

# **XXIX The Cracow Epiphany Conference**

## **Report of Contributions**

Contribution ID: 1

Type: **not specified**

## Registration

*Monday 16 January 2023 08:30 (30 minutes)*

Contribution ID: 2

Type: **not specified**

## Welcome

*Monday 16 January 2023 09:00 (15 minutes)*

**Presenters:** CHWASTOWSKI, Janusz (INP Krakow); LESIAK, Tadeusz (IFJ PAN Kraków)

Contribution ID: 3

Type: **not specified**

# Physics, Status and Opportunities at the Electron-Ion Collider

*Monday 16 January 2023 09:15 (45 minutes)*

**Presenter:** DESHPANDE, Abhay

Contribution ID: 4

Type: **not specified**

## **Design and Status of the Electron Ion Collider**

*Monday 16 January 2023 10:00 (45 minutes)*

**Presenter:** WILLEKE, Ferdinand

Contribution ID: 5

Type: **not specified**

## **The polarisation of the EIC electron beam**

*Monday 16 January 2023 11:15 (30 minutes)*

**Presenter:** GIANFELICE-WENDT, Elia

Contribution ID: 6

Type: **not specified**

## **Hadron Polarization in RHIC and EIC (H. Huang)**

*Monday 16 January 2023 11:45 (30 minutes)*

**Presenter:** HUANG, Haixin

Contribution ID: 7

Type: **not specified**

## The EPIC detector

*Monday 16 January 2023 12:15 (45 minutes)*

**Presenter:** LAJOIE, John



Contribution ID: 8

Type: **not specified**

## Introduction to spin physics

*Monday 16 January 2023 14:00 (30 minutes)*

**Presenter:** BADELEK, Barbara (University of Warsaw)

Contribution ID: 9

Type: **not specified**

## **Theoretical and phenomenological aspects of TMD factorisation**

*Monday 16 January 2023 14:30 (30 minutes)*

**Presenter:** BERTONE, Valerio

Contribution ID: **10**

Type: **not specified**

## **Experimental results on TMDs and future perspectives**

*Monday 16 January 2023 15:00 (30 minutes)*

**Presenter:** BRESSAN, Andrea

Contribution ID: 11

Type: **not specified**

# Phenomenology of Generalized Parton Distributions

*Monday 16 January 2023 16:00 (30 minutes)*

**Presenter:** WAGNER, Jakub

Contribution ID: 12

Type: **not specified**

## **Determination of GPDs in the nucleon through exclusive electroproduction**

*Monday 16 January 2023 16:30 (30 minutes)*

**Presenter:** KUNNE, Fabienne

Contribution ID: 13

Type: **not specified**

## **Polarised Physics at the LHC**

*Monday 16 January 2023 17:30 (30 minutes)*

**Presenter:** DI NEZZA, Pasquale (INFN Frascati)

Contribution ID: 14

Type: **not specified**

## **Deeply-virtual and photoproduction of mesons at higher-order and higher-twist**

*Tuesday 17 January 2023 09:00 (30 minutes)*

**Presenter:** PASSEK-KUMERIČKI, Kornelija

Contribution ID: 15

Type: **not specified**

## **Extracting General Parton Distributions from exclusive measurements at the future EIC**

*Tuesday 17 January 2023 11:15 (30 minutes)*

**Presenter:** FAZIO, Salvatore (University of Calabria and INFN-Cosenza)



Contribution ID: 16

Type: **not specified**

# Hunting for gluon orbital angular momentum at the EIC

*Wednesday 18 January 2023 14:30 (30 minutes)*

**Presenter:** BHATTACHARYA, Shohini

Contribution ID: 17

Type: **not specified**

## **Generalised Parton Distributions from Lattice QCD (K. Cichy)**

*Tuesday 17 January 2023 09:30 (45 minutes)*

Contribution ID: 18

Type: **not specified**

## **Off-shell generalized parton distributions and form factors of the pion**

*Tuesday 17 January 2023 10:15 (30 minutes)*

**Presenter:** BRONIEWSKI, Wojciech (IFJ PAN/UJK)

Contribution ID: 19

