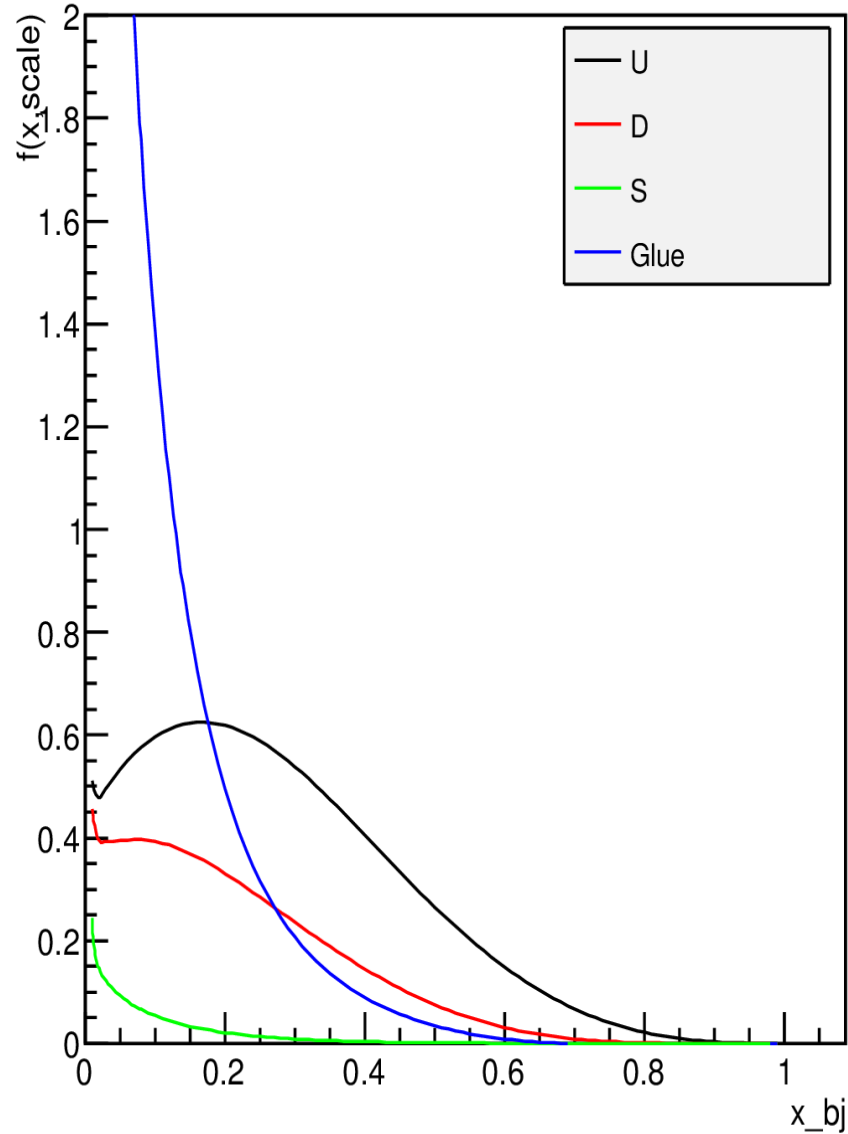


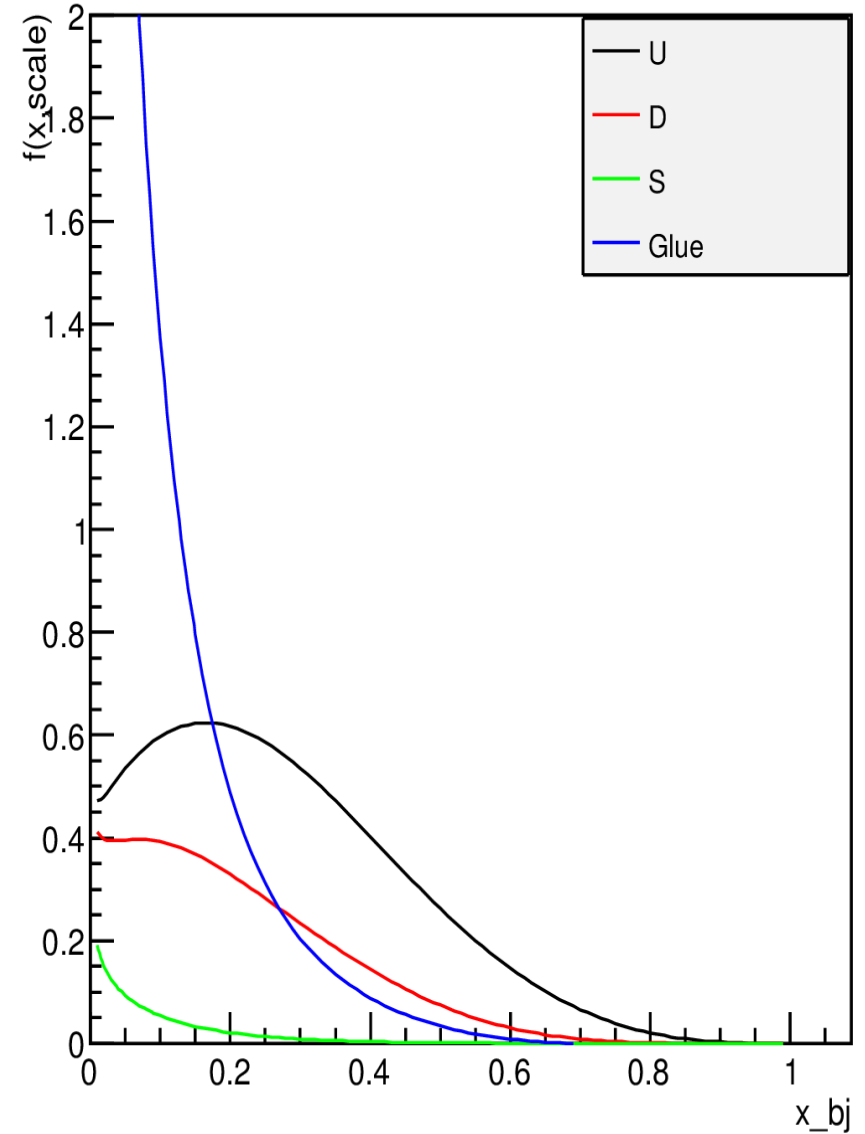
HVQDIS for electron_nuclei eA

Step1: Compare CTEQ5 and CTEQ6

PDFs for CTEQ5

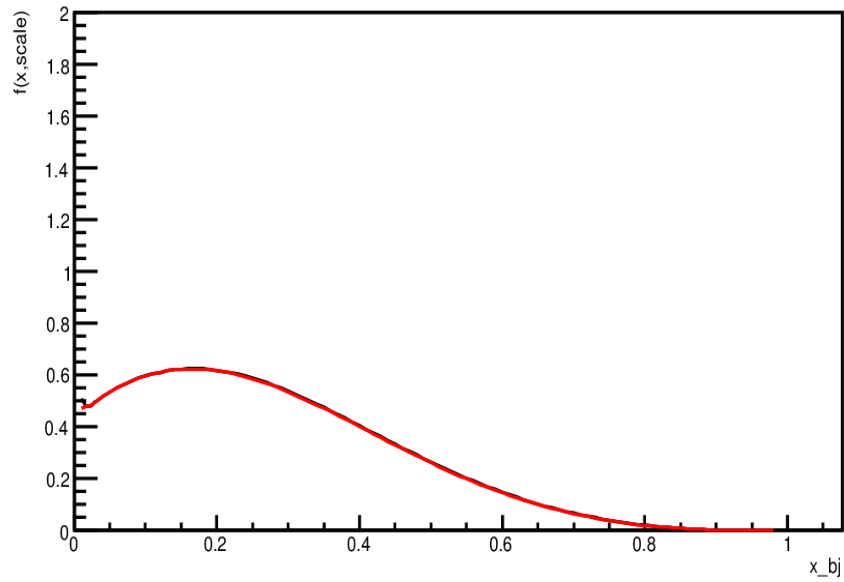


PDFs for CTEQ6

