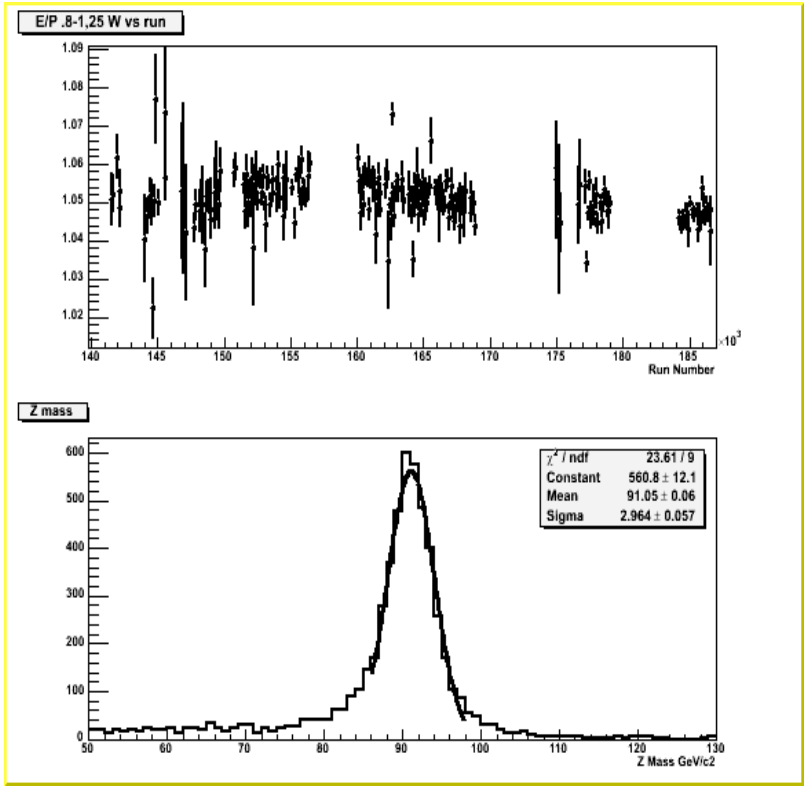
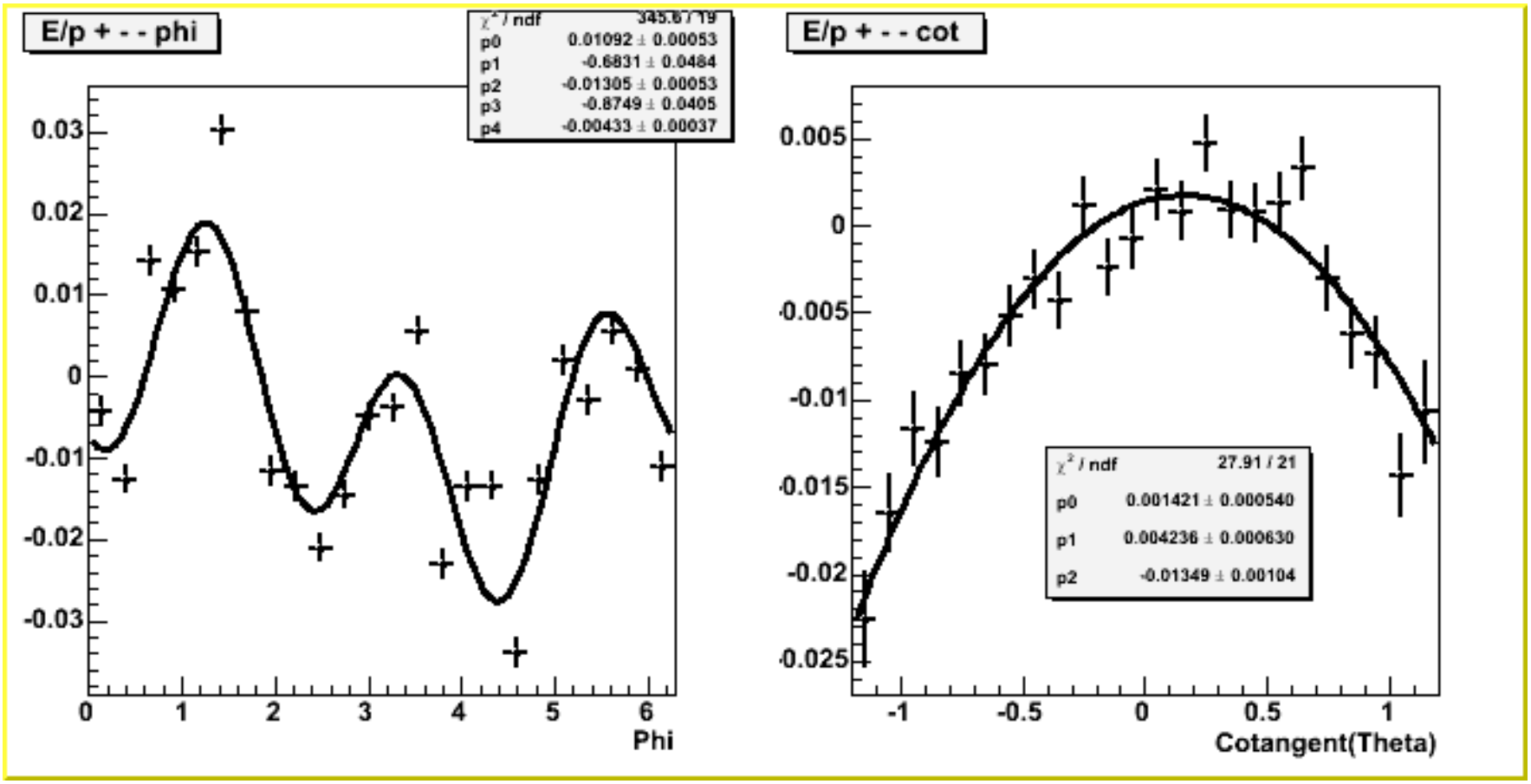
Fine Tune of 5.3.1 Curvature Corrections with the Full Sample