Type: **not specified**

## **The Tensor Pomeron and Low-x Deeply Virtual Compton Scattering (P. Lebiedowicz)**

*Wednesday 18 January 2023 14:00 (30 minutes)*

**Presenter:** LEBIEDOWICZ, Piotr (IFJ PAN, Cracow)

Contribution ID: 20

Type: **not specified**

## **Exclusive heavy vector meson photoproduction on nuclei in NLO QCD (V. Guzey)**

*Tuesday 17 January 2023 12:15 (30 minutes)*

**Presenter:** GUZEY, Vadim (University of Jyväskylä)

Contribution ID: 21

Type: **not specified**

## **News on HERA proton structure and prospects from EIC**

*Tuesday 17 January 2023 13:45 (30 minutes)*

**Presenter:** WICHMANN, Katarzyna (DESY)

Contribution ID: 22

Type: **not specified**

## **PDF analysis using LHC data (A. Cooper-Sarkar)**

*Tuesday 17 January 2023 14:15 (30 minutes)*

Contribution ID: 23

Type: **not specified**

## **Evidence for intrinsic charm quarks in the proton (T. Giani)**

*Tuesday 17 January 2023 14:45 (30 minutes)*



Contribution ID: 24

Type: **not specified**

## **Inclusive and diffractive dijet photoproduction at EIC in NLO QCD (V. Guzey)**

*Wednesday 18 January 2023 09:00 (30 minutes)*

**Presenter:** GUZEY, Vadim (University of Jyväskylä)

Contribution ID: 25

Type: **not specified**

## **Nuclear PDF**

*Wednesday 18 January 2023 09:30 (30 minutes)*

**Presenter:** KUSINA, Aleksander (IFJ PAN Krakow)

Contribution ID: 26

Type: **not specified**

## **Physics at the HL-LHC with proton tagging**

*Wednesday 18 January 2023 10:00 (30 minutes)*

**Presenter:** PITT, Michael (Ben Gurion University of the Negev)

Contribution ID: 27

Type: **not specified**

## **EIC Physics with FD (A. Jentsch)**

*Wednesday 18 January 2023 10:30 (30 minutes)*

Contribution ID: 28

Type: **not specified**

## **Forward and diffractive physics measurements by CMS (C. Baldenegro)**

*Wednesday 18 January 2023 11:30 (30 minutes)*

**Presenter:** BALDENEGRO BARRERA, Cristian (École Polytechnique (Laboratoire Leprince-Ringuet))

Contribution ID: 29

Type: **not specified**

## **Diffractive scattering at NLO in the dipole picture**

*Wednesday 18 January 2023 12:30 (30 minutes)*

**Presenter:** MÄNTYSAARI, Heikki (University of Jyväskylä)

Contribution ID: 30

Type: **not specified**

## **Small-x Quark and Gluon Helicity Contribution to the Proton Spin Puzzle**

*Tuesday 17 January 2023 11:45 (30 minutes)*

**Presenter:** TAWABUTR, Yossathorn (University of Jyväskylä)

Contribution ID: **31**

Type: **not specified**

## **Small-x improved TMD approach for dijet production (T. Altinoluk)**

*Wednesday 18 January 2023 15:30 (30 minutes)*



Contribution ID: 32

Type: **not specified**

## **Pragmatic extensions of the Standard Model**

*Wednesday 18 January 2023 16:00 (45 minutes)*

**Presenter:** GRZADKOWSKI, Bohdan (University of Warsaw)

Contribution ID: 33

Type: **not specified**

## **BSM @ FPF & Phaser**

*Wednesday 18 January 2023 16:45 (45 minutes)*

**Presenter:** TROJANOWSKI, Sebastian (NCBJ, CAMK PAN)

Contribution ID: 34

Type: **not specified**

## **Exotic hadron spectroscopy at the EIC (A. Pilloni)**

*Thursday 19 January 2023 09:00 (45 minutes)*

Contribution ID: 35

Type: **not specified**

## **Review of exotic mesons below 2.5 GeV**

*Thursday 19 January 2023 09:45 (45 minutes)*

**Presenter:** GIACOSA, Francesco (Institute of Physics, Kielce University)

Contribution ID: 36

Type: **not specified**

