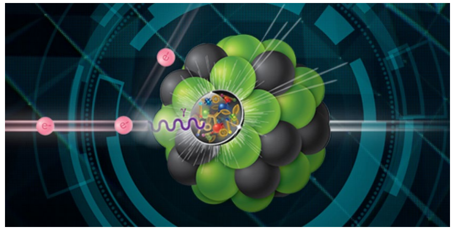


EIC Detector-1

GENERAL BI-WEEKLY MEETING
9 June 2022

Silvia dalla Torre, Or Hen, Tanja Horn, John Lajoie, Bernd Surrow

Context for the present Consolidation Phase

- The final DPAP report was released on 21 March and can be downloaded from the DPAP Panel Meeting web site. Based on the DPAP recommendations, the EIC project has confirmed that the ECCE detector design will serve as the reference in developing a technical design for CD-2/3a.

> *"The EIC Project recognizes that the panel recommended ECCE as the Project Detector. As described in the panel report, we will urge the proto-collaboration to: (1)* ***integrate new collaborators*** *in a manner that enables them to make contributions that impact the capabilities and success of the experiment in significant ways, including new collaborating individuals and groups into positions of responsibility and leadership; and (2)* ***integrate new experimental concepts*** *and technologies that improve physics capabilities without introducing inappropriate risk.* ***ECCE is the reference design for this optimization and consolidation so that the Project Detector can advance to CD2/3a in a timely way****"* – email communication from the EIC Project Team on 13 March 2022.

- From the DPAP report: "….none of the three proto-collaborations is yet large enough or strong enough for successful development of a detector for Day 1 of the EIC". → wise to combine efforts

Context for the present Consolidation Phase

- The final DPAP report was released on 21 March and can be download[...] [DPAP Panel Meeting web site](). Based on the DPAP recommendations[...] confirmed that the ECCE detector design will serve as th[...] technical design for CD-2/3a.

> *"The EIC Project recognizes that the* [...] *As described in the panel report, we will urge* [...] ***laborators** in a manner that enables them to* [...] *nd success of the experiment in significant way* [...] *oups into positions of responsibility and lea*[...] ***cepts** and technologies that improve physics capa*[...] ***ECCE is the reference design for this optimization and*** [...] ***ector can advance to CD2/3a in a timely way***" – email comm[...] [...]ct Team on 13 March 2022.

The DETECTOR-1 SC and the collaboration under formation are built on the DPAP report and EIC PM guidance

- From the DPA[...] ...none of the three proto-collaborations is yet large enough or strong enough for successful deve[...]pment of a detector for Day 1 of the EIC". → wise to combine efforts

The Path Forward – global view

- *Evolve the reference design* towards the technical design of a global detector based on science and an eye to cost and risk
- *Move towards the new Detector 1 collaboration* forming a friendly and welcoming atmosphere

Detector-1 Highlights – last few months

Much activity – moving at a rapid pace

- ✓ ❑ March 2022
  - DPAP final report (21 March 2022)
  - Discussions between EIC PM, national labs, proto-collaboration leadership, proto-collaboration internal
- ✓ ❑ April 2022:
  - ✓ Joint WG conveners identified
  - ✓ 14 April: Formation of joint WGs; global charge sent to joint WGs including the request to develop the charge elements specific to the WGs
  - ✓ 25+ April: First joint WG kickoff meetings
  - ✓ 28 April: Updated detector parameter table posted
  - ✓ 29 April: First Detector-1 General Meeting
  - ✓ Mailing lists were set up
  - ✓ Indico pages were set up
- ✓ ❑ May 2022
  - ✓ 13 May: Start outreach to detector R&D Consortia
  - ✓ 13 May: Vision of collaboration formation process elements shared at bi-weekly meeting
  - ✓ 18 May: Global inventories and gap analysis – institutional survey sent out
  - ✓ 25 May: Global geometry database in machine-readable format posted
  - ✓ Additional communication tools were set up (Wiki, Mattermost, etc.)

Meetings with the Detector Consortia

- Reached out to Consortia (so far hpDIRC, dRICH, EEEMCAL, EICSC) with the following major questions:
  - Is anything missing in the overall approach for Detector-1?
  - Plans for the next year including the transition from R&D to design and construction
  - Relation with working groups and collaboration formation

- Note that the Consortia have different characteristics and needs
  - very different nature and size of the consortia with some exclusively dedicated to EIC and others opened to wider communities
  - different perspectives regarding future workforce and financial support
  - Synergies with other subsystems
  - Documentation of technical specifications

Meetings with the Detector Consortia

- Overall the *Consortia approaches are well formulated and can play a positive role in the process of detector consolidation and baseline definition*

- Plans for the next year
  - understand the geometry constraints of detector-1 and evaluate the impact of the different constraints on the performance
  - generate technical specifications document in phase with the guidelines on the EIC project timeline
  - Reach out to possible new collaborators to further enlarge the consortium and base for design and construction
  - Identify and take advantage of synergies between subsystems

