Muon QA: LHC15e pass1

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May 25, 2015

Summary I

General informations

- Runs selected for MUON on ALICE logbook:
  - Period: LHC15e
  - Run Type: PHYSICS
  - Beam: STABLE
  - At least [MUON_TRG & MUON_TRK & SPD] as Readout
  - Quality: globaly GOOD and NOT BAD for readout Detectors
  - Duration: at least 10 min

Summary II

General:

- 4 runs with muon out of 8

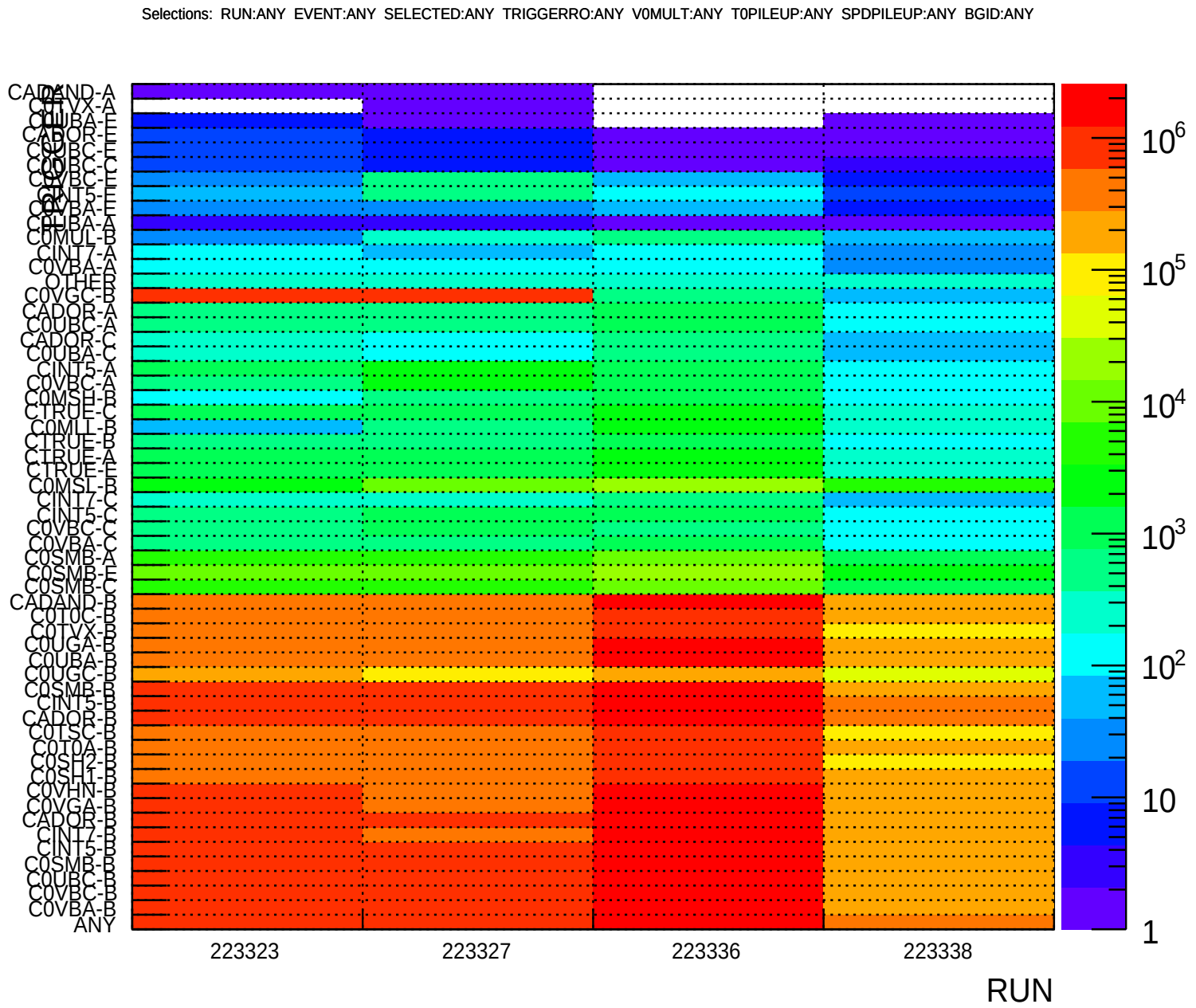
MTR efficiency:

- Changing with runs. Scan of clock phase ongoing to fine tune the trigger readout $\Rightarrow$ low efficiency in the first run. Nominal efficiency when correct phase found

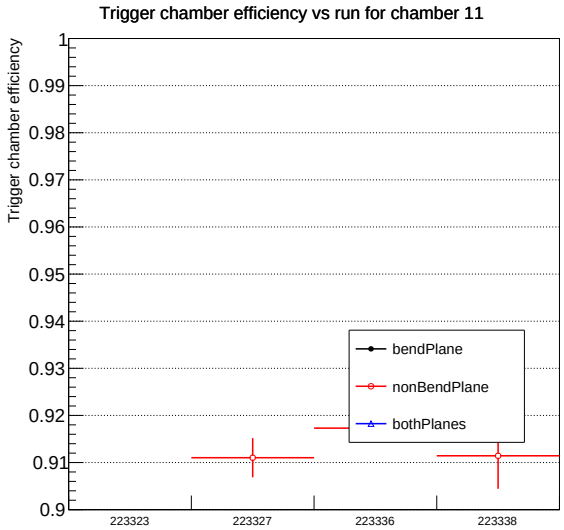
MCH and MUON data quality:

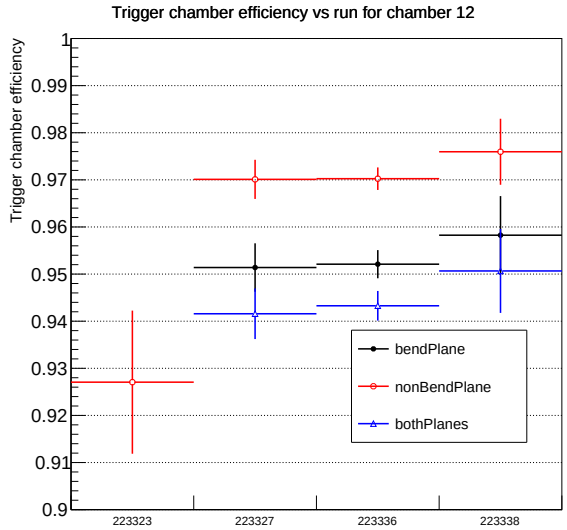
- Muon charge asymmetry decreases from first to second run (correlated with the MTR status described above)
- Very good tracking chamber efficiency (in terms of average num. of clusters per chamber) except for ch3 (dead channels).

