

ECCE 25th Bi-Weekly Meeting

On behalf of the ECCE Steering Committee
Or Hen, Tanja Horn, John Lajoie

Agenda

A full agenda of paper presentations!

A real testament to the dedication of the PWG/DWG's.

Expect NIM special issue to be ready to accept submissions in 1-2 weeks. ECCE will have several publications ready to go!

25th ECCE Bi-Weekly Meeting			
Monday Apr 11, 2022, 8:00 AM → 10:30 AM US/Central			
Description	Connection Information:		
	Please click this URL to start or join. https://iastate.zoom.us/j/91050815362?pwd=ZTIHVVDVHYjhmeHZNNC9jK2RmL0pSZz09 Or, go to https://iastate.zoom.us/join and enter meeting ID: 910 5081 5362 and password: 000244		
	Meeting Recording:		
8:00 AM → 8:30 AM	ECCE News and Status		30m
	Speaker: John Lajoie (Iowa State University)		
8:30 AM → 9:05 AM	Detector Team: Publication Status		
	Conveners: Douglas Higinbotham (Jefferson Lab), Kenneth Read (Oak Ridge National Laboratory)		
8:30 AM	Introduction		5m
	Speakers: Douglas Higinbotham (Jefferson Lab), Kenneth Read (Oak Ridge National Laboratory)		
8:35 AM	Public Presentation: Design and Performance of Calorimetry Systems		20m
	Speakers: Friederike Bock (ORNL), Nicolas Schmidt (Oak Ridge National Laboratory - (US))		
8:55 AM	Tracking Paper Progress Report		10m
	Speakers: Ernst Sichtermann (Lawrence Berkeley National Laboratory), Kenneth Read (Oak Ridge National Laboratory), Xuan Li (Los Alamos National Laboratory)		
9:05 AM → 9:55 AM	Physice Team: Publication Status		
	Conveners: Carlos Munoz Camacho (IJLab-Orsay (France)), Carlos Munoz Camacho (IJLab, CNRS/IN2P3), Rosi Reed (Lenigh University)		
9:05 AM	Introduction		5m
	Speakers: Carlos Munoz Camacho (IJLab-Orsay (France)), Rosi Reed (Lenigh University)		
9:10 AM	Publication Presentation: Unpolarized TMD measurements		15m
	Speakers: Ralf Seidl (RIKEN), Ralf Seidl		
9:25 AM	Publication Presentation: Single hadron transverse SSA measurements		15m
	Speakers: Ralf Seidl, Ralf Seidl (RIKEN)		
9:40 AM	Publication Presentation: Open HF studies		15m
	Speakers: Dr Xuan Li (Los Alamos National Laboratory), Xuan Li (Los Alamos National Lab)		
9:55 AM → 10:25 AM	Computing Team: Publication Status		
	Conveners: Cristiano Fanelli (MIT), David Lawrence (Jefferson Lab)		
9:55 AM	Introduction		5m
10:00 AM	Publication Presentation: AI-assisted Optimization of the ECCE Tracking System		15m
	Speaker: Cristiano Fanelli (MIT)		

ECCE SC Report

- SC Meetings Since Last ECCE Bi-Weekly:
 - ATHENA/ECCE Leadership – 3/29/2022
 - EIC PM + ATHENA/CORE/ECCE Path to 2nd Detector – 3/29/2022
 - ATHENA/ECCE Leadership – 4/5/2022
 - ATHENA/ECCE/EIC PM – 4/5/2022
- Upcoming SC Meetings:
 - ATHENA/ECCE Leadership – 4/12/2022
- EICUG Spring Quarterly Meeting – 3/31/2022
 - Joint presentation from Silvia and Tanja
- Topics of discussion:
 - Joint WG structure and formation
 - Survey of institutions
 - Date of first “Detector 1” Meeting



EIC Detector Joint WG's

- ATHENA and ECCE leadership have agreed on the starting set of detector and physics WG's
 - Two WG conveners from each proto-collaboration
 - Draft of global charge elements under discussion
 - Still working on final conveners, WG-specific charge elements
 - Some ECCE conveners are unable to continue due to existing commitments
- Hope to finalize these items in the meeting with ATHENA leadership this week and announce joint WG's
 - WG conveners will then start organizing meetings
- NOTE: The SC considers the ECCE Code of Conduct to be in force for all ECCE conveners and participants in the joint WG's.

