

2nd PSQ@EIC Meeting: Precision Studies on QCD at EIC

Monday, 19 July 2021 - Friday, 23 July 2021

Online Programme

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Monday 19 July 2021

Session: 1. US EIC at BNL and Science Challenges (8 AM - 9:10 AM, 19 July, US EDT) (21:00-22:10)

-Conveners: Morrison, David (BNL)

time	[id] title	presenter
21:00	[1] Welcome Remarks	DESHPANDE, Abhay (Stony Brook University)
21:05	[2] Welcome Remarks	BHANG, Yunkyu (APCTP)
21:10	[3] International relations & detector technologies	ENT, Rolf (Jefferson Lab)
21:30	[4] International relations & accelerator technologies	SERYI, Andrei (JLAB)
21:50	[5] Towards high luminosities at low CMS in an EIC-IR	WILLEKE, Ferdinand (BNL)

Break (22:10-22:25)

Session: 2. Experiment/Theory Opportunities in Lepton-Nuclear Community (9:25 AM - 11:25 AM, 19 July, US EDT) (22:25-00:25)

-Conveners: Afanasev, Andrei (George Washington University)

time	[id] title	presenter
22:25	[58] Challenges of QCD at the EIC	SCHAEFER, Andreas (Regensburg University)
23:05	[6] Activities of the Korean community for the EIC	KIM, Yongsun (Sejong University)
23:25	[7] The Electron Ion Collider in China project (EiC)	ZHAO, Yuxiang (Institute of Modern Physics, Chinese Academy of Sciences)
23:45	[8] AMBER@CERN project	KABUSS, Eva-Maria (Institut fuer Kernphysik, Mainz University)
00:05	[13] Jefferson Lab upgrade options	MCKEOWN, R. (Jefferson Lab.)

Tuesday 20 July 2021

Session: 3. Discussion Session (8 PM - 9:45 PM, 19 July, US EDT) (09:00-10:45)

-Conveners: Yoo, Hwidong (Yonsei University)

time	[id] title	presenter
09:00	[55] EIC detectors and collider - possibilities on technical collaborations	SERYI, Andrei (JLAB) ENT, Rolf (Jefferson Lab)
09:45	[56] Dual-readout calorimetry	LEE, Sehwook (Kyungpook National University)
10:15	[57] Silicon detector activities in Korea	LIM, Sanghoon (Pusan National University)

Recess: APCTP Focus Program in Nuclear Physics: Science Opportunities with EIC (Companion Meeting)

(10:45-21:00)

Session: 4. Stitching Together a 5D Image of the Nucleon A (8:00 AM - 9:30 AM, 20 July, US EDT) (21:00-22:30)

-Conveners: Jo, Hyon-Suk (Kyungpook National University)

time	[id] title	presenter
21:00	[14] Wigner functions and their 3D projections	YUAN, Feng (Lawrence Berkeley National Laboratory)
21:30	[15] Connecting DVCS at low and high energies for precision imaging	GIROD, Francois-Xavier (George Washington University)
22:00	[16] Glue Imaging in production of vector mesons J/psi and phi	XIAO, Bowen (Central China Normal University)

Break (22:30-22:45)

Session: 5. Stitching Together a 5D Image of the Nucleon B (9:45 AM - 11:15 AM, 20 July, US EDT) (22:45-00:15)

-Conveners: Radici, Marco (INFN - Sezione di Pavia)

time	[id] title	presenter
22:45	[17] TMD program with single and double hadron production	DILKS, Christopher (Duke University)
23:15	[18] Measuring TMDs in the nuclear medium	TERRY, John (UCLA)
23:45	[20] The Role of Lattice QCD in nucleon imaging	HADJIYIANNAKOU, Kyriakos (University of Cyprus)

Wednesday 21 July 2021

Session: 6. Stitching Together a 5D Image of the Nucleon C (8 PM - 10 PM, 20 July, US EDT) (09:00-11:00)

-Conveners: Vossen, Anselm (Duke University)

time	[id] title	presenter
09:00	[67] Probing gluon saturation with dihadron correlation at the EIC	ZHENG, Liang (China University of Geosciences)
09:20	[68] TMD dependent spin physics with jets at the EIC	LEE, Kyle (LBNL)
09:40	[69] Phenomenology of T-odd jet functions	LAI, Wai Kin (South China Normal University)
10:00	[66] Lambda polarization at EIC	ZHANG, Jinlong (Shandong University)
10:20	[70] Neutron spin structure from e-He3 with double spectator tagging at EIC	NGUYEN, Dien (JLAB)
10:40	[71] GTMD model predictions for diffractive dijet production at EIC	SETYADI, Chalis (Van Swinderen Institute for Particle Physics and Gravity, University of Groningen)

Recess: APCTP Focus Program in Nuclear Physics: Science Opportunities with EIC (Companion Meeting)

(11:00-21:00)

Session: 7. Fundamental Questions, Beyond Imaging & Other Highlights A (8:00 AM - 9:30 AM, 21 July, US EDT)

(21:00-22:30)