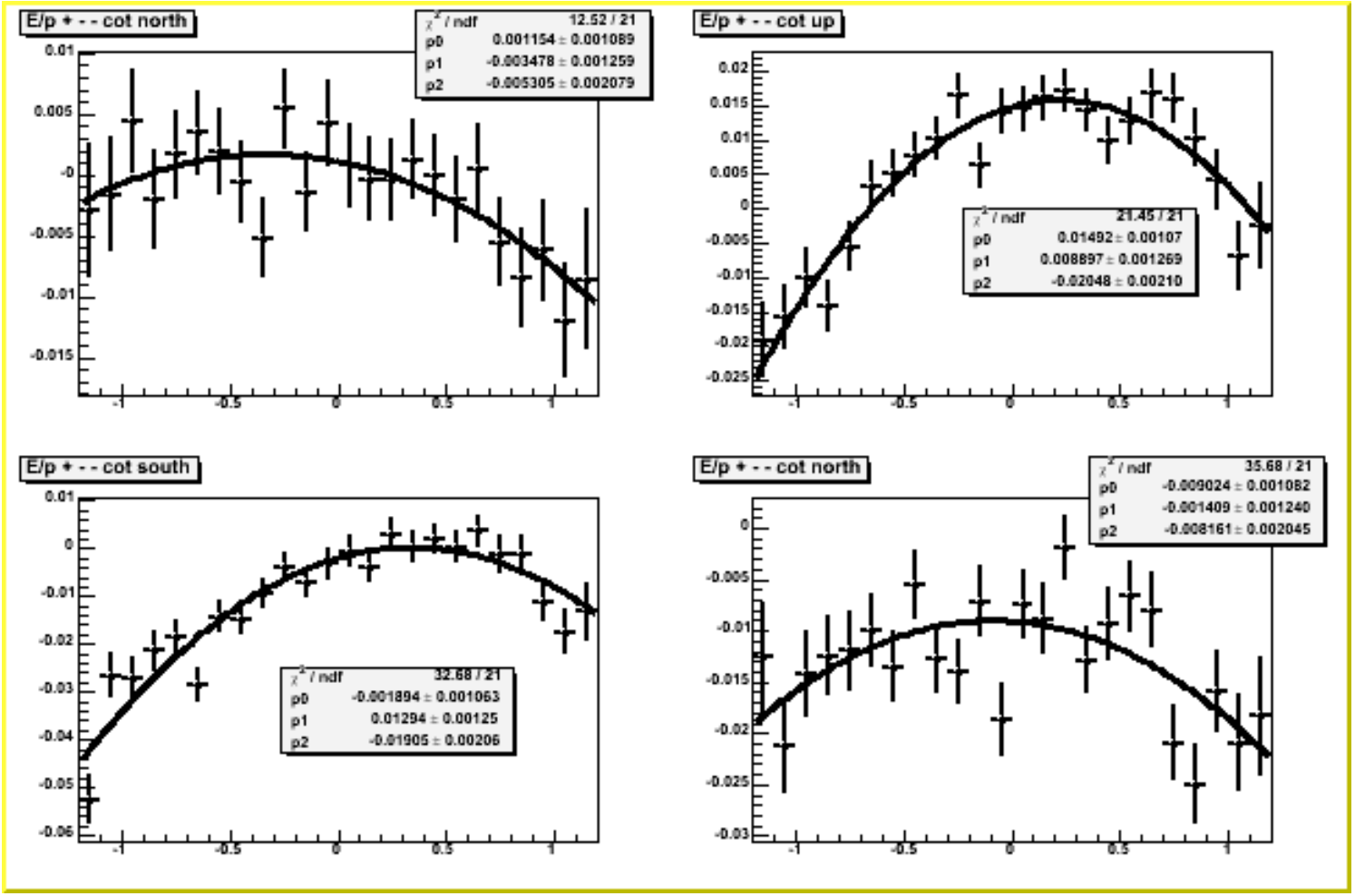
- As previously reported, curvature corrections are reasonably stable if you avoid COT reduced data
- Run on full bhel sample, d + e, explicity remove reduced COT
- Retune coefficients
- Did silicon as well as COT beam constrained



