

ATHENA

Bi-weekly meeting



ATHENA

Yulia Furletova (JLAB)

19Aug 2021

On behalf of org-team:

Abhay, Alexander, Barbara, Bernd, Franck, Olga, Silvia, Yulia.

Introduction

Welcome to the 10th –bi-weekly meeting !

Main focus of today's meeting

- review of our Proposal readiness (focusing on the integration part and MC production status)
- Topical discussions on PID -> shifting to next bi-weekly
- discuss a status of IB-chair and SP election
- Latest news.



EICUG Meeting (Aug 2- 7)

<https://indico.bnl.gov/event/11463/overview>

13:00	ATHENA: Proposal Overview	Silvia Dalla Torre	13:00 - 13:30
	CORE: Proposal Overview	Pawel Nadel-Turonski	13:30 - 14:00
14:00	ECCE: Proposal Overview	Or Hen	14:00 - 14:30
	2nd IR Workshop Series Status / Updates	Latifa Elouadrhiri	14:30 - 15:00
15:00	Discussion		



2-7 August 2021
US/Eastern timezone

EICUG Summer 2021 Meeting

For ATHENA:

Overview :	Silvia Dalla Torre
Calorimetry :	Vladimir Berdnikov
Tracking:	Laura Gonella
PID:	Thomas Hemmick
Far-forward/backward :	Alexander Jentsch
Computing/Electronics:	Jeff Landgraf
Software:	Sylvester Joosten

And many other talks related to IR designs, DOE and NSF, physics highlights , DAQ, software, polarimetry, EICUG IB/election and many other topics....

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Thanks to ALL our speakers!

All our talks are linked to the ATHENA web page

Joint EIC project management meeting

12 Aug 2021 at 10 AM

Focus on the second IR implementation and timeline

- JLAB team is working together with BNL team on the layout and integration to the whole EIC ring/concept.
- Luminosity estimations need more careful evaluations, including high and low energy operations
- Beam-beam effects / beam life time effects needs to be estimated
- Secondary focus – is unique and would allow to access the core of the beam

Multiple IRs benefits (summary of what was discussed at EICUG group)

- As indicated in the YR: cross-check results, use of complementary technology/ science focus
- Competitions, size of EICUG group
- Use/advantages of current RHIC/EIC layout with two IRs.

Detector R&D plan

- EIC R&D => email was sent yesterday
- Status of generic R&D is under discussions.

Q/A session

- Layout of FF areas in both IRs (RPs) and impact on the beam-life time
- Commissioning of Si-vertex detector / beam pipe
- ...

EIC R&D news:

<https://indico.bnl.gov/event/10974/contributions/53172/>

To kick-off these efforts we selected projects that meet the criteria mentioned above:

- eRD101 mRICH
- eRD102 dRICH
- eRD103 hpDIRC
- eRD104 Silicon Service reduction
- eRD105 SciGlass
- eRD106 Forward EMCAL
- eRD107 Forward HCAL
- eRD108 Cylindrical MPGD
- eRD110 Photosensors
- eRD111 Si-Vertex (excl. sensors)
- eRD112 AC-LGAD

Preliminary Contacts:

mRICH: Xiaochun He (Georgia), M. Contalbrigo (Ferrara/INFN)

dRICH: Z. W. Zhao (Duke), M. Contalbrigo (Ferrara/INFN),
Evaristo Cisbani (ROME/INFN)

hpDIRC: G. Kalicy (CUA), J. Schwiening (GSI)

Si-Vertex & Service Reduction: L. Gonella (Birmingham), I. Sedgwick
(RAL), E.P. Sichtermann (LBL), P. Jones
(Birmingham), L. Greiner (LBL)

SciGlass: T. Horn (CUA), I.L. Pegg (CUA)

Fwd calorimetry (EM&H-Cal): H.Z. Huang (UCLA), O. Tsai (UCLA)

Cylindrical MPGD: Marcus Hohlmann (FIT), Matt Posik (Temple), Bernd
Surrer (Temple), Kondo Gnanvo (UVa), Francesco Bossu
(CEA Saclay), Maxence Vandenbroucke (CEA Saclay)

Photosensors: Y. Ilieva (SC), C. Zorn (JLab), J. Xie (ANL),
A. Kiselev (BNL)

AC-LGAD: Alessandro Tricoli (BNL), Wei Li (Rice), Frank Geurts (Rice),
Zhangbu Xu (BNL), Zhenyu Ye (UIC)

