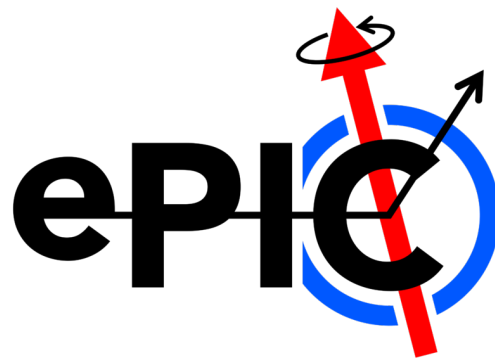


Collaboration Council Report

Ernst Sichtermann, Bernd Suroow

July 27, 2023



Chairline Elections – February, 2023

ES was elected as the Chair of the Collaboration Council past February 23, 2023.

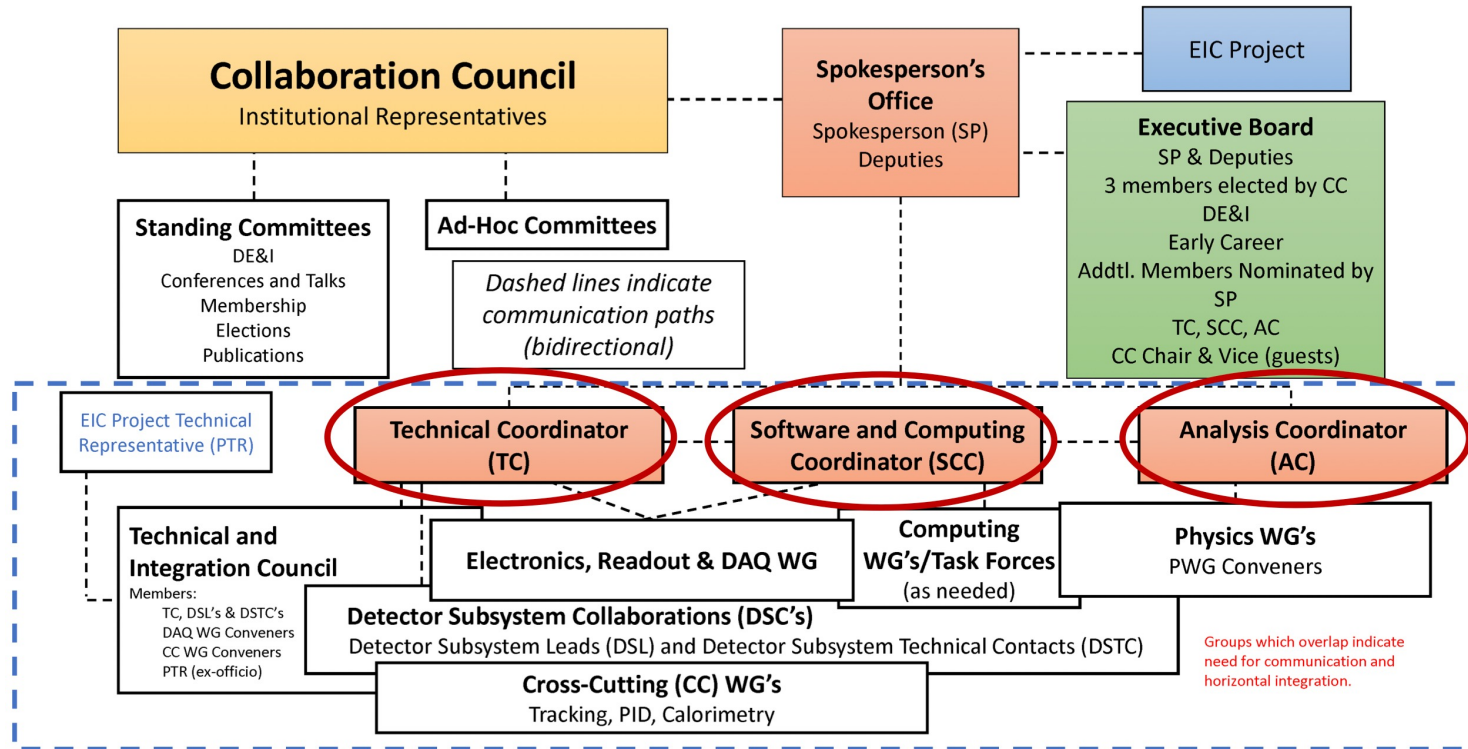
Bernd Sorrow was elected as vice-Chair of the Collaboration Council past February 23, 2023.