Before Phi & Cot



Before cross terms (note differences)

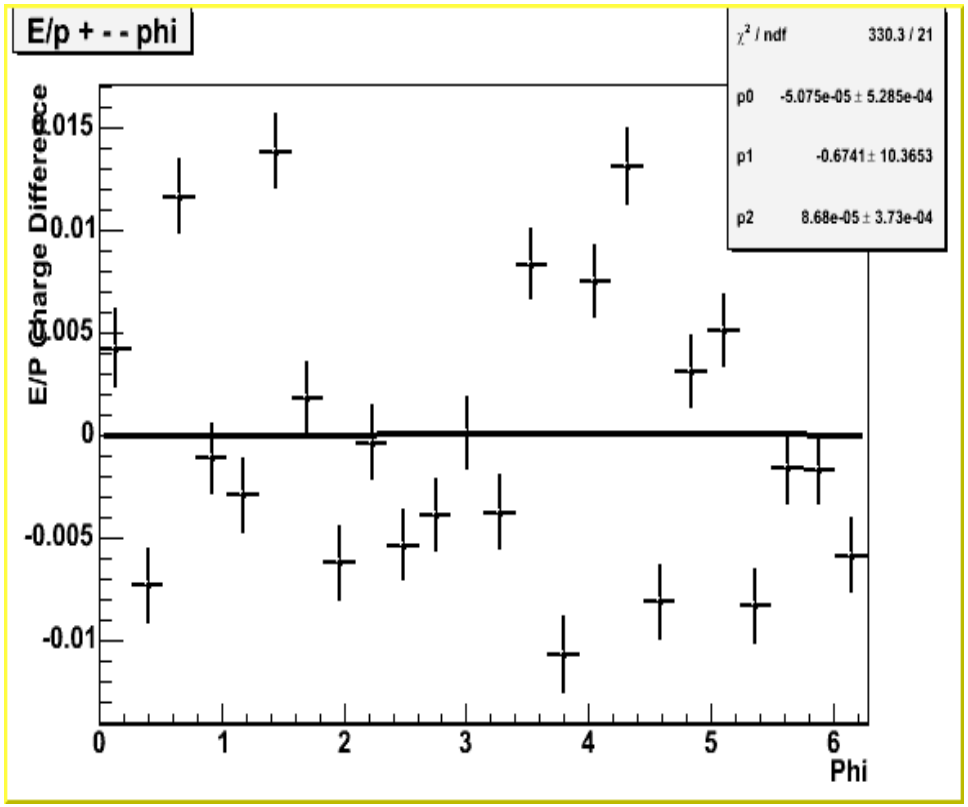


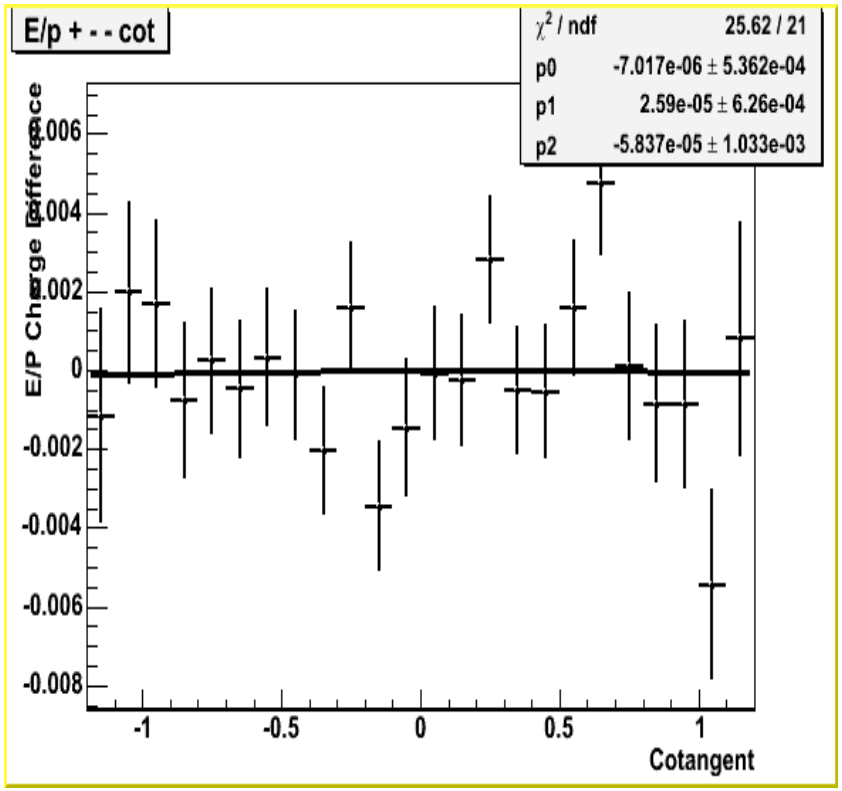
The Bottom Line (pinv=1/pt signed) + stuff

- COT
  - Cotangent: -(26 ±5 e-6 +72 ±11 e-6 * cot - 24 ±1 * cot*cot)
  - Phi: -20 ±2 e-5 * sin(ϕ + 3.4 ±0.05) and held over +22 e-5 * sin(3ϕ + 0.9)
  - Cross: -20 ±3 e-5 * cot * sin(ϕ -0..9) - 20 ±5 * cot * cot * sin(ϕ - 4.1)
- SI
  - Cotangent: -(39 ±6 e-6 +82 ±12 e-6 *cot - 23 ±1 * cot * cot)
  - Phi: -195 ±18 e-6* sin(ϕ + 3.73 ±0.05) and same 3ϕ term
  - Cross: same as above

