# Diffraction and gluon saturation at the LHC and the EIC

### **Report of Contributions**

Welcome

Contribution ID: 1 Type: not specified

#### Welcome

Monday, June 10, 2024 9:30 AM (5 minutes)

**Presenters:** DESHPANDE, Abhay (Stony Brook University); SABIO VERA, Agustin (University Autonomy de Madrid); ROYON, Christophe; HENTSCHINSKI, Martin (Universidad de Las Americas Puebla); SCHLICHTING, Soeren (University of Bielefeld)

Contribution ID: 2 Type: not specified

#### The discovery of the Odderon

Monday, June 10, 2024 9:50 AM (35 minutes)

**Presenter:** NEMES, Frigyes (CERN)

Contribution ID: 3 Type: not specified

### Levy distributions in elastic pp collisions at LHC energies

Monday, June 10, 2024 11:20 AM (35 minutes)

**Presenter:** CSORGO, Tamas (MATE Institute of Technology KRC, Gyongyos and Wigner RCP, Budapest)

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

# Odderon at the EIC from exclusive chi\_c productions at high energies

Monday, June 10, 2024 10:25 AM (35 minutes)

**Presenter:** BENIC, Sanjin

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

#### Levy alpha-stable generalization of the ReBB model

Monday, June 10, 2024 11:55 AM (35 minutes)

Presenter: SZANYI, István (MATE KRC, University of Kansas, Eötvös University)

Contribution ID: 6 Type: not specified

#### Discussion: soft diffraction, odderon

Monday, June 10, 2024 12:30 PM (30 minutes)

Discussion: soft diffraction, odderon

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

#### Inclusive diffraction at the EIC

Monday, June 10, 2024 2:00 PM (35 minutes)

**Presenter:** STASTO, Anna (Penn State)

Contribution ID: 8 Type: not specified

#### Diffractive PDFs from moderate to small-x

Monday, June 10, 2024 2:35 PM (35 minutes)

**Presenter:** YUAN, Feng (Lawrence Berkeley National Laboratory)

Contribution ID: 9 Type: not specified

#### Large Rapidity Gaps in proton-nucleus interactions

Tuesday, June 11, 2024 2:00 PM (35 minutes)

**Presenter:** Prof. KHOZE, Valeri (IPPP, Durham University)

Contribution ID: 10 Type: not specified

#### Diffractive top pair production at LHC

Monday, June 10, 2024 4:15 PM (35 minutes)

**Presenter:** ERNANI MARTINS NETO, Daniel (IFJ - PAN Kraków)

Contribution ID: 11 Type: not specified

#### Discussion: hard diffraction, gap definition

Monday, June 10, 2024 4:50 PM (40 minutes)

Contribution ID: 12 Type: not specified

#### Hard diffraction with hadronic final states with CMS

Tuesday, June 11, 2024 9:30 AM (35 minutes)

Presenter: BALDENEGRO, Cristian (The University of Kansas (US))

Contribution ID: 13 Type: not specified

#### Jet gap jets and forward jet production

Tuesday, June 11, 2024 10:05 AM (35 minutes)

**Presenter:** ROYON, Christophe

Contribution ID: 15 Type: not specified

#### Non-linear effects in a matrix representation

**Presenter:** SABIO VERA, Agustin (University Autonomy de Madrid)

Contribution ID: 16 Type: not specified

#### Discussion: low x, BFKL, new variables

Tuesday, June 11, 2024 12:20 PM (40 minutes)

Contribution ID: 17 Type: not specified

### Towards a formalization of high energy factorization at NLO

Tuesday, June 11, 2024 2:35 PM (35 minutes)

Presenter: HENTSCHINSKI, Martin (Universidad de Las Americas Puebla)

Contribution ID: 19 Type: not specified

# Forward Higgs production in the infinite-top-mass limit

Tuesday, June 11, 2024 3:40 PM (35 minutes)

**Presenter:** PAPA, Alessandro (Università della Calabria & INFN-Cosenza)

Contribution ID: 20 Type: not specified

### Overview of ATLAS forward proton detectors: status, performance

Monday, June 10, 2024 3:40 PM (35 minutes)

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

Contribution ID: 21 Type: not specified

#### Discussion: theory, diffraction, gap definition

Tuesday, June 11, 2024 4:15 PM (40 minutes)

Contribution ID: 22 Type: not specified

#### Vector meson and charm production in HIN

Wednesday, June 12, 2024 9:30 AM (35 minutes)

**Presenter:** INNOCENTI, Gian Michele (CERN)

Contribution ID: 23 Type: not specified

# Probing gluon saturation in exclusive vector meson production

Wednesday, June 12, 2024 10:05 AM (35 minutes)

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

Contribution ID: 24 Type: not specified

### Recent results on J/psi photoproduction in UPCs with ALICE

Wednesday, June 12, 2024 11:10 AM (35 minutes)

Presenter: BYLINKIN, Alexander (University of Bergen)

Contribution ID: 25 Type: not specified

### The color-glass condensate and the impact parameter

Wednesday, June 12, 2024 11:45 AM (35 minutes)

