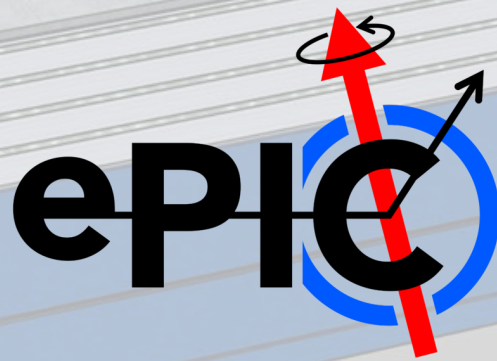


ePIC Collaboration Status

J. Lajoie, S. Dalla Torre

June 8, 2023



Hey John, start the recording....

Today's Agenda

- Usual updates
 - TC Update
- Tracking Software
- Elections Committee
- Analysis Coord. Report



5/11/2023

ePIC General Meeting

Thursday Jun 8, 2023, 7:00 PM → 9:10 PM US/Eastern

Description

Connection Information: <https://iastate.zoom.us/j/5671810336?pwd=Q1pwM2Q5NFk0T2xqMIJiWDcwcXI0dz09>

Recording:

7:00 PM → 8:15 PM

General Status and Updates

Conveners: John Lajoie (Iowa State University), Silvia Dalla Torre (INFN, Trieste)

7:00 PM

ePIC Collaboration Status

Speakers: John Lajoie (Iowa State University), Silvia Dalla Torre (INFN, Trieste)

25m

7:25 PM

EIC Project Update

Speakers: E. C. Aschenauer (BNL), Rolf Ent (Jefferson Lab)

25m

7:50 PM

TC Status Report

Speakers: Klaus Dehmelt (Stony Brook University), Klaus Dehmelt (Stony Brook University)

15m

8:05 PM

Discussion

Speakers: John Lajoie (Iowa State University), Silvia Dalla Torre (INFN, Trieste)

10m

8:15 PM → 8:35 PM

Status and Plans for Realistic Tracking

Speaker: Barak Schmookler (UC Riverside)

20m

8:35 PM → 8:50 PM

Report from Elections Committee

Speaker: John Arrington (Lawrence Berkeley National Laboratory)

15m

8:50 PM → 9:10 PM

Analysis Coordinators Report

Speakers: Rosi Reed (Lehigh University), Salvatore Fazio (University of Calabria and INFN-Cosenza)

20m

ePIC General Meeting

Lather, Rinse, Review, Repeat...

From Elke's
Gen. Meeting
Presentation
May 26th

- Preliminary Design Status Review ePIC PID detectors July 5&6
- Final Design Reviews for LLPs of Detector - Summer 2023
- DAC Meeting(s)-TBD Late Summer/Fall 2023 → detector R&D (2 days) and technical design review of entire ePIC detector (2 days)
- 90% Design Review Solenoid October 5&6
- EIC CD-3A Director's Review- October 10-12, 2023, at BNL
- Independent Cost Review (ICR)
- EIC CD-3A OPA Review- November 14-16, 2023, at BNL
- RRB Meetings
 - December 7-8, 2023, at SURA
 - April 2024 tentative for Europe/Italy
- **Final Design Reviews for all ePIC subsystems April – October 2024**
- DOE CD 2/3 OPA Review and ICR January 2025 (TBC)
- DOE CD 2/3 ESAAB Approval April 2025
- RHIC Operations Concludes June 2025

Upcoming PID Review – July 5-6th

Draft Charge:

Incremental Design and Safety Review of the EIC Particle Identification Detectors

Charge to the Committee

The scope of this review includes all aspects of particle identification detectors (but not those that are calorimetry-based) in the central EIC detector, which includes the barrel, the forward endcap, and the backward endcap regions. This includes five detector systems. In particular, a proximity-focusing RICH in the backward region, a high-performance DIRC and AC-LGAD to augment particle identification with TOF in the barrel region, and a dual RICH and AC-LGAD in the forward region. The review may include design and fabrication choices and their cost-effectiveness, the construction schedule, considerations for safety and quality assurance, levels of redundancy, front-end electronics and interface to the data acquisition system, commissioning and calibration procedures, considerations for materials and labor, operational reliability and longevity, and any other considerations that may influence the construction, maintenance and operation of these particle identification detectors.