Thank you for the confidence and thank you to Vicki Greene and Franck Sabatié who went before us.

ePIC Charter: *Collaboration Council Chair Election: The election of the new Collaboration Council leadership takes place annually, nominally aligned with a regular CC meeting. The newly elected CC leader serves the first year of the two-year term as the Vice-chair of the CC and then as the CC Chair for the second year of their term to provide continuity of the leadership. In the first election, the CC Chair and Vice-chair will be elected simultaneously. After the first election, the CC Chair serves a one-year term.*

Collaboration Council Meeting on March 24, 2023

Focus was on the management plan:

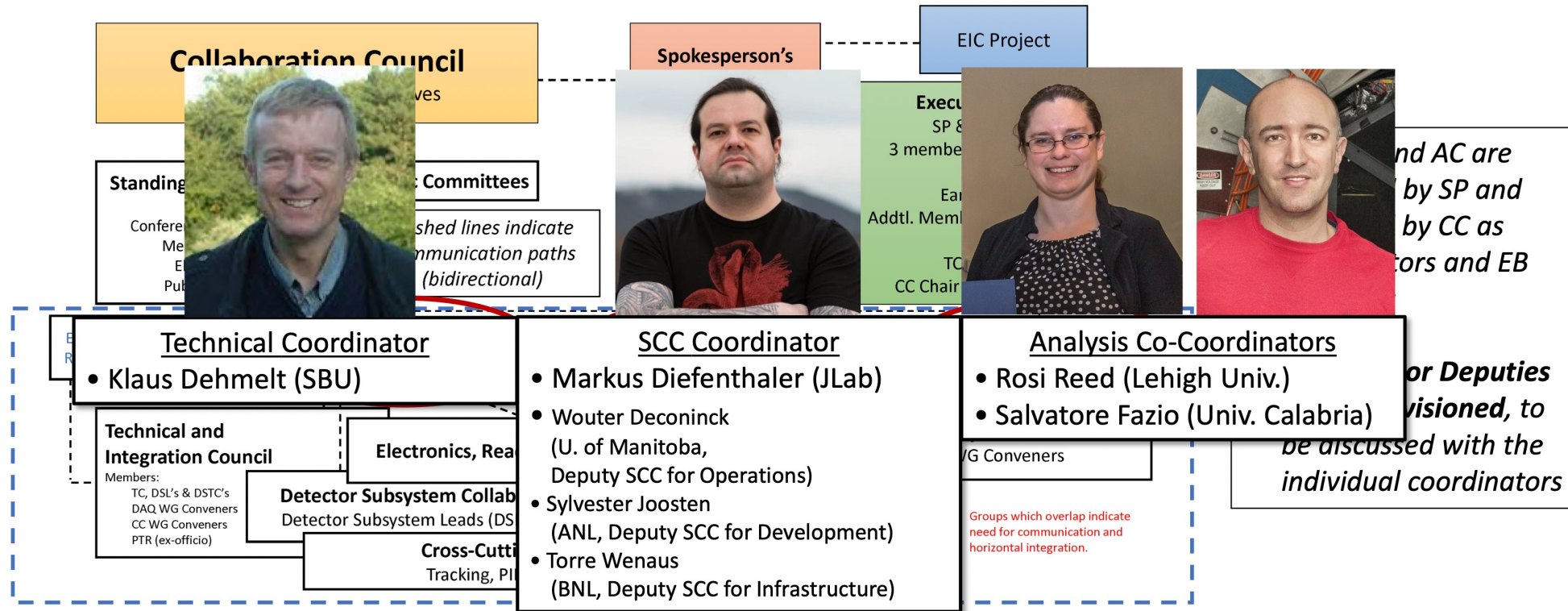


- *TC, SCC and AC are proposed by SP and endorsed by CC as coordinators and EB members*
- *Coordinator Deputies can be envisioned, to be discussed with the individual coordinators*

Link: <https://indico.bnl.gov/event/18885/>

Collaboration Council Meeting on March 24, 2023

Focus was on the management plan:



Link: <https://indico.bnl.gov/event/18885/>

Collaboration Council Meeting on March 24, 2023

Electronic voting was opened after the meeting and stayed open until the end of Thursday March 30, 2023 on two motions:

1. Ratify the Management Plan as presented by John Lajoie during the Collaboration Council Meeting on March 24, 2023 (<https://indico.bnl.gov/event/18885/>). Note that this ratification does not include the detailed list of specific detector subsystem collaborations; the detector subsystem collaboration scheme remains under development as indicated in the posted slides. (For/Against/Abstain)

2. Endorse the Team of Technical, Software and Computing, and Analysis Coordinators as presented by John Lajoie during the Collaboration Council Meeting on March 24, 2023 (<https://indico.bnl.gov/event/18885/>). (For/Against/Abstain)

96 Collaboration Council Members cast their votes by the deadline. The votes were reviewed. Both motions passed with convincing majorities in favor. This reviewed voting outcomes were communicated via the Collaboration Council mailing list on April 2, 2023 and via the collaboration-wide mailing list on April 3, 2023.

