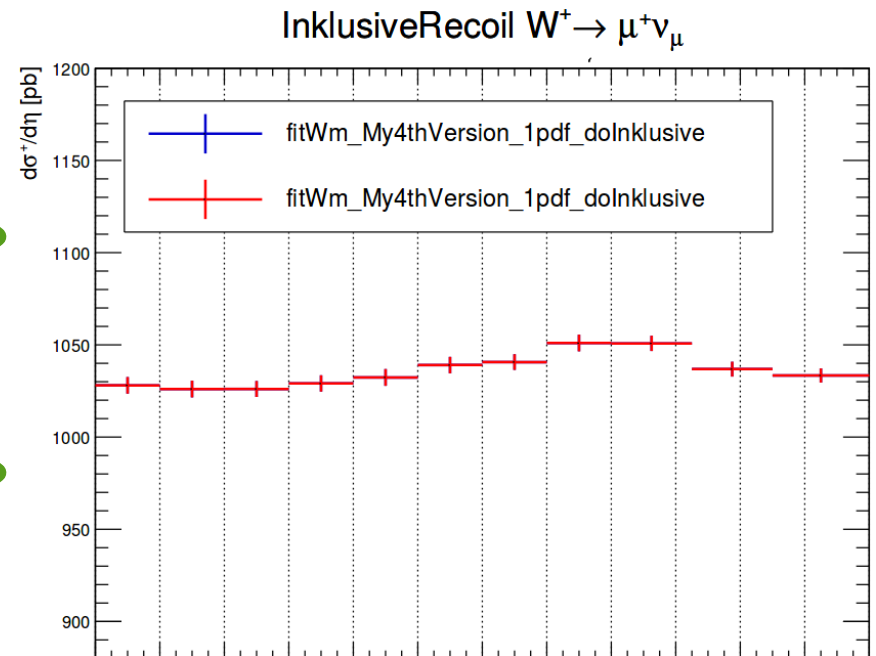
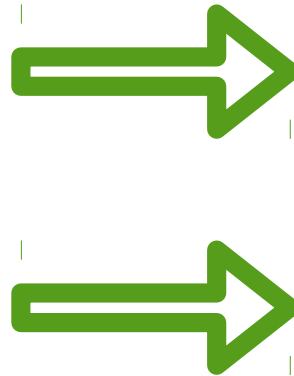
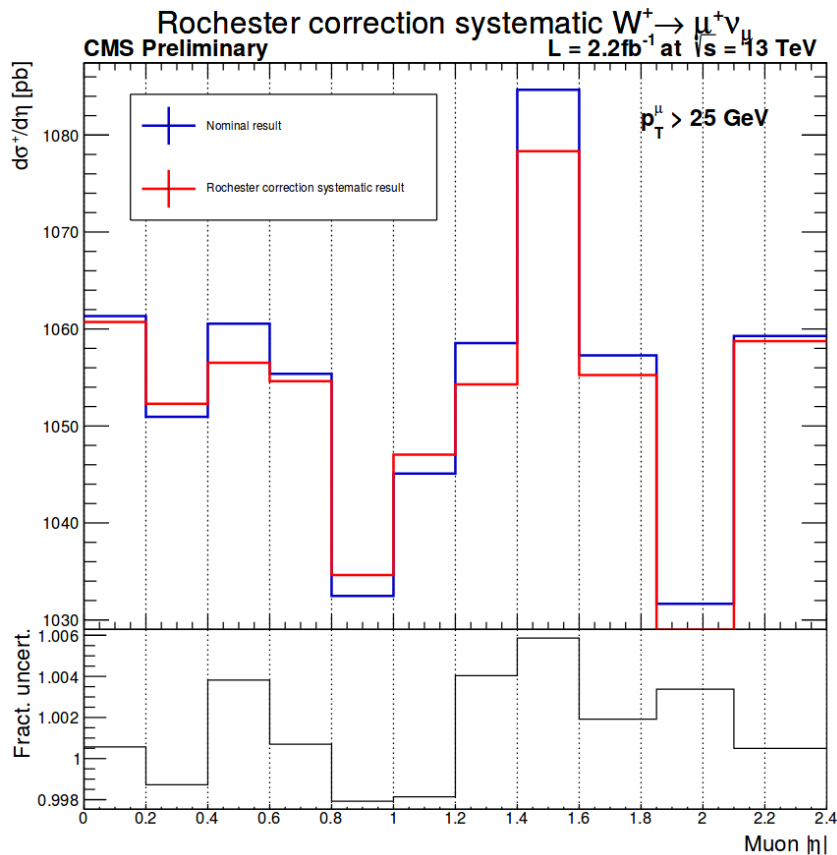


