

Status of 2D efficiencies with good selections

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July 3, 2020

DVCS 2016 P09 slot 5 $\mu+$ cuts

Bad spill cut

- **List source:** `ssh://git@gitlab.cern.ch:7999/compass/dvcs_sidis/data_quality/bad_spill.git/bad_spill.lst/bad_spill_P09slot3.lst`
- **Generation:**
`listBadSpills bad_spill_P09slot3.lst LAST Middle Ladder Outer Flux > bad-spills.txt`

Flux cut

- **Flux files:** `ssh://git@gitlab.cern.ch:7999/compass/dvcs_sidis/flux/flux_files.git/flux_Johannes/flux_values_P09slot5.1`

Processing and merging mDSTs

- $\langle \text{number of planes} \rangle \times \langle \text{number of chunks} \rangle$ are packed into single-node jobs;
- Within a single job: **pre-merge UE11 outputs into 56 files** $\langle \text{detector name} \rangle_{\langle \text{chunk \#} \rangle}.\text{root}$;
- When all done: **merge all** detector related pre-merges **into** $\langle \text{detector name} \rangle.\text{root}$;
- Scalers computed by the number of files entering pre-merge stage;

Histograms recovery

$$\text{Efficiency [he]} = \frac{\text{Expected hits [hE]}}{\text{Found hits [hF]}}$$

$$\text{Background rate [hn]} = \frac{\text{Background [hB]}}{\text{Noise [hR]}}$$

Efficiency - Background [hc]

$$1 - \text{hn}_{(X)} > 0$$

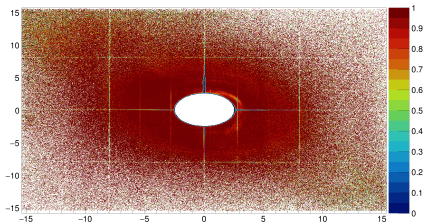
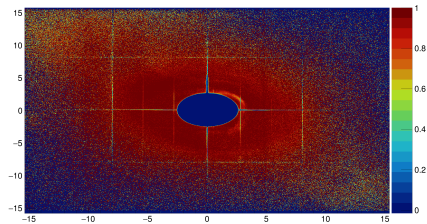
(background smaller then noise?)

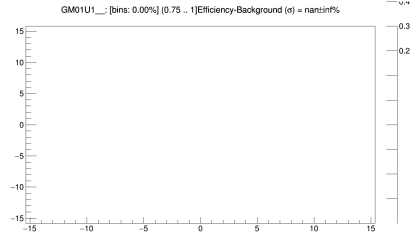
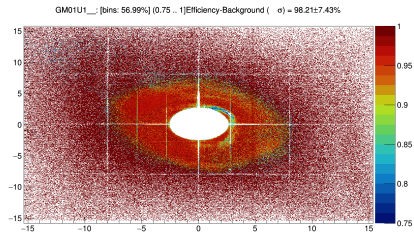
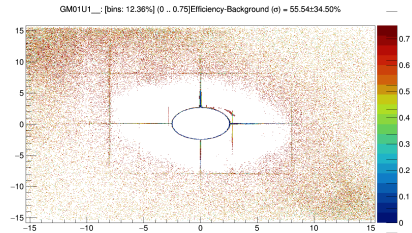
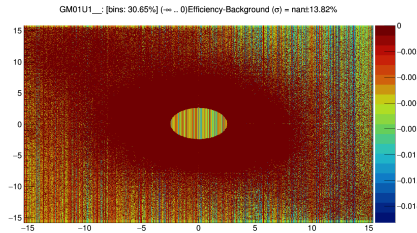
yes

no

$$\text{hc}_{(X,Y)} = \frac{\text{he}_{(X,Y)} - \text{hn}_{(X)}}{1 - \text{hn}_{(X)}}$$

$$\text{hc}_{(X,Y)} = 0.5$$

GM01U1__: Efficiency (σ) = 90.70 \pm 78.22%GM01U1__: Efficiency-Background (σ) = nan \pm nan%



Thank you for attention!

Backup