

TnP Discrepancies

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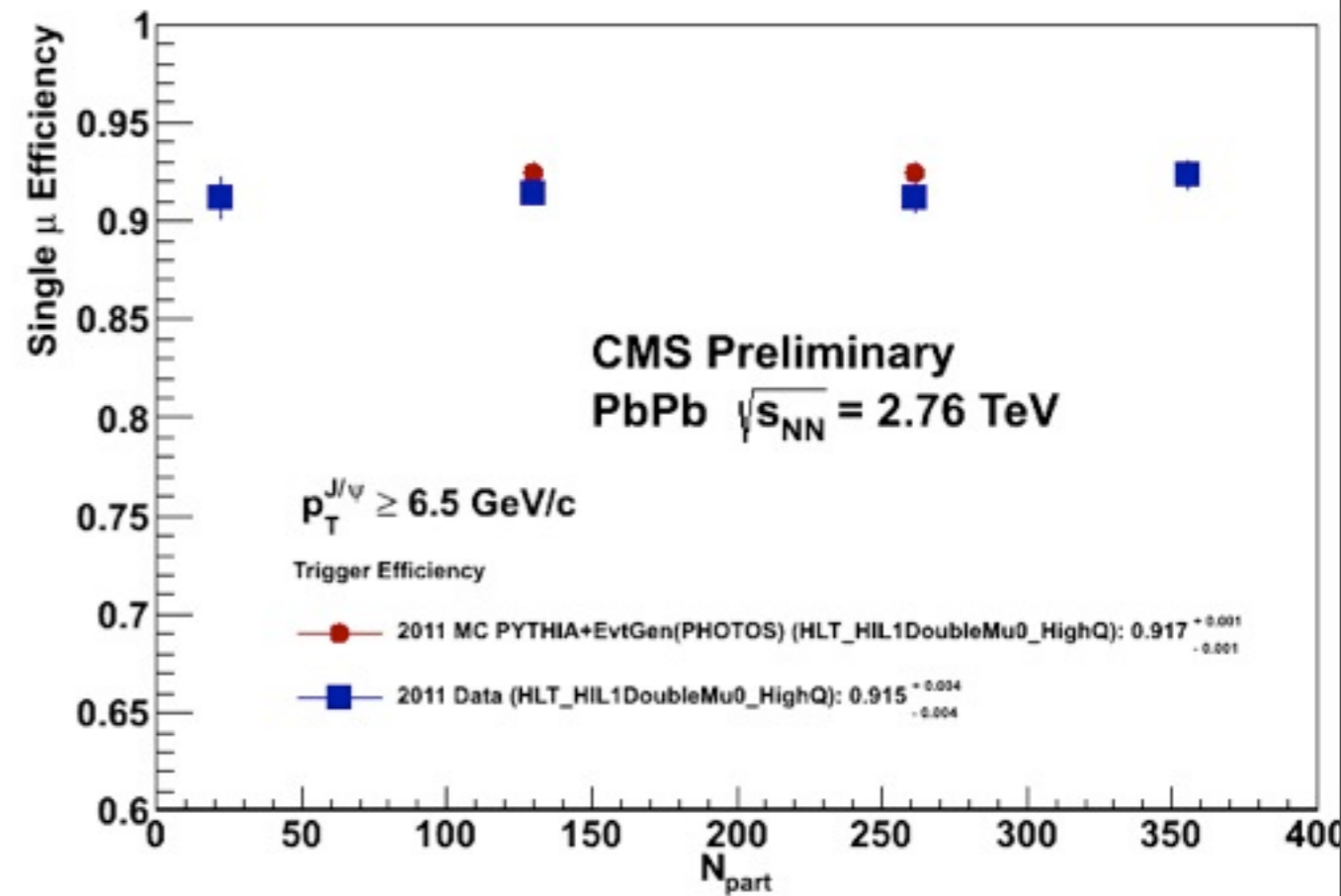
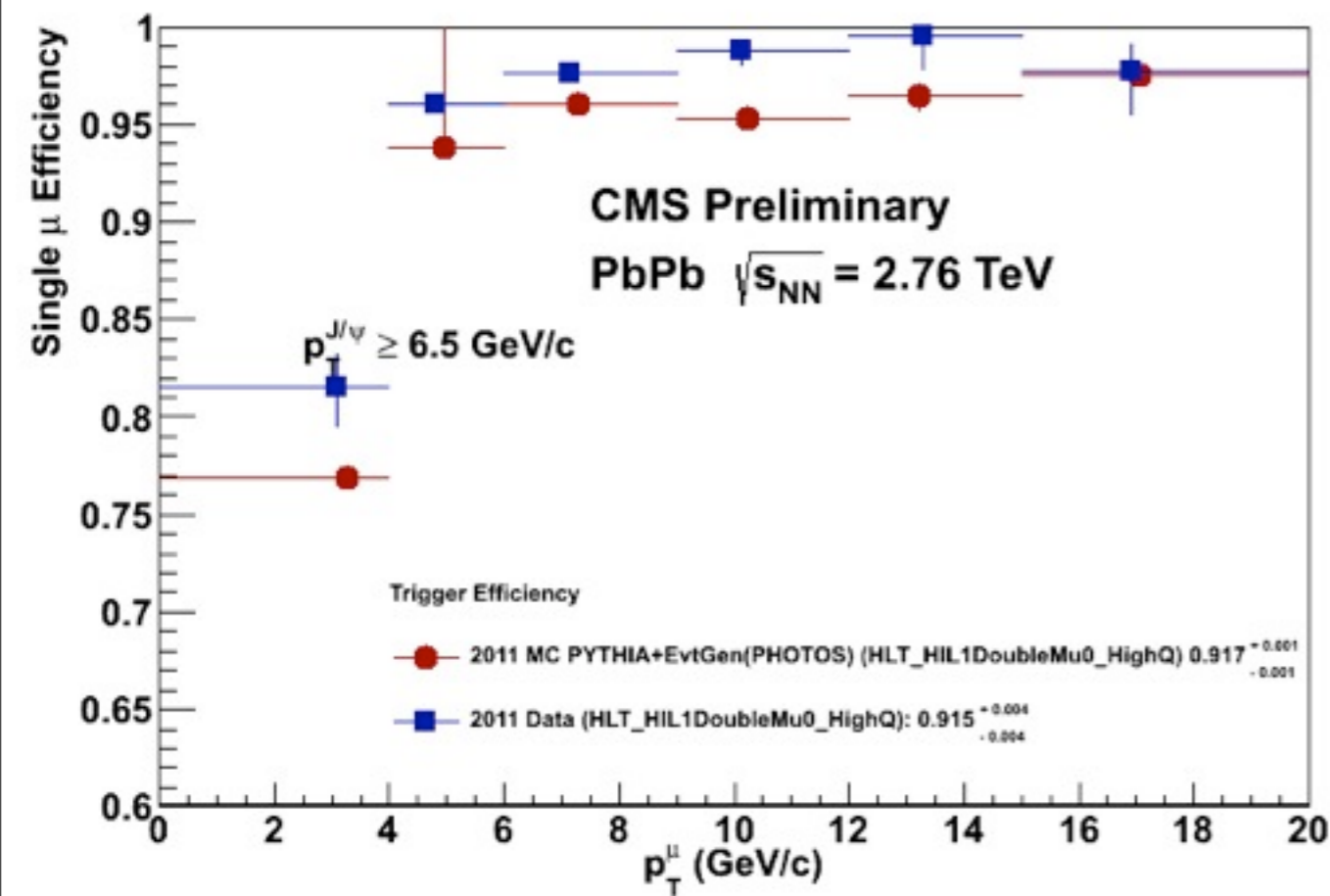
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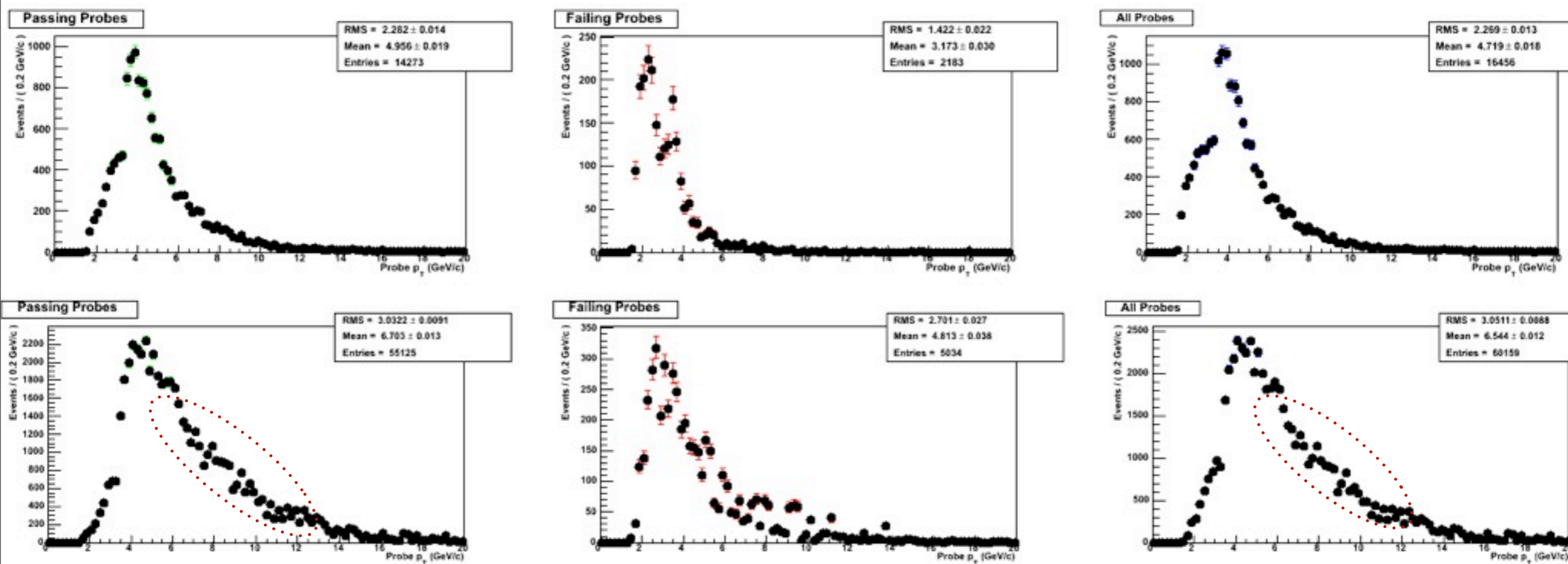
Issue

The issue came up in the last dilepton meeting:

Why is the p_T turn-on curve showing consistently higher efficiency for RD than for MC but the average value is higher in MC than in RD.



Explanation



The explanation is simple. There are more entries with higher p_t for the MC.

Notice mean p_t for MC = 6.5 GeV
mean p_t for RD = 4.7 GeV

So more entries in the higher p_t region for MC will raise the efficiency when we report average.

Summary

Be careful when interpreting average values with TnP. It's common knowledge that you have to look at the kinematics (That's why we plot them).

Similar questions have been asked before.

Look at latest muon POG's meeting (Stoyan's slides)

<https://indico.cern.ch/conferenceDisplay.py?confId=195759>