Then pt = fabs(1/pinv);
Note: you can move cot coef by ±1 e-6 by reasonable
Range selection

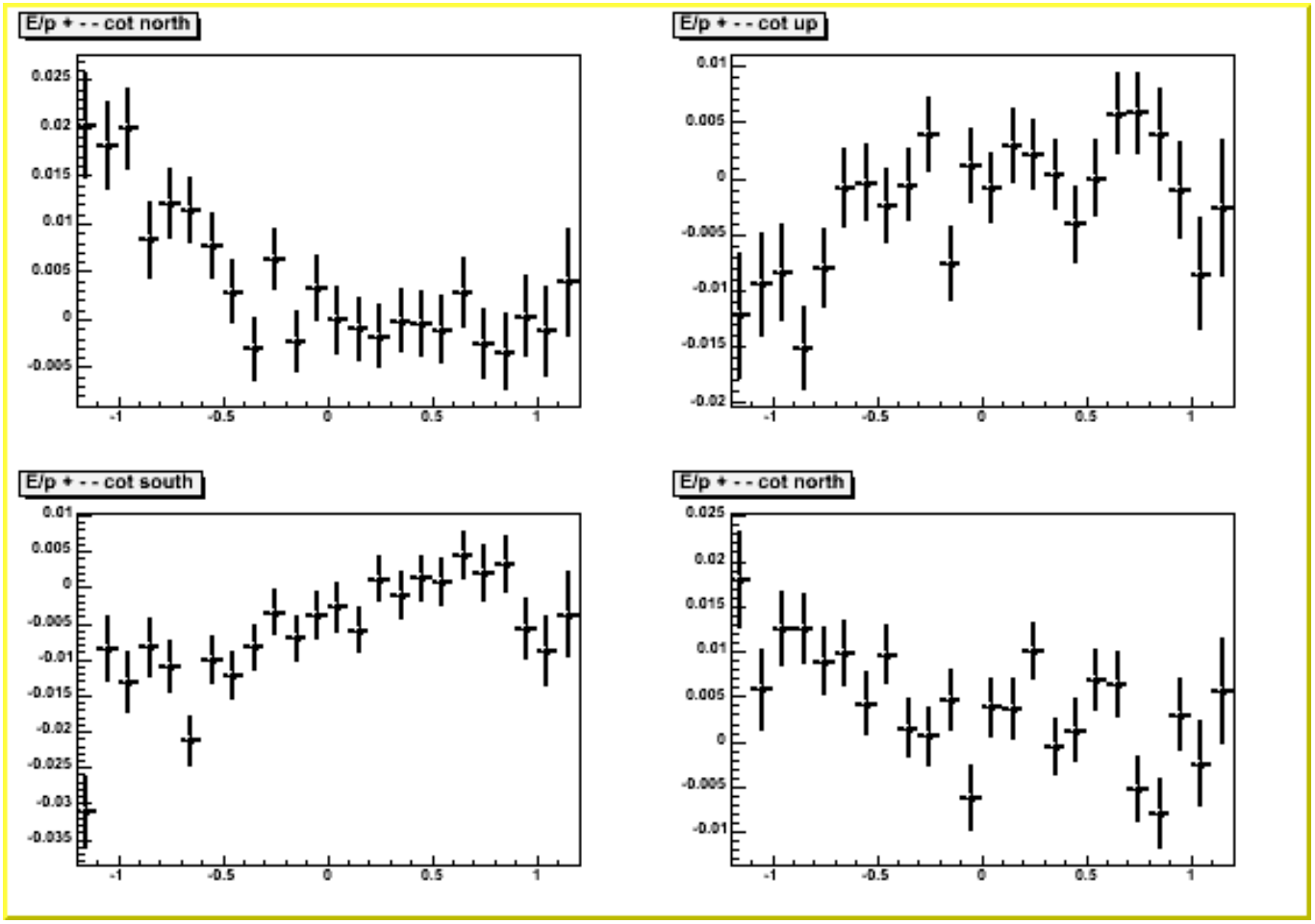
