



e(E)PIC General Meeting December 8, 2022

e(E)PIC Steering Committee

Silvia Dalla Torre, Or Hen, Tanja Horn, John Lajoie, and Bernd Surrow

Today's Agenda

Usual introduction from SC

Update from the project

Report from Comp/SW & Sim/QA

Report on Calorimetry Review

Report from Institutional Board

EPIC General Meeting

Thursday Dec 8, 2022, 8:30 PM → 10:50 PM US/Central

Description **Connection Information:**

Please click this URL to start or join. <https://iastate.zoom.us/j/5671810336?pwd=Q1pwM2Q5NFk0T2xqMIJiWDcwcXI0dz09>
Or, go to <https://iastate.zoom.us/join> and enter meeting ID: 567 181 0336 and password: 870793

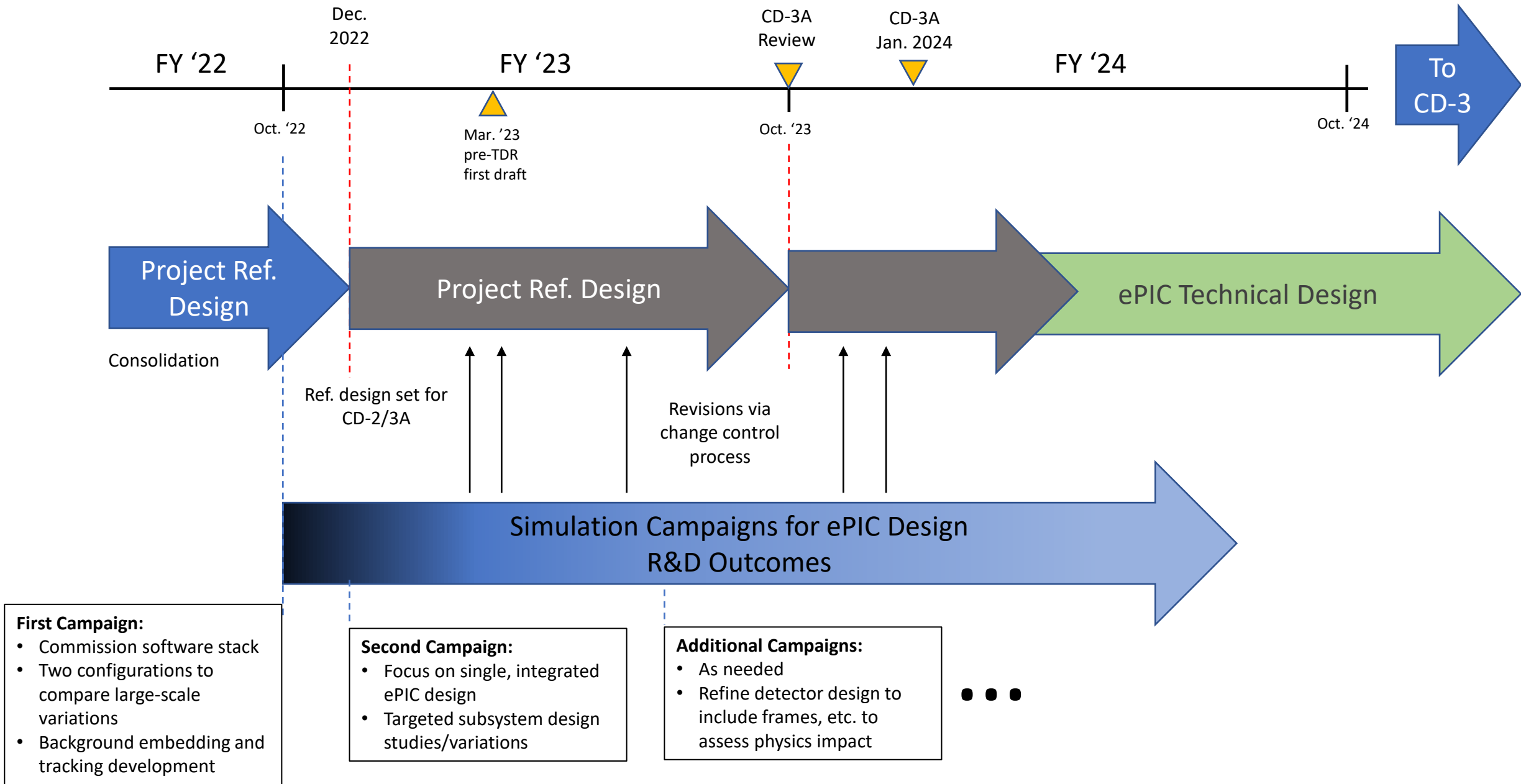
8:30 PM → 9:30 PM	General Status and Updates	📎
	Conveners: Bernd Surrow (Temple University), John Lajoie (Iowa State University), Or Hen (MIT), Silvia Dalla Torre (INFN, Trieste), Tanja Horn (Cath)	
	8:30 PM SC Updates and Plans (25+5)	🕒 30m 📎
	Speaker: John Lajoie (Iowa State University)	
	9:00 PM EIC Project Update (25+5)	🕒 30m 📎
	Speakers: E. C. Aschenauer (BNL), Rolf Ent (Jefferson Lab)	
9:30 PM → 9:50 PM	Simulation Campaign Status and Future Plans	🕒 20m 📎
	Speakers: Andrea Bressan (University of Trieste and INFN), Cristiano Fanelli (affiliate@jlab.org; member@jlab.org), Joe Osborn (Brookhaven National Laboratory), Markus Diefenthaler (Jefferson Lab), Sylvester Joosten (Argonne National Laboratory), Wenliang Li (Stony Brook University CFNS), Wouter Deconinck (University of Manitoba), Zhoudunming Tu (BNL)	
9:50 PM → 10:05 PM	Calorimetry Review Report	🕒 15m 📎
	Speakers: Alexander Bazilevsky (BNL), Alexander Kiselev (BNL)	
10:05 PM → 10:20 PM	Institutional Board Report	🕒 15m 📎
	Speakers: Franck Sabatié (CEA Saclay), Senta Greene (Vanderbilt University)	
10:20 PM → 10:30 PM	AOB	🕒 10m 📎

