

Update distribution en x_E

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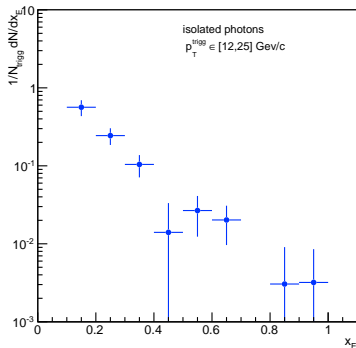
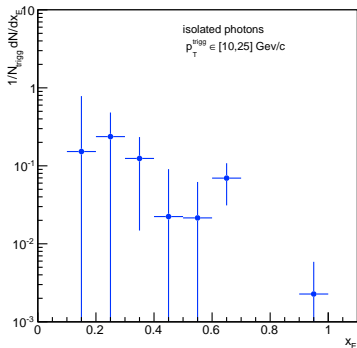
To do after the last meeting

- Do again the x_E distribution for $p_T^{trig} \in [10,25]$ GeV/c without α_{corr}
- Compare the LHC11 and LHC13 distributions for data without cut on leading hadron
- See what is the contribution of UE vs isolated clusters

Items I would like to discuss

- Good vs All ratio are different for the three contributions \rightarrow links with the deviation in QA?
- Errors assessment for the isolated photons x_E distribution
- Compare the slope for different bins in p_T^{trigg} \rightarrow compare with pp

x_E distribution for isolated photons in $[10,25]$ GeV/c



huge error bars in $[10,25]$ GeV/c still without α_{corr} \rightarrow to compare to pp we have to check if the slope doesn't change with p_T^{trig} (see below)

Compare the LHC11 and LHC13 without cut on leading hadron

Here, I'm lost with the good data to use for LHC11 → I have three dataset and none has the same number of events.

LHC11 13 Apr 24 : 2918154 events

LHC11 13 Apr 29 all : 3420172

LHC11 14 Mar 18 : 2405718

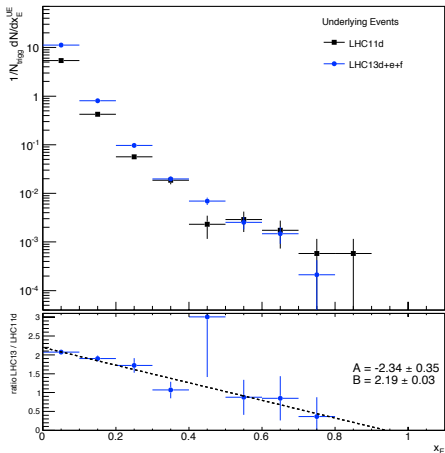
LHC11 NoCut : 3413516

→ I compare 13 Apr 29 and NoCut

Compare the LHC11 and LHC13 without cut on leading hadron

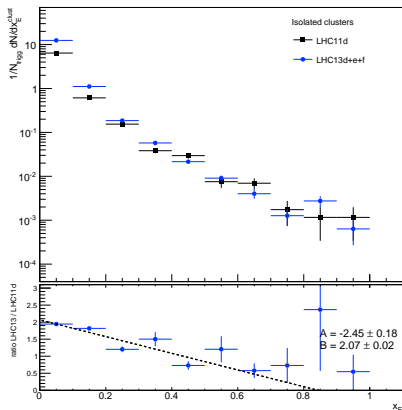
x_E distribution for UE

We don't see the factor 2 anymore \rightarrow I think it's weird the factor change depending on the data