Goal of the Joint WG's

- Proto-collaborations wish to start working on the reference design optimization and consolidation phase, with the goals to:
 - 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.
 - Integrate new experimental concepts and technologies that improve physics capabilities without introducing inappropriate risk.
 - Advance the Project Detector to CD2/3a in a timely way (this includes starting a phase towards a pre-TDR for CD-2/3a and a TDR at CD-3).
 - Practical aspects to be considered during this phase include
 - Allowing working groups to work together in a constructive (pleasant) environment.
 - Use of a 1.5T magnet.
 - Consideration of both science impact as well as impact on cost, schedule, and technical risk.

EIC Detector Joint WG's (cont.)

Detector WG's	ECCE Nominated Conveners
Tracking	Xuan Li, TBD
Calorimetry	Friederike Bock, Carlos Munoz-Camacho
Cerenkov PID	Xiaochun He, Greg Kalicy
TOF PID	Wei Li, TBD
Far Forward	Michael Murray, TBD
Far Backward	Igor Korover Nick Zachariou
DAQ/Electronics/ Readout	Chris Cuevas, TBD
Computing and Software	TBD, TBD
Global Detector/ Integration	TBD, TBD

Physics WG's	ECCE Nominated Conveners
Simulation and QA	TBD, TBD
Inclusive	Tyler Kutz, TBD
Semi-Inclusive	Ralf Seidl, TBD
Exclusive, Diffraction and Tagging	Axel Schmidt, TBD
Jets & Heavy Flavor	Cheuk-Ping Wong, Wangmei Zha
BSM and Precision EW	Xiaochao Zheng, Sonny Mantry

Convener list developing rapidly

Looking forward to hearing from ATHENA to finish forming the WG's and putting them to work!

DWG's Global Charge DRAFT

- The overall goal of the detector WG's is to validate that the ECCE reference detector design is optimized within the existing constraints. In working towards this goal, the DWG's should reach out to existing detector consortia that (EICSC, EEEMCAL, MPGD, DIRC, DRICH) and all project detector R&D efforts for Detector-1 and involve them in the optimization effort.
- Each joint WG should hold a kickoff meeting where the designs of each proposal are presented in detail. It is critically important that WG members understand the reasoning behind different design choices before engaging in a comparative analysis.
- 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 will then be done in close consultation with the project, relevant detector consortia and R&D efforts.
- Working groups will work closely with the project towards the technical design taking into account global integration and physics performance.

PWG's Global Charge DRAFT

- Further develop simulation data analysis tools. Organize workshops as needed to provide training in the use of these tools for new WG members.
- Perform constant validation of the performances for physics observables during the detector optimization process to quantify the impact of the technical design on the detector's science reach.
- When alternative technological solutions are examined, work with the detector groups to provide quantitative information on the science performance of the proposed solutions.
- Extend the existing scope of physics processes being studied, with an emphasis on those processes called out by the DPAP as being significant for the science program and yet not studied by the proton-collaborations.

Detector-1 General Meeting

Detector 1 General Meeting

Friday Apr 29, 2022, 10:00 AM → 1:00 PM US/Eastern

Description Connection Information:

Please click this URL to start or join. <https://iastate.zoom.us/j/93232807093?pwd=MnBCQmU0K1N2dWFBcDEvc2hFVIRiZz09>
Or, go to <https://iastate.zoom.us/join> and enter meeting ID: 932 3280 7093 and password: 225801

Agenda forthcoming!