The Collaboration Council thus ratified the Management Plan and endorsed the Team of Technical, Software and Computing, and Analysis Coordinators.

The initial meeting set several precedents. Among them is that Collaboration Council meetings have a session open to all Collaborators. Discussions of specific individuals or institutions takes place in closed sessions, restricted to Collaboration Council members or their proxies. These meetings are generally not recorded.

Collaboration Council Meeting on April 21, 2023

Agenda featured three main items:

1. Initiate three of the Collaboration Council Committees; Membership, DEI, and Conferences and Talks

2. Motions to engage in the change-control process for two detector subsystems:

“ePIC should initiate the EIC change control process to make the Imaging Barrel EMCal with four imaging layers the baseline technology selection. The design should be upgradeable to six layers as a future (off-project) upgrade.”

“mRICH and pfRICH costs are nearly the same, but pfRICH carries a lower risk, thus ePIC should initiate the change control process to make the pfRICH the baseline technology selection for the backward RICH.”

3. Motions to endorse the Spokesperson-proposed structure of working groups and co-conveners:

“The proposed structure of Cross-Cutting, Software and Computing and Physics Working Groups. Specifically, those WG’s to be activated at this time,”

“The proposed conveners for each Working Group, by working group.”

Collaboration Council Meeting on April 21, 2023

Inclusive Physics

- Focus on measurements that involve detecting, identifying, and measuring the kinematics of the scattered electron.
- [Tyler Kutz \(MIT, 2-year\)](#)
- [Claire Gwenlan \(Oxford, 1-year\)](#)

Semi-Inclusive Physics

- Focus on measurements that require detecting, identifying and measuring a final state hadron or hadrons in addition to the scattered electron.
- [Charlotte Van Hulse \(U. Alcala, 2-year\)](#)
- [Stefan Diehl \(UConn, 1-year\)](#)

Exclusive, Diffraction and Tagging

- Focus on measurement that require detecting the scattered proton/ion, whether it remains intact or not, together with all the final state produced particles, in addition to the scattered electron.
- [Raphael Dupré \(Orsay, 2-year\)](#)
- [Rachel Montgomery \(Glasgow, 1-year\)](#)

