

# **ELECTRON ION COLLIDER USER GROUP MEETING 2016**

## **Report of Contributions**

Contribution ID: 0

Type: **not specified**

## Welcome + overview of the meeting/discussions

*Wednesday, 6 January 2016 09:00 (20 minutes)*

**Presenter:** BARBARA, Jacak (LBNL / UCB)

**Session Classification:** Introductory lectures on EIC science

Contribution ID: 1

Type: **not specified**

## QCD at EIC

*Wednesday, 6 January 2016 09:20 (50 minutes)*

(40 + 10)

**Presenter:** KOVCHegov, Yuri (Ohio State)

**Session Classification:** Introductory lectures on EIC science

Contribution ID: 2

Type: **not specified**

## Detector requirements at EIC

*Wednesday, 6 January 2016 10:10 (50 minutes)*

(40 + 10)

**Presenter:** ASCHENAUER, Elke (BNL)

**Session Classification:** Introductory lectures on EIC science

Contribution ID: 3

Type: **not specified**

## **EIC Accelerator frontiers and challenges**

*Wednesday, 6 January 2016 11:30 (50 minutes)*

(40 + 10)

**Presenter:** WIENANDS, Uli (SLAC)

**Session Classification:** Introductory lectures on EIC science

Contribution ID: 4

Type: **not specified**

## **EIC in the Long Range Plan and the next 10 years**

*Wednesday, 6 January 2016 14:00 (30 minutes)*

(20+10)

**Presenter:** GEESAMAN, Don (ANL)

**Session Classification:** Physics in the Long Range Plan

Contribution ID: 5

Type: **not specified**

## Views from the DOE

*Wednesday, 6 January 2016 14:30 (30 minutes)*

(20+10)

**Presenter:** HALLMAN, Tim (DOE/NP)

**Session Classification:** Physics in the Long Range Plan

Contribution ID: 6

Type: **not specified**

## **EIC users Group aims and aspirations**

*Wednesday, 6 January 2016 15:00 (30 minutes)*

Discussion

**Presenter:** HYDE, Charles (Old Dominion)

**Session Classification:** Physics in the Long Range Plan



Contribution ID: 7

Type: **not specified**

## QCD in 2025 (in both ep AND eA)

*Wednesday, 6 January 2016 16:00 (35 minutes)*

(30+5)

**Presenter:** QIU, Jianwei (BNL)

**Session Classification:** Physics in the Long Range Plan

Contribution ID: 8

Type: **not specified**

## **eRHIC Machine Status, Plan, R&D Milestones**

*Wednesday, 6 January 2016 16:35 (45 minutes)*

(35+10)

**Presenter:** ROSER, Thomas (BNL)

**Session Classification:** Physics in the Long Range Plan

Contribution ID: 9

Type: **not specified**

## **JLEIC Machine Status, Plan, R&D Milestones**

*Wednesday, 6 January 2016 17:20 (45 minutes)*

(35+10)

**Presenter:** PILAT, Fulvia (JLAB)

**Session Classification:** Physics in the Long Range Plan

Contribution ID: **10**

Type: **not specified**

## Discussion on International Participation in Projects

*Thursday, 7 January 2016 09:00 (30 minutes)*

Discussion

**Presenter:** ENT, Rolf (JLAB)

**Session Classification:** Physics beyond the White Paper/LRP

Contribution ID: **11**

Type: **not specified**

## **TMDs and saturation physics**

*Thursday, 7 January 2016 09:30 (30 minutes)*

(25 + 5)

**Presenter:** XIAO, Bowen (CCNU, China)

**Session Classification:** Physics beyond the White Paper/LRP

Contribution ID: 12

Type: **not specified**

## **GPDs and transverse geometry in high-energy ep/pp/pA collisions**

*Thursday, 7 January 2016 10:00 (30 minutes)*

(25 + 5)