-Conveners: Ji, Xiangdong (CNF, UMd)

time	[id] title	presenter
21:00	[21] Origin of mass – How EIC can provide insight	CLOET, Ian (Argonne National Laboratory)
21:30	[22] Origin of confinement – How EIC can provide insight	LEINWEBER, Derek (University of Adelaide)
22:00	[23] The quest for gravitational properties of subatomic particles	TERYAEV, Oleg (JINR)

Break (22:30-22:45)

Session: 8. Fundamental Questions, Beyond Imaging & Other Highlights B (9:45 AM - 11:30 AM, 21 July, US EDT)

(22:45-00:25)

-Conveners: Contalbrigo, Marco (INFN Ferrara)

time	[id] title	presenter
22:45	[24] What makes the proton a stable particle and how can the EIC provide insights	LIU, Keh-Fei (University of Kentucky)
23:10	[25] A new look at hadron structure from a modern perspective	KIM, Hyun-Chul (Inha University)
23:35	[26] Nucleon size: charge-, magnetic-, mass-, gravitational-, gluons- radius	ZAHED, Ismail (Stony Brook University)
00:00	[27] The mass gap in (1+1)-dim QCD	JI, Chueng-Ryong (North Carolina State University)

Thursday 22 July 2021

Session: 9. Fundamental Questions, Beyond Imaging & Other Highlights C (8 PM - 10 PM, 21 July, US EDT)

(09:00-11:10)

-Conveners: Mokeev, Victor (JLab)

time	[id] title	presenter
09:00	[61] Studying the emergence of mass using pion and kaon targets	ROBERTS, Craig (Nanjing University)
09:30	[65] Measures of pion and kaon structure: mass and pressure distributions via GPDs	RAYA MONTAÑO, Khépani (Nanjing University)
09:50	[62] Testing a hexaquark picture for $d^*(2380)$	KIM, Hungchong (Korea University)
10:10	[63] Quarkonia and heavy-light mesons in a Bethe-Salpeter approach	EL-BENNICH, Bruno (Universidade Cidade de São Paulo)
10:30	[64] QCD Analysis of Near-threshold photon-proton production of heavy quarkonium	GUO, Yuxun (CNF, UMD)
10:50	[74] Lattice calculations of hadron structure in the pseudo-PDF framework, and their impact in resolving the internal structure of mesons and baryons	RICHARDS, David (Jefferson Laboratory)

Recess: APCTP Focus Program in Nuclear Physics: Science Opportunities with EIC (Companion Meeting)

(11:20-21:00)

Session: 10. Spectroscopy and Nuclear Processes (8:00 AM - 10 AM, 22 July, US EDT) (21:00-23:00)

-Conveners: Joo, Kyungseon (University of Connecticut)

time	[id] title	presenter
21:00	[28] Exotic hadron spectroscopy and heavy flavors at EIC	GUO, Feng-Kun (ITP, CAS)
21:30	[29] XYZ Hadron production & decays at the EIC and detector response	GLAZIER, Derek (Glasgow University)
22:00	[30] Science highlights with light ions	COSYN, Wim (FIU)
22:30	[31] Far-forward particle detection and second focus	NADEL-TURONSKI, Pawel (CFNS, Stony Brook University)

Break (23:00-23:15)

Session: 11. Detectors (10:15 AM - 11:30 AM, 22 July, US EDT) (23:15-00:30)

-Conveners: Burkert, Volker (Jefferson Lab)

time	[id] title	presenter
23:15	[32] ATHENA Detector collaboration	BOSSU, Francesco (CEA-Saclay)
23:35	[33] CORE Detector collaboration	HYDE, Charles (Old Dominion University)
23:55	[34] ECCE Detector collaboration	HEN, Or (MIT)
00:15	[35] Discussion – Science requirements and detector capabilities	

Friday 23 July 2021

Recess: APCTP Focus Program in Nuclear Physics: Science Opportunities with EIC (Companion Meeting)

(14:00-21:00)

Session: 12. Advancing techniques in data accumulation and science interpretation A (8:00 AM - 9:20 AM, 23 July, US

EDT) (21:00-22:20)

time	[id] title	presenter
21:00	[36] Analysis developments towards extraction of GPDs, TMDs and quark-gluon Imaging	JI, Xiangdong (CNF, UMd)
21:40	[37] Artificial Intelligence for nuclear science applications at EIC	ELOUADRHIRI, Latifa (Jefferson Lab)

Break (22:20-22:35)

Session: 13. Advancing techniques in data accumulation and science interpretation B (9:35 AM - 10:25 AM, 23 July, US

EDT) (22:35-23:25)

-Conveners: Deshpande, Abhay (Stony Brook University)

time	[id] title	presenter
22:35	[49] Report from the companion meeting (APCTP Focus Program: Science Opportunities with EIC)	OH, Yongseok (Kyungpook National University)
22:55	[50] Path forward to WP & WS-3 & beyond	ELOUADRHIRI, Latifa JI, Xiangdong (CNF, UMd)
23:20	[43] Adjourn	