## **Toward a nonet of hybrid mesons: strong and radiative decays**

*Thursday 19 January 2023 11:30 (30 minutes)*

**Presenter:** SHASTRY, Vanamali (Jan Kochanowski University in Kielce, Poland)

Contribution ID: 37

Type: **not specified**

## **Mechanical properties of quantum bound states**

*Thursday 19 January 2023 12:00 (30 minutes)*

**Primary author:** CZARNECKI, Andrzej

**Presenters:** CZARNECKI, Andrzej; LIU, Yizhuang

Contribution ID: **38**

Type: **not specified**

## **The Prad experiment at Jefferson Lab (A. Gasparian)**

Contribution ID: 39

Type: **not specified**

## **The Heavy Photon Search Experiment at Jefferson Laboratory (P. Butti)**

*Thursday 19 January 2023 12:30 (30 minutes)*



Contribution ID: 40

Type: **not specified**

## **Photon and Diffractive Physics with LHeC/FCC-eh**

*Thursday 19 January 2023 16:30 (30 minutes)*

**Presenter:** PIOTRZKOWSKI, Krzysztof (AGH University of Science and Technology)

Contribution ID: 41

Type: **not specified**

## **With Energy Recovery Linacs towards LHeC and FCC-eh**

*Thursday 19 January 2023 14:00 (45 minutes)*

**Presenter:** D'HONDT, Jorgen

Contribution ID: 42

Type: **not specified**

## Physics with LHeC and FCC-eh

*Thursday 19 January 2023 14:45 (45 minutes)*

**Presenter:** ARMESTO, Nestor

Contribution ID: 43

Type: **not specified**

## **PERLE: The development of a multi-turn, high current ERL**

*Thursday 19 January 2023 15:30 (30 minutes)*

**Presenter:** STOCCHI, Achille

Contribution ID: 44

Type: **not specified**

## **Parton Distributions from LHeC/FCC-eh (F. Giuli)**

*Thursday 19 January 2023 17:00 (30 minutes)*

**Presenter:** GIULI, Francesco (CERN)

Contribution ID: 45

Type: **not specified**

## **Nuclear Particle Physics with eA on LHeC/FCCeh (A. Staśto)**

*Thursday 19 January 2023 17:30 (30 minutes)*

Contribution ID: 46

Type: **not specified**

## Closing words

*Thursday 19 January 2023 18:30 (15 minutes)*

**Presenter:** CHWASTOWSKI, Janusz (INP Krakow)

Contribution ID: 47

Type: **not specified**

## **Prospects for GPDs extraction with Double DVCS (V. Martínez-Fernández)**

*Monday 16 January 2023 18:00 (15 minutes)*

**Session Classification:** Young researcher session



Contribution ID: 48

Type: **not specified**

## **DIS dijet production at next-to-eikonal accuracy**

*Monday 16 January 2023 18:15 (15 minutes)*

**Presenter:** TYMOWSKA, Arantxa (NCBJ)

**Session Classification:** Young researcher session

Contribution ID: 49

Type: **not specified**

## **Gluon propagator in background field at next-to-eikonal order**

*Monday 16 January 2023 18:30 (15 minutes)*

**Presenter:** MULANI, Swaleha (National Centre for Nuclear Research (NCBJ), Poland)

**Session Classification:** Young researcher session

Contribution ID: 50

Type: **not specified**

## **First observation and branching fraction measurement of the $\Lambda_b \rightarrow D_s p$ decay**

*Tuesday 17 January 2023 15:45 (15 minutes)*

**Presenter:** GIZA, Maciej (IFJ PAN)

**Session Classification:** Young researcher session

Contribution ID: 51

Type: **not specified**

## Central Exclusive Production Studies of $\varphi \rightarrow \mu\mu$ at LHCb

*Tuesday 17 January 2023 17:45 (15 minutes)*

**Presenters:** JUSZCZAK, Izabela (The Henryk Niewodniczański Institute of Nuclear Physics Polish Academy of Sciences); JUSZCZAK, Izabela (The Henryk Niewodniczański Institute of Nuclear Physics Polish Academy of Sciences)

