesday 3

Contribution ID: 12

Type: **not specified**

## Status of CKM elements (UTfit) (25+10)

*Tuesday 9 September 2025 12:25 (35 minutes)*

**Presenter:** VITTORIO, Ludovico (Sapienza Università di Roma and INFN, Sezione di Roma)

**Session Classification:** Tuesday 2

Contribution ID: 13

Type: **not specified**

## Status of the $R(D)$ - $R(D^*)$ anomaly (30+10)

*Tuesday 9 September 2025 15:20 (40 minutes)*

**Presenter:** HORAK, Philipp (University of Victoria)

**Session Classification:** Tuesday 3

Contribution ID: 14

Type: **not specified**

## News on D mixing from the lattice (25 + 10)

*Tuesday 9 September 2025 10:25 (35 minutes)*

**Presenter:** DI CARLO, Matteo (CERN)

**Session Classification:** Tuesday 1

Contribution ID: 15

Type: **not specified**

## Quantum tests with tau leptons (30+10)

*Wednesday 10 September 2025 15:20 (40 minutes)*

**Presenter:** MARZOLA, Luca

**Session Classification:** Wednesday 3

Contribution ID: **16**

Type: **not specified**

## Overview of tau physics at Belle II (40+10)

*Wednesday 10 September 2025 14:30 (50 minutes)*

**Presenter:** GRUBEROVA, Zuzana

**Session Classification:** Wednesday 3

Contribution ID: 17

Type: **not specified**

## **Interplay of Belle II and future Tera-Z factories in B and tau physics (40+10)**

*Wednesday 10 September 2025 16:30 (50 minutes)*

**Presenters:** VALE SILVA, Luiz; ZUO, Xunwu

**Session Classification:** Wednesday 4

Contribution ID: **18**

Type: **not specified**

## **Connecting New Physics at low and high energies (40+10)**

*Wednesday 10 September 2025 09:30 (50 minutes)*

**Presenter:** ALTMANNSHOFER, Wolfgang

**Session Classification:** Wednesday 1

Contribution ID: 19

Type: **not specified**

## **Overview of Dark sector searches at Belle II and other $e^+e^-$ colliders (30+10)**

*Wednesday 10 September 2025 17:20 (40 minutes)*

**Presenter:** CORONA, Luigi

**Session Classification:** Wednesday 4

Contribution ID: 20

Type: **not specified**

## Quarkonium at Belle II (20+10)

*Wednesday 10 September 2025 12:30 (30 minutes)*

**Presenter:** TAMPONI, Umberto (INFN Torino (IT))

**Session Classification:** Wednesday 2

Contribution ID: **21**

Type: **not specified**

## **Vub Vcb exp in Belle II (30+10)**

*Tuesday 9 September 2025 14:40 (40 minutes)*

**Presenter:** KHAN, Munira

**Session Classification:** Tuesday 3

Contribution ID: 22

Type: **not specified**

## **CPV in c transitions @hadron colliders and Belle II (40+15)**

*Tuesday 9 September 2025 09:30 (55 minutes)*

**Presenters:** CELESTINO, Irene; BHARATI DAS, Sanjeeda

**Session Classification:** Tuesday 1

Contribution ID: 23

Type: **not specified**

## **CPV in b transitions @hadron colliders and Belle II (40+15)**

*Tuesday 9 September 2025 11:30 (55 minutes)*

**Presenters:** OZCELIK, Ozlem (The University of Edinburgh (GB)); HAZRA, Sagar

**Session Classification:** Tuesday 2

Contribution ID: 24

Type: **not specified**

## **b-> sll at hadron colliders (20+10)**

*Wednesday 10 September 2025 11:30 (30 minutes)*

**Presenter:** JIA, Zekun (Centre National de la Recherche Scientifique (FR))

**Session Classification:** Wednesday 2

Contribution ID: 25

Type: **not specified**

## Rare B decays at Belle (II) (20+10)

*Wednesday 10 September 2025 12:00 (30 minutes)*

**Presenter:** PRUDIIEV, Ihor

**Session Classification:** Wednesday 2

Contribution ID: 26

Type: **not specified**

## Theory aspects of bsl transitions (30+10)

*Wednesday 10 September 2025 10:20 (40 minutes)*

**Presenter:** TINARI, Arianna

**Session Classification:** Wednesday 1