# Implications of LHCb measurements and future prospects

# Report of Contributions

Implications of  $\cdots$  / Report of Contributions

EW physics and direct searches

Contribution ID: 1 Type: not specified

#### EW physics and direct searches

Welcome

Contribution ID: 2 Type: not specified

#### Welcome

Wednesday 19 October 2022 09:00 (15 minutes)

**Presenter:** AMHIS, Yasmine Sara (IJCLab/CERN)

Session Classification: Welcome

LHCb Introduction

Contribution ID: 3 Type: not specified

#### **LHCb Introduction**

Wednesday 19 October 2022 09:15 (30 minutes)

Presenter: FONTANA, Marianna (Centre National de la Recherche Scientifique (FR))

Session Classification: Welcome

Contribution ID: 4 Type: **not specified** 

#### LFU measurements at LHCb

Wednesday 19 October 2022 15:00 (20 minutes)

Presenter: KLAVER, Suzanne (Nikhef National institute for subatomic physics (NL))

Session Classification: Flavour changing charged currents

Contribution ID: 5 Type: **not specified** 

# Cabibbo angle anomaly: statistical assessment & New Physics interpretations

Wednesday 19 October 2022 15:30 (20 minutes)

**Presenter:** PASSEMAR, Emilie

Session Classification: Flavour changing charged currents

Contribution ID: 6 Type: not specified

#### SL measurements at LHCb - focus on Vcb

Wednesday 19 October 2022 16:10 (20 minutes)

Presenter: DELANEY, Blaise Raheem (Massachusetts Inst. of Technology (US))

Session Classification: Flavour changing charged currents

Implications of  $\cdots$  / Report of Contributions

 $V_{ub}$  exclusive

Contribution ID: 7 Type: **not specified** 

#### $V_{ub}$ exclusive

Wednesday 19 October 2022 17:10 (20 minutes)

Presenters: VITTORIO, L.; VITTORIO, Ludovico (SNS, Pisa)

Session Classification: Flavour changing charged currents

Implications of · · · / Report of Contributions

 $b \to c \ell \nu \& V_{cb}$ 

Contribution ID: 8 Type: not specified

 $b \to c \ell \nu$  &  $V_{cb}$ 

Wednesday 19 October 2022 16:35 (30 minutes)

**Presenter:** JUNG, Martin (Università di Torino & INFN)

Session Classification: Flavour changing charged currents

Contribution ID: 9 Type: not specified

#### **Experimental overview of charm**

Wednesday 19 October 2022 09:45 (25 minutes)

Presenter: PIETRZYK, Guillaume Max (IJCLab (Orsay, FR))

**Session Classification:** Mixing and CP violation

Contribution ID: 10 Type: not specified

#### **Systematics of U-spin Amplitude Sum Rules**

Wednesday 19 October 2022 10:20 (20 minutes)

**Presenter:** GAVRILOVA, Margarita (Cornell)

**Session Classification:** Mixing and CP violation

Contribution ID: 11 Type: not specified

#### Direct $A_{CP}$ from charm final state interactions

Wednesday 19 October 2022 10:47 (20 minutes)

Presenter: MAGALHAES, Patricia (CBPF - Brazilian Center for Physics Research (BR))

**Session Classification:** Mixing and CP violation

Contribution ID: 12 Type: not specified

#### **Experimental overview of beauty**

Wednesday 19 October 2022 11:45 (25 minutes)

**Presenter:** LI, Peilian (CERN)

**Session Classification:** Mixing and CP violation

Contribution ID: 13 Type: not specified

#### **NNLO** for B Mixing

Wednesday 19 October 2022 12:20 (20 minutes)

Presenter: SHTABOVENKO, Vladyslav (Ludwig-Maximilians-Univ. Muenchen (DE))

**Session Classification:** Mixing and CP violation

CP violating NP in  $B(s) \to D(s)K$ 

Implications of · · · / Report of Contributions

Contribution ID: 14 Type: not specified

#### CP violating NP in $B(s) \to D(s)K$

Wednesday 19 October 2022 12:47 (20 minutes)

