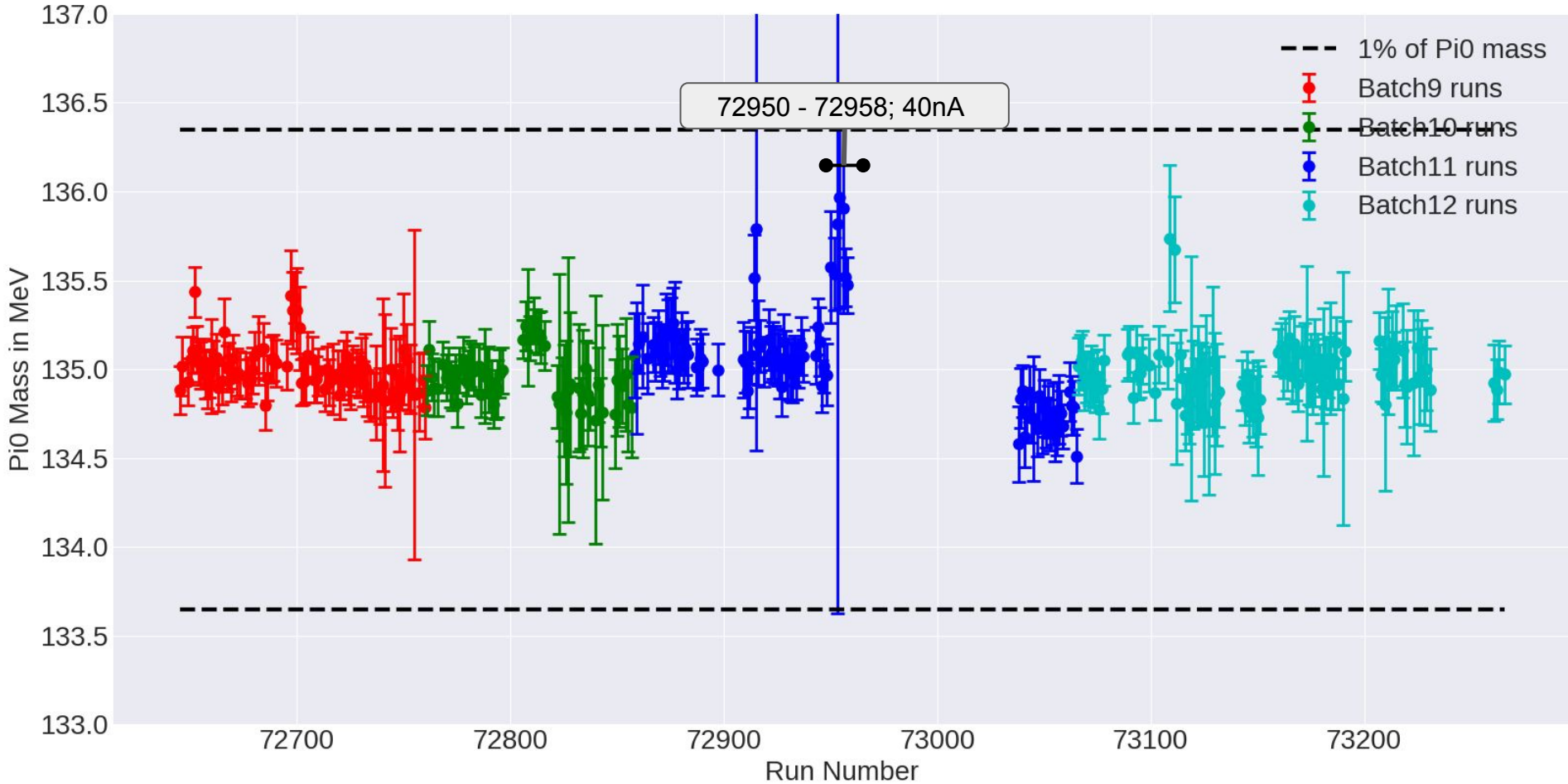