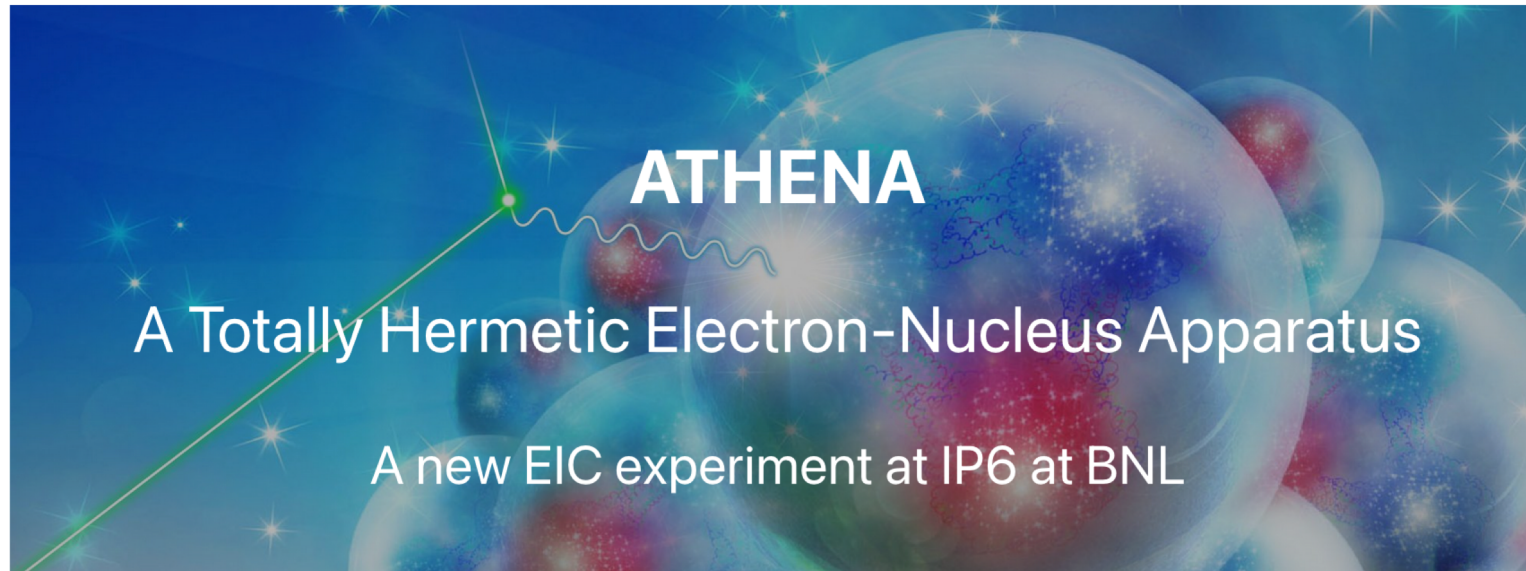
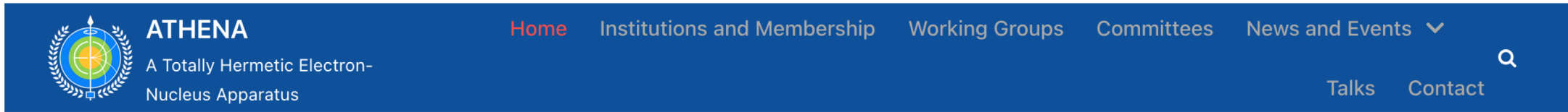
We expect and request that they will invite the relevant personnel to join the effort...

We have asked each group to develop a short document that will detail milestones, timelines, workforce, and other needs of their efforts in

FY22. Deadline for this report is no later than August 31.

Web page updates

Thanks to Nick Lukow for web updates!



Welcome

Following the [site selection for construction of the U.S. Electron-Ion Collider research facility by the U.S. Department of Energy \(DOE\) in early 2020](#), the EIC Users Group led a year-long Yellow Report initiative to define the detector design criteria needed to realize the EIC physics described in the EIC White Paper, supported by the National Academy of Sciences. Using the Yellow Report as input, a Reference Detector concept was presented at the recently held DOE Critical Decision-1 review of the EIC.

Web page updates : LOGO



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A Totally Hermetic Electron-
Nucleus Apparatus

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A new EIC experiment at IP6 at BNL

Welcome

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Web page updates : LOGO

WWW-pages:

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[ATHENA Wiki Page](#)

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[Yellow Report](#)

[EIC Conceptual Design Report](#)

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Logo

The ATHENA logo was adapted after a competition within the collaboration that started with the call for logo proposals in May 2021. The collaboration wide election of the best design took place in June 2021 with the current design emerging as the clear winner after two rounds. The winning design was by Sean Preins from UC Riverside. The design was then streamlined and transformed into a vector graphics by the BNL graphic department. The font used is 'Mrs Eaves OT Roman'. The logo was released July 30, 2021 and is the official ATHEN logo version.

Available formats [\[edit\]](#)

The logo is available as pixel graphics in PNG format and as vector graphics in PDF format. The pixel format (*.png) files are smaller but the vector versions can be scaled to any size with out loss of resolution. Here we provide full color, greyscale, and B&W versions with and without the ATHENA name under the logo.

The Logo [\[edit\]](#)

The center of the logo features the EIC logo, which consist of the rounded "E", the larger "I" represented as an arrow (spin axis) and the "C" flipped around its vertical axis. This is overlaid on a schematic cross-section through a detector, indicated by 3 colored rings reflecting the various shells of a detector. Four curved tracks are emerging from the center to the right. The box on the bottom reflects the IP6 location and the laurel wreath is of course the reference to Athena's leaf crown. Note also that the arrow that forms the vertical axis of the logo is not only representing the "I" of EIC but also Athena's spear with which she is mostly portrait since she is, among many things, the Greek goddess of war.

