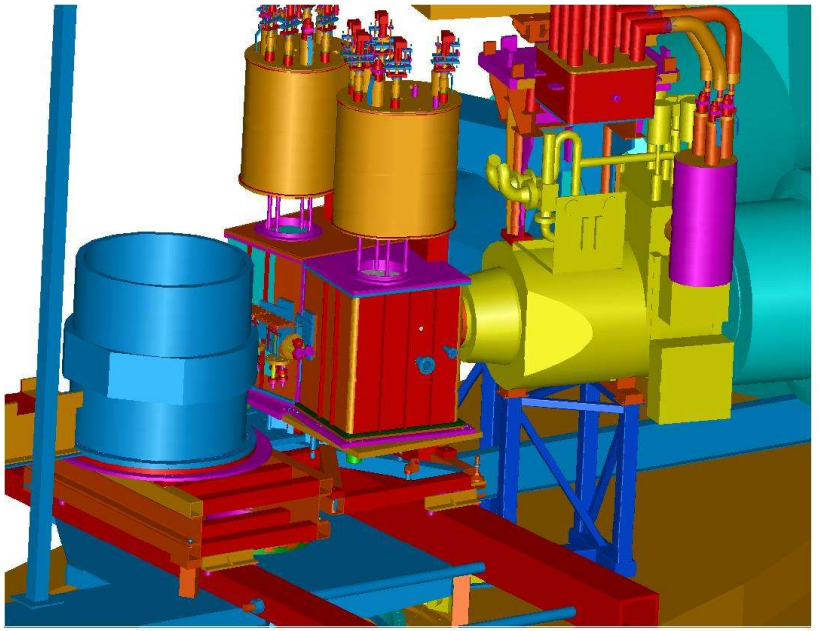
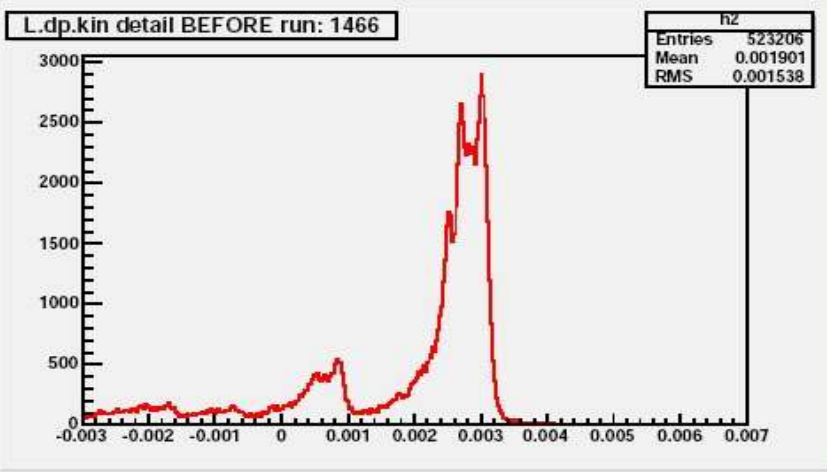
Hall A Septum Optics

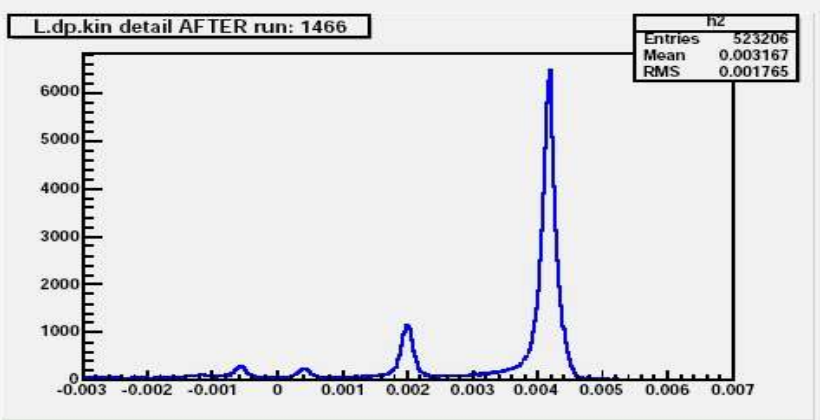
- Previous Results
- Ideas for Improvement
- New Data
- Outlook