- Relation to the Working Groups and Collaboration formation
  - very active in detector-1 working groups
  - *activities in the consortium envisioned to always be fully linked with the Detector-1 WGs*
  - added value: *consortium internal expertise benefits the entire community*

Detector Consortia Action Items

hpDIRC

- ❑ Continue the transition from R&D towards identify resources and funding resources for the planned tasks towards design and construction

dRICH

- ❑ Clarify the agreements for engineering help with the national labs
- ❑ Reach out to possible new collaborators to further enlarge the consortium and base for design and construction. This includes connections overall and specific connections for, e.g., the mirrors
- ❑ Work on the technical specifications document within the EIC project timeline
- ❑ Identify and take advantage of synergies between forward and backward RICH detectors

EEEMCAL

- ❑ Work closely with EIC PM to secure off-project funding
- ❑ Reach out to possible new collaborators to further enlarge the consortium and base for design and construction.
- ❑ Work on the technical specifications within the EIC project timeline
- ❑ Identify and take advantage of synergies between EEEMCAL and other subsystems using homogeneous radiator materials, e.g., far forward/backward detectors

TITLE

Geometry Database

- Available in different formats, also cvs machine readable
- New prototype being developed and updated with new features – expect full release in a few weeks

Region	Component	Sub-Component	WBS	Length (cm)	Inner Radius (cm)	Outer Radius (cm)	Offset from Center (cm)	Physical Start (cm)	Physical End (cm)	Volume (m^3)	Weight (kg)	Technology	Notes
HADRON DIRECTION END CAP	Hadron Calorimeter		6.10.06	171	30	267	328	499	328	33.61	215,210	FeSc, WSc last segment	Tower size: 3cm x 3cm x 140cm, 20cm readout Offset: measured from face nearest to interaction point Volume: calculated as cylindrical volume minus the volume of the embedded ECAL Weight: estimated as 79% iron and 21% plastic
	Electromagnetic Calorimeter		6.10.05	38	30	190	328	366	328	4.20	27,165	Pb/Sc	Tower size: 1cm (1.65cm) x 1cm(1.65cm) x 37.5cm, 5cm readout Offset: measured from face nearest to interaction point Weight: estimated as 85% lead glass and 15% steel
	Service Gap			8			320	328	320				Offset: measured from location nearest to interaction point
CENTRAL DETECTOR	Barrel Hadron Calorimeter		6.10.06	640		267	0	320	-320	72.60	464,834	FeSc	Offset: measured from center of detector Volume: calculated as sum of the sub-sections Weight: estimated as 79% iron and 21% plastic
		HD Section		*170*	*194*	*267*	*150*	*320*	*150*	*17.97*			*Offset: measured from face nearest to interaction point*
		Central Section		*300*	*180*	*267*	*0*	*150*	*-150*	*36.65*			*Offset: measured from center of detector*
		LD Section		*170*	*194*	*267*	*-150*	*-150*	*-320*	*17.97*			*Offset: measured from face nearest to interaction point*
	Dual RICH		6.10.04	100	10		180	280	180	10.29	1,911	Aerogel/Gas	Offset: measured from face nearest to interaction point Volume: calculated as sum of the sub-sections Weight: based on parametric estimate from CLAS LTCC
		Detector Section		*80*	*10*	*195*	*200*	*280*	*200*	*9.53*			*Offset: measured from face nearest to interaction point*
		Aerogel Section		*20*	*10*	*110*	*180*	*200*	*180*	*0.75*			*Offset: measured from face nearest to interaction point*
	Solenoid Magnet		6.10.07	384	142	177	0	192	-192	13.47	45,956	Solenoid	Weight: based on parametric estimate from CLEO II
	EMCal Outer Support			445	134	141	-30	192.5	-252.5	2.69	4,225	Steel, Instrumented	Weight: calculated as 20% of total volume as steel (balance is air)
	EMCal Outer Surface			480	133	134	-45	195	-285	0.40	1,091	Aluminum	Weight: calculated as 100% Aluminum
	EMCal Electronics			480	125.5	133	-45	195	-285	2.92	5,737	Near eta=0	Weight: calculated as 25% silicon (balance is air)
	Barrel EMCal		6.10.05	480	79.5	125.5	-45	195	-285	14.22	49,885	Sci Glass	Weight: based on parametric estimate from CMS EMCal
	EMCal Inner Surface			480	79	79.5	-45	195	-285	0.12	324	Aluminum	Weight: calculated as 100% Aluminum
	DIRC Support			455	65	79	-257	168	-287	2.60	1,019	Steel	Offset: measured from point where DIRC bar connects to the readout Volume: calculated as sum of sub-sections Weight: estimated as 5% of total volume as steel (balance is air & detector)
		Bar Support		*425*	*65*	*77*	*-257*	*168*	*-257*	*2.28*			
		Readout Support		*30*	*65*	*105*	*-257*	*-257*	*-287*	*0.32*			*Readout support is triangular frame, therefore volume is halved.*
	Integrated DIRC/MPGD Detector		6.10.04		71.5	76.5	-257	168	-287	0.86	662	Fused silica bars	Detector is totally enclosed by DIRC Support. Weight: calculated as sum of sub-components
		MPGD Tracker		*340*	*74.5*	*76.5*	*-5*	*165*	*-175*	*0.32*	*65*	*muRWell (plane type)*	*Weight: based on parametric estimate from SBS Gem*
		DIRC Bar Box		*425*	*71.5*	*74.5*	*-257*	*168*	*-257*	*0.58*	*407*		*Weight: calculated as 30% quartz (balance is air & support system)*
		DIRC Readout		*30*	*71.5*	*104.4*	*-257*	*-257*	*-287*	*0.27*	*191*		*Readout is triangular, therefore volume is halved.* *Weight: Calculated as 30% silicon(balance is air & support system)*
	Barrel Time of Flight/Tracker		6.10.03	270	63	65	15	150	-120	0.22	43	AC/LGAD	Weight: based on parametric estimate from SBS Gem
	HD Time of Flight/Tracker		6.10.03	15	12	62	155.5	170.5	155.5	0.17	35	AC/LGAD	Offset: measured from face nearest to interaction point Weight: based on parametric estimate from SBS Gem
	Silicon Tracker		6.10.03	228	3	45.9	0	126	-102	1.50	227	MAPS	Weight: calculated as 3% aluminum and 3% silicon (balance is air)
	Modular RICH		6.10.04	25	10	64	-135	-135	-160	0.31	58	Aerogel	Offset: measured from face nearest to interaction point Weight: based on parametric estimate from CLAS LTCC
	LD Time of Flight/Tracker		6.10.03	10	12	64	-161	-161	-171	0.12	25	AC/LGAD	Offset: measured from face nearest to interaction point Weight: based on parametric estimate from SBS Gem
	LD EMCal		6.10.05	60	9	63	-175	-175	-235	0.73	4,738	PbWO4	Offset: measured from face nearest to interaction point Weight: estimated as 85% lead glass and 15% steel
	Service Gap			10			-320	-320	-330	0.00			Offset: measured from location nearest to interaction point
LEPTON DIRECTION ENDCAP	Backward Field Return		6.10.06	20.32			-330	-330	-350.32	5.18	40,649	Iron	Offset: measured from face nearest to interaction point Weight: calculated as 100% iron.
		Return Cylinder		*20.32*	*20*	*270*	*-330*	*-330*	*-350.32*	*4.63*			
		Support Panel		*7.62*	*454*	*664*	*-336.35*	*-336.35*	*-343.97*	*0.55*			*Height: specified in outer radius* *Width: specified in inner radius*

