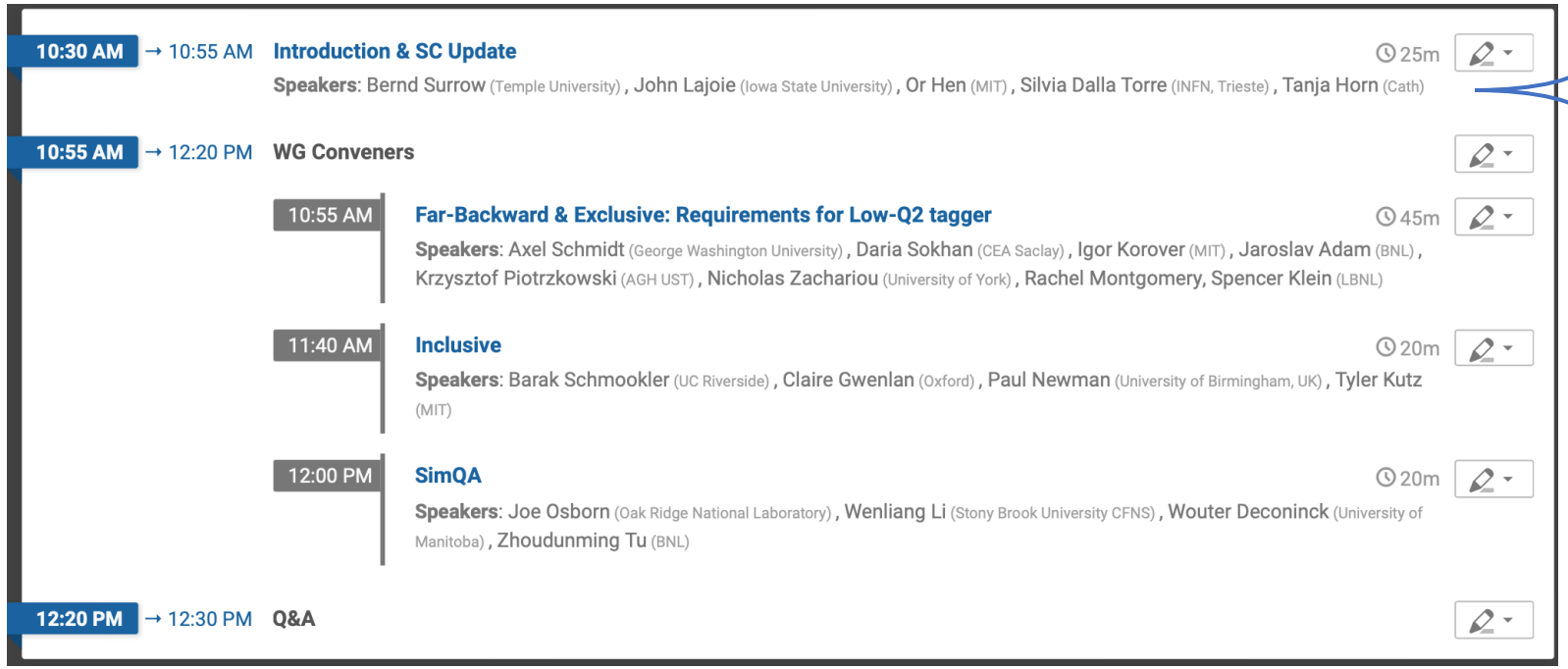
Detector-1 WG Conveners Meeting

Silvia, Or, Tanja, John, Bernd

July 15th, 2022

Meeting Agenda



10:30 AM → 10:55 AM **Introduction & SC Update** 25m
Speakers: Bernd Surrow (Temple University) , John Lajoie (Iowa State University) , Or Hen (MIT) , Silvia Dalla Torre (INFN, Trieste) , Tanja Horn (Cath)

10:55 AM → 12:20 PM **WG Conveners**

10:55 AM **Far-Backward & Exclusive: Requirements for Low-Q2 tagger** 45m
Speakers: Axel Schmidt (George Washington University) , Daria Sokhan (CEA Saclay) , Igor Korover (MIT) , Jaroslav Adam (BNL) , Krzysztof Piotrzkowski (AGH UST) , Nicholas Zachariou (University of York) , Rachel Montgomery, Spencer Klein (LBNL)

11:40 AM **Inclusive** 20m
Speakers: Barak Schmookler (UC Riverside) , Claire Gwenlan (Oxford) , Paul Newman (University of Birmingham, UK) , Tyler Kutz (MIT)

12:00 PM **SimQA** 20m
Speakers: Joe Osborn (Oak Ridge National Laboratory) , Wenliang Li (Stony Brook University CFNS) , Wouter Deconinck (University of Manitoba) , Zhoudunming Tu (BNL)

12:20 PM → 12:30 PM **Q&A**

- Reminder: collaboration membership and name selection
- Detector-1 collaboration formation meeting
- Institutional survey analysis
- Design maturity: introduction of physics performance matrices

Collaboration Membership & Naming

- Institutional survey resulted with ~150 institutions.

- Individual membership sign up link circulated (https://forms.gle/QNNEkkKWxmUtW6x76).
  ~470 members signed up to be members of Detector-1 at of now.

- All members offered to suggest collaboration names and then vote on it.
  First voting round will close today.
  Final round among top 3 – 4 names will start on Monday.
  Please contact / direct people to John for ANY problem with the voting process.

- Collaboration name to be announced on July 26th at the collaboration formation meeting.