You are asked to address the following questions:

1. Are the technical performance requirements appropriately defined and complete for this stage of the project?
2. Are the plans for achieving detector performance and construction sufficiently developed and documented for the present phase of the project?
3. Are the current designs and plans for detector and electronics readout likely to achieve the performance requirements with a low risk of cost increases, schedule delays, and technical problems?
4. Are the fabrication and assembly plans for the various particle identification detector systems consistent with the overall project and detector schedule?
5. Are the plans for detector integration in the EIC detector appropriately developed for the present phase of the project?
6. Have ES&H and QA considerations been adequately incorporated into the designs at their present stage?

Please address these questions point-by-point.

You will be supplied with the detailed schedule and manpower assumptions, drawing packages, copies of presentations relevant to this subject material, and the project milestones extracted from the most current EIC resource loaded P6 schedule as part of the pre-brief material.

Note that several aspects of the EIC detector including its electronics, and data acquisition systems have been reviewed previously. Along with your briefing materials, you will also be supplied with the reports from earlier reviews (e.g., on the magnet design, electronics and data acquisition, calorimetry).

Date: 5&6th of July 8:00 am to 2:00 pm EDT both days

Reviewers:

Peter Krizan (U Ljubljana), Chair Floris Keizer (CERN), Ana Amelia Machado (UniCamp), Koji Nakamura (KEK), Justin Stevens (W&M)

L3's CAMs and PID DSC's working to address charge
Practice session TBD

Early Career Efforts

Hey ePIC Early-Career members,

The voting registration list will be frozen as of Sunday, June 4th @ 11:59pm EDT. The list will come from the early-career members enrolled on the ePIC Early-Career mailing list (register here, if you haven't: <https://lists.bnl.gov/mailman/listinfo/eic-projdet-earlycareer-l>). If you are not enrolled on the mailing list, you will not receive a ballot link.

The election ballot links will be sent on Monday, June 5th, at which point the election will officially begin. The election will be open for two weeks to allow time for voters to read the candidate statements (found here: https://wiki.bnl.gov/EPIC/index.php?title=Early-Career_Election) and rank their choices. Voting will officially close on Monday, June 19th @ 5pm EDT, and the winning candidates will be contacted and announced.

I remind everyone that three candidates will be elected, and at least one must be a graduate student, so please choose at least one graduate student to be in your top three when you rank your choices.

Best,
Alex, Derek, and Tyler
The ePIC Early-Career Volunteer Election Committee

10 candidates for early-career representative to CC!

- Cameron Cotton
- Aranya Giri
- Jeetendra Gupta
- Tyler Hague
- Charles-Joseph Naïm
- Jennifer Ott
- Gary Penman
- Nicholas Schmidt
- Maria Stefaniak
- Zach Sweger

Many thanks to Alex, Derek and Tyler for their volunteer effort!

Committee Nominations

Dear ePIC collaboration,

A quick reminder that we are soliciting nominations for the ePIC standing committees. These are important roles for the collaboration, but so far we have only a handful of nominations submitted, so it's important to get additional input. Self-nominations are welcome and encouraged.

The Elections Committee will begin putting together slates of candidates next week, so please try and have in your nominations by *Friday, June 9th*, although we will continue to consider nominations that are received until we have finalized the slates.

The standing committees are:

- 1) DEI committee
- 2) Membership committee
- 3) Conference and Talks committee
- 4) Publications committee

You can submit your nominations via the following google form:

<https://forms.gle/CcXMe22c5BLyMVLk6>

on behalf of the ePIC elections committee,
John Arrington (Chair), Helen Caines, Domenico Elia, and Or Hen

Original email 5/23
Reminder 6/5

Nominations are needed!! Help encourage the best people to chair these important committees.