Jets and Heavy Flavor

- Focus on measurements that involve high momentum exchanged processes, which could produce a spray of final state particles or hadrons that have one or more heavy quark constituents.
- [Olga Evdokimov \(UIC, 2-year\)](#)
- [Brian Page \(BNL, 1-year\)](#)

BSM & Precision EW

- Focus on measurements of the cross-sections, helicities of electroweak gauge bosons that can lead to a better understanding of quark-level electroweak couplings and the potential for measurements beyond the standard model.
- [Ciprian Gal \(MSU/JLab, 2-year\)](#)
- [Michael Nycz \(Virginia\) \(1-year\)](#)

Collaboration Council Meeting on April 21, 2023

Operations WGs:

Production

- Responsible for the coordination and production of simulation campaigns based on priorities from the TC and AC's. Develop automated production workflows that scale with the needs of the collaboration.
- [Sakib Rahman \(Manitoba\)](#)
- [Thomas Britton \(JLab\)](#)

User Learning

- Responsible for support via documentation, help desk, and training. Ensure that software is discoverable (easy to use with only minimal instructions) and simulated data and metadata is findable.
- [Holly Szumila-Vance \(JLab\)](#)
- [Kolja Kauder* \(BNL\)](#)

Validation

- Responsible for the validation of the simulations via a suite of detector and physics performance plots. Develop autonomous checks and verification of the validation plots.
- [Torri Jeske \(JLab\)](#)
- [Dmitry Kalinkin \(Kentucky\)](#)

Development WGs:

Physics and Detector Simulation

- Development of accurate MC simulations using a suite of physics and background generators and detector simulation based on Geant4 and DD4hep.
- [Kolja Kauder* \(BNL\)](#)
- [Chao Peng \(ANL\)](#)

Reconstruction

- Development of a holistic and modular reconstruction for the integrated ePIC detector.
- [Shujie Li \(LBNL\)](#)
- [Derek Anderson \(ISU\)](#)

Analysis Tools

- Integration of analysis methods and tools in central software and computing workflows.
- [Zhoudunming \(Kong\) Tu \(BNL\)](#)
- **TBD**

Infrastructure WGs:

Streaming Computing Model

- Development of the computing model for the compute-detector integration using streaming readout, AI/ML, and multi-architecture computing (CPU, GPU, ...) with a specific focus on the data flows after the FEE layer.
- [Marco Battaglieri \(INFN Genova\)](#)
- [Jin Huang \(BNL\)](#)

Collaboration Council Meeting on April 21, 2023

Electronics, Readout and DAQ

- Oversee development of readout and DAQ from front end to storage.
- [Fernando Barbosa \(JLab\)](#), [Jeff Landgraf \(BNL\)](#), [Jin Huang \(BNL\)](#)*
 - One each with analog electronics, digital electronics, and streaming readout emphasis
 - *Streaming Readout convenor shared with Streaming Computing Model WG under SCC

Tracking WG

- Design and performance of an integrated tracking system for ePIC
- [Ernst Sichtermann \(LBNL\)](#), [Matt Posik \(Temple\)](#)

Calorimetry WG

- Address common concerns of calorimetry in ePIC
- [Oleg Tsai \(UCLA\)](#)

PID WG (TOF and Cerenkov)

- Development of an integrated PID system for ePIC
- [Oskar Hartbrich \(ORNL\)](#), [Thomas Ullrich \(BNL\)](#)

FFWD/FBKWD

- Development of integrated FFWD/FBWD systems for ePIC
- [Simon Gardner \(Glasgow\)](#)
- [Nathaly Santiesteban \(UNH\)](#)

Collaboration Council Meeting on April 21, 2023

Electronic voting was opened after the meeting and stayed open until Friday, April 28, 2023. In total, 91 Collaboration Council Members cast their votes electronically by the deadline on:

- The separate motions to initiate the change control process for the barrel electromagnetic calorimeter and for the backward RICH,
- The revised working group structure,
- The proposed teams of co-conveners by working group.