**Session Classification:** Young researcher session

Contribution ID: 52

Type: **not specified**

## **Study of heavy quarks production in DIS at HERA using BGK dipole model**

*Tuesday 17 January 2023 16:00 (15 minutes)*

**Presenter:** PIETRZAK, Tobiasz (H. Niewodniczański Institute of Nuclear Physics, Polish Academy of Sciences, ul.Eljasza-Radzikowskiego 152, PL 31342 Kraków, Poland)

**Session Classification:** Young researcher session

Contribution ID: 53

Type: **not specified**

## **Constraining two Higgs doublet models with heavy lepton decays (Z. Olszewska)**

*Tuesday 17 January 2023 16:15 (15 minutes)*

**Session Classification:** Young researcher session

Contribution ID: 54

Type: **not specified**

## Two-photon fusion production of $e^+e^-$ in proton-lead collision

*Tuesday 17 January 2023 16:30 (15 minutes)*

**Presenter:** LINEK, Barbara (University of Rzeszow)

**Session Classification:** Young researcher session

Contribution ID: 55

Type: **not specified**

## **Helicity flip transitions and the t-dependence of exclusive photoproduction of rho meson**

*Tuesday 17 January 2023 17:15 (15 minutes)*

**Presenter:** CISEK, Anna (University of Rzeszow)

**Session Classification:** Young researcher session



Contribution ID: 56

Type: **not specified**

## Search for lepton flavour violation at LHCb

*Tuesday 17 January 2023 17:00 (15 minutes)*

**Presenter:** MALCZEWSKI, Jakub (IFJ PAN)

**Session Classification:** Young researcher session

Contribution ID: 57

Type: **not specified**

## **Asymptotic Behavior of Parton Helicity at Small $x$**

**Presenter:** TAWABUTR, Yossathorn (University of Jyväskylä)

**Session Classification:** Young researcher session

Contribution ID: 58

Type: **not specified**

## **Nuclear PDF determination using Markov Chain Monte Carlo methods (N. Derakhshanian)**

*Tuesday 17 January 2023 17:30 (15 minutes)*

**Session Classification:** Young researcher session

Contribution ID: 59

Type: **not specified**

## $H^{\pm} \rightarrow \tau \nu$ and fake $\tau$ background estimation in the ATLAS experiment

*Tuesday 17 January 2023 16:45 (15 minutes)*

**Presenter:** JUZEK, Monika (IFJ PAN)

**Session Classification:** Young researcher session

Contribution ID: **60**

Type: **not specified**

## **Diffractive and photon-induced processes at CMS**

*Wednesday 18 January 2023 12:00 (30 minutes)*

**Presenter:** KRINTIRAS, Georgios (The University of Kansas)

Contribution ID: **61**

Type: **not specified**

## **Exotics at LHCb**

*Thursday 19 January 2023 10:30 (30 minutes)*

**Presenter:** OBŁĄKOWSKA-MUCHA, Agnieszka

Contribution ID: **62**

Type: **not specified**

## **Registration**

*Tuesday 17 January 2023 08:30 (30 minutes)*

Contribution ID: **63**

Type: **not specified**

## **Registration**

*Wednesday 18 January 2023 08:30 (30 minutes)*



Contribution ID: 64

Type: **not specified**

## **Longitudinal spin structure of the nucleon: data and perspective on EIC**

*Monday 16 January 2023 17:00 (30 minutes)*

**Presenter:** ŻUREK, Maria

Contribution ID: 65

Type: **not specified**

## **EWK, Top, Higgs and BSM Physics with LHeC/FCCeh**

*Thursday 19 January 2023 18:00 (30 minutes)*

**Presenter:** SCHWANENBERGER, Christian Schwanenberger (University of Manchester)