Geometry Database

TITLE

Region	Component	Sub-Component	WBS	Length (cm)	Inner Radius (cm)	Outer Radius (cm)	Offset from Center (cm)	Physical Start (cm)	Physical End (cm)	Volume (m^3)	Weight (kg)	Technology	Notes
HADRON DIRECTION END CAP	Hadron Calorimeter		6.10.06	171	30	267	328	499	328	33.61	215,210	FeSc, WSc last segment	Tower size: 5cm x 5cm x 140cm, 20cm readout Offset: measured from face nearest to interaction point Volume: calculated as cylindrical volume minus the volume of the embedded ECAL Weight: estimated as 79% iron and 21% plastic
	Electromagnetic Calorimeter		6.10.05	38	30	190	328	366	328	4.20	27,165	Pb/Sc	Tower size: 1cm (1.65cm) x 1cm(1.65cm) x 37.5cm, 5cm readout Offset: measured from face nearest to interaction point Weight: estimated as 85% lead glass and 15% steel
	Service Gap			8			320	328	320				Offset: measured from location nearest to interaction point
	Barrel Hadron Calorimeter		6.10.06	640		267	0	320	-320	72.60	464,834	FeSc	Offset: measured from center of detector Volume: calculated as sum of the sub-sections Weight: estimated as 79% iron and 21% plastic
		…D Section		*170*	*194*	*267*	*150*	*320*	*150*	*17.97*			*Offset: measured from face nearest to interaction point*
		…ntral Section		*300*	*180*	*267*	*0*	*150*	*-150*	*36.65*			*Offset: measured from center of detector*
		…D Section		*170*	*194*	*267*	*-150*	*-150*	*-320*	*17.97*			*Offset: measured from face nearest to interaction point*
			6.10.04	100	10		180	280	180	10.29	1,911	Aerogel/Gas	Offset: measured from face nearest to interaction point

Comments, References and Contact Information

The information provided on this page is generated directly from the originating spreadsheet. The data in this section should provide insights into the design choices that have been made over time, along with references to documentation regarding the changes. To request clarification or changes to this information (or to information in the geometry matrix), please reach out to the individuals listed in the Contacts section.

