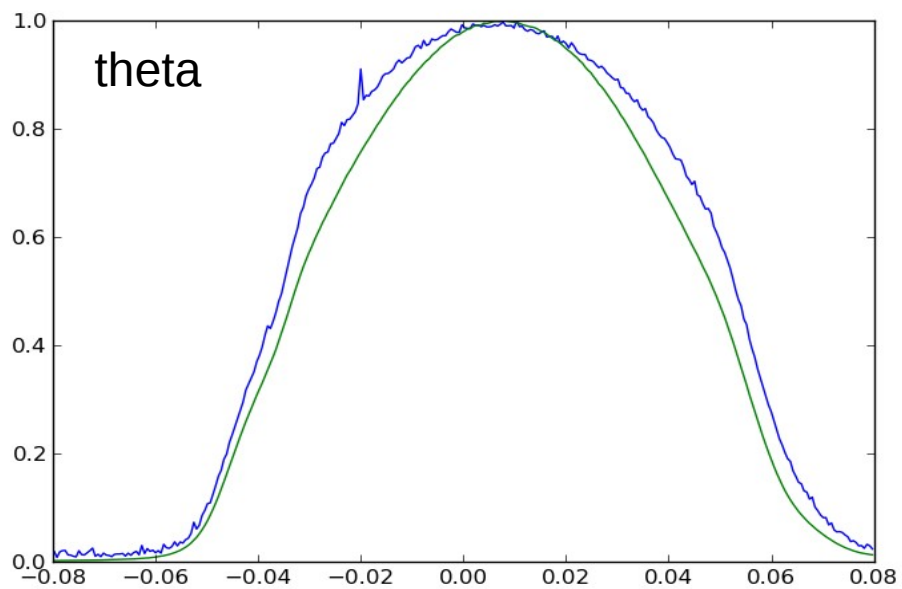
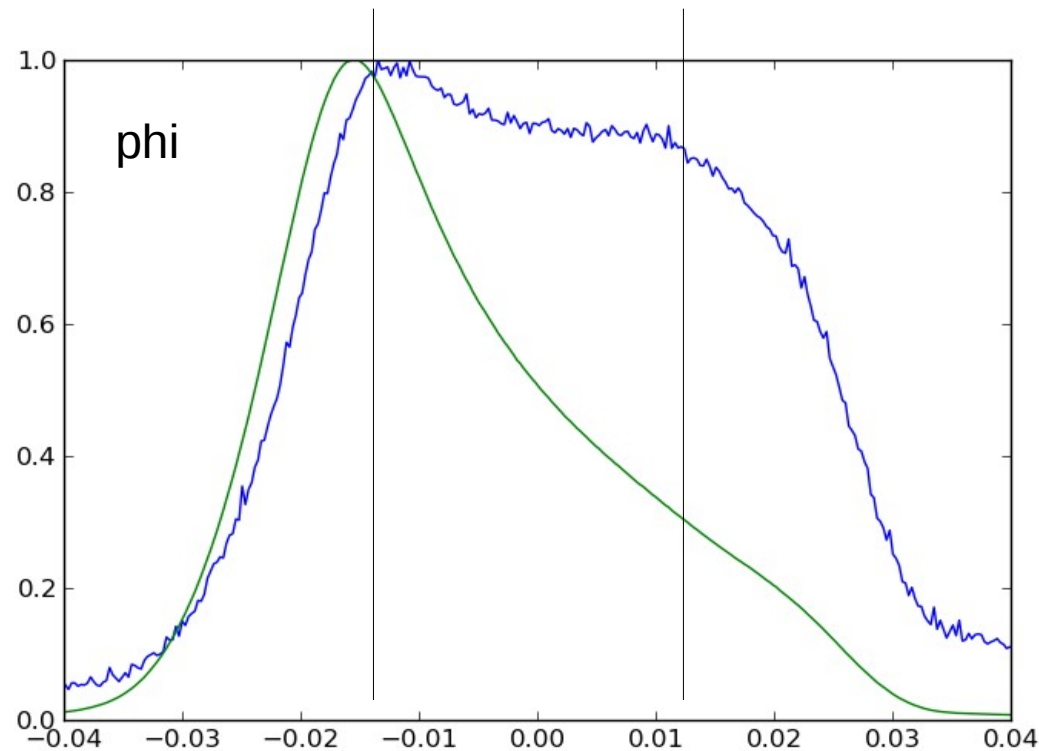
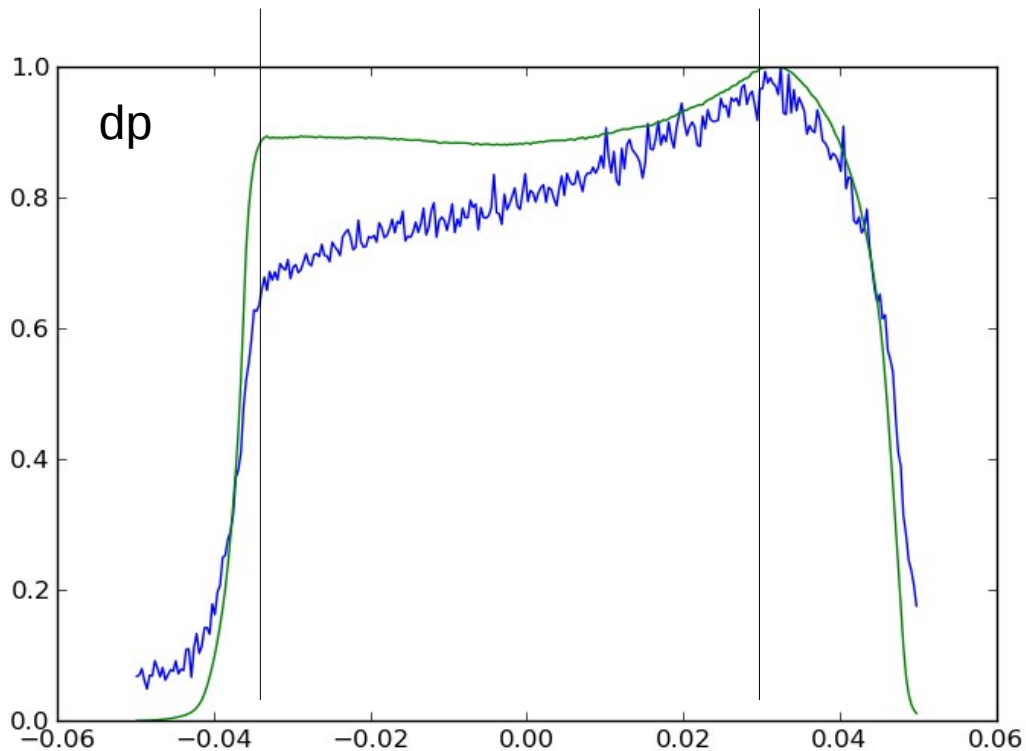


