EICUG Steering Committee Report to the IB

Renee Fatemi for the EICUG SC July 28, 2022

EIC Users Group



1348 Members

- 831 experimentalists
- 344 theorists
- 159 accelerator scientists
- 8 computer scientists
- 4 support
- 2 other

266 institutions

36 countries

Steering Committee Members

Chair: Renee Fatemi, University of Kentucky, USA

Vice-Chair: Marco Radici, INFN-Pavia, Italy

At Large members:

Yuri Kovchegov, *Ohio State University, USA*Silvia Dalla Torre, *INFN, Italy*Tanja Horn, *The Catholic University of America, USA*

IB Representative:

Olga Evdokimov, University of Illinois Chicago, USA

European Representative:

Daria Sokhan, Saclay, France / Univ. Glasgow, UK

International Representative:

Asmita Mukherjee, *Indian Institute of Technology Bombay, Mumbai, In*dia

Lab Representatives:

Thomas Ullrich, Brookhaven National Laboratory, USA Rolf Ent, Thomas Jefferson National Accelerator Facility, USA

Working Groups

SOFTWARE / AI – *Updated*

- Andrea Bressan, Unviersity of Trieste/INFN
- Markus Diefenthaler, Jefferson Lab
- Cristinao Fanelli, Massachusetts Institute of Technology
- Tanja Horn, Catholic University of America
- Torre Wenaus, Brookhaven National Lab

Tasked to work on all aspects of EIC software

Specifically:

- Develop and maintain software tools for physics and detector simulations and reconstruction
- Data and analysis preservation
- Entry point to AI driven applications and algorithms

COMPUTING COORDINATION - Updated

- **Graham Heyes**, Jefferson Lab co-chair
- Jerome Lauret, Brookhaven National Lab co-chair
- Andrea Bressan → Software/AI WG delegate
- Wouter Deconinck → detector 1
 Simulation/Production/QA delegate
- Cristiano Fanelli → Software/AI WG delegate
- David Lawrence → Detector I Computing/Software delegate

Tasked with coordination of EIC Computing efforts.

Specifically:

- Compliance with DOE and host lab requirements
- Record of required/available resources and resource usage
- Providing an access point for external resources
- Infrastructure assessment to fold in international computing resources
- Developing in-common data flow and management for EPIC and detector II.

Working Groups

THEORY - New

- Wim Cosyn, Florida International University
- Anna Stasto, Pennsylvania State University
- Alessandro Bacchetta, University of Pavia/ INFN
- Felix Ringer, Stony Brook University

IB Driven initiative to maintain high level of theoretical engagement with EIC effort.

- Theoretical resource for experimental physics efforts
- Contact point for theorists looking to engage an EIC program.

DETECTOR II / IR8 - New

- Sangbaek Lee, ANL/MIT
- Simonetta Liuti, University of Virginia
- Pawel Nadel-Turonski, Stony Brook University
- Thomas Ullrich BNL/Yale
- Anselm Vossen, Duke
- Walter Wittmer, JLAB

Facilitate the development of a unified concept for a general-purpose detector at IR8.

- Develop a portfolio of measurements that are complementary to the project detector physics program
- Establish a diverse and vibrant 2nd Detector WG
- Utilize extended design period for Detector II to identify groups that will focus on R&D for emerging technologies

Polarimetry Working Group Moved out of EICUG to Project

IR/Luminosity Working Group Retired

Committees

Charter Committee

Phase 2/3: January 2020 - current

- John Arrington (LBL, USA)
- Will Brooks (USM Valparaiso, Chile)
- Olga Evdokimov (Univ. of Illinois, Chicago, USA)
- Yuji Goto (RIKEN, Japan)
- Barbara Jacak (LBNL & Univ. California at Berkeley, USA)
- Richard Milner (MIT, USA) (Co-chair)
- Marco Radici (INFN Pavia, Italy)
- Franck Sabatié (Saclay, France) (Co-chair)
- Sevil Salur (Univ. Rutgers, USA)
- Daria Sokhan (Univ. Glasgow, UK)

