

California EIC Consortium Collaboration Meeting



Report of Contributions

Contribution ID: 2

Type: **not specified**

Investigation of Vector Meson Backward-Production Capabilities at the EIC

Backward (u -channel) production of vector mesons in ep collisions is characterized by a final state consisting of a nearly-stopped proton and a vector meson with a large forward momentum. In conventional (forward, t -channel) production, the momentum transfer from the proton to the meson is small and is modeled by pomeron-exchange trajectories. The less well-understood u -channel production is modeled by a baryon-exchange trajectory and can provide unique insight into the nucleon wave function and inform contributions to baryon stopping in heavy-ion collisions. The Electron-Ion Collider presents the nuclear physics community with an opportunity to measure u -channel production at higher center-of-mass energies than previously available. Measurements of backward-production events require far-forward detectors for observing high-rapidity mesons. eS-TARlight, a code for modeling vector-meson production, is used to simulate backward-production events at the EIC. Several production channels will be analyzed at the known EIC collision energies, and detection capabilities for proposed detector designs will be assessed.

Primary author: SWEGGER, Zachary (University of California, Davis)

Presenter: SWEGGER, Zachary (University of California, Davis)

Contribution ID: 9

Type: **not specified**

Welcome

Monday, 18 July 2022 10:00 (5 minutes)

Presenter: CEBRA, Daniel (UCD)

Contribution ID: **12**

Type: **not specified**

EIC Project Overview

Monday, 18 July 2022 10:05 (25 minutes)

Presenter: JACAK, Barbara (UCB/LBNL)

Contribution ID: **13**

Type: **not specified**

Detector 1 Physics and Pverview

Monday, 18 July 2022 11:00 (30 minutes)

Presenters: SCHMOOKLER, Barak (UCR); SCHMOOKLER, Barak (UC Riverside)

Contribution ID: **14**

Type: **not specified**

A new era for small-x physics

Tuesday, 19 July 2022 09:00 (20 minutes)

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

Contribution ID: 15

Type: **not specified**

Investigation of Vector Meson Backward-Production Capabilities at the EIC

Tuesday, 19 July 2022 09:20 (20 minutes)

Presenter: SWEGGER, Zachary (University of California, Davis)

Contribution ID: **16**

Type: **not specified**

UC Davis Overview

Monday, 18 July 2022 11:30 (15 minutes)

Presenter: CALDERON DE LA BARCA SANCHEZ, Manuel (UC Davis)

Contribution ID: 17

Type: **not specified**

UCB Overview

Monday, 18 July 2022 11:45 (20 minutes)

Presenter: JACAK, Barbara (UC Berkeley and LBNL)

Contribution ID: **18**

Type: **not specified**

LBNL Overview

Monday, 18 July 2022 12:05 (20 minutes)

Presenter: SICHTERMANN, Ernst (Lawrence Berkeley National Laboratory)

Contribution ID: **19**

Type: **not specified**

LLNL Overview

Monday, 18 July 2022 12:25 (15 minutes)

Presenters: VOGT, Ramona (LLNL and UC Davis); VOGT, Ramona

Contribution ID: **20**

Type: **not specified**

UCLA Overview

Monday, 18 July 2022 14:30 (20 minutes)

Presenter: HUANG, Huan (UCLA)

Contribution ID: **21**

Type: **not specified**

UCR Overview

Monday, 18 July 2022 14:50 (20 minutes)

Presenter: ARRATIA, Miguel (University of California, Riverside)

Contribution ID: 22

Type: **not specified**

LANL Overview

Monday, 18 July 2022 15:10 (20 minutes)

Presenter: NAGAI, Kei (Los Alamos National Laboratory)

Contribution ID: 23

Type: **not specified**

Cal Poly SLO Overview

Tuesday, 19 July 2022 12:20 (10 minutes)

Presenter: Prof. KLAY, Jennifer (Cal Poly San Luis Obispo)

Contribution ID: 24

Type: **not specified**

Performance of a proposed high-granularity calorimeter insert for the EIC

Tuesday, 19 July 2022 14:30 (20 minutes)

Presenter: MILTON, Ryan (UCLA)

Contribution ID: 25

Type: **not specified**

"Flash Talk" Light yield measurement of SiPM-on-tile with cosmic rays

Tuesday, 19 July 2022 15:10 (10 minutes)

