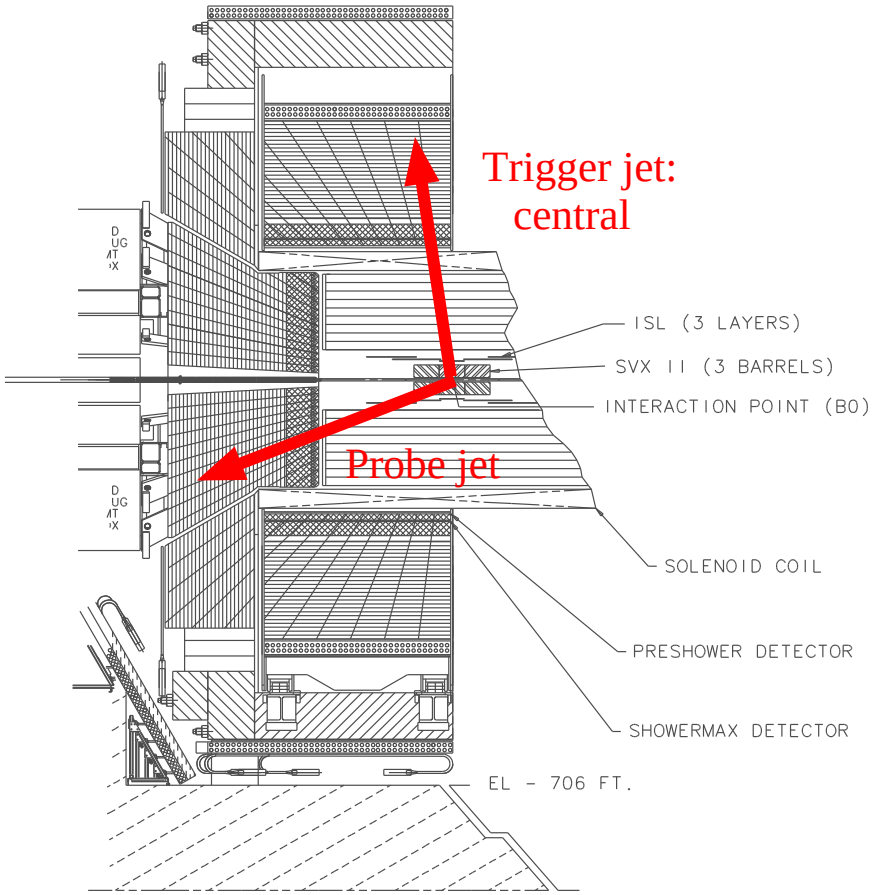
Dijet balancing



Runs # 138425–141042

Jet_20 sample / R_{cone}=0.7

Cuts:

- |z-vertex| < 60 cm (FastZ)
- $0.2 < |\eta_{trigger}| < 0.8$
- E_T trigger, probe jet > 20 GeV
- E_T 3rd jet < 15 GeV
- (E_T trigger+probe > 50 GeV)
- ($\Delta\phi_{jj} > 2.5$)

