

Exclusive, Diffractive, Tagging Kick-off Meeting

May 20, 2022

Exclusive, Diffractive, Tagging Working Group

Conveners

- Daria Sokhan
- Rachel Montgomery
- Spencer Klein
- Axel Schmidt

Wiki page: <https://wiki.bnl.gov/eic-project-detector/index.php/ExclusiveDiffractionTagging>

Zoom: <https://gwu-edu.zoom.us/j/95013773177>

Indico: <https://indico.bnl.gov/category/419/>

Mailing list: eic-projdet-ExclDiff-I@lists.bnl.gov

(Sign-up at: <https://lists.bnl.gov/mailman/listinfo/eic-projdet-excldiff-I>)

Charges

General charges for all Physics Working Group:

- Work with the Detector Working Groups to perform constant validation of the performances for physics observables. Emphasis should be placed on studies of key physics processes in the NAS report, the EIC whitepaper, Yellow Report, and detector proposals.
- When alternative technological solutions are examined, work with the detector groups to provide quantitative information on the physics performance of the proposed solutions.
- In collaboration with the Computing/Software and Simulations WGs, further develop simulation and data analysis tools. Organize workshops as needed to provide training in the use of these tools for collaborators.
- Over time, extend the existing scope of physics processes being studied, with an emphasis on those processes called out by the DPAP as being significant for the science program and yet not studied by the proto-collaborations.

Charges

Specific charges for our working group:

- We want to hear your input

Charges

Specific charges for our working group:

- We want to hear your input

Some ideas we have discussed:

- Understand any major differences in findings between ECCE and ATHENA studies
- Studying $|t|$ resolution
- Studying the separation of coherent from incoherent reactions
- Validate the performance of the developing far-forward (and backward) detector design in terms of both detector performance (resolutions, efficiencies) and physics (observables, uncertainties)

Our plan moving forward

Bi-weekly meetings, *rotating in time*

Presentations on Athena/ECCE studies, to understand what we've each done

First meeting: **TODAY**, at 12:30 Eastern Time:

The Zoom link: <https://gwu-edu.zoom.us/j/95013773177>

The Indico page: <https://indico.bnl.gov/event/15906/>

Summary of studies performed by ECCE/Athena

ECCE

DVCS ep - Igor
DVCS eA - Gary
TCS ep - Kayleigh
DVMP ep - Nathaly, Stuart, Marie
DVMP eA (diffractive phi) - Justin
XYZ spectroscopy - Derek
Diffractive J/Psi - Peter
Pion FF - Stephen
Pion SF - Richard
He-3 double tagging - Dien

ATHENA

TCS - Daria
Exclusive VM- Kong
Exclusive DVCS - Sal
Backward rho/omega - Zach
Near threshold Upsilon -
Sylvester, Yuanjing