W asymmetry studies update

19.03.2019

Results

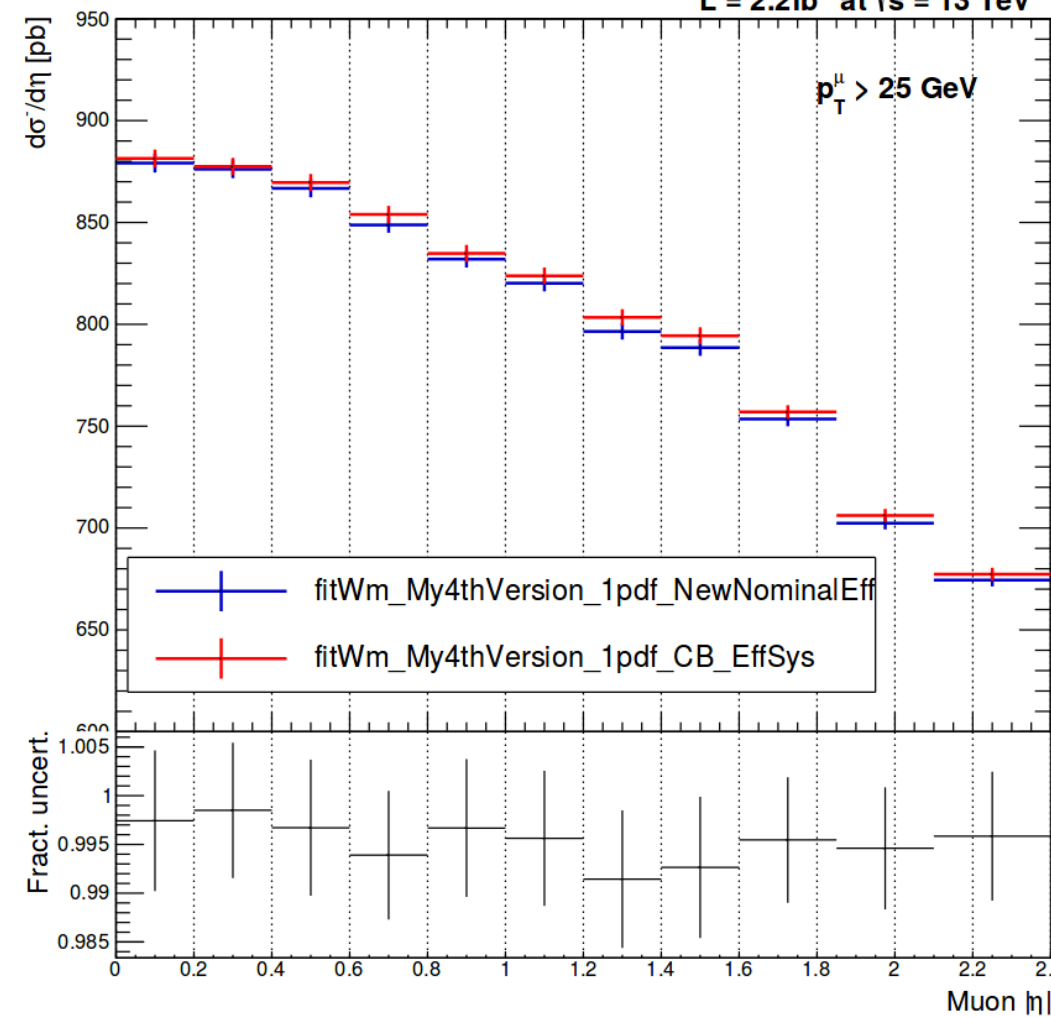
- Cristal Ball systematics – done
- New efficiencies: re-binning + note type – done
- New acceptance: re-binning – done