Report on Elections Committee activities and plans later in the meeting.

Email List Migration

- Working to migrate our email lists from “eic-projdet-...” to “epic-...”
- This is a lot of work:
 - BNL ITD will create the new list, migrate archives and subscribers
 - Old lists decommissioned; new ones started
 - Start with pwg convenors list first to work out the kinks...
 - New lists will be created as “epic-...”
 - [epic-bemcal-l](#) just created this week for Imaging EMCal
 - Expect changeover in next few weeks
- Many thanks to Maxim Potekhin!

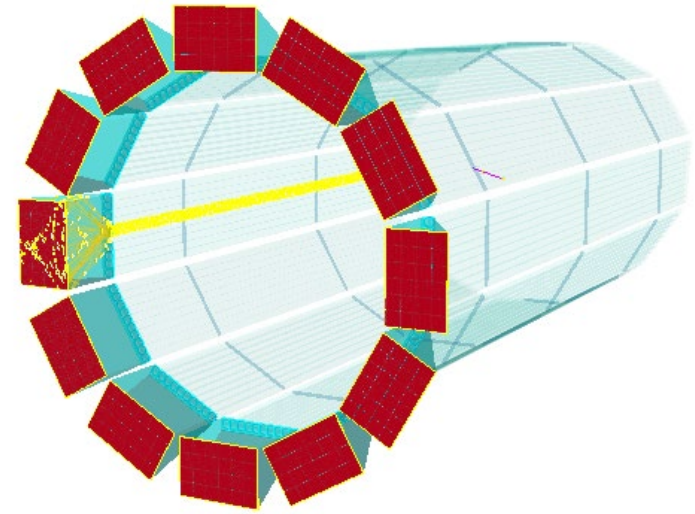
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Eic-projdet-bsmew-l	[EPIC-BSM-EW-WG]
Eic-projdet-calo-l	[EPIC-Calo-WG]
Eic-projdet-calo-pemcal-l	EIC Project h-endcap EMCal
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Eic-projdet-hpdirc-l	hpDIRC DSC mailing list
Eic-projdet-inclusive-l	[EPIC-Inclusive-WG]
Eic-projdet-jethf-l	[EPIC-JetHF-WG]
Eic-projdet-pfrich-l	ePIC pFRICH mailing list
Eic-projdet-pid-l	The ePIC PID detector list
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Eic-projdet-tracking-l	[EPIC-Tracking-WG]
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Web Presence Group

- The Spokesperson's office and CC leadership have formed an “ePIC web presence group”
- Goal is to establish a very basic presence for ePIC on the web
 - Technical support: Implementation of the technical solutions and interface with the host labs, in particular with BNL ([Maxim Potekhin](#))
 - Website design: The overall structure and navigation within the website and integration with external resources ([Thomas Ullrich](#))
 - Document management: An initial solution to archive talks, images, technical notes, etc. in a way that they can be easily accessed by the collaboration ([Peter Steinberg](#))
 - User-centered design: Ensure that web resources are properly organized and can be navigated in a way that is useful and straightforward, both to existing and new collaborators ([Markus Diefenthaler](#))
- This will provide some basic functionality to get us started, allow linking from BNL/Jlab EIC resources
 - Timescale is EICUG meeting in Warsaw (end of July)
- Longer term plan is to turn longer term development over to a collaboration committee.

