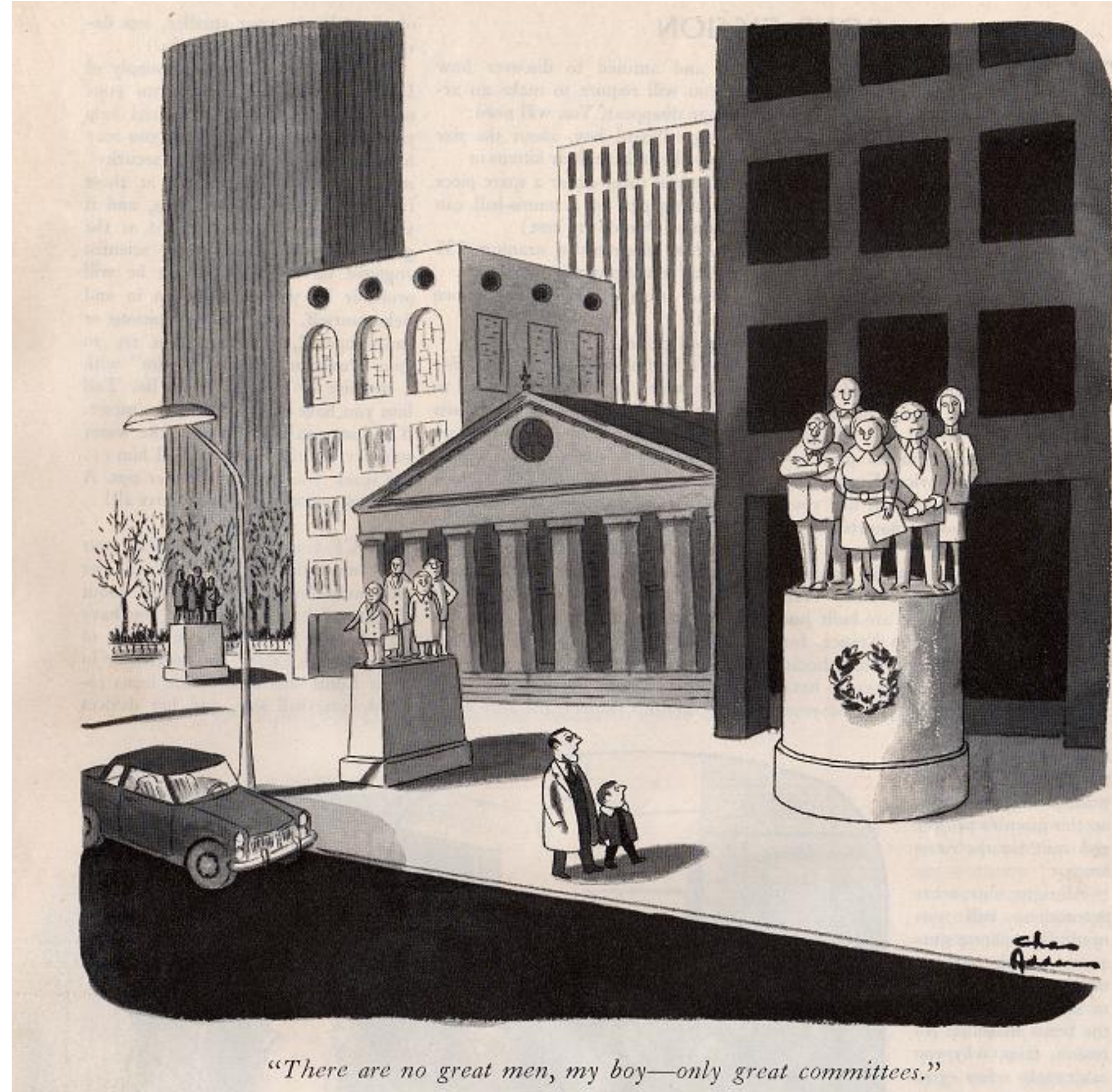


# ePIC Council Business & Vote



Thomas Ullrich  
BNL, April 25, 2023



# CC Meeting

- CC Meeting, April 21
  - ▶ open session
  - ▶ closed session uncontroversial

The screenshot displays the agenda for the ePIC Collaboration Council Meeting, held on Friday, April 21, 2023, from 11:00 AM to 1:30 PM US/Eastern. The meeting is organized by Bernd Sorrow (Temple University) and Ernst Sichtermann (Lawrence Berkeley National Laboratory). The agenda items are as follows:

Time	Topic	Speakers	Duration
11:00 AM → 11:15 AM	Welcome, Agenda, and Minutes from previous meeting	Bernd Sorrow (Temple University), Ernst Sichtermann (Lawrence Berkeley National Laboratory)	15m
11:15 AM → 11:30 AM	Collaboration Updates	John Lajoie (Iowa State University), Silvia Dalla Torre (INFN, Trieste)	15m
11:30 AM → 11:45 AM	Collaboration Council Updates and Upcoming Elections	Bernd Sorrow (Temple University), Ernst Sichtermann (Lawrence Berkeley National Laboratory)	15m
11:45 AM → 12:05 PM	Detector Recommendations following Recent Reviews	John Lajoie (Iowa State University), Silvia Dalla Torre (INFN, Trieste)	20m
12:05 PM → 12:25 PM	Working Group Structure and Conveners	John Lajoie (Iowa State University), Silvia Dalla Torre (INFN, Trieste)	20m
12:25 PM → 12:40 PM	Discussion		15m
12:40 PM → 1:20 PM	Closed session		40m
1:20 PM → 1:30 PM	Next Collaboration Council Meeting and AOB	Bernd Sorrow (Temple University), Ernst Sichtermann (Lawrence Berkeley National Laboratory)	10m

Two items are highlighted with red boxes: "Detector Recommendations following Recent Reviews" and "Working Group Structure and Conveners".

<https://indico.bnl.gov/event/19156/>

# Working Group Structure

## Physics Working Groups

### 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)

Physics Working Groups are encouraged to hold joint meetings where appropriate.

## Cross-Cutting Working Groups

### 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/FBKWD systems for ePIC
- Simon Gardner (Glasgow)
- Nathaly Santiesteban (UNH)

## Software and Computing

### 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 workflow.
- 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)

ePIC CC Meeting

\*Kolja Kauder is 100% on EIC



# Voting

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- ePIC should initiate the EIC change control process to make the **Imaging Barrel EMCaI** with four imaging layers the baseline technology selection. The design should be upgradeable to six layers.
- ePIC should initiate the change control process to make the **pfRICH** the baseline technology selection for the backward RICH.
- Endorse the proposed **structure** of Cross-Cutting, Software and Computing and Physics **Working Groups**.
- Details
  - ▶ All need: Yes/No/Abstain
  - ▶ BNL voting at: <https://docs.google.com/forms/d/15CCS-2NY5QzBU7K7B1r5C8C3-W5-noINedDJdcpgWO0>
    - ⦿ Deadline is today at 4pm.
  - ▶ CC deadline today at COB