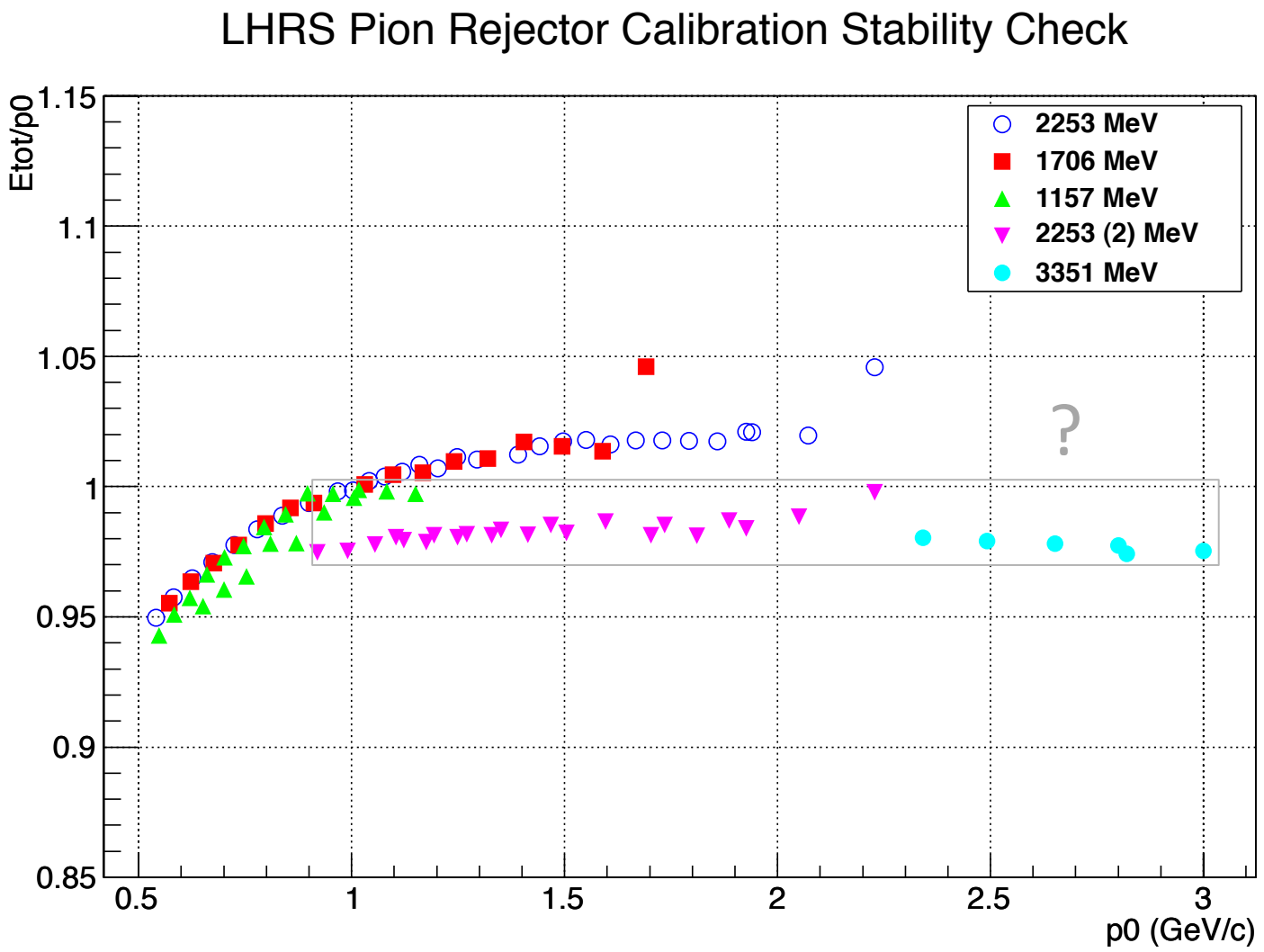
Status of Lead Glass Calibrations

Melissa Cummings

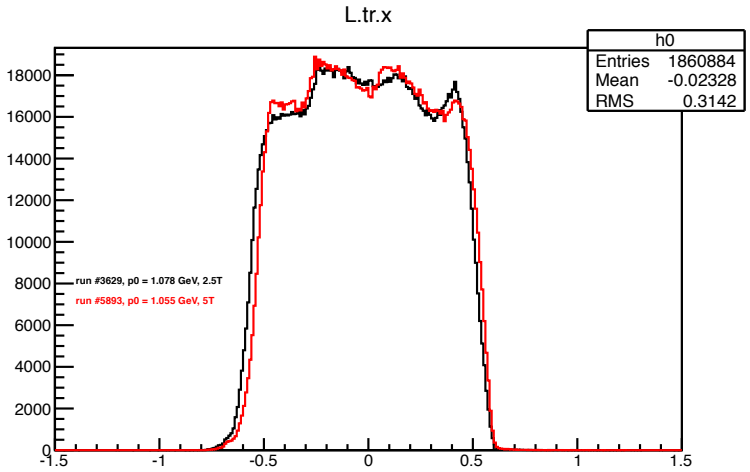
11/06/12

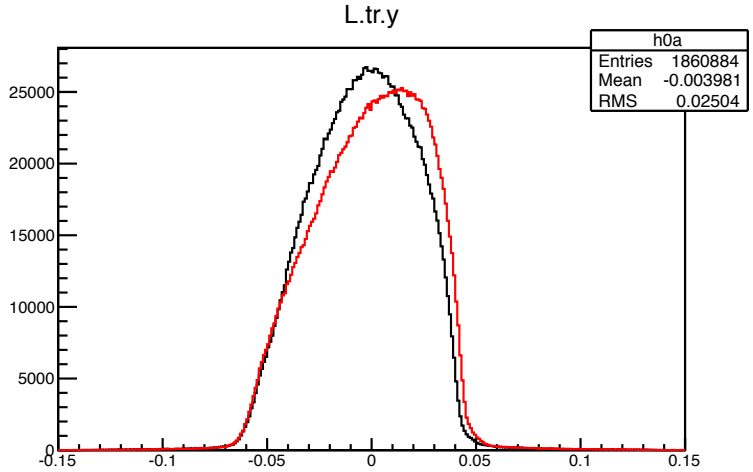
LHRS: 90/10 Split Method

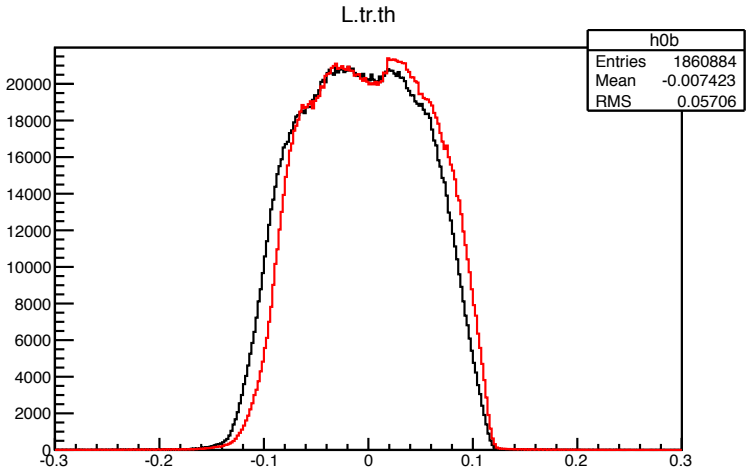


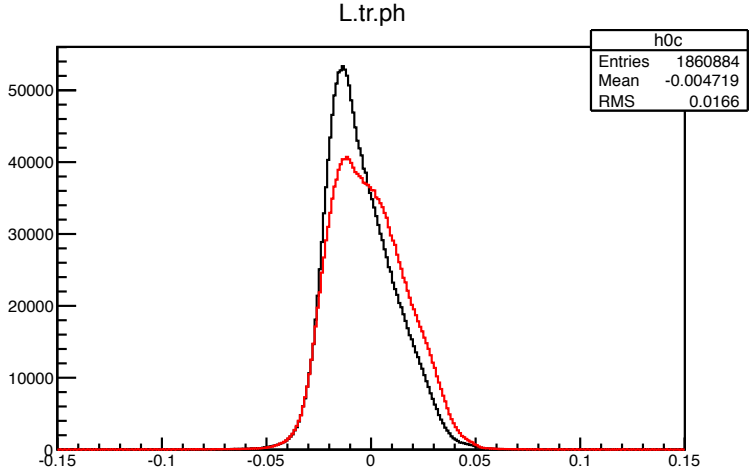
LHRS Tracking Variables

Black: 2.5T run, Red: 5T run (E_{beam} = 2.2 GeV, p0 ≈ 1 GeV)

