

# 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:** SWEGER, Zachary (University of California, Davis)

**Presenter:** SWEGER, 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 Siplm 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)