**Presenter:** WAGNER, Jakub (Warsaw)

**Session Classification:** Physics beyond the White Paper/LRP

Contribution ID: 13

Type: **not specified**

## Lattice QCD insights for EIC

*Thursday, 7 January 2016 11:00 (30 minutes)*

(25 + 5)

**Presenter:** HUEY-WEN, Lin (LBNL)

**Session Classification:** Physics beyond the White Paper/LRP

Contribution ID: **14**

Type: **not specified**

## **Jets at EIC**

*Thursday, 7 January 2016 11:30 (30 minutes)*

(25 + 5)

**Presenter:** VITEV, Ivan (LANL)

**Session Classification:** Physics beyond the White Paper/LRP



Contribution ID: 15

Type: **not specified**

## **Physics in small systems: what to expect in eA given “the ridge” in pA and high multiplicity pp**

*Thursday, 7 January 2016 12:00 (30 minutes)*

(25 + 5)

**Presenter:** HEINZ, Ulrich (Ohio State)

**Session Classification:** Physics beyond the White Paper/LRP

Contribution ID: **16**

Type: **not specified**

## **JLEIC (large acceptance)**

*Thursday, 7 January 2016 14:00 (25 minutes)*

(20 + 5)

**Presenter:** NADEL-TURONSKI, Pawel (JLAB)

**Session Classification:** Detectors at EIC

Contribution ID: 17

Type: **not specified**

## **JLEIC (second phase, dedicated to specific measurements)**

*Thursday, 7 January 2016 14:25 (25 minutes)*

(20 + 5)

**Presenter:** HAFIDI, Kawtar (ANL)

**Session Classification:** Detectors at EIC

Contribution ID: **18**

Type: **not specified**

## BeAST detector

*Thursday, 7 January 2016 14:50 (25 minutes)*

(20 + 5)

**Presenter:** KISELEV, Alexander (BNL)

**Session Classification:** Detectors at EIC

Contribution ID: **19**

Type: **not specified**

## **ePHENIX/CELESTE detector**

*Thursday, 7 January 2016 15:15 (25 minutes)*

(20 + 5)

**Presenter:** FEEGE, Nils (Stony Brook)

**Session Classification:** Detectors at EIC

Contribution ID: **20**

Type: **not specified**

## IR design issues

*Thursday, 7 January 2016 16:00 (25 minutes)*

(20 + 5)

**Presenter:** SULLIVAN, Mike (SLAC)

**Session Classification:** Detectors at EIC

Contribution ID: **21**

Type: **not specified**

## **LHEC status and plans**

*Saturday, 9 January 2016 12:00 (35 minutes)*

(30 + 5)

**Presenter:** ARMESTO, Nestor (University Santiago de Compostela)

**Session Classification:** Physics beyond the White Paper/LRP

Contribution ID: 22

Type: **not specified**

## EIC Detector R&D overview

*Saturday, 9 January 2016 09:00 (25 minutes)*

(20 + 5)

**Presenters:** MUNOZ-CAMACHO, Carlos (Orsay); DEHMELT, Klaus (Stony Brook)

**Session Classification:** Physics beyond the White Paper/LRP



Contribution ID: **23**

Type: **not specified**

## Reception

*Thursday, 7 January 2016 17:30 (1h 30m)*

Registered attendees and by invitation only

Contribution ID: 24

Type: **not specified**

# The Intersection of Art and Science

*Thursday, 7 January 2016 19:00 (1 hour)*

Public Lecture

**Presenter:** WILCZEK, Frank (MIT)

Contribution ID: 25

Type: **not specified**

## **EICUG structure & role of EIC steering committee**

*Friday, 8 January 2016 09:00 (30 minutes)*

(20+10) - Discussion

**Presenter:** DESHPANDE, Abhay (Stony Brook)

**Session Classification:** EICUG Organization

Contribution ID: 26

Type: **not specified**

## Lab Managements' views

*Friday, 8 January 2016 09:30 (30 minutes)*

(2 x 10+5 minutes)