Downloads [\[edit\]](#)

- Color (for light backgrounds)
 - Master version, color, PDF document
 - PDF document, color, no text
 - PNG image, 711 x 847, color
 - PNG image, 711 x 716, color, no text



<https://wiki.bnl.gov/athena/index.php/Logo>

Thanks to Sean Preins for logo design
Thanks to BNL designers for adjustments and
Thomas Ullrich for wiki-page update

Sean Preins has setup a Redbubble store

<https://www.redbubble.com/shop/ap/81718118>



Get your ATHENA T-Shirt !

Web page updates : Other graphics

WWW-pages:

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Graphics

This is a collection of graphics that might be used in ATHENA presentations. Click on the preview image for download. Please also recall the [Yellow Report Figure Browser](#). BNL has a nice [Flickr page with EIC material](#).

Description	Preview
Graphic featured on the ATHENA Home Page (Copyright JLAB)	
Depiction of eA collision (Copyright BNL)	
Depiction of q,g content of nuclei in 'cosmic' context (Copyright BNL)	

Web page updates



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AGH University of Science and Technology, Krakow

Akal University

ANL

Banaras Hindu University

BNL

19 August 2021

Meetings

2	3	4	5	6	7
Inclusive Working Group	Steering Committee Meeting	SIDIS Working Group	DAQ Working Group Meeting	Exclusive/Tagging Working Group	
PID Working Group	Tracking Working Group	Detector Concept/Integration Committee Meeting	ATHENA Bi-Weekly Meeting		
Far-Forward Working Group	Jets/HF Working Group	Far-Backward Working Group			
Calorimetry Working Group					
9	10	11	12	13	14
PID Working Group	Steering Committee Meeting	SIDIS Working Group	DAQ Working Group Meeting	Working Group Conveners Meeting	
Far-Forward Working Group	Tracking Working Group	Detector Concept/Integration Committee Meeting	Software & Computing Working Group	Exclusive/Tagging Working Group	
Calorimetry Working Group	Jets/HF Working Group	Far-Backward Working Group	ATHENA Monthly Meeting		
16	17	18	19	20	21
Inclusive Working Group	Steering Committee Meeting	SIDIS Working Group	DAQ Working Group Meeting	Exclusive/Tagging Working Group	
PID Working Group	Tracking Working Group	Detector Concept/Integration Committee Meeting	ATHENA Bi-Weekly Meeting		
Far-Forward Working Group	Jets/HF Working Group	Far-Backward Working Group			
Calorimetry Working Group					
23	24	25	26	27	28
PID Working Group	Steering Committee Meeting	SIDIS Working Group	DAQ Working Group Meeting	Working Group Conveners Meeting	
Far-Forward Working Group	Tracking Working Group	Detector Concept/Integration Committee Meeting	Software & Computing Working Group	Exclusive/Tagging Working Group	
Calorimetry Working Group	Jets/HF Working Group	Far-Backward Working Group			

Timeline



Starting a proposal readiness tracker (draft/example)

To be discussed at the next WG convener meeting
Will be updated weekly

	Integration /Support str	Performance plots	Description /Draft /wiki	Cost	Institutions
Barrel					
Tracker – Si		SOS		SOS	Si-consortium
Tracker MPGD		SOS		SOS	Florida Institute of Technology, Temple and URA, Saclay
PID /DIRC	 	SOS	 	SOS	
EMCAL	 	SOS	SOS	SOS	Si-tracking : Argonne National Laboratory Absorber/SciFi : SOS
HCAL	 	SOS	SOS	SOS	SOS
Magnet		SOS	SOS		Saclay, JLAB

Timeline/plans

- Today – Deadline for the cost estimations !
- MC production has started yesterday !
- Topical discussion on PID - **shifting to next Bi-Weekly (2 Sep)**
- IB-Chair and SP Election next weeks
- Topical meeting “ Indian contributions to ATHENA”

ATHENA Bi-weekly meeting



📅 Thursday Aug 19, 2021, 11:00 AM → 2:00 PM US/Eastern

Description ZOOM link: Click [HERE](#)

11:00 AM → 11:10 AM **Intro**

🕒 10m



Speaker: Yulia Furletova (Jefferson Lab)

11:10 AM → 11:30 AM **Status of IB and SP election**

🕒 20m



Speaker: Brian Page (Brookhaven National Laboratory)

11:35 AM → 12:05 PM **Integration. Full detector concept**

🕒 30m



Speakers: Alexander Kiselev (BNL) , Franck Sabatié (CEA Saclay) , Silvia Dalla Torre (INFN, Trieste) , Thomas Ullrich (BNL)

12:15 PM → 12:35 PM **PWGs update**

🕒 20m



12:40 PM → 1:00 PM **Software Update**

🕒 20m



Speaker: Sylvester Joosten (Argonne National Laboratory)

Thank you!