Update on DVMP

Hao Jiang
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University of Glasgow

Files

- Apr 2024: S3/eictest/EPIC/RECO/24.04.0/epic_craterlake/EXCLUSIVE/DVMP/EpIC1.0.0-1.1

- Jul 2024: S3/eictest/EPIC/RECO/24.07.0/epic_craterlake/EXCLUSIVE/DVMP/EpIC1.0.0-1.1

- Aug 2024: work/eic2/EPIC/RECO/24.08.1/epic_craterlake/EXCLUSIVE/DVMP/EpIC1.0.0-1.1

- Generator files: github.com/eic/DVMPdataset

  EPIC generator (used with the Athena Proposal)
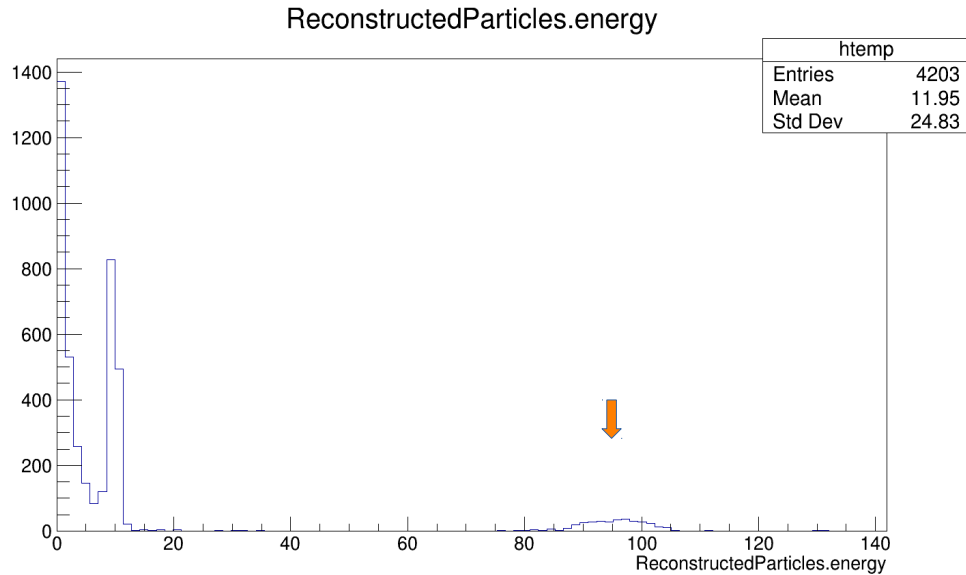
- Afterburned with ip6_hiacc_100x10 setting.

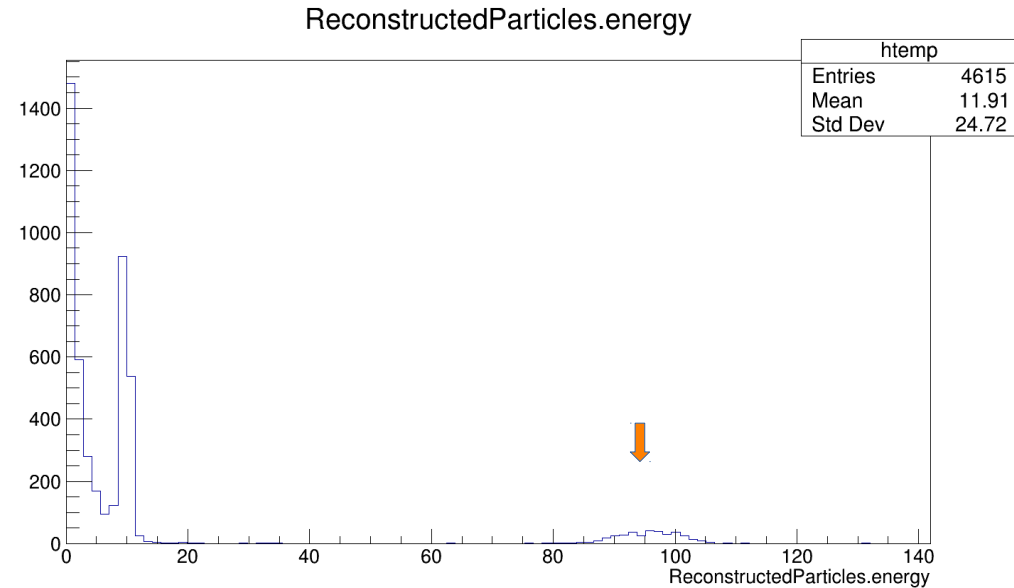- 100k events have been generated.

Problems with recent PIDs
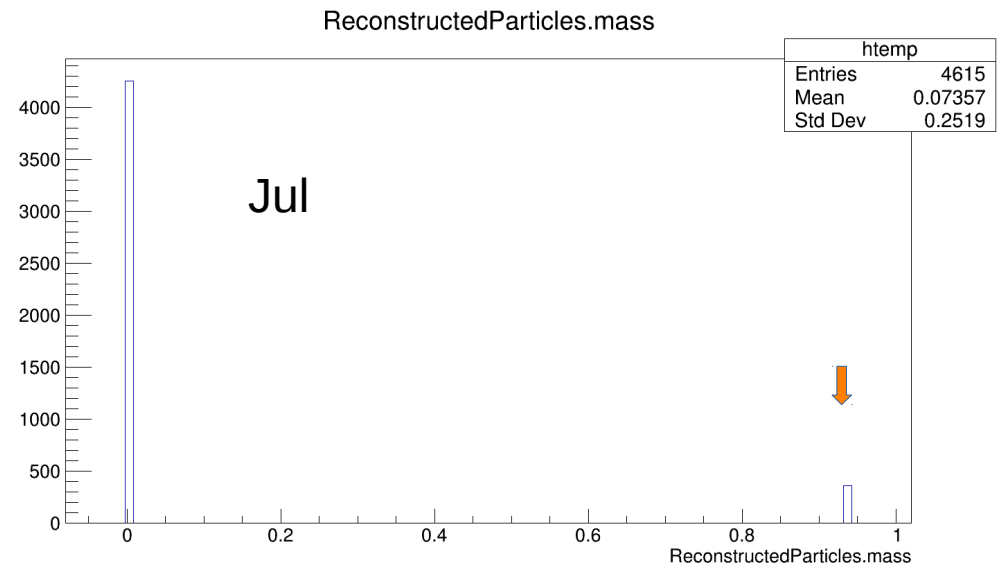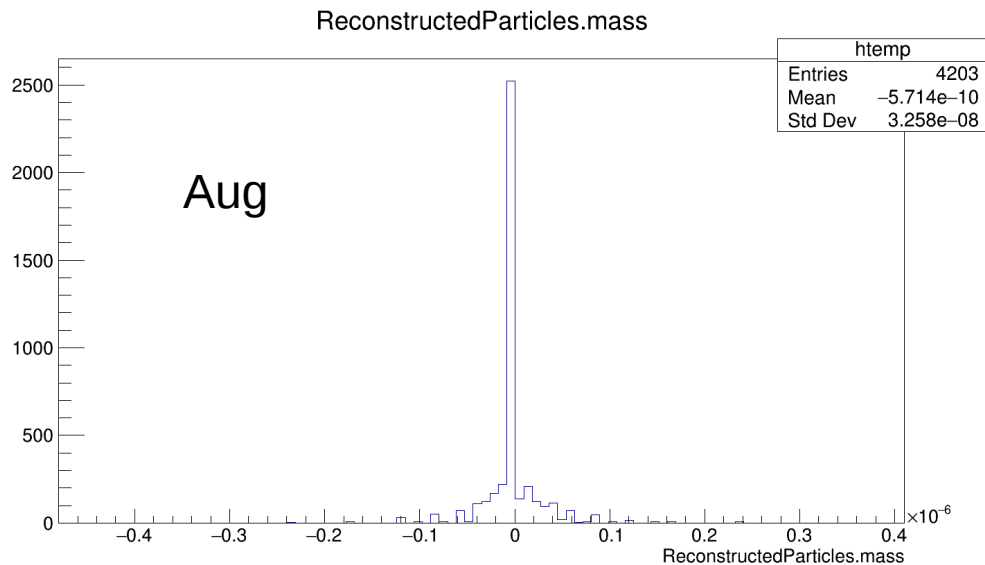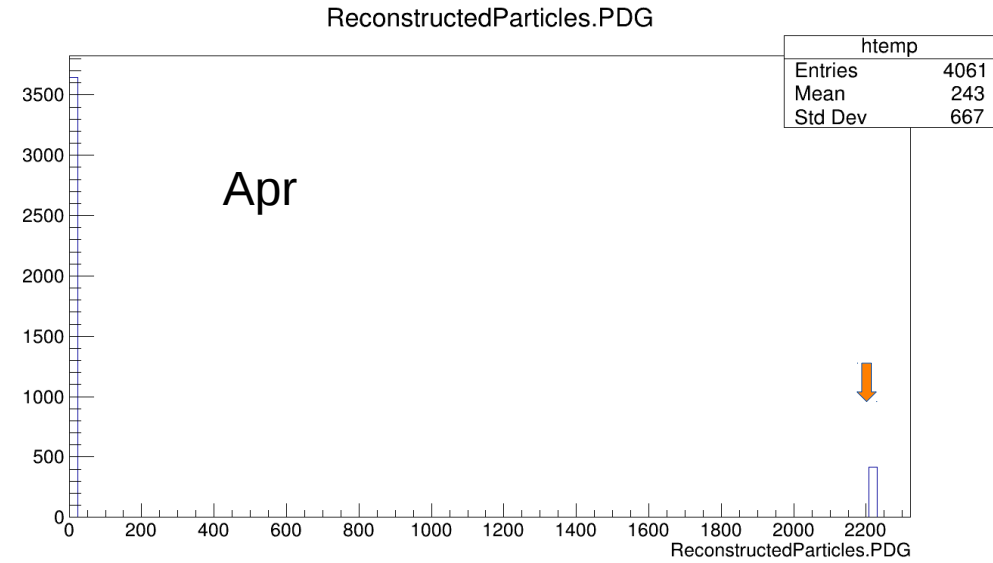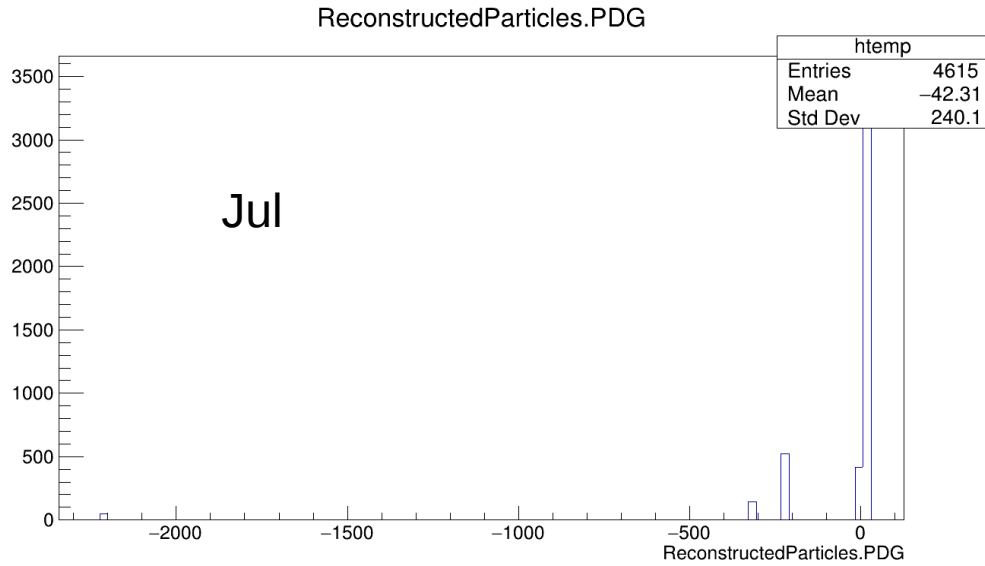
The PID of protons was available with PDG or mass info.
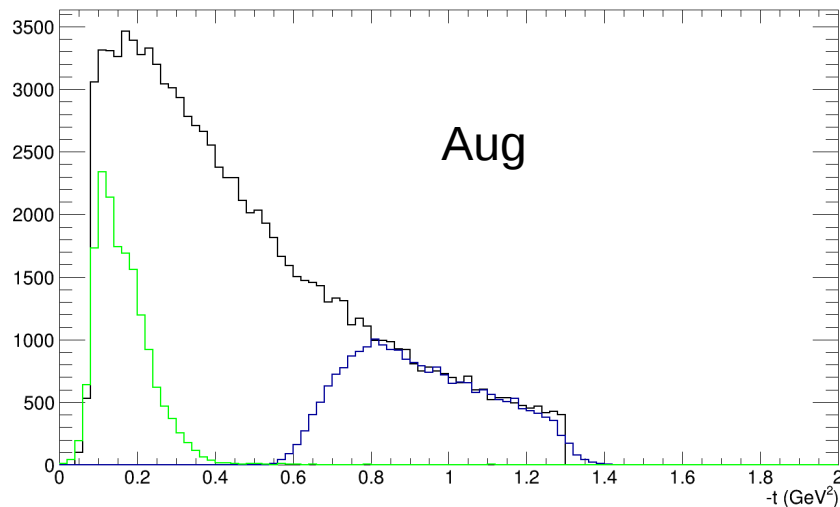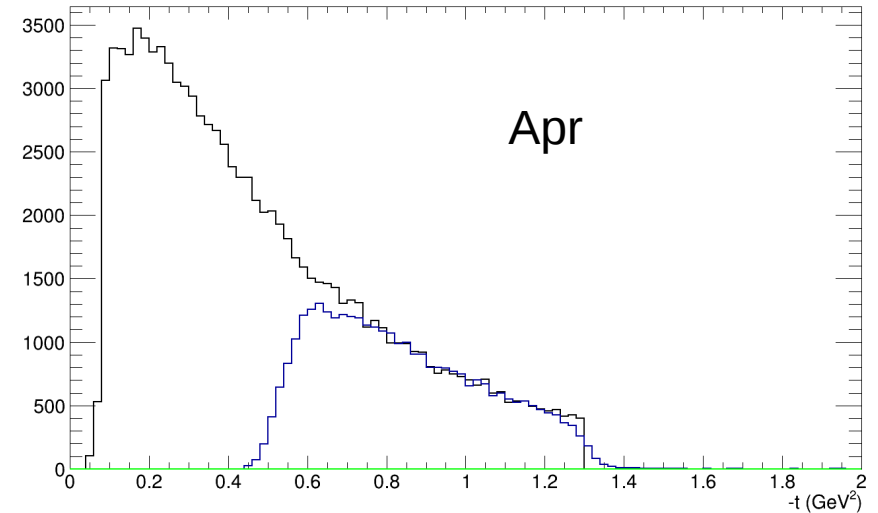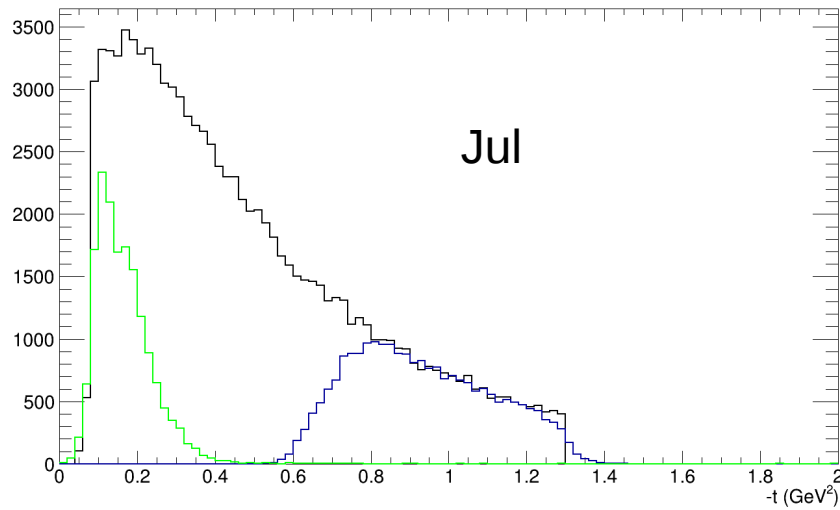
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Temporary solution

Aug

Jul

Cuts on energy 60<E<120 GeV and having a positive charge.
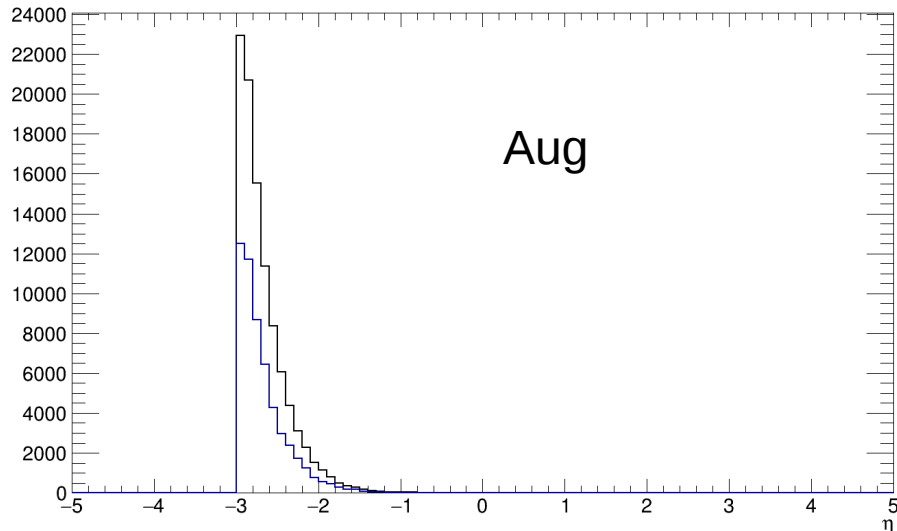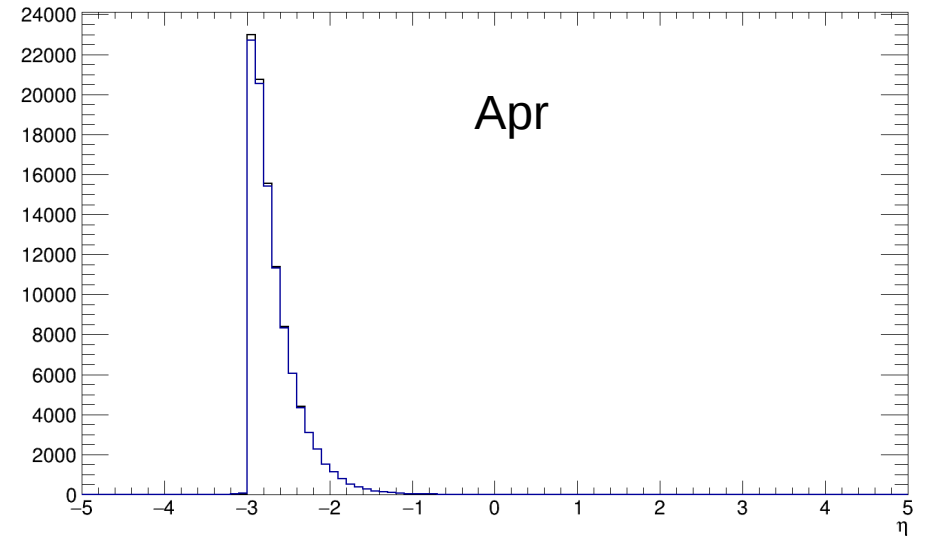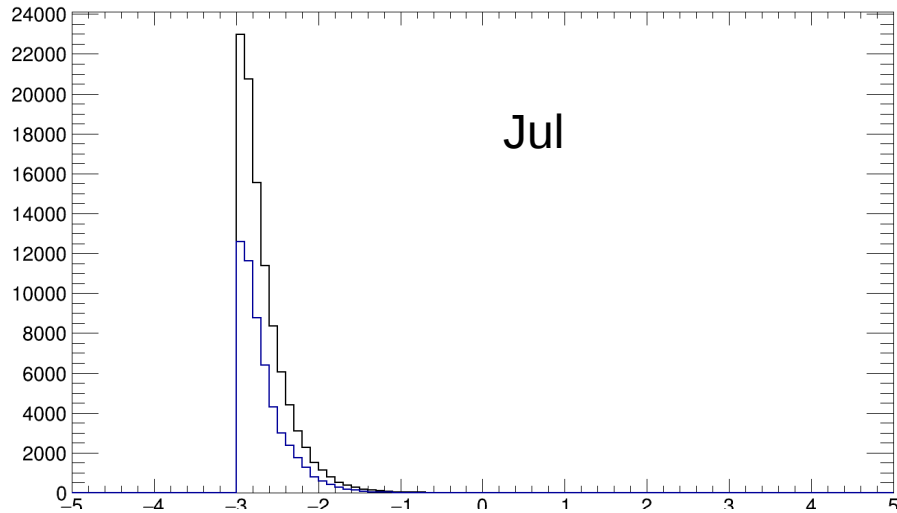
Protons with different PIDs

The cuts on energy bring roughly the same distribution as the previous one but less protons than the earlier one.

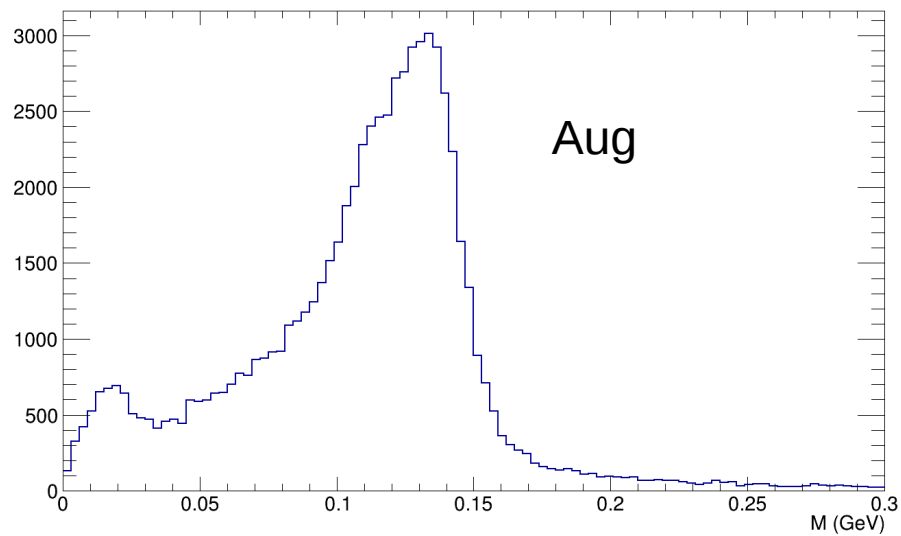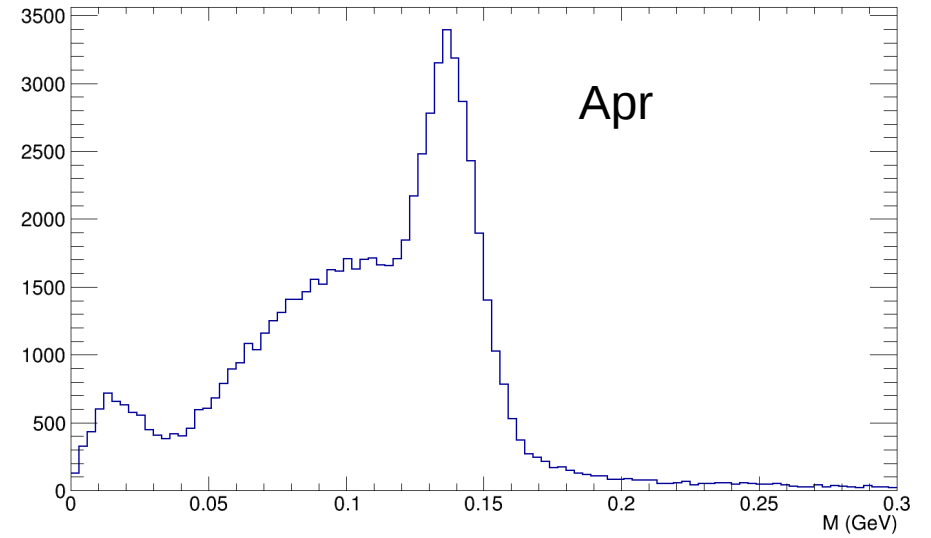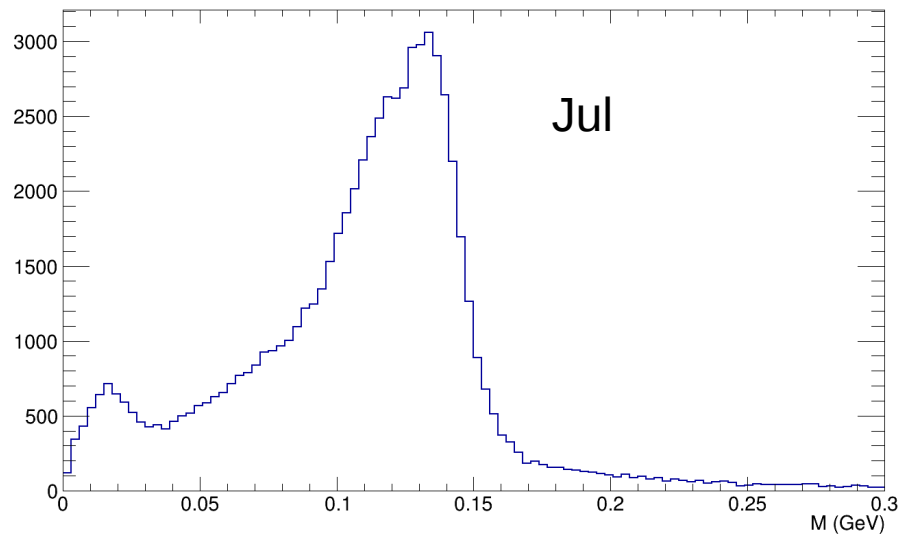Black: Generated   Blue: Reconstructed   Green: RomanPot   4

Electrons η

There are also less electrons
(with PDG info available).

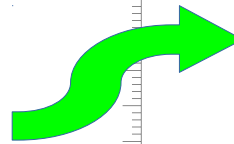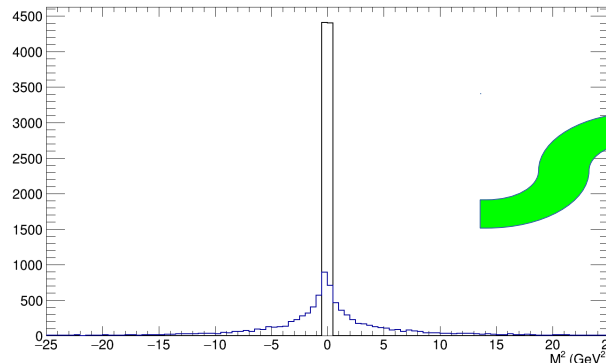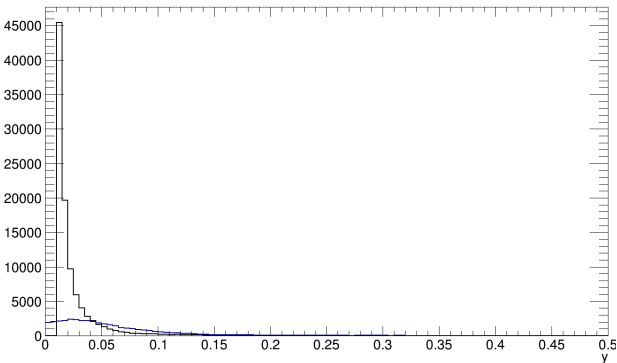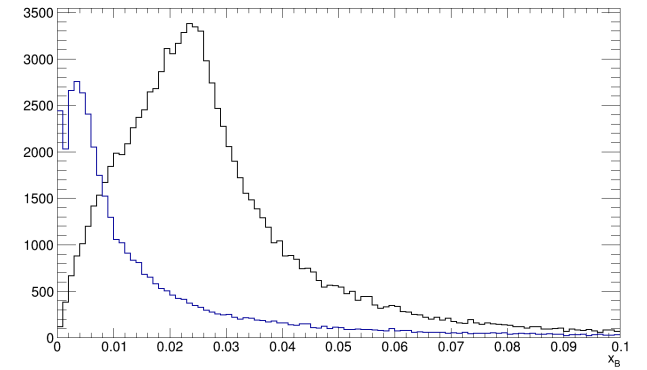Black: Generated   Blue: Reconstructed

Pion invariant

Jul

Apr

Aug

Pion mass ~
0.135 GeV

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Others Aug
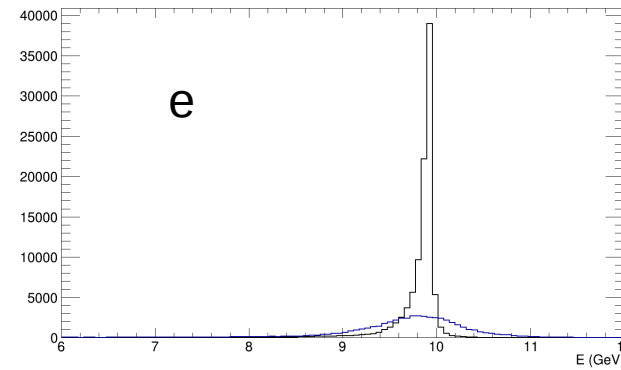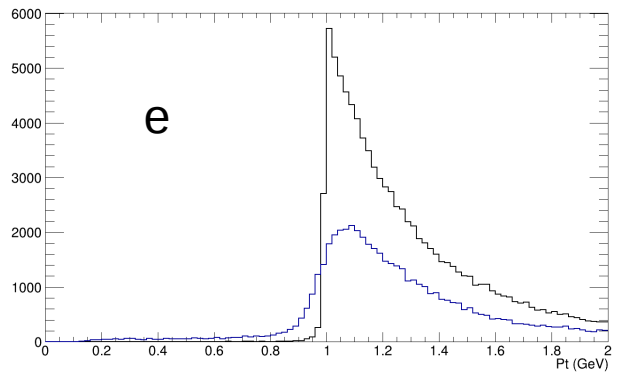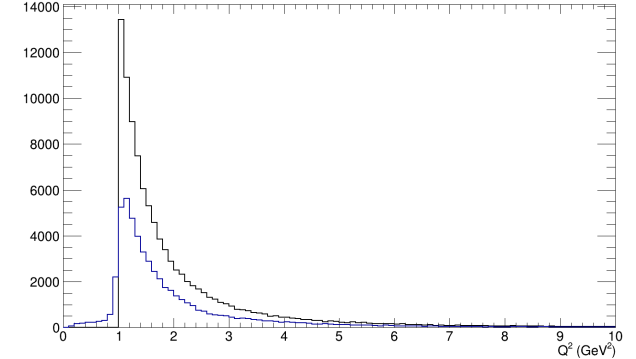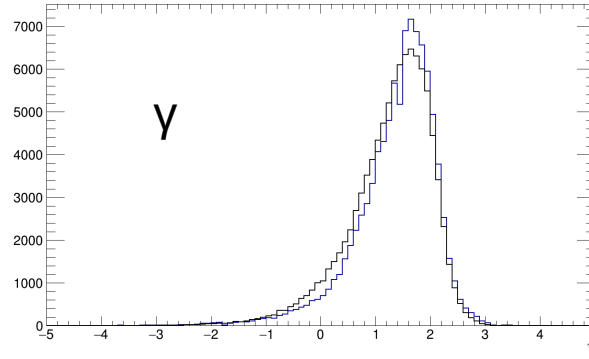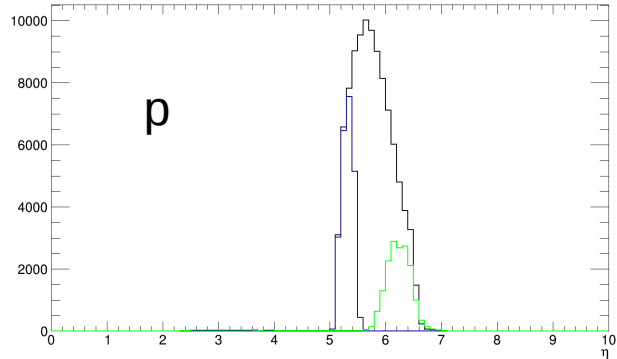
With exclusivity cut
Missing mass sqared

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