The reviewed voting outcomes were communicated via the Collaboration Council mailing list and summarized on the collaboration- wide mailing list on May 1. All voting items met with convincing majorities in favor.

The Collaboration Council thus endorsed the motion to initiate the EIC change control process to make the Imaging Barrel EMCAL with four imaging layers the baseline technology selection and the motion to initiate the EIC change control process to make the pfRICH the baseline technology selection for the backward RICH.

The Collaboration Council thus endorsed the proposed structure of Cross-Cutting, Software and Computing, and Physics Working Groups, as well as the proposed teams of co-conveners for each working group.

Early-Career Members of the Collaboration Council

The Collaboration Council has three elected Early-Career Representatives:

Aranya Giri

Nicolas Schmidt

Maria Stefaniak

Thank you Derek Anderson, Alex Jentsch, and Tyler Kutz – who organized the Early-Career elections.

ePIC Charter: *early career members of the Collaboration are represented on the CC by three at-large early career members, elected by their peers; at least one of whom should be a graduate student. Each early career member will have one vote in the CC decisions Early career members of the Collaboration comprise all graduate students and those with no more than five years post PhD experience (not counting career interruptions). Candidates for at-large positions can be either self-nominated or nominated by any collaborator after a call for nominations by the Election Committee. Early career members of the Collaboration elect the at large representatives in the CC. Elections take place at least every two years. The term for early career CC representatives is two years. An early career member elected during their fourth or fifth year after PhD shall serve in office until the completion of their two year term.*

Collaboration Council Meetings on June 29 and 30

Focus was on institutions petitioning to join the collaboration:

- Taku Gunji, University of Tokyo 
- Daniel Brandenburg, The Ohio State University 
- Richard Leys, Ivan Peric, Nicolas Striebig, Karlsruhe Institute of Technology 
- Hwidong Yoo, Yonsei University 
- Minsuk Kim, Gangneung-Wonju National University 
- Regina Caputo, NASA Goddard Space Flight Center 
- Flera Rizatdinova, Oklahoma State University 
- Jason Lee, University of Seoul 
- Marielle Chartier, University of Liverpool 
- Beomkyu Kim, Sungkyunkwan University 
- Byunggu Cheon, Hanyang University 

Collaboration Council Meetings on June 29 and 30

A few words on the process:

Admission was automatic for the founding institutions; these institutions joined ePIC upon ratification of the Collaboration Charter. For institutions proposing to join the collaboration after the Charter was ratified, the Charter defines a two-step process:

1. The institutional representative makes a proposal to the Spokesperson,
2. The proposals are then presented to the Collaboration Council for review and vote.

At this stage in the Collaboration's evolution, it seems appropriate to ask proponents to introduce themselves and their institutions to the Collaboration Council, and outline how/where the proponents plan to contribute to the Detector and Collaboration.


All proposals were passed to Collaboration Council via the Spokesperson Office.

Voting was for/against/abstain on the admission of each individual institution. The Charter, section 4.2, stipulates that admission requires a 2/3 super-majority in favor. The Collaboration Council has 174 members. A 2/3 super-majority thus implies a voting threshold of 116.

Electronic voting was opened on June 30 and concluded past Tuesday, July 11 at 5pm ET. 136 valid votes were cast by that time. This satisfies the required quorum. Well over 116 votes were cast in favor of admission for each of the institutions.

