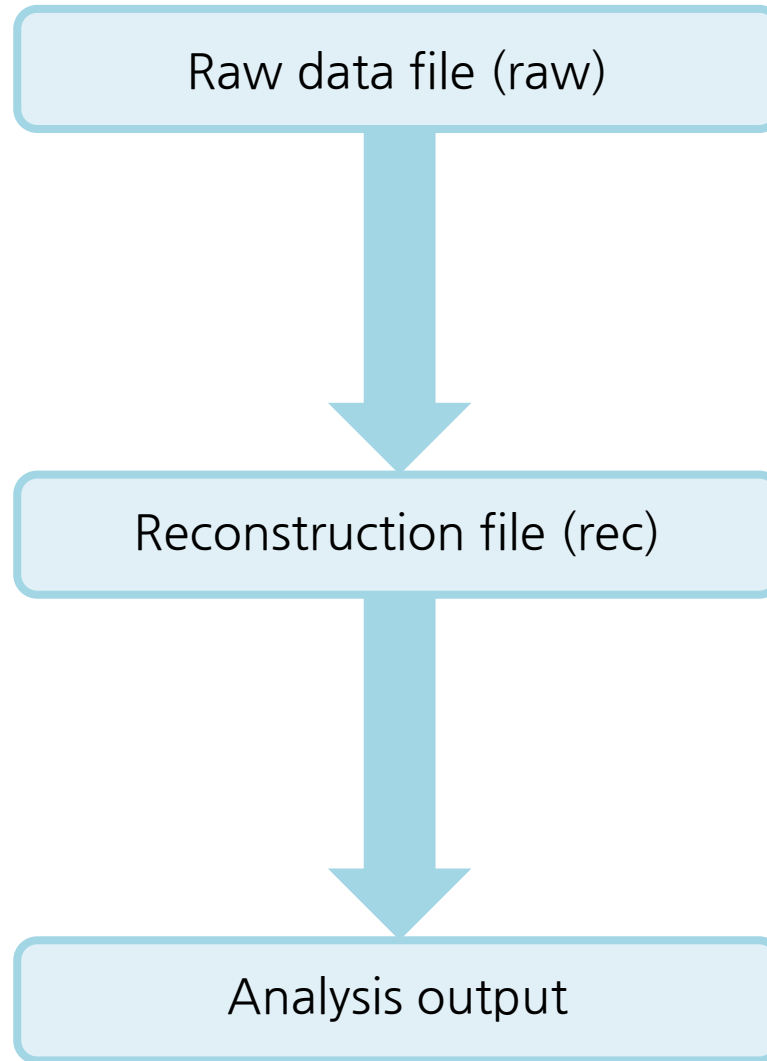


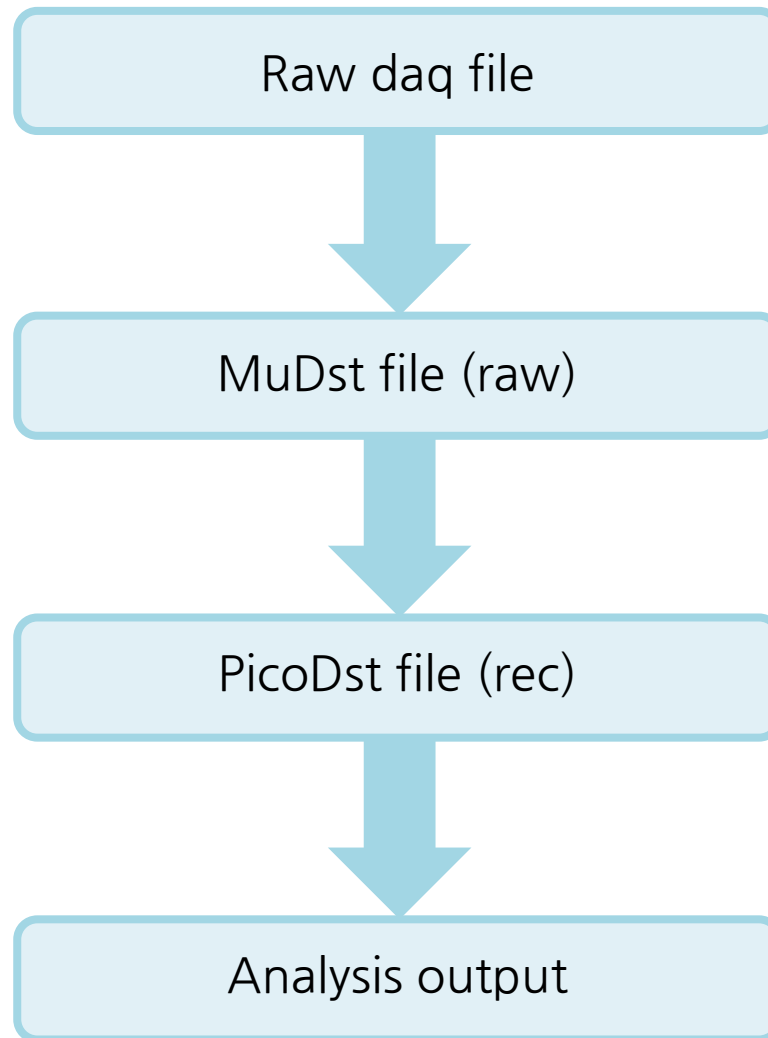
# Status and plan of the RHICf-STAR combined analysis