Asymmetry correction for different acceptance

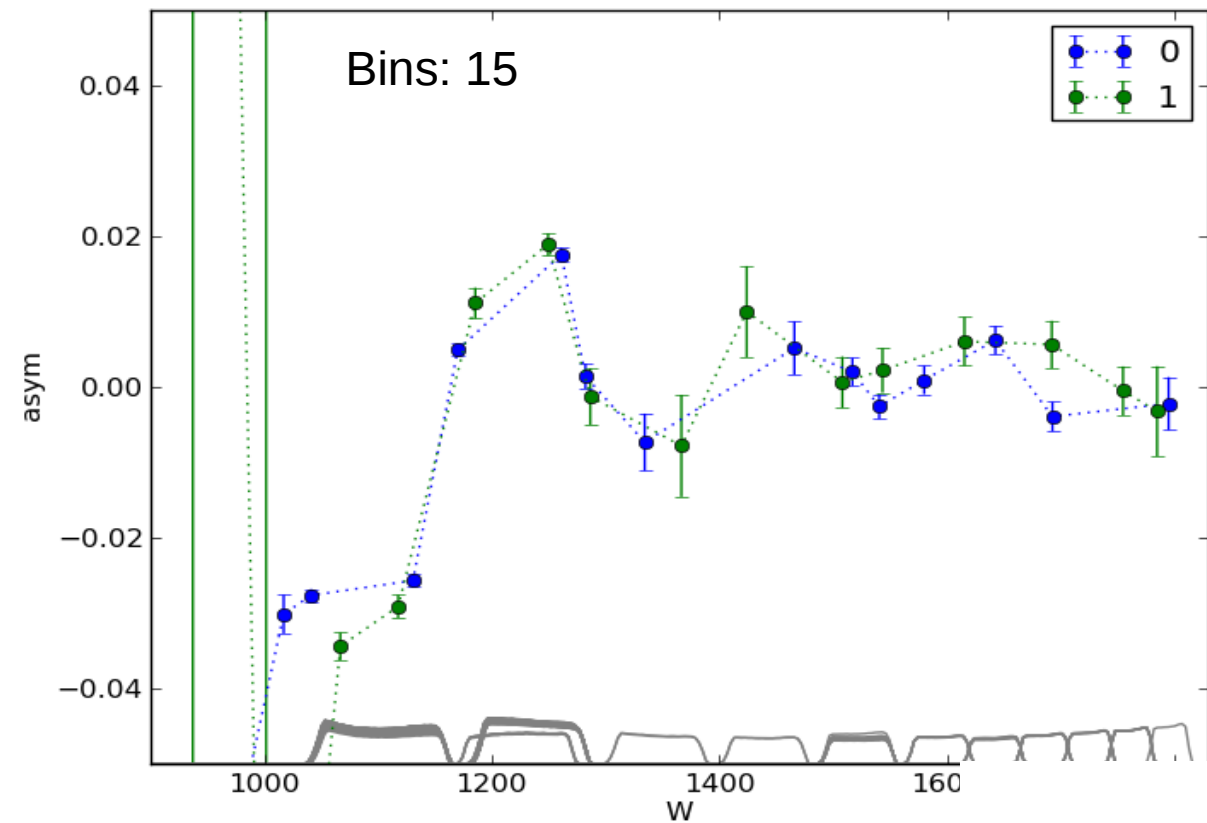
Pengjia Zhu

For 5T longitudinal, 2.2GeV

Green: original yield
Blue: mott cross section weighted

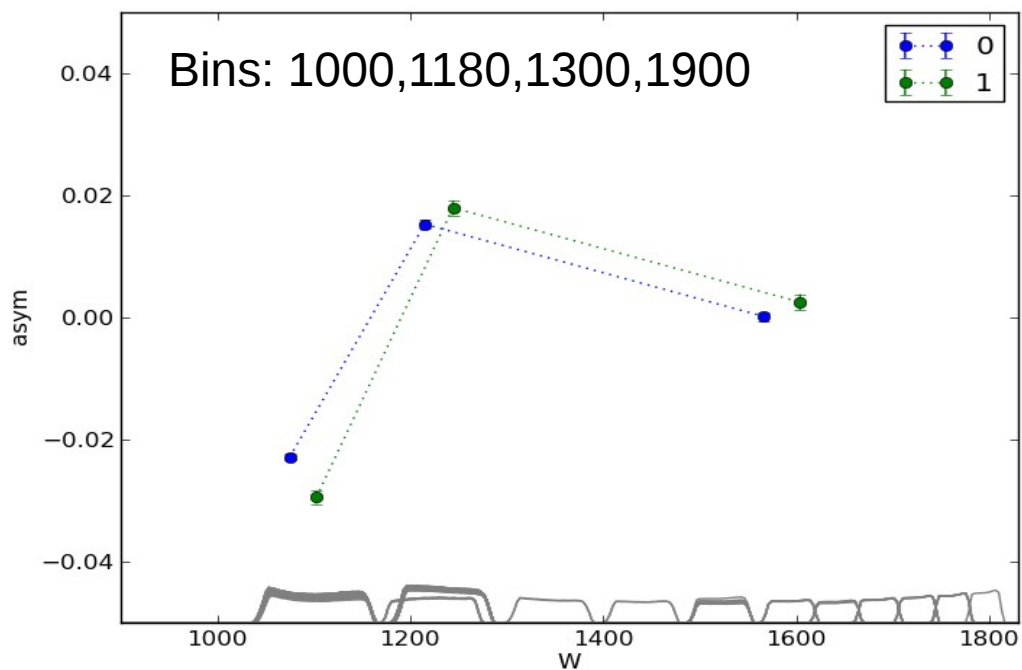


No theta cut applied