**Presenters:** MUELLER, Berndt (BNL); MCKEOWN, Bob (JLAB)

**Session Classification:** EICUG Organization

Contribution ID: 27

Type: **not specified**

## **New ideas, new groups, new ways to do things?**

*Friday, 8 January 2016 10:00 (1h 15m)*

Open Mic

**Presenter:** MILNER, Richard (MIT)

**Session Classification:** EICUG Organization

Contribution ID: **28**

Type: **not specified**

## **Further discussions on EICUG formation and EIC science goals**

*Friday, 8 January 2016 11:40 (50 minutes)*

Discussion

**Presenter:** MILNER, Richard (MIT)

**Session Classification:** EICUG Organization

Contribution ID: 29

Type: **not specified**

## **Next Steps: EICUG activities toward CD0; identify and set up topical groups**

*Saturday, 9 January 2016 14:30 (1h 30m)*

**Presenter:** MEZIANI, Zein-Eddine (Temple)

**Session Classification:** Moving forward

Contribution ID: 30

Type: **not specified**

## **Insights from heavy ion physics: parton propagation and hadronization in nuclei and quark gluon plasma**

*Saturday, 9 January 2016 09:25 (30 minutes)*

(25 + 5)

**Presenter:** MEHTAR-TANI, Yacine (U. Washington/INT)

**Session Classification:** Physics beyond the White Paper/LRP



Contribution ID: 31

Type: **not specified**

## Hadronization in the current and target fragmentation regions

*Saturday, 9 January 2016 11:30 (30 minutes)*

(25 + 5)

**Presenter:** WEISS, Christian (JLab)

**Session Classification:** Physics beyond the White Paper/LRP

Contribution ID: **32**

Type: **not specified**

## Electroweak physics at EIC

*Saturday, 9 January 2016 09:55 (30 minutes)*

(25 + 5)

**Presenter:** MANTRY, Sonny (U. of North Georgia)

**Session Classification:** Physics beyond the White Paper/LRP

Contribution ID: 33

Type: **not specified**

## Physics at EIC with real photons

*Saturday, 9 January 2016 11:00 (30 minutes)*

(25 + 5)

**Presenter:** STEVENS, Justin (JLAB)

**Session Classification:** Physics beyond the White Paper/LRP

Contribution ID: **34**

Type: **not specified**

## Physics with light ions

*Thursday, 7 January 2016 16:25 (30 minutes)*

(25 + 5)

**Presenter:** SARGSYAN, Misak (FIU)

**Session Classification:** Detectors at EIC

Contribution ID: 35

Type: **not specified**

## EIC Physics Discussions in Japan

*Saturday, 9 January 2016 14:00 (30 minutes)*

(25 + 5)