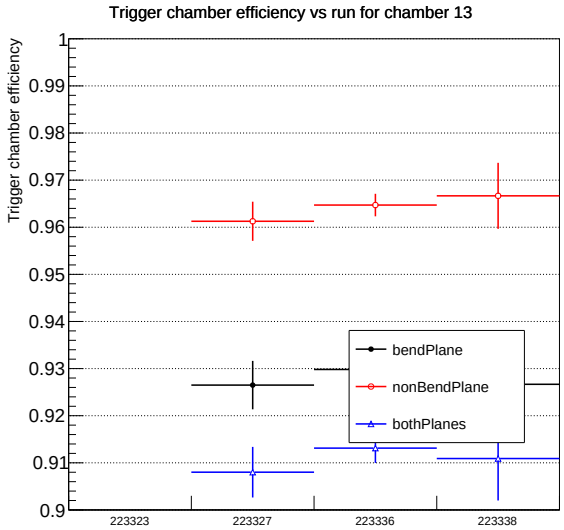
Number of events per trigger

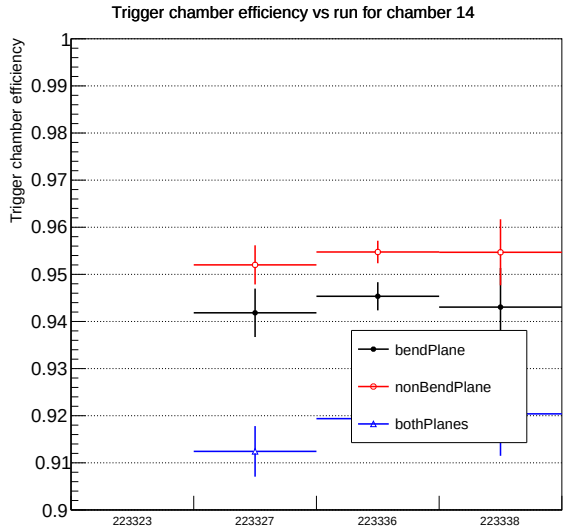


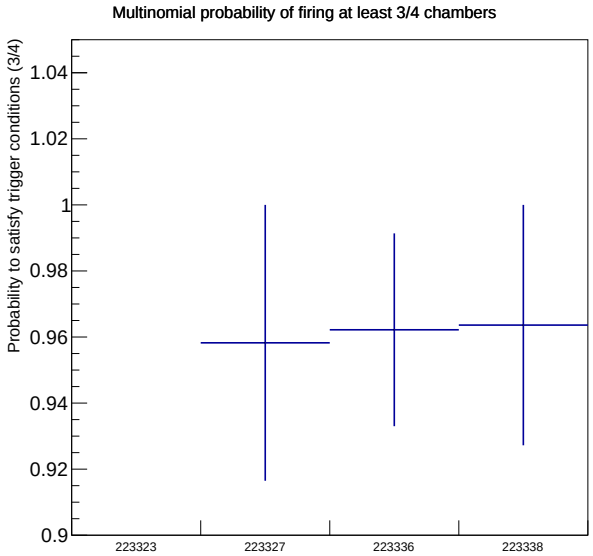
Trigger chamber efficiencies

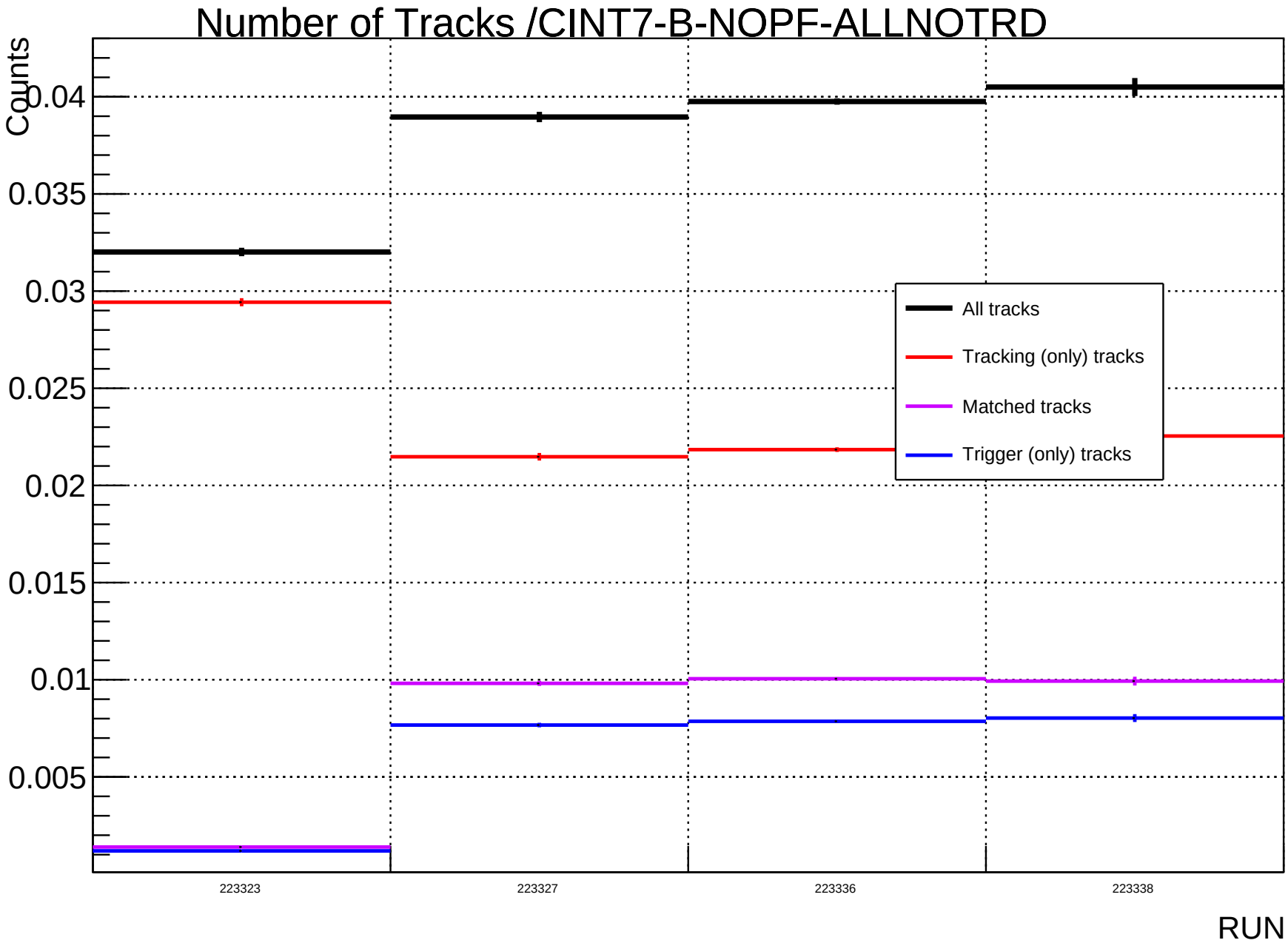




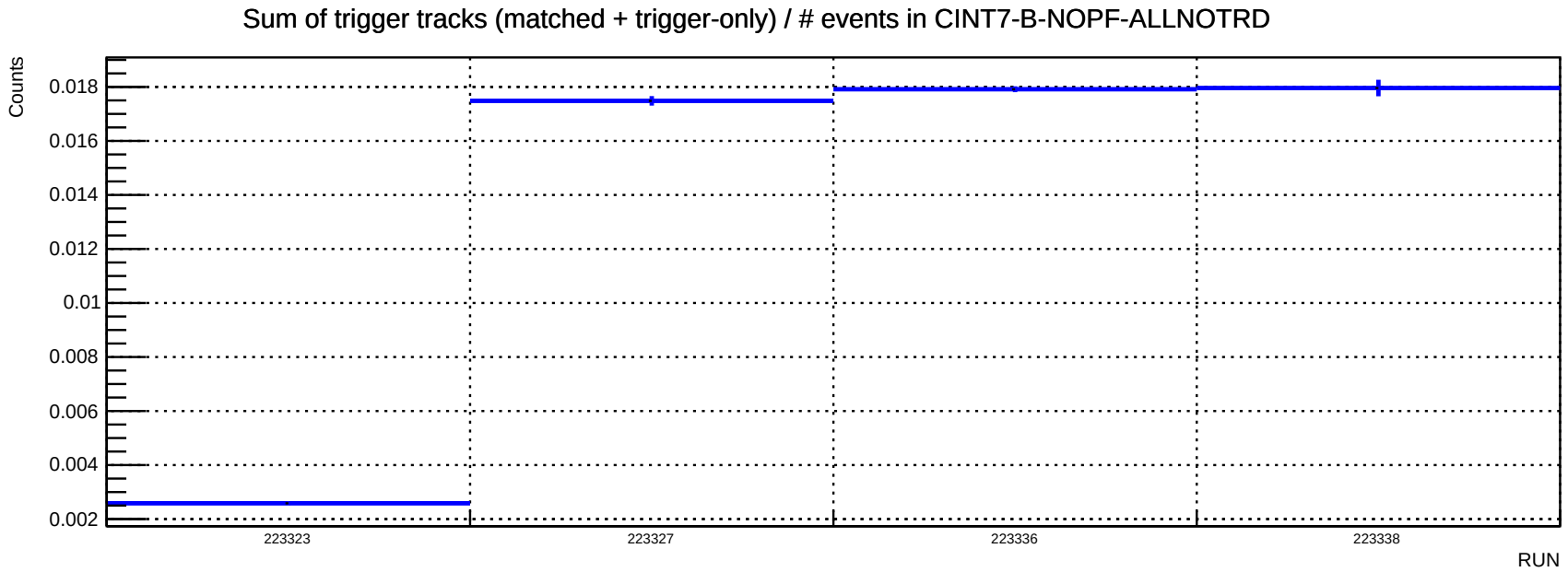


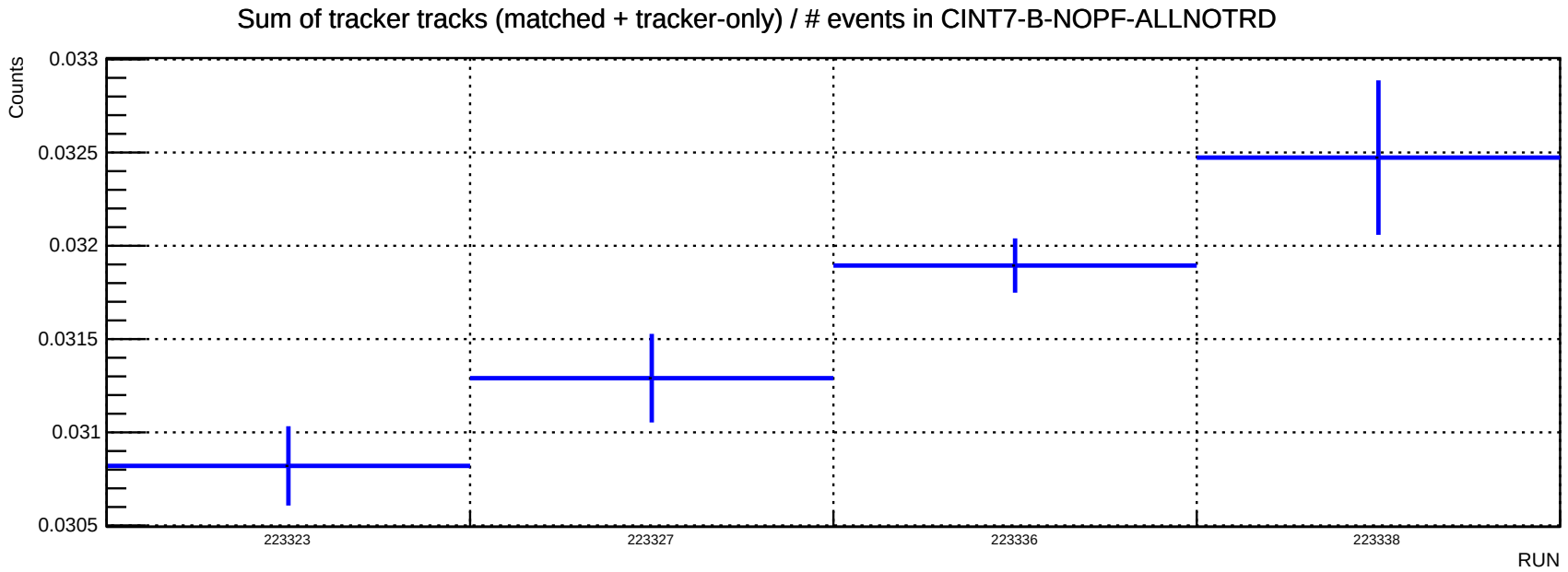




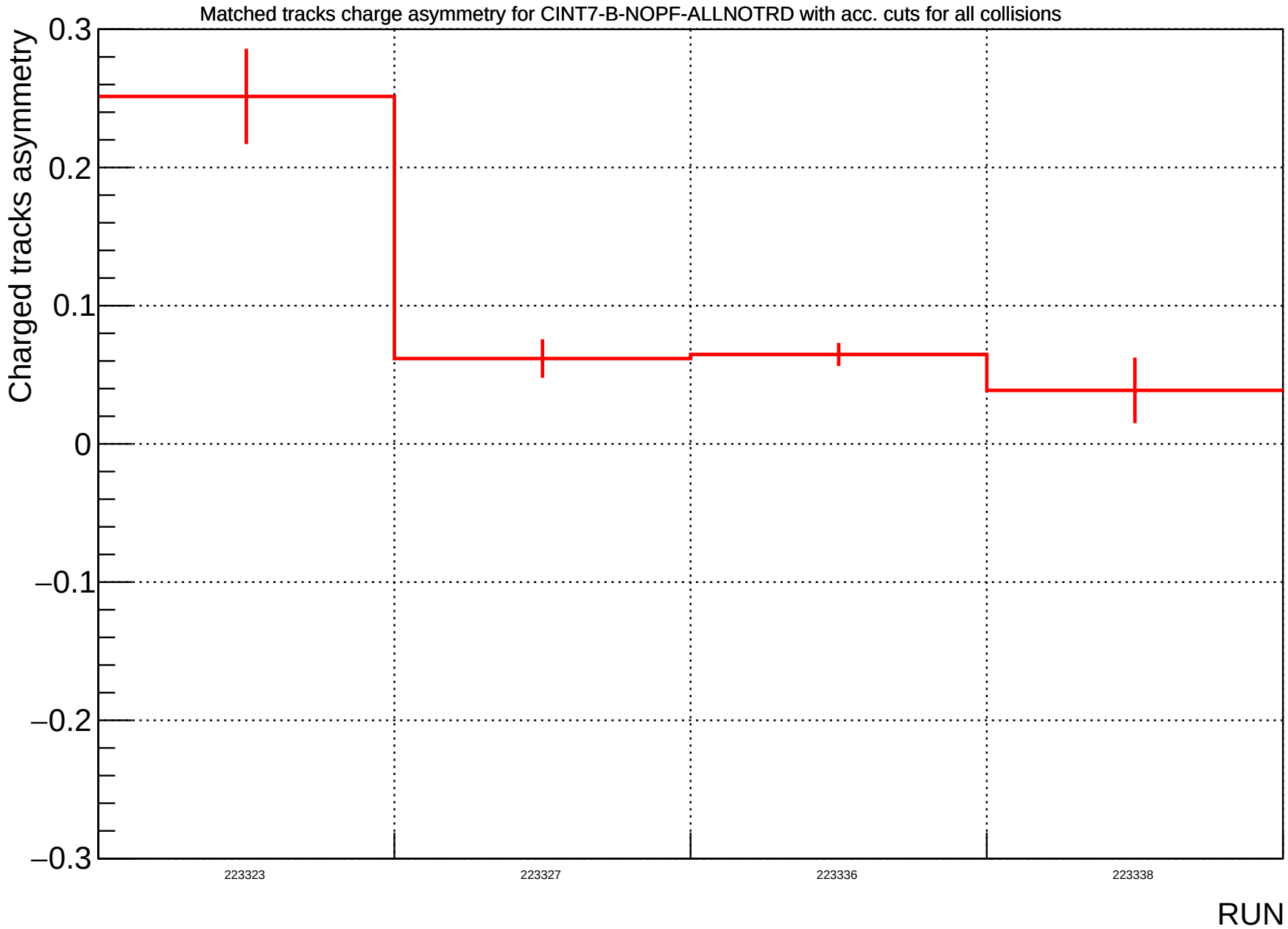

Number of Tracks /CINT7-B-NOPF-ALLNOTRD
Counts
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
All tracks
Tracking (only) tracks
Matched tracks
Trigger (only) tracks
223323
223327
223336
223338
RUN