Comments

Comments

Author	Date	Comment
Walt Akers	June 01, 2022	This is the first comment in this section
Walt Akers	May 29, 2022	This is an earlier comment that is installed out of order. It also has embedded carriage returns.

References

References

Title	Date	Description
Detector Menagerie		A complete collection of Sketchup models that can be used to construct detector systems from parts. Each of the sub-components is independently configurable.
General Detector Integration Model	December 15, 2020	A model that provides an overview of how system integration will be performed within the EIC project.
Experimental Equipment Sharepoint Repository		This is the BNL Sharepoint root directory for Experimental Equipment documents. Key sub-directories are listed in the expanded list below. These links require authenticated access.

Contacts

Contacts: Tanja Horn, Walt Akers

Name	E-Mail	Details
Tanja Horn	hornt@cua.edu	Primary contact for information that is stored in the Geometry Matrix.
Walt Akers	akers@jlab.org	Technical contact for online data, features and accessibility.

Region	Component	Sub-Component	WBS	Length (cm)	Inner Radius (cm)	Outer Radius (cm)	Offset from Center (cm)	Physical Start (cm)	Physical End (cm)	Volume (m^3)	Weight (kg)	Technology	Notes
													Weight: based on parametric estimate from SBS Gem
	LD EMCal		6.10.05	60	9	63	-175	-175	-235	0.73	4,738	PbWO4	Offset: measured from face nearest to interaction point Weight: estimated as 85% lead glass and 15% steel
	Service Gap			10			-320	-320	-330	0.00			Offset: measured from location nearest to interaction point
LEPTON DIRECTION ENDCAP	Backward Field Return		6.10.06	20.32			-330	-330	-350.32	5.18	40,649	Iron	Offset: measured from face nearest to interaction point Weight: calculated as 100% iron.
		Return Cylinder		*20.32*	*20*	*270*	*-330*	*-330*	*-350.32*	*4.63*			
		Support Panel		*7.62*	*454*	*664*	*-336.35*	*-336.35*	*-343.97*	*0.55*			*Height: specified in outer radius* *Width: specified in inner radius*

Institutional Survey Status Update

- As of June 8, 124 institutions responded so far. It is our goal to reach the level of 150 institutions:
  - Send out another reminder!
  - Contact individual institutions!
- Survey link: https://forms.gle/i1VZCfbXpBrMK8D58
- Focus on "General Institutional Information". FTE can be submitted at a later stage!
- Note: the answers to the survey are also entered in the initial DB for the formation of the DETECTOR-1 collaboration Institutional Board (IB)