Collaboration Council Meetings on June 29 and 30

Welcome to our new collaborators and collaborating institutions:

- Taku Gunji, University of Tokyo 
- Daniel Brandenburg, The Ohio State University 
- Richard Leys, Ivan Peric, Nicolas Striebig, Karlsruhe Institute of Technology 
- Hwidong Yoo, Yonsei University 
- Minsuk Kim, Gangneung-Wonju National University 
- Regina Caputo, NASA Goddard Space Flight Center 
- Flera Rizatdinova, Oklahoma State University 
- Jason Lee, University of Seoul 
- Marielle Chartier, University of Liverpool 
- Beomkyu Kim, Sungkyunkwan University 
- Byunggu Cheon, Hanyang University 

Collaboration Council Committees – Ongoing

The Election Committee – John Arrington, Helen Caines, Domenico Elia, and Or Hen – is organizing elections for three Collaboration Council Committees. Collaboration-wide nominations for the chair and vice chair opened on May 23, 2023. The election opened earlier this week.

- Membership Committee

“The Membership Committee (MC) is responsible for the development of the Membership policy and oversight of its fair implementation. The Membership Policy shall define the process for establishing and maintaining "Good Standing" status for Collaboration members, and the requirements for the authorship within EPIC. The committee will assist the Council in developing and enforcing, upon adoption of, the EPIC Membership policy.”

In addition to the responsibilities prescribed by the Charter, we will seek the Membership Committee’s input on strengthening the collaboration and on (managing) conflicts of interest with other scientific efforts.

- Candidates:

- Pietro Antonioli (INFN-Bologna)

- Daniel Brandenburg (OSU)

- Doug Higinbotham (JLab)

- Peter Steinberg (BNL)

Collaboration Council Committees – Ongoing

- Diversity, Equity, and Inclusion Committee

“The Diversity, Equity and Inclusion (DEI) Committee develops the Collaboration Code of Conduct (CoC) policy, and, upon approval of the policy by the CC, is in charge of maintaining it. It also handles any violations of it by members of the collaboration according to the policies specified in it. The Diversity, Equity and Inclusion committee will consist of a minimum of 5 members that shall cover a diverse representation of all backgrounds present in the collaboration, such as career status, regional representation, ethnicity, gender identity and sexual orientation, etc.”

- Candidates:
 - Megan Conners (GSU)
 - Vicki Greene (Vanderbilt)
 - Narbe Kalantarians (VUU)
 - Jerome Lauret (BNL)
 - Christine Nattrass (UTK, vice-chair only)

Collaboration Council Committees – Ongoing

- Conference and Talks Committee

“The Conference and Talk Committee (CTC) is responsible for the oversight and management of all oral and poster presentations given at scientific conferences on behalf of the Collaboration. This includes the selection of presenters, with the goal of equitable distribution of presentations across the Collaboration, as well as internal quality assurance, approval and archival of presentations, following effective and efficient procedures as detailed in the EPIC conference policy. The committee will assist the Council in developing and enforcing, upon adoption of, the EPIC conference policy. The Conference and Talks Committee, in particular their chair(s), will act as the interface between the collaboration and organizing committees of conferences as appropriate. The committee must have a DEI liaison to assist with equitable distribution of presenting opportunities.”

In addition, we will request that the Conference and Talks Committee be responsible for the oversight and management of proceedings and interfaces with the Talks Committee of the EIC User Group.

- Candidates:

Xuan Li (LANL)

Brian Page (BNL)

Nick Zachariou (U. of York)

Maria Żurek (ANL)

Many thanks to all Candidates willing to step forward for these roles and to the Elections Committee!

Collaboration Council – Looking Ahead

- Executive Board:

*“The role of the Executive Board is to counsel the Spokesperson on physics, policy, instrumentation choices and candidate suggestions for leadership positions. **Three at-large members are elected by the Collaboration Council with one additional member each to be selected by the Diversity, Equity and Inclusion Committee and the Early Career Group.** The Spokesperson and Deputy Spokesperson(s), if applicable, are ex-officio members. Additional representatives may be appointed by the Spokesperson upon endorsement by the Collaboration Council. It is expected that top level activity coordinators will be members of the Executive Board.*

The terms of the elected at-large members of the Executive Board will be two years and limited to two terms.”