Muon tracker-trigger tracks / event in CINT7-B events

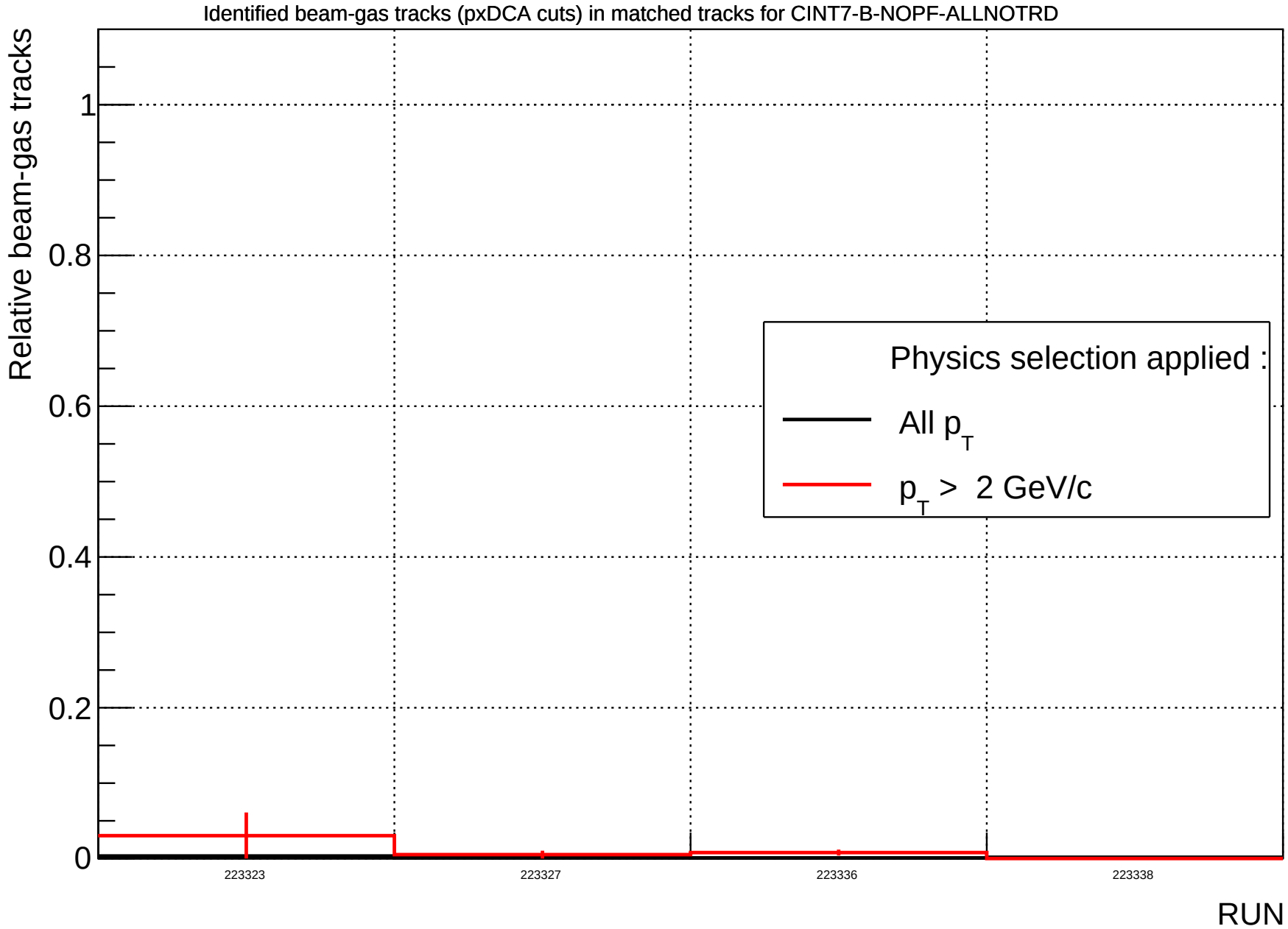




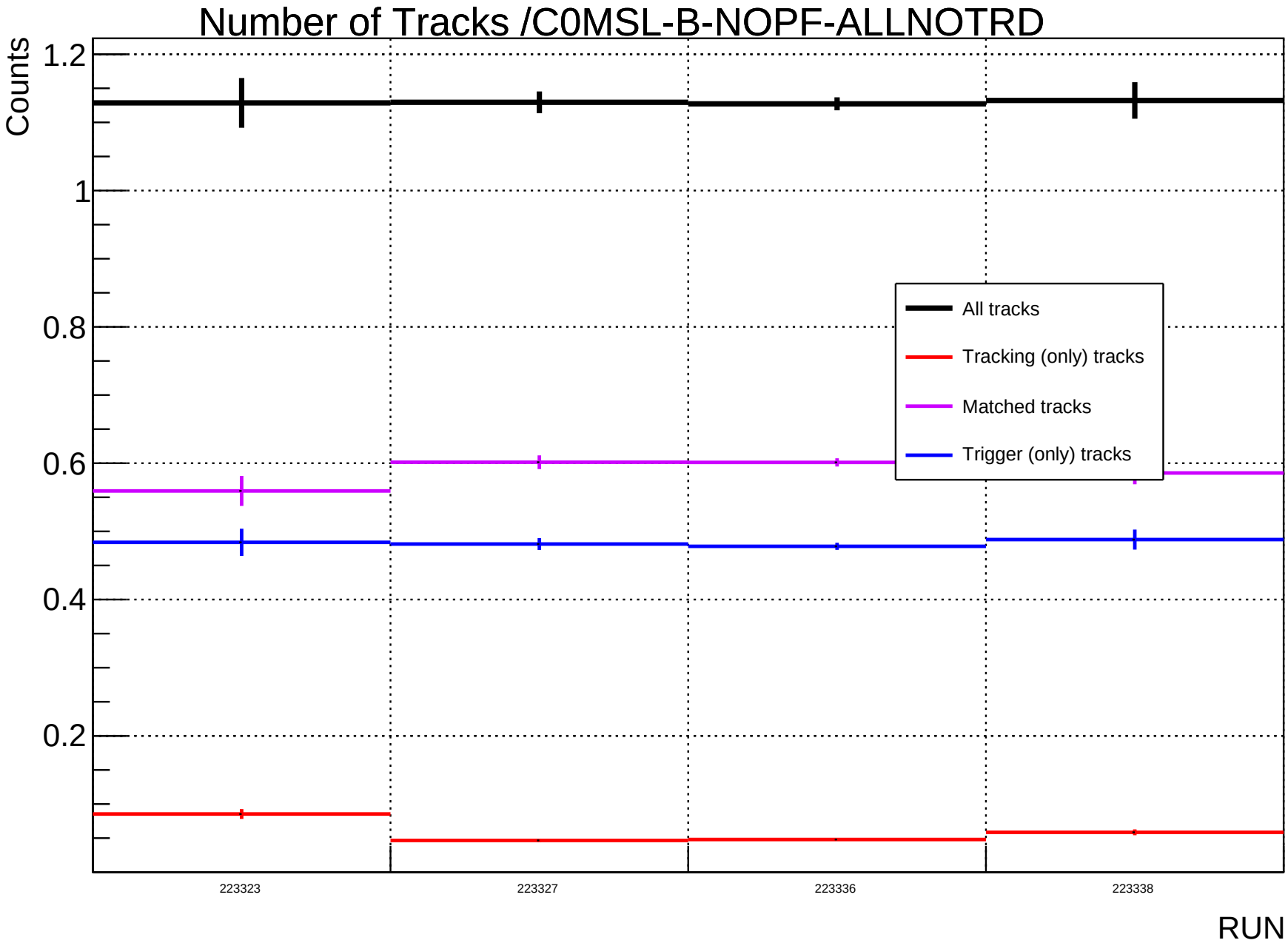
Charge asymmetry in CINT7-B events



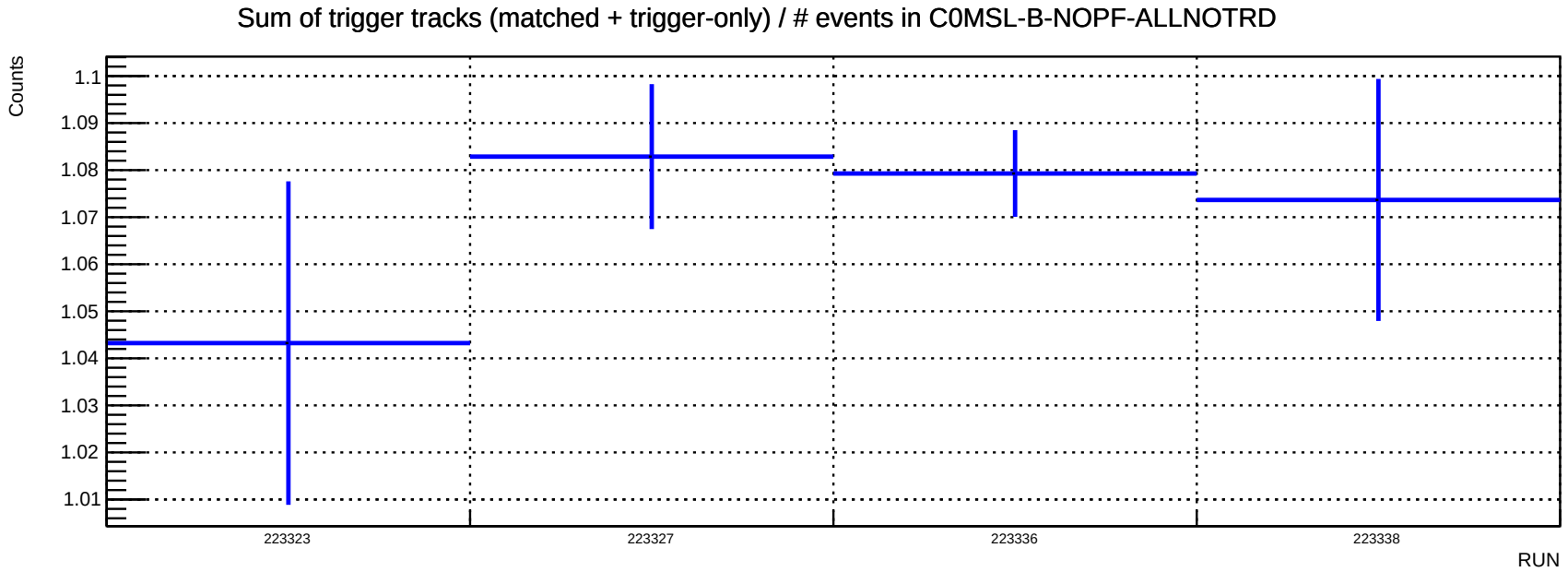
Rel. num. of beam-gas tracks (id. by p×DCA cuts) in CINT7-B events