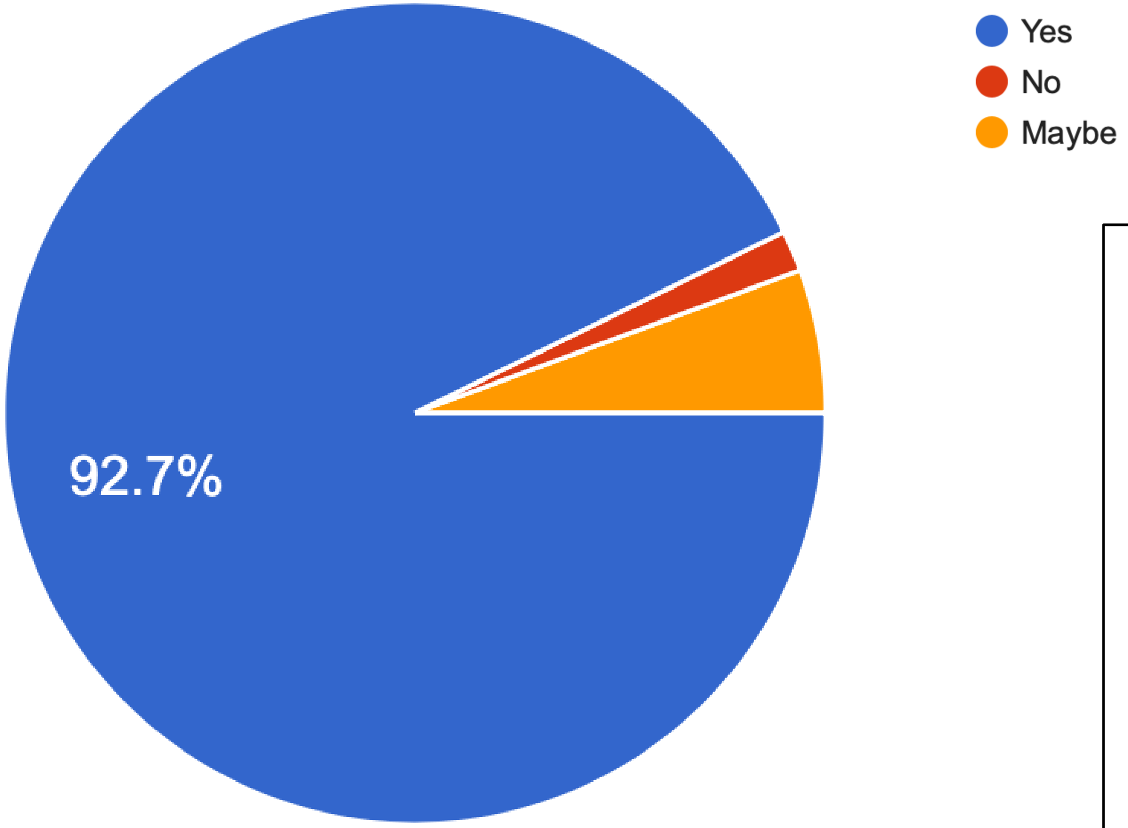
Institutional Survey Status Update

General Institutional Questions

→ 13 new institutions – these did not participate in any proposal effort

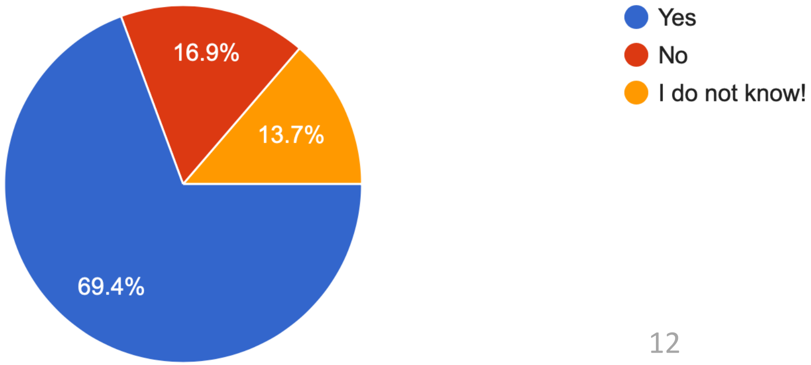
Please confirm that your institution is interested to join the EIC Detector 1 effort:

124 responses



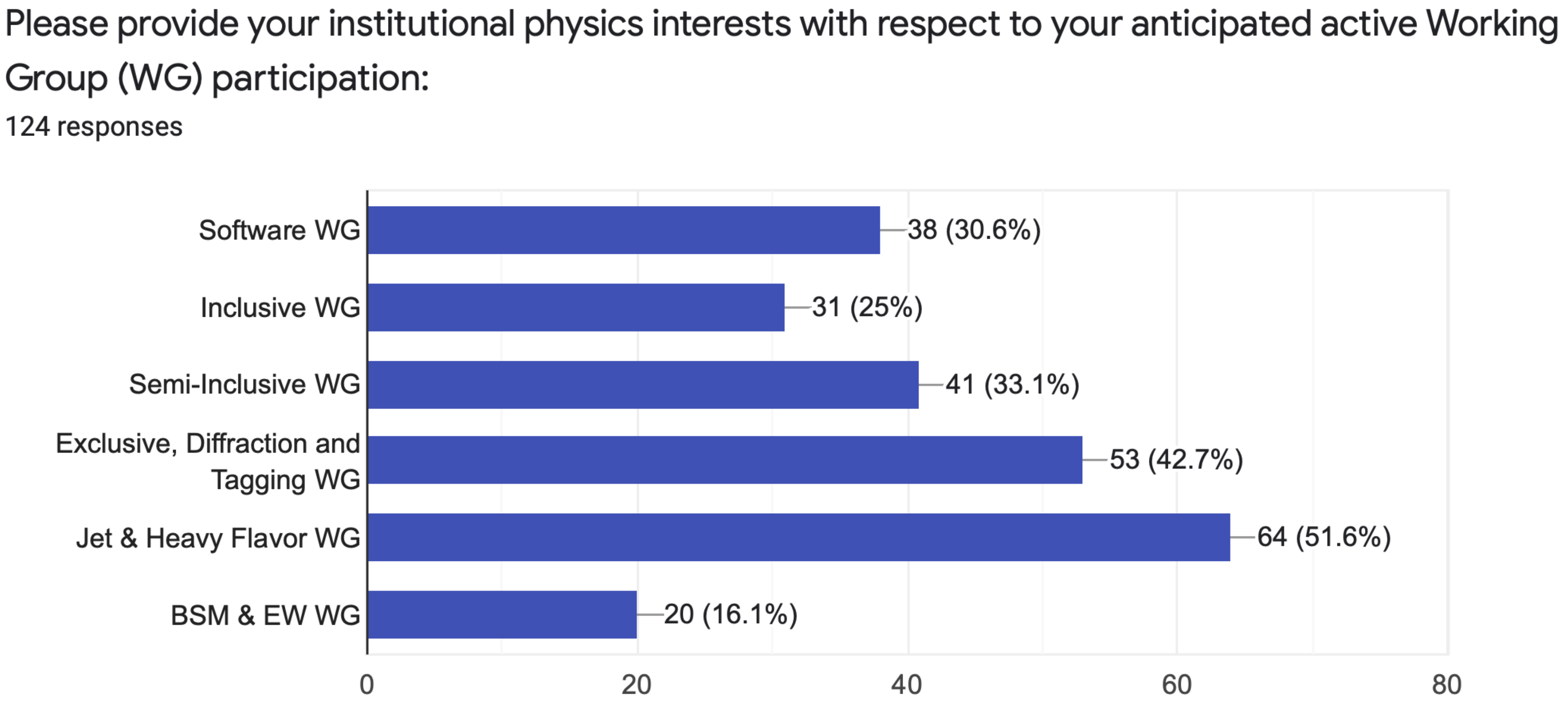
Did your institution participate in the Expression-of-Interest survey in 2019 (https://www.bnl.gov/eic/eoi-faq.php)?

