Inclusive DIS - Working Group kick-off meeting

May 24, 2021

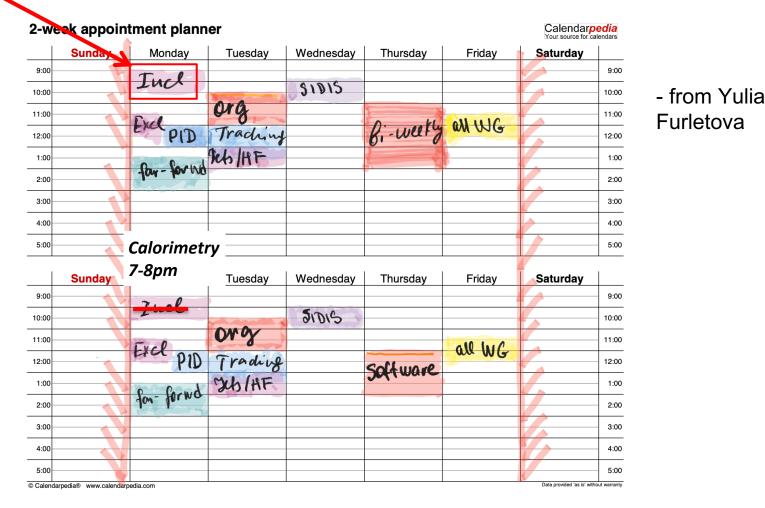
Barak Schmookler (Stony Brook University, US) Paul Newman (University of Birmingham, UK) Qinghua Xu (Shandong University, China)

Join our mailing list: <u>eic-ip6-phys-incl-l@lists.bnl.gov</u>

Go to <u>https://lists.bnl.gov/mailman/listinfo/</u>, find <u>Eic-ip6-phys-incl-l</u> or click: <u>https://lists.bnl.gov/mailman/listinfo/eic-ip6-phys-incl-l</u>

Calendar- meeting time

• Inclusive DIS WG meeting 9:30 EDT, US time Monday, bi-weekly



- Is this a good time for most of us? Need to change date and time?
- Communicate with other physics WGs, joint meeting?

1. Identify the key physics observables described in the Yellow Report that pertain to your working group

In the Yellow Report, the community identified a number of physics goals and observables required at the EIC. Each physics group should identify which of these belongs within its purview, and formulate a plan for updating the YR plots using the actual detectors (and inactive materials!) that will be part of EIC@IP6.

Collect MC samples / event-generators with their control cards. Discuss with software WG how/where to distribute it for users.

Make sure that all MC samples have proper setups (in terms of crossing angle, etc)

?Questions to ourselves:

-> What are the key observables with inclusive measurements?

 \checkmark inclusive (polarized and unpolarized) NC and CC cross sections

Request for inputs to proposal:

2. Which 2 or 3 plots will illustrate ability of EIC@IP6 to address NAS report/YR physics?

It will be crucial to identify a subset of all the possible performance plots for your physics area that should be included in the proposal. There is a strict page limit for proposals, and they must include a detailed description of the detector systems and their cost. Consequently, each physics working group should anticipate being able to fill only a few pages in the proposal.

This, plus the limited time we have, requires identifying only a few performance plots for which your working group will carry out full simulations with the integrated EIC@IP6 detector. These most likely exist in more idealized form in the YR already. However, identifying the key plots early will allow the working group to work with the detector groups and inform the collaboration of the impact of specific technology choices.

3. Are there any additional physics performance plots that would give a competitive advantage to this proposal?

Systematic uncertainties?!

?Questions to ourselves on MC simulation:

-> What do we need in detector setup & simulation for inclusive measurements?

-> What do we need in simulation framework for our performance plots?

Software User support

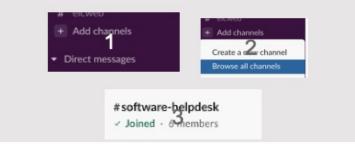
- Software working group
 Bi-weekly software meeting: Thursday 12:00pm EDT
- Day 0 WG support:

Fun4All & eic_smear: Kolja Kauder
Delphes: Miguel Arratia, Stephen Sekula
ESCalate: Dmitry Romanov, Yulia Furletova (g4e),
Nathan Brei (Tracking)
MC Samples: Andrea Bressan

• Tutorial session on full simulation will be arranged (1st one May 21)

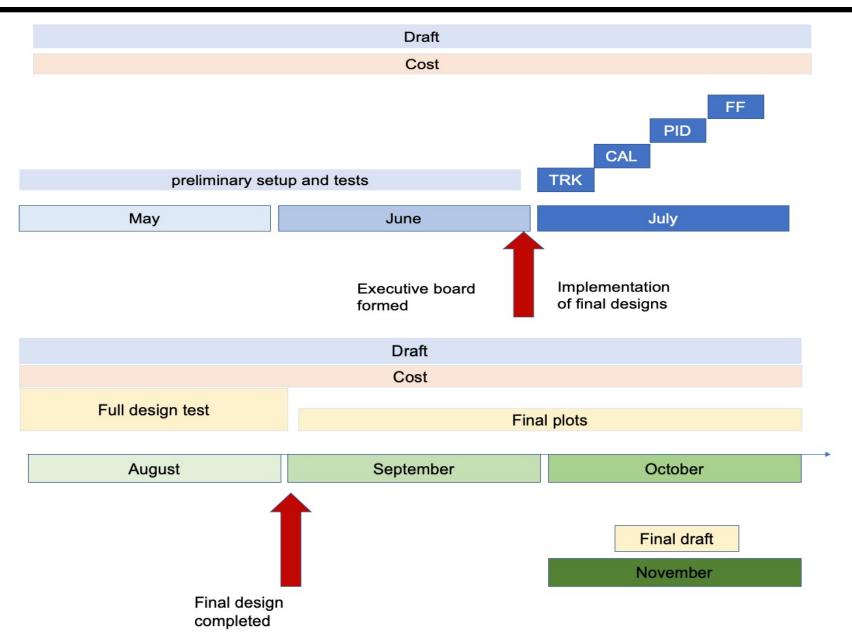
Where should I ask questions about software and computing? Your choice! either send to the <u>eic-ip6-software-</u> I@lists.bnl.gov mailing list, or use the brand new **#software-helpdesk** Slack channel.

You can subscribe to this new channel by clicking "Add Channels, then "Browse all channels".



- from Yulia Furletova

Timeline overview



Today's agenda

EIC@IP6 Inclusive Group Kick-off meeting Monday May 24, 2021, 9:30 AM → 11:30 AM US/Eastern	Q *
Description Zoom link	
9:30 AM → 9:40 AM Introduction: goals and timelines Speakers: Barak Schmookler (Stony Brook University), Paul Newman (University of Birmingham, UK), Qinghua Xu (S	𝕲 10m 🖉 ▾
9:40 AM → 10:10 AM Summary of Inclusive Physics content in Yellow Report Speaker: Barak Schmookler (Stony Brook University)	𝔅 30m 🖉 ▪
10:10 AM → 10:30 AM Inclusive variable reconstruction at HERA Speaker: Paul Newman (University of Birmingham, UK)	③20m 🖉 -
10:30 AM → 10:50 AM Discussion / plans for next meetings	◎20m 🖉 -

Welcome to join inclusive WG & sign up for tasks and offer talks in our meeting!

Please send your suggestions to :

Barak Schmookler: barak.schmookler@stonybrook.edu) Paul Newman: paul.richard.newman@cern.ch Qinghua: Xu xuqh@sdu.edu.cn eic-ip6-phys-incl-l@lists.bnl.gov