hpDIRC EIC Annual Meeting

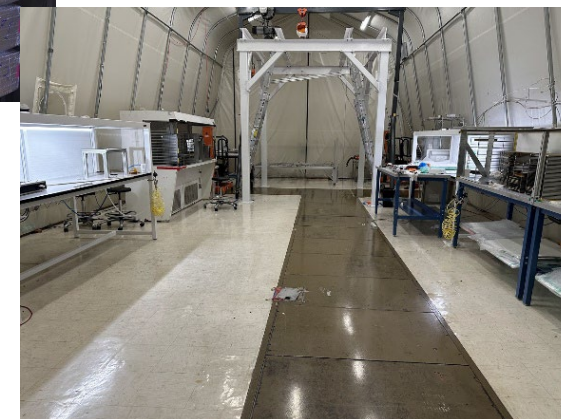
hpDIRC Simulation



DIRC barboxes in SLAC

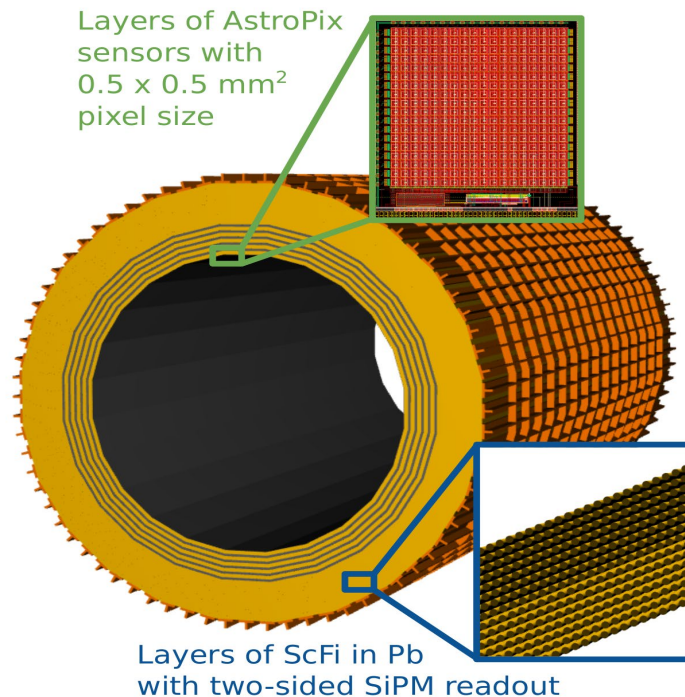


DIRC lab/CRT space at SBU



- Meeting at JLab: May 31st – June 4th, 11 participants in person, few by ZOOM
- Key hpDIRC projects discussed and re-evaluated:
 - Validation of BaBar bar reuse in new QA lab at JLab
 - Prototype program at SBU with Cosmic Ray Telescope
 - Software status, remaining R&D
 - Plan for PID review, project and generic R&D proposals
- Expanding hpDIRC DSC (Wayne State joined officially)
- “Satellite Meetings”
 - Preparation for BaBar bar box transport from SLAC and disassembly at JLab
 - Established clear path moving forward with ePIC Software group
 - Advanced work with Avi Mizrahi on Mechanical Design and Integration
 - Discussed status and further plans with ePIC Management

Imaging EMCal Workshop



5/11/2023

ePIC General Meeting

Dear Collaborator,

We are organizing an in-person ePIC Barrel Imaging Calorimeter workshop at Argonne from Monday, 6/12, until Friday, 6/16. This meeting aims to make rapid progress toward the next milestones for the imaging calorimeter. Each meeting day will have a different focus (e.g., AstroPix, silicon readout, engineering, Pb/ScFi, integration, ...). The meeting will be primarily in-person, with some hybrid components where needed. The preliminary schedule is as follows:

- Monday, June 12: Pb/ScFi (hybrid)
- Tuesday, June 13: Pb/ScFi
- Wednesday, June 14: integration/global engineering
- Thursday, June 15: silicon/AstroPix
- Friday, June 16: silicon/AstroPix

If you intend to travel to Argonne to attend this workshop, please fill out the following form:

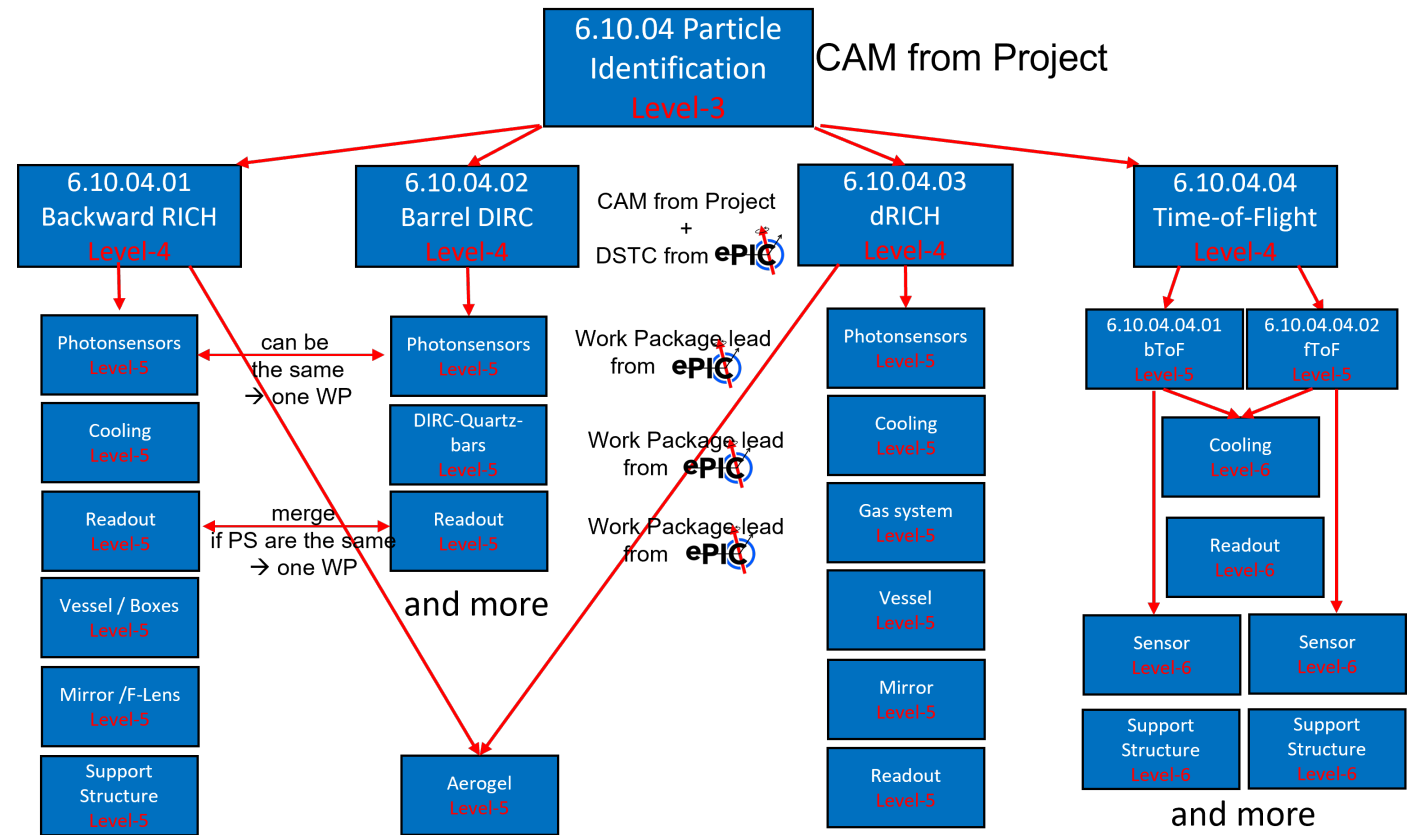
<https://forms.gle/KVF57d74Pq5EbPDG8>

We will reach out with instructions to obtain a gate pass to access Argonne once you are registered. If you are a foreign national, following these instructions as soon as possible is important to ensure timely processing.