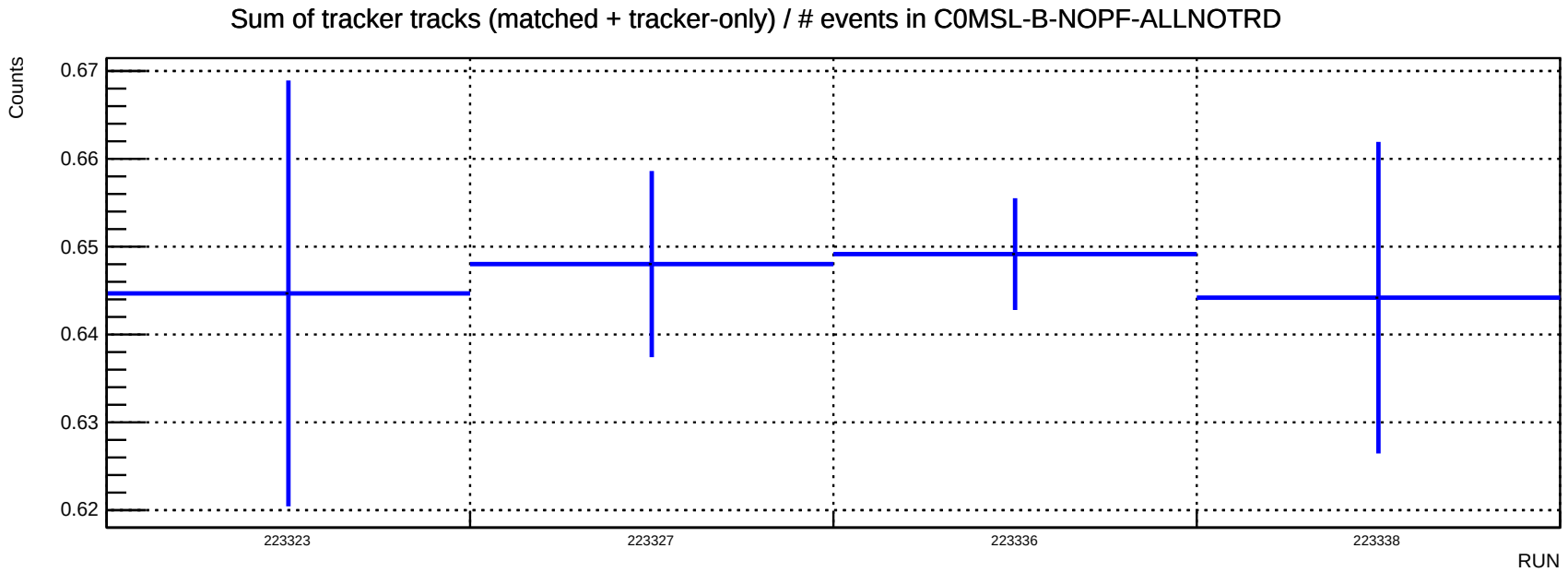


Muon tracks / event in C0MSL-B events

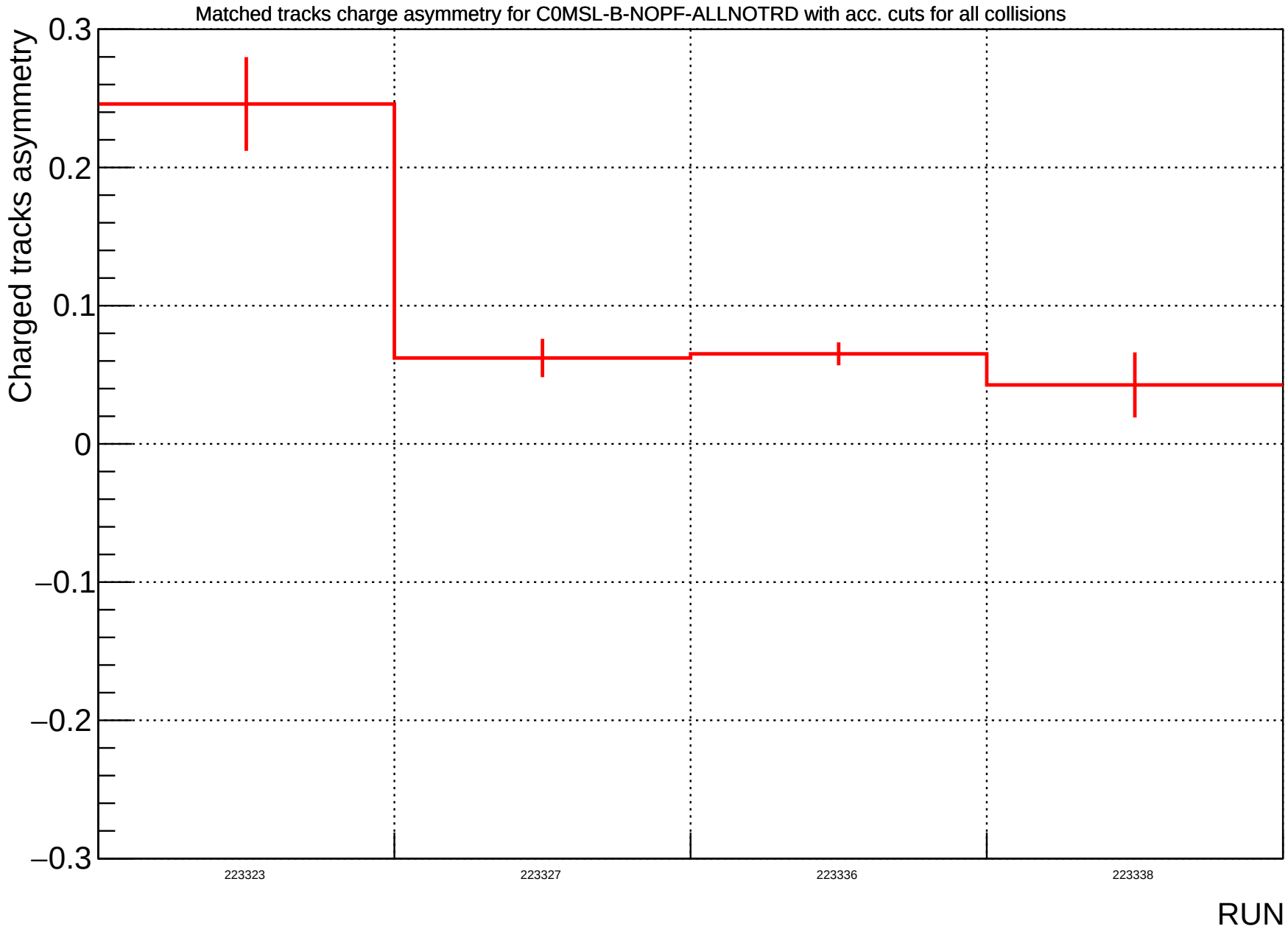


Muon tracker-trigger tracks / event in C0MSL-B events

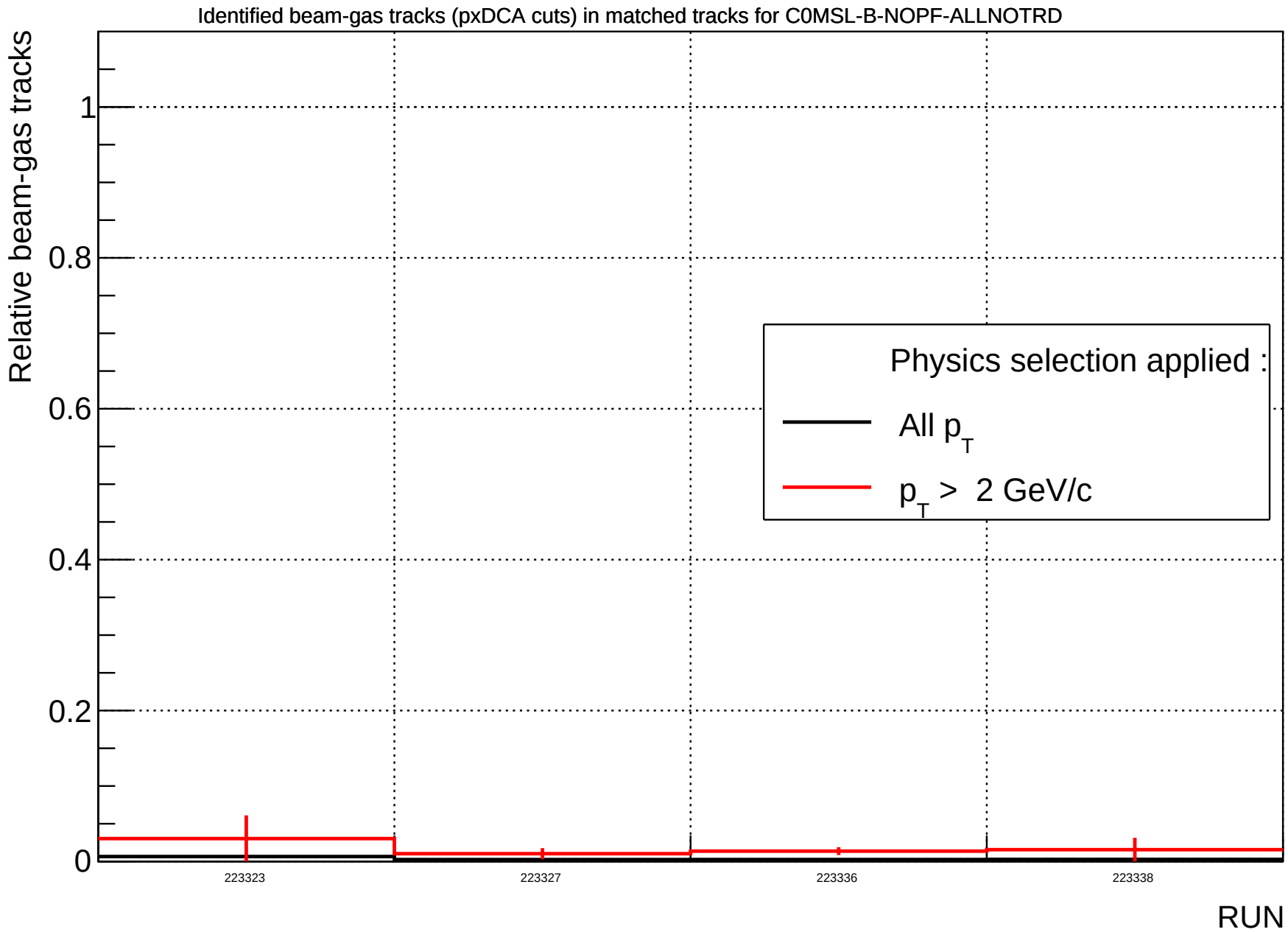




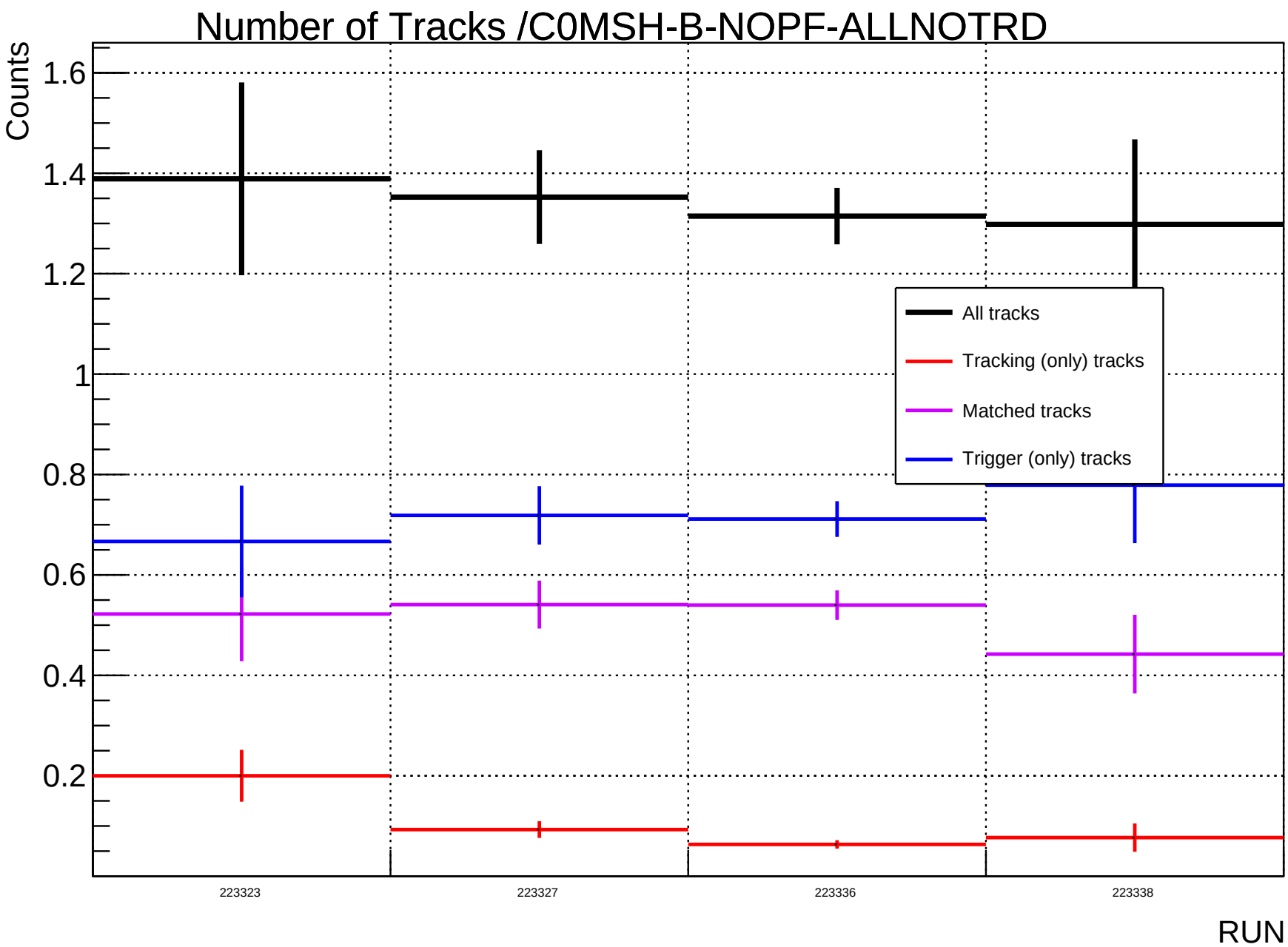
Charge asymmetry in C0MSL-B events



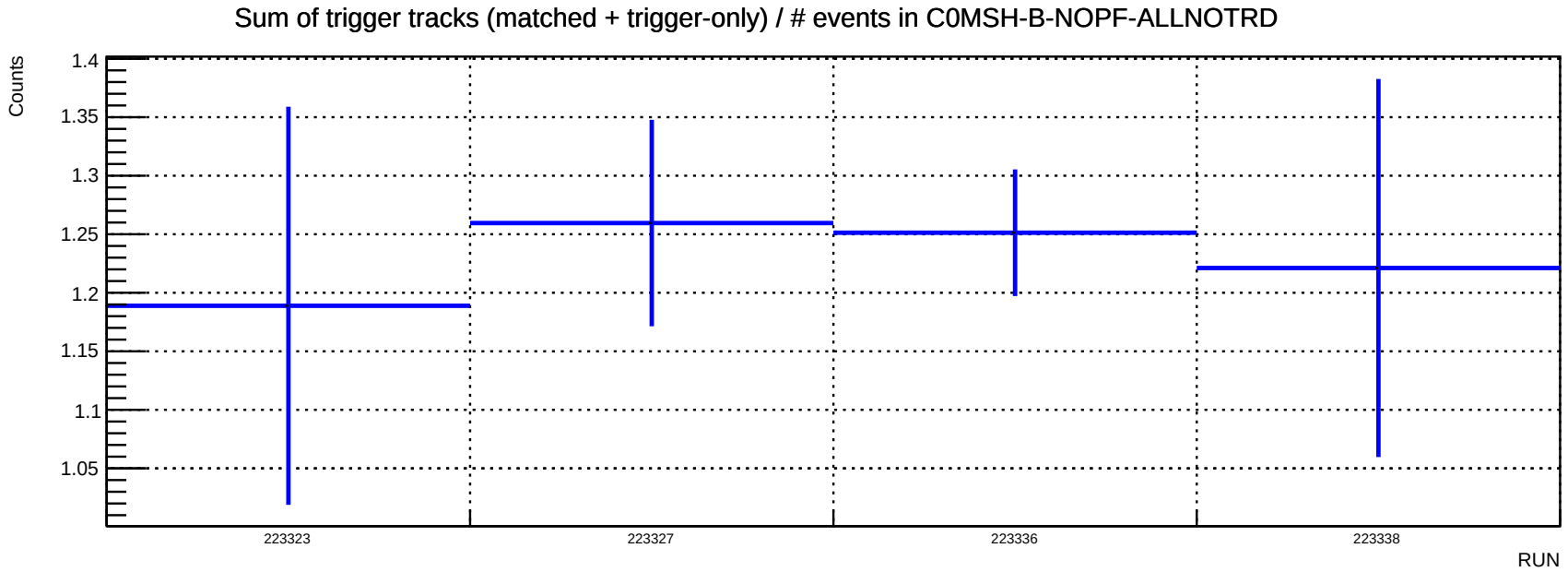
Rel. num. of beam-gas tracks (id. by p×DCA cuts) in C0MSL-B events