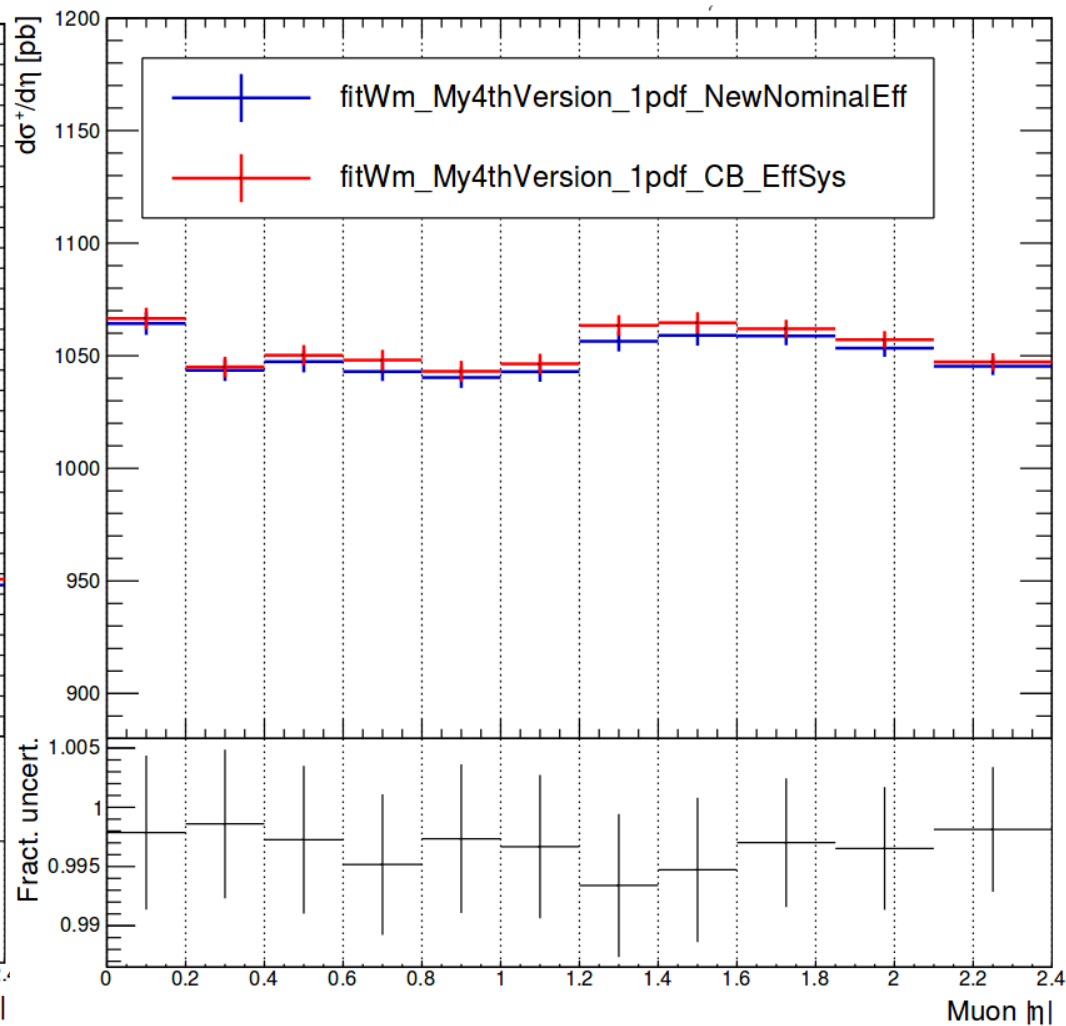
CBxBW systematics

NewNominalEff_vs_CBxBW-Systematics $W^- \rightarrow \mu^- \bar{\nu}_\mu$
 $L = 2.2\text{fb}^{-1}$ at $\sqrt{s} = 13\text{ TeV}$

$p_T^\mu > 25\text{ GeV}$



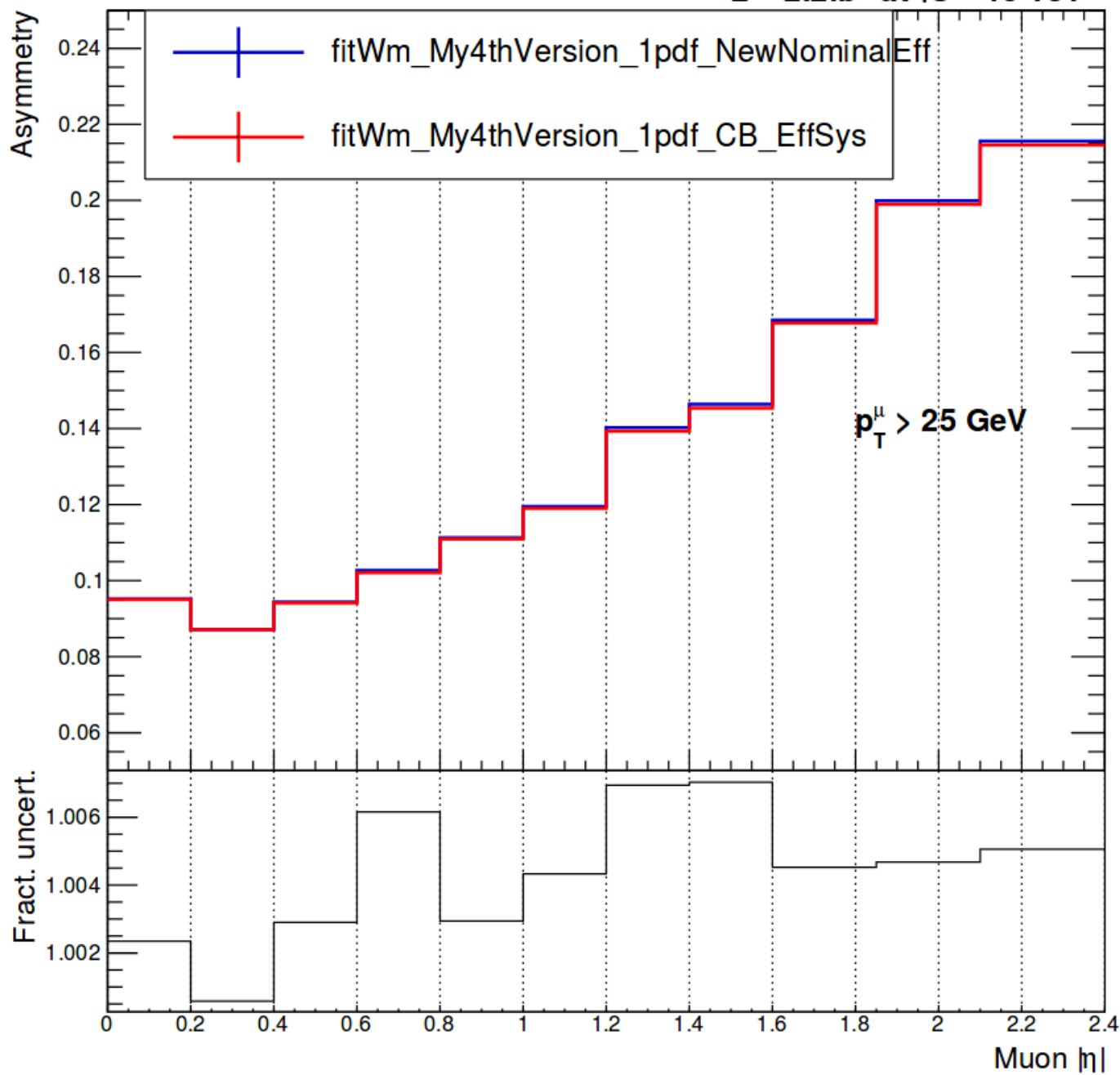
NewNominalEff_vs_CBxBW-Systematics $W^+ \rightarrow \mu^+ \nu_\mu$