**Presenter:** GOTO, Yuji (RIKEN)

**Session Classification:** Moving forward

Contribution ID: **36**

Type: **not specified**

## **Banquet at Lawrence Hall of Science**

*Friday, 8 January 2016 18:30 (3 hours)*

Contribution ID: 37

Type: **not specified**

## **TMD's at High Density: Quasi-Classical Approximation**

*Friday, 8 January 2016 14:00 (24 minutes)*

**Presenter:** SIEVERT, Matt (BNL)

**Session Classification:** Hadron structure, nuclear environment & binding

Contribution ID: **38**

Type: **not specified**

# **Incoherent diffraction as a probe of fluctuations**

*Friday, 8 January 2016 14:24 (24 minutes)*

**Presenter:** MÄNTYSAARI, Heikki (BNL)

**Session Classification:** Hadron structure, nuclear environment & binding



Contribution ID: 39

Type: **not specified**

## Structure Functions and Nuclear PDFs in eA Collisions

*Friday, 8 January 2016 14:48 (24 minutes)*

**Presenter:** ULLRICH, Thomas (BNL / Yale)

**Session Classification:** Hadron structure, nuclear environment & binding

Contribution ID: 40

Type: **not specified**

## Actually Measuring Intrinsic Kt using DIS

*Friday, 8 January 2016 15:12 (24 minutes)*

**Presenter:** BAKER, Mark (BNL)

**Session Classification:** Hadron structure, nuclear environment & binding

Contribution ID: 41

Type: **not specified**

## Possible searches for leptoquarks

*Friday, 8 January 2016 15:36 (24 minutes)*

**Presenter:** FURLETOVA, Yulia (JLAB)

**Session Classification:** Hadron structure, nuclear environment & binding

Contribution ID: 42

Type: **not specified**

## Nuclear gluons with charm at EIC

*Friday, 8 January 2016 16:24 (24 minutes)*

**Presenter:** WEISS, Christian (JLAB)

**Session Classification:** Hadron structure, nuclear environment & binding

Contribution ID: 43

Type: **not specified**

## Nuclear Effects at an EIC

*Friday, 8 January 2016 16:48 (24 minutes)*

**Presenter:** MILLER, Jerry (U Washington)

**Session Classification:** Hadron structure, nuclear environment & binding

Contribution ID: 44

Type: **not specified**

## Tagging with few body nuclei

*Friday, 8 January 2016 17:12 (24 minutes)*

**Presenter:** HYDE, Charles (Old Dominion U)

**Session Classification:** Hadron structure, nuclear environment & binding

Contribution ID: 45

Type: **not specified**

## NLO SIDIS Theory

*Friday, 8 January 2016 17:36 (24 minutes)*

**Presenter:** XING, Hongxi (LANL)

**Session Classification:** Hadron structure, nuclear environment & binding

Contribution ID: 46

Type: **not specified**

## Computing for EIC

*Friday, 8 January 2016 14:00 (25 minutes)*

(20 + 5)

**Presenter:** DIEFENTHALER, Markus (JLAB)

**Session Classification:** Detector R&D studies, software needs and development for the EIC motivated by the physics measurements



Contribution ID: 47

Type: **not specified**

## Calorimetry

*Friday, 8 January 2016 14:25 (25 minutes)*

(20 + 5)

**Presenter:** HUANG, Jin (BNL)

**Session Classification:** Detector R&D studies, software needs and development for the EIC motivated by the physics measurements

Contribution ID: 48

Type: **not specified**

## Gas Tracking

*Friday, 8 January 2016 14:50 (25 minutes)*

(20 + 5)

**Presenter:** POSIK, Matt (Temple U)

**Session Classification:** Detector R&D studies, software needs and development for the EIC motivated by the physics measurements

Contribution ID: 49

Type: **not specified**

## Polarimetry

*Friday, 8 January 2016 15:15 (15 minutes)*

(12 + 3)

**Presenter:** HOSKINS, Joshua (U Manitoba)

**Session Classification:** Detector R&D studies, software needs and development for the EIC motivated by the physics measurements

Contribution ID: 50

Type: **not specified**

## Low Q-tagger, Luminosity detector

*Friday, 8 January 2016 15:30 (20 minutes)*

(15 +5)

**Presenter:** PETTI, Rich (BNL)

**Session Classification:** Detector R&D studies, software needs and development for the EIC motivated by the physics measurements

Contribution ID: 51

Type: **not specified**

## DIRC/photosensors

*Friday, 8 January 2016 16:05 (20 minutes)*

(15 +5)

**Presenter:** KALICY, Greg (ODU / JLAB)

**Session Classification:** Detector R&D studies, software needs and development for the EIC motivated by the physics measurements

Contribution ID: 52

Type: **not specified**

## TOF/photosensors

*Friday, 8 January 2016 16:25 (20 minutes)*

(15 +5)

**Presenter:** IHNJEA, Choi (UIUC)

**Session Classification:** Detector R&D studies, software needs and development for the EIC motivated by the physics measurements

Contribution ID: 53

Type: **not specified**

## Aerogel, Dual-radiator RICH

*Friday, 8 January 2016 16:45 (20 minutes)*

(15 +5)