Contrast tuned ϕ and cot



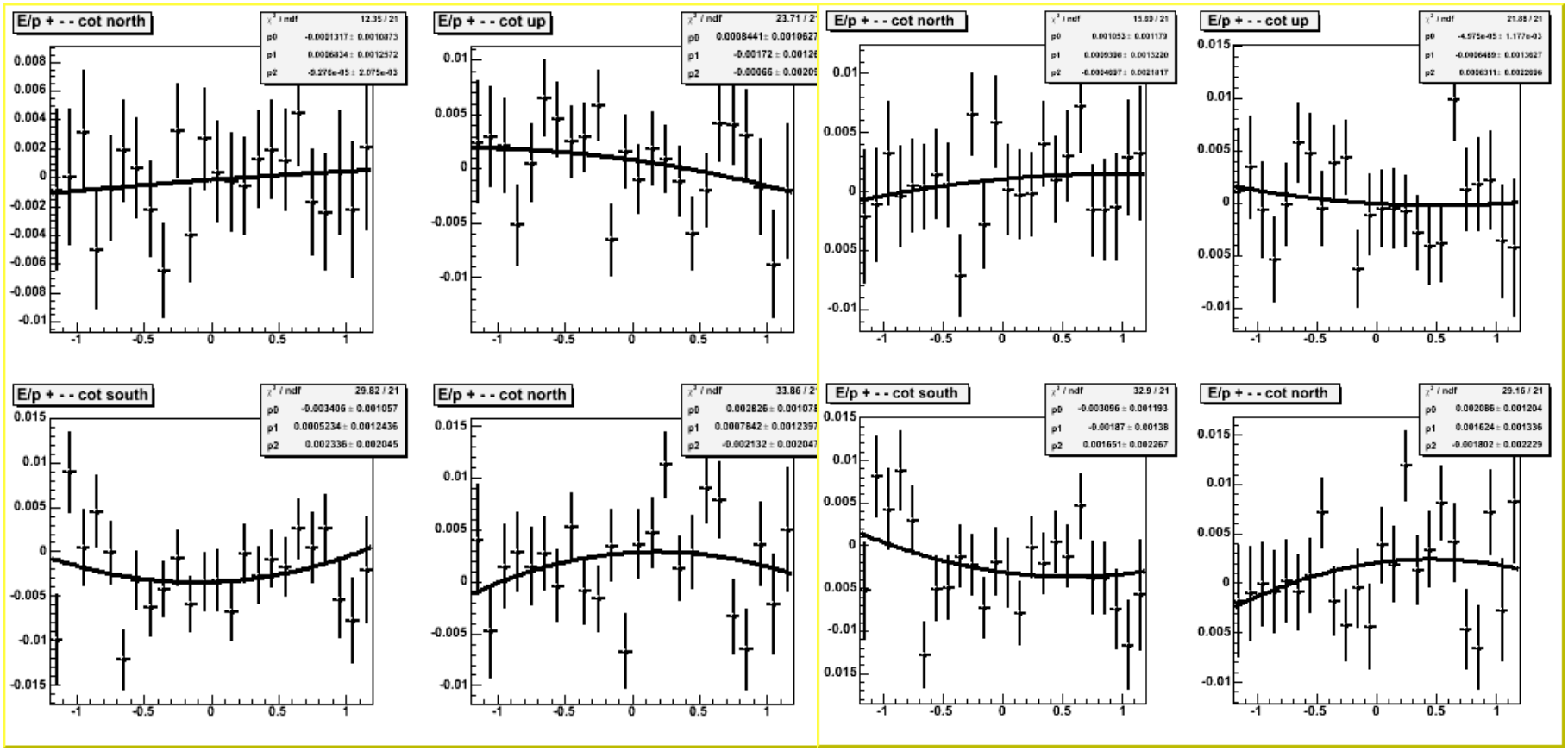
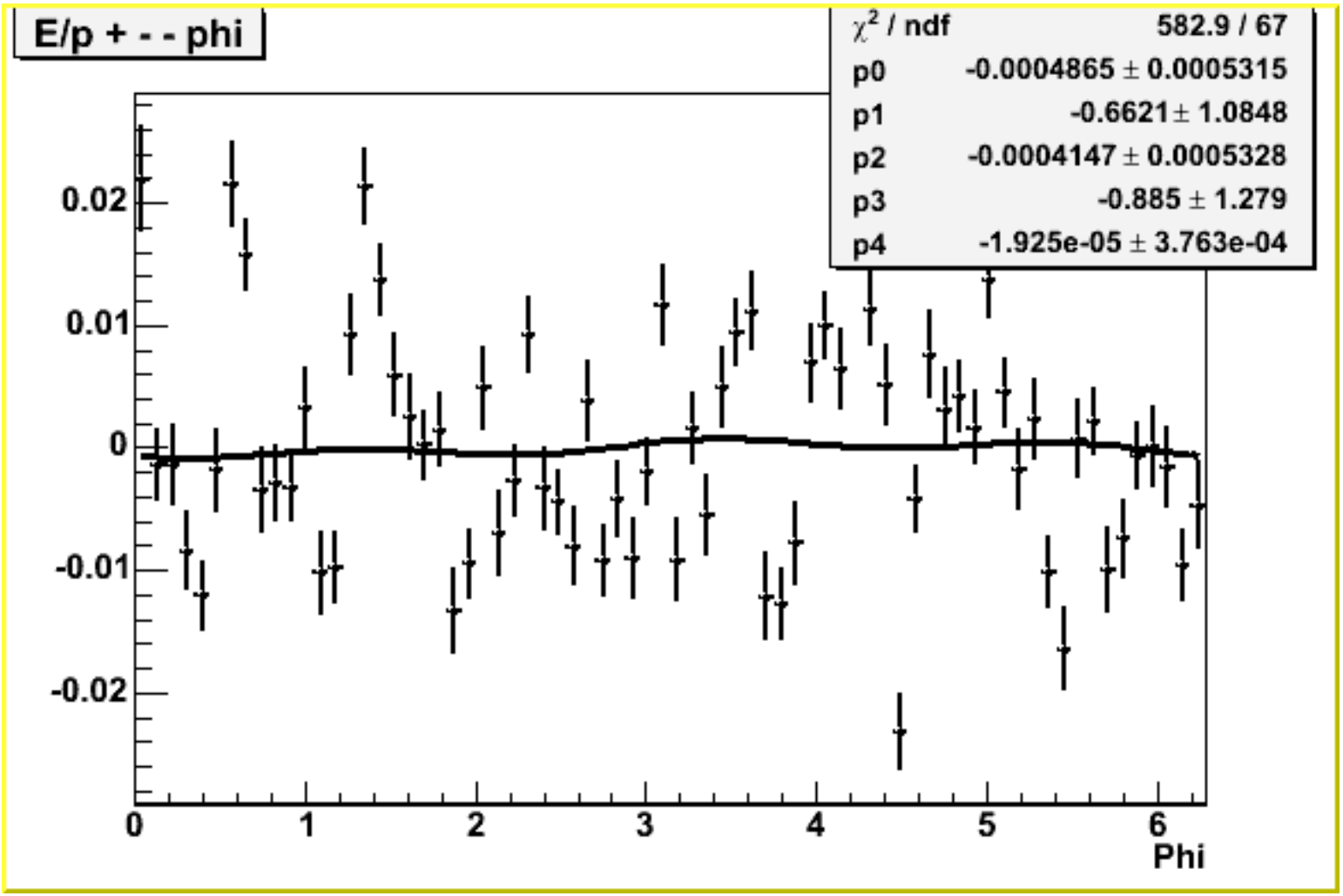


Rattiness in ϕ would have noticeable coefficient compared to corrections made!

Cross quad plots with other corrections made



Cross terms close enough COT/Si



Search for fine structure in phi