Topics for this Introduction

- ePIC Progress to CD-2/3
- Ongoing Activities
- Ongoing Votes
- January Collaboration Meeting
- Upcoming Conferences



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GD/I Technology Reviews

- Ongoing effort within GD/I, in consultation with SC, to develop charge and external reviewers for barrel EMCal, backwards RICH reviews
- EMCal Review discussion (Dec. 5th)
 - <https://indico.bnl.gov/event/17881/>
 - Expect review in February, 2023
 - SC contacting external reviewers
- Backwards RICH review
 - Follow same procedure as for EMCal
 - Charge development underway
 - Expect review in March, 2023

EPIC Barrel ECAL review charge (draft)

GD/I conveners, 12/02/2022

It is asked that the review addresses the following questions:

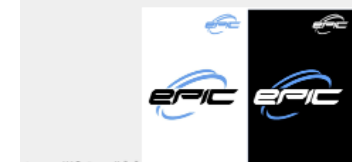
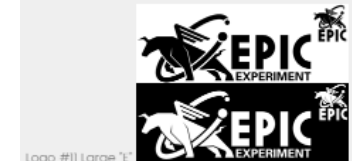
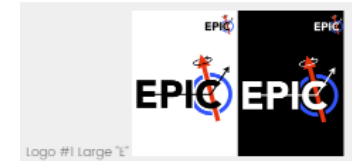
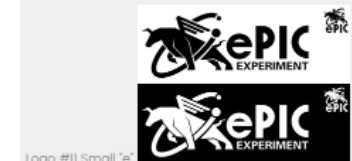
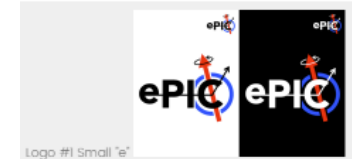
1. Reminder of the proposed **detector configuration** for use in the ePIC detector.
2. **Input information:**
 - a. **R&D, prototypes and their tests:** done so far, ongoing efforts, future planning (with timelines); results from prototypes and their tests.
 - b. Pertinent **information on similar technology/design** that is used by other experiments incl. R&D efforts (literature, conferences).
 - c. **Simulation studies:** already performed, ongoing and planned (with timelines); results from the simulations; particular care in (i) showing how realistic the parameters used in simulations are and (ii) reporting what is missing for a fully realistic simulation (backgrounds, specific event categories, ...)
 - d. Does the simulation take into account the **realistic light collection uniformity, response of the selected photosensors and related FEE?**
3. **Performance:**
 - a. Key plots to be shown
 - i. **Energy resolution** σ/E as a function of E (0-18 GeV) at $\eta=0, 0.5, 1$
 1. For each point, please extract FWHM and percentage of electrons within a cut window of $|E/p-1| < 1x$ FWHM. Please provide the E/p lineshape in the backup material.
 - ii. **Angular resolution** (ϕ, η) as a function of E (0-18 GeV) at $\eta=0, 0.5, 1$
 - iii. **Pion rejection** as a function of truth momentum p (0-18 GeV/c) at 95% e efficiency at $\eta=0, 0.5, 1$
 - iv. Pion rejection versus e efficiency at truth momentum p = 1, 5, 10 GeV/c at $\eta=0, 0.5, 1$
 - v. **Separation of gamma from π^0 decay:** Separation probability as a

Ongoing Activities

- Dec 1st - EICUG SC
 - EICUG Annual Meeting planning
 - Summer ePIC Collaboration Meeting in conjunction with EICUG Annual Mtg
 - University of Warsaw, July 24-31, 2023
 - More details TBA
- Dec. 6th – Lab Computing Support discussion
 - SC, Amber Boehnlein (JLab CIO), Eric Lancon (BNL SDCC Director)
 - Discussed high-level coordination between laboratories
 - Agreed that discussion of interface to collaboration requires wider audience
 - Will expand discussion to include ePIC computing conveners in follow-on discussions after the first of the year.
- Dec. 6-7th – Calorimetry Technical Review
 - Report by S. Bazilevsky and A. Kislev (CAMs) later this meeting

Democracy in Action!