CBxBW systematics

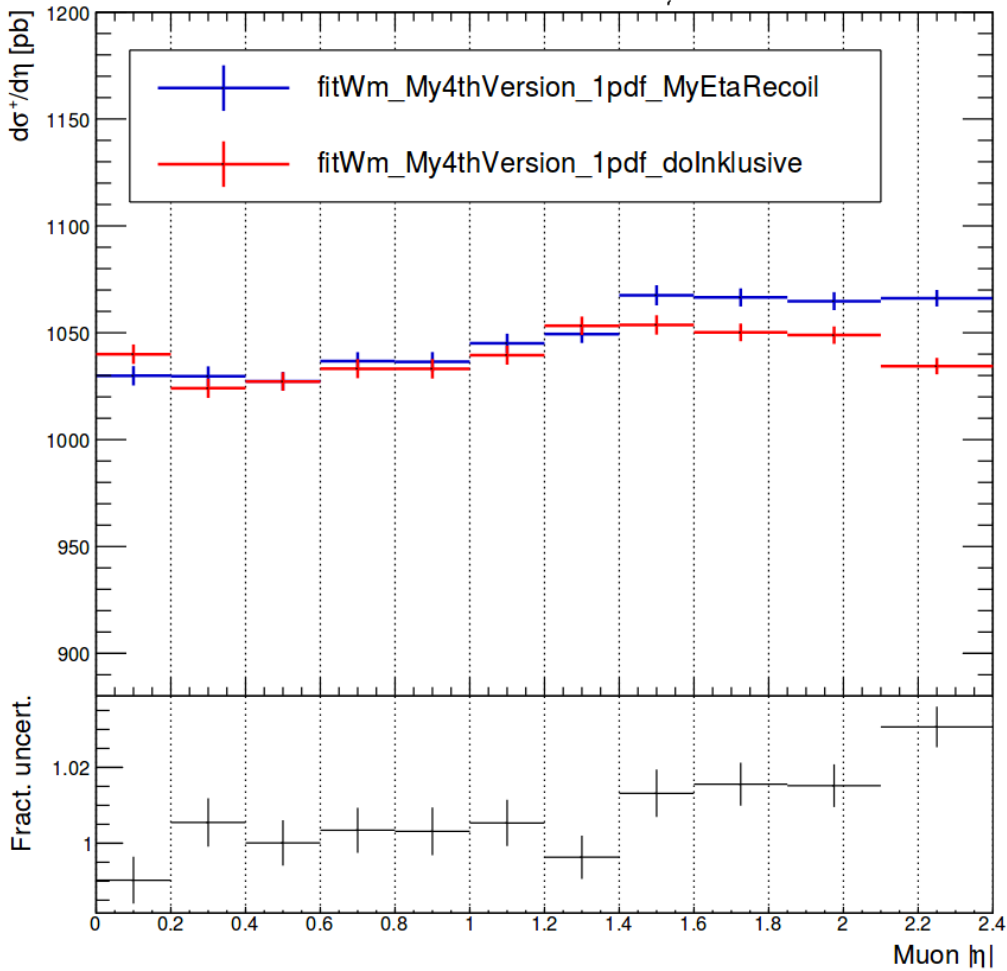
NewNominalEff_vs_CBxBW-Systematics asymmetry