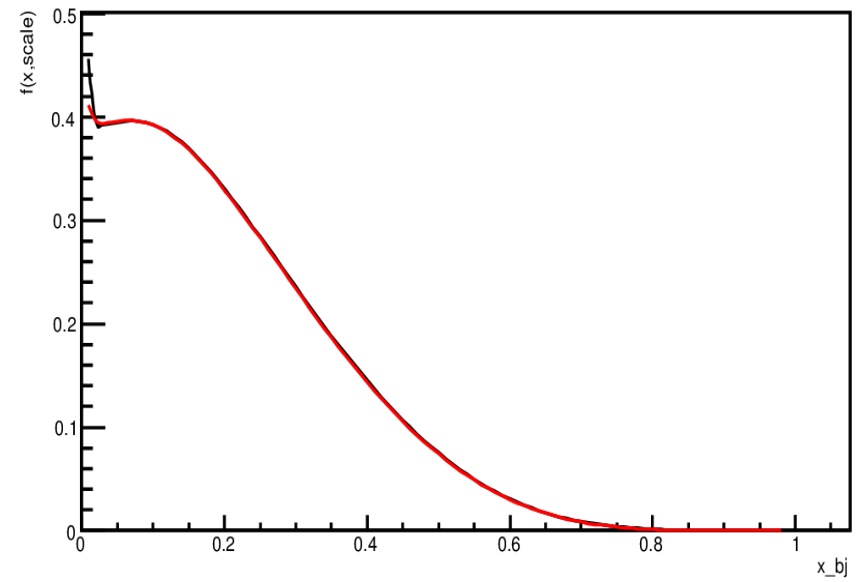


CTEQ5 and CTEQ6 together

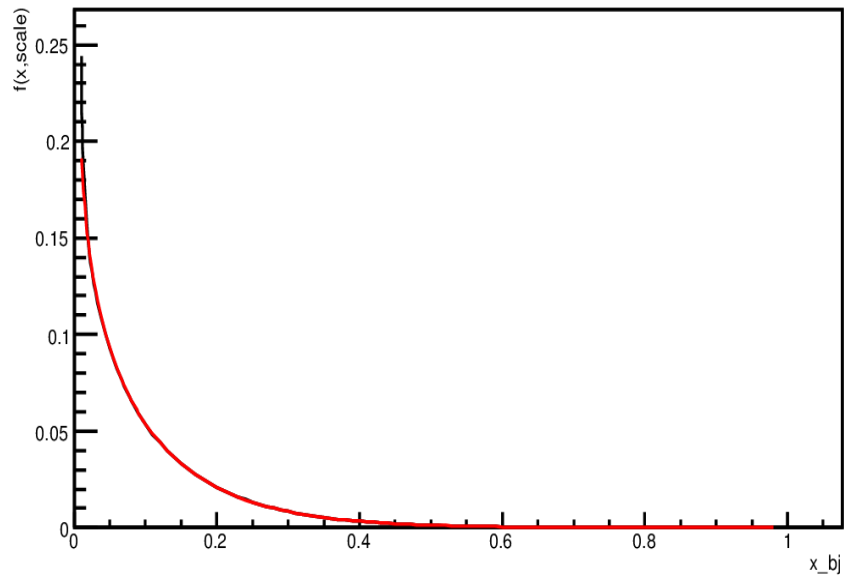
U5 vs U6



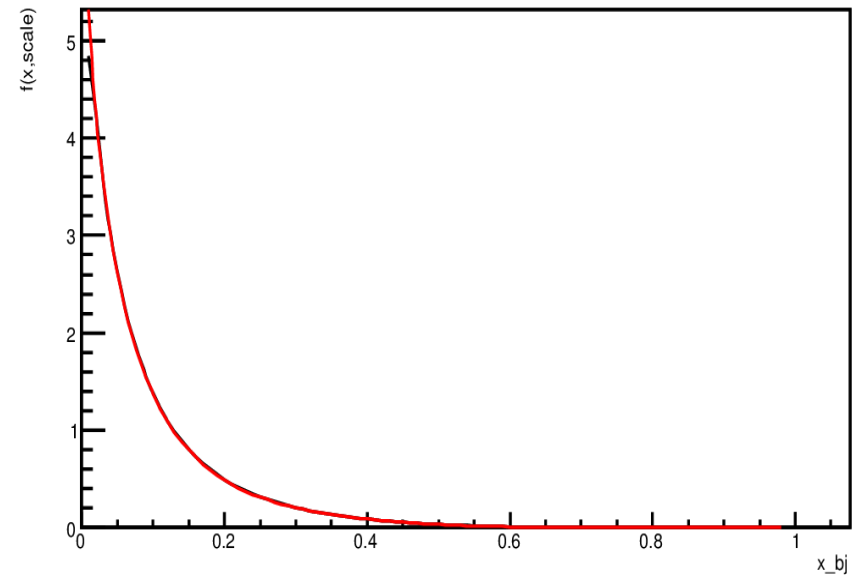
D5 vs D6



S5 vs S6

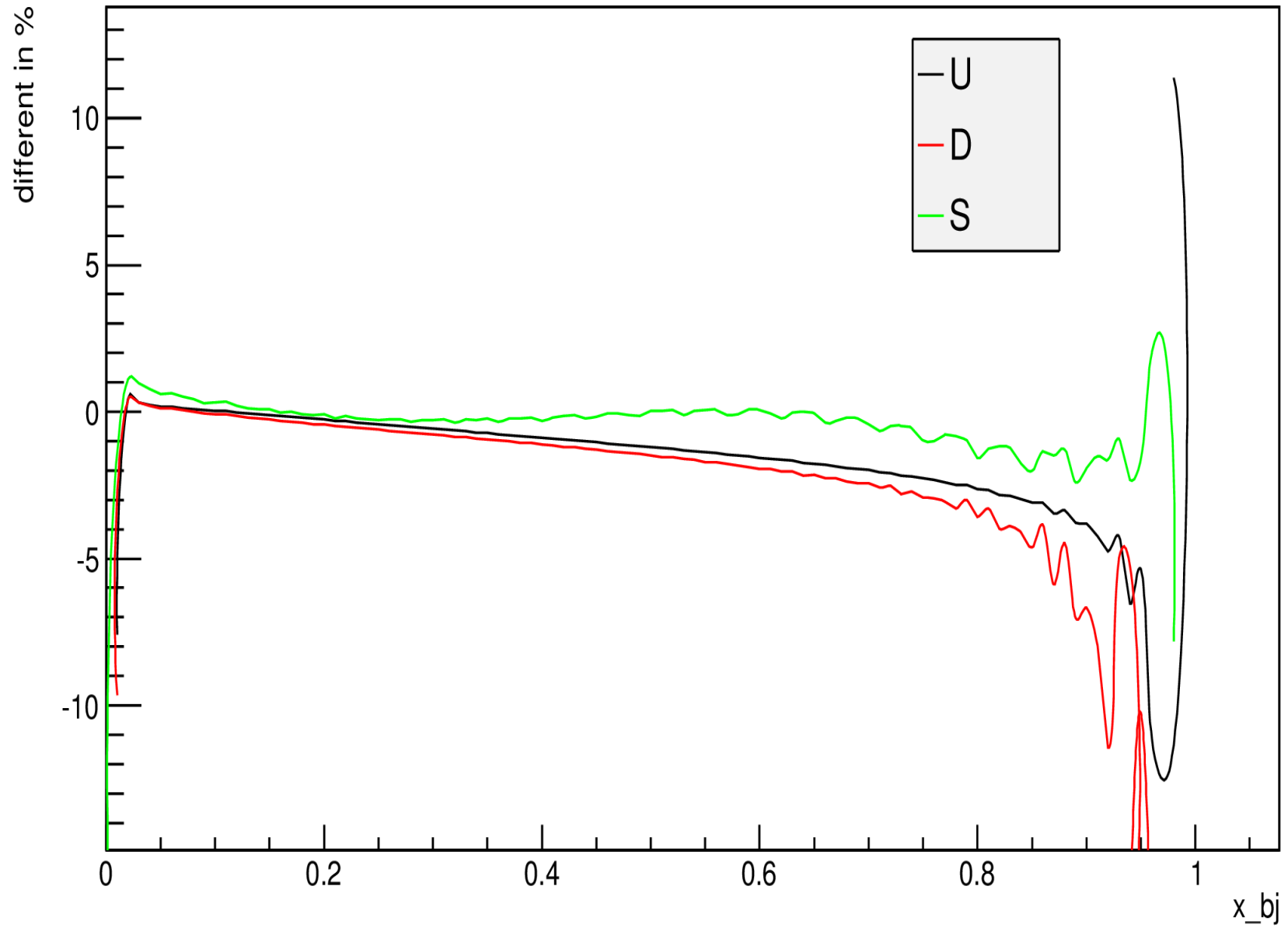


Glue5 vs Glue6