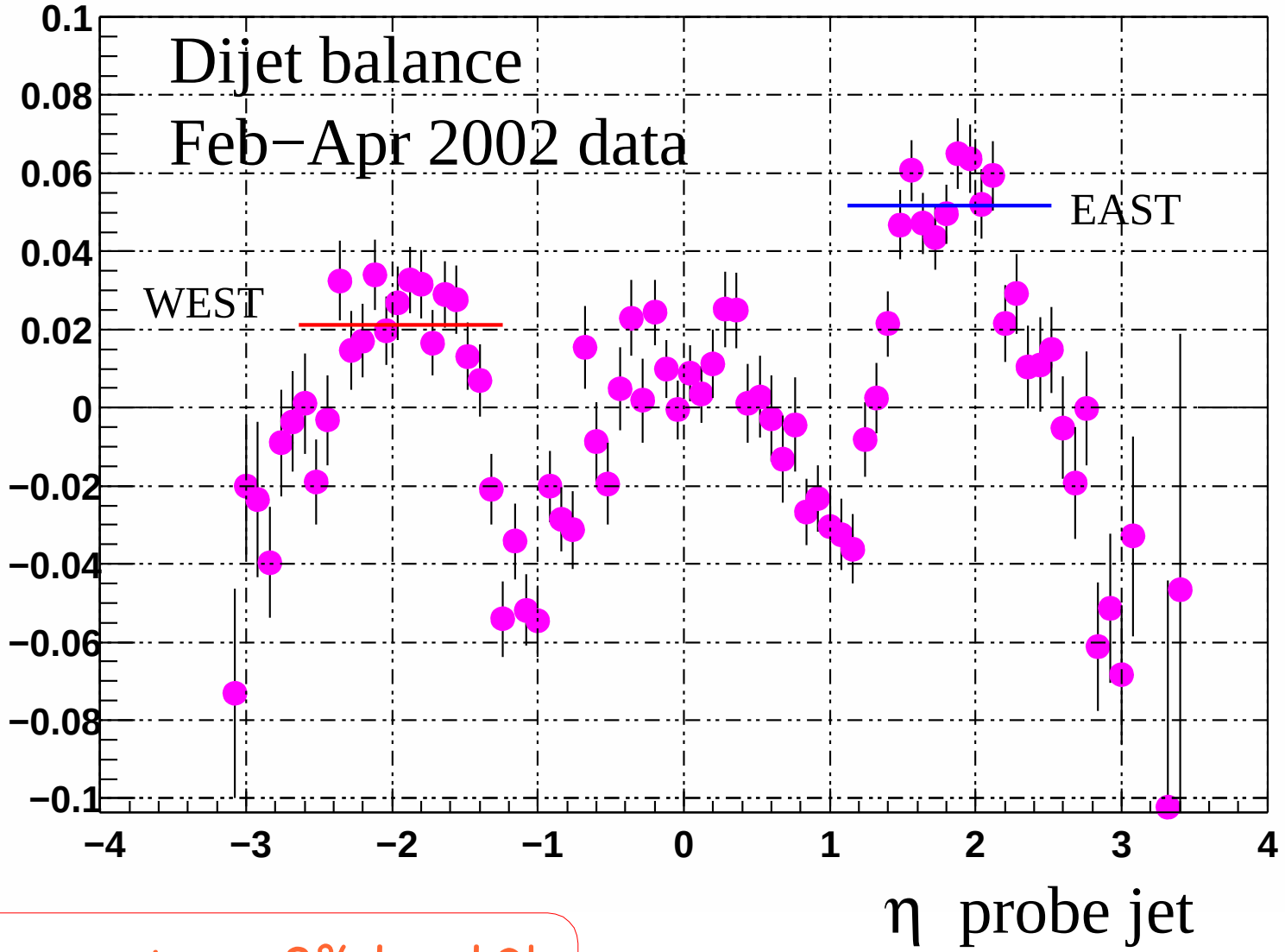
$$MPF = \frac{2\cdot\left(P_T^{trigger} - P_T^{probe}\right)}{P_T^{trigger} + P_T^{probe}}$$

Probe jet randomly assigned when both jets are central

(cf CDF note #1513)

