ePIC
Electroweak & BSM Working Group

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and

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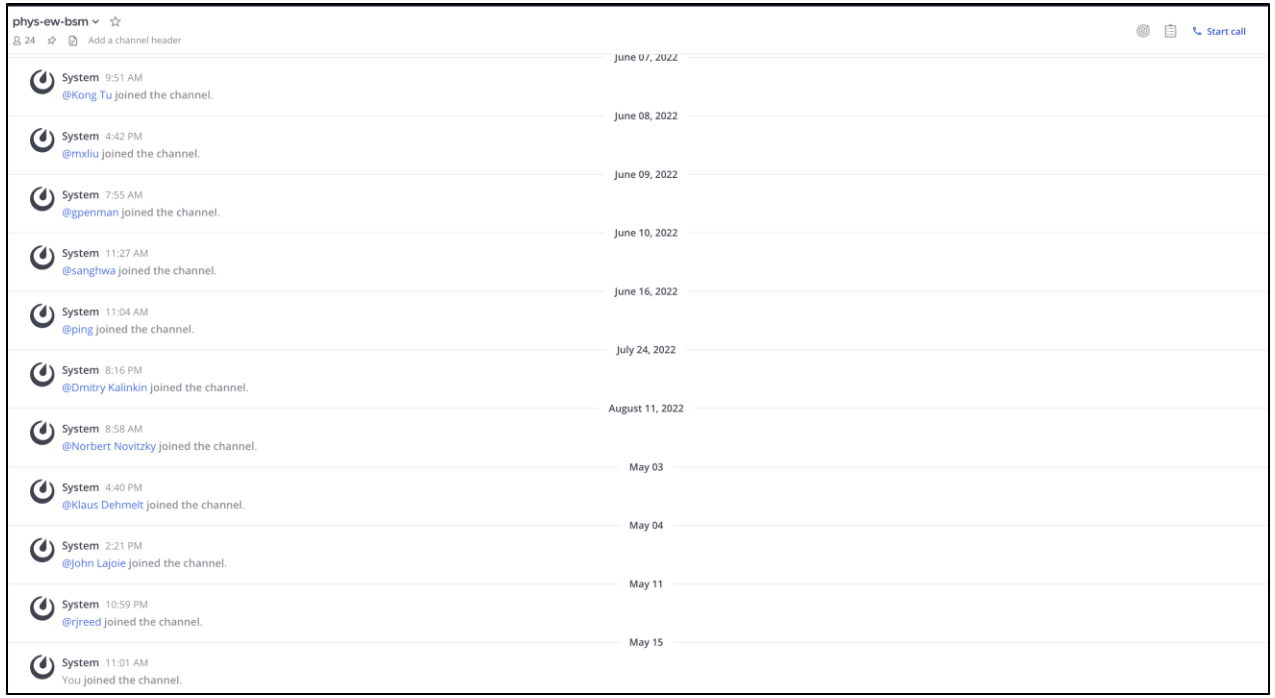
ePIC Mattermost

- phys-ew-bsm channel
- Will begin to send out reminders via phys-ew-bsm channel
- More convenient way to discuss and ask software related questions
  - EICrecon, HelpDesk channels
- Indico website
  - I will add links to general information
  - Software tutorial
  - Upload presentations
- I am also going through some of this so I can update this



Analysis Coordinator and Convener Meeting

- Observables that can be used to benchmark effect of changes to detector configurations
  - **Electron Identification**
  - Charge Lepton Flavor Violation(CLFV)
    - Tau identification: 1 Prong decay - (Three Prong Decay)
    - Muon ID
      - Missing energy: level?

Software and Computing Meeting

- The Physics Working Groups (PWGs) have identified four key priorities for the ePIC Reconstruction effort:
- **Electron Finder**: Developing an efficient and accurate algorithm for identifying electrons and identifying the scattered electron of the DIS process.
- **Vertexing and PID**: Enhancing the vertexing capabilities and particle identification techniques to study heavy flavor physics.
- **Particle Flow**: Improving the jet reconstruction using particle flow information.
- **Low-Q^2**: Integration of the low-Q2 tagger into the reconstruction framework for precise measurements of photo production and vector mesons.

Electron Finder

- The **Electron Finder** activity is about developing an efficient and accurate algorithm for identifying electrons and identifying the scattered electron of the DIS process. **The activity is coordinated by Daniel Brandenburg. If you would like to get involved, please reach out to Daniel via brandenburg.89@osu.edu.**
- We have identified a concrete task for the next simulation campaign:
  - **Task: Implement an e/p cut for electron-pion separation** (Workforce:)
  - **Task: Integrate existing DIS lepton identification algorithm in reconstruction** (Workforce:)
- We will also work on three tasks to improve the electron identification:
  - **Task: Replace e/p cut with advanced electron-pion separation** (Workforce: Daniel Brandenburg)
  - **Task: DIS lepton identification** (Workforce: Andrii Verbytskyi, Markus Diefenthaler)
  - **Task: Realistic matching for projecting tracks to clusters** (Workforce:)

Vertexing and PID

- The **Vertexing and PID** activity is about enhancing the vertexing capabilities and particle identification techniques to study heavy flavor physics. **The activity is coordinated by Shujie Li.**
  - **As Shujie is out of office until the end of month, Barak Schmookler is helping out. If you would like to get involved, please reach out to Barak via baraks@ucr.edu.**
- We have identified a concrete task for the next simulation campaign:
  - **Task: Integrate primary vertexing in reconstruction** (Workforce: Joe)
- We will also work on two tasks to improve the vertexing:
  - **Task: Represent vertex information in the ePIC data model EDM4eic** (Workforce:)
  - **Task: Survey common packages for the reconstruction of the secondary vertex** (Workforce:)
- To improve the work on the hadron intensification, we will support the PID WGs and the relevant DSCs.

EIC User Group Early Career Workshop

- July 23-24
  - Warsaw Poland
- Funding for
- Four Invited Talks
  - Electroweak / BSM: **Frank Maas (Mainz)**
- Early Career and attending UG
  - Consider joining Early Career Workshop
  - Funding for registration and lodging during the **Early Career Workshop**
  - (limited to 40)

- EIC Users Group Meeting

SUNDAY 23 JUL	MONDAY 24 JUL	TUESDAY 25 JUL	WEDNESDAY 26 JUL	THURSDAY 27 JUL	FRIDAY 28 JUL	SATURDAY 29 JUL	SUNDAY 30 JUL	MONDAY 31 JUL
Early Career Workshop	Early Career Workshop	EIC	EIC	ePIC	ePIC	ePIC	Trip 3	Det II / IP8
Early Career Workshop	Early Career Workshop	EIC	ePIC evening: Conference Dinner	ePIC evening: Trip 1	ePIC	Trip 2	Det II / IP8	Det II / IP8