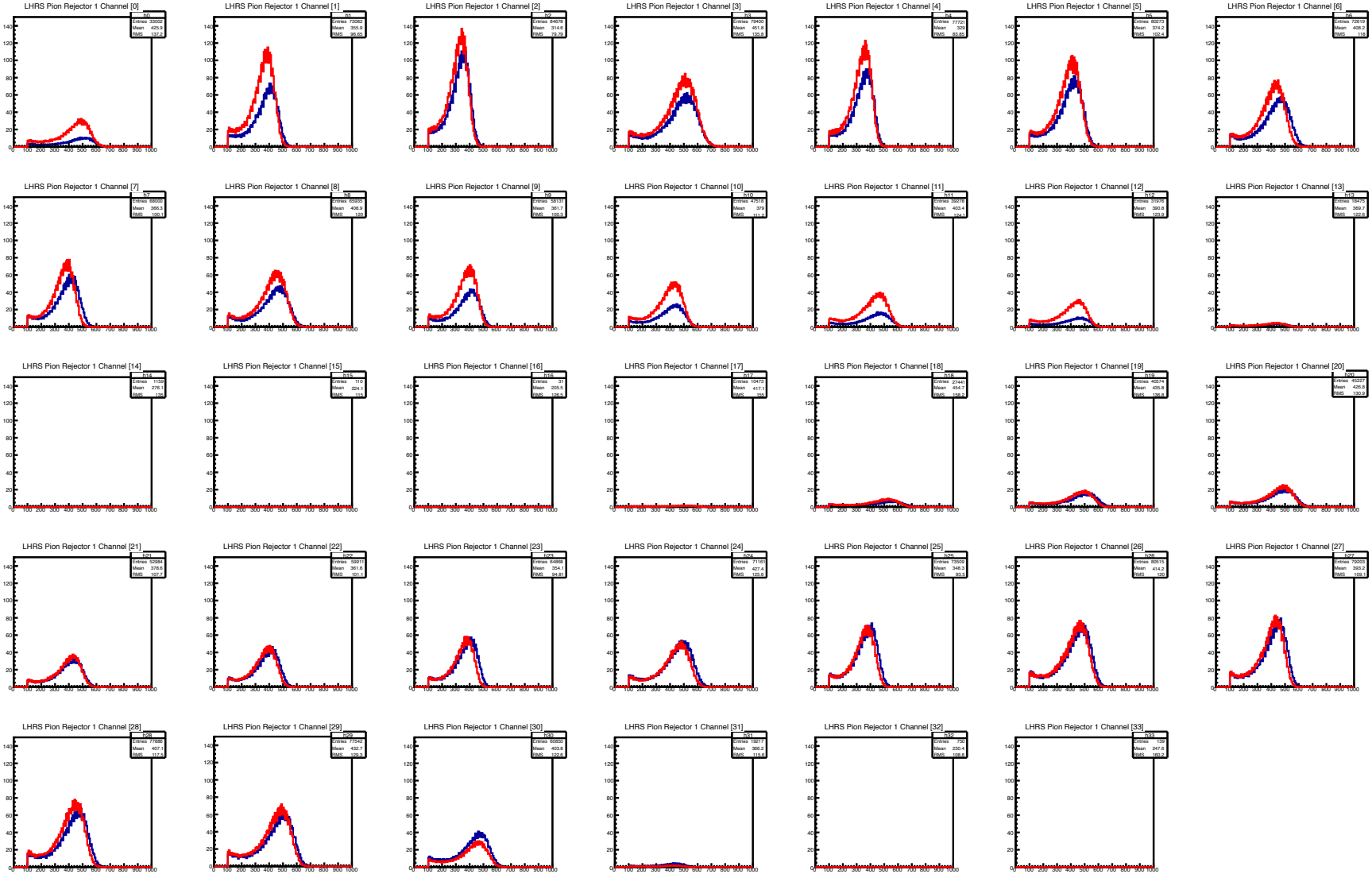








LHRS: PRL1


LHRS Pion Rejector 1 Channel [0]
LHRS Pion Rejector 1 Channel [1]
LHRS Pion Rejector 1 Channel [2]
LHRS Pion Rejector 1 Channel [3]
LHRS Pion Rejector 1 Channel [4]
LHRS Pion Rejector 1 Channel [5]
LHRS Pion Rejector 1 Channel [6]
LHRS Pion Rejector 1 Channel [7]
LHRS Pion Rejector 1 Channel [8]
LHRS Pion Rejector 1 Channel [9]
LHRS Pion Rejector 1 Channel [10]
LHRS Pion Rejector 1 Channel [11]
LHRS Pion Rejector 1 Channel [12]
LHRS Pion Rejector 1 Channel [13]
LHRS Pion Rejector 1 Channel [14]
LHRS Pion Rejector 1 Channel [15]
LHRS Pion Rejector 1 Channel [16]
