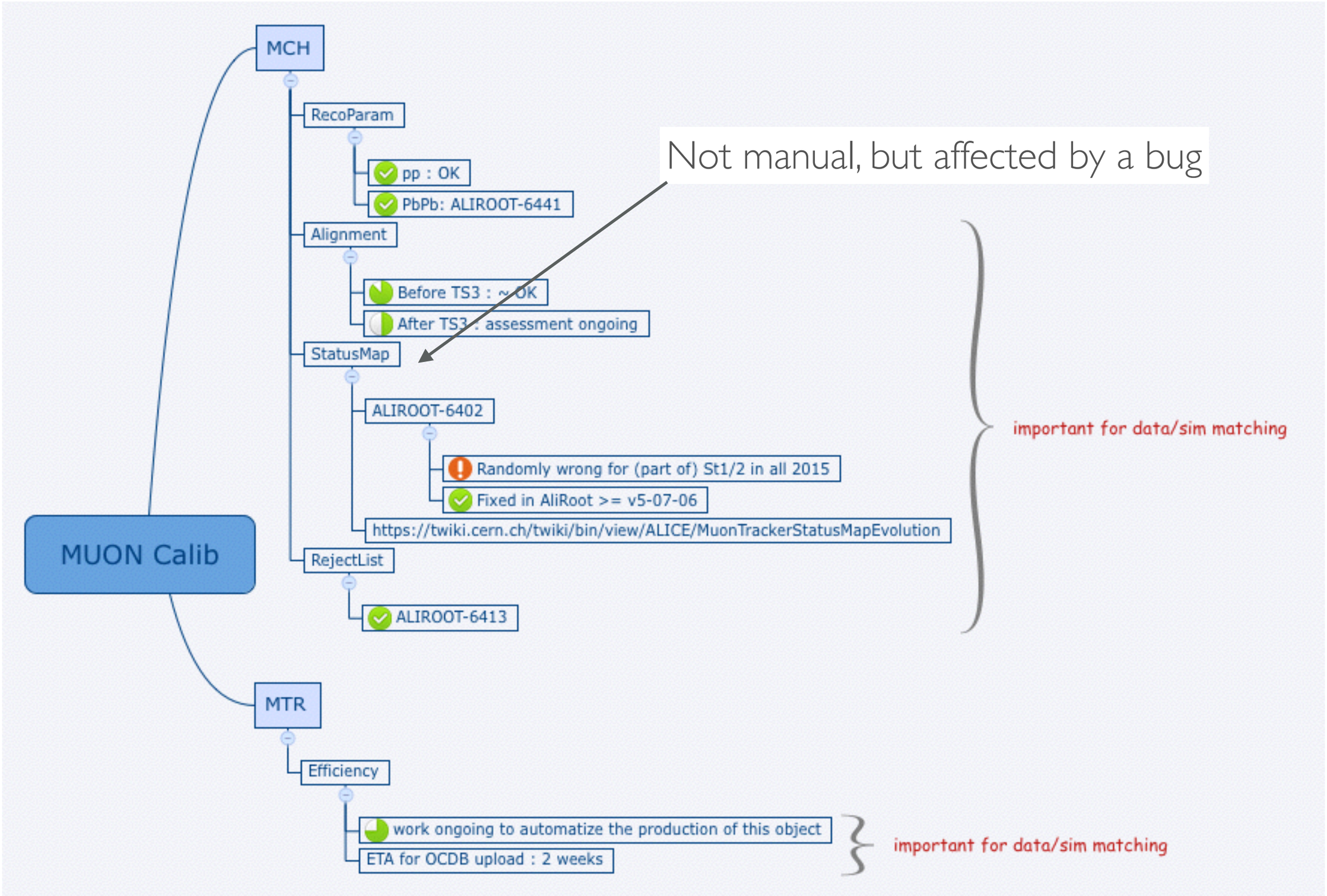
MUON CALIBRATION STATUS

L. Aphecetche

« Manual » « calibrations » for MUON



DATA SAMPLES

- pp 13 TeV : 2.8 pb^{-1} from muon_calo_pass1

- pp 5.02 TeV : 110 nb^{-1} from muon_calo_pass1

- PbPb : ready to start

pp 13 TeV will need 2nd reco pass for statusmap bug
pp 5 + PbPb : possibly refined alignment (reco or refit)

CHANGES IN 2016 ?

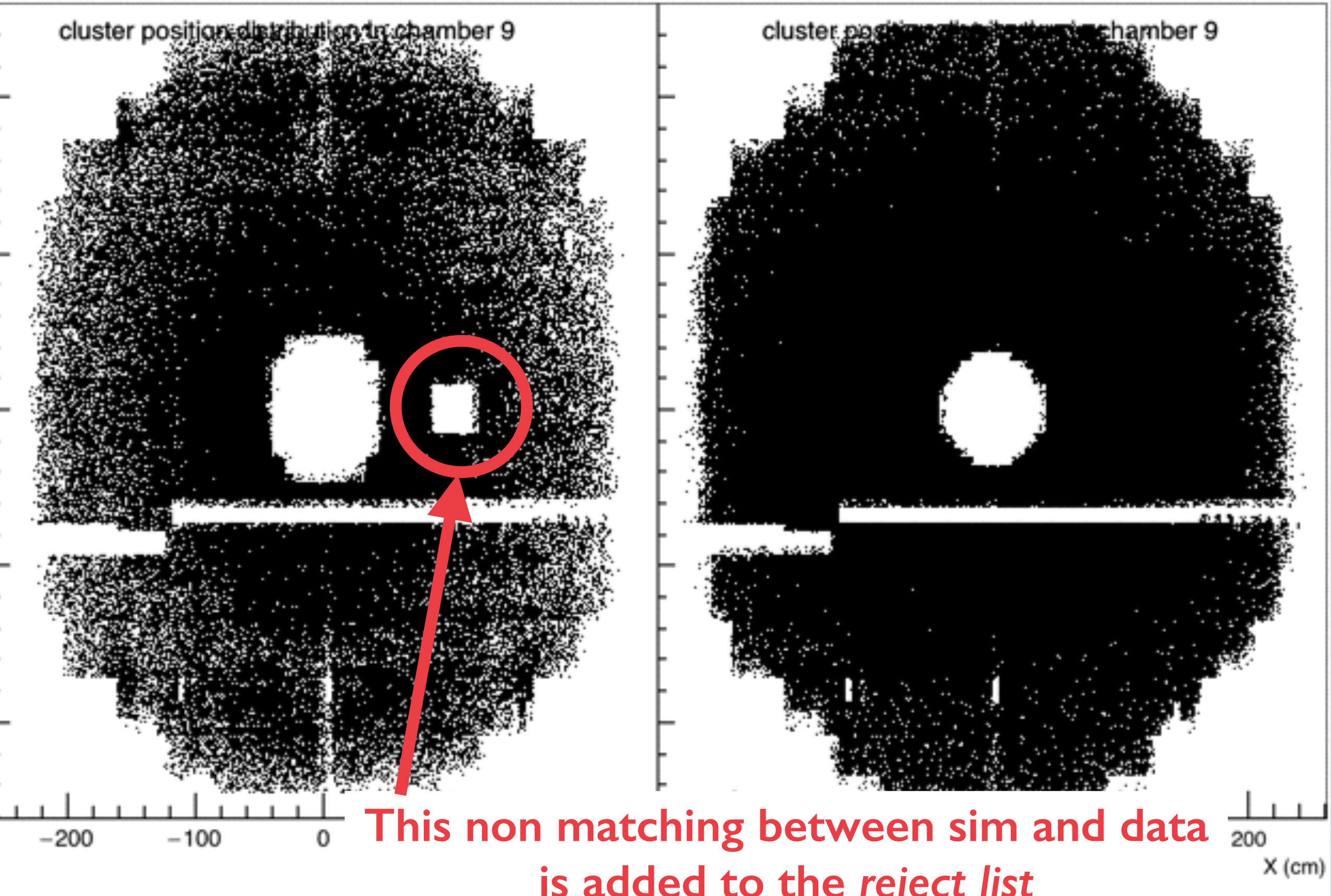
- pre-clustering in HLT ?
  - to get a « physics » monitoring of MCH
    - I know, I know, I keep saying that but it has not yet happened… Still in the plan though, but not mission critical
- add flags to ESDs and AODs to signal events where clustering or tracking aborted
  - might be important for ultra-central events

EXTRA

Data

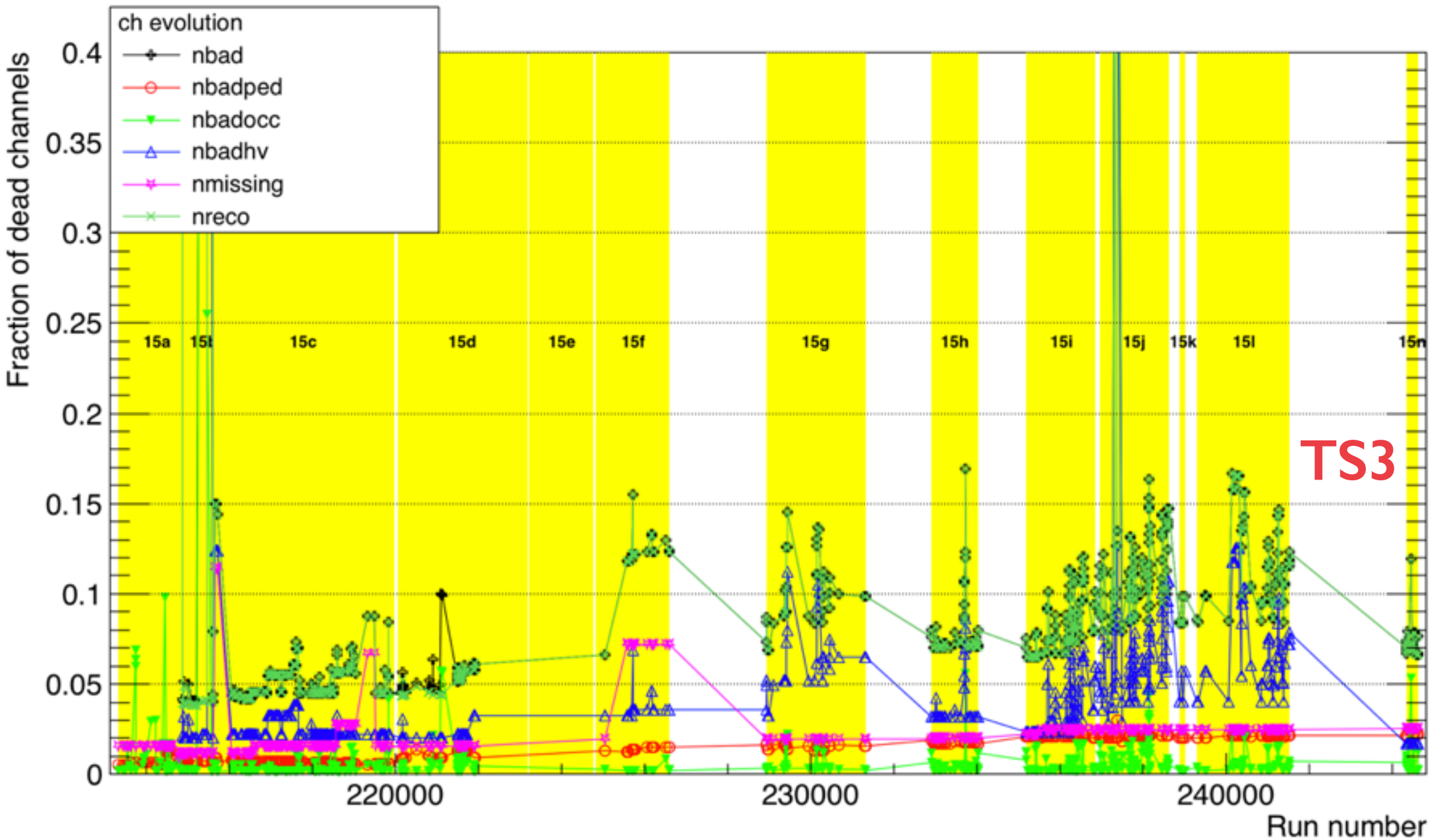
cluster map run 236150 ch9

Sim

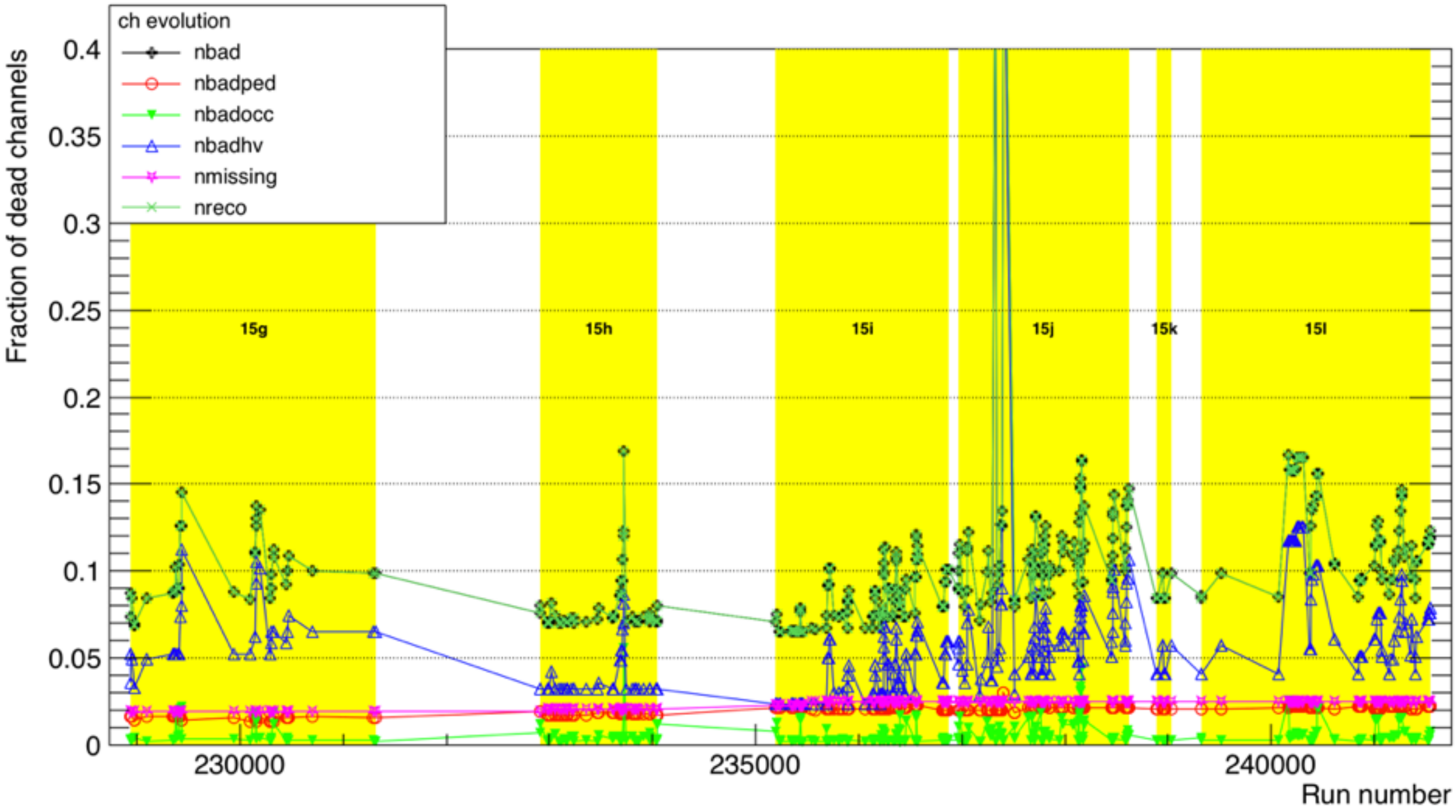


This non matching between sim and data is added to the *reject list*

Status map evolution 2015

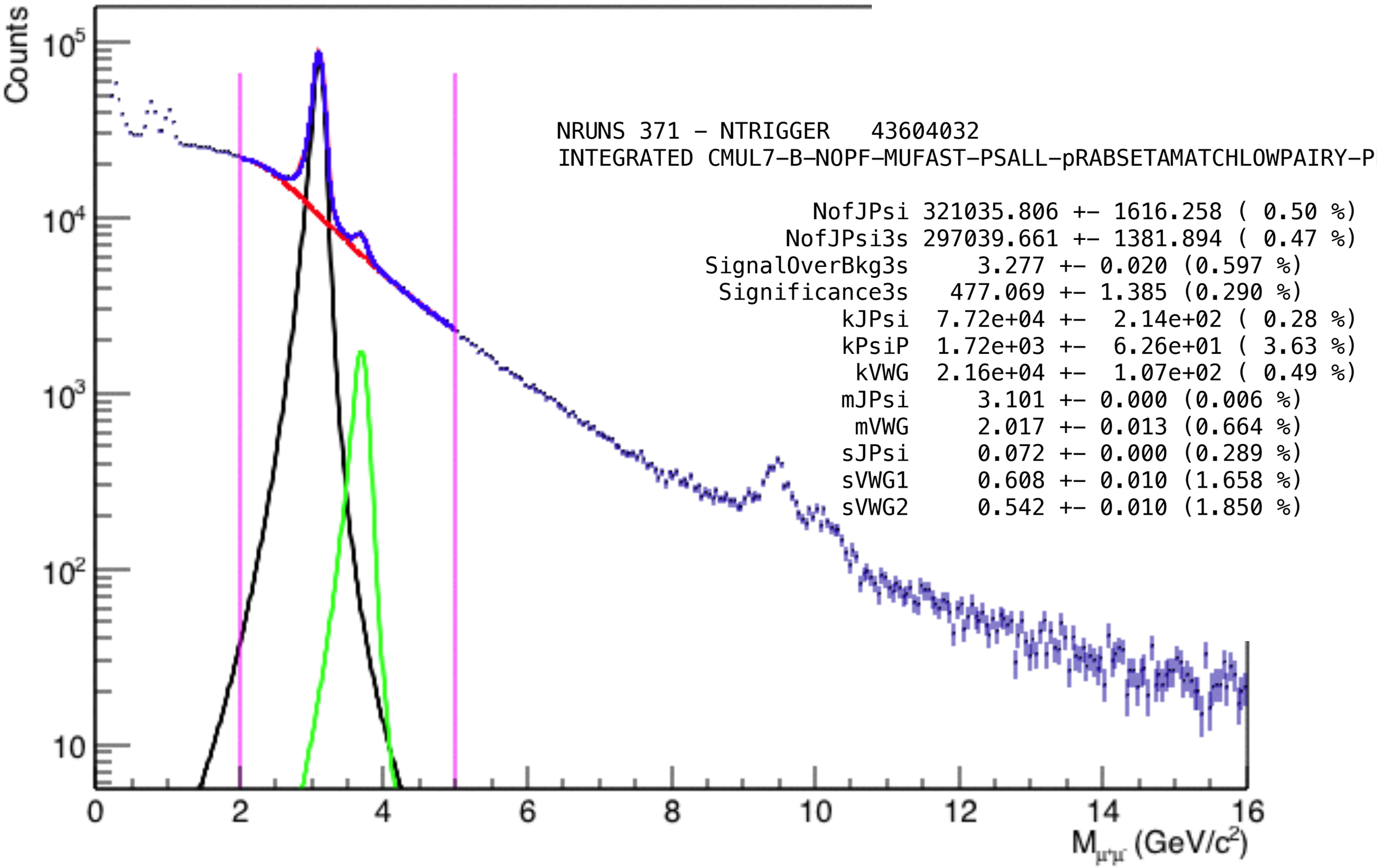


Status map evolution LHC15ghijkl 13 TeV

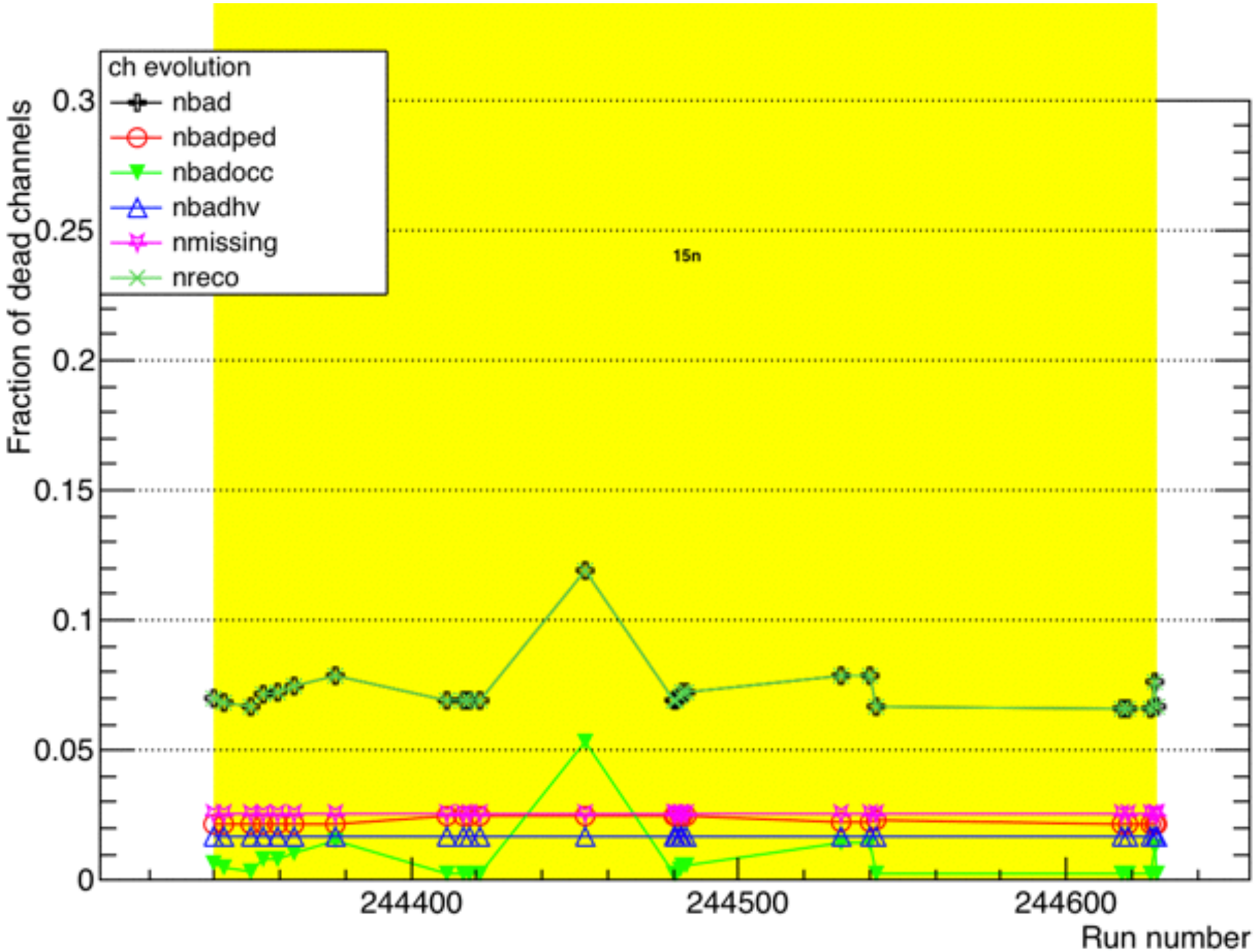


ijl ~ 2.6 pb^{-1}

LHC15ijl

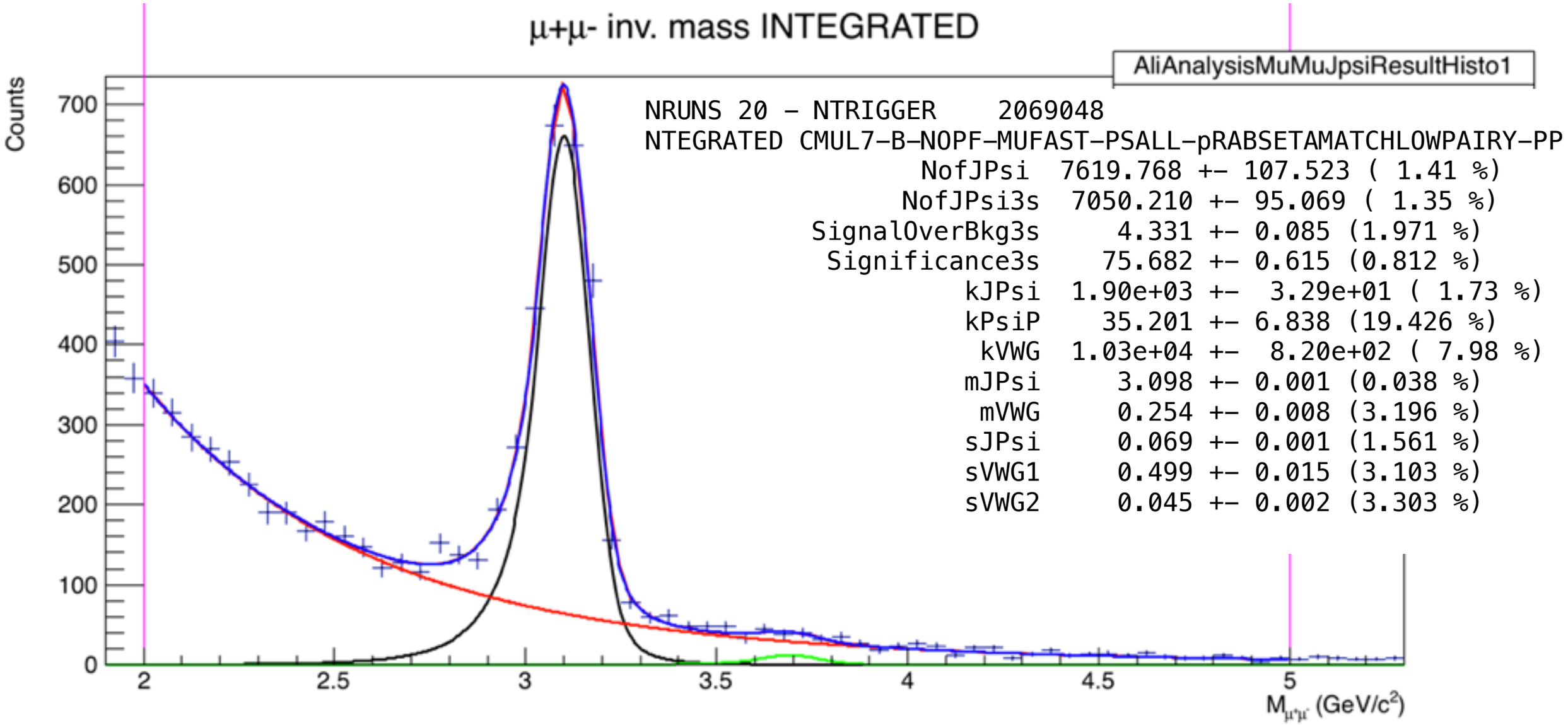

μ+μ- inv. mass INTEGRATED
Counts
10^5
10^4
10^3
10^2
10
0
2
4
6
8
10
12
14
16
$M_{\mu^+\mu^-}$ (GeV/c^2)
NRUNS 371 - NTRIGGER 43604032
INTEGRATED CMUL7-B-NOPF-MUFAST-PSALL-pRABSETAMATCHLOWPAIRY-PP
NofJPsi 321035.806 +- 1616.258 (0.50 %)
NofJPsi3s 297039.661 +- 1381.894 (0.47 %)
SignalOverBkg3s 3.277 +- 0.020 (0.597 %)
Significance3s 477.069 +- 1.385 (0.290 %)
kJPsi 7.72e+04 +- 2.14e+02 (0.28 %)
kPsiP 1.72e+03 +- 6.26e+01 (3.63 %)
kVWG 2.16e+04 +- 1.07e+02 (0.49 %)
mJPsi 3.101 +- 0.000 (0.006 %)
mVWG 2.017 +- 0.013 (0.664 %)
sJPsi 0.072 +- 0.000 (0.289 %)
sVWG1 0.608 +- 0.010 (1.658 %)
sVWG2 0.542 +- 0.010 (1.850 %)

Status map evolution LHC15n pp 5.02 TeV



n ~ 110 nb^{-1}

LHC15n


μ+μ- inv. mass INTEGRATED
AliAnalysisMuMuJpsiResultHisto1
NRUNS 20 - NTRIGGER 2069048
NTEGRATED CMUL7-B-NOPF-MUFAST-PSALL-pRABSETAMATCHLOWPAIRY-PP
NofJPsi 7619.768 +- 107.523 (1.41 %)
NofJPsi3s 7050.210 +- 95.069 (1.35 %)
SignalOverBkg3s 4.331 +- 0.085 (1.971 %)
Significance3s 75.682 +- 0.615 (0.812 %)
kJPsi 1.90e+03 +- 3.29e+01 (1.73 %)
kPsiP 35.201 +- 6.838 (19.426 %)
kVWG 1.03e+04 +- 8.20e+02 (7.98 %)
mJPsi 3.098 +- 0.001 (0.038 %)
mVWG 0.254 +- 0.008 (3.196 %)
sJPsi 0.069 +- 0.001 (1.561 %)
sVWG1 0.499 +- 0.015 (3.103 %)
sVWG2 0.045 +- 0.002 (3.303 %)
Counts
700
600
500
400
300
200
100
0
2
2.5
3
3.5
4
4.5
5
$M_{\mu\mu}$ (GeV/c^2)