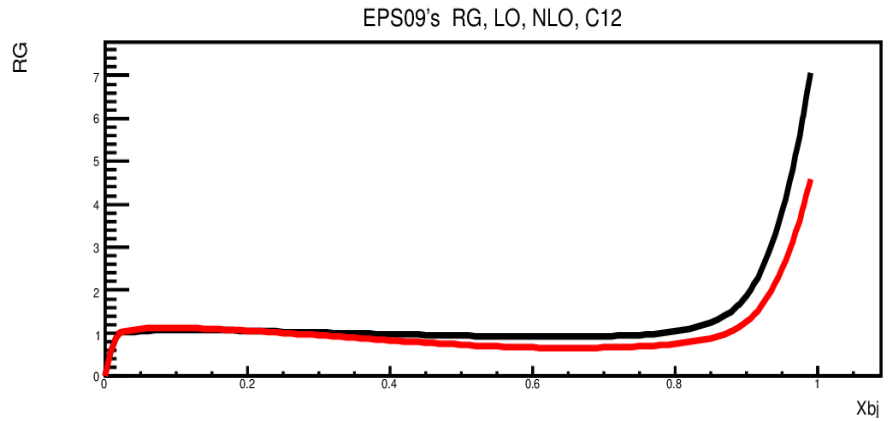
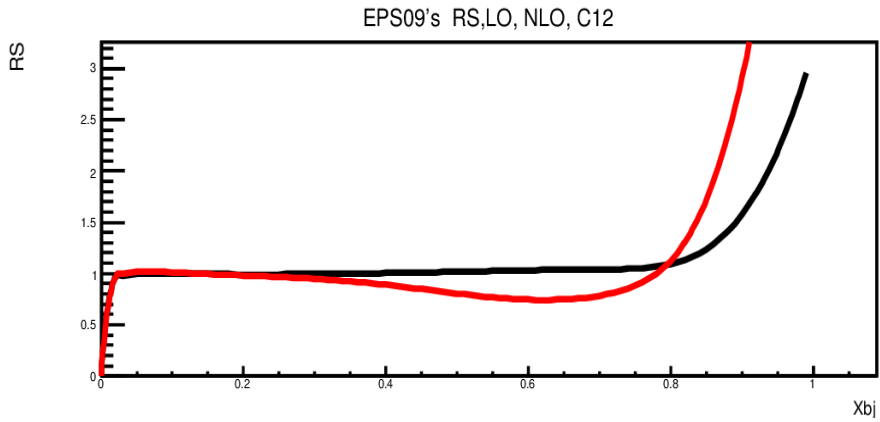
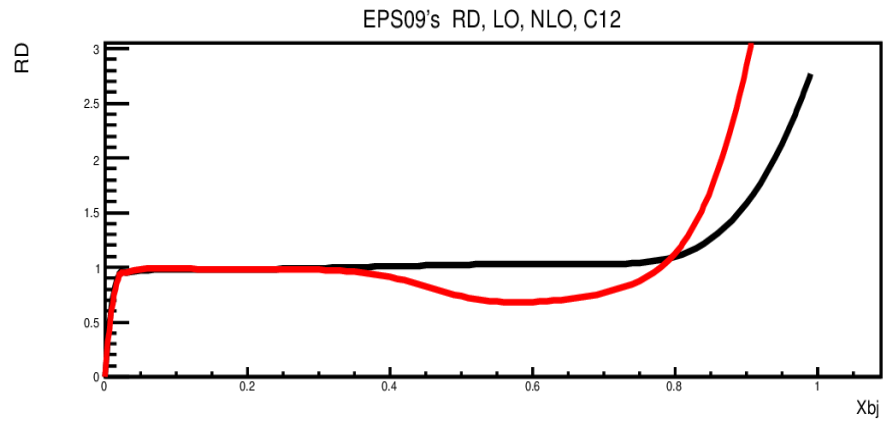
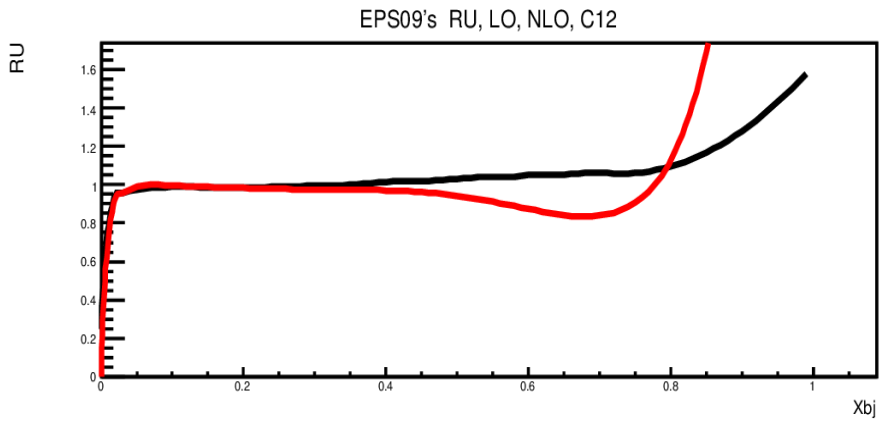
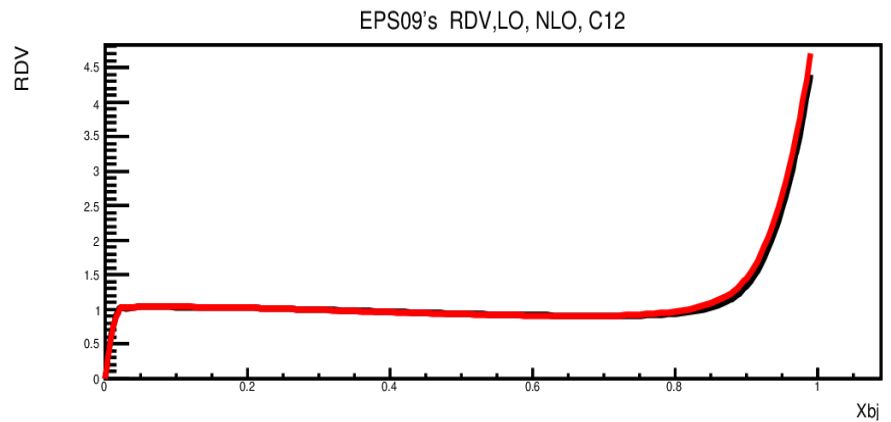
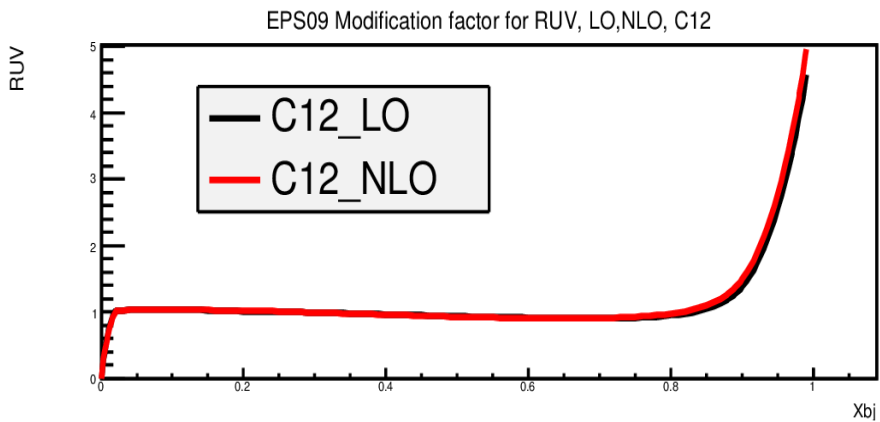