LHRS Pion Rejector 1 Channel [17]
LHRS Pion Rejector 1 Channel [18]
LHRS Pion Rejector 1 Channel [19]
LHRS Pion Rejector 1 Channel [20]
LHRS Pion Rejector 1 Channel [21]
LHRS Pion Rejector 1 Channel [22]
LHRS Pion Rejector 1 Channel [23]
LHRS Pion Rejector 1 Channel [24]
LHRS Pion Rejector 1 Channel [25]
LHRS Pion Rejector 1 Channel [26]
LHRS Pion Rejector 1 Channel [27]
LHRS Pion Rejector 1 Channel [28]
LHRS Pion Rejector 1 Channel [29]
LHRS Pion Rejector 1 Channel [30]
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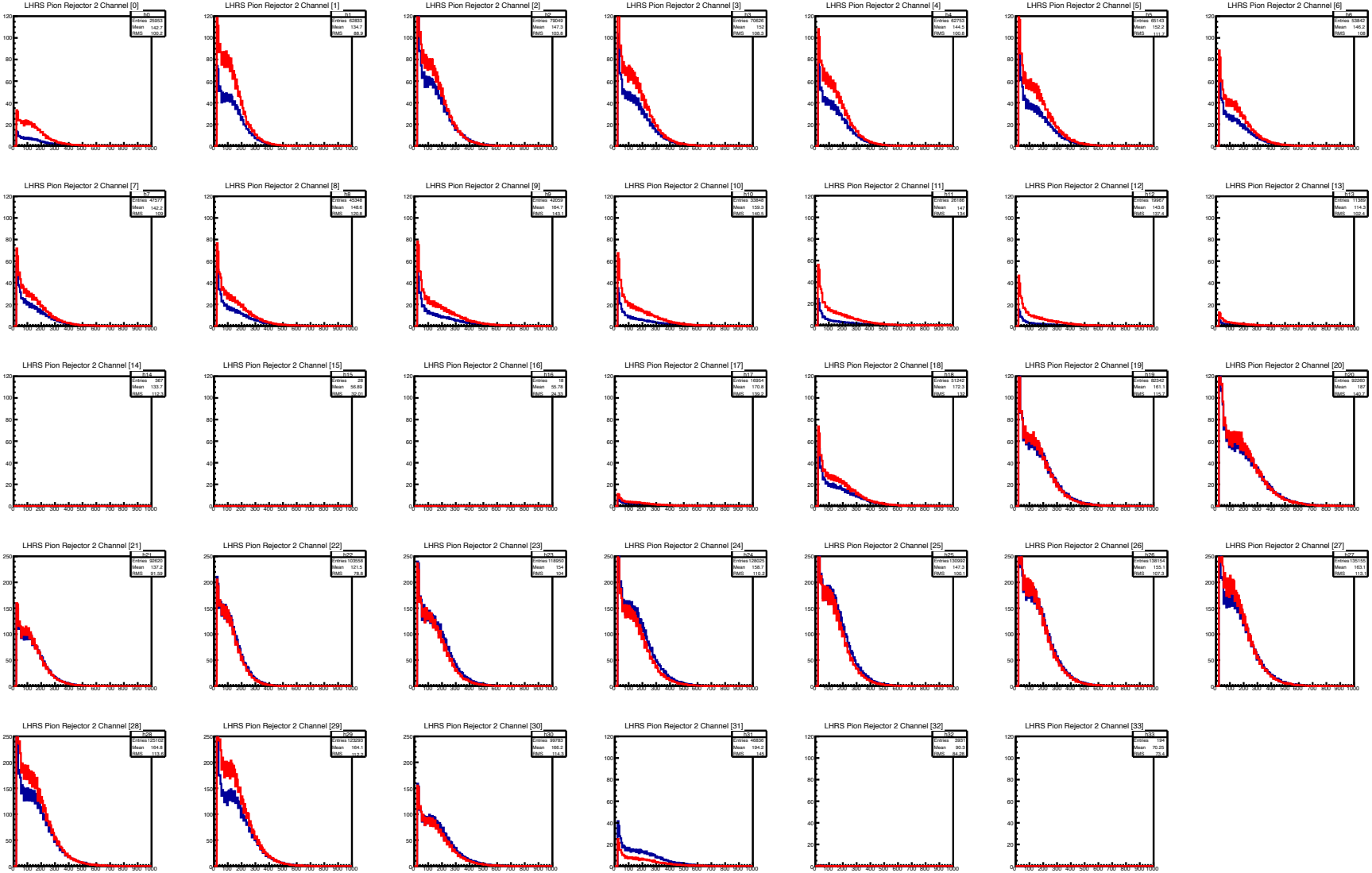
LHRS Pion Rejector 1 Channel [32]
LHRS Pion Rejector 1 Channel [33]

LHRS: PRL2


LHRS Pion Rejector 2 Channel [0]
LHRS Pion Rejector 2 Channel [1]
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LHRS Pion Rejector 2 Channel [7]
LHRS Pion Rejector 2 Channel [8]
LHRS Pion Rejector 2 Channel [9]
LHRS Pion Rejector 2 Channel [10]
LHRS Pion Rejector 2 Channel [11]
LHRS Pion Rejector 2 Channel [12]
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LHRS Pion Rejector 2 Channel [15]
LHRS Pion Rejector 2 Channel [16]
LHRS Pion Rejector 2 Channel [17]
LHRS Pion Rejector 2 Channel [18]
LHRS Pion Rejector 2 Channel [19]
LHRS Pion Rejector 2 Channel [20]
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LHRS Pion Rejector 2 Channel [28]
LHRS Pion Rejector 2 Channel [29]
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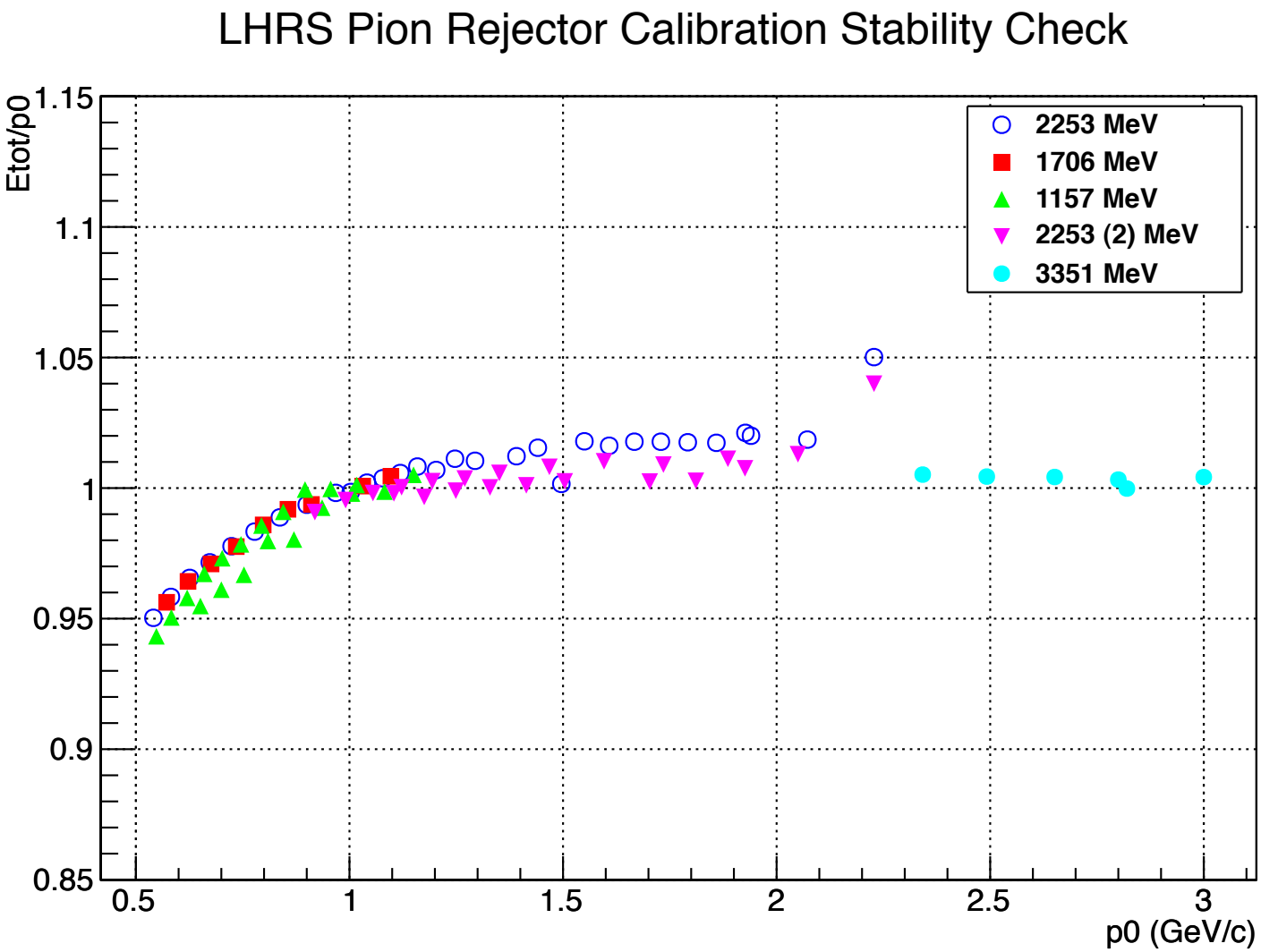
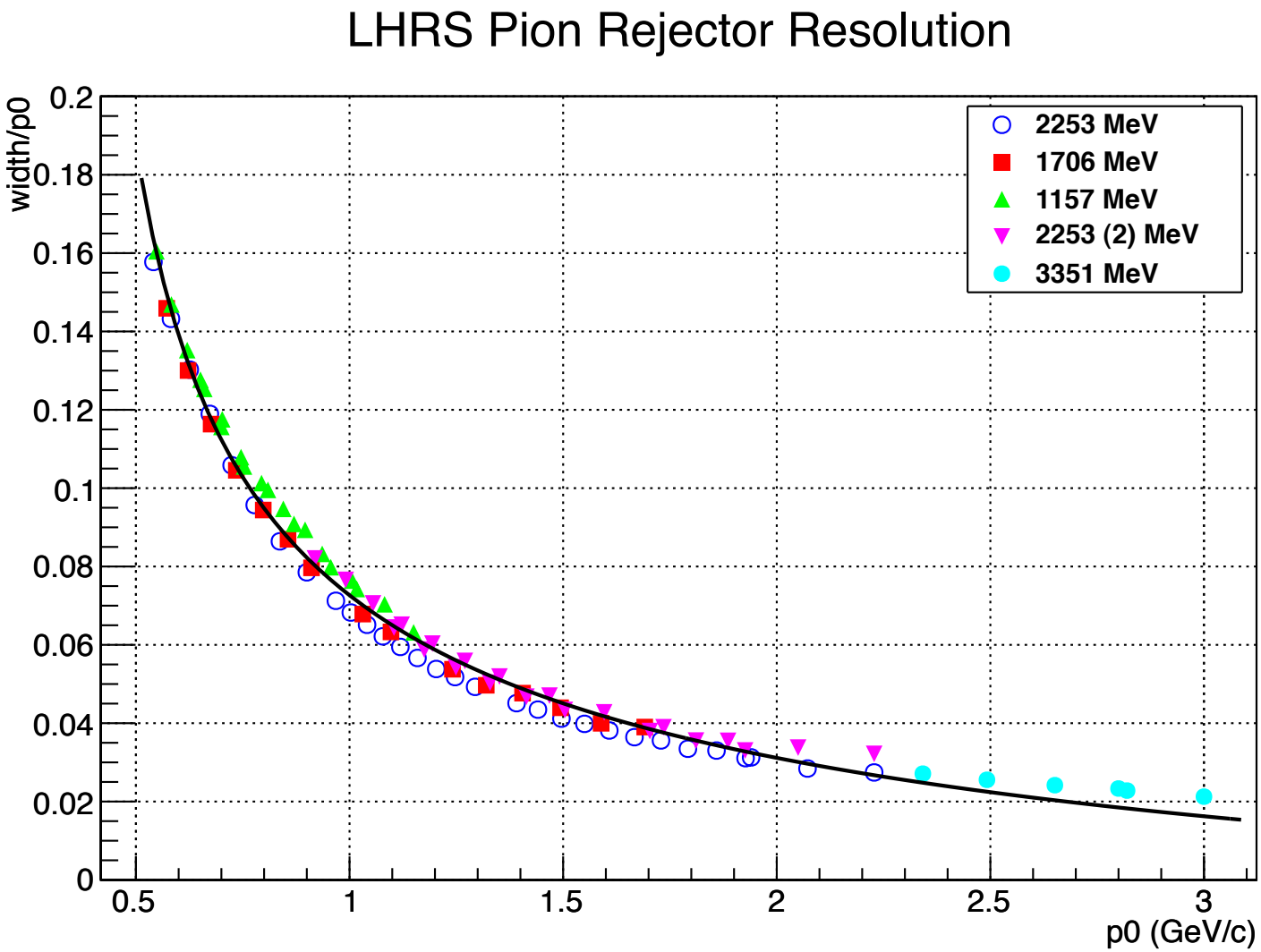
LHRS Adjusted

