

# Proposals for *exclusive* workfest in January's collaboration meeting

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People who are planning to go from the BNL group that is involved in the exclusive group:

A. Jentsch, K. Tu, .. (we are still counting)

# Technical task

- Generator information are not all propagated to DD4HEP and EICRecon. Some information are needed for MC analyses, e.g., **event weight**, according to the cross section, polarization, spin, etc. Data will have this value to be 1. (in H1 experiment at HERA, this variable is always saved in the final output for MC files).
- This could/should involve the S&C, other DSC/WGs. Will need expertise from DD4HEP & EICrecon.

# Benchmarks/physics analyses

- DVCS  $ep$  is WP/NAS physics.
  - So far, no related study has been shown. Not only the signal event is needed, but more on background studies, e.g.,  $\pi^0$ , which will relate to the **EMCal and performance**.
  - A good benchmark for Roman Pots. Roman Pot reconstruction is currently not yet fully developed. This will be in support to the **Far-Forward Group**.
- Low  $Q^2$  VM production studies. (BNL and Ben Gurion University of the Negev)
  - This is to understand the capability of ePIC in low  $Q^2$  regime and the gap we are facing. Also, this is closely related to the **Far-Backward Group**.
- General  $eA$  vetoing performance (BNL and Ben Gurion University of the Negev)
  - What can ePIC FF do in terms of vetoing as a function of  $[-t, A, A/Z, Q^2, x_{bj}]$ ?
- ...
- There are a lot of important analyses that do not have benchmarks...

# Analysis tools

- Exclusive group, despite vastly different event generators, shares common needs for analysis tools. For example, i) the algorithm of reconstruction of momentum transfer  $-t$ . ii) FF detector reconstructions. iii) exclusivity selections. iv) radiative effects?
- Common tool share via a centralized github repo for exclusive group
- Workfest: could sit together and contribute to this shared repo for useful tools.

# Summary

- Depending on how many people are going and how many we can carry out simultaneously, we can further plan how these workfests should be carried out, in terms **of goals, deliverables, time needed**, etc.
- We should also consider from the beginning workforce overlaps with other groups/tasks.