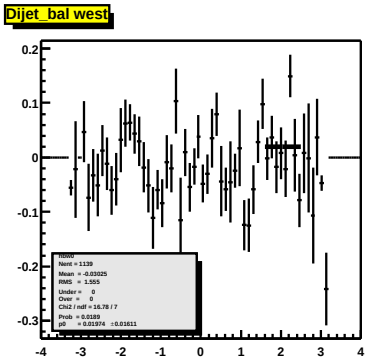
Dijet balance

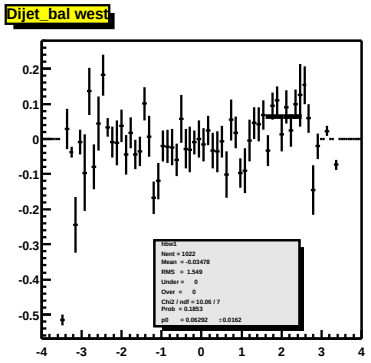
Runs # 138425–141042

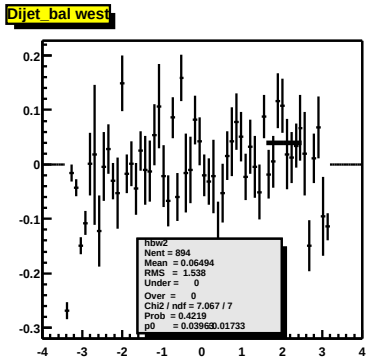


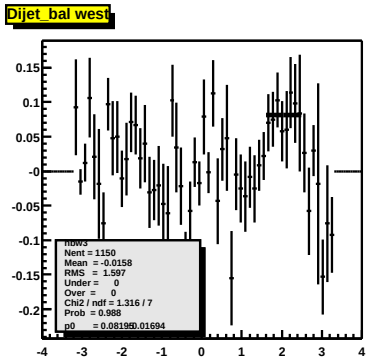
asymmetry ~ 3% level ?!

