Quick Look (left-over) 2.5 T data

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OVERVIEW

• Wanted to take a quick look at the 2.5 T settings to do a rough check of the quality of the data (i.e. statistics)
  – Showed $E_0 = 2.2$ GeV 2.5 T last week
  – Now finishing up with the remaining two settings

• THIS IS SUPER PRELIMINARY AND I HAVEN’T DONE A TON OF CHECKING OF THE DATA OTHER THAN TO MAKE SURE I DIDN’T MESS UP ROYALLY

• Will try and point out issues as I go along

• Reminder: average polarization of 2.5 T settings is 15%
  – 70% for the 5.0 T settings
Majority of data take here was with mismatched septa current so it has been excluded from analysis in this talk.
FROM LAST WEEK BUT GENERAL SHAPE ACROSS NU STILL HOLDS

ACCEPTANCE SHAPE

Run 3459: P0 = 2.07 GeV

Run 3511: P0 = 1.79 GeV

Run 3554: P0 = 1.44 GeV

Run 3653: P0 = 1.00 GeV

FROM LAST WEEK BUT GENERAL SHAPE ACROSS NU STILL HOLDS

ACCEPTANCE SHAPE
SCATTERING ANGLE

• Use very loose cut on the acceptance for analysis
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Clear LHRS reconstruction issues.
For fitting purposes only include runs with scattering angle < 7 degrees
FROM LAST WEEK BUT GENERAL SHAPE ACROSS NU STILL HOLDS

OUT OF PLANE POL. ANGLE

Run 3459: P0 = 2.07 GeV

Out-Of-Plane Angle with loose cut

Run 3900: P0 = 0.777 GeV

Out-Of-Plane Angle with loose cut

Run 3935: P0 = 0.540 GeV

Out-Of-Plane Angle with loose cut
1711 MeV

70 MeV Bins

50 MeV Bins

Corrected for Pt/Pb/HWP
No dilution correction
Corrected for Pt/Pb/HWP
No dilution correction

1157 MeV

70 MeV Bins

50 MeV Bins
• Using model dilution
  • Don’t have PF’s for these settings so just using 0.60 for now
• Model unpolarized cross section
• Don’t trust the systematic errors: I just carried them over from 5T trans. setting
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GOING FORWARD

• 1711 looks useable?
  – 1157 not so much?

• Run everything through RADCOR then:
  – extract g2
  – look at moments to see level of stat error

• Also PF values and dilution at the 2.5 T settings?