Collaboration Formation Meeting

- July 26, 27 at Stony Brook, in conjunction with the EICUG summer meeting. https://indico.bnl.gov/event/15342/
- 168 registered participants. Assume ~1/2 in person (i.e. ~84).
- Agenda focus on WG presentations & discussion and Institutional list meeting.

July 26th

EICUG Meeting Opening

Detector-1 Meeting Opening

Detector-1 DWG Presentations

July 27th

Collaboration Formation meeting (Not run by SC)

Detector-1 PWG Presentations

GD/I Presentation (20min)

Open discussion (50min)

July 26th

Detector-1 **DWG** Presentations

Dear Conveners,

We invite you to contribute to the Detector-1 meeting at the EICUG Meeting at the end of July. The Tuesday, July 26th afternoon sessions are dedicated to reports from your WG.

https://indico.bnl.gov/event/15342/timetable/#20220726.detailed

20+5 minutes are reserved for each report, and we kindly ask you to respect the allocated time.

In your contribution we would like to ask that you report on the consolidation and optimization activities within your WG, with reference to the initial charge given to the WGs when they were formed earlier this year (see attached PDF). We fully understand that the timelines considered at the beginning of this process were quite challenging. We therefore understand that you focus on the current status of the efforts in your WG along with future plans, with a special attention to the progress you want to make by the end of the year.

Thank you.

July 27th

Detector-1
PWG
Presentations

Dear Conveners,

We invite you to contribute to the Detector-1 meeting at the EICUG Meeting at the end of July. The Wednesday, July 27th sessions are dedicated to reports from your WG:

https://indico.bnl.gov/event/15342/timetable/#20220727.detailed

20+5 minutes are reserved for each report, and we kindly ask you to respect the allocated time.

In your contribution we would like to ask that you report on activities within your WG, with reference to the initial charge given to the WGs when they were formed earlier this year (see attached PDF). Please include in your report the activities (performed and/or planned) to define the golden physics channels which should be used to guide the consolidation and optimization process. In this context, please include both physics channels studies in the Yellow Report as well as potential new opportunities within your WG.

Thank you.

July 27th

GD/I Presentation (20min)

Open discussion (50min)

Dear GD/I WG Conveners,

We invite you to contribute to the Detector-1 meeting at the EICUG Meeting at the end of July. The closing session on Wednesday, July 27th sessions is dedicated to a report from your WG:

https://indico.bnl.gov/event/15342/timetable/#20220727.detailed

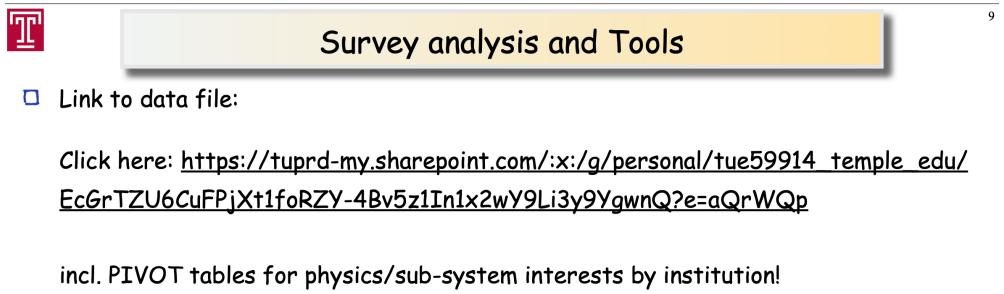
20+5 minutes are reserved for each report, and we kindly ask you to respect the allocated time.

In your contribution we would like to ask that you report on activities within your WG, with reference to the initial charge given to the WGs when they were formed earlier this year (see attached PDF). This should include an overview of past activity as well as future plans. For example, the GD/I group has recently received the first recommendations from the Calorimetry WG, and this can be used as an example of how the consolidation and optimization process is proceeding in your working group.

Thank you.

Institutional survey analysis

- Survey analysis tools shared with you two weeks ago:



- Would like to discuss the best way to use it, stating from a concrete proposal:
  - Each WG conveners review the groups that expressed interest in their area, including information provided on the experience, abilities etc. (if provided).
  - Reach out to each group that is not already attending WG meetings to:
    (A) Acknowledge your awareness of their interest and,
    (B) Welcome them to start attending the WG meetings.
  - Setup an indico page for each of your sub systems and ask all groups (active in the WG or not) that express interest in working on this system to upload 2 – 3 slides introducing, at a high-level, their interest, experience and abilities. Hope that this will give you a better view of who and what experience is ‘out there’ and help you think of how to best integrate groups to best support your efforts. Ok that not everyone will respond in a timely fashion.

<u>What do you think?</u>

Design maturity: physics performance

- Our overarching goal is to optimize the global detector design to realize core(++) EIC physics measurements.

- Through YR and proposal studies we saw different sub systems complement and supplement each other. Therefore, the best way to assess global integrated performance is via physics studies.

  (just like assessing an orchestra by hearing it play a beautiful concert)

- We would like to encourage all groups to take a closer look at global studies.

  PWGs should continue elaborating their list of golden studies and make it accessible to DWGs so they know what analyses are coming. Would be great to motivate each study by its importance for the physics program and/or for its assessment of global detector performance.

  An example of a potentially interesting questions for WG to address can be:

  “Does the excellent EMCal performance in the backwards region impact our understand of the required tracking resolution in the backwards acceptance?”

  “Groups have advanced our understanding of DIS kinematic reconstruction via global analysis of many sub-system measurements. Does it impact our technical performance requirements in any way?”