124 responses



Institutional Survey Status Update

Physics interests:

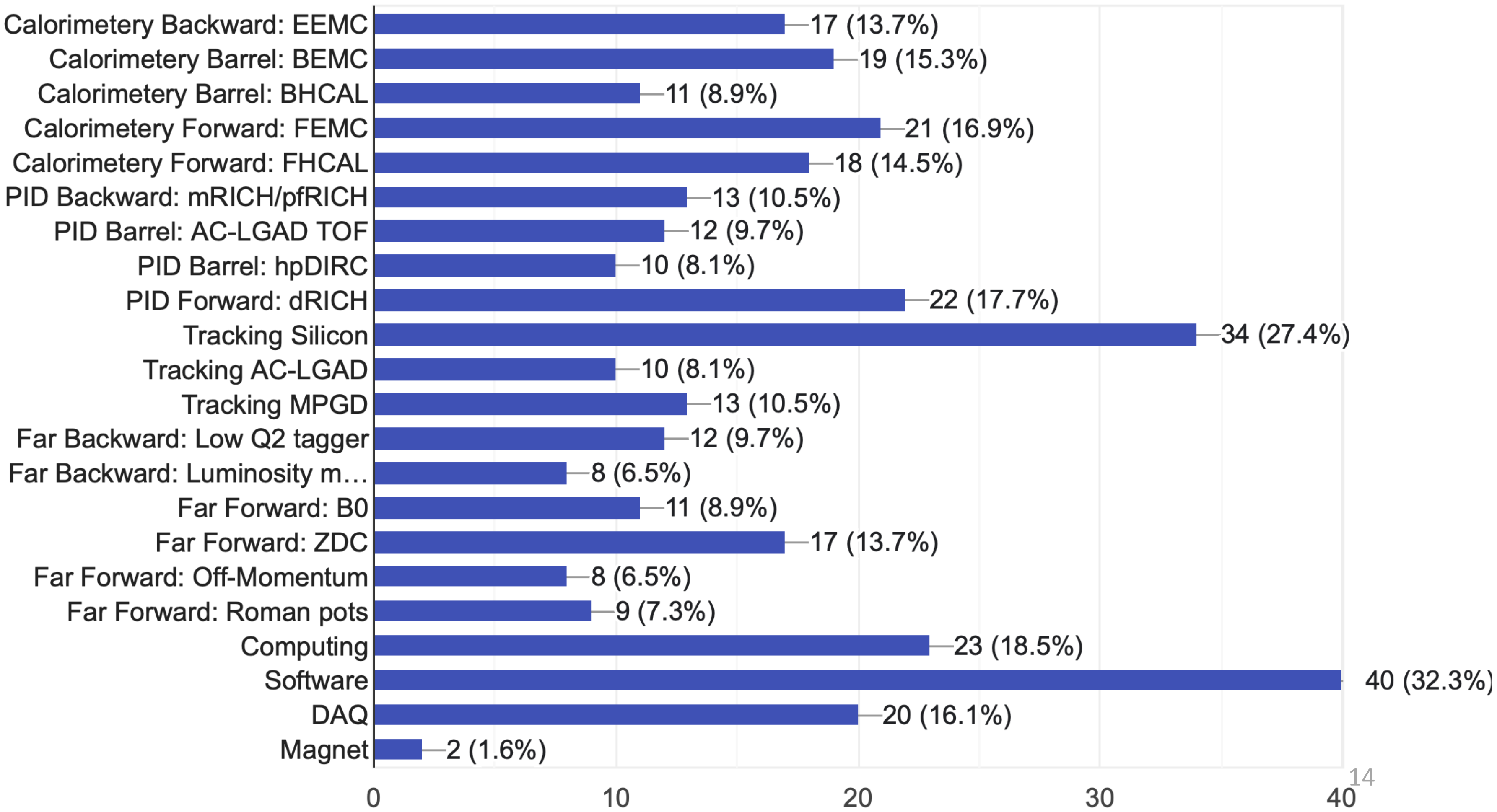


Institutional Survey Status Update

Detector Sub-system interests:

Please provide your institutional sub-system interests to actively participate in a Detector 1 sub-system:

124 responses



Key items under consideration by Detector1 WGs

- ❑ Optimization of barrel tracking
  - Achieving a realistic, low-mass design with good performance
  - MPGD selection (mRWell or MM)
- ❑ Reference design did not include a backwards HCAL
  - Is there a strong physics justification?
- ❑ ECCE and ATHENA barrel EMCAL solution imply a different physics emphasis
- ❑ AC-LGAD s are new, unproven technology
  - Potential for risk-reduction
- ❑ PID in backwards region (competing technologies)

→ Will hear more today from some of the WGs

This process must be driven by the physics performance
Iterative process between DWGs, PWGs, and GD/I

Timeline considerations for the path forward

- Global charges were communicated to the WGs in April
- Timeline for the charges to the WGs (from 10 May, 2022 discussion with EIC PM)
  - The goal emphasized by the EIC PM is to confirm the reference "*advanced conceptual design*" by the July EICUG meeting (~9 weeks from now)
  - There may still be open issues on important items, but the goal should be to converge by the end of July and raise early on if any issues come up and/or more time is needed
- Note: after addressing the main and most urgent questions, the optimization work will continue towards the pre-TDR

2022 RHIC/AGS Annual Users' Meeting

7 Jun 2022, 08:40 → 10 Jun 2022, 22:15 US/Eastern

Christine Nattrass (University of Tennessee, Knoxville), Ron Belmont (University of North Carolina Greensboro), Zhenyu Ye (University of Illinois at Chicago)

EIC Physics

Conveners: Alexander Jentsch (Brookhaven National Laboratory), Sylvester Joosten (Argonne National Laboratory), Tanja Horn (C

9:00 AM **Leptoquarks at the EIC**
Speaker: Jinlong Zhang (Shandong University)

9:25 AM **Jets and Heavy Flavor at the EIC**
Speaker: XinBai Li (USTC)

9:50 AM **Backward u-channel DVCS**
Speaker: Bill Li (Stony Brook University)

10:15 AM Coffe

10:35 AM **SIDIS Topics at the EIC**
Speaker: Charlotte Van Hulse

11:05 AM **Meson Structure**
Speaker: Richard Trotta (The Catholic University of America)

EIC Detector ¶

Conveners: Alexander Kiselev (BNL), Friederike Bock (ORNL), Giacomo Contin

09:00 **Introduction**
Speaker: Alexander Kiselev (BNL)
ayk-introduction.pdf

09:10 **EIC General Purpose Detector requirements**
Speakers: Dr E. C. Aschenauer (BNL), Rolf Ent (Jefferson Lab)
RHIC_AGS_User_Me...

09:40 **EIC tracker development and plan**
Speaker: Xuan Li (Los Alamos National Laboratory)
EIC_detector1_track...

10:00 **Particle Identification**
Speaker: Grzegorz Kalicy (CUA)
20220608-PID@EIC...

Plenary Session II 10:45 a.m. - 12:00 p.m. Session V

Convener: Justin Frantz (Ohio University)

10:45 **Progress on EIC Accelerator**
Speaker: Michael Blaskiewicz (BNL)

11:10 **EIC Physics**
Speaker: Bernd Surrow (Temple University)

11:35 **EIC Detectors**
Speaker: John Lajoie (Iowa State University)

Large representation of EIC Detector-1 in both parallel and plenary sessions

2022 USERS ORGANIZATION

Workshop and Annual Meeting

JLUO

Conference Date
June 13, 2022 to June 15, 2022

2022 JLUO Annual Meeting

13 Jun 2022, 09:00 → 15 Jun 2022, 20:40 US/Eastern
Auditorium (Jefferson Lab)
Carlos Munoz Camacho (IJCLab, Orsay (CNRS/IN2P3))

EIC talks also feature in the Jefferson Lab User Group Meeting in 2022

MONDAY, 13 JUNE

09:00 → 10:35 **Morning I**

09:00 **Welcome**
Speaker: Carlos Munoz Camacho (IJCLab, Orsay (CNRS/IN2P3))

09:05 **News from the lab**
Speaker: Stuart Henderson (Jefferson Lab)

09:40 **Hadron spectroscopy from theory: updates from JPAC (remote)**
Speaker: Vincent Mathieu (Barcelona U.)