**Presenter:** MALAMI, Eleftheria

**Session Classification:** Mixing and CP violation

Implications of  $\cdots$  / Report of Contributions

Final discussion

Contribution ID: 15 Type: not specified

#### Final discussion

Wednesday 19 October 2022 17:35 (25 minutes)

Session Classification: Flavour changing charged currents

Contribution ID: 16 Type: not specified

#### New pentaquark states at LHCb

Thursday 20 October 2022 09:00 (20 minutes)

**Presenter:** POLYAKOV, Ivan (CERN)

Session Classification: QCD spectroscopy and exotic hadrons

Contribution ID: 17 Type: not specified

#### Tetraquark studies at LHCb

Thursday 20 October 2022 09:25 (20 minutes)

Presenter: JIANG, Yi (University of Chinese Academy of Sciences (CN))

Session Classification: QCD spectroscopy and exotic hadrons

Contribution ID: 18 Type: not specified

# Methods to explore the nature of the new exotic resonances from data

Thursday 20 October 2022 09:50 (20 minutes)

Presenter: Dr ALBALADEJO SERRANO, Miguel (Universidad de Murcia)

Session Classification: QCD spectroscopy and exotic hadrons

Contribution ID: 19 Type: not specified

#### Hadronic resonances and exotics from lattice QCD

Thursday 20 October 2022 10:45 (20 minutes)

**Presenter:** LIU, Liuming (Institute of Modern Physics, Chinese Academy of Sciences)

Session Classification: QCD spectroscopy and exotic hadrons

Contribution ID: 20 Type: not specified

#### Conventional spectroscopy at LHCb

Thursday 20 October 2022 11:10 (20 minutes)

**Presenter:** WANG, Mengzhen (Università degli Studi e INFN Milano (IT))

Session Classification: QCD spectroscopy and exotic hadrons

Contribution ID: 21 Type: not specified

#### Overview of rare B decays

Thursday 20 October 2022 13:35 (20 minutes)

**Presenter:** LANGENBRUCH, Christoph Michael (Rheinisch Westfaelische Tech. Hoch. (DE))

Session Classification: Flavour Changing Neutral Currents

Contribution ID: 22 Type: not specified

#### **Lepton Flavour Violation**

Thursday 20 October 2022 14:00 (20 minutes)

Presenter: BATTIG, Alexander (Technische Universitaet Dortmund (DE))

Session Classification: Flavour Changing Neutral Currents

Implications of  $\cdots$  / Report of Contributions

 $K \to \mu \mu$  as probe for NP

Contribution ID: 23 Type: not specified

#### $K \to \mu \mu$ as probe for NP

Thursday 20 October 2022 14:25 (15 minutes)

**Presenter:** SCHACHT, Stefan (University of Manchester)

Session Classification: Flavour Changing Neutral Currents

Contribution ID: 24 Type: not specified

#### Progress on QCD corrections to $b \to s\ell\ell$

Thursday 20 October 2022 14:45 (20 minutes)

Presenter: REBOUD, Meril

Session Classification: Flavour Changing Neutral Currents

Contribution ID: 25 Type: not specified

#### **Rare Charm and Strange results**

Thursday 20 October 2022 15:10 (20 minutes)

**Presenter:** FERNANDEZ GOMEZ, Miguel (Universidade de Santiago de Compostela (ES))

Session Classification: Flavour Changing Neutral Currents

Contribution ID: 26 Type: not specified

#### Decays of rare charmed baryons

Thursday 20 October 2022 16:05 (20 minutes)

**Presenter:** HILLER, Gudrun (Technische Universitaet Dortmund (DE))

Session Classification: Flavour Changing Neutral Currents

Contribution ID: 27 Type: not specified

#### **Overview of BSM models**

Thursday 20 October 2022 16:30 (20 minutes)

Presenter: Prof. ALLANACH, Benjamin (University of Cambridge (GB))