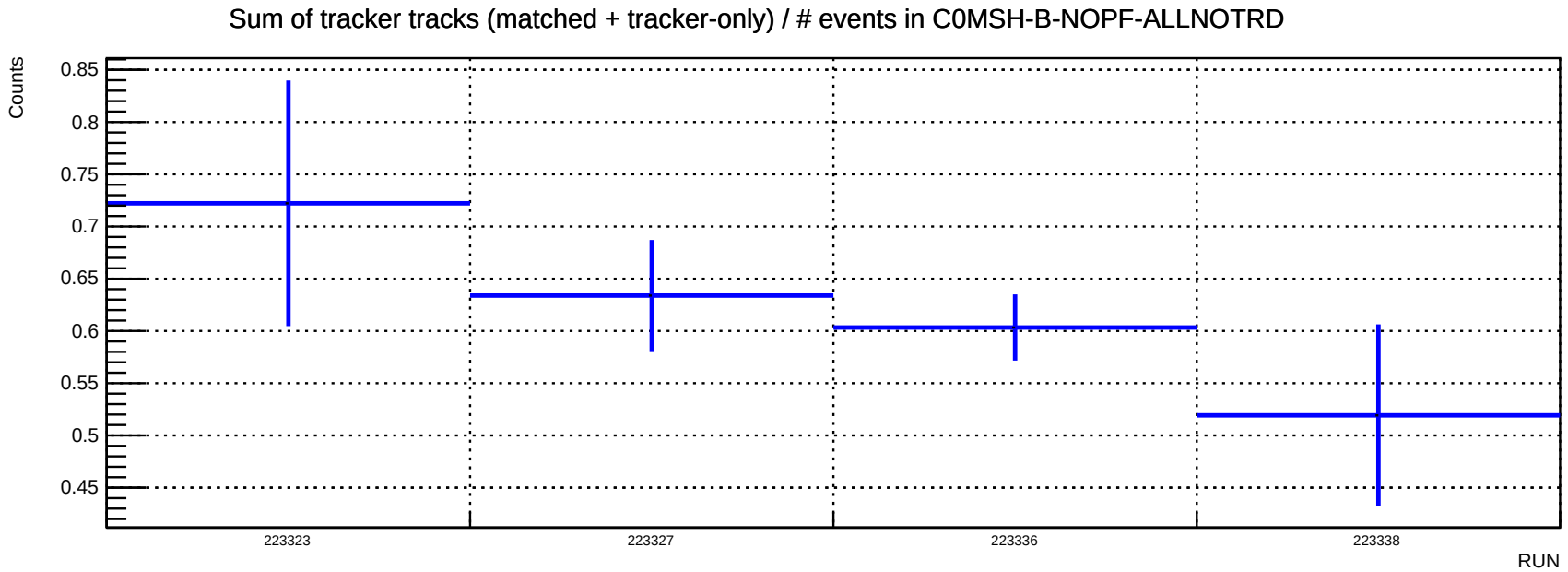


Muon tracks / event in C0MSH-B events

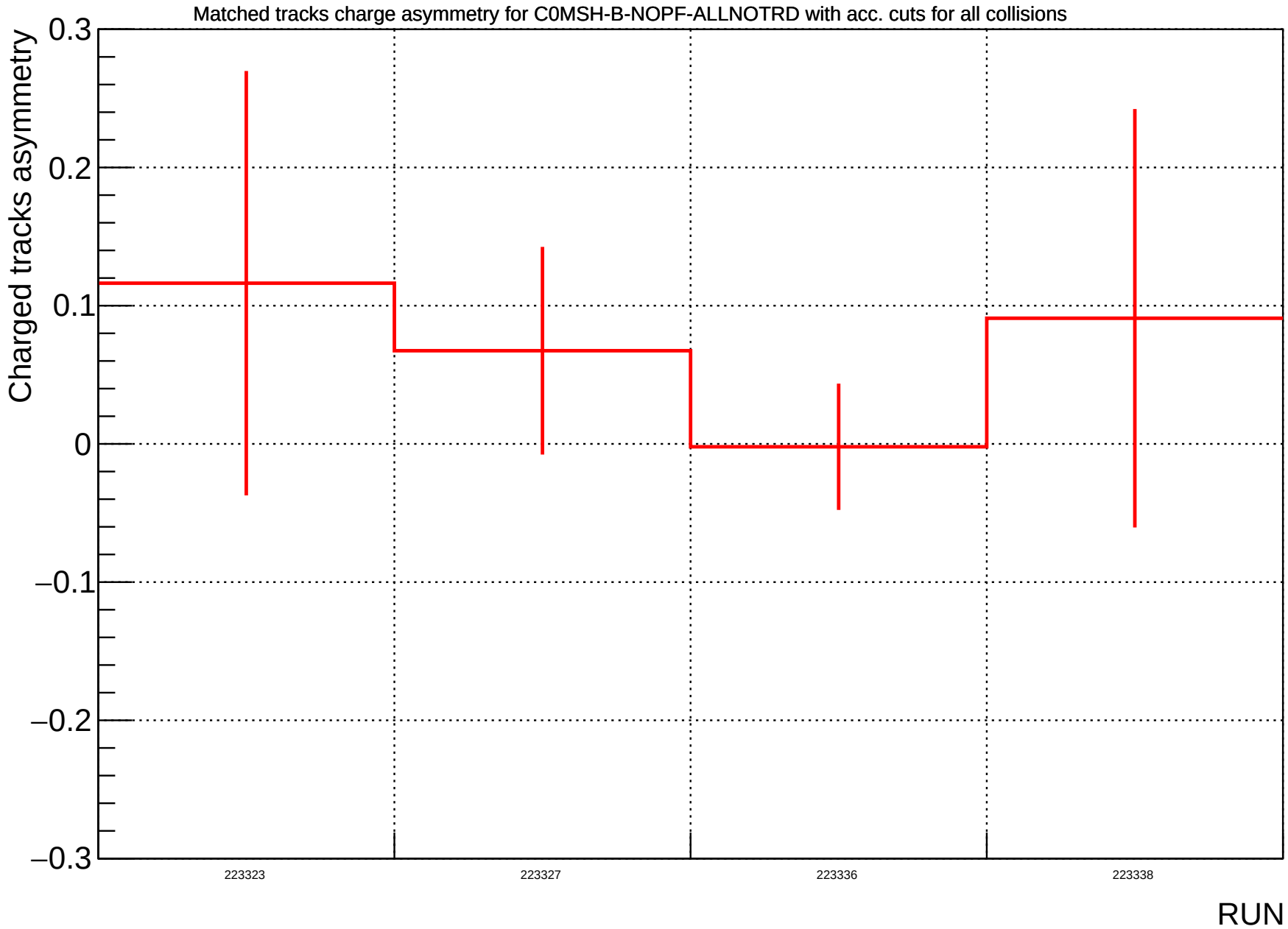


Muon tracker-trigger tracks / event in C0MSH-B events

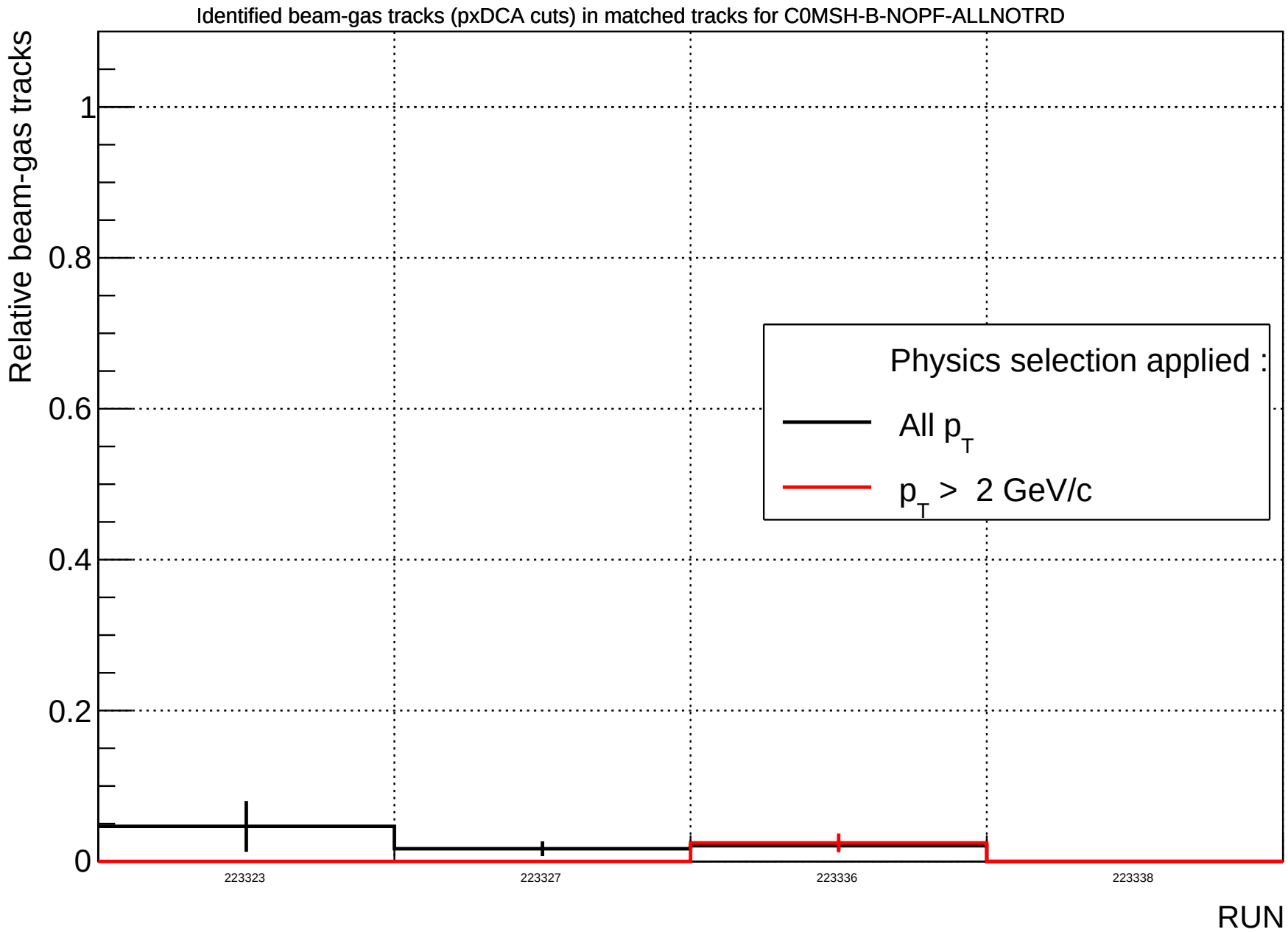




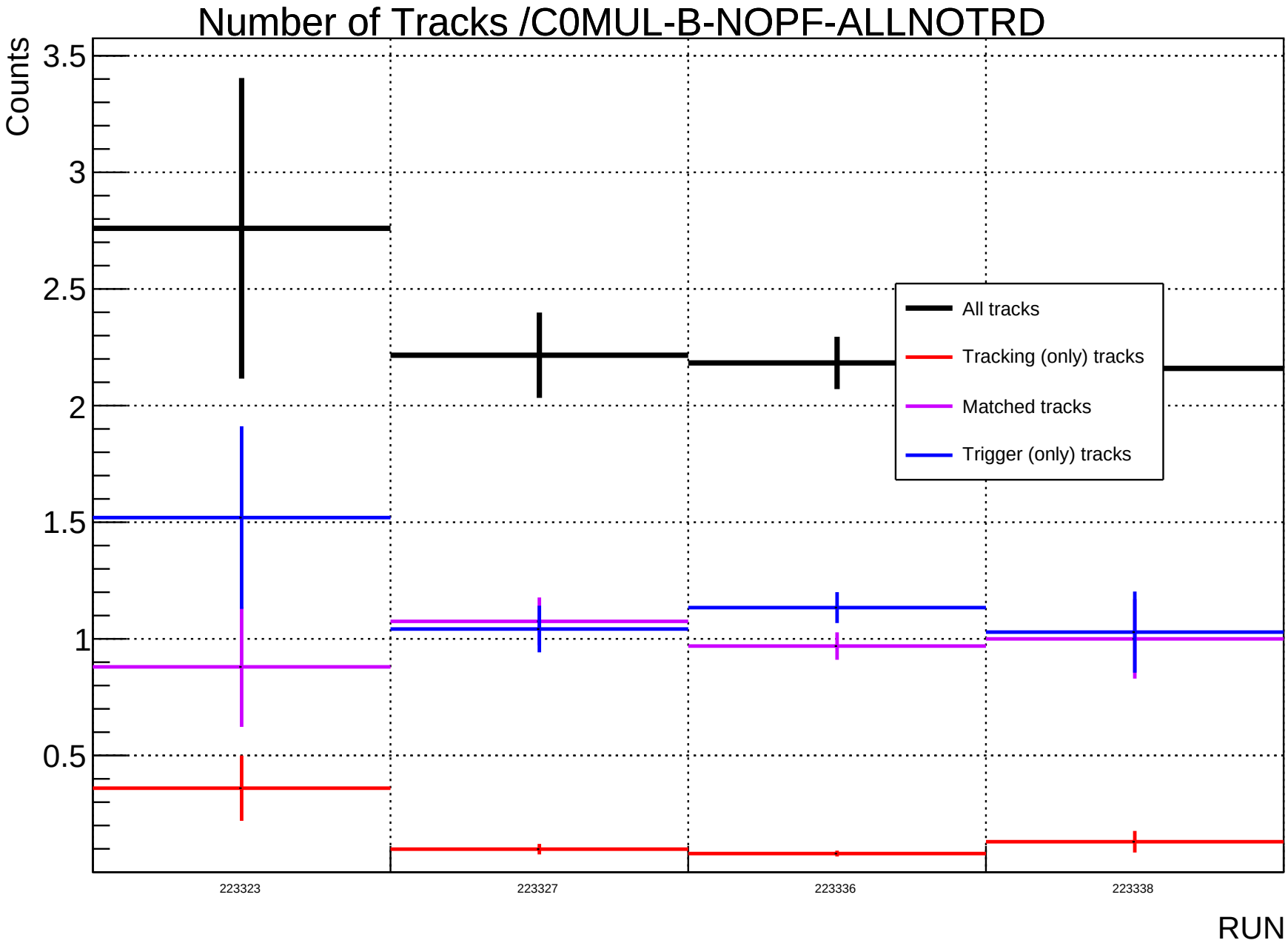
Charge asymmetry in C0MSH-B events



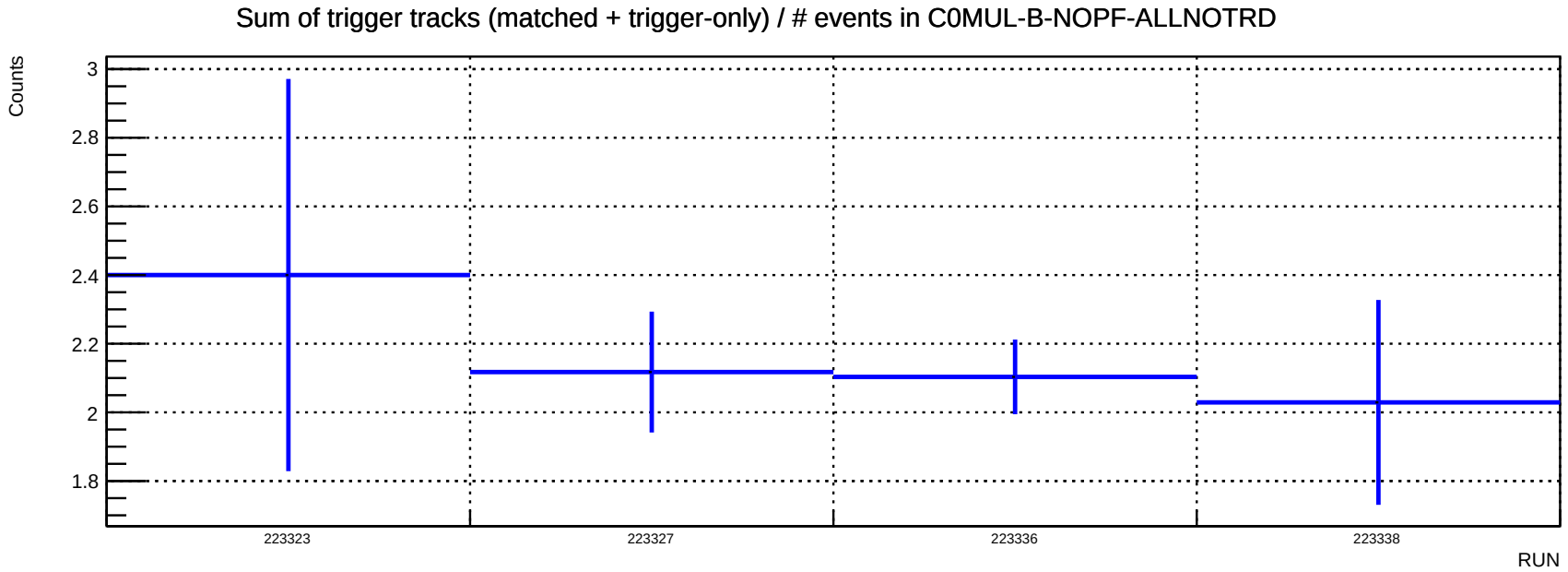
Rel. num. of beam-gas tracks (id. by p×DCA cuts) in C0MSH-B events