May 23  
Minho Kim

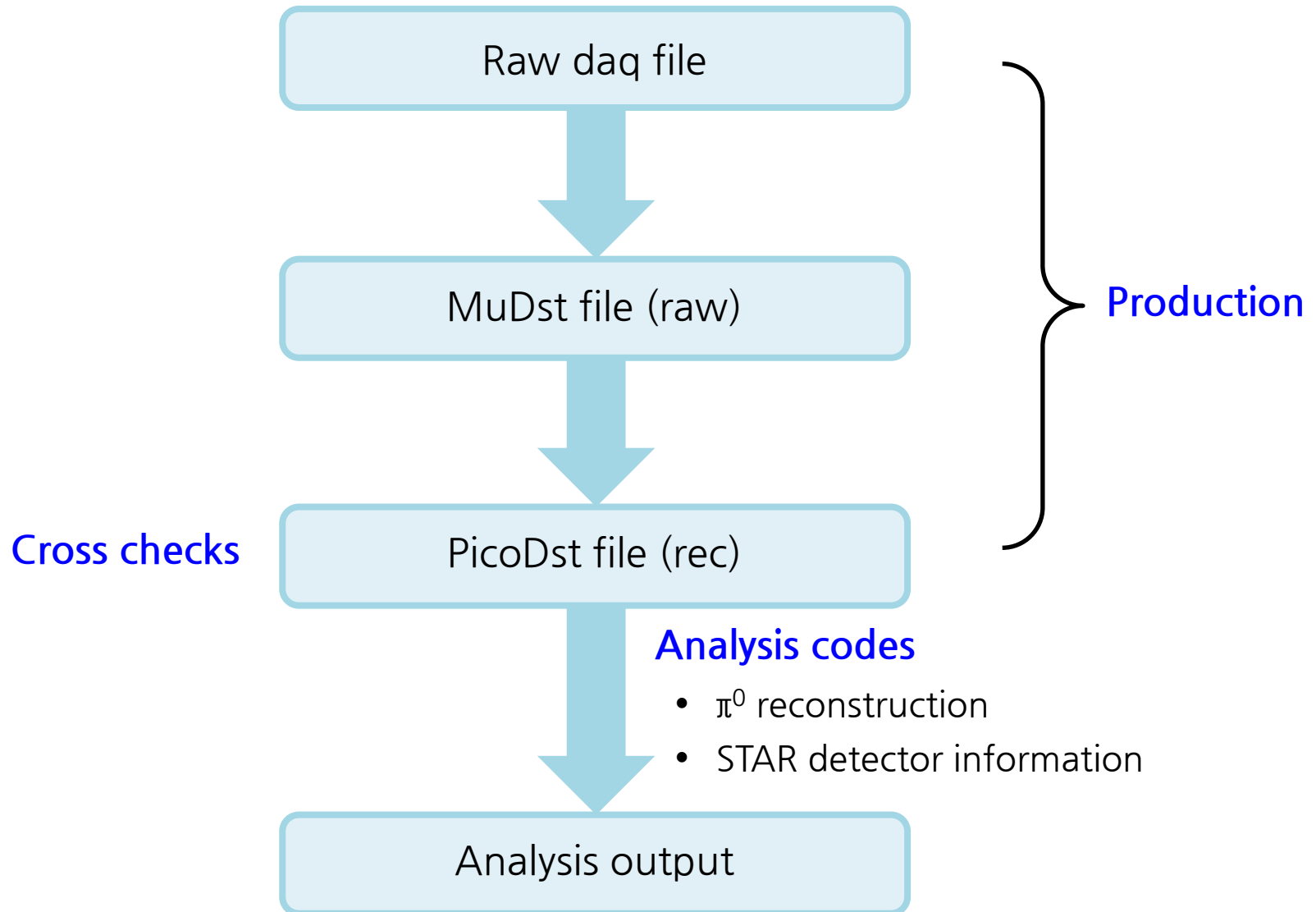
# RHICf standalone analysis