**Presenter:** ZHAO, Zhiwen (Duke U)

**Session Classification:** Detector R&D studies, software needs and development for the EIC motivated by the physics measurements

Contribution ID: 54

Type: **not specified**

## Maps

*Friday, 8 January 2016 17:05 (20 minutes)*

(15+5)

**Presenter:** SICHTERMANN, Ernst (LBNL)

**Session Classification:** Detector R&D studies, software needs and development for the EIC motivated by the physics measurements



Contribution ID: 55

Type: **not specified**

## Polarized He3 ion source for RHIC

*Friday, 8 January 2016 17:25 (20 minutes)*

(15 +5)

**Presenter:** MILNER, Richard (MIT)

**Session Classification:** Detector R&D studies, software needs and development for the EIC motivated by the physics measurements

Contribution ID: 56

Type: **not specified**

## Magnetic Cloak

*Friday, 8 January 2016 17:45 (15 minutes)*

(12 +3)

**Presenter:** FEEGE, Nils (Stony Brook)

**Session Classification:** Detector R&D studies, software needs and development for the EIC motivated by the physics measurements

Contribution ID: 57

Type: **not specified**

## Gluon Sivers at EIC

*Friday, 8 January 2016 14:00 (24 minutes)*

(20 + 4)

**Presenter:** ZHENG, Liang (CCNU)

**Session Classification:** Collective behavior of partons in nucleons and nuclei & their consequences

Contribution ID: 58

Type: **not specified**

## Transverse spin observables and multi-parton correlations in hadrons at an EIC

*Friday, 8 January 2016 14:24 (24 minutes)*

(20 + 4)

**Presenter:** PITONYAK, Daniel (BNL)

**Session Classification:** Collective behavior of partons in nucleons and nuclei & their consequences

Contribution ID: 59

Type: **not specified**

## W physics

*Friday, 8 January 2016 14:48 (24 minutes)*

(20 + 4)

**Presenter:** XING, Hongxi (LANL)

**Session Classification:** Collective behavior of partons in nucleons and nuclei & their consequences

Contribution ID: **60**

Type: **not specified**

## OAM

*Friday, 8 January 2016 15:12 (24 minutes)*

(20 + 4)

**Presenter:** LIUTI, Simonetta (U Virginia)

**Session Classification:** Collective behavior of partons in nucleons and nuclei & their consequences

Contribution ID: **61**

Type: **not specified**

## Hadron distributions in a jet

*Friday, 8 January 2016 15:36 (24 minutes)*

(20 + 4)

**Presenter:** RINGER, Felix (LANL)

**Session Classification:** Collective behavior of partons in nucleons and nuclei & their consequences

Contribution ID: 62

Type: **not specified**

## TMD's at High Density: Quantum Evolution

*Friday, 8 January 2016 16:24 (24 minutes)*

(20 + 4)

**Presenter:** SIEVERT, Matt (BNL)

**Session Classification:** Collective behavior of partons in nucleons and nuclei & their consequences



Contribution ID: **63**

Type: **not specified**

## Jets at EIC

*Friday, 8 January 2016 16:48 (24 minutes)*

**Presenter:** PAGE, Brian (BNL)

**Session Classification:** Collective behavior of partons in nucleons and nuclei & their consequences

Contribution ID: 64

Type: **not specified**

## Partonic structure of photons

*Friday, 8 January 2016 17:12 (24 minutes)*

(20 + 4)

**Presenter:** CHU, Xiaoxuan (BNL)

**Session Classification:** Collective behavior of partons in nucleons and nuclei & their consequences

Contribution ID: 65

Type: **not specified**

## Correlation of hadrons in current and target fragmentation regions

*Friday, 8 January 2016 17:36 (24 minutes)*

(20 + 4)

**Presenter:** AVAKIAN, Harut (JLAB)

**Session Classification:** Collective behavior of partons in nucleons and nuclei & their consequences