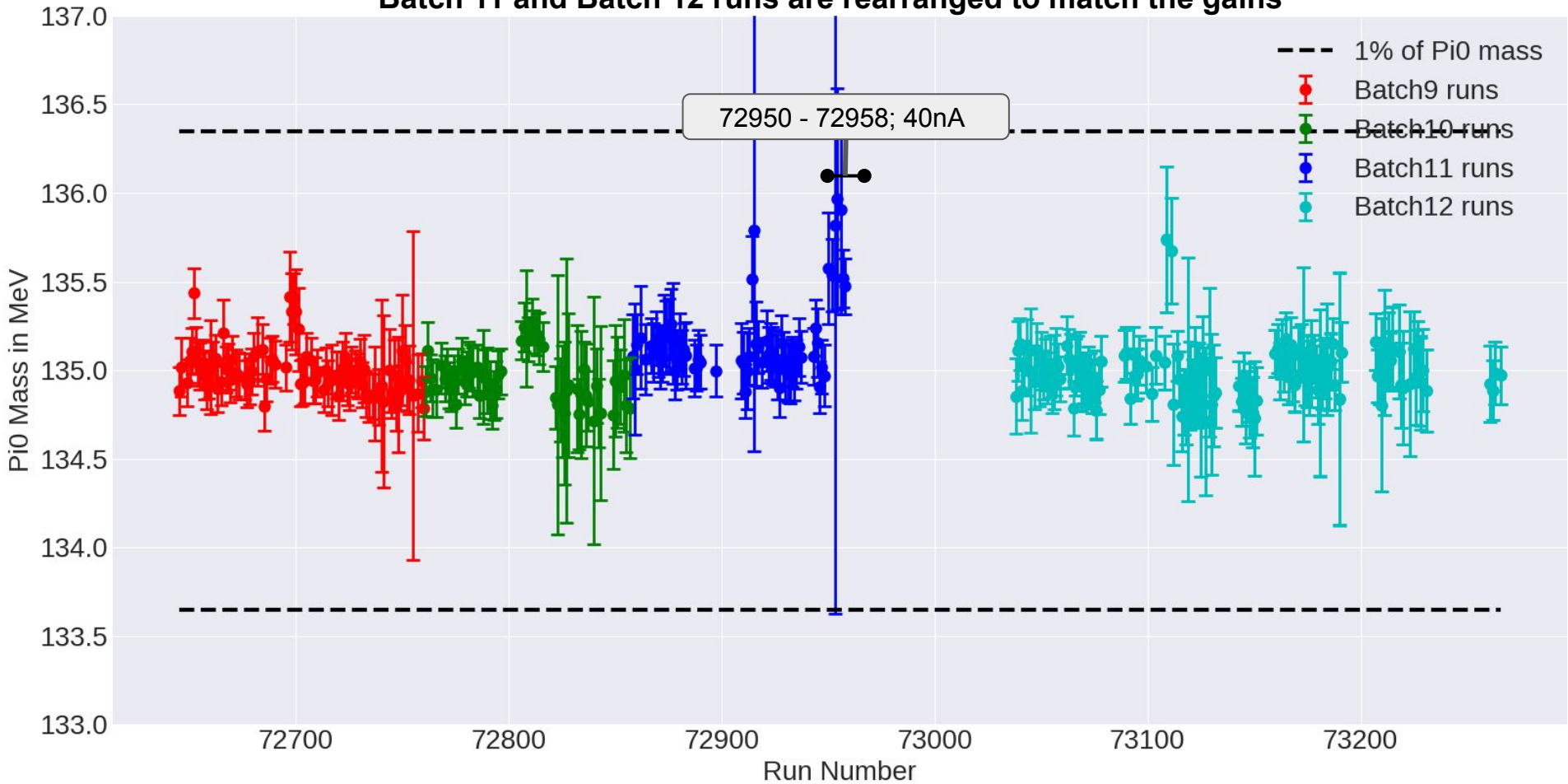