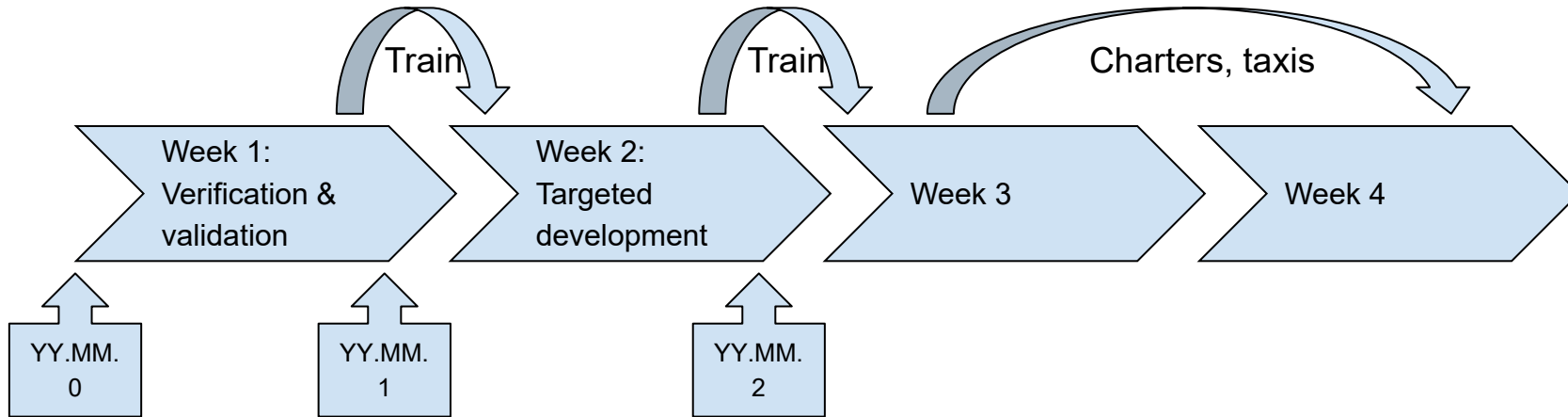
Best,
Sylvester

Collaboration/Project Integration

- DSC's integrated into project plan through definition of work packages
- Spokesperson's office and TC working with DSL's/DSTC's to define work packages for each subsystem
 - Announced at TIC 6/5
- Need this ASAP – you will hear from us soon...