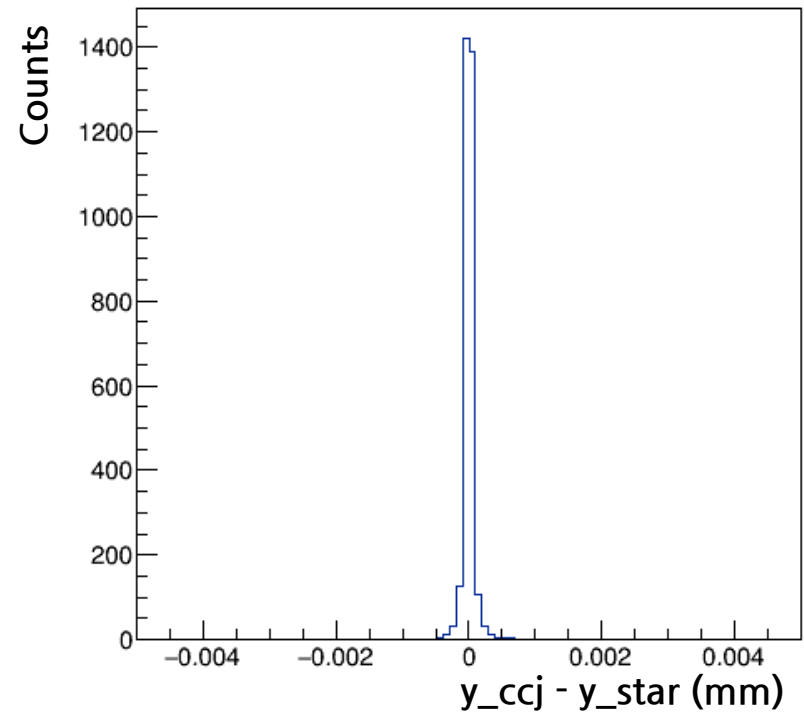
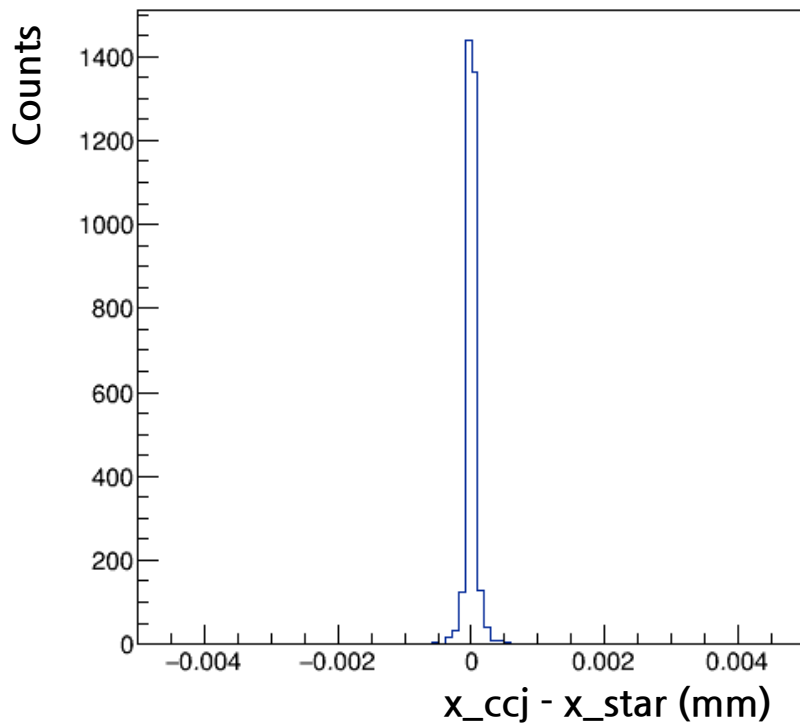
# RHICf-STAR combined analysis