Comparison CTEQ5 and CTEQ6 together : U, S , S

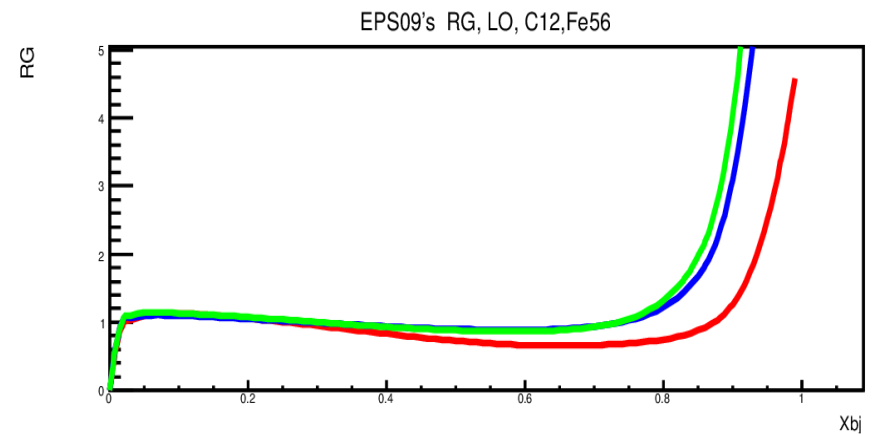
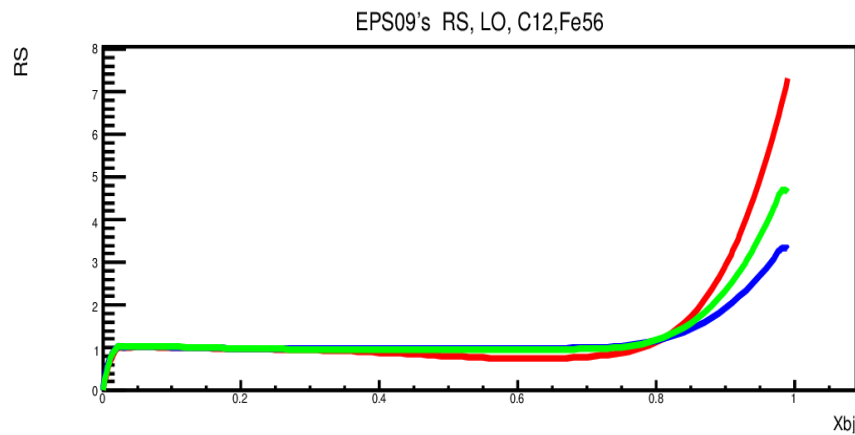
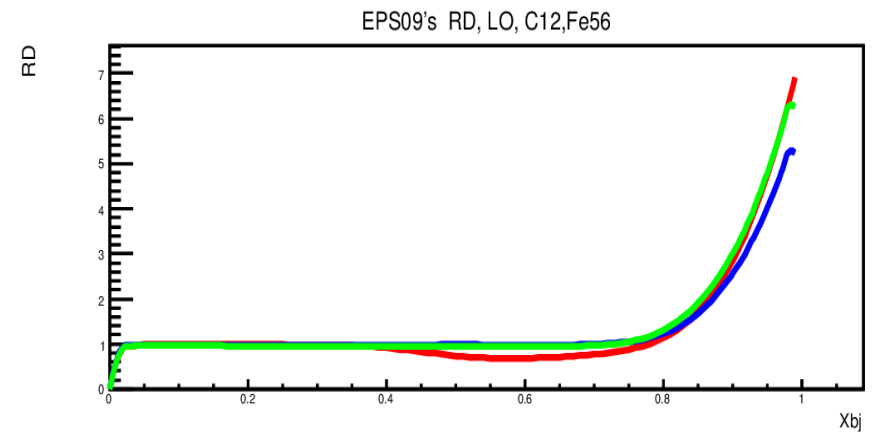
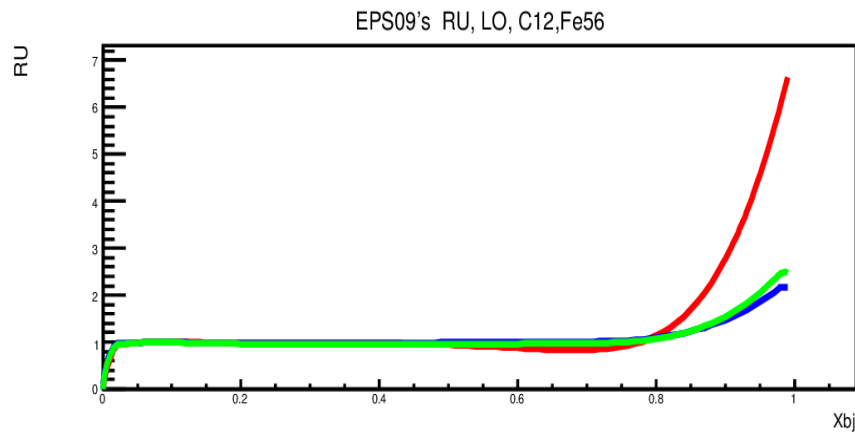
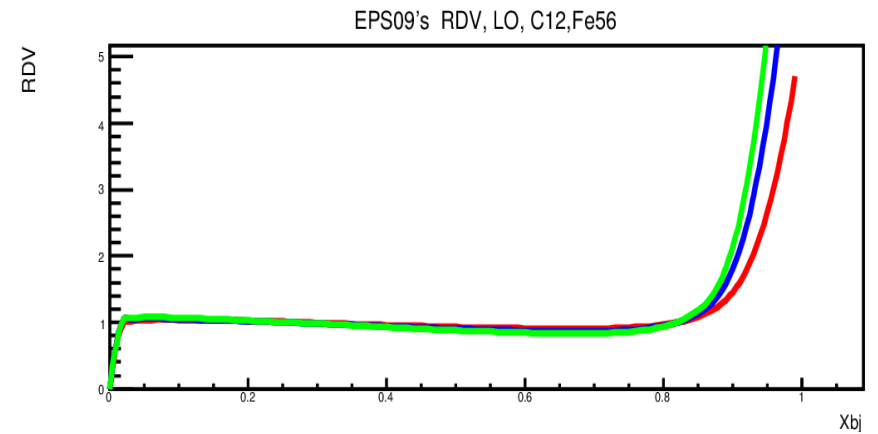
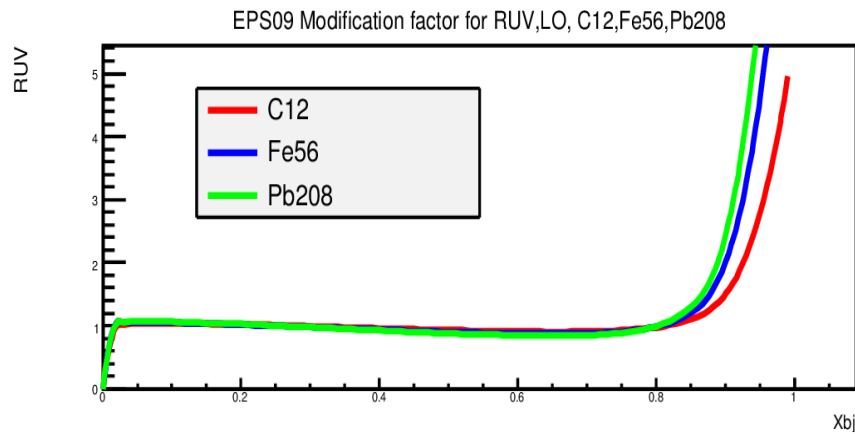
Diff from CTEQ5 to CTEQ6



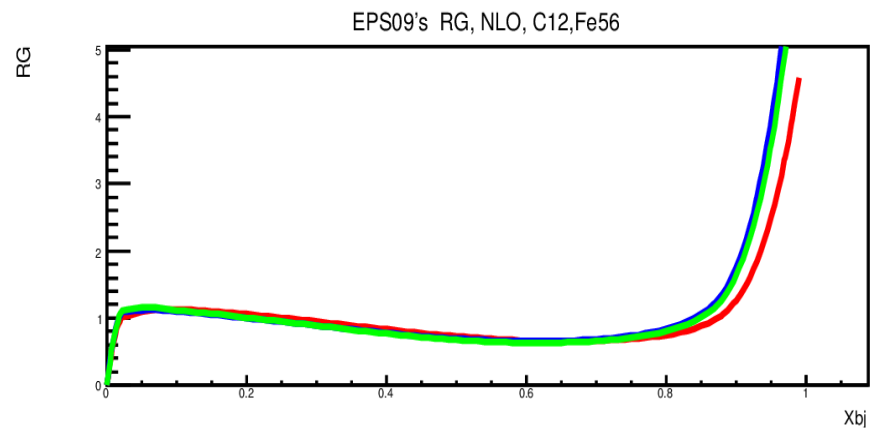
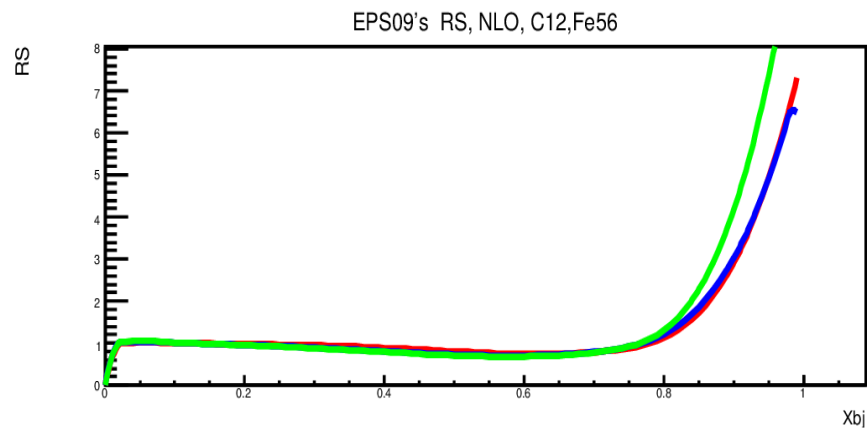
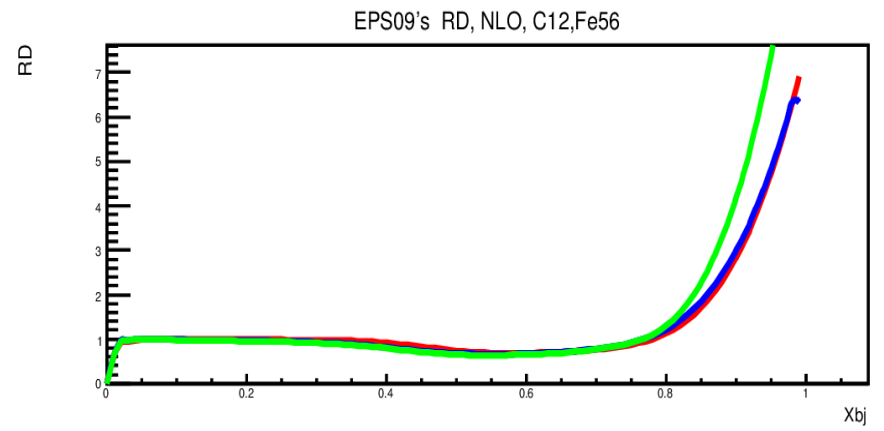
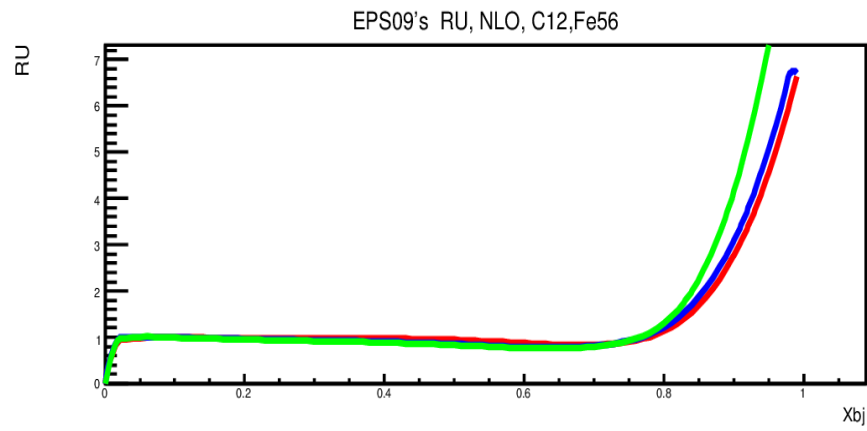
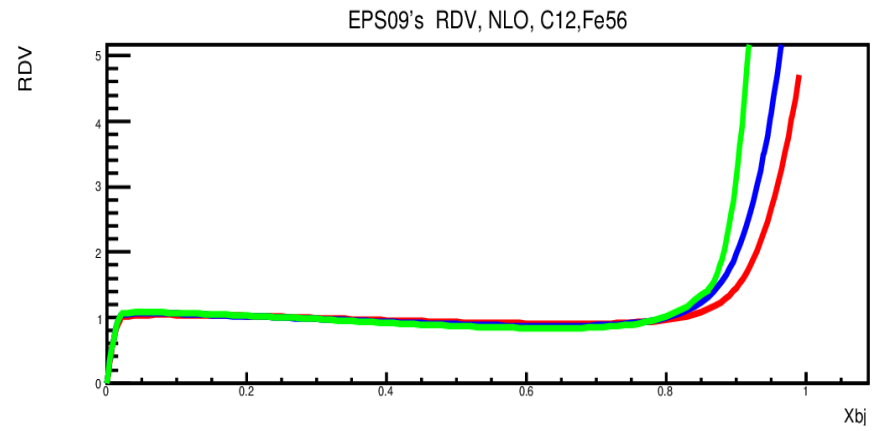
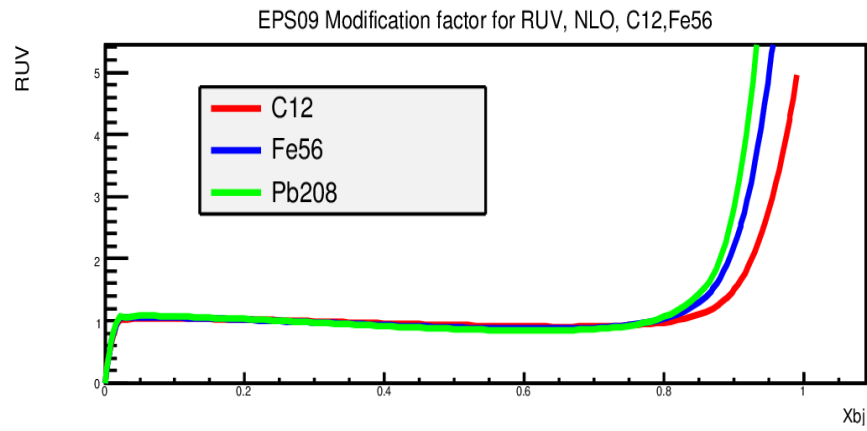
Step2: Checking the modification factor from EPS09 for LO, NLO (C12, Fe56, Pb208)



Modification Factor for LO: C12, Fe56, Pb208

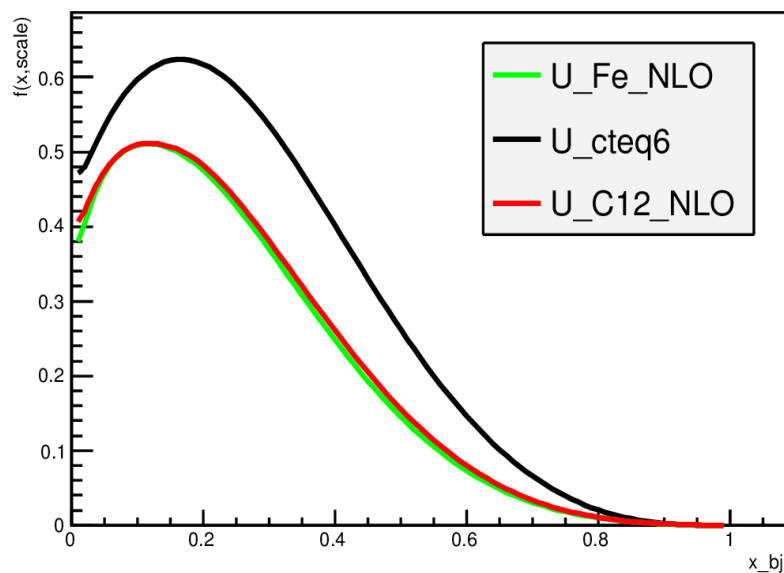


Modification factor For NLO: C12, Fe56, Pb208

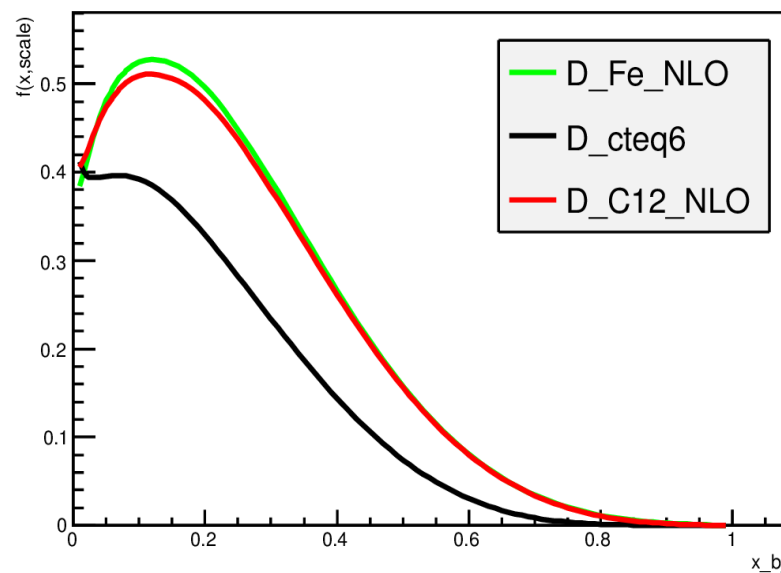


Step3: Combine the PDFs using CTEQ6 and modification factor from EPS09

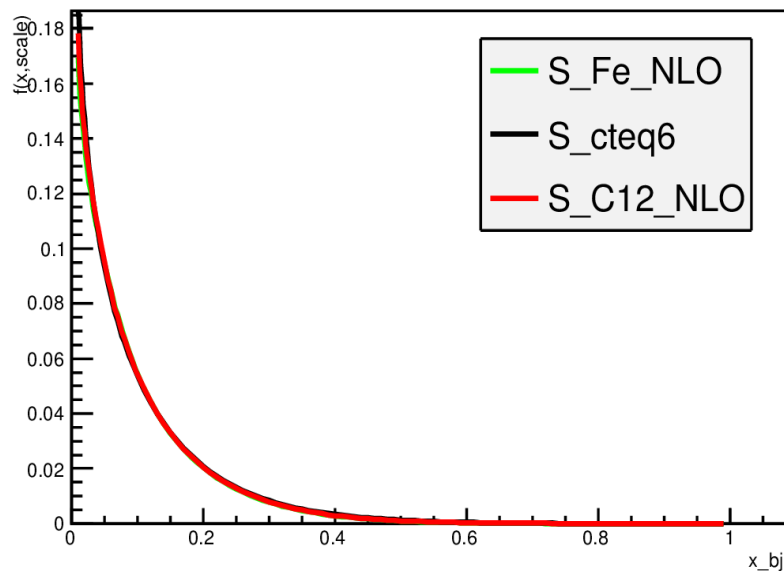
PDF for U, cteq6, NLO C12, Fe



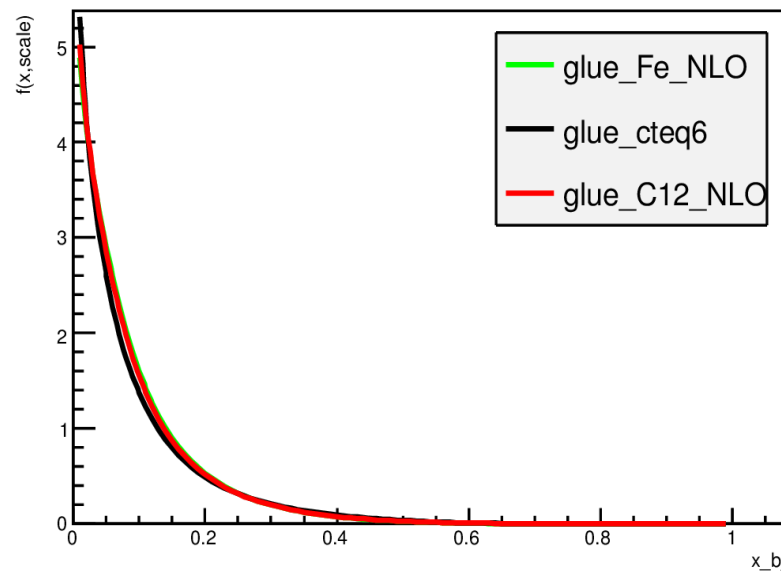
D, NLO C12, Fe56 and cteq6



S, NLO C12, Fe56 & cteq6



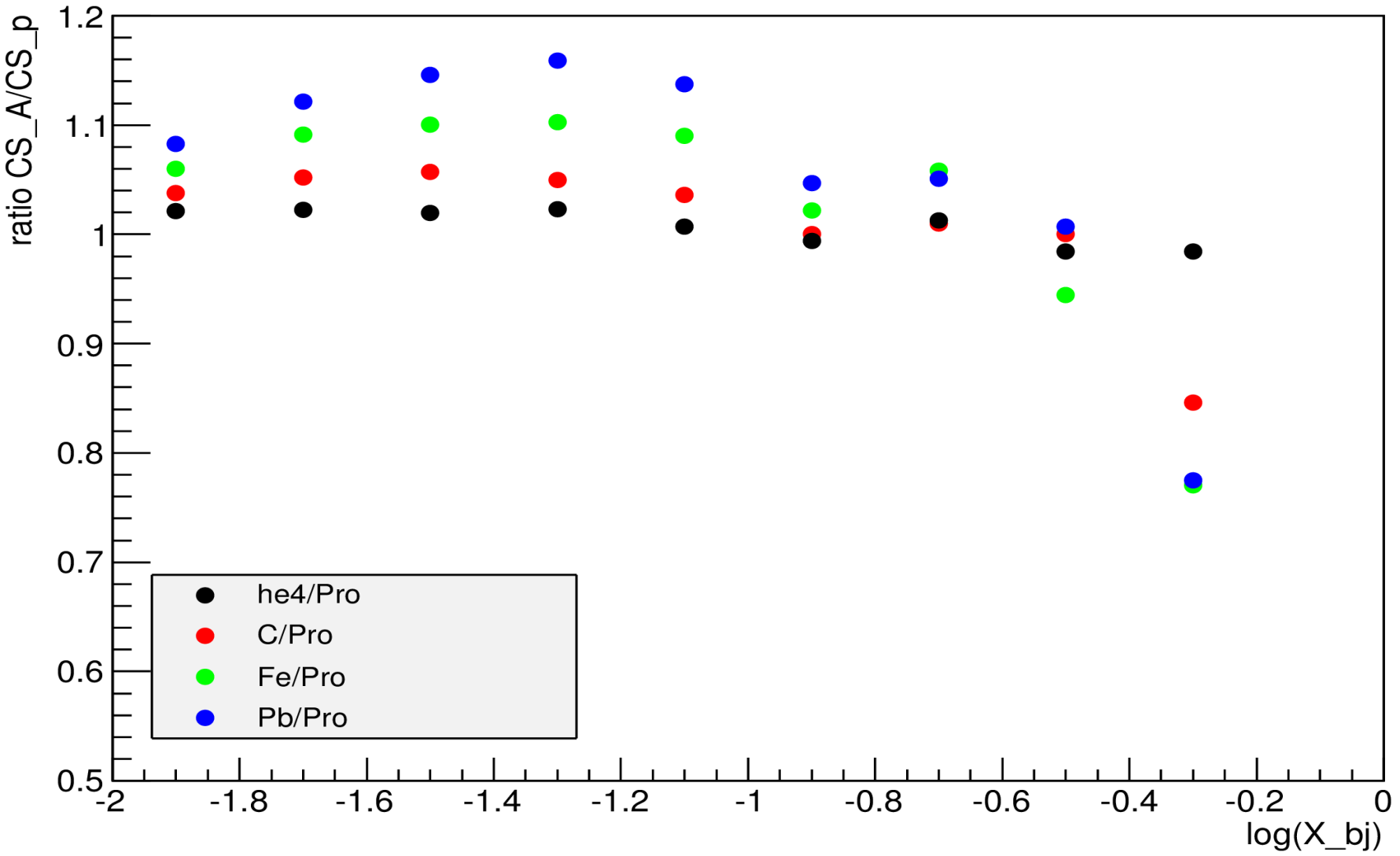
Glue ,NLO C12, Fe56 & cteq6



Step4: Now add both CTEQ6 and EPS09 in the HVQDIS. And Get cross section out.

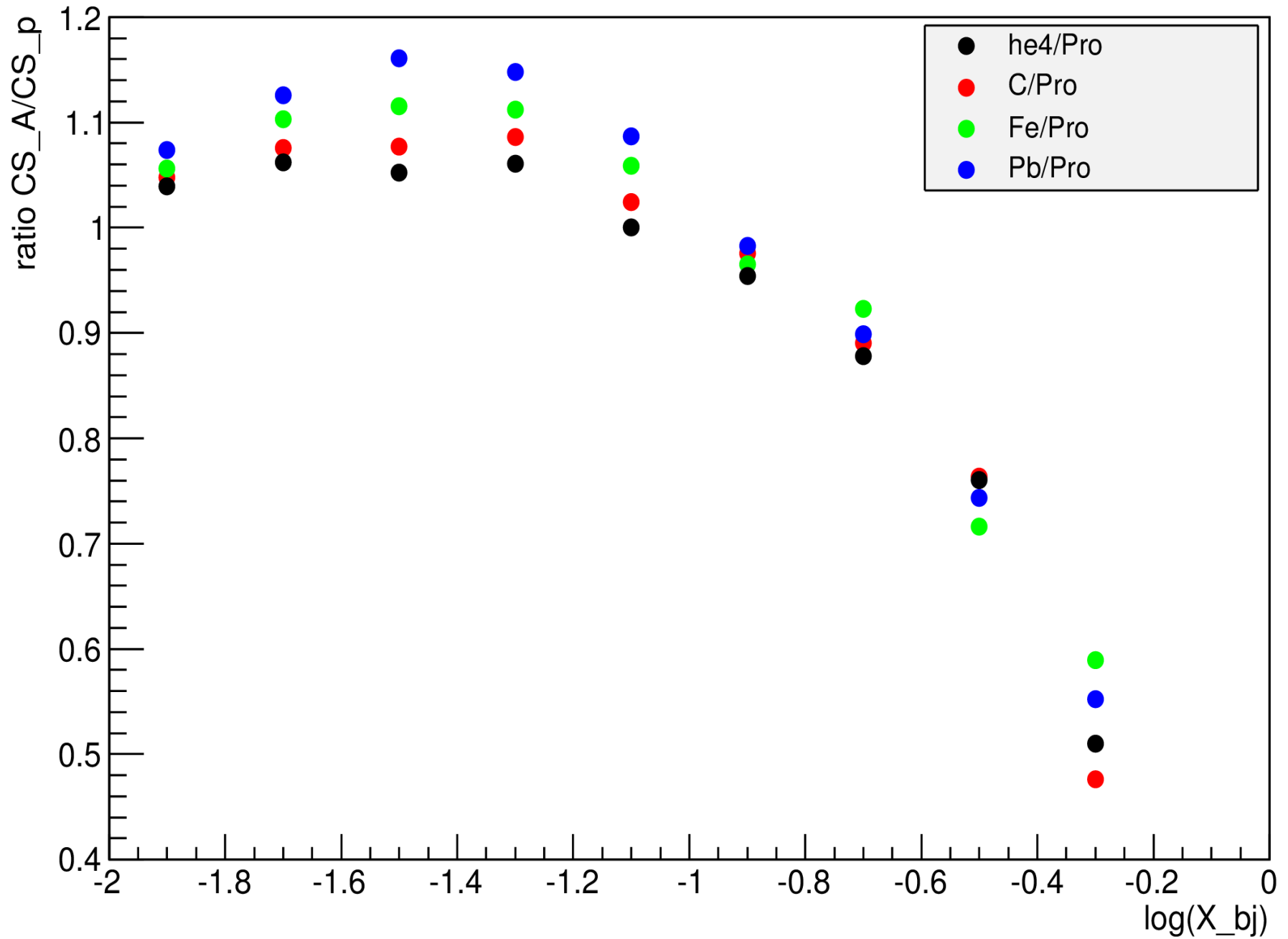
Ratio of Cross section LO

LO ratio of cross section



NLO Cross section Ratio

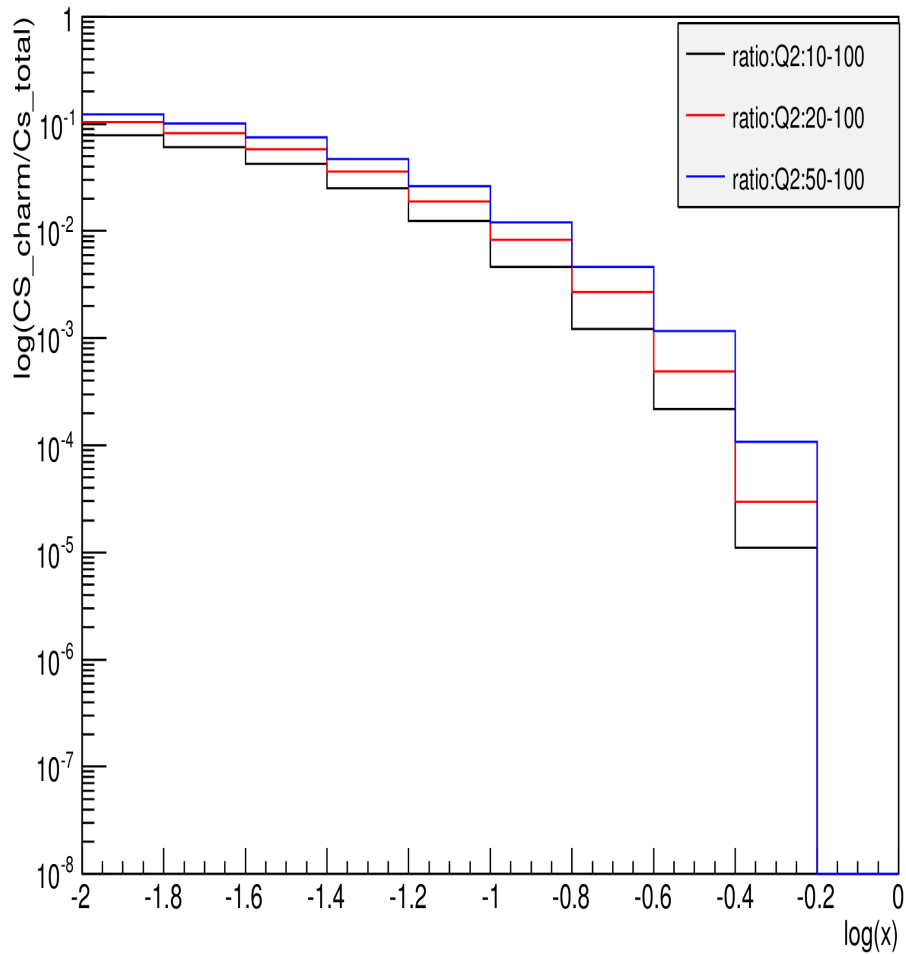
NLO ratio of cross section



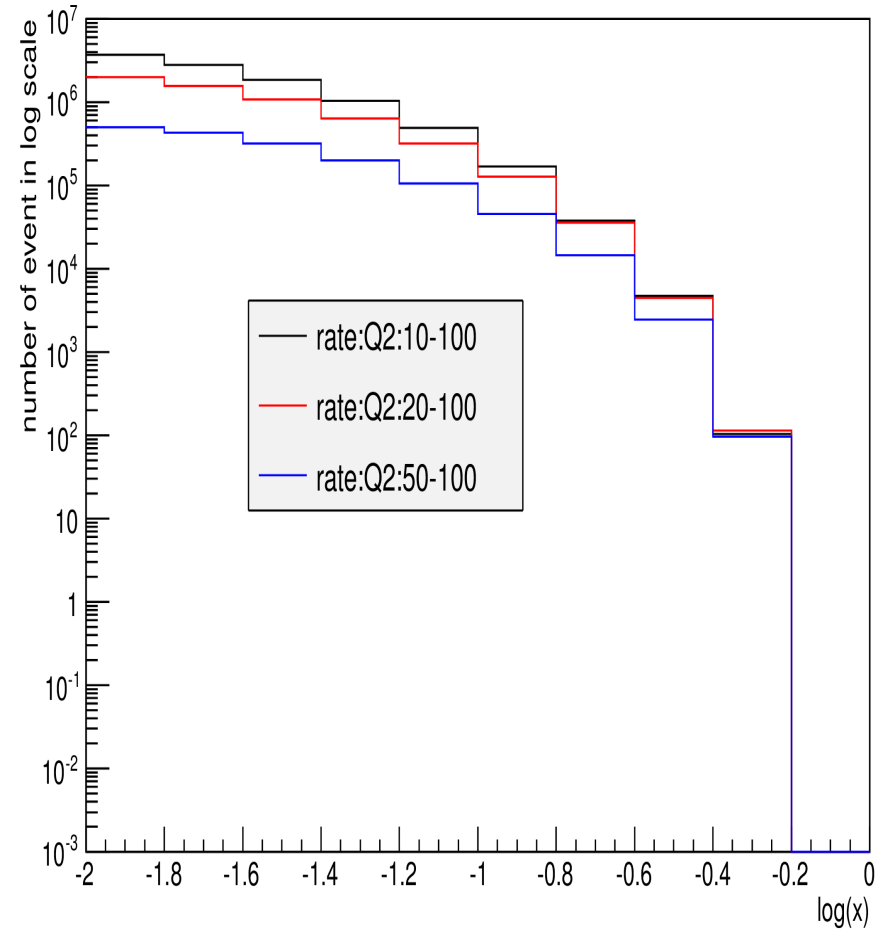
Step5: Using HQ and HVQDIS to do rate estimation

C12: Ratio Charm/ total cross section per nucleon, and rate of charm

Ratio of CS charm/total , C12

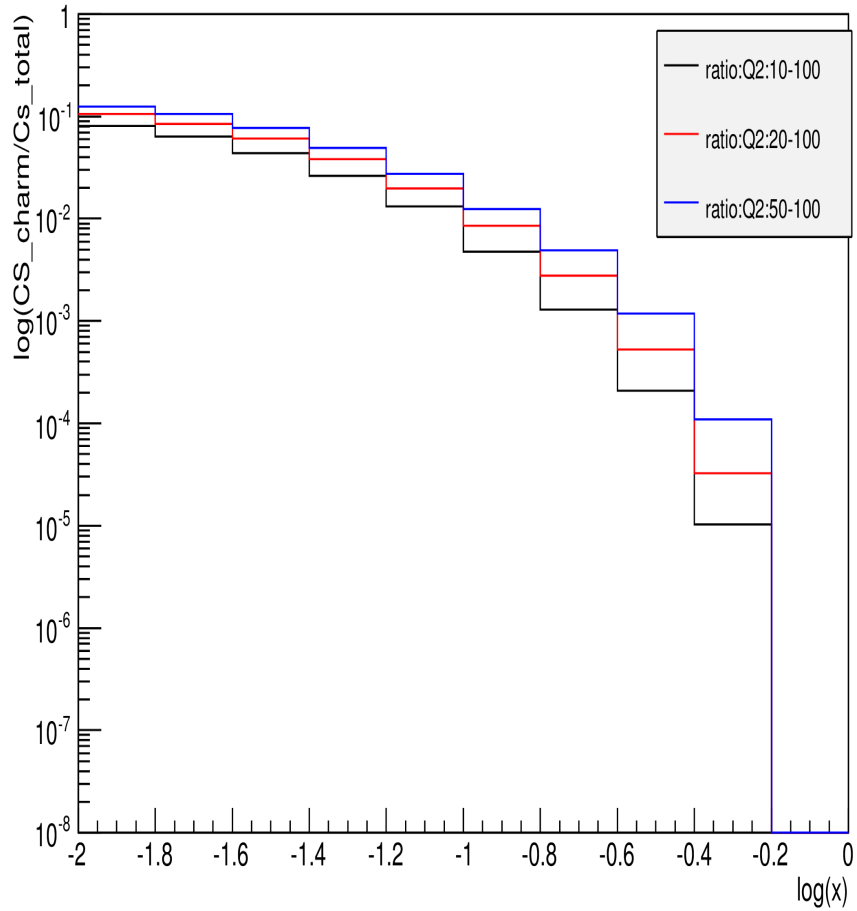


rate of Charm per nucleon, C12, SeN= 1000, L(int)= 10^7 nb



Fe56: ratio charm / total cross section per nucleon and rate of charm

Ratio of CS charm/total per nucleon, Fe56



rate of Charm, $\text{SeN} = 1000$ per nucleon, Fe56 $L(\text{int}) = 10^7$ nb