Pi0 Mass without nonlinear energy correction as a function of Run number for summer 2020



Pi0 Mass without nonlinear energy correction as a function of Run number for summer 2020
Batch 11 and Batch 12 runs are rearranged to match the gains



Runs

[72914](#) - beam_current 14.9426; beam_on_current 35.5866

[72915](#) - beam_current 17.4804; beam_on_current 34.7952

[72950](#) - [72958](#); current 40nA

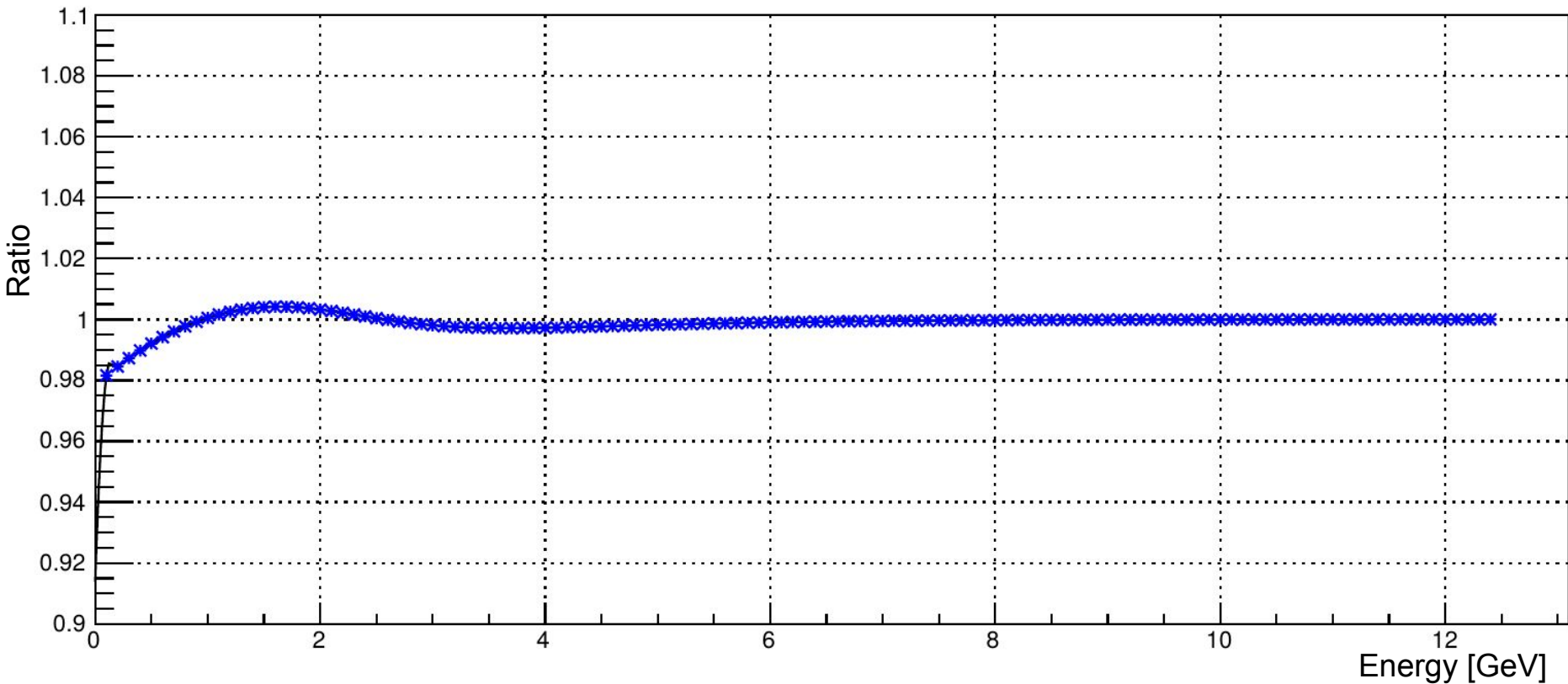
[73109](#) - beam_current 156.483; beam_on_current 348.663

[73111](#) - beam_current 311.34; beam_on_current 348.009

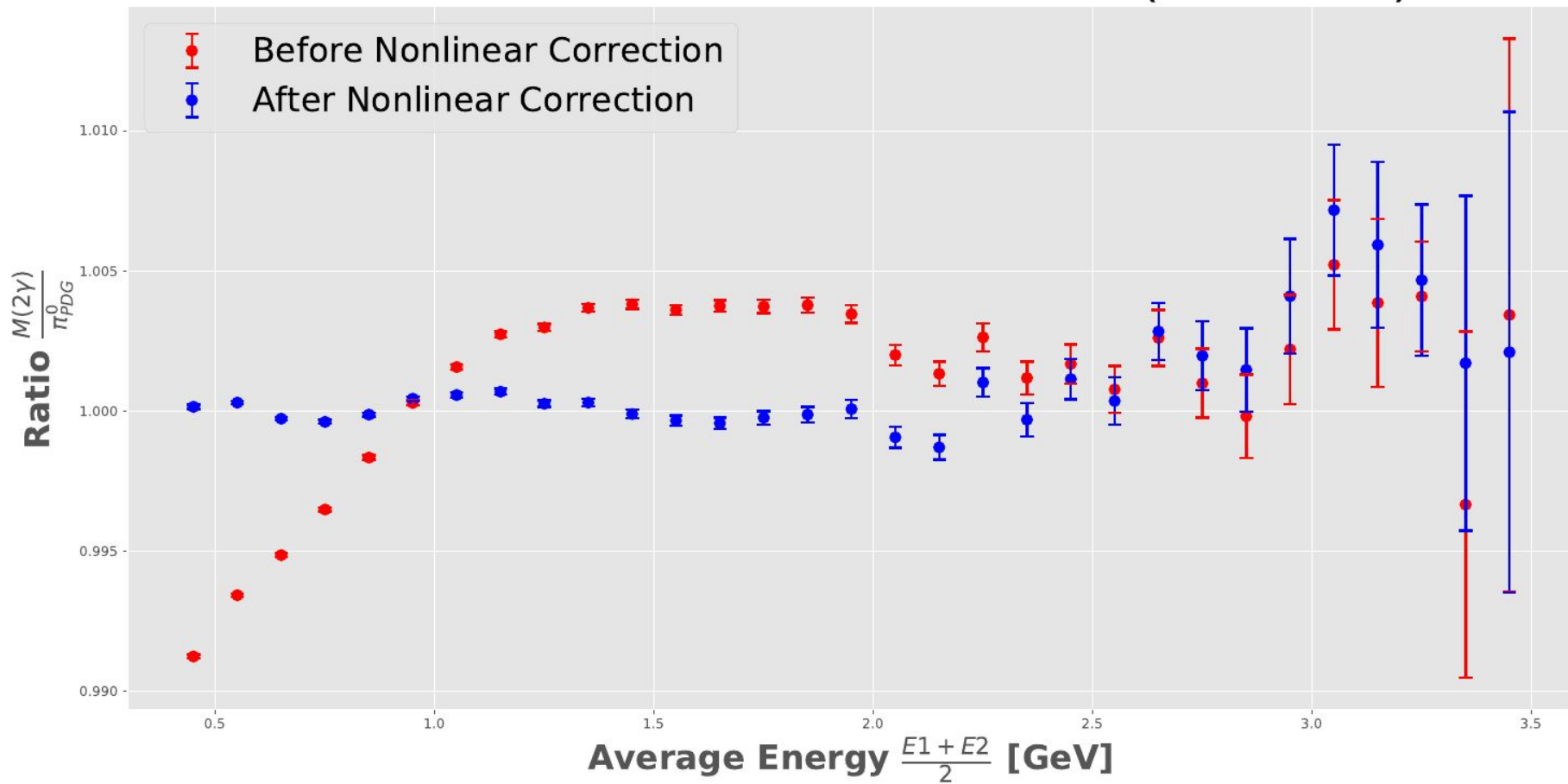
Nonlinear corrections

- Has a single correction throughout the run period
- Used ver02 (/cache/halld/RunPeriod-2019-11/calib/ver02/BCAL_pi0/) files for nonlinear corrections. Ver01 files has the tape issues
- Both the versions are similar. However, with a total of 6861 files about 1534 of them had issues (SWIF_USER_NONZERO) and files were not copied to cache
- Did the nonlinear calibration with the condition that the 2 photons showers satisfy the condition
 - $2*|E1 - E2|/(E1+E2) \leq 0.1$

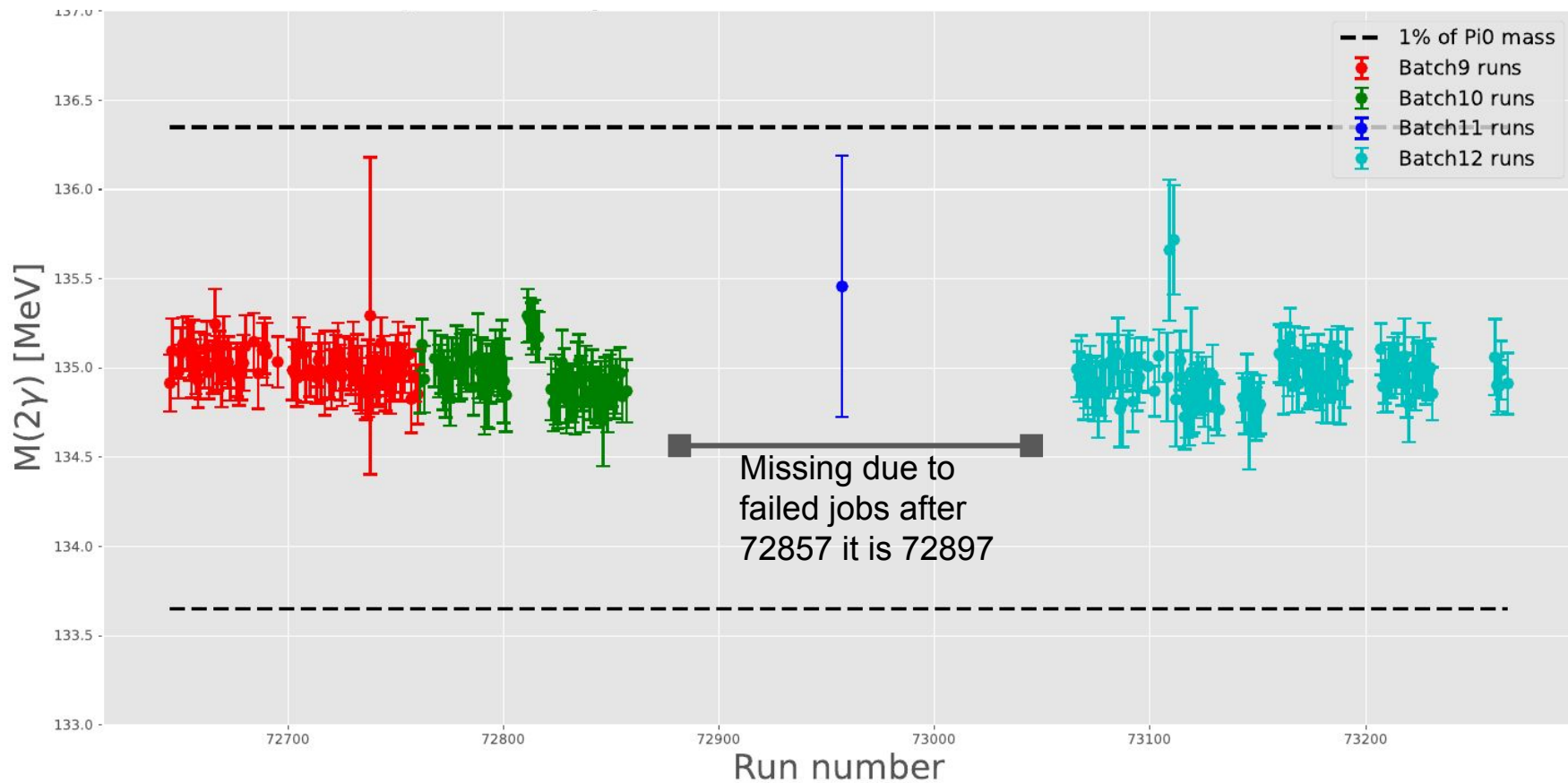
Nonlinear correction function anchored at 1 at 11 GeV

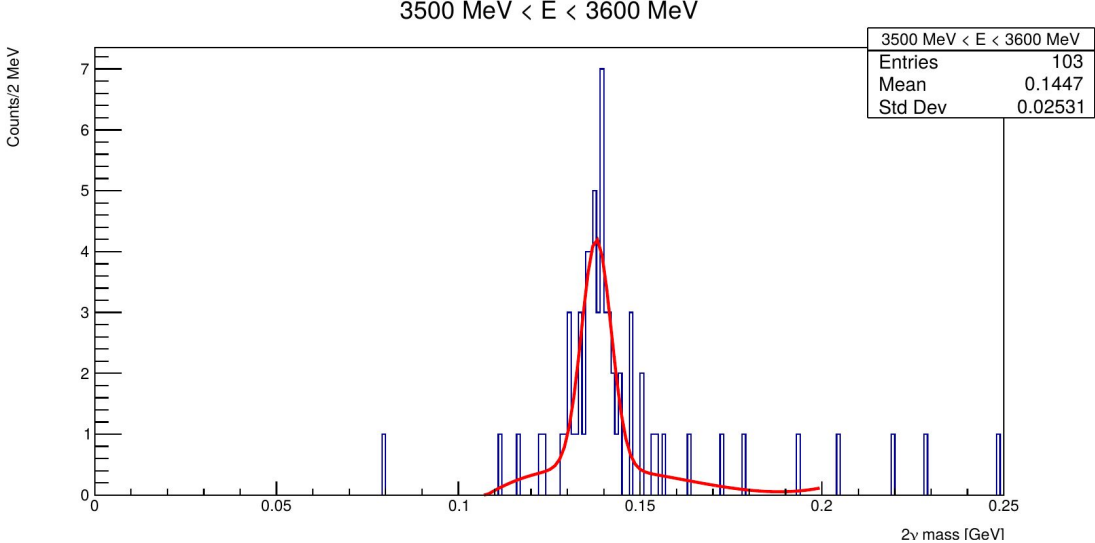


Nonlinear correction Summary



Looking into the pi0 values after nonlinear corrections





Low statistics