Conference and Talks Committee

- Chair: Michela Chiosso (Univ. and INFN Torino, Italy)
- · Vice-Chair: Alexey Prokudin (PSU Berks, USA)
- Members: term September 2021 August 2022
 - Svetlana Barkanova (Memorial University of Newfoundland, Canada)
 - Megan Elizabeth Connors (GSU, USA)
 - Qinghua Xu (Shandong Univ., China)

Elections and Nominating Committee

Term: September 2021 - August 2022

- Chair: Douglas Higinbotham (JLab, USA)
- · Vice-Chair: not yet available
- Members
 - Adrian Dumitru (CUNY, USA)
 - Bedangadas Mohanty (NISER, India)
 - Cristina Tuvè (Univ. and INFN Catania, Italy)
 - Charlotte Van Hulse (IPN-Orsay, France)

Diversity and Inclusion Committee

Chair: Taya Chetry (Mississippi State University, USA)



New

- Members
 - Paul Gueye (Michigan State University, USA)
 - Narbe Kalantarians (Virginia Union University, USA)
 - Asmita Mukherjee (Indian Institute of Technology Bombay, India)
 - Sanghwa Park (Stony Brook University, USA)
 - Rosi Reed (Lehigh University, USA)
 - Cheuk-Ping Wong (Los Alamos National Laboratory, USA)
 — members

Thank you for your service to the EICUG!

Additional EICUG SC Activities:

Post DPAP review / pre-closeout meeting

- Project, proposal leadership and SC meet weekly for a month before DPAP close-out
- Provide neutral ground to start interactions between leaders of proposals.
- Discussions focused around how to keep the EICUG unified after close out.

EICUG Fly-in Day on the Hill

- Virtual meetings held on April 25-26th
- Strong turnout from community more than 50 people total.
- Virtual format didn't work. Meetings were "conference calls" and much shorter than traditional meetings. We need to push for in-person next year.

New Website

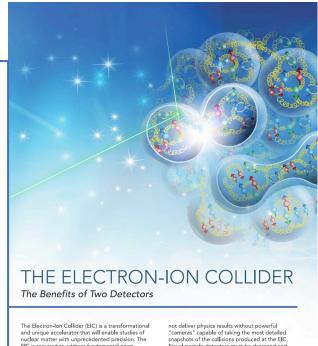
- Task force led by Thomas Ullrich and Maxim Potekhin. Reps from various parts of EICUG - Markus Diefenthaler, Tanja Horn, Yuri Kovchegov, Alexey Prokudin, and Marco Radici contributed.
- Thank you to Wouter and Vladi for agreeing to be webmasters.



Publications

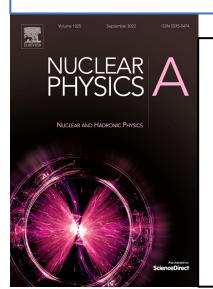
The Electron-Ion Collider – The Benefits of Two Detectors

- Task force led by Rolf Ent with contributions from myself, Olga Evdokimov, Marco Radici and Daria Sokhan.
- Thank you to JLAB graphics department for producing final glossy.
- PDF version sent to IB reps and hard copy to point person at all international funding agencies.



EIC is required to address fundamental open questions in physics, such as the origin of mass and

Novel particle detectors must be designed and constructed to capitalize on the investment made on the accelerator side, so that the deepest secrets of the building blocks of matter in our visible universe



Yellow Report

- Scheduled to be published in issue/vol 1026 of Nuclear Physics A
- Manuscript will be compiled on July 27th and proofs will follow within a few days.

Onward! Priorities for the upcoming year.

- Support the EPIC Collaboration and Detector II/IR8 working group.
- Organize the EICUG involvement in the upcoming Long Range Planning Exercise.
 - EIC integration into the QCD town hall meetings
 - Facilitate discussion and writing of EIC white paper
- Increase engagement with congressional representatives and restore nuclear advocacy day to previous levels of interaction.
- Build up the user's group and increase international involvement in EPIC and Detector II effort.