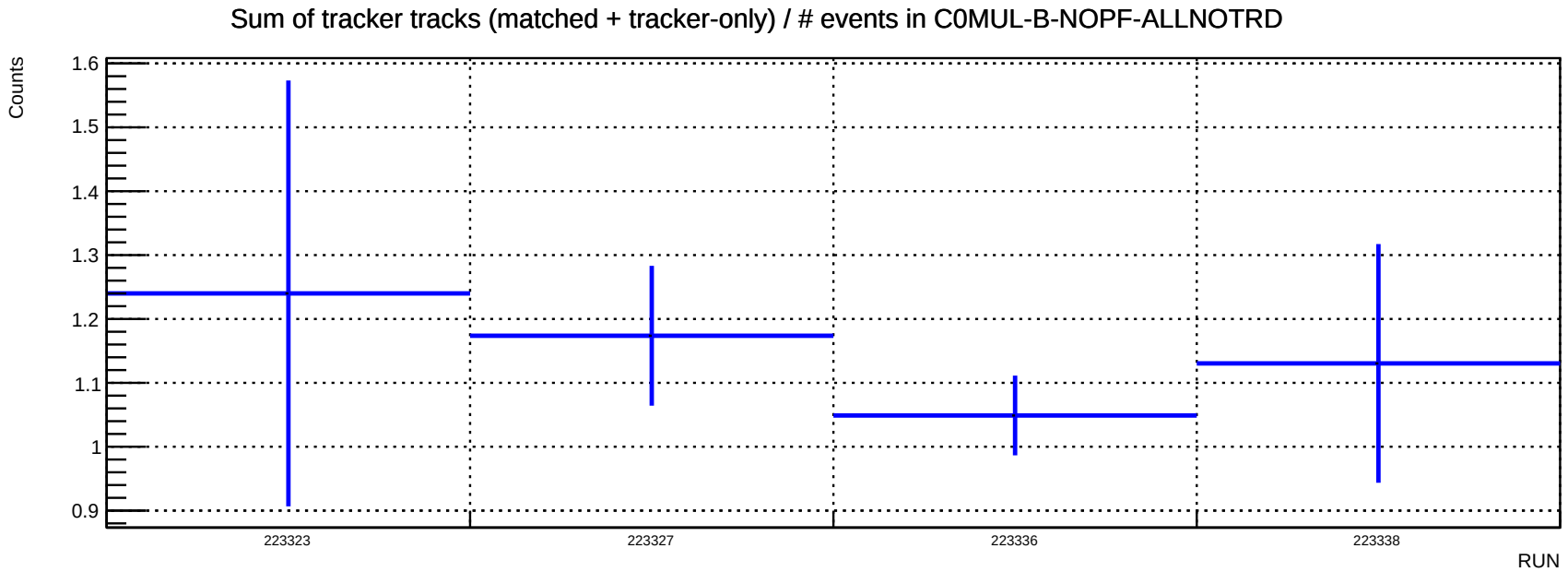


Muon tracks / event in C0MUL-B events

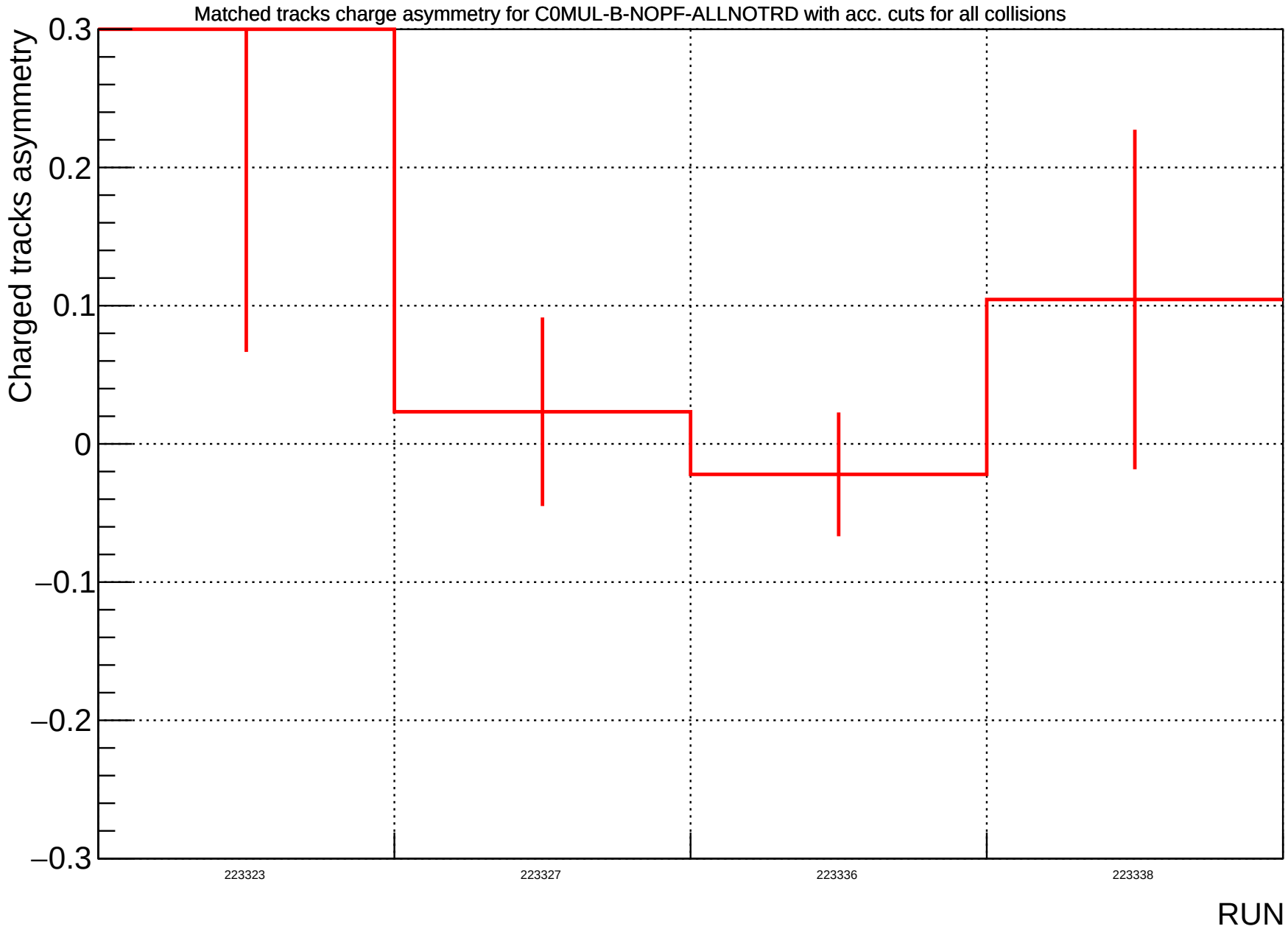


Muon tracker-trigger tracks / event in C0MUL-B events

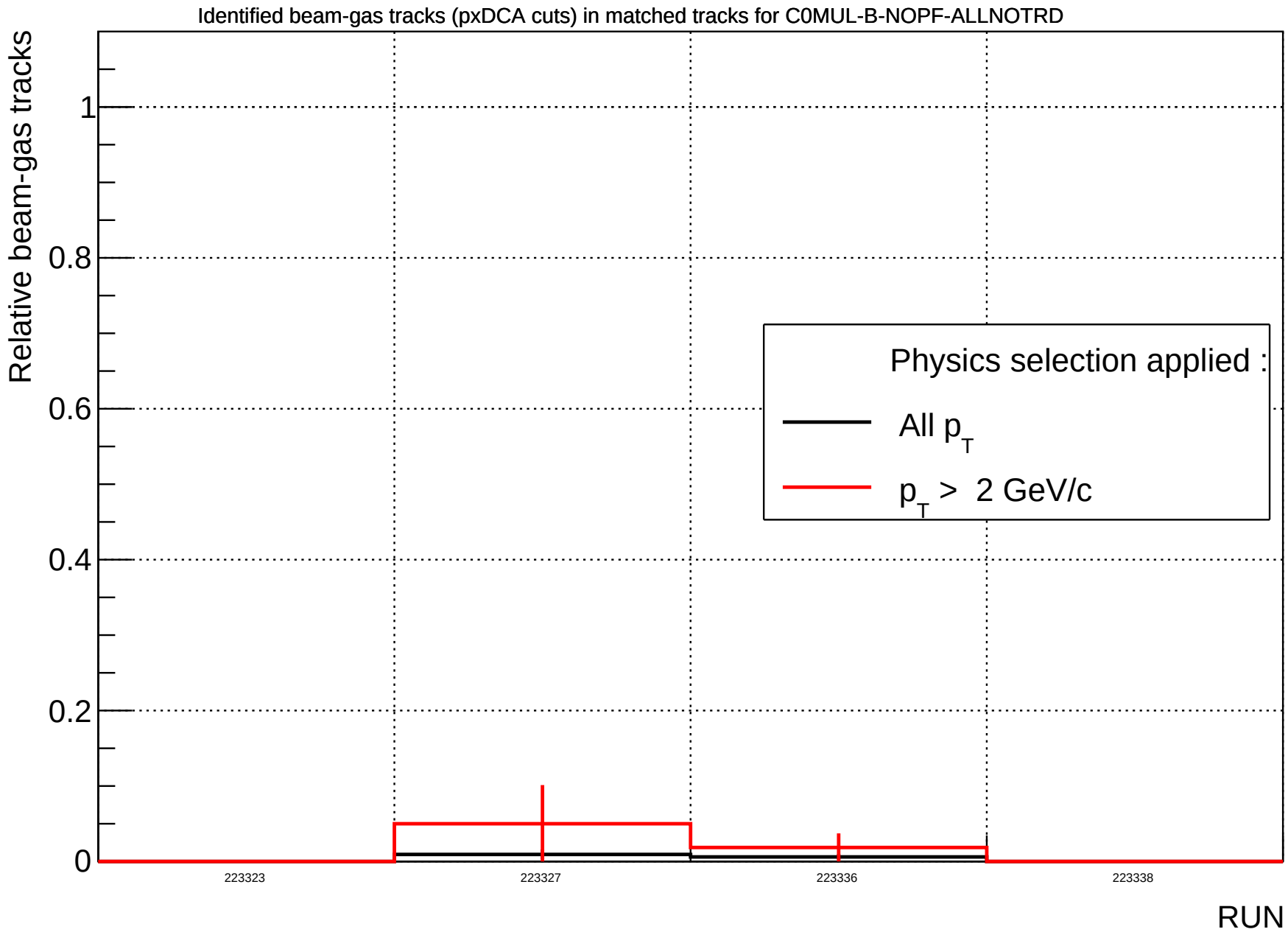




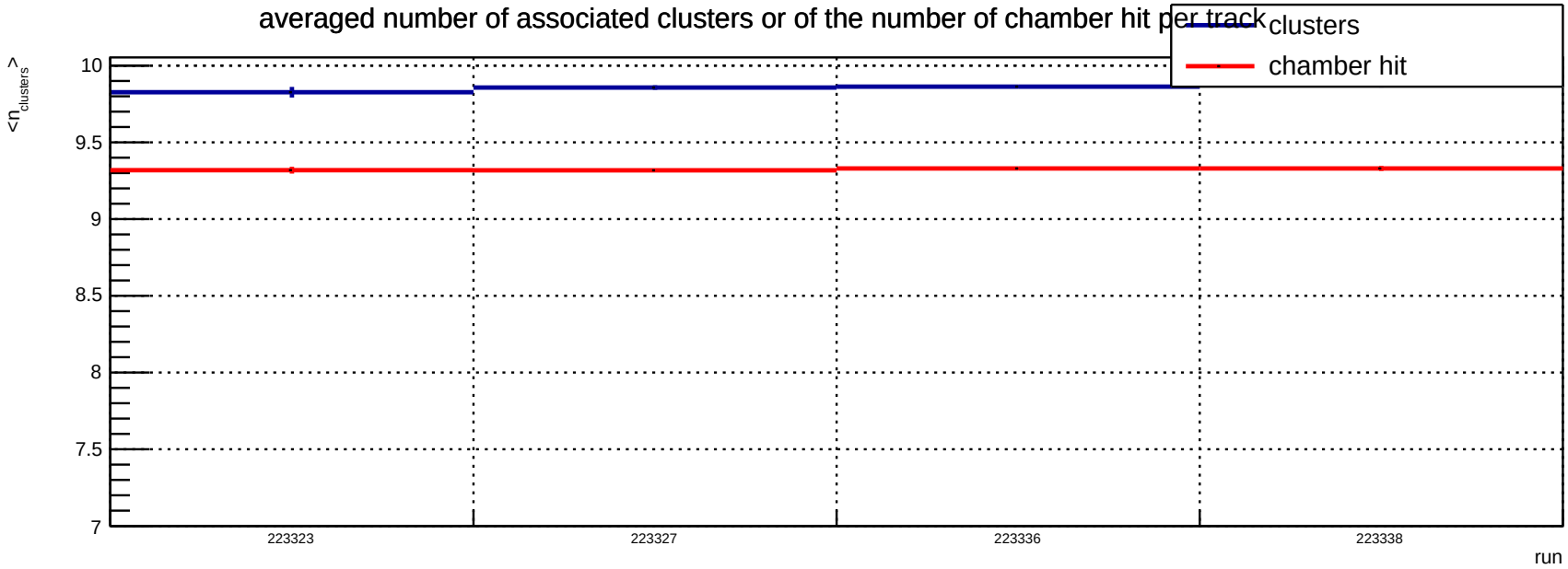
Charge asymmetry in C0MUL-B events

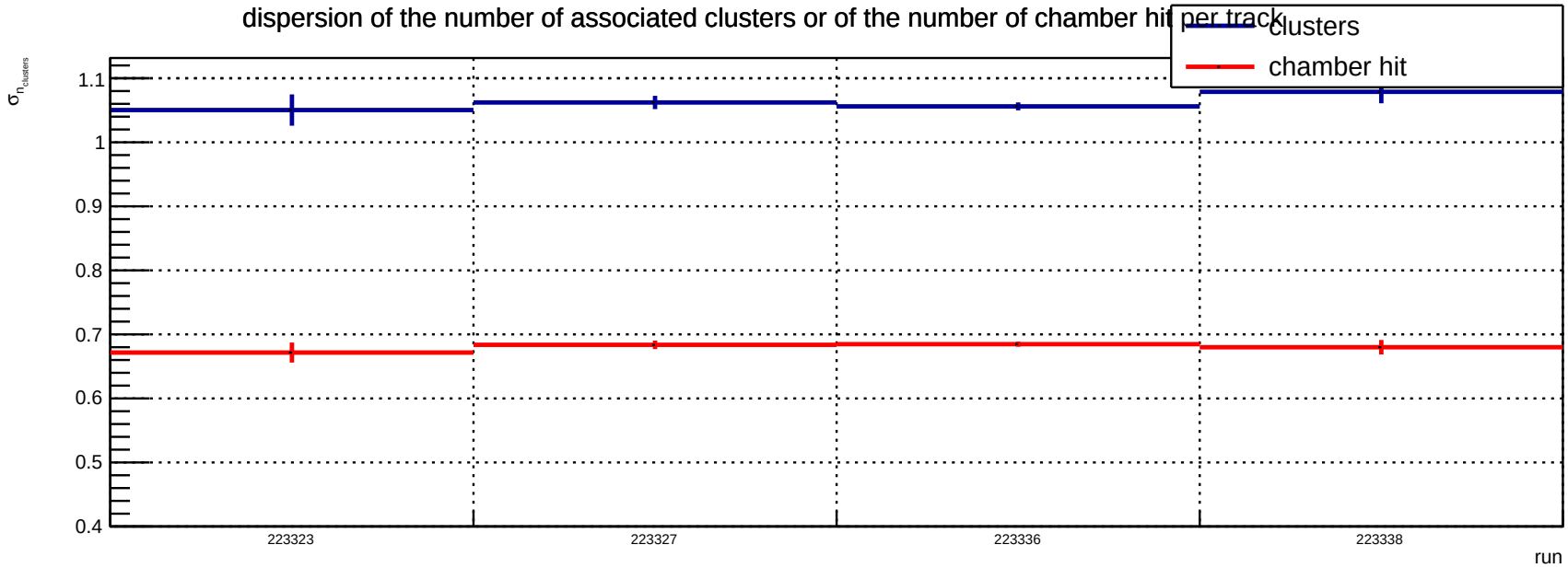


Rel. num. of beam-gas tracks (id. by p×DCA cuts) in C0MUL-B events