# Me and Seunghwan's activities in Korea

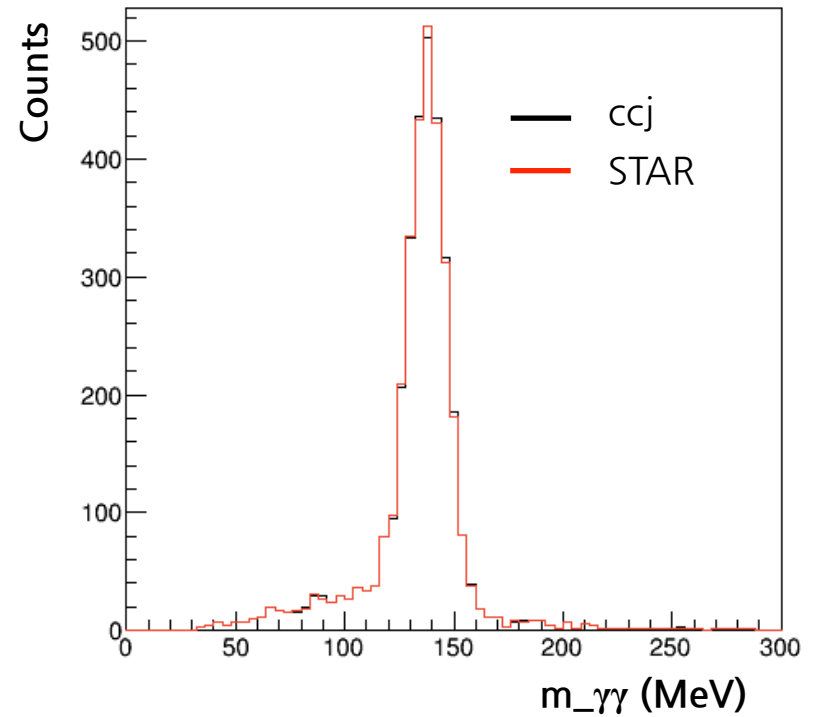
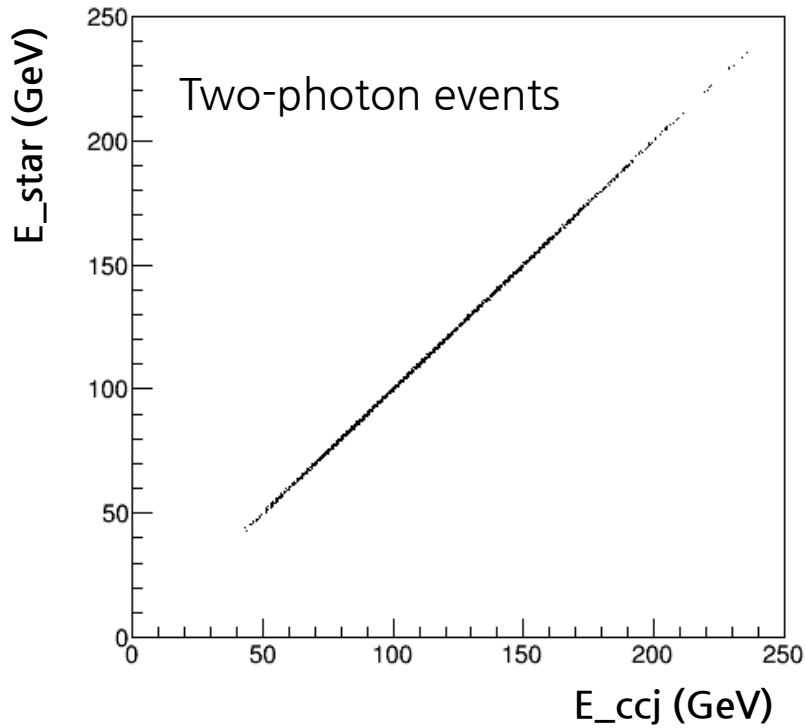


# Position reconstruction at STAR



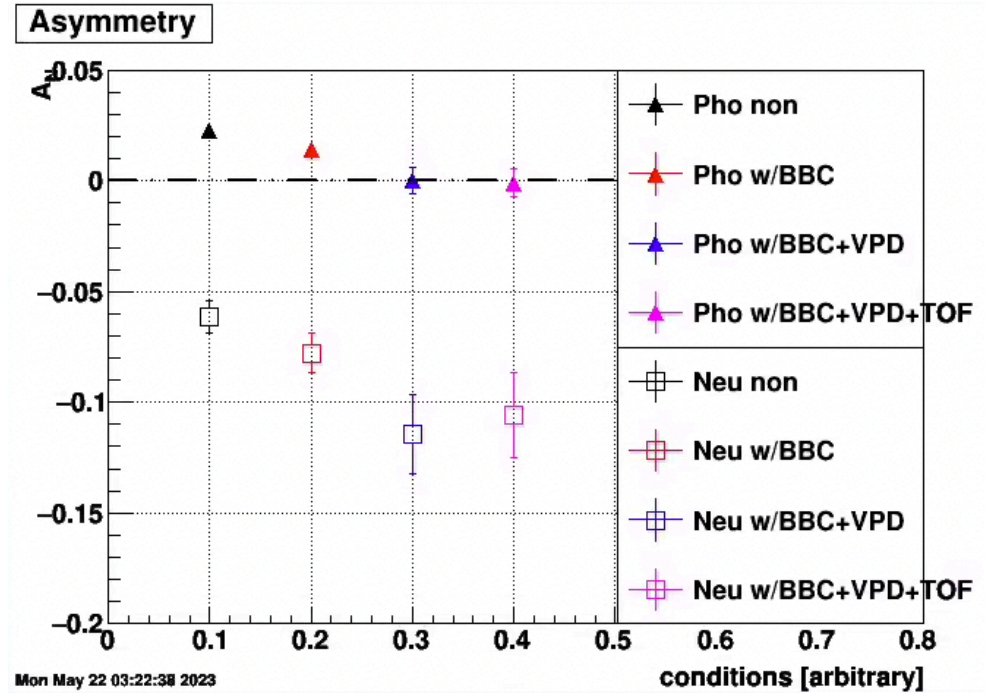
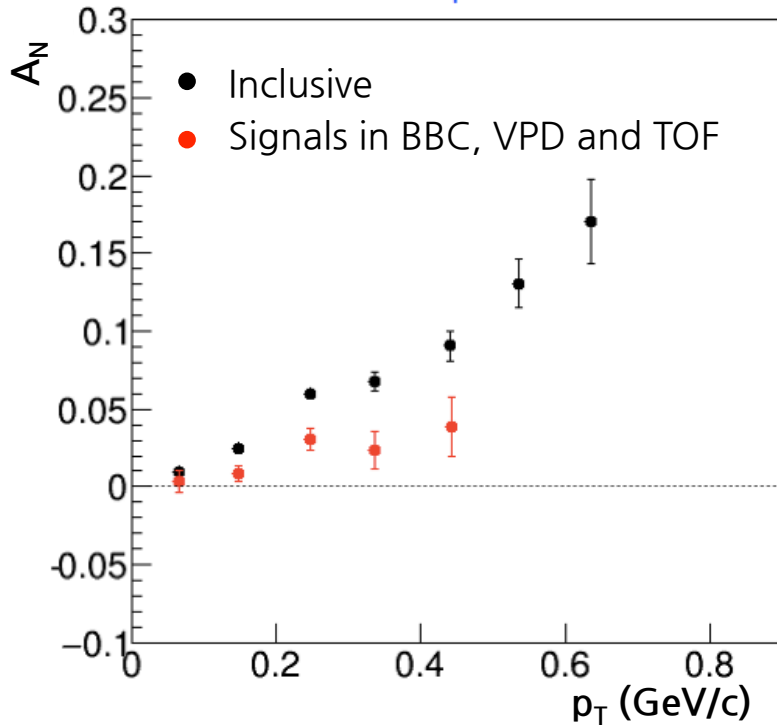
- Different ROOT versions in ccj and STAR give slightly different fitting results.
- However, the difference is negligible.