$L = 2.2\text{fb}^{-1}$ at $\sqrt{s} = 13\text{ TeV}$

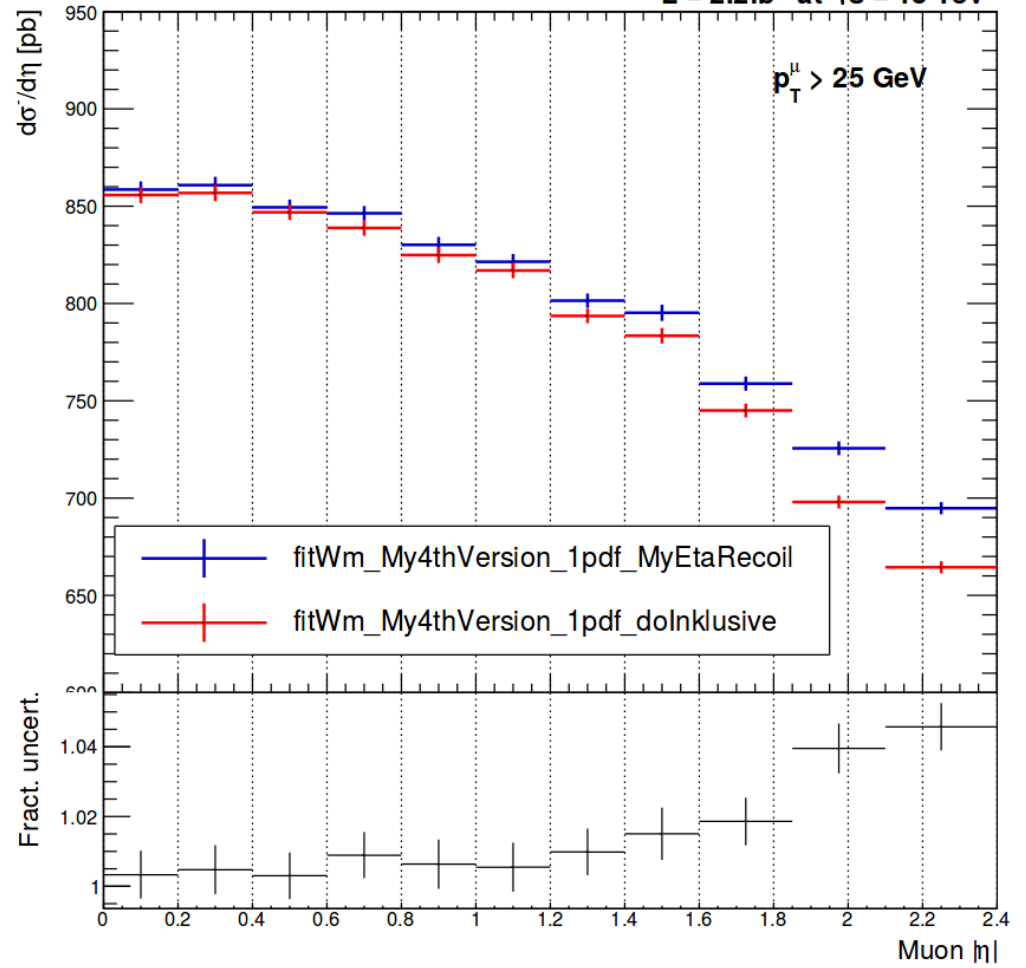


New Efficiencies

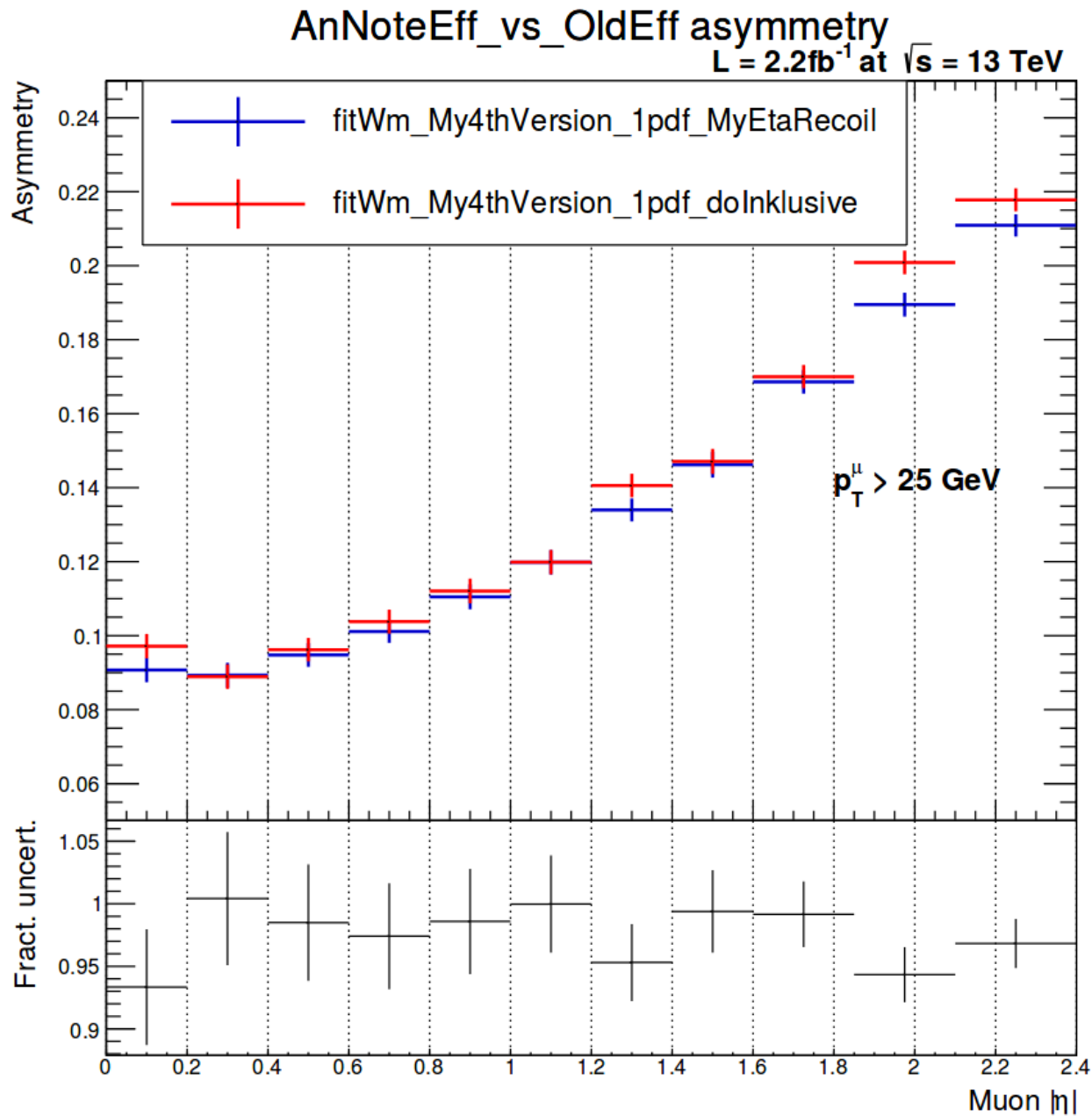
AnNoteEff_vs_OldEff $W^+ \rightarrow \mu^+ \nu_\mu$



AnNoteEff_vs_OldEff $W^- \rightarrow \mu^- \bar{\nu}_\mu$
 $L = 2.2 \text{ fb}^{-1}$ at $\sqrt{s} = 13 \text{ TeV}$