Previous Results

- Yi Qiang's Optimization
- Left Arm 1.8E-4 with ReducedAcceptance
- Right Arm 1.6E-4 also Reduced Acceptance
- Broken Mid-Plane Symmetry
- Non-Linear Areas

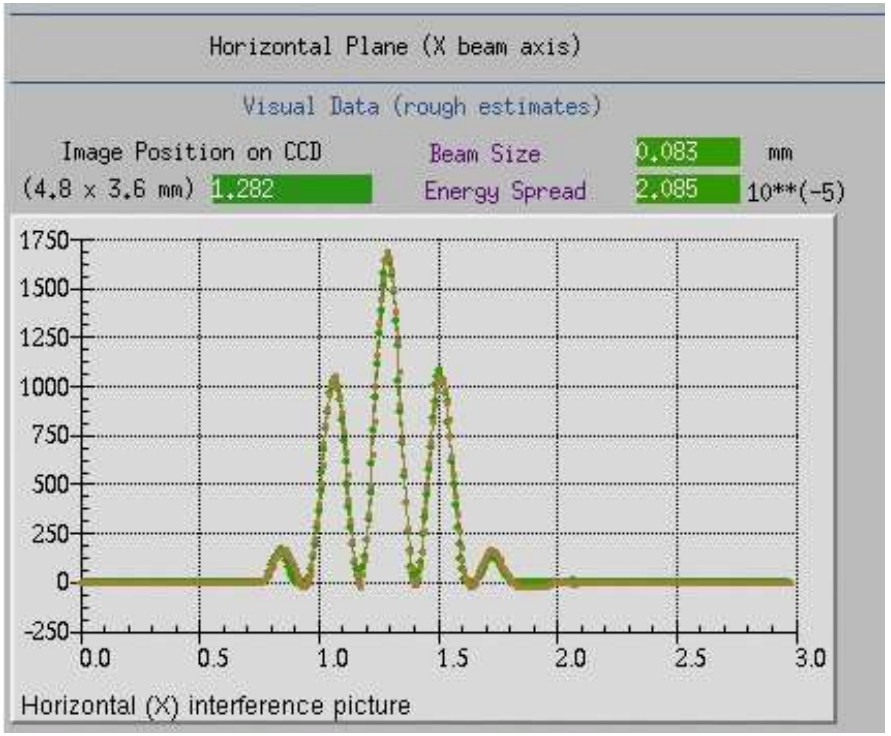




Ideas for Improvements

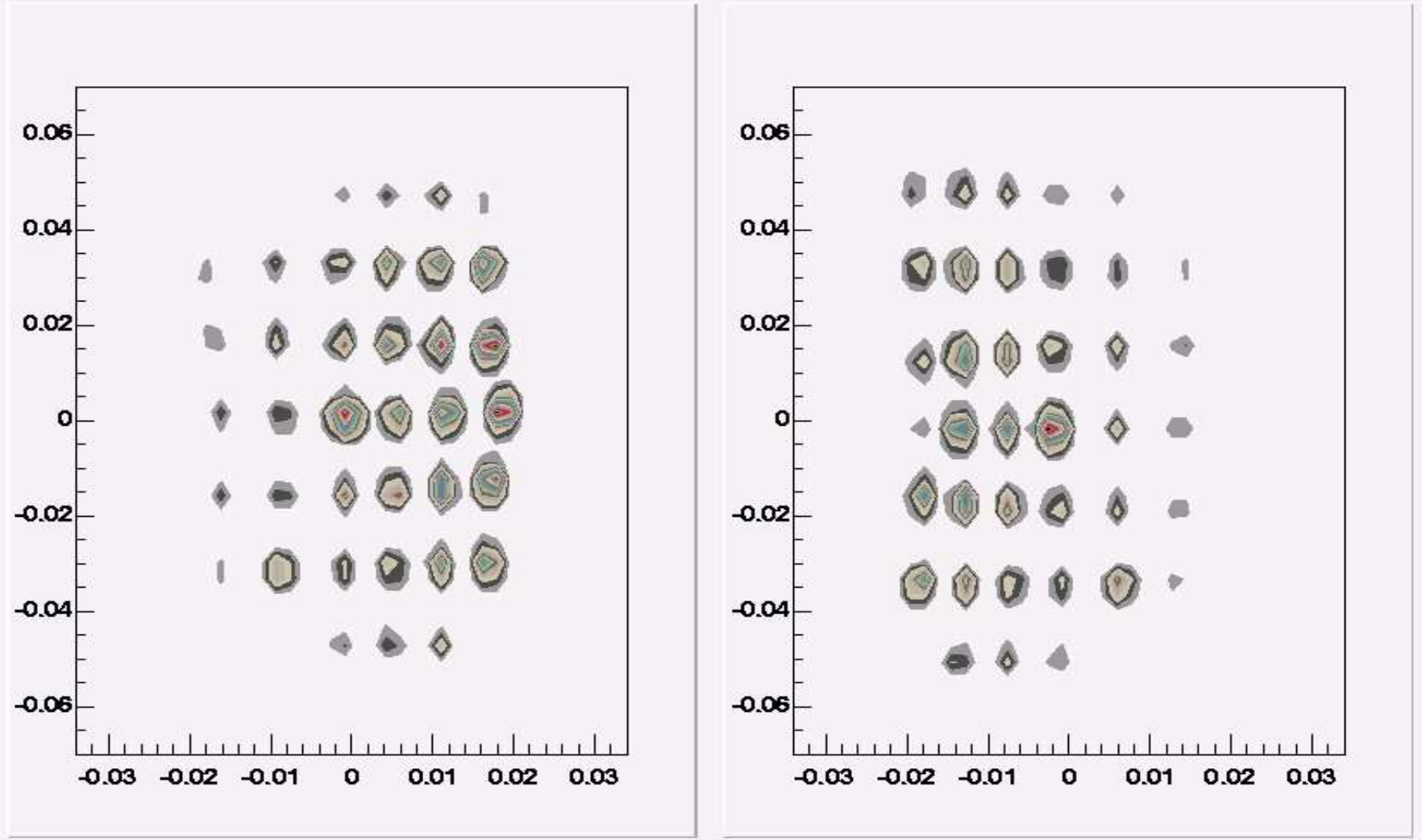
- Thinner Target (10mg/cm2)
- Heavy Target (Tantalum)
- Rotatable Sieves
- Beam Quality