Presenter: RODRIGUEZ, Miguel (UCR)

Contribution ID: 26

Type: **not specified**

Probing nucleon spin structure with inclusive DIS

Tuesday, 19 July 2022 10:00 (30 minutes)

Presenters: SCHMOOKLER, Barak (UCR); SCHMOOKLER, Barak (UC Riverside)

Contribution ID: 27

Type: **not specified**

Unveiling Nucleon 3D Chiral-Odd Structure with Jet Axes

Tuesday, 19 July 2022 11:00 (20 minutes)

Presenter: LAI, Wai Kin (University of California, Los Angeles)

Contribution ID: 28

Type: **not specified**

QED radiative effects at the EIC

Tuesday, 19 July 2022 11:20 (20 minutes)

Presenter: HWANG, Minyoung (UCB/LBNL)

Contribution ID: 29

Type: **not specified**

Geant4 Simulations of High-Granularity HCAL Insert

Tuesday, 19 July 2022 14:50 (20 minutes)

Presenter: KARKI, Bishnu (University of California, Riverside)

Contribution ID: **30**

Type: **not specified**

"Flash Talk" Laboratory Set Up and the Modify of Sipm Waveform Collections

Tuesday, 19 July 2022 15:20 (10 minutes)

Presenter: HUANG, JiaJun (UCR)

Contribution ID: 31

Type: **not specified**

"Flash Talk" Studies of scintillators with wavelength-shifting fiber readout

Tuesday, 19 July 2022 15:30 (10 minutes)

Presenter: GARABITO, Luis (lgara004@ucr.edu)

Contribution ID: **32**

Type: **not specified**

Forward Charm Production

Monday, 18 July 2022 15:30 (30 minutes)

Presenter: VOGT, Ramona (LLNL and UC Davis)

Contribution ID: 33

Type: **not specified**

J/psi Production in e+p in the ICEM

Monday, 18 July 2022 16:30 (30 minutes)

Presenter: CHEUNG, Vincent (LLNL)

Contribution ID: **34**

Type: **not specified**

D0 double ratio measurement at the EIC

Tuesday, 19 July 2022 09:40 (20 minutes)

Presenter: FAN, Wenqing (LBNL)

Contribution ID: 35

Type: **not specified**

Track finding at the EIC

Tuesday, 19 July 2022 11:40 (20 minutes)

Presenter: LAI, Yue Shi (UC Berkeley)

Contribution ID: 36

Type: **not specified**

MC studies to optimize pixel tracker

Tuesday, 19 July 2022 12:00 (20 minutes)

Presenter: CRUZ-TORRES, Rey (UCB)

Contribution ID: **40**

Type: **not specified**

Jet Physics at the EIC

Monday, 18 July 2022 17:00 (30 minutes)

Presenter: KANG, Zhongbo (UCLA)

Contribution ID: 41

Type: **not specified**

"Flash Talk" Simulations of jets and jet charge at the EIC

Tuesday, 19 July 2022 15:40 (10 minutes)

Presenter: GAMIRE, Grace (Cal Poly SLO/UCLA)

Contribution ID: 42

Type: **not specified**

Benefits of Machine Learning in DIS reconstruction and unfolding

Tuesday, 19 July 2022 16:40 (20 minutes)

Presenter: LONG, Owen (UCLA)

Contribution ID: 43

Type: **not specified**

Conformal Colliders Meet the LHC (and the EIC)

Tuesday, 19 July 2022 17:00 (20 minutes)

Presenter: LEE, Kyle (LBNL)

Contribution ID: 44

Type: **not specified**

EIC Detector-1 pECal performance study

Tuesday, 19 July 2022 17:20 (20 minutes)

Presenter: JI, Zhongling (UCLA)

Contribution ID: 45

Type: **not specified**

The Gluon Sivers Asymmetry in Dijet Production at the EIC

Tuesday, 19 July 2022 17:40 (20 minutes)

Presenter: TERRY, John (UCLA)

Contribution ID: 46

Type: **not specified**

Electron showers in calorimeter insert

Tuesday, 19 July 2022 15:50 (10 minutes)

Presenter: PAUL, Ananya (University of California, Riverside)

Contribution ID: 47

Type: **not specified**

SiPM-on-tile uniformity and cross-talk measurements

Tuesday, 19 July 2022 16:00 (10 minutes)

Presenter: PREINS, Sean (University of California, Riverside)