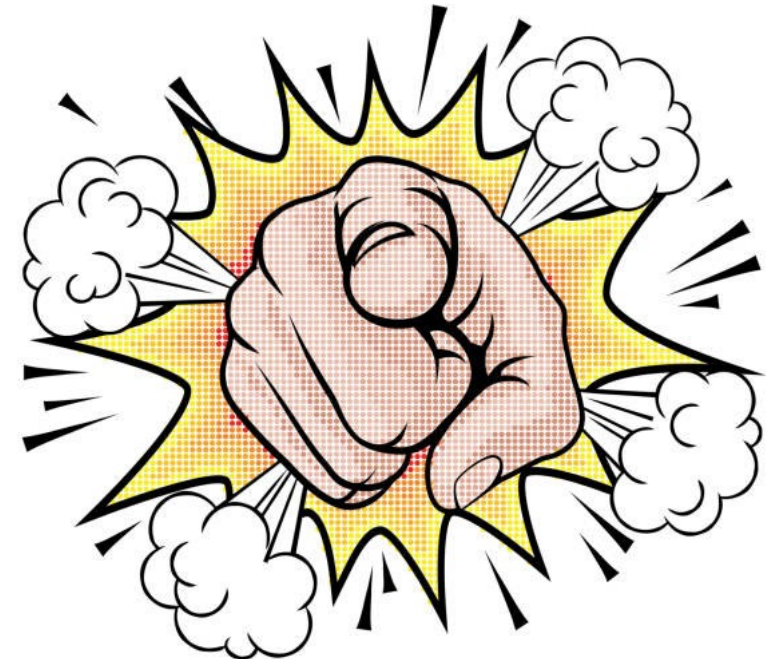


Simulation Campaigns



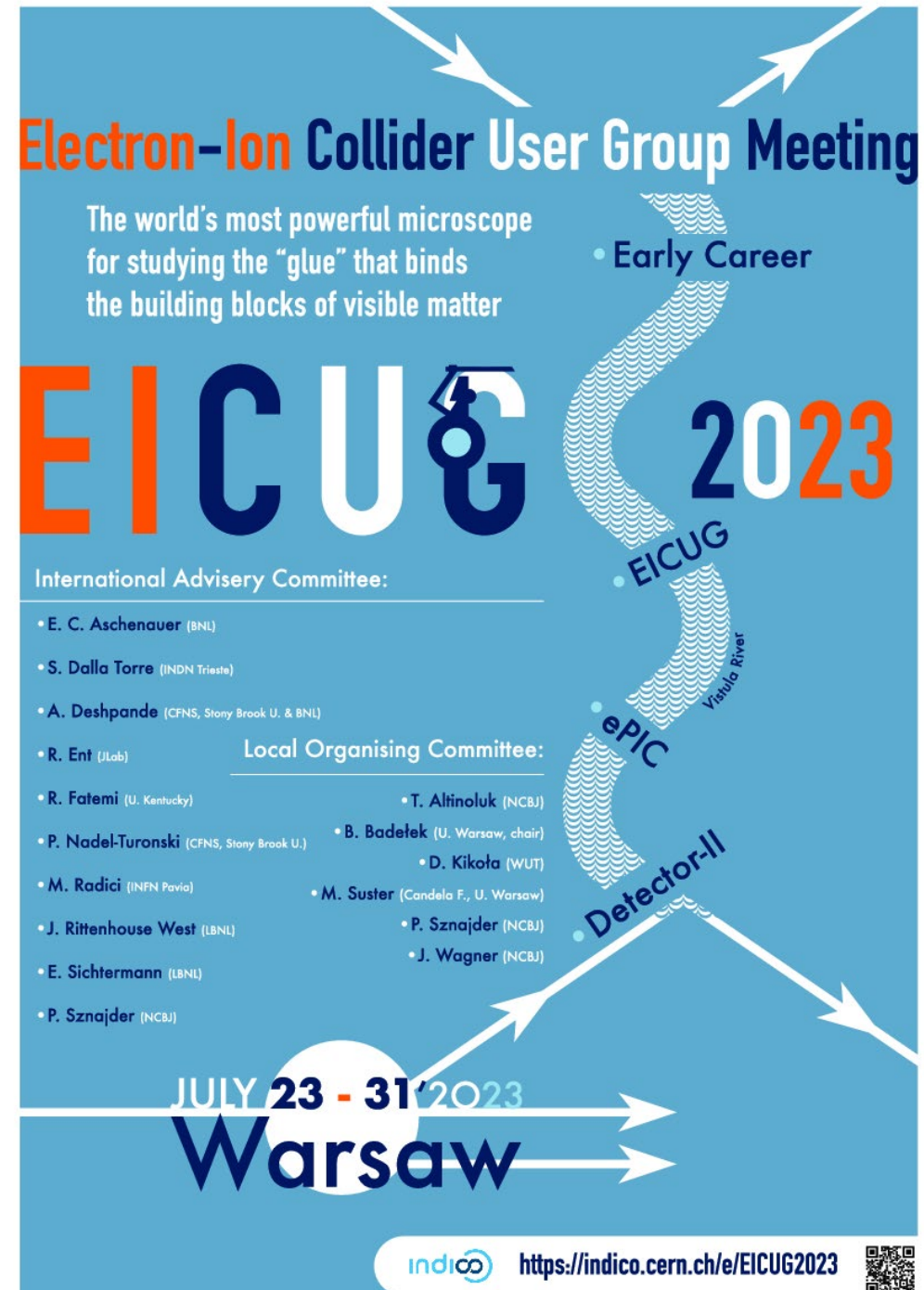
ePIC simulations have advanced dramatically – now is the time to get involved!

- Simulation campaigns have been reorganized – see [here](#)
 - Train, charter and taxis on a monthly basis
 - Ensures regular updates for detector and physics studies, as well as for geometry and algorithm development.
- See update from Sakhil Rahman in last General Meeting [here](#)
 - Software and Computing Meeting Wednesdays at 11AM ET
 - Production Meeting Thursdays at 2PM ET
- May campaign complete, June campaign just starting
- Many simulation files are available on S3: 'S3/eicctest/EPIC/RECO/23.05.2'
 - Developing special samples for tracking, etc.



Coming Soon...

- Next CC Meeting late June
 - Approval of new institutions
- Next General Meeting Friday, June 23rd
- Next ePIC Collaboration Meeting:
 - Organized jointly with EIC Users Group Meeting
 - Univ. of Warsaw, July 23-31st
 - Early career, EICUG and ePIC meetings
 - **REGISTER NOW!!**
 - <https://indico.cern.ch/event/1238718/>

The poster for the Electron-Ion Collider User Group Meeting (EICUG) 2023 is set against a blue background. At the top, the title "Electron-Ion Collider User Group Meeting" is written in orange and white. Below it, a tagline reads "The world's most powerful microscope for studying the 'glue' that binds the building blocks of visible matter". The acronym "EICUG" is prominently displayed in large, stylized letters, with a small particle detector icon integrated into the 'G'. To the right, the year "2023" is shown in large white and orange digits. A winding white path, resembling a river, flows from the top right towards the bottom, with labels "Early Career", "EICUG", "ePIC", and "Detector-II" placed along its course. The "Visula River" is also labeled. Below the acronym, the "International Advisory Committee" and "Local Organising Committee" are listed with their members and affiliations. At the bottom, the dates "JULY 23 - 31 2023" and the location "Warsaw" are displayed in large white letters. The "indico" logo and the registration URL "https://indico.cern.ch/e/EICUG2023" are at the bottom right, next to a QR code.

Electron-Ion Collider User Group Meeting

The world's most powerful microscope for studying the "glue" that binds the building blocks of visible matter

EICUG 2023

Early Career

EICUG

ePIC

Detector-II

Visula River

International Advisory Committee:

- E. C. Aschenauer (BNL)
- S. Dalla Torre (INDN Trieste)
- A. Deshpande (CFNS, Stony Brook U. & BNL)
- R. Ent (JLab)
- R. Fatemi (U. Kentucky)
- P. Nadel-Turonski (CFNS, Stony Brook U.)
- M. Radici (INFN Pavia)
- J. Rittenhouse West (BNL)
- E. Sichtermann (BNL)
- P. Sznajder (NCBJ)

Local Organising Committee:

- T. Altinoluk (NCBJ)
- B. Badetek (U. Warsaw, chair)
- D. Kikoła (WUT)
- M. Suster (Candela F., U. Warsaw)
- P. Sznajder (NCBJ)
- J. Wagner (NCBJ)

JULY 23 - 31 2023

Warsaw

indico <https://indico.cern.ch/e/EICUG2023>

ePIC Resources – Get Connected!

- Mailing Lists – <https://lists.bnl.gov/mailman/listinfo>
- Indico Agenda - <https://indico.bnl.gov/category/402/>
- Wiki - <https://wiki.bnl.gov/EPIC>
- ePIC Software Training:
 - <https://eic.github.io/tutorial-setting-up-environment/>
 - <https://eic.github.io/tutorial-geometry-development-using-dd4hep/>
 - <https://eic.github.io/tutorial-simulations-using-ddsim-and-geant4/>
 - <https://eic.github.io/tutorial-jana2/>
- Recordings: <https://www.youtube.com/@eicusergroup1532>

QR code for Mattermost channels:



