Bricked adaptation into CMSSW12

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Preview

→ These slides contain the results of the analysis of the bricked digitizer in CMSSW version 12. The plots were obtained using CMSSW12 0 0 pre5 and the geometry D87.

→ First, the results of the barrel for the non-bricked detIds are shown followed by the results from the bricked detIds in the barrel and finally by the bricked detIds in the endcaps.

→ In geometry D87, a part of the barrel consists of bricked modules (central eta region). Since non-bricked modules have higher eta values, their average cluster size is increased.

→ The whole endcaps are composed of bricked modules.
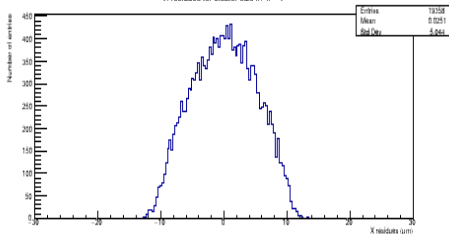
Barrel (non-bricked)

➜ Analysis performed only on non-bricked detIDs in the barrel.

➜ Magnetic field switched off.
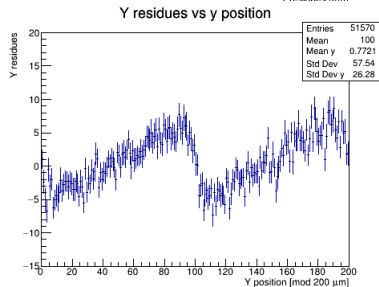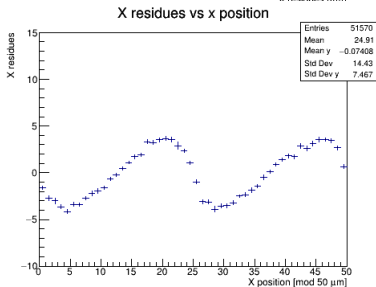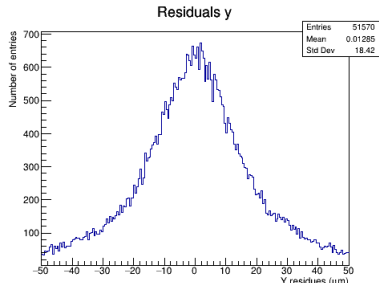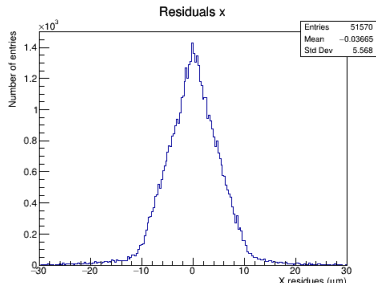
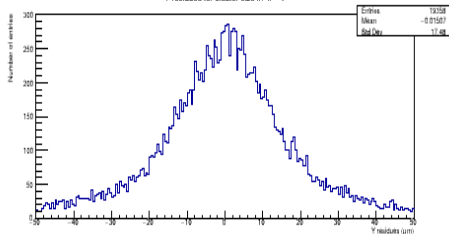➜ 10000 events simulated: 200 GeV muons.

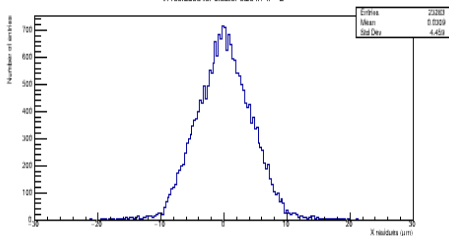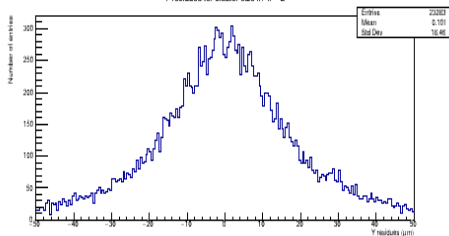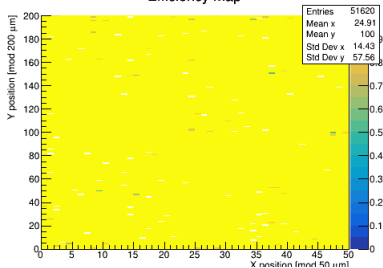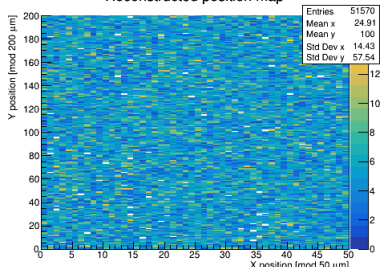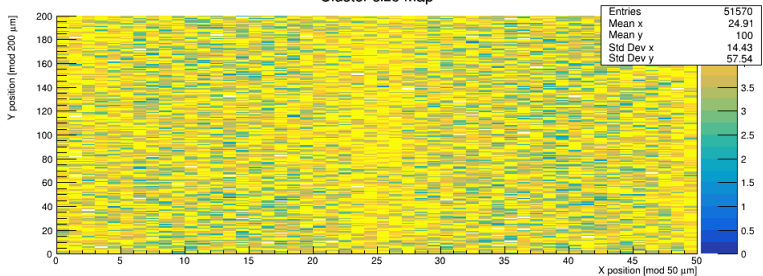# Residues

Residues vs cluster size
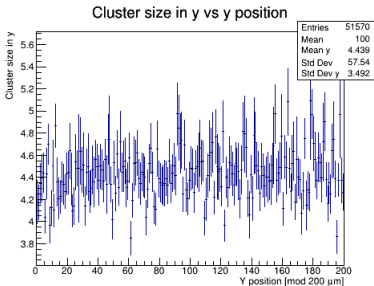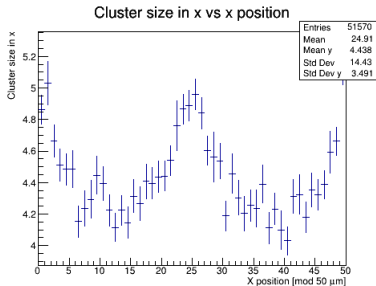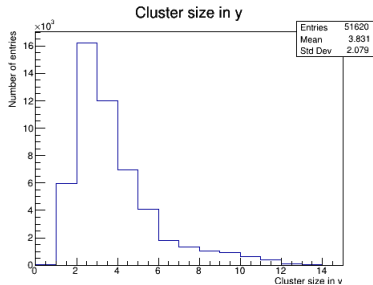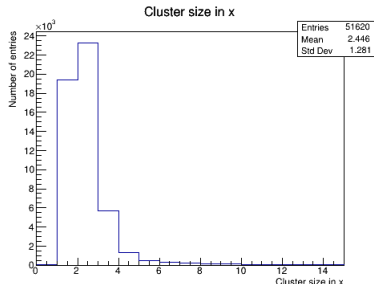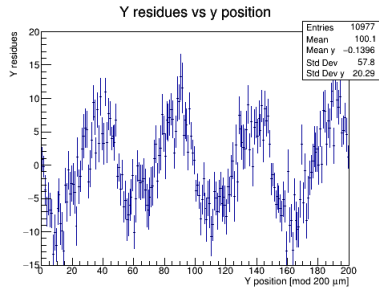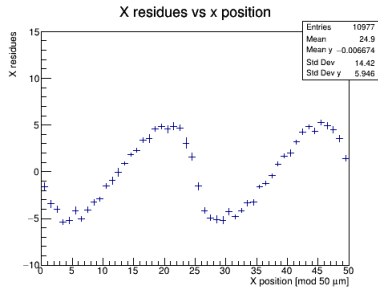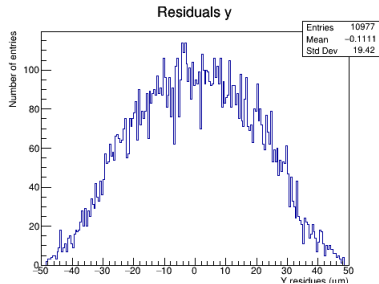
Cluster size

Maps

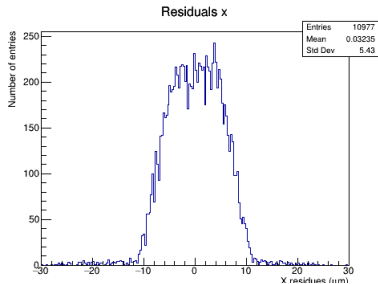
Efficiency map
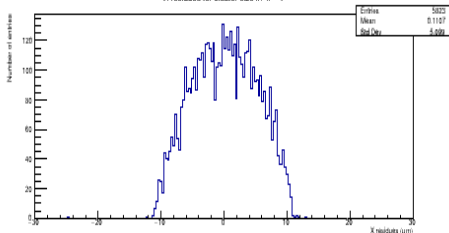
Reconstructed position map

Cluster size map

Barrel

➜ Analysis performed only on bricked DetIDs in the barrel (see next section for endcap results)

➜ Magnetic field switched off.

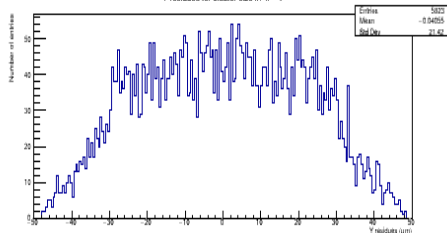➜ 10000 events simulated: 200 GeV muons.

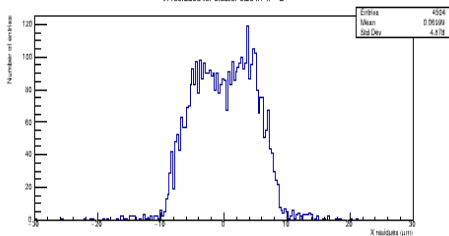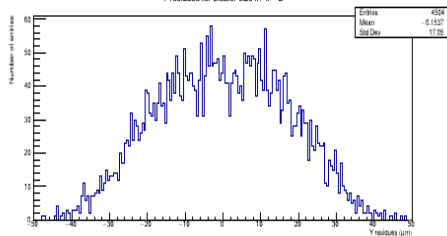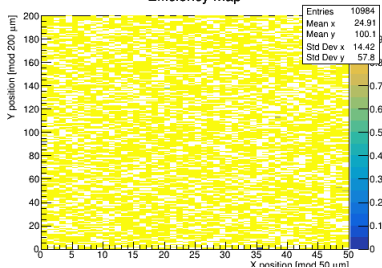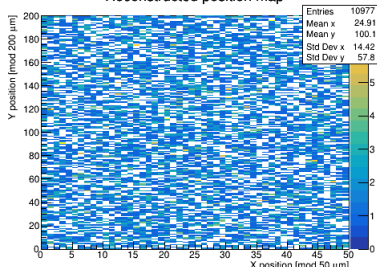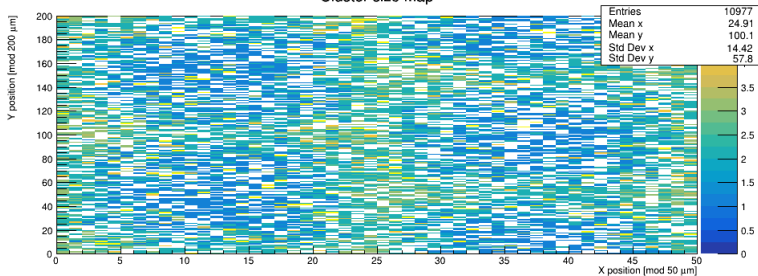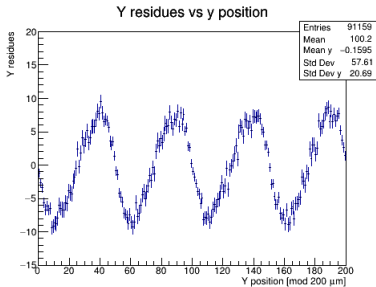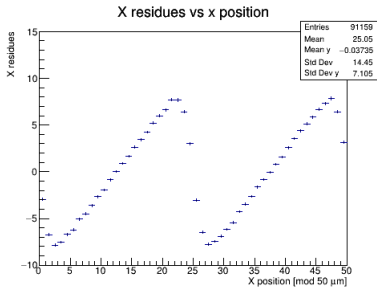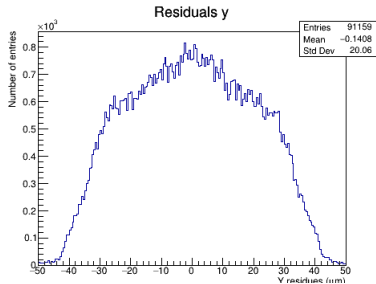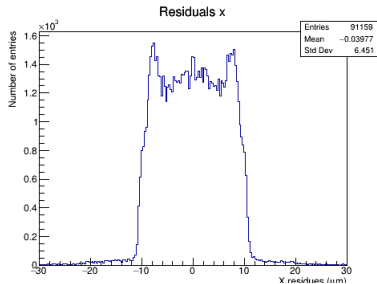# Residues

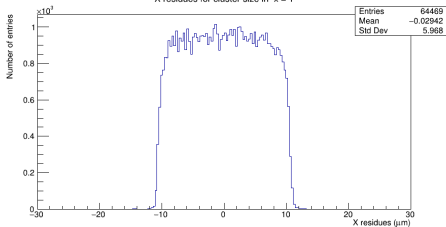# Residues vs cluster size

Cluster size

Maps

Endcaps

➜ Analysis performed only on bricked DetIDs in the endcaps.

➜ Magnetic field switched off.

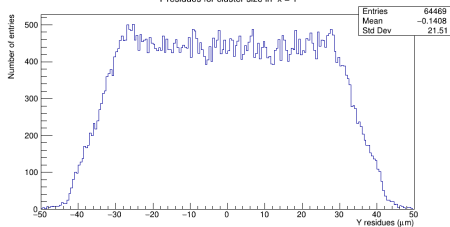➜ 10000 events simulated: 200 GeV muons.

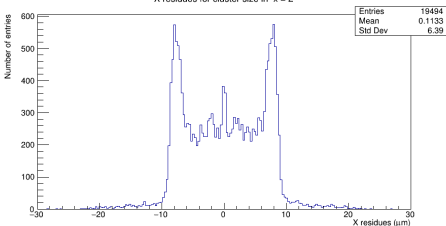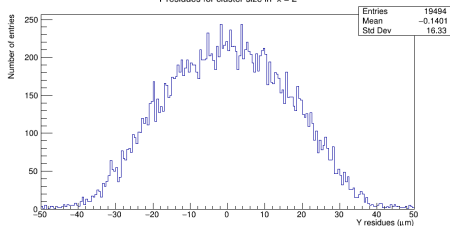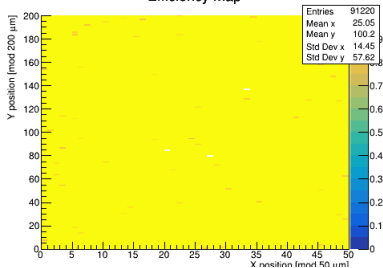# Residues

Residues vs cluster size

Cluster size

Maps