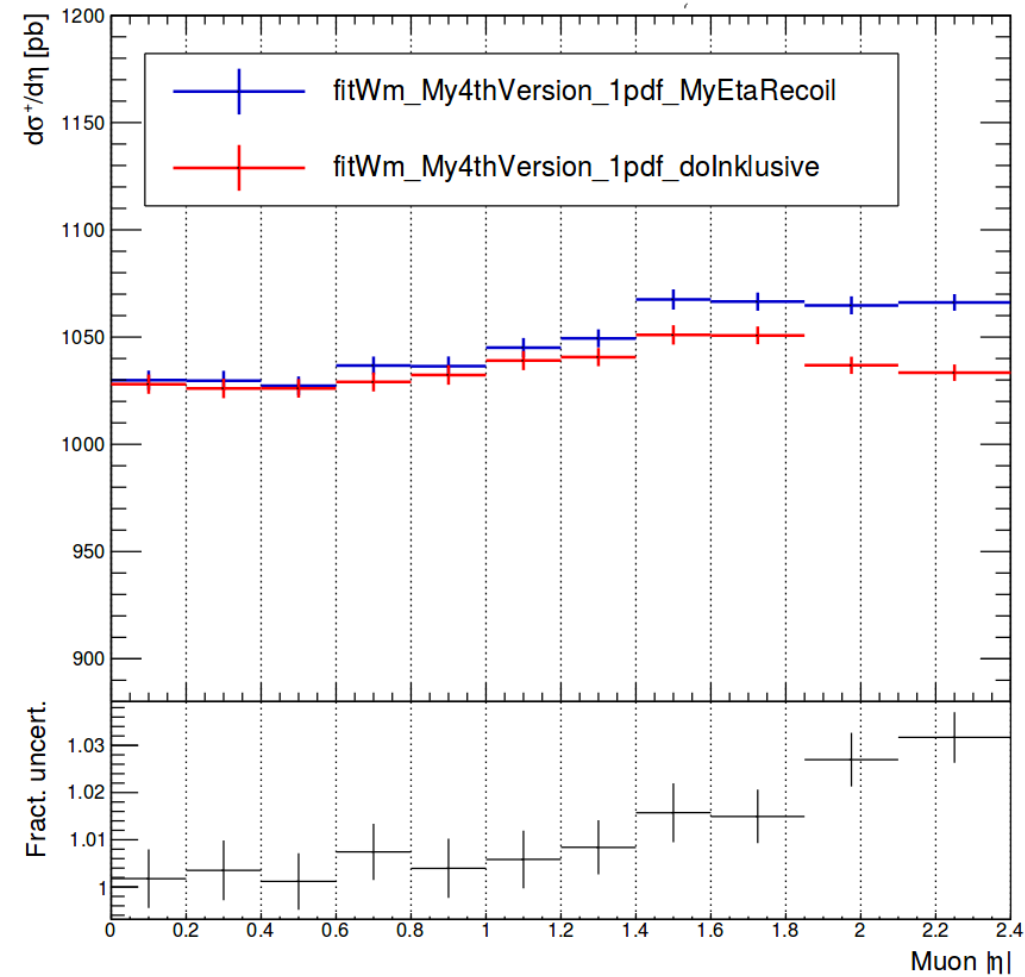


New Efficiencies

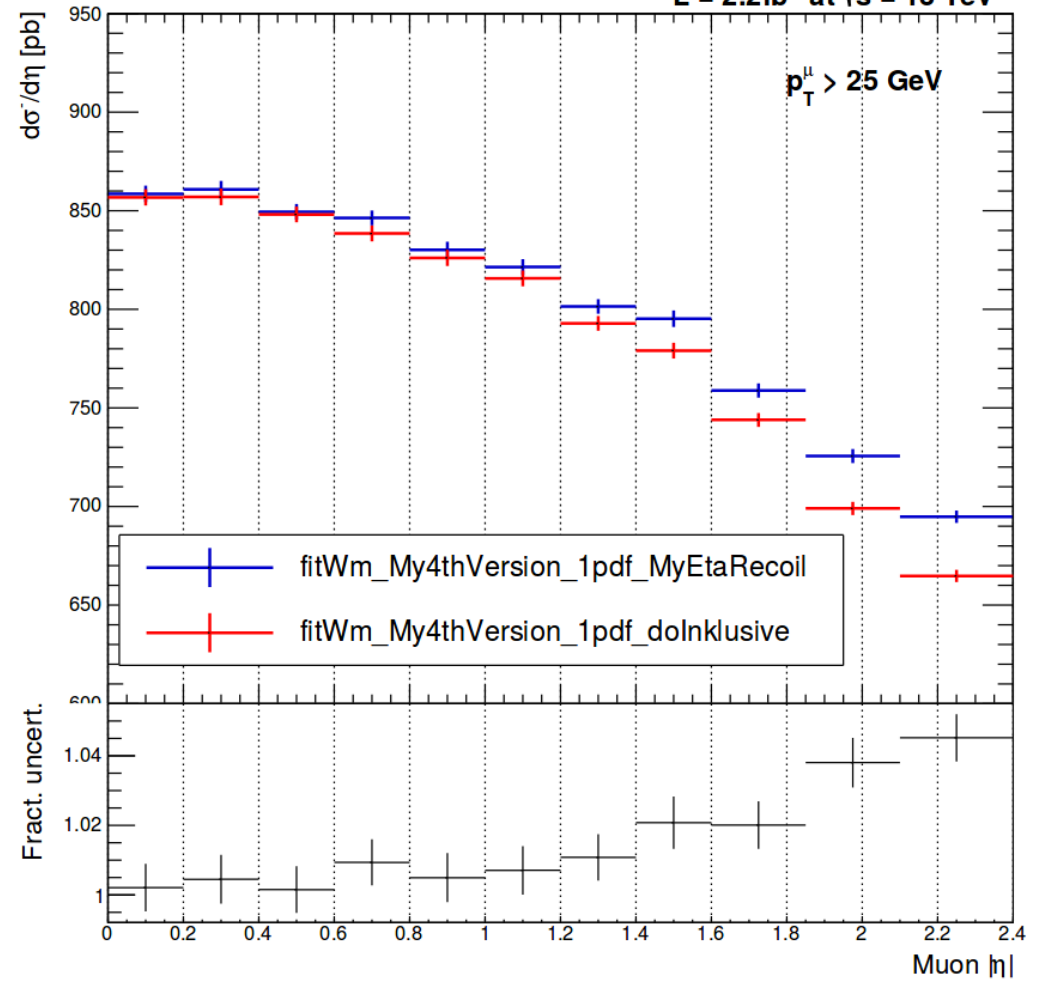


New recoil

InclusiveRec_vs_MyEtaRec $W^+ \rightarrow \mu^+ \nu_\mu$