Session Classification: Model building for flavor physics

Contribution ID: 28 Type: not specified

#### Neutral current anomalies and alps

Thursday 20 October 2022 17:00 (20 minutes)

**Presenter:** PESTANADALUZ, Maria

Session Classification: Model building for flavor physics

Contribution ID: 29 Type: not specified

#### Flavor and mass hierarchies from extra dim

Friday 21 October 2022 09:00 (20 minutes)

Presenter: SELIMOVIC, Nudzeim

Session Classification: Model building for flavor physics

Contribution ID: 30 Type: not specified

#### On a model with two scalar leptoquarks R2 and S3

Friday 21 October 2022 09:25 (20 minutes)

Presenter: JAFFREDO, Florentin (CNRS)

Session Classification: Model building for flavor physics

Contribution ID: 31 Type: not specified

#### Bridge solutions for (g-2) and $b \to s \ell \ell$ anomalies

Friday 21 October 2022 09:50 (20 minutes)

Presenter: OLGOSO, Pablo

Session Classification: Model building for flavor physics

Contribution ID: 32 Type: not specified

#### Muonic forces and flavor universality

Friday 21 October 2022 10:15 (20 minutes)

**Presenter:** THOMSEN, Anders Eller (Universität Bern)

Session Classification: Model building for flavor physics

Contribution ID: 33 Type: not specified

#### **Experimental Overview: EW+Direct**

Friday 21 October 2022 11:10 (20 minutes)

Experimental Overview: EW+Direct

**Presenter:** BARTER, William (University of Edinburgh)

**Session Classification:** EW physics and direct searches

Contribution ID: 34 Type: not specified

#### W-mass Theory Overview

Friday 21 October 2022 11:35 (20 minutes)

Presenter: BAGNASCHI, Emanuele Angelo (CERN)

**Session Classification:** EW physics and direct searches

Contribution ID: 35 Type: not specified

#### W mass measurement plans

Friday 21 October 2022 12:00 (20 minutes)

**Presenter:** HUNTER, Ross John (University of Warwick (GB))

**Session Classification:** EW physics and direct searches

Contribution ID: 36 Type: not specified

#### Theory Overview: High-pT Searches for Flavor

Friday 21 October 2022 14:00 (20 minutes)

Theory Overview: High-pT Searc  $\,\cdots$ 

Presenter: HAISCH, Uli

**Session Classification:** EW physics and direct searches

Contribution ID: 37 Type: not specified

#### Drell-Yan tails as a probe of New Physics

Friday 21 October 2022 14:25 (20 minutes)

**Presenter:** ALLWICHER, Lukas

**Session Classification:** EW physics and direct searches

Contribution ID: 38 Type: not specified

#### Z boson production in pp and pPb

Friday 21 October 2022 14:50 (20 minutes)

**Presenter:** LI, Hengne (South China Normal University (CN))

**Session Classification:** EW physics and direct searches

Contribution ID: 39 Type: not specified

# Understanding QCD exotics using deep neural networks

Thursday 20 October 2022 11:35 (20 minutes)

**Presenter:** FERNANDEZ RAMIREZ, Cesar (UNAM)

Session Classification: QCD spectroscopy and exotic hadrons

Contribution ID: 40

Type: not specified

# Satellite discussion - unfolded distributions of semi-leptonic decays

Thursday 20 October 2022 12:15 (1 hour)

**Presenters:** SMITH, Mark (Imperial College (GB)); CALVI, Marta (Univ. degli Studi Milano-Bicocca)

Implications of · · · / Report of Contributions

R(D) and  $R(D^*)$ 

Contribution ID: 41 Type: not specified

R(D) and  $R(D^{\ast})$ 

Wednesday 19 October 2022 14:30 (20 minutes)

**Presenter:** Dr HAMILTON, Phoebe (University of Maryland (US))

Session Classification: Flavour changing charged currents

wrap-up

Contribution ID: 42 Type: not specified

#### wrap-up

Friday 21 October 2022 16:45 (2 minutes)

**Presenter:** AMHIS, Yasmine Sara (IJCLab/CERN)