Presenter: PENTTALA, Jani (UCLA)

Contribution ID: 26 Type: not specified

#### Discussion: saturation, observables, CGC

Wednesday, June 12, 2024 12:20 PM (40 minutes)

Contribution ID: 27 Type: not specified

#### NLO calculations in the dipole picture

Wednesday, June 12, 2024 2:00 PM (35 minutes)

**Presenter:** LAPPI, Tuomas (University of Jyväskylä, Jyväskylä/Fi)

Contribution ID: 28 Type: not specified

# The ALICE FoCal upgrade: Connecting forward LHC and the EIC

Wednesday, June 12, 2024 2:35 PM (35 minutes)

**Presenter:** STRANGMANN, Nicolas (Goethe University Frankfurt)

Contribution ID: 29 Type: not specified

# Exploring light hadrons in ultra-peripheral Pb-Pb collisions with ALICE

Wednesday, June 12, 2024 3:40 PM (35 minutes)

**Presenter:** KIM, Minjung (UC Berkeley)

Contribution ID: 30 Type: not specified

#### Inferring the Initial Condition for the BK equation

Wednesday, June 12, 2024 4:15 PM (35 minutes)

Presenter: CASUGA, Carlisle Aurabelle (University of Jyväskylä)

Contribution ID: 31 Type: not specified

#### Discussion: saturation, observables, CGC

Wednesday, June 12, 2024 4:50 PM (40 minutes)

Contribution ID: 32 Type: not specified

#### PPS results and prospects

Thursday, June 13, 2024 9:30 AM (35 minutes)

**Presenter:** PITT, Michael

Contribution ID: 33 Type: not specified

#### **Exclusive and diffractive physics with ATLAS**

Thursday, June 13, 2024 10:05 AM (35 minutes)

**Presenter:** BERESFORD, Lydia (DESY)

Contribution ID: 34 Type: not specified

# Tetraquark candidates in central exclusive production

Thursday, June 13, 2024 11:10 AM (35 minutes)

**Presenter:** MCNULTY, Ronan (University College Dublin)

Contribution ID: 35 Type: not specified

#### Gamma gamma and tau tau productions in HIN

Thursday, June 13, 2024 11:45 AM (35 minutes)

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

Contribution ID: 36 Type: not specified

#### Discussion: exclusive diffraction, photon exchanges

Thursday, June 13, 2024 12:20 PM (40 minutes)

Contribution ID: 37 Type: not specified

#### TMD evolution at small x

Thursday, June 13, 2024 2:35 PM (35 minutes)

Presenter: IANCU, Edmond (IPhT Saclay)

Contribution ID: 38 Type: not specified

# Diffractive jet production in photon-nucleus collisions

Thursday, June 13, 2024 2:00 PM (35 minutes)

**Presenter:** TRIANTAFYLLOPOULOS, Dionysios (ECT\*, Italy)

Contribution ID: 39 Type: not specified

# Investigating gluonic saturation through deeply virtual meson production at the twist-3

Thursday, June 13, 2024 3:40 PM (35 minutes)

**Presenter:** FUCILLA, Michael (Laboratoire de Physique des 2 Infinis Irène Joliot-Curie IJCLab, Université Paris Saclay)

Contribution ID: 40 Type: not specified

#### Discussion: saturation, jets, factorisation

Thursday, June 13, 2024 4:15 PM (1h 15m)

Contribution ID: 41 Type: not specified

#### **EIC** physics

Friday, June 14, 2024 9:30 AM (30 minutes)

**Presenter:** STASTO, Anna (Penn State)

Contribution ID: 42 Type: not specified

#### Forward physics at the EIC

Friday, June 14, 2024 10:00 AM (30 minutes)

**Presenter:** PITT, Michael

Contribution ID: 43 Type: not specified

#### Running the LHC in different ion modes

Friday, June 14, 2024 10:30 AM (30 minutes)

**Presenter:** INNOCENTI, Gian Michele (CERN)

Contribution ID: 44 Type: **not specified** 

#### Gamma gamma physics at the LHC

Friday, June 14, 2024 11:30 AM (30 minutes)

**Presenter:** ROYON, Christophe

Contribution ID: 45 Type: not specified

### The Lund jet plane analysis: towards new shower MC

Friday, June 14, 2024 12:00 PM (30 minutes)

Presenter: BALDENEGRO, Cristian (The University of Kansas (US))

Contribution ID: 46 Type: **not specified** 

# Discussion: complementarity between LHC and EIC, new ideas

Friday, June 14, 2024 12:30 PM (30 minutes)

Contribution ID: 47 Type: **not specified** 

#### Welcome and ECT\* presentation

Monday, June 10, 2024 9:35 AM (15 minutes)

Presenter: VAN KOLCK, Ubirajara (IJCLab Orsay & University of Arizona)

Contribution ID: 48 Type: not specified

#### **Lecture about Bruno Touschek**

Tuesday, June 11, 2024 4:55 PM (30 minutes)

Presenter: PANCHERI, Giulia (INFN di Frascati)