Friday, April 29th,
10AM EDT

NEW! EIC Project Detector Indico:

<https://indico.bnl.gov/category/402/>

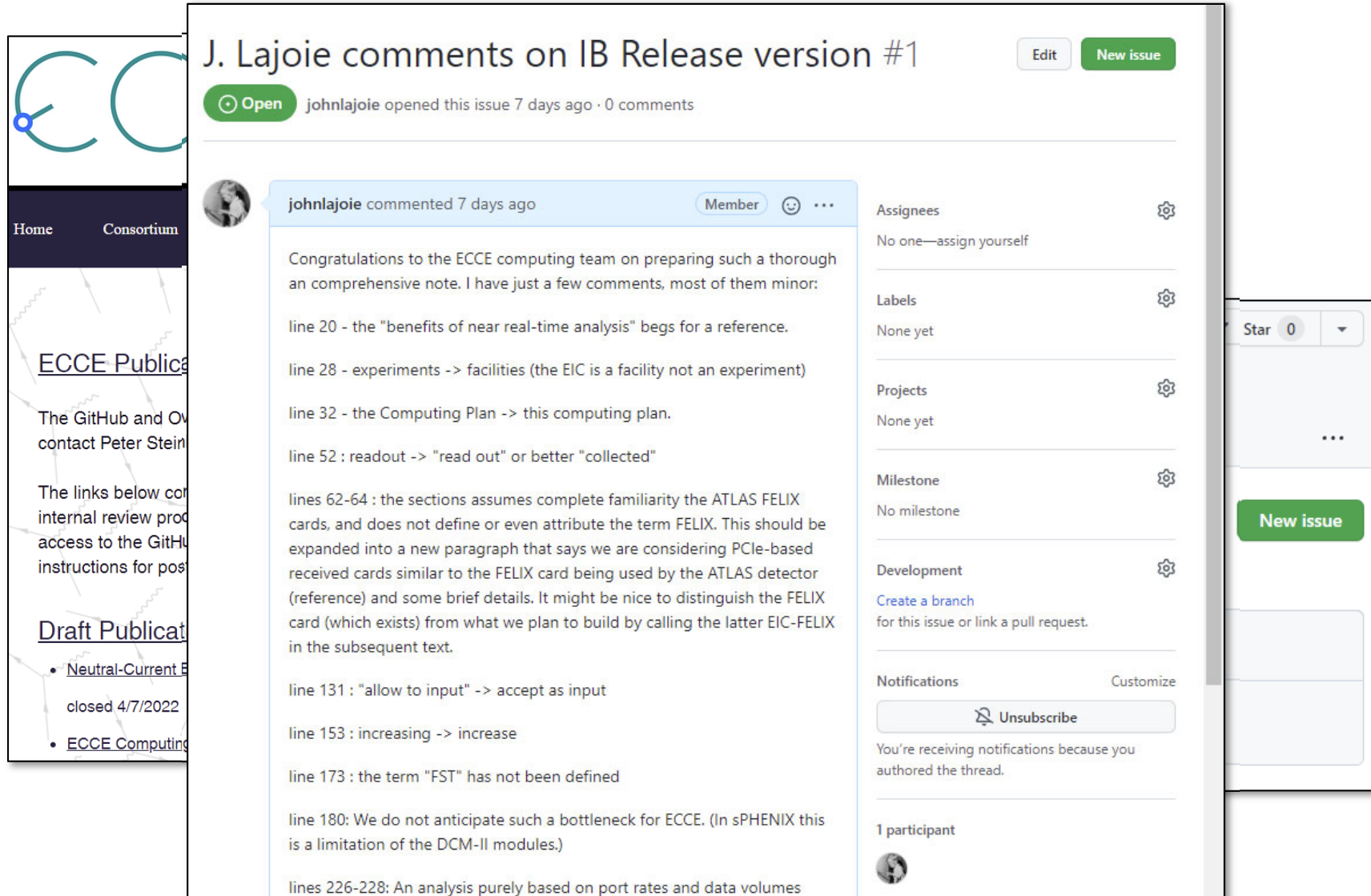
Joint WG meetings will have their agenda here –
link your calendar now!

