

Workshop: Hera 4 EIC



Report of Contributions

Contribution ID: 7

Type: **not specified**

The anomalous $Zb\bar{b}$ couplings at the HERA and EIC

To resolve the long-standing discrepancy between the precision measurement of bottom quark forward-backward asymmetry at LEP/SLC and the Standard Model prediction, we propose a novel method to probe the $Zb\bar{b}$ coupling by measuring the single-spin asymmetry A_e^b of the polarized lepton cross section in neutral current DIS processes with a b -tagged jet at HERA and EIC. Depending on the tagging efficiency of the final state b -jet, the measurement of A_e^b at HERA can already partially break the degeneracy found in the anomalous $Zb\bar{b}$ coupling, as implied by the LEP and SLC precision electroweak data. In the first year run of the EIC, the measurement of A_e^b can already break the degeneracy, due to its much larger luminosity and higher electron beam polarization. With enough integrated luminosity collected at the EIC, it is possible to either verify or exclude the LEP data and resolve the A_{FB}^b puzzle.

Primary author: YAN, Bin (LANL)

Presenter: YAN, Bin (LANL)

Contribution ID: 9

Type: **not specified**

Summary of potential analyzes with H1&ZEUS data

Wednesday, June 8, 2022 8:15 AM (40 minutes)

Presenters: SCHMITT, Stefan (DESY); SCHMITT, Stefan (staff@desy.de)

Contribution ID: **10**

Type: **not specified**

H1 history and lessons learnt

Wednesday, June 8, 2022 8:55 AM (40 minutes)

Presenter: DAINTON, John

Contribution ID: 11

Type: **not specified**

ZEUS data preservation and potential future analyzes

Wednesday, June 8, 2022 10:00 AM (40 minutes)

Presenters: GEISER , Achim; GEISER, Achim (staff@desy.de)

Contribution ID: 12

Type: **not specified**

J/psi / psi measurement with ZEUS

Wednesday, June 8, 2022 10:40 AM (30 minutes)

Presenter: GRZELAK, Grzegorz (University of Warsaw)

Contribution ID: 13

Type: **not specified**

New methods for inclusive DIS

Wednesday, June 8, 2022 11:10 AM (30 minutes)

Presenter: CADWELL, Allen

Contribution ID: 14

Type: **not specified**

Inclusive DIS reconstruction with DNN

Friday, June 10, 2022 9:40 AM (25 minutes)

Presenter: LONG, Owen (UC Riverside)

Contribution ID: 15

Type: **not specified**

Measurement of the 1-jettiness event shape with H1

Wednesday, June 8, 2022 12:00 PM (25 minutes)

Presenter: BRITZGER, Daniel (Max-Planck-Institut für Physik München)

Contribution ID: 16

Type: **not specified**

Groomed DIS shapes with H1

Wednesday, June 8, 2022 12:25 PM (25 minutes)

Presenter: KLEST, Henry (Stony Brook University)

Contribution ID: 17

Type: **not specified**

Summary of PDF fits status and prospects

Thursday, June 9, 2022 8:00 AM (45 minutes)

Presenter: COOPER-SARKAR, Amanda (Oxford University)

Contribution ID: **18**

Type: **not specified**

Data preservation in HEP

Thursday, June 9, 2022 9:55 AM (25 minutes)

Presenter: DIACONU, Cristinel

Contribution ID: 19

Type: **not specified**

Double parton scattering

Thursday, June 9, 2022 9:30 AM (25 minutes)

Presenter: RINALDI, Matteo

Contribution ID: 20

Type: **not specified**

H1: Collectiviy in ep collisions

Thursday, June 9, 2022 8:45 AM (25 minutes)

Presenter: SUN, Chuan

Contribution ID: 21

Type: **not specified**

Azimuthal correlations in photoproduction and deep inelastic ep scattering with ZEUS

Thursday, June 9, 2022 10:20 AM (25 minutes)

Presenter: GANGADHARAN, Dhevan (University of Houston)

Contribution ID: 22

Type: **not specified**

The anomalous Zbb couplings at the HERA and EIC

Thursday, June 9, 2022 11:05 AM (25 minutes)

Presenter: YAN, Bin (LANL)

Contribution ID: 23

Type: **not specified**

Hadron-in-jet theory

Thursday, June 9, 2022 11:30 AM (25 minutes)

Presenter: ZHAO, Fanyi (University of California, Los Angeles)

Contribution ID: 24

Type: **not specified**

Multidifferential jet substructure with machine learning with H1

Thursday, June 9, 2022 11:55 AM (25 minutes)

Presenter: MIKUNI, Vinicius (LBNL)

Contribution ID: 25

Type: **not specified**

H1: Probing hadronization and jet substructure with leading particles in jet at H1

Thursday, June 9, 2022 12:20 PM (25 minutes)

Presenter: MONDAL, Mriganka Mouli (Stony Brook University)

Contribution ID: 26

Type: **not specified**

HERMES overview

Friday, June 10, 2022 8:00 AM (40 minutes)

Presenter: SCHNELL, Gunar (University of the Basque Country & IKERBASQUE)

Contribution ID: 27

Type: **not specified**

Hadronic final state at HERA, EIC outlook

Friday, June 10, 2022 8:40 AM (40 minutes)

Presenter: NEWMAN, Paul (University of Birmingham, UK)

Contribution ID: 28

Type: **not specified**

Ideas on Diffraction and fragmentation

Friday, June 10, 2022 10:30 AM (25 minutes)

Presenter: STRIKMAN, Mark (Penn State University)

Contribution ID: 29

Type: **not specified**

H1: Diffractive Vector mesons

Friday, June 10, 2022 11:15 AM (35 minutes)

Presenters: LEVONIAN, Sergey; LEVONIAN, Serguei V. (staff@desy.de)

Contribution ID: **30**

Type: **not specified**

Exclusive vector meson production

Friday, June 10, 2022 11:50 AM (25 minutes)

Presenter: Dr MÄNTYSAARI, Heikki (University of Jyväskylä)

Contribution ID: 31

Type: **not specified**

Fragmentation

Friday, June 10, 2022 1:25 PM (25 minutes)

Presenter: NEILL, Duff (LANL)

Contribution ID: 32

Type: **not specified**

Gluon distributions in pion

Friday, June 10, 2022 10:05 AM (25 minutes)

Presenter: TOLL, Tobias (IIT Delhi)

Contribution ID: 33

Type: **not specified**

Dijet production in CGC

Friday, June 10, 2022 12:35 PM (25 minutes)

Presenter: SALAZAR, Farid (UCLA/UCB/LBNL)

Contribution ID: 34

Type: **not specified**

H1: Entanglement

Friday, June 10, 2022 1:00 PM (25 minutes)

Presenter: TU, Zhoudunming (BNL)

Contribution ID: 35

Type: **not specified**

Jpsi at HERA I and II

Presenter: BRUNI, Alessia (INFN, Bologna (IT))

Contribution ID: 36

Type: **not specified**

eA MC generator – BeAGLE

Presenter: BAKER, Mark (MDBPADS)

Contribution ID: 37

Type: **not specified**

Welcome

Wednesday, June 8, 2022 8:00 AM (15 minutes)

Presenters: ARRATIA, Miguel (University of California, Riverside); DESHPANDE, Abhay (Stony Brook University)