- ePIC Collaboration Charter ratification:
 - Voting underway, closes **Dec. 14th 5PM ET**
 - Voting body is ePIC IB members
 - Update from Charter Committee (later this meeting)
- e(E)PIC Logo Competition:
 - Small “e” and large “E” versions
 - Voting body is contacts list (as in first round)
 - Voting open until **Jan 8th 5PM ET**




January Collaboration Meeting

- Registration:
 - <https://www.jlab.org/conference/EPIC>
- Indico Agenda:
 - <https://indico.bnl.gov/event/17621/>
 - Includes WG presentations, meeting of Collaboration Council, JLab tour


EPIC COLLABORATION






Conference Date
January 09, 2023 to January 11, 2023

Conference Location
Jefferson Lab





EPIC
Electron Proton-Ion
Collider Experiment

The second meeting of the ePIC Collaboration will take place January 9-11th at the Thomas Jefferson National Accelerator Facility. The meeting will be held in a hybrid format to allow all members of the international collaboration to take part. The meeting is open to both current members of the ePIC collaboration as well as all interested parties.

ePIC Collaboration

This second meeting of the ePIC Collaboration comes at a time of major progress in the development of the technical design of the ePIC detector, the first major simulation campaign and deployment of the unified software stack, and the formation of the collaboration through a Collaboration Charter.

The agenda consists of plenary sessions held over two and a half days covering the status of the collaboration, a report from the EIC project, and status reports from the Detector and Physics Working Group members. There will be a meeting of the Collaboration Council on the first afternoon, and an opportunity to tour the laboratory facilities on the last day. The meeting will focus on planning to address the challenges in the coming year and the milestones that need to be met for the CD-2/3A review in late 2023.

Organizing Committee
Silvia Dalla Torre (Trieste)
Or Hen (MIT)
Tanja Horn (CUA)
John Lajoie (Iowa State)
Bernd Surrow (Temple)

Upcoming Conferences

- QCD With the Electron Collider II
 - December 18-20, IIT, Delhi
 - <https://indico.cern.ch/event/1196913/>
- Epiphany 2023
 - Jan 15-19, 2023, Cracow, Poland
 - <https://epiphany.ifj.edu.pl/epiphany2023/>
- 38th WWND
 - Feb 5-11, 2023, Puerto Vallarta, Mexico
 - Abstracts due Dec 16th
 - <https://indico.cern.ch/event/1196342/>
- DIS 2023
 - March 27-31, 2023, East Lansing MI
 - Abstracts due Dec 12th
 - <https://web.pa.msu.edu/conf/DIS2023/>

Policies

Interim Publication Policy

- This interim policy will be in effect until the official formation of the ePIC collaboration and the development of a new policy, talks committee, etc.
- The WG conveners are responsible for the approval of results for public presentation outside of EPIC WG meetings (talks, conferences, etc.)
- For purposes of this policy, "results" are represented by specific plots – approving a result means approving a specific plot. If old results are re-plotted with additional information (like adding new data or additional curves to the plot) this will require re-approval by the WG conveners.
- Approved plots should be stored on the EPIC Wiki, including the following:
 - At least a high-resolution PDF of the plot, potentially along with other file formats (PNG, JPEG, etc.)
 - The plot should include the EPIC Logo (when available) and the words "EPIC Preliminary"
 - Each plot should include a description that includes the following:
 - The name of the person who produced the plot, along with the date
 - A description of what is in the plot, including the quantities on each axis, as well as the provenance of the data (simulation campaign, or tag, etc.)
- Ideally, newly approved plots should be highlighted in status reports at General Meetings so the full collaboration is aware of their existence.
- Talks that are specific to a WG's purview should be circulated on the WG mailing list at least a week before the conference or workshop to allow review. Ideally, either a practice-run or walk-through of the talk should be scheduled for a WG meeting prior to the conference or workshop.
- Global talks (on the EPIC detector/physics as a whole, for example) should be circulated to the collaboration mailing list at least a week before the conference or workshop to allow review. When necessary the SC may schedule practice talk/dry-run.

Contact the SC or conveners with any conferences or meetings you think we should be aware of! Abstracts should be sent to WG list for comment and approved by conveners.

Please consider submitting talks that showcase all your hard work on ePIC!

<https://wiki.bnl.gov/EPIC/index.php?title=Conferences>



ePIC Design Towards CD-2/3A

- The Project must move forward with an ePIC reference design in order to prepare for CD-2/3A and allow for a ~60% design completion
- Nevertheless, ***the ePIC design optimization process will continue and is not expected to be completed by the end of 2022***
 - The ePIC design optimization process will proceed through a series of simulation campaigns.
 - The reference design will be updated through the project change control process
 - The change control process is important – changes must be justified by performance, cost and risk!
 - Changes should be the *exception*, not the rule.
 - Example: changing from SiPM readout to LAPPDs (technology change) or a change in detector acceptance (design change)
- This effort will result in an *ePIC Technical Design* going into CD-3