# $\pi^0$ reconstruction

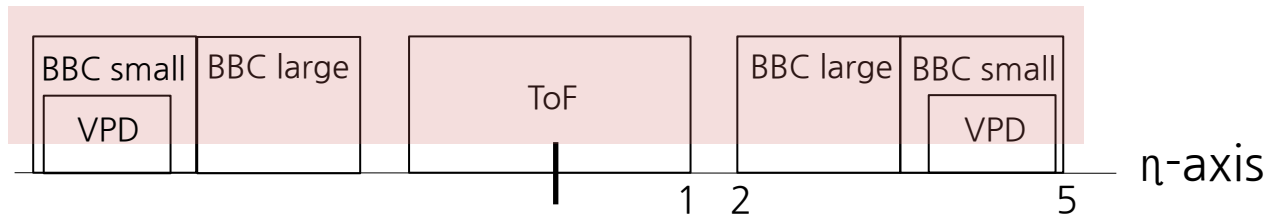


- Differences of two-photon energy and invariant mass are also negligible.

# Detector correlations of photon and neutron $A_N$ s

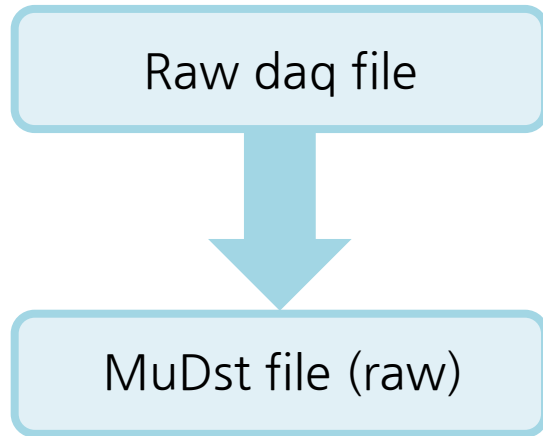


Non diffractive-like event



- Same tendency with the previously studied result was obtained using the current analysis codes.
- We're producing more data to analyze.

# Status and plan: MuDst production



Hi Hanseul,

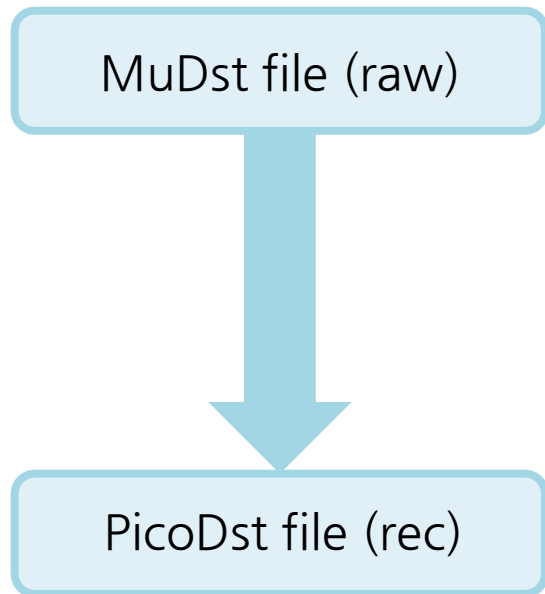
We have decided to not wait for the two unrelated code changes and release library SL23d that will facilitate the requested RHICf production. There is one minor thing we need to follow-up on concerning a comment made about RHICf compatibility (?) for MuDst->picodst conversions, but with all this we should expect the production to be ready by the end of this month. That said, it would be good to have somebody from the RHICf team do an early QA on a first sample before Gene starts the full production.

-Frank

- STAR said all the procedures for RHICf MuDst production would be ready by the end of this month.
- We requested a minor correction that adds RHICf event number in the RHICf data structure.
- Official library release → 5% MuDst production → QA → Full production (~ 1 week).



# Status and plan: PicoDst and others



- Code review is underway.
- We are analyzing the PicoDst file by producing it by ourselves.
- We need to learn how to analyze the STAR detectors (Roman pot, ZDC and FMS) from the PicoDst.

- We will start joining the cold QCD PWG meeting to work with STAR people.
- We also need to learn how to use the STAR simulation to study how the diffractive and non-diffractive events can be identified from the STAR detector's point of view.

# Status and plan: Schedule

## ~ Jun 20

- We will keep developing the analysis code.
- We will report our status at cold QCD PWG meeting.

## Jun 20 ~ Jul 22 (BNL)

- We will learn how to analyze the STAR detectors. (Seunghwan)
- We will learn about STAR simulation tool. (Minho)

## Aug ~ Dec 2023

- Main combined analysis

## Jan ~ Feb 2024 (BNL)

- Preliminary plot

B

■ A