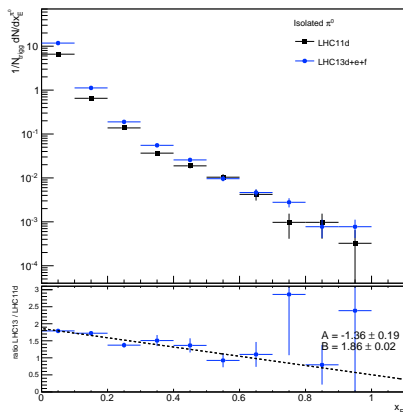


Compare the LHC11 and LHC13 without cut on leading hadron

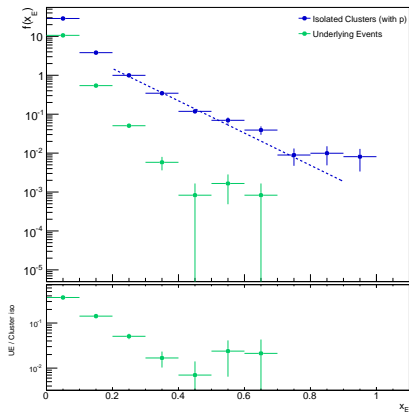
x_E distribution for clusters



x_E distribution for π^0



contribution of UE vs isolated clusters

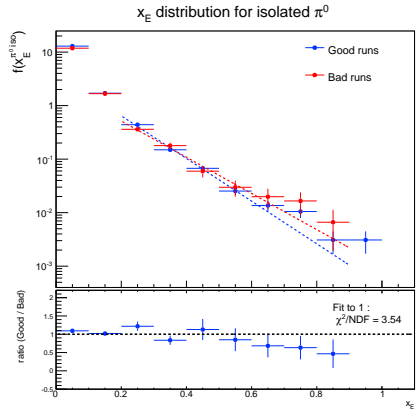
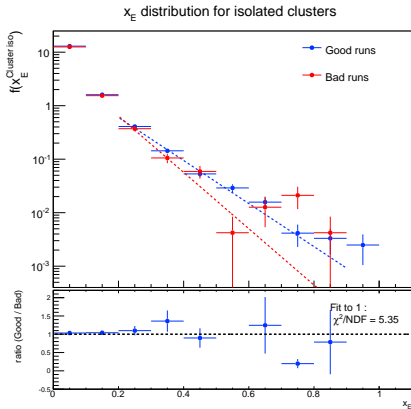


UE is negligible beyond $x_E = 0.4$

Do this for the question of the UE subtraction

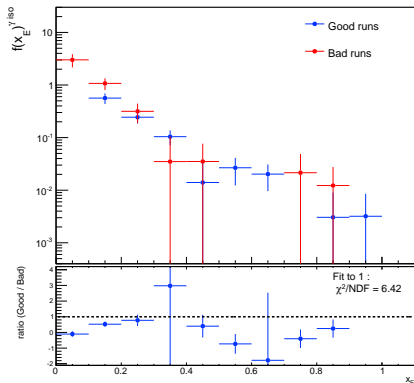
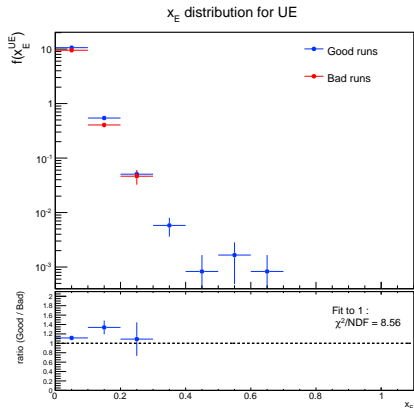
Good vs All ratio

The deviation from 1 of the ratio changes



Pay attention : slope not compatible doesn't mean non compatible distribution

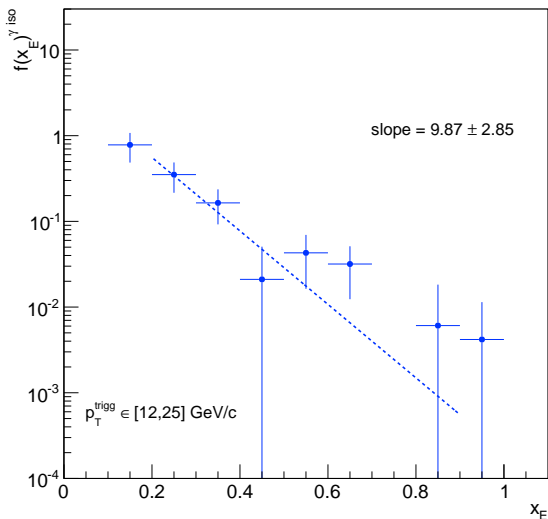
Good vs All ratio



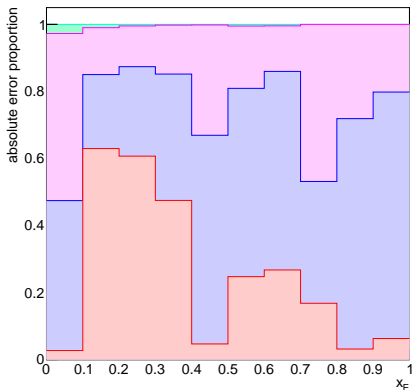
→ could be interesting for the QA because it shows that the bad runs are worse for UE than for cluster and π^0

isolated photons x_E distributions

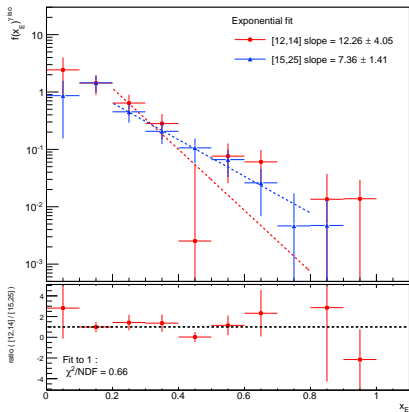
Take into account α_{corr} (add 30% because we use LHC11 α_{corr})



Separated errors assessment for isolated photons x_E distribution :
we are dominated by cluster statistics and α_{corr} uncertainty



Compare the slope for different bins



We obtain a poor χ^2/NDF but the distributions seem compatible

BACKUP