(mailing lists coming RSN...)

ECCE Paper Reviews

- Publication policy requirements:
 - Presentation to the consortium
 - One-week posting for consortium review and comment
- Two paper reviews completed (presented 28 March)
 - *Neutral-Current Electroweak Physics and SMEFT Studies at the EIC*
 - Responded to comments, waiting for SC approval
 - *ECCE Computing Plan*
 - Waiting for response to comments
- Paper reviews conducted using GitHub

How to Review ECCE Papers



The screenshot shows a GitHub issue page. The title is "J. Lajoie comments on IB Release version #1". The issue was opened 7 days ago by johnlajoie. The issue has 0 comments. The issue is open. The issue is assigned to no one. The issue has no labels. The issue has no projects. The issue has no milestones. The issue is in the Development state. The issue has 1 participant. The issue is closed. The issue is resolved.

Comments:

- johnlajoie commented 7 days ago (Member):
 - Congratulations to the ECCE computing team on preparing such a thorough and comprehensive note. I have just a few comments, most of them minor:
 - line 20 - the "benefits of near real-time analysis" begs for a reference.
 - line 28 - experiments -> facilities (the EIC is a facility not an experiment)
 - line 32 - the Computing Plan -> this computing plan.
 - line 52 : readout -> "read out" or better "collected"
 - lines 62-64 : the sections assumes complete familiarity the ATLAS FELIX cards, and does not define or even attribute the term FELIX. This should be expanded into a new paragraph that says we are considering PCIe-based received cards similar to the FELIX card being used by the ATLAS detector (reference) and some brief details. It might be nice to distinguish the FELIX card (which exists) from what we plan to build by calling the latter EIC-FELIX in the subsequent text.
 - line 131 : "allow to input" -> accept as input
 - line 153 : increasing -> increase
 - line 173 : the term "FST" has not been defined
 - line 180: We do not anticipate such a bottleneck for ECCE. (In sPHENIX this is a limitation of the DCM-II modules.)
 - lines 226-228: An analysis purely based on port rates and data volumes

Navigation links on the left:

- Home
- Consortium
- ECCE Publications
- The GitHub and Open Office contact Peter Steinberg
- The links below cover internal review procedures access to the GitHub instructions for posting
- Draft Publications
- Neutral-Current Experiment
- closed 4/7/2022
- ECCE Computing

- Start on the ECCE website publications page
- Click on the link for the paper you want to comment on – this will take you to GitHub:
 - GitHub account required
 - Send GitHub username to Peter Steinberg (peter.steinberg@bnl.gov) for access
- Click on “Issues”
- Click on “New Issue” to enter your comments
- Authors can respond to your comments in the issue thread, issue closed when resolved.

EICUG Summer Meeting

R. Fatemi and M. Radici, Spring EICUG Meeting

Looking forward to an in-person EICUG Summer 2022 meeting.

Final decision on venue to be announced soon.



4/11/2022

EICUG 2022 Annual Meeting

- Currently, the meeting is scheduled on July 27-31 in Warsaw, with the Early Career Meeting on July 25-26
 - Sunday the 31st would be a half day to allow for flights out Sunday evening.
- There is a general consensus that in this phase of formation of collaborations we need an in-person meeting
- Given the current situation of war in Ukraine which affects also bordering countries like Poland, the SC is working with Barbara Badelek and the LOC to evaluate the situation and determine if we need to look for an alternate site. A final decision will be announced asap.

ECCE+ Social Networking

A gathering of ECCE alumni at the April APS meeting in New York City this past Saturday!

We look forward to future in-person meetings with the whole EIC community.