New Data

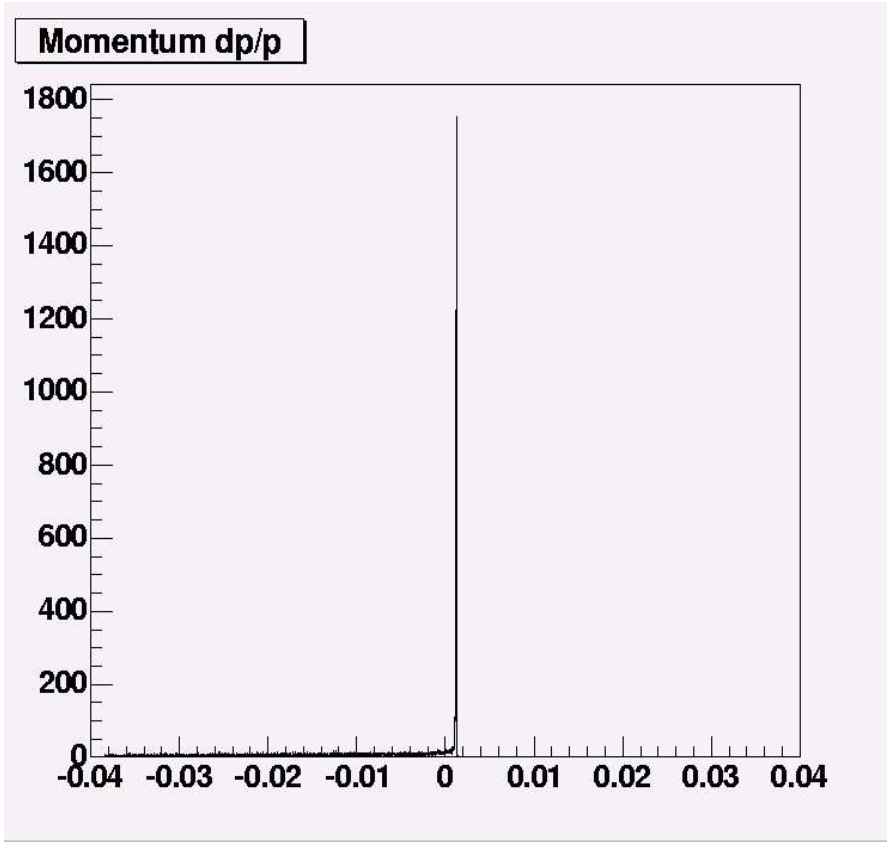


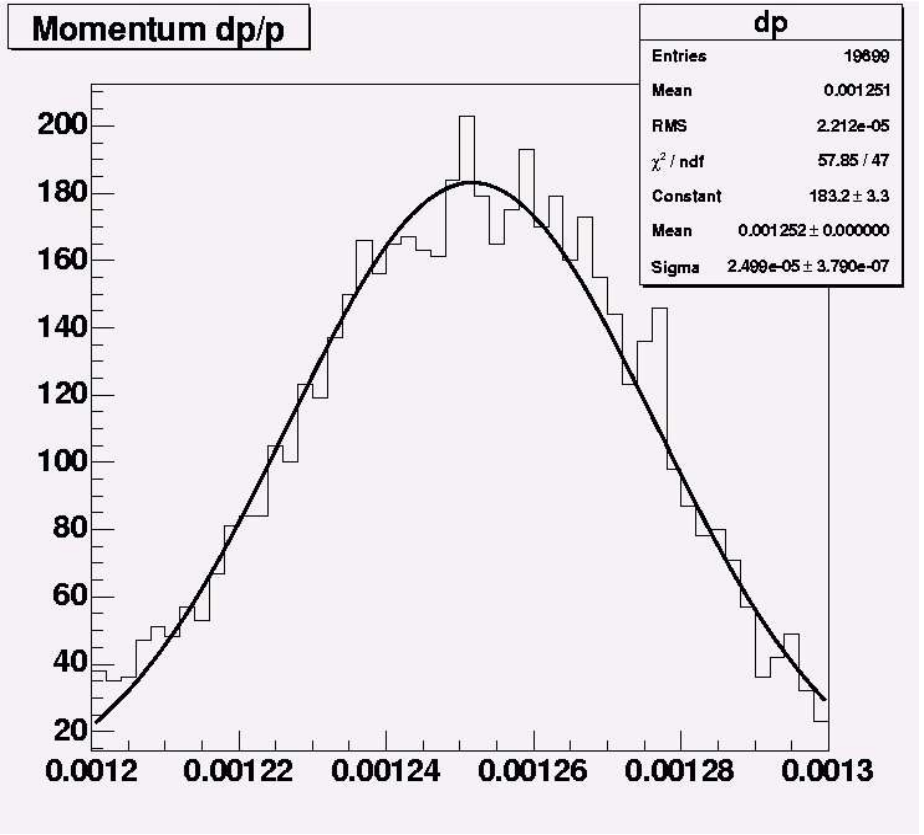
- Lots of High Quality Carbon and Ta Data
- Elastic Peaks have FWHM < 1E-4
- Beam Energy Spread was Small!!

Sieve Data (before re-optimization)