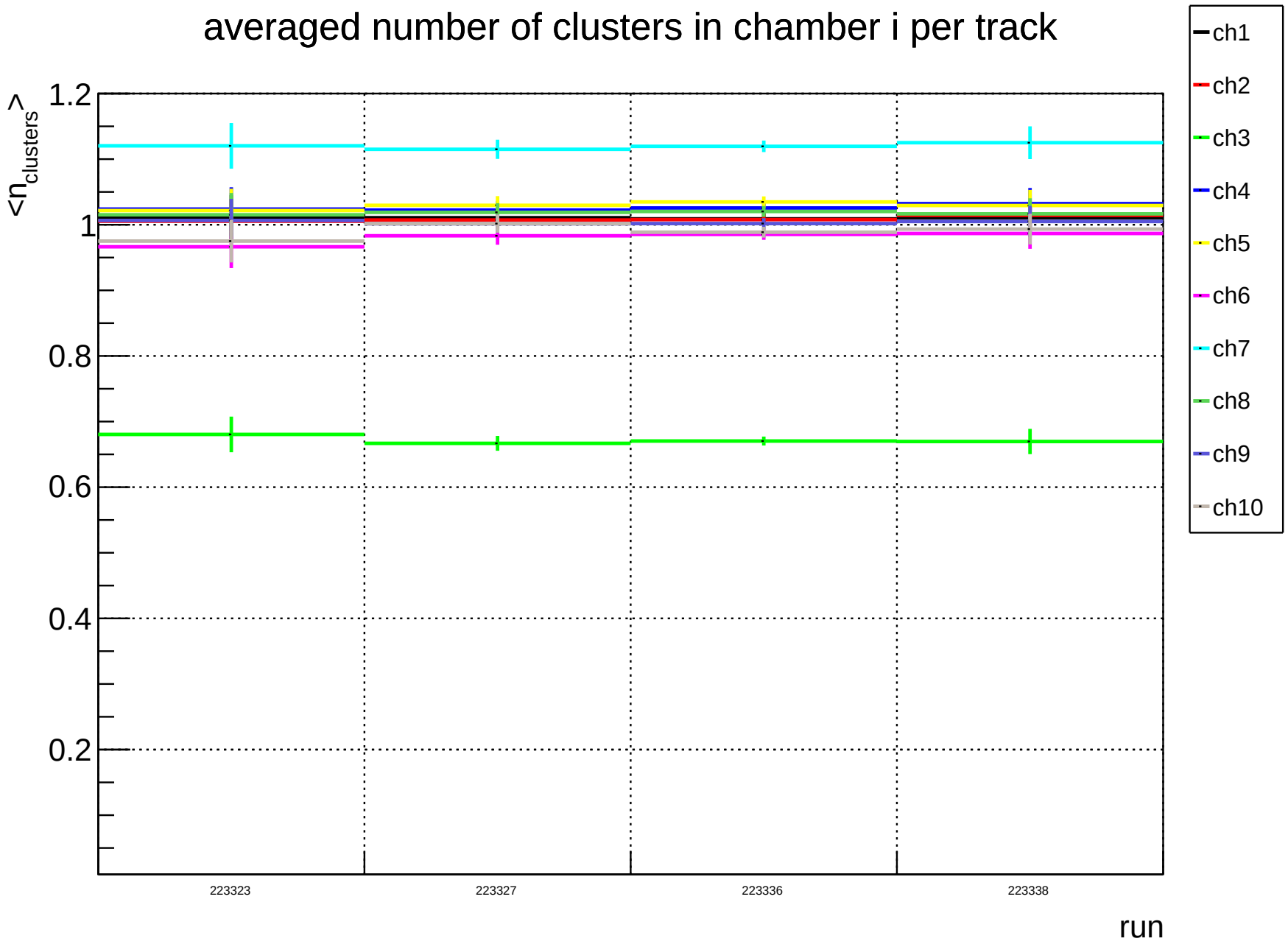


Average number of clusters per track and dispersion



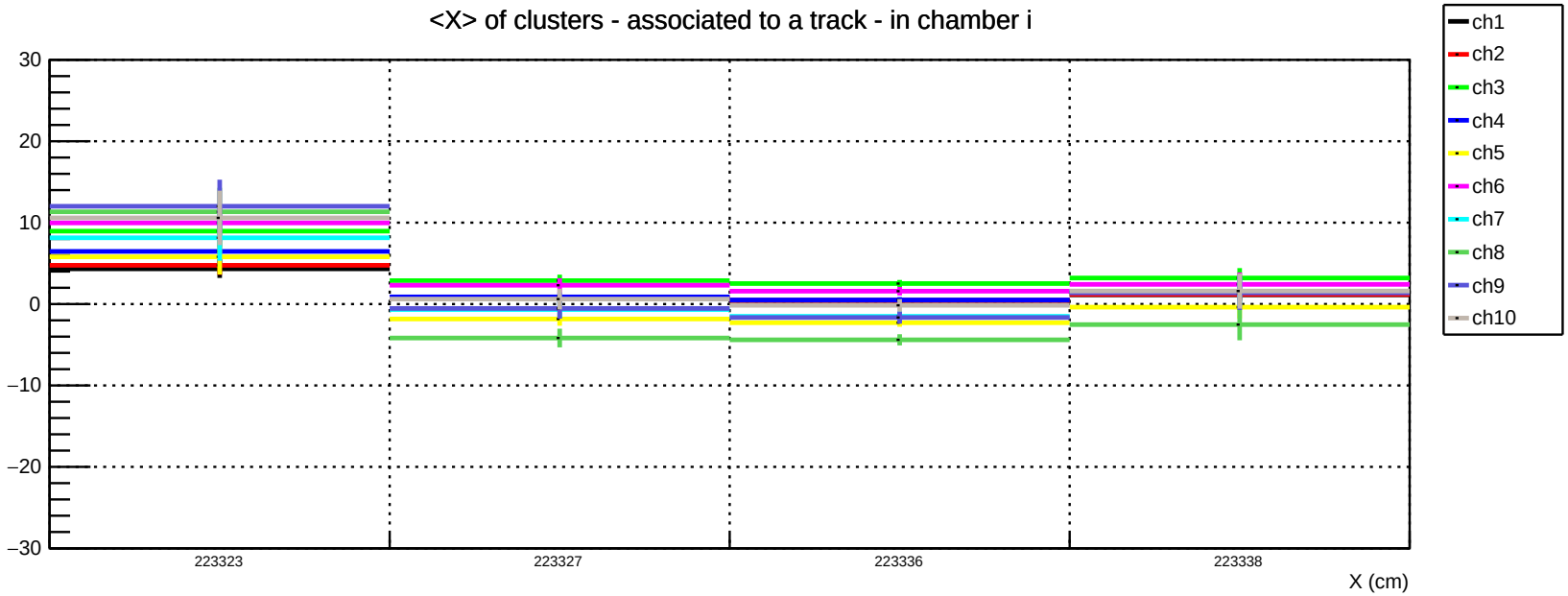


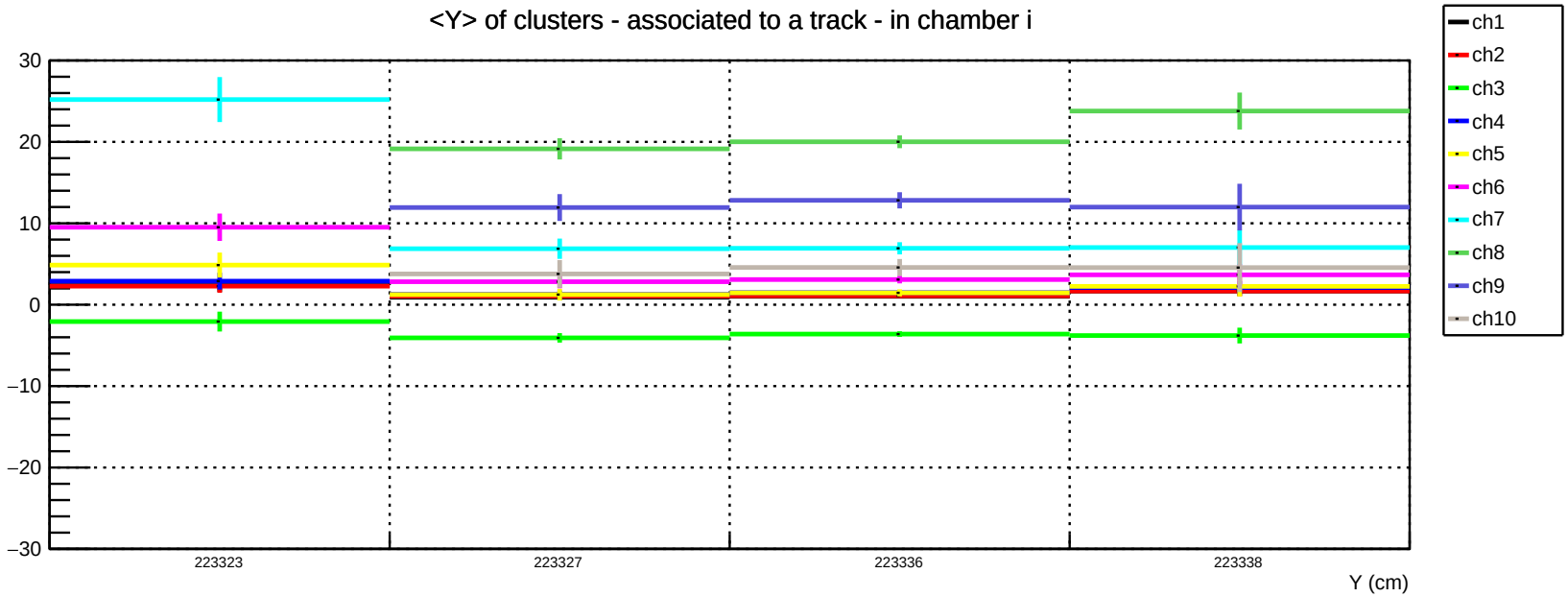
Average number of clusters per chamber



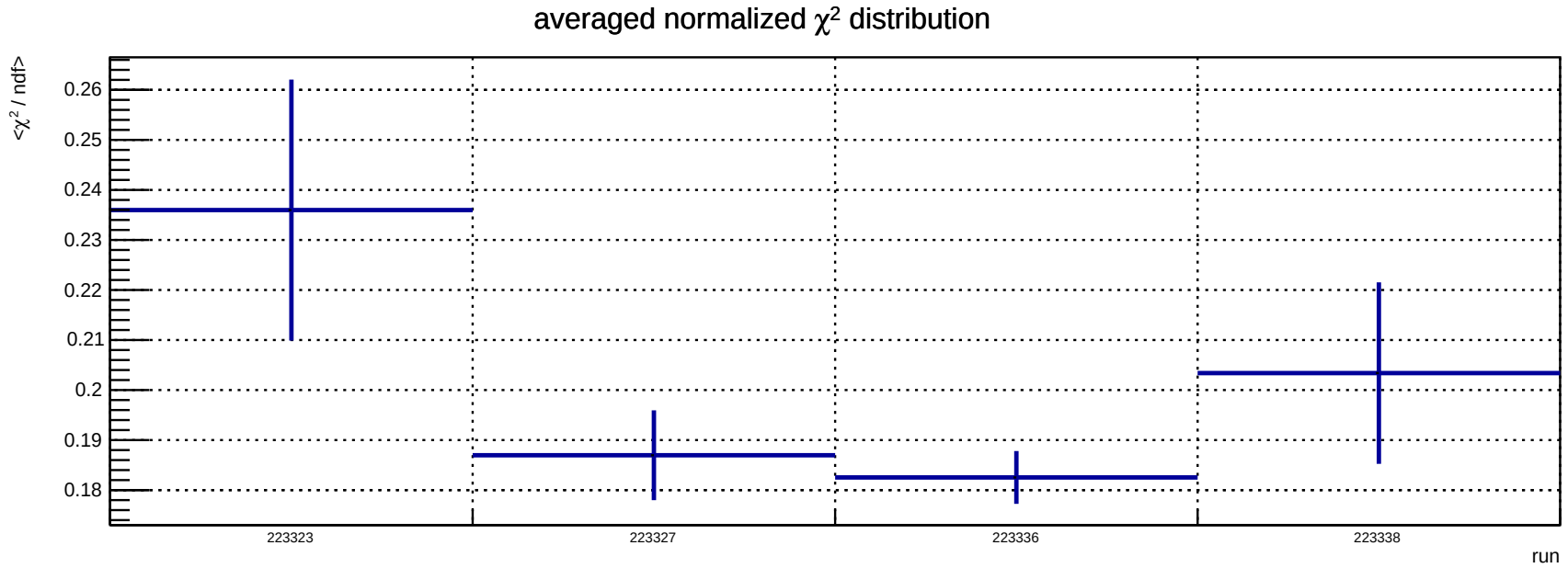
Backup slides

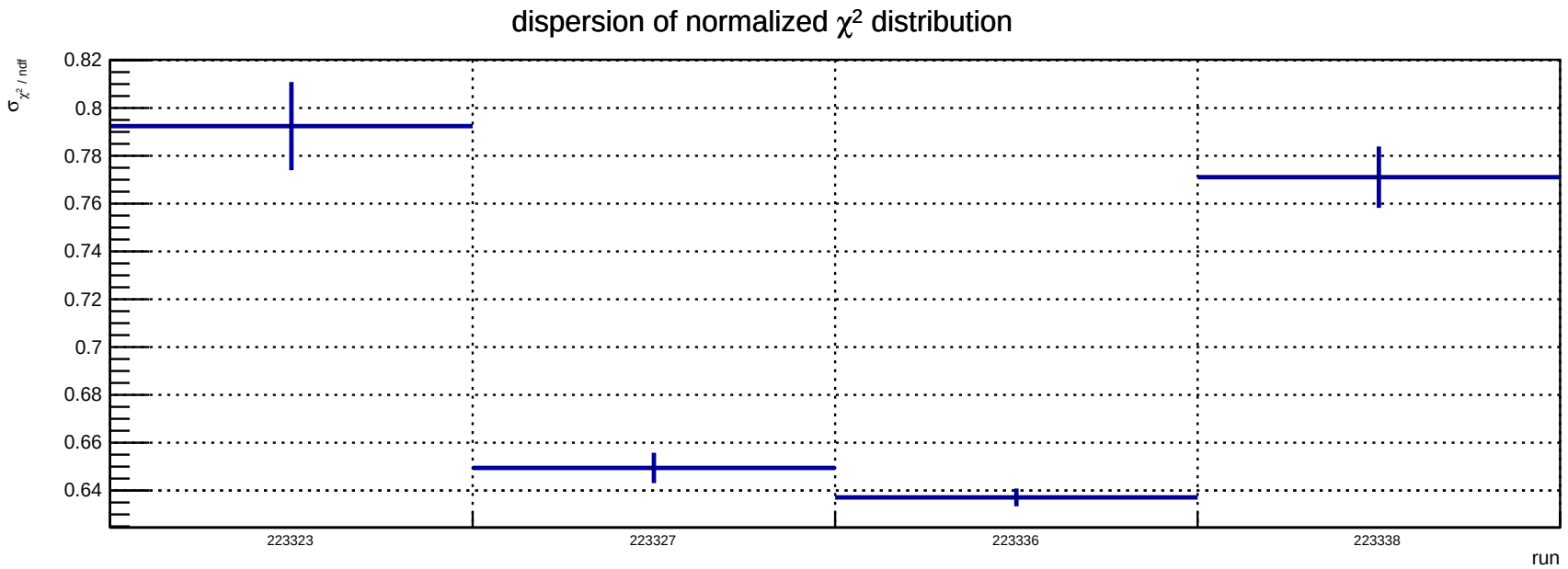
Average cluster position per chamber



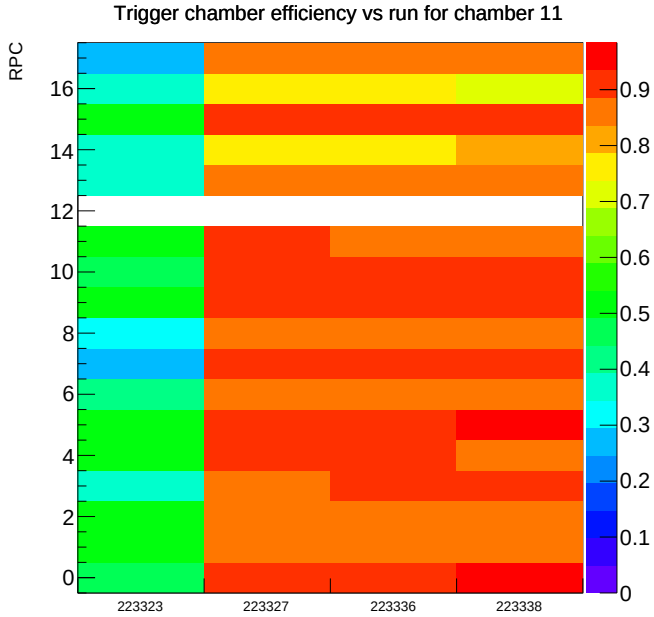


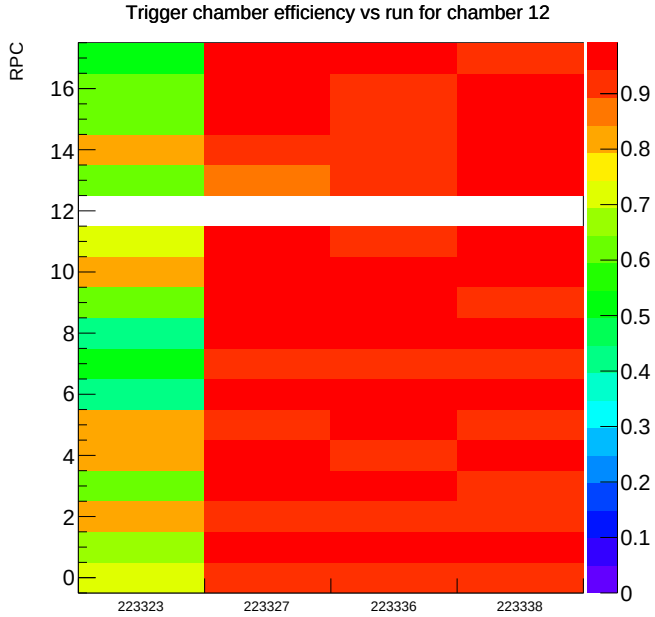