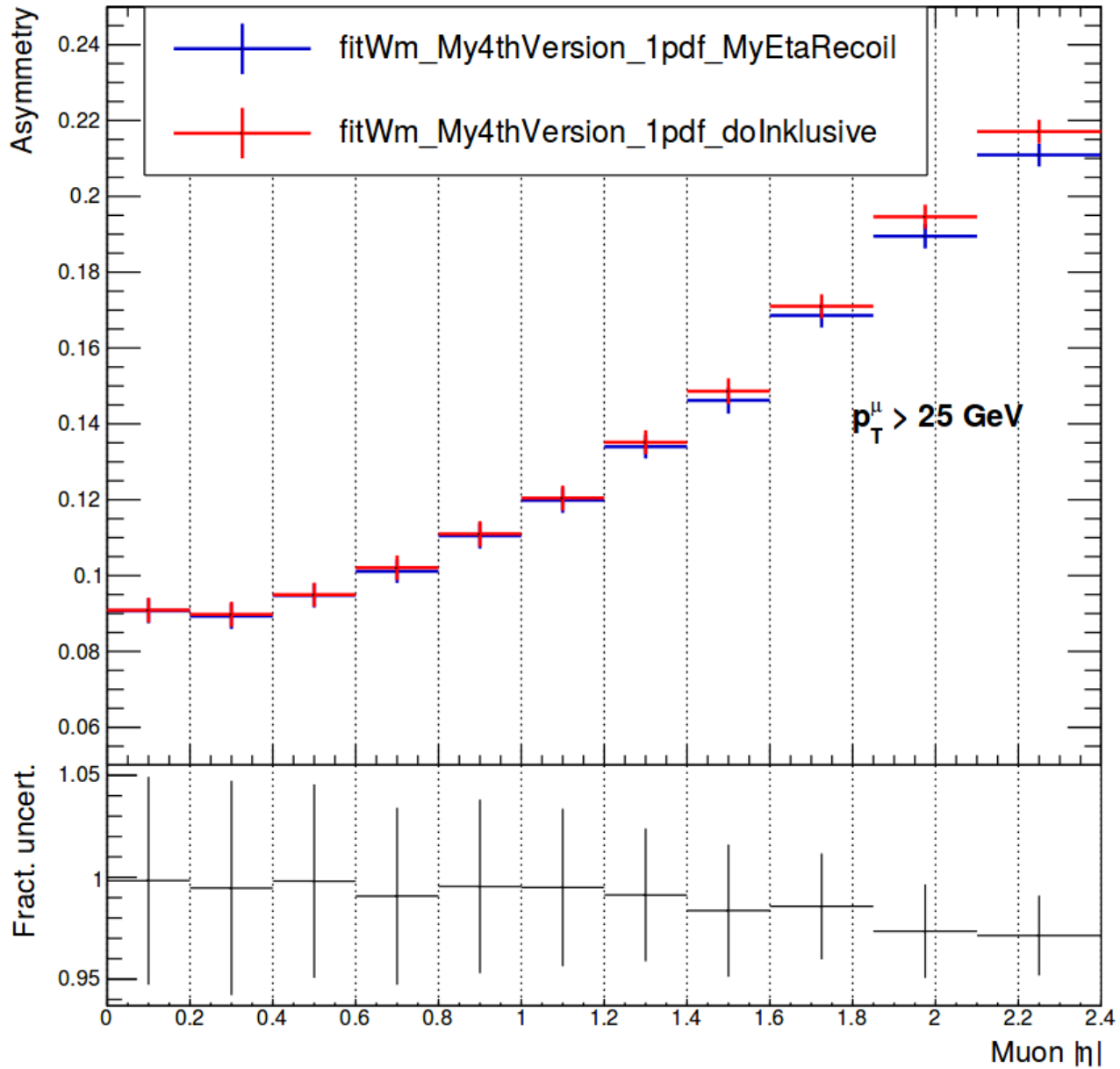
InclusiveRec_vs_MyEtaRec $W^- \rightarrow \mu^- \bar{\nu}$
 $L = 2.2\text{fb}^{-1}$ at $\sqrt{s} = 13\text{ TeV}$