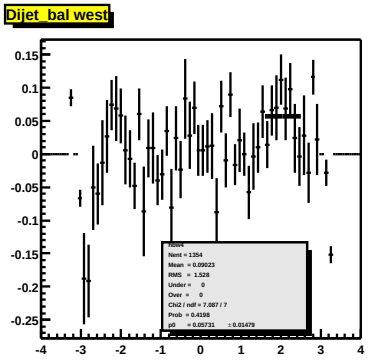
Selected runs with #events > 8000

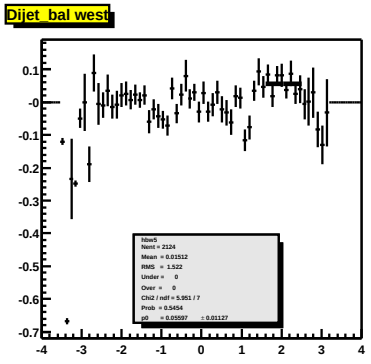


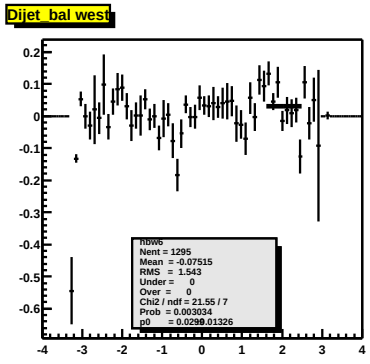


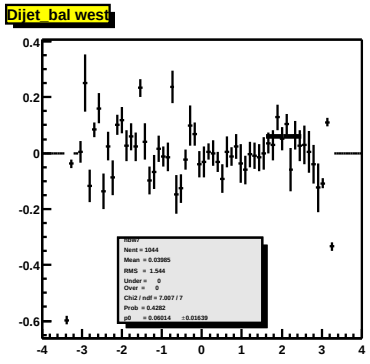


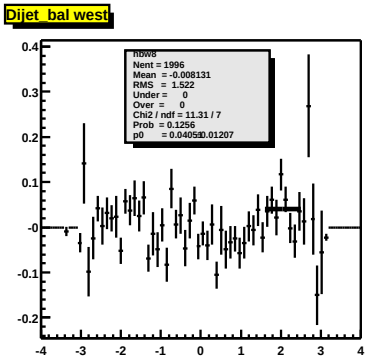


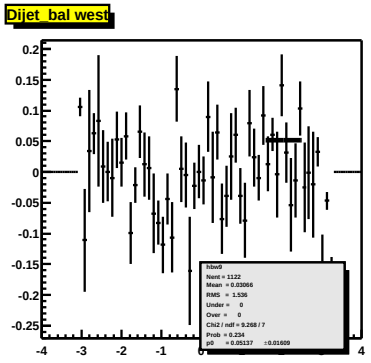


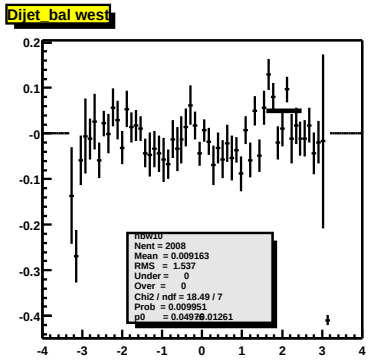










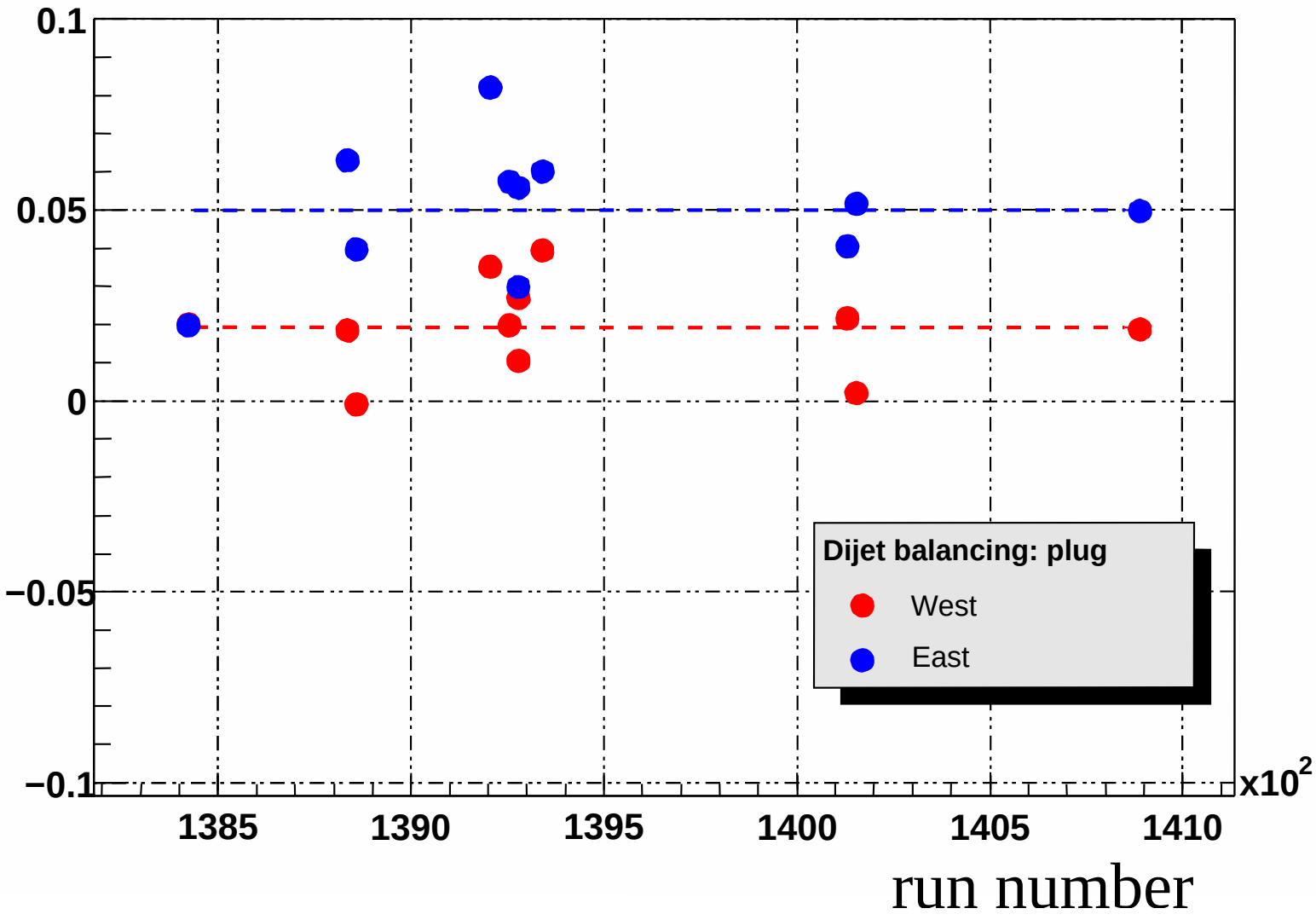


⇦ fit independently $1.6<|\eta|<2.5$ in east/west plugs

Asymmetry vs run#

Selected runs with # events > 8000

3% ☞



So what ?!

Work in progress (under investigation):

- calibrations ?!
- p beam more intense -> underlying event garbage ?!
- trigger bias (PV reco/eff) ?!