Tracking quality

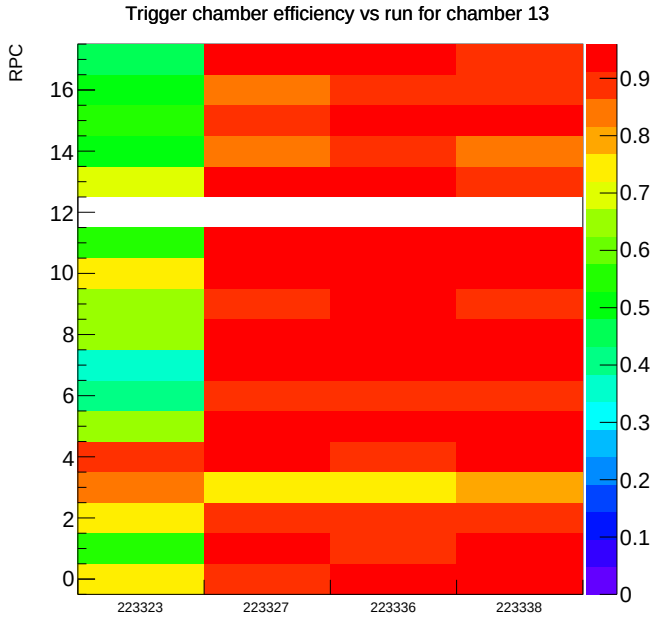


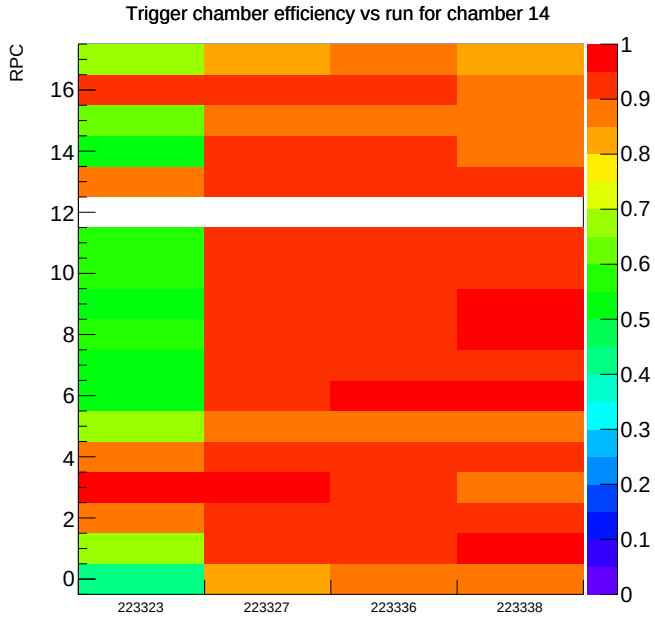


Trigger chamber efficiencies per RPC

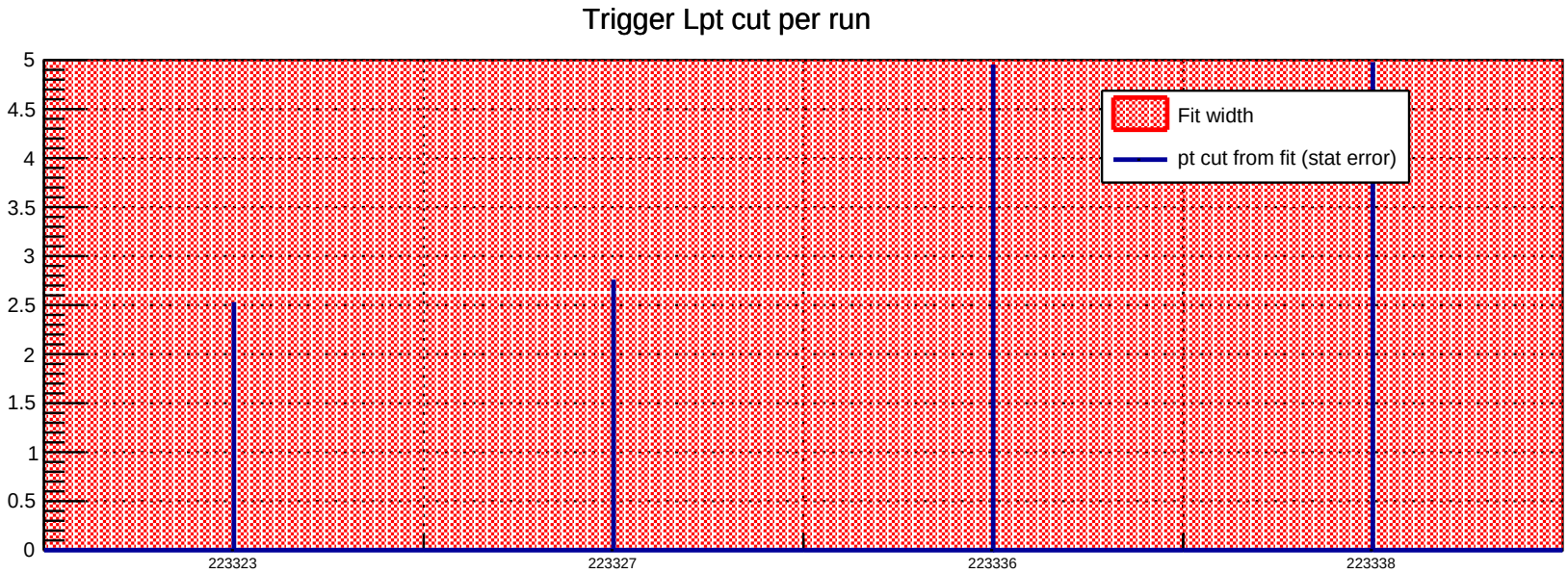


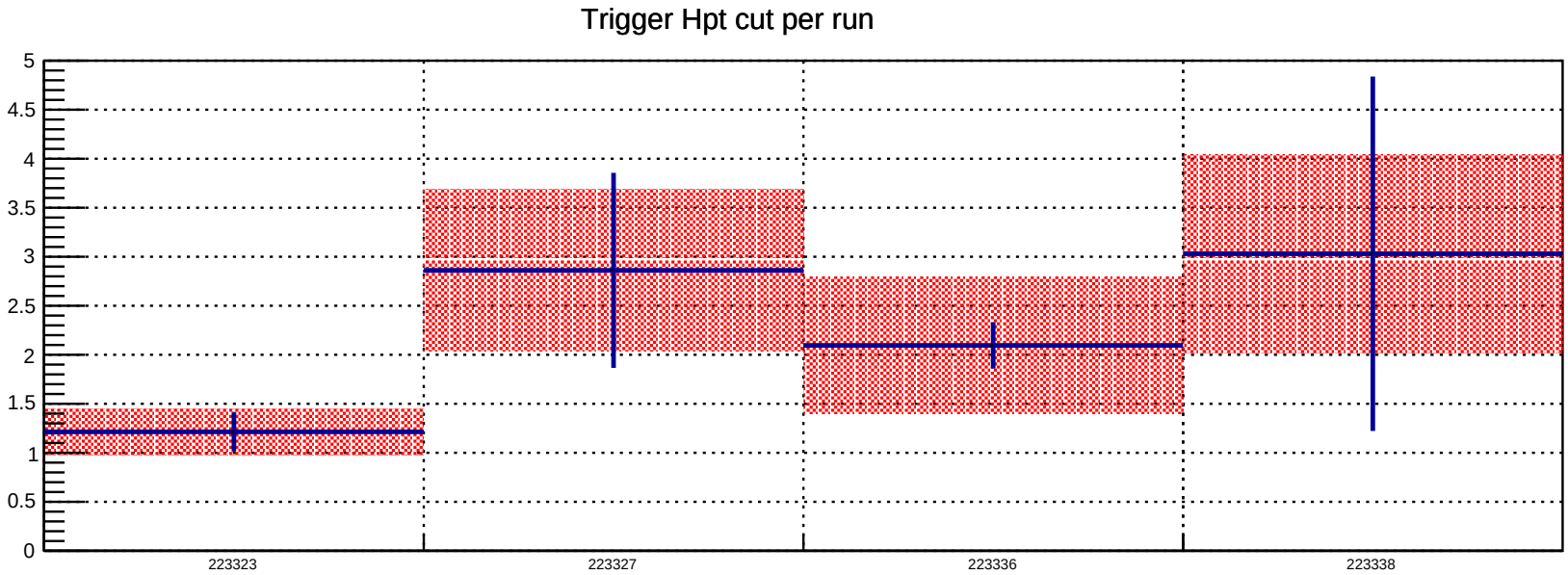






Trigger p_{T} cut





Hardware issues

MUON Trigger

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MUON tracker

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