New recoil

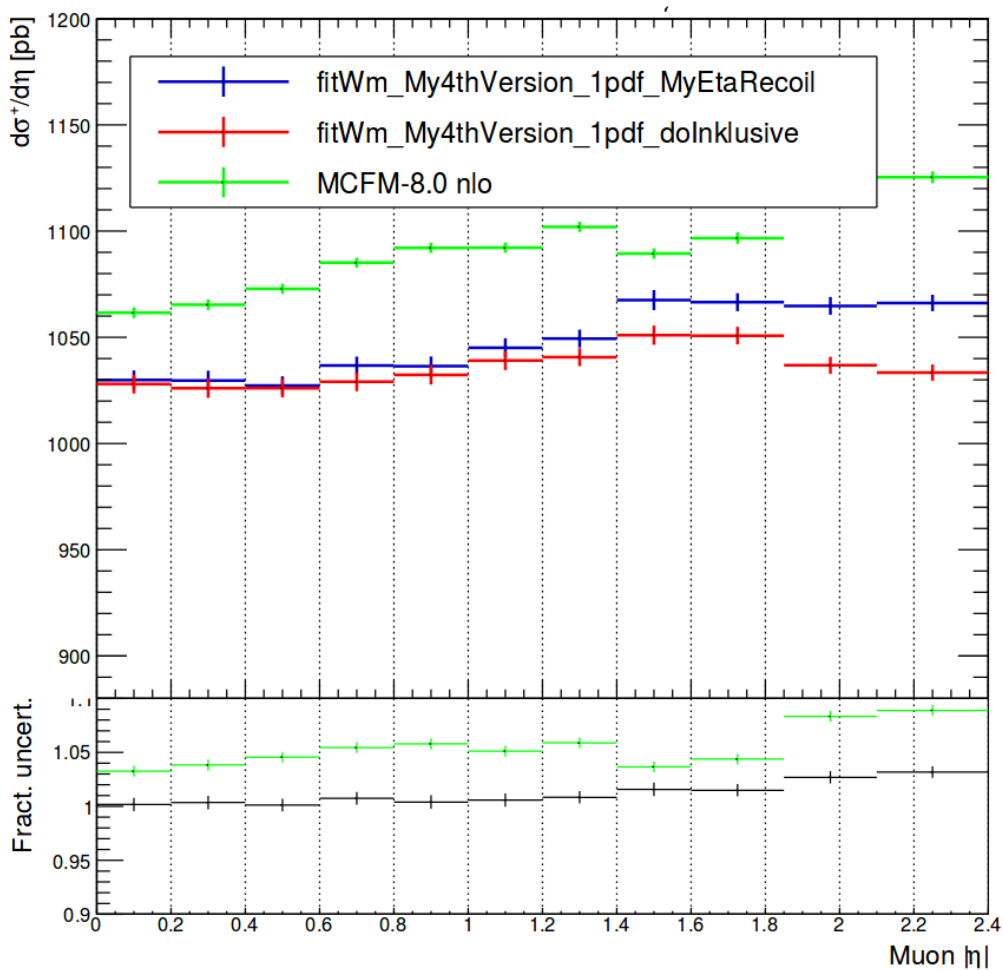
InclusiveRec_vs_MyEtaRec asymmetry

$L = 2.2\text{fb}^{-1}$ at $\sqrt{s} = 13\text{ TeV}$

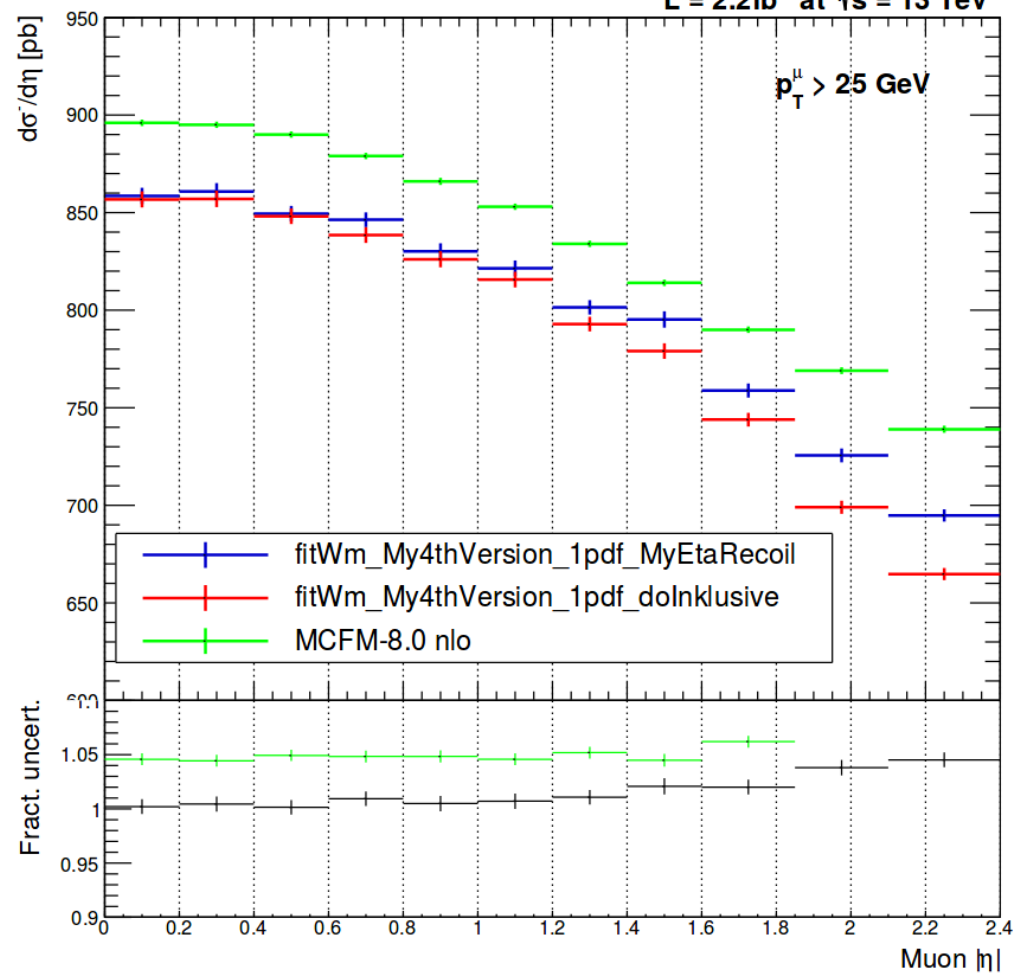


comparison with MC

InklusiveVsEtaRecvsMV $W^+ \rightarrow \mu^+ \nu_\mu$



InklusiveVsEtaRecvsMV $W^- \rightarrow \mu^- \bar{\nu}_\mu$
 $L = 2.2\text{fb}^{-1}$ at $\sqrt{s} = 13\text{ TeV}$



comparison with MC