10:05 **Updates on global JAM fits (remote)**
Speaker: Christopher Cocuzza (Temple University)

11:00 → 12:20 **Morning II**

11:00 **EIC status: User Group Perspective**
Speaker: Olga Evdokimov (UIC)

Electron-Ion Collider User Group Meeting - 2022

CFNS, Stony Brook University, July 26 - 30, 2022

Indico Site can be accessed here:

https://indico.bnl.gov/event/15342/timetable/#all.detailed

Agenda for the Detector-1 specific sessions is being developed

Tue 26/7

08:00			
	Welcome, Agenda, and Meeting Organization details	*Wang Center, CFNS Stony Brook University*	08:30 - 08:40
	Update from the Project	*Wang Center, CFNS Stony Brook University*	08:40 - 09:10
09:00	**Status of Detector I**	*Wang Center, CFNS Stony Brook University*	09:10 - 09:40
	Status of Accelerator design	*Wang Center, CFNS Stony Brook University*	09:40 - 10:10
10:00	**DOE Update**	*Wang Center, CFNS Stony Brook University*	10:10 - 10:30
11:00	**Detector 1: Coming soon.**		
12:00			

Agenda for Today

Note: Detector-1 General Meeting time is alternating between Thursdays 8:00 PM ET and Fridays 10:30am ET → next meeting on Friday June 24th at 10:30AM ET

- Updates and introduction
- Moving towards consolidation of the detector technical design and collaboration formation
- As part of this WGs are reporting on status/plans for addressing the charge sent to them when they were formed:

  Discuss and propose specific charge elements for your WG. The SC group will discuss these with you before finalizing the specific WG charge.

- Today: TOF PID, Calorimetry, Exclusive/Diffraction/Tagging, and Simulation/Software/QQ

Detector 1 General Meeting

Thursday Jun 9, 2022, 8:00 PM → 10:00 PM US/Eastern

Description **Connection Information:**

To join please click on the link here (https://mit.zoom.us/my/orhen)

8:00 PM → 8:40 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)

- 8:00 PM **SC Updates and Plans (15+5)** — 20m
  Speaker: Tanja Horn (Cath)
- 8:20 PM **EIC Project Update (15+5)** — 20m
  Speakers: E. C. Aschenauer (BNL) , Rolf Ent (Jefferson Lab)

8:40 PM → 9:45 PM **Working Groups Updates**
Convener: Tanja Horn (Cath)

9:45 PM → 10:00 PM **Q&A / Discussion**
Convener: Tanja Horn (Cath)

Detector-1 General Meeting organization rotation among: Bernd, Or, Tanja, Silvia, John

Global charge given to the Detector WGs

- The overall goal of the detector WG's is to optimize the ECCE reference design towards a technical design within the constraints listed above. In working towards this goal, the DWG's should collaborate with existing detector consortia (EICSC, EEEMCAL, MPGD, DIRC, DRICH, AC-LGADs, etc.), all detector R&D efforts relevant for Detector-1, and any additional efforts within the EIC scientific community.
- All working groups will work closely with the Global detector / integration working group and the EIC project towards a technical design that optimizes the global detector performance, taking into account global integration and physics performance.
- Each joint WG should hold at least one kickoff meeting where the designs of each proposal are presented in detail. It is critically important that WG members understand the scientific and technical reasoning behind different design choices before engaging in optimization discussions.
- The WG conveners will lead a discussion to identify any non-trivial differences and/or aspects in need of further optimization.
- For each non-trivial difference working groups will then work to prepare a pro/con list accounting for technical performance, risk and cost. The resolution of non-trivial differences should be discussed in close consultation with the Global detector/integration WG, physics working groups, the EIC project, relevant detector consortia and R&D efforts.

Global charge given to the GD/I WG

- ❑ Work with the project and the joint working group to develop a detailed, integrated technical design of the project detector. This includes the integration of various detector systems, the necessary supports and services, and the requirements imposed by the ability to service the detector between EIC running periods.
- ❑ Work with the detector and physics working groups, as well as project management, to ensure that the integrated project detector remains capable of the full science program outlined in the EIC Whitepaper and NAS report. Where compromises need to be made in the integration of the project detector, ensure that the proper simulations studies are completed to ensure they do not unduly compromise the EIC science program.

Global charge given to the Computing/Software WG

- Both WGs must function with a great deal of cooperation!
- The Computing & Software WG should concentrate on longer-term issues surrounding the computing model, computing plan, and AI.
- The Simulations & QA working group is responsible for producing the simulations required to support the detector and physics working groups.
  - Both WGs function directly as a service WGs for the DWGs/PWGs.
  - Maintain the integrity of our simulation.
- Both WGs need to work together to address issues of software and analysis framework, both in the short- and long-term.

Consolidation Roadmap: Detector WGs