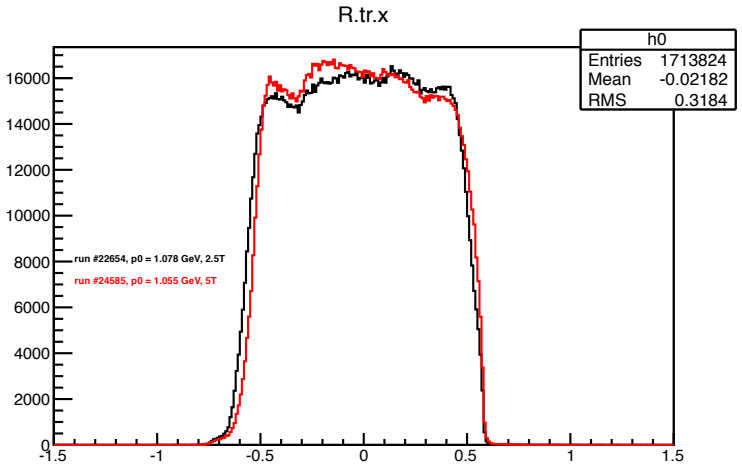


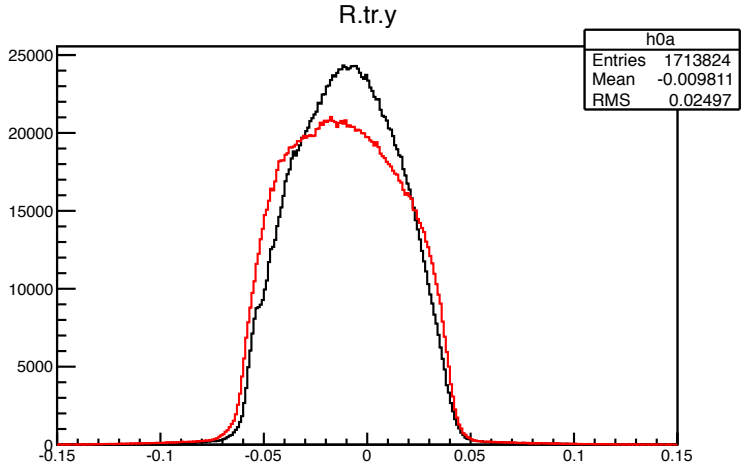
LHRS Adjusted

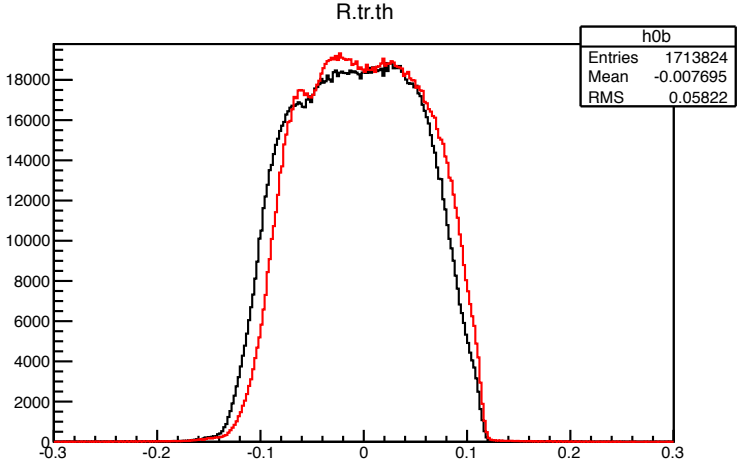


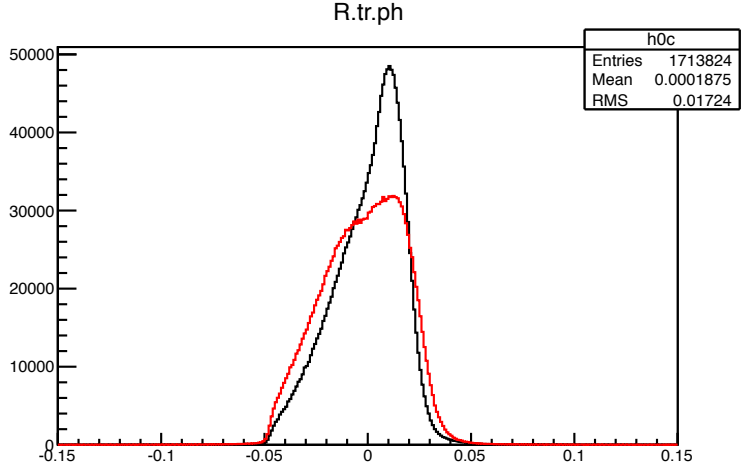
RHRS Tracking Variables

Black: 2.5T run, Red: 5T run (E_{beam} = 2.2 GeV, p0 ≈ 1 GeV)

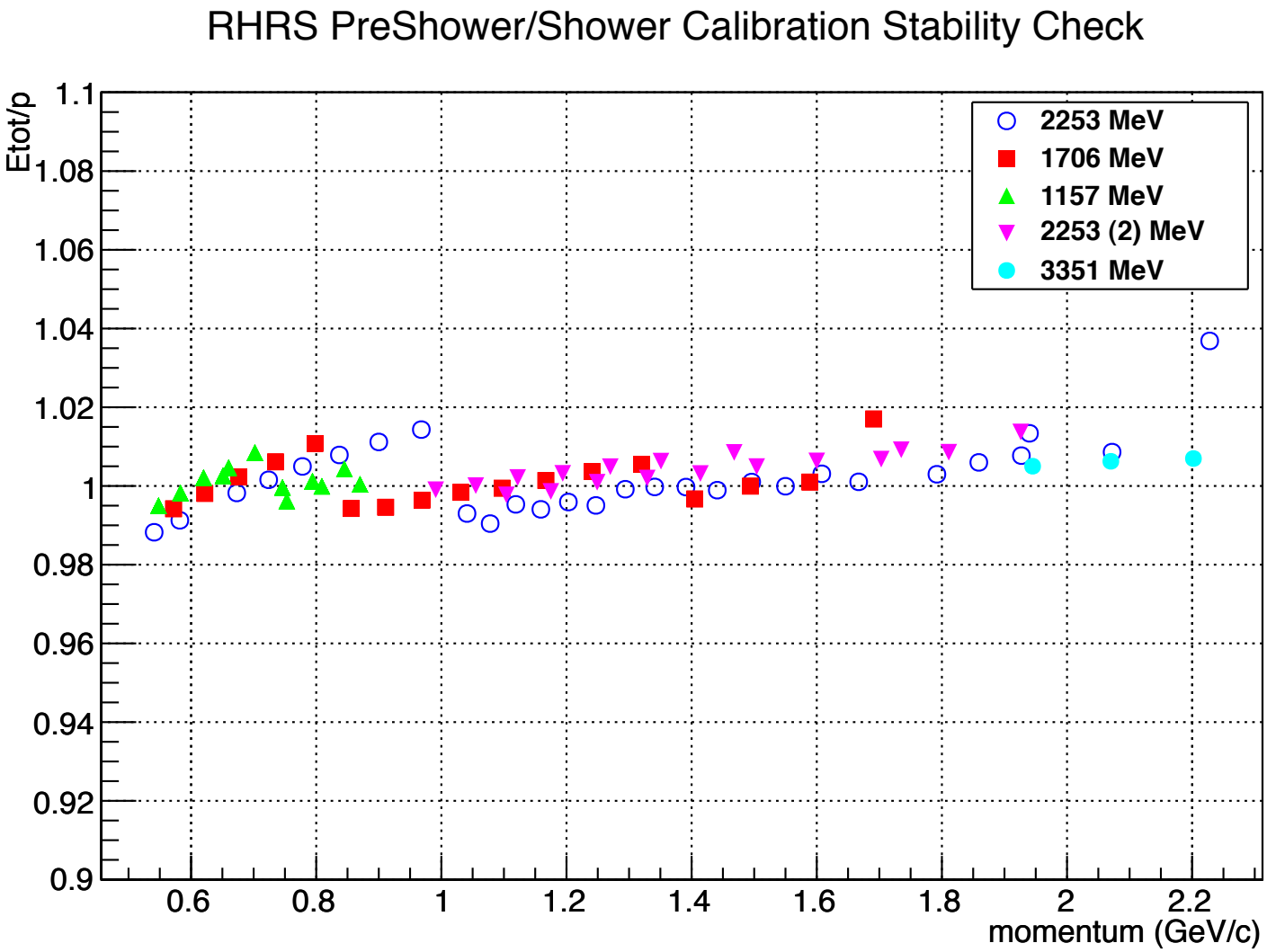




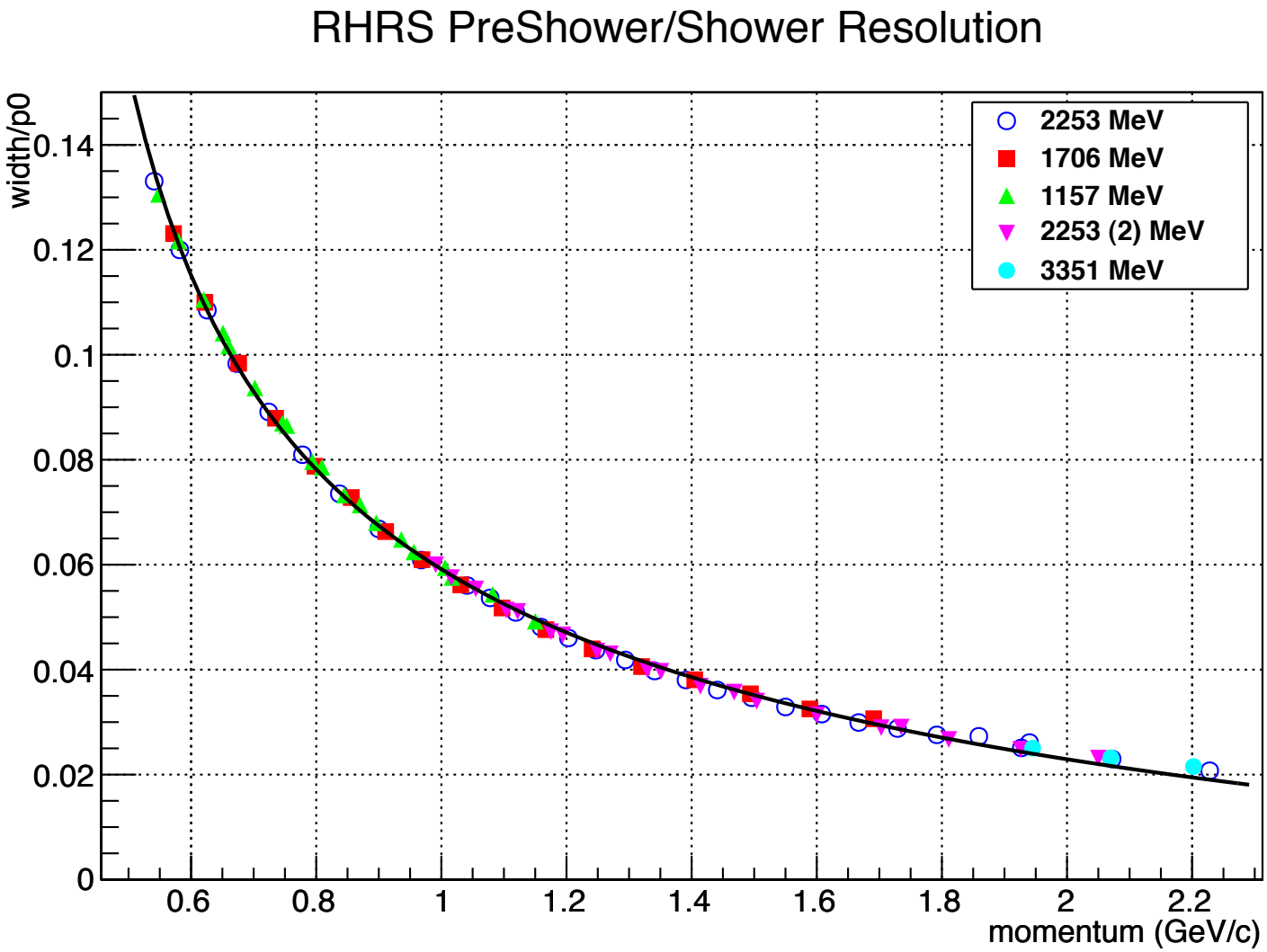




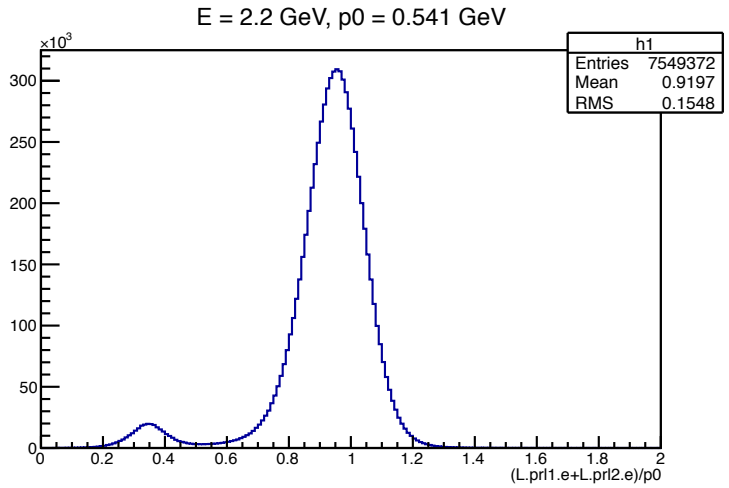
RHRS Adjusted

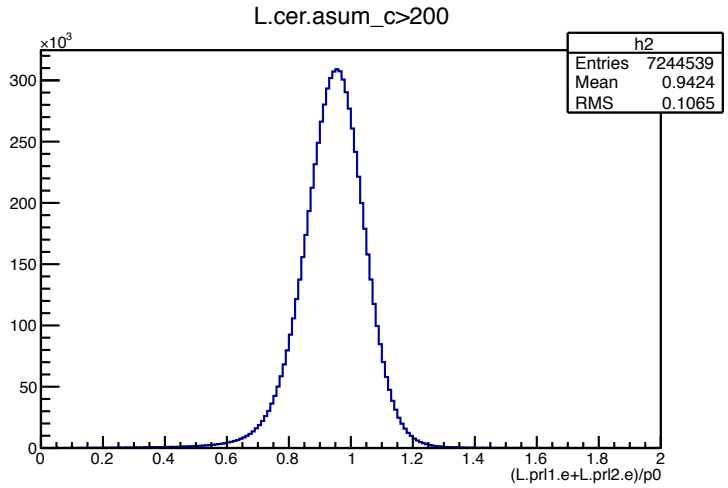


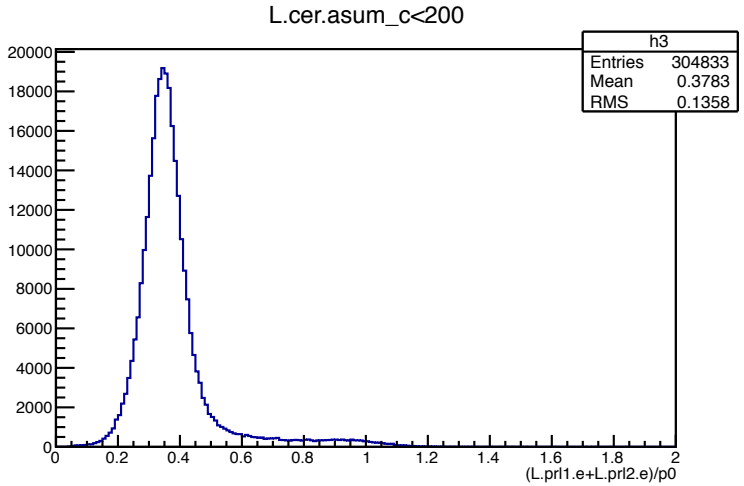
RHRS Adjusted



Pion Contamination - Method

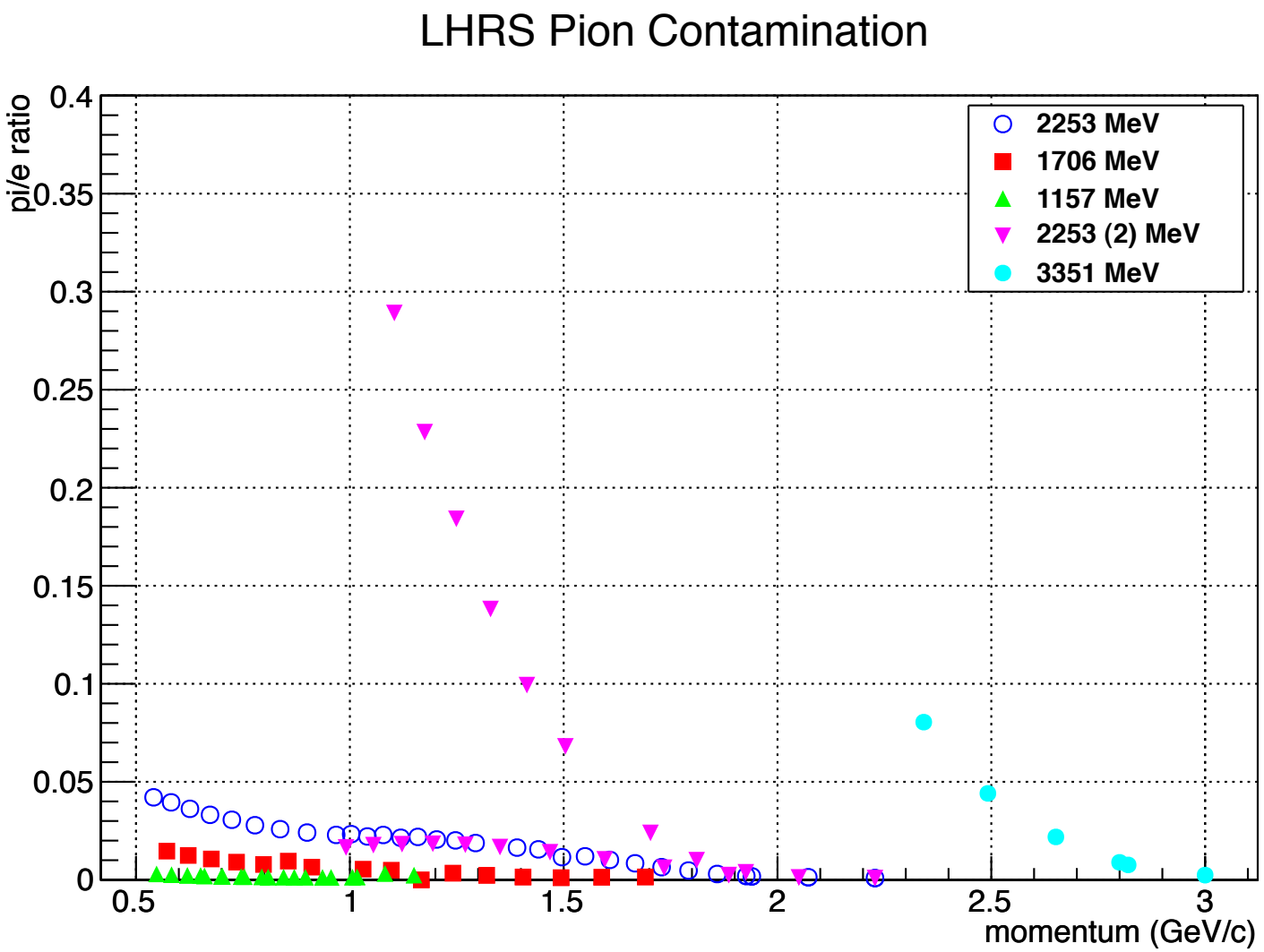




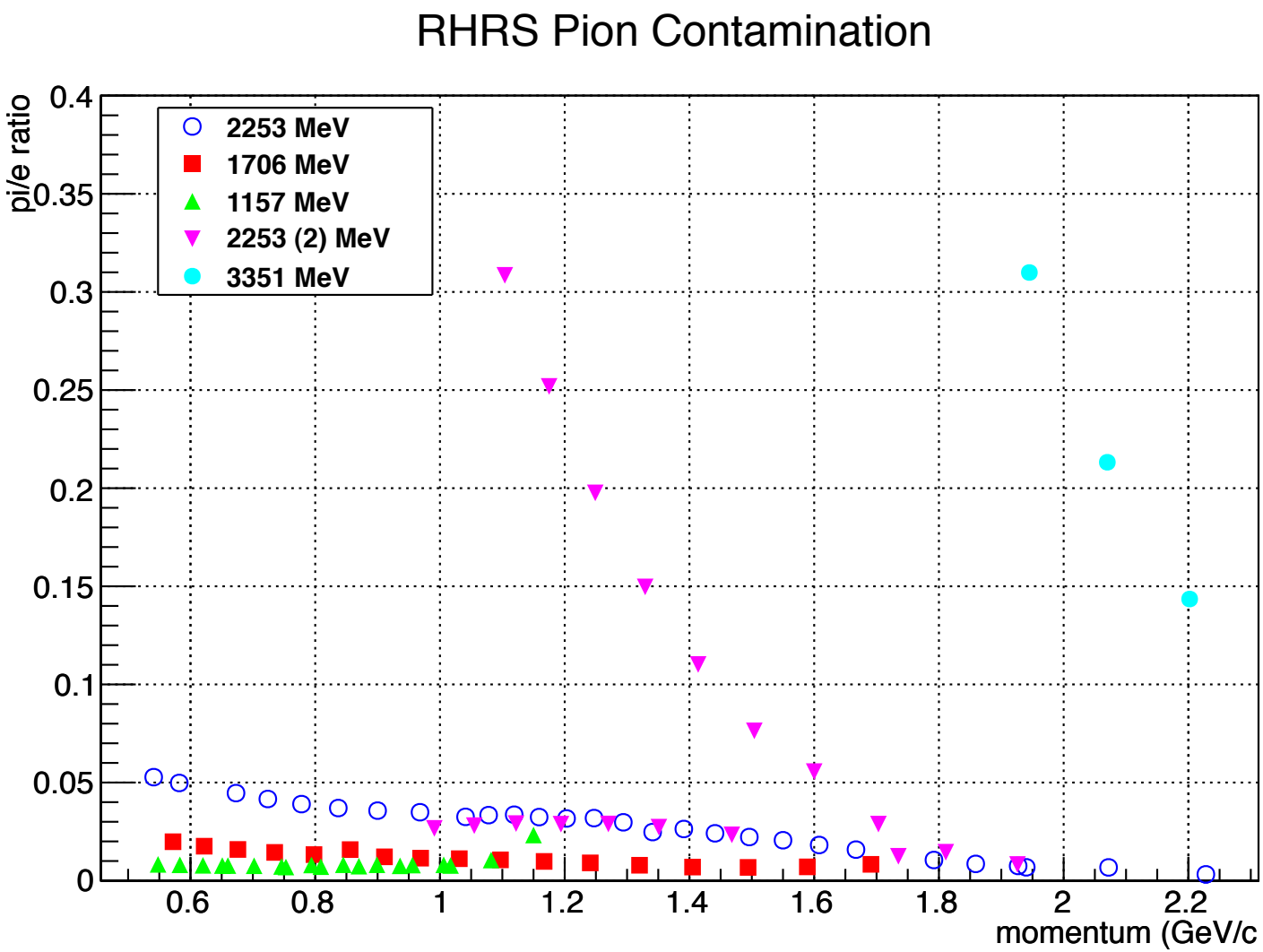


pi/e ratio = 0.0421

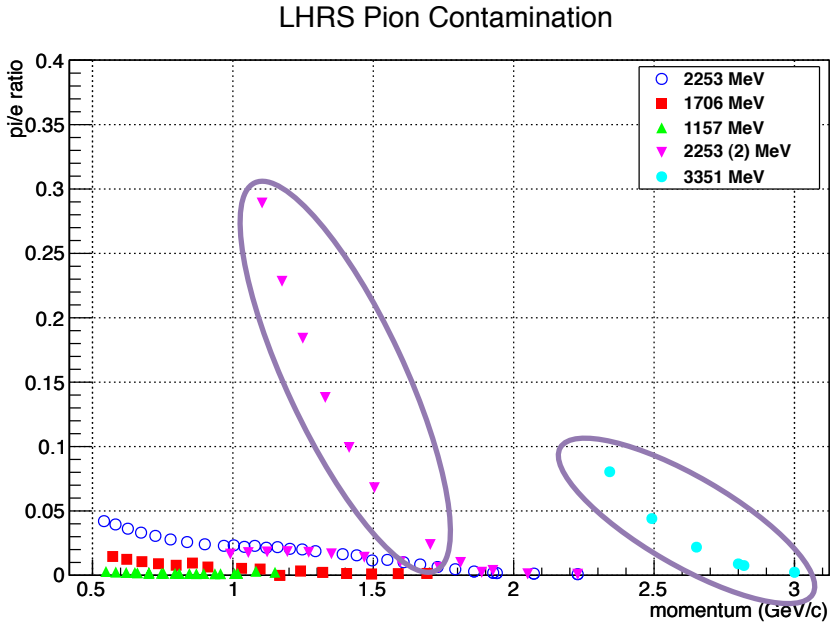
Results

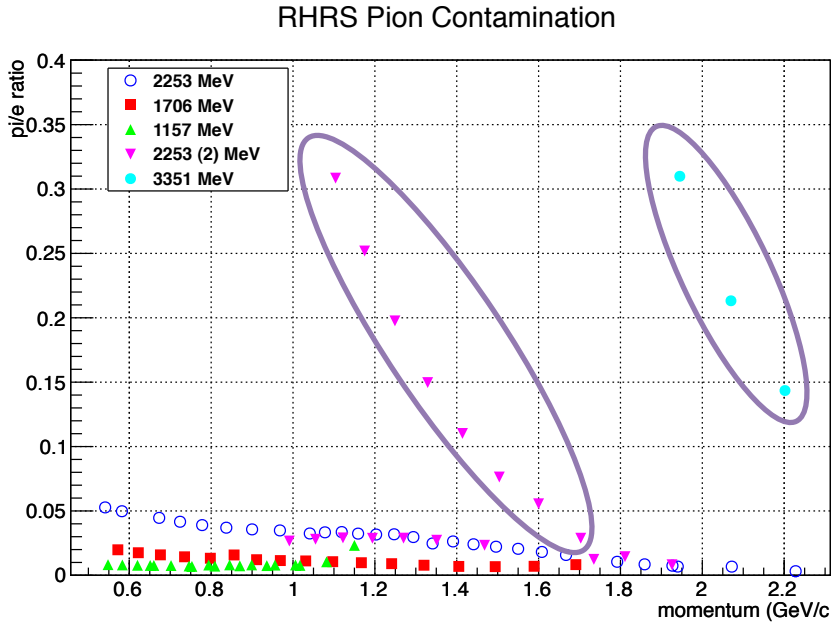

LHRS Pion Contamination
pi/e ratio
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0.5
1
1.5
2
2.5
3
momentum (GeV/c)
2253 MeV
1706 MeV
1157 MeV
2253 (2) MeV
3351 MeV

Results


RHRS Pion Contamination
pi/e ratio
momentum (GeV/c
2253 MeV
1706 MeV
1157 MeV
2253 (2) MeV
3351 MeV
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2
2.2

Pions





Runs taken after 5/11/12 ~21:00

From HALOG: - increased beam current
- possible scraping?
- ???