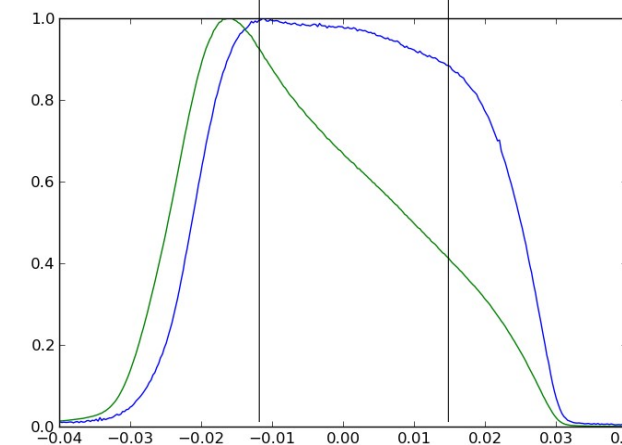
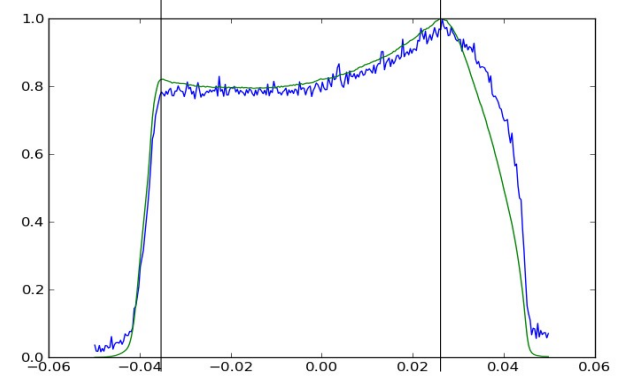
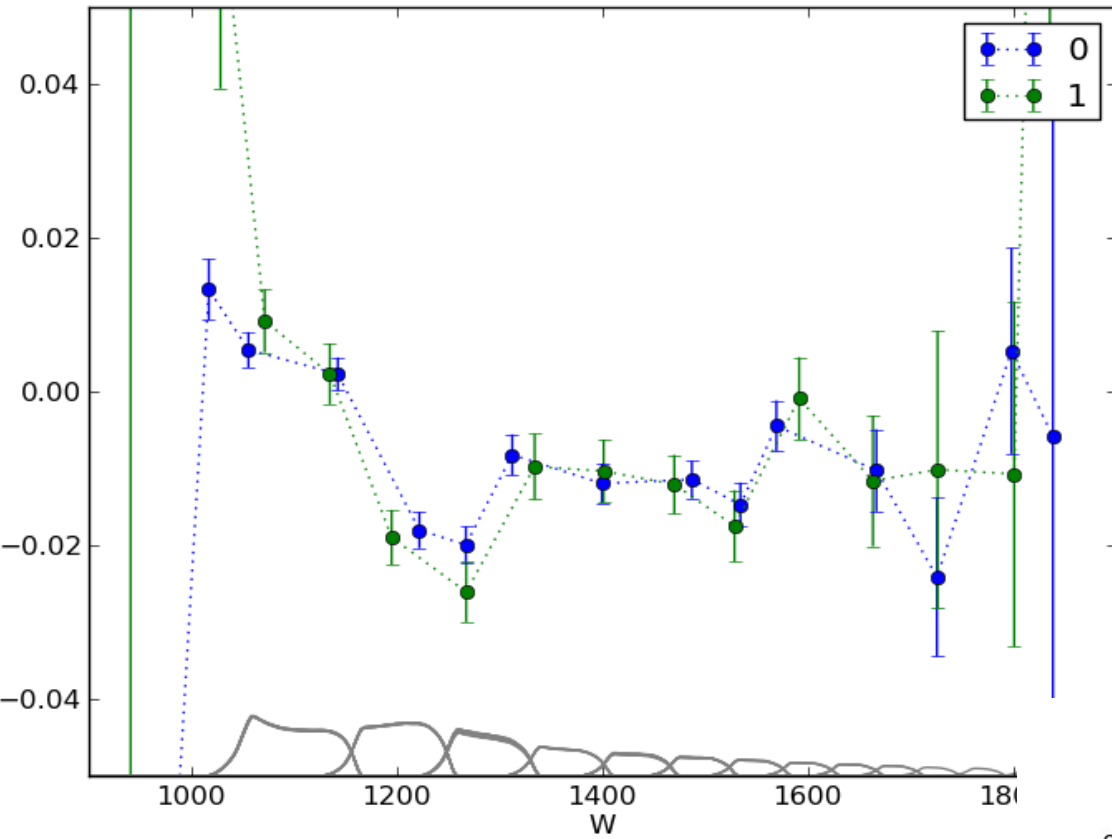


Elastic run excluded
 Blue dot: without acceptance cut
 Green dot: with dp and ph cut
 All dilution use 0.15
 Use same dilution for different material

Asym diff w/wo cut:
 0.0066
 0.0027
 0.0024

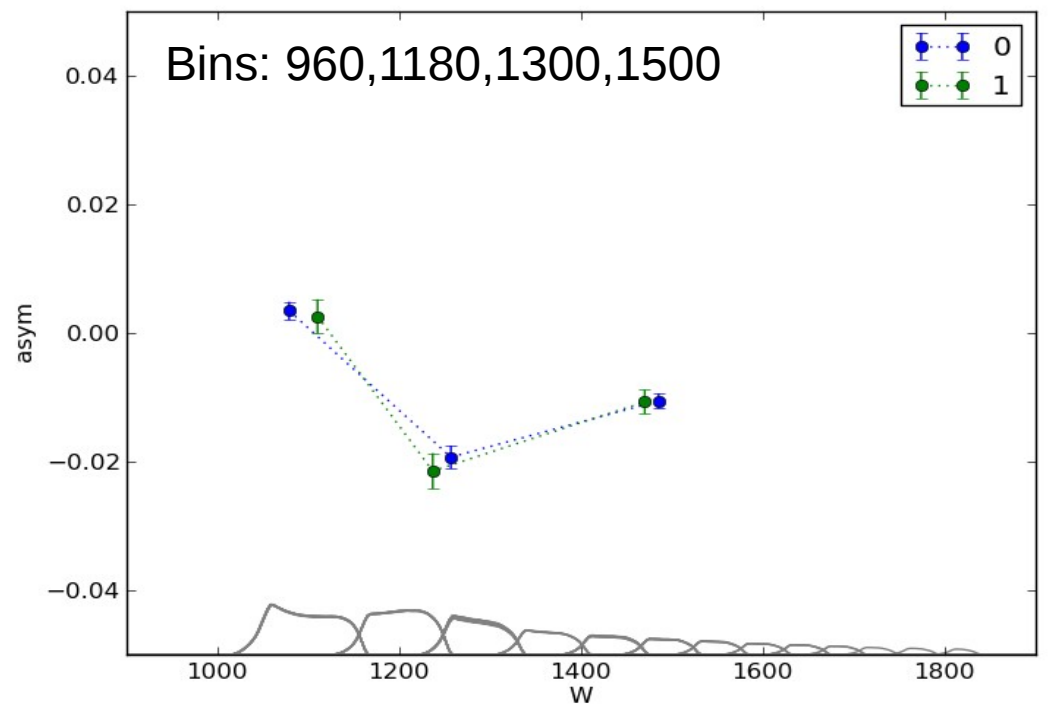


For 5T transverse, 2.2GeV

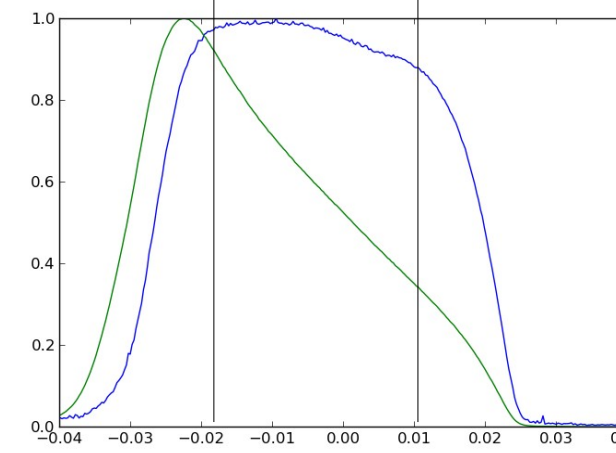
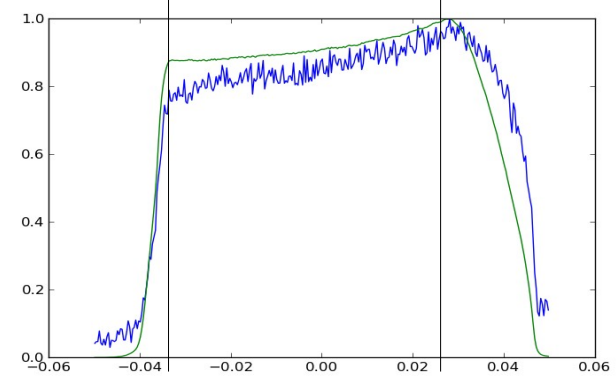
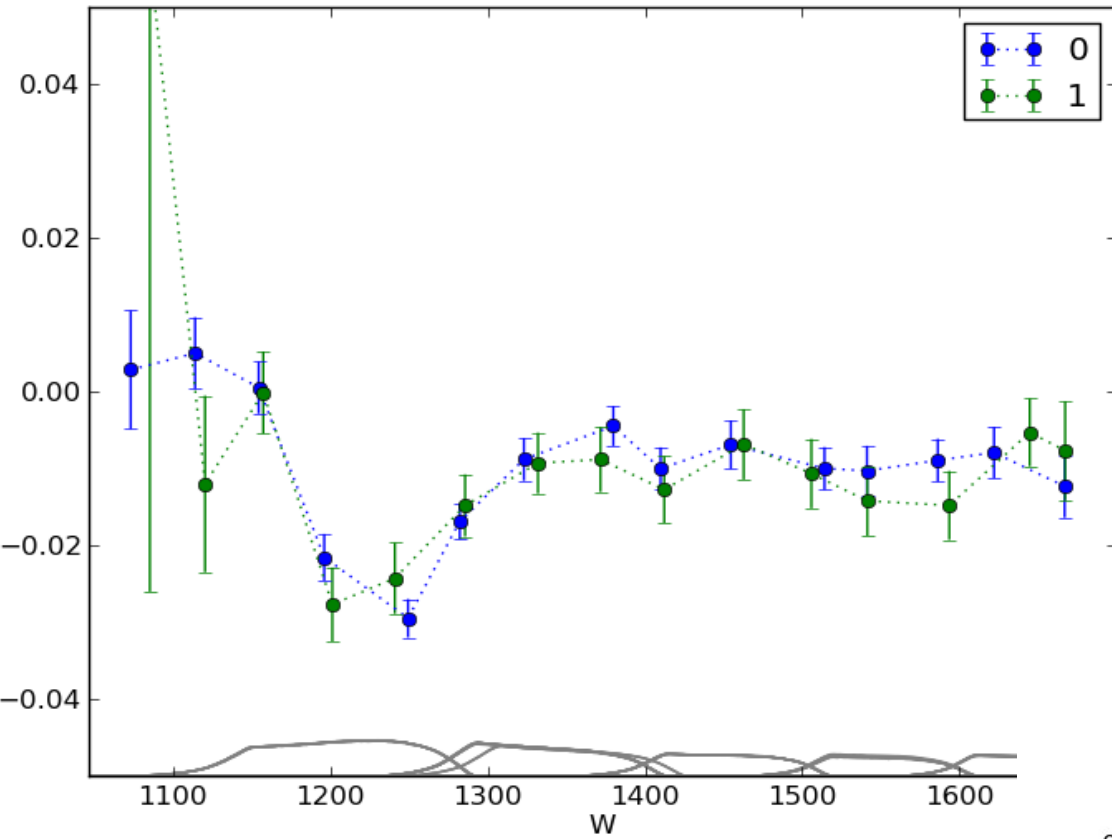


Asym diff w/wo cut:
0.0009
0.0022
0.0002

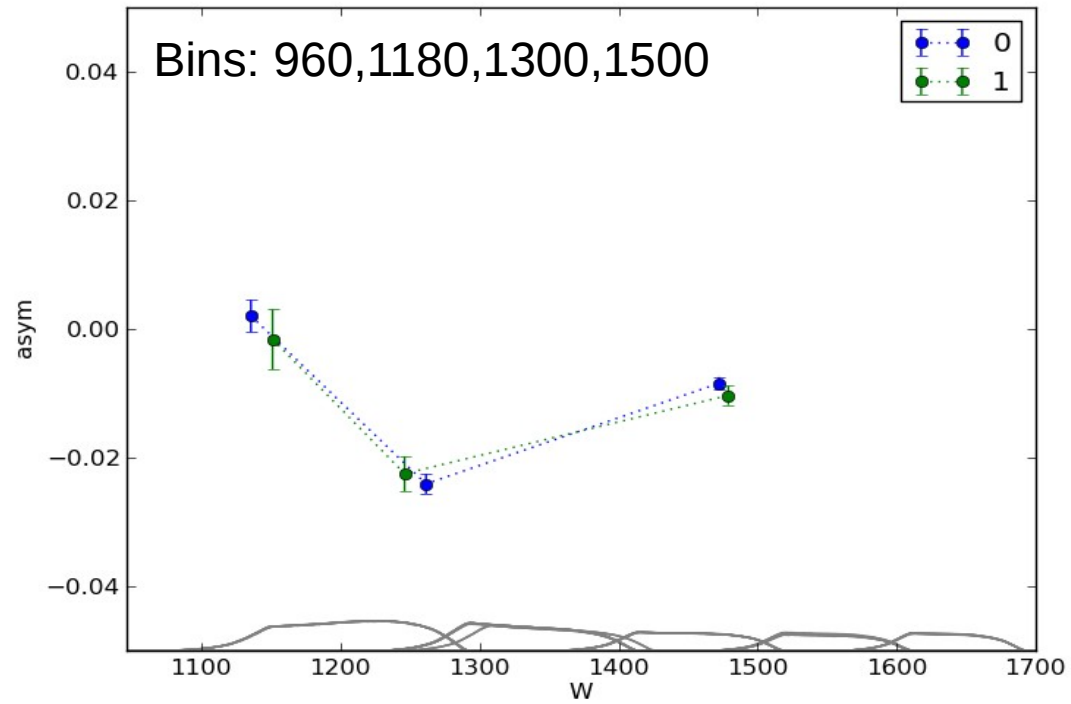
Bins: 960,1180,1300,1500



For 5T transverse, 3.3GeV



Asym diff w/wo cut:
0.0036
0.0016
0.0019



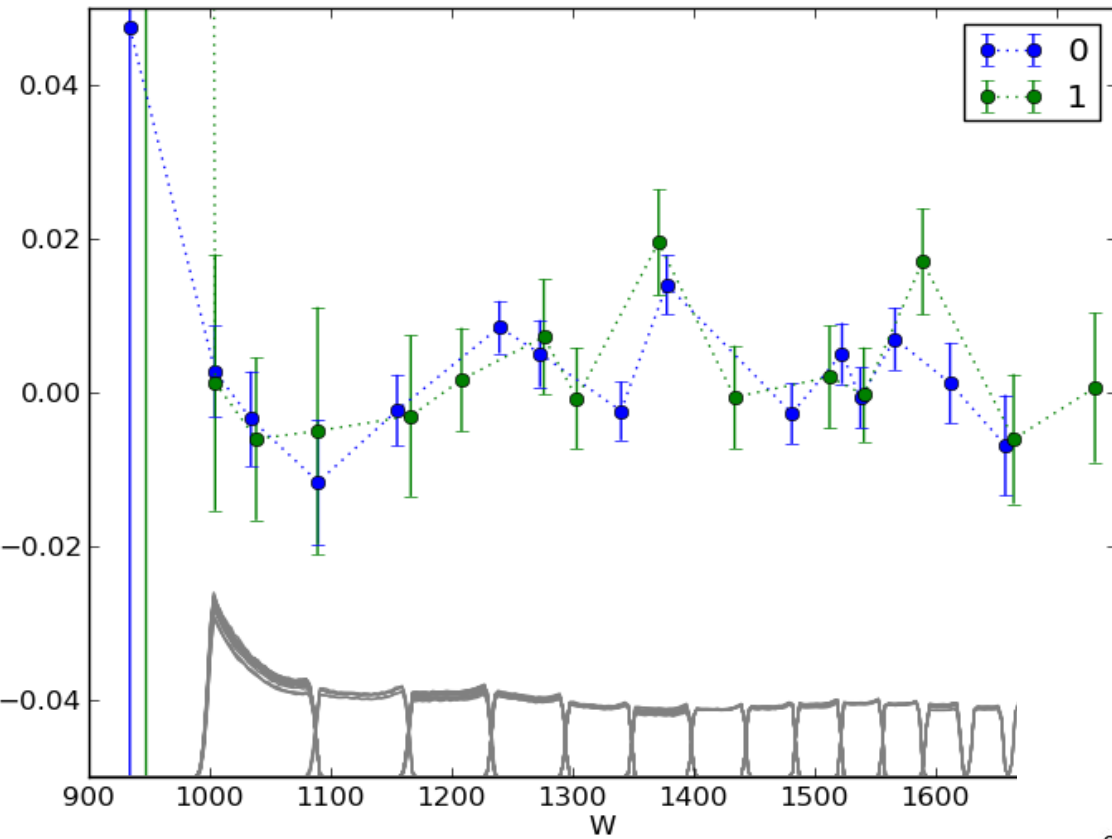
For 2.5T setting:

Low polarization/ high uncertainty

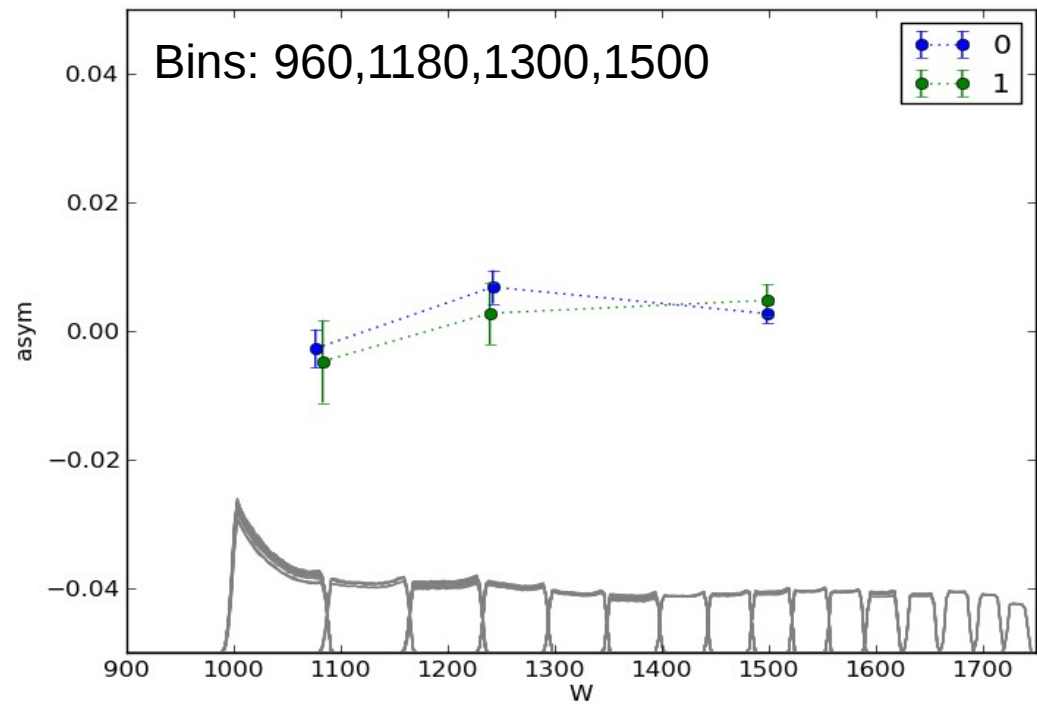
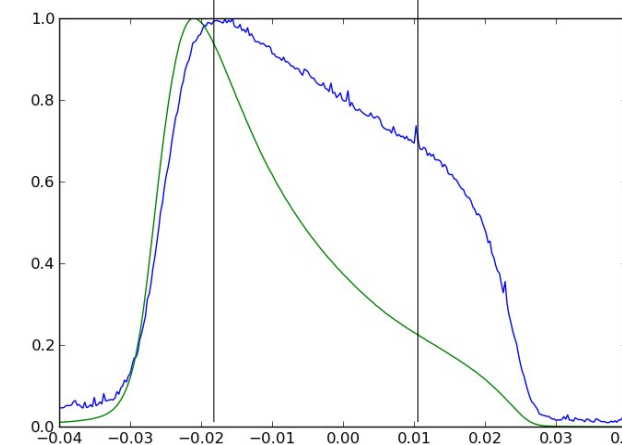
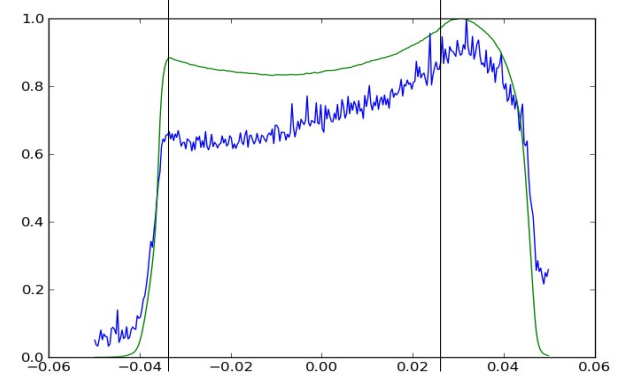
Didn't take a lot time

Wait for right arm optics already for more data

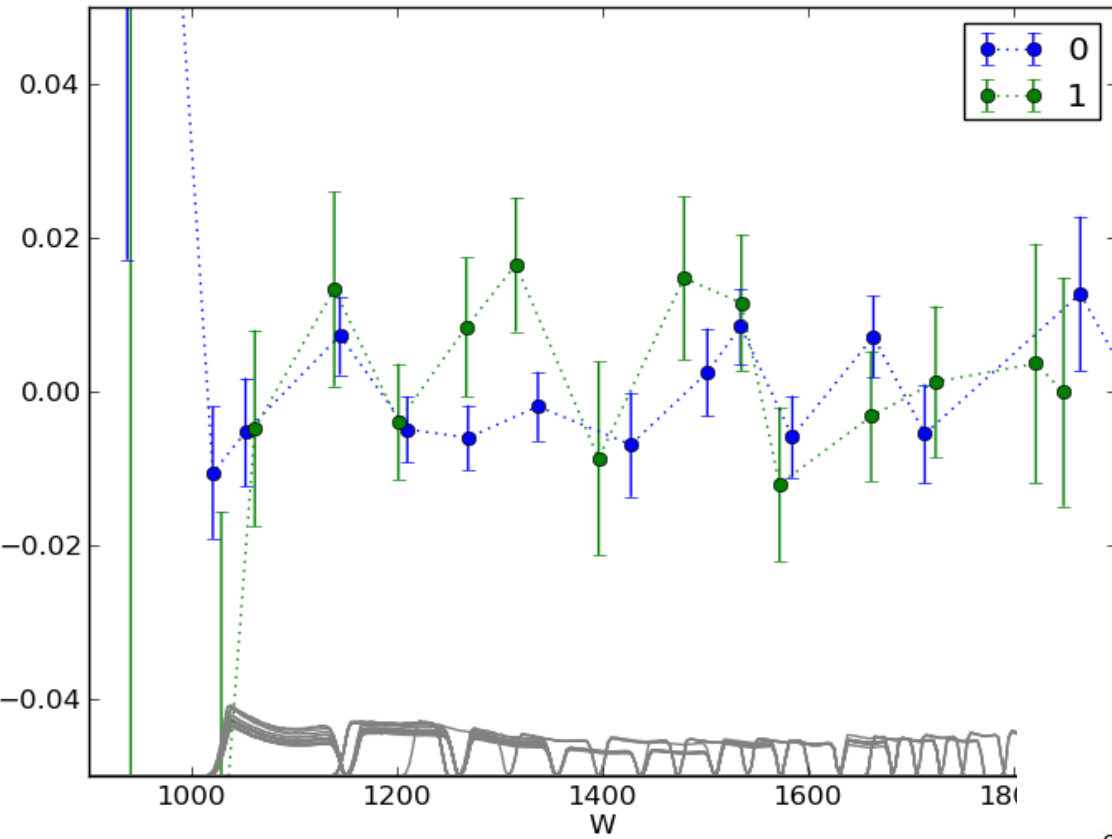
For 2.5T transverse, 1.7GeV



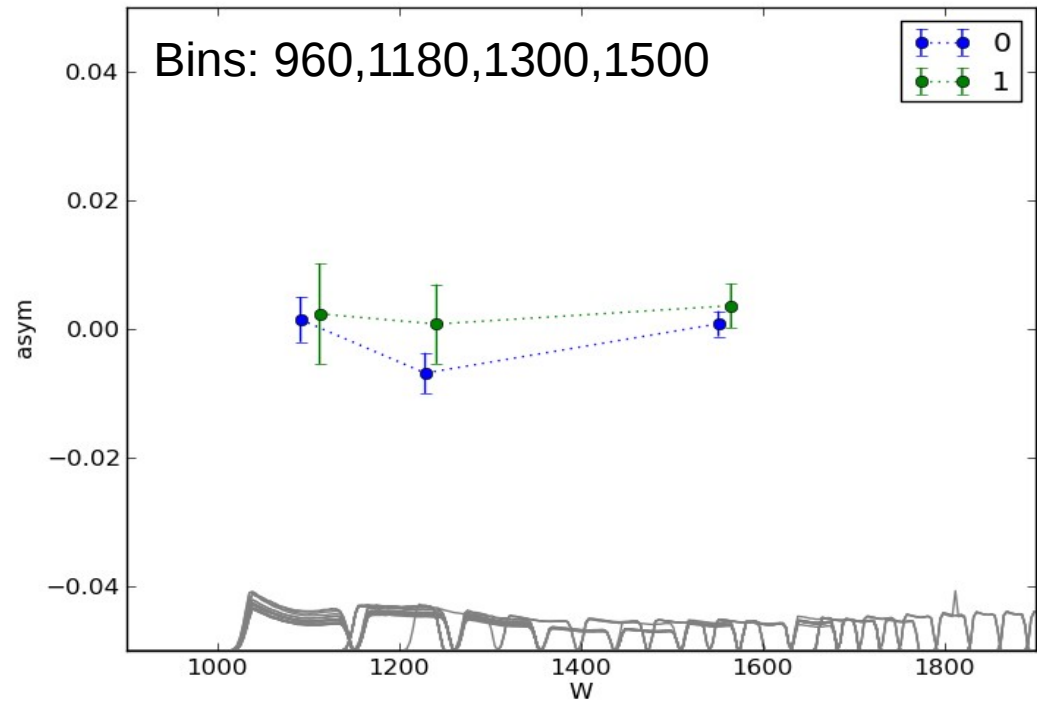
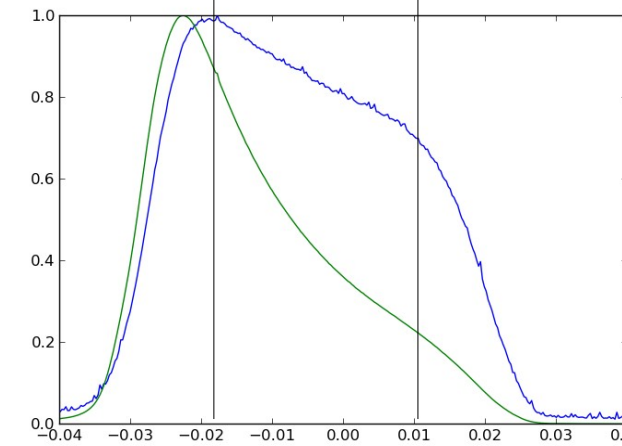
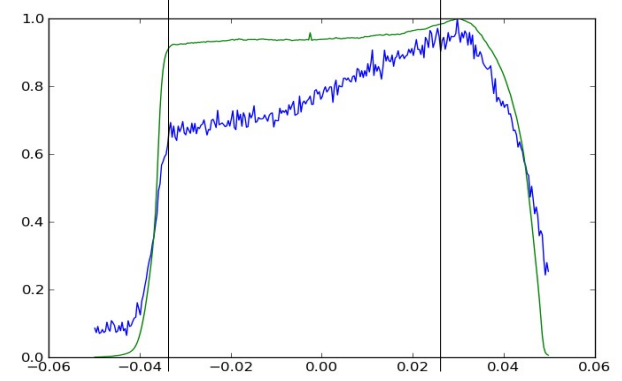
Asym diff w/wo cut:
0.0020
0.0041
0.0021



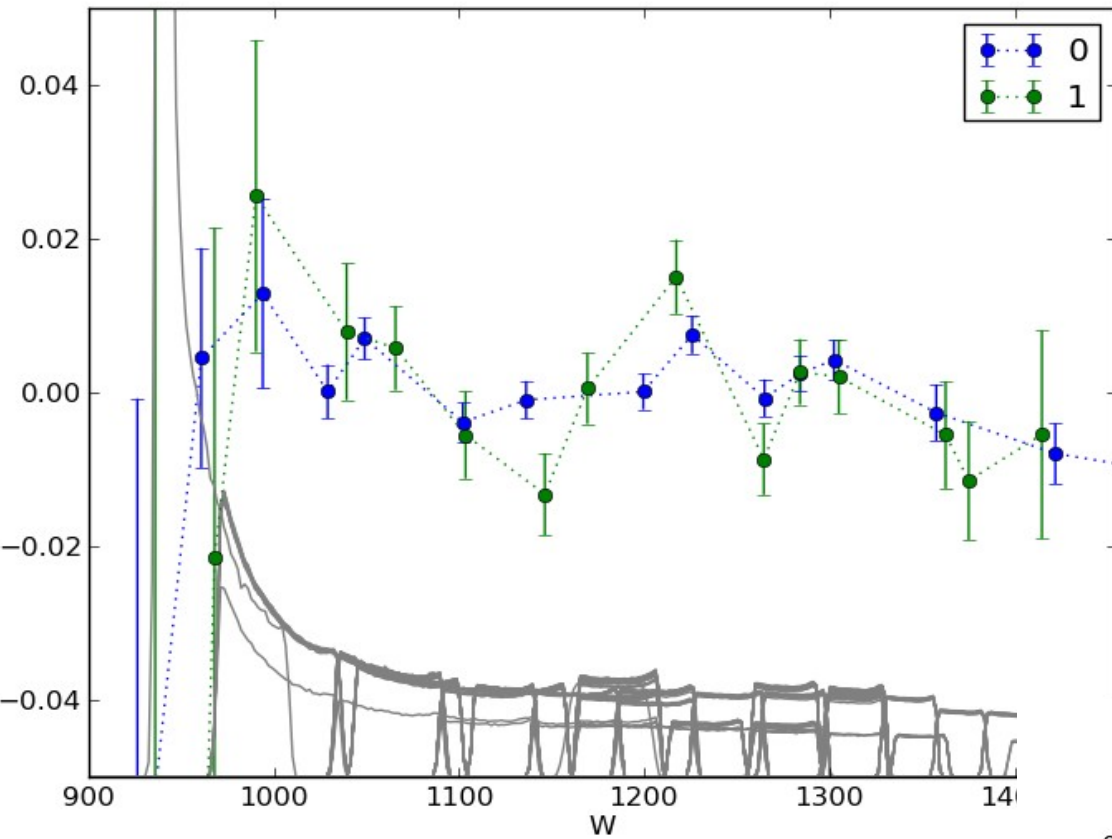
For 2.5T transverse, 2.2GeV



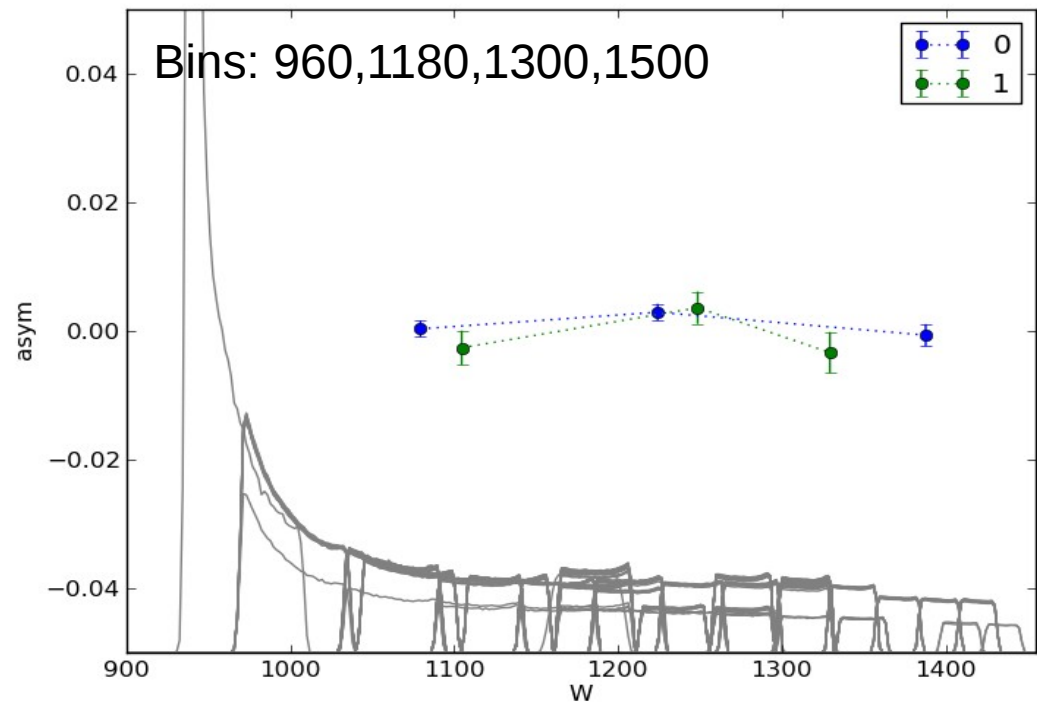
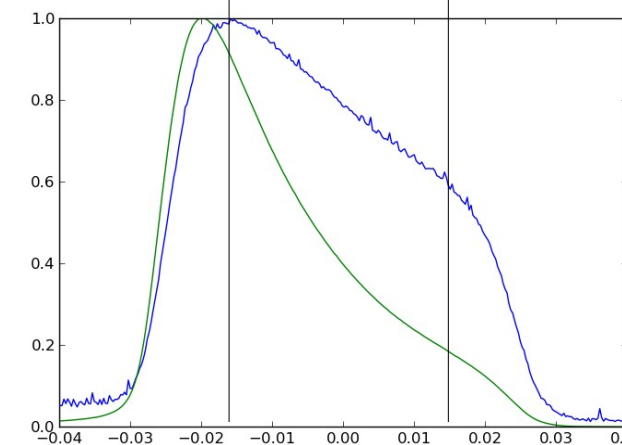
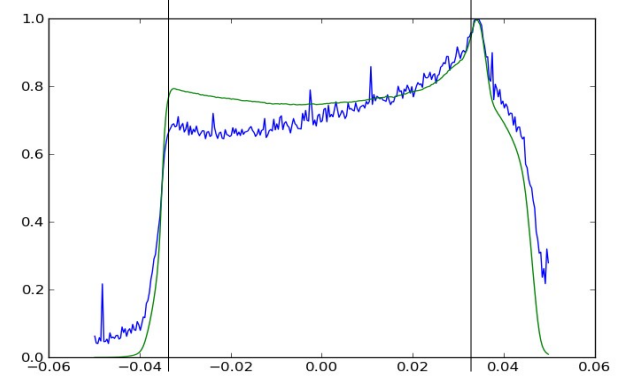
Asym diff w/wo cut:
0.0009
0.0076
0.0028



For 2.5T transverse, 1.1GeV



Asym diff w/wo cut:
0.0029
0.0007
0.0027



Charge updated in mysql

uQTotal: average between sis3800 upstream and downstream
(count at last event- count at first event)

QPlus/QMinus: average between happex upstream and downstream
and sis3801 upstream and downstream

With helicity error cut: helerr==0 (easy to average between sis3800 and happex)

QTotal: Qplus+QMinus

For other helicity cuts like 0x10f0 for sis3801 gated , 0x2f00 for happex gated
0x00f0 for sis3801 ungated, 0x0f00 for happex ungated

Saved in an additional sqlite database in:

/w/halla-sfs62/g2p/pzhu/work/bcm/getq/charge.db

For most of runs, charge difference between devices <1%

Compared between:

Group 1. sis3800up sis3800down sis3801up_nohelcut, sis3801down_nohelcut
Happex_up_nohelcut, Happex_down_nohelcut

Group 2(helerr=0). sis3801_up_+, sis3801_down_+, happex_up_+, happex_up_-

Group 3(helerr=0). sis3801_up_-, sis3801_down_-,happex_up_-, happex_up_-

Group 4(special hel err). sis3801_up_+, sis3801_down_+, happex_up_+, happex_up_-

Group 5(special hel err). sis3801_up_-, sis3801_down_-,happex_up_-, happex_up_-

Group 6: Group 2 vs Group 4

Group 7: Group 3 vs Group 5

Except for runs:

3052-3072/22136-22157 happex info not reliable(calib problem), not included happex
3080-3128 sis3801 not reliable(left arm sis3801 have problem before these runs), not
include sis3801

3864,4883 sis3800 larger value, use sis3800 for total charge

22352,22579,22616,22674,22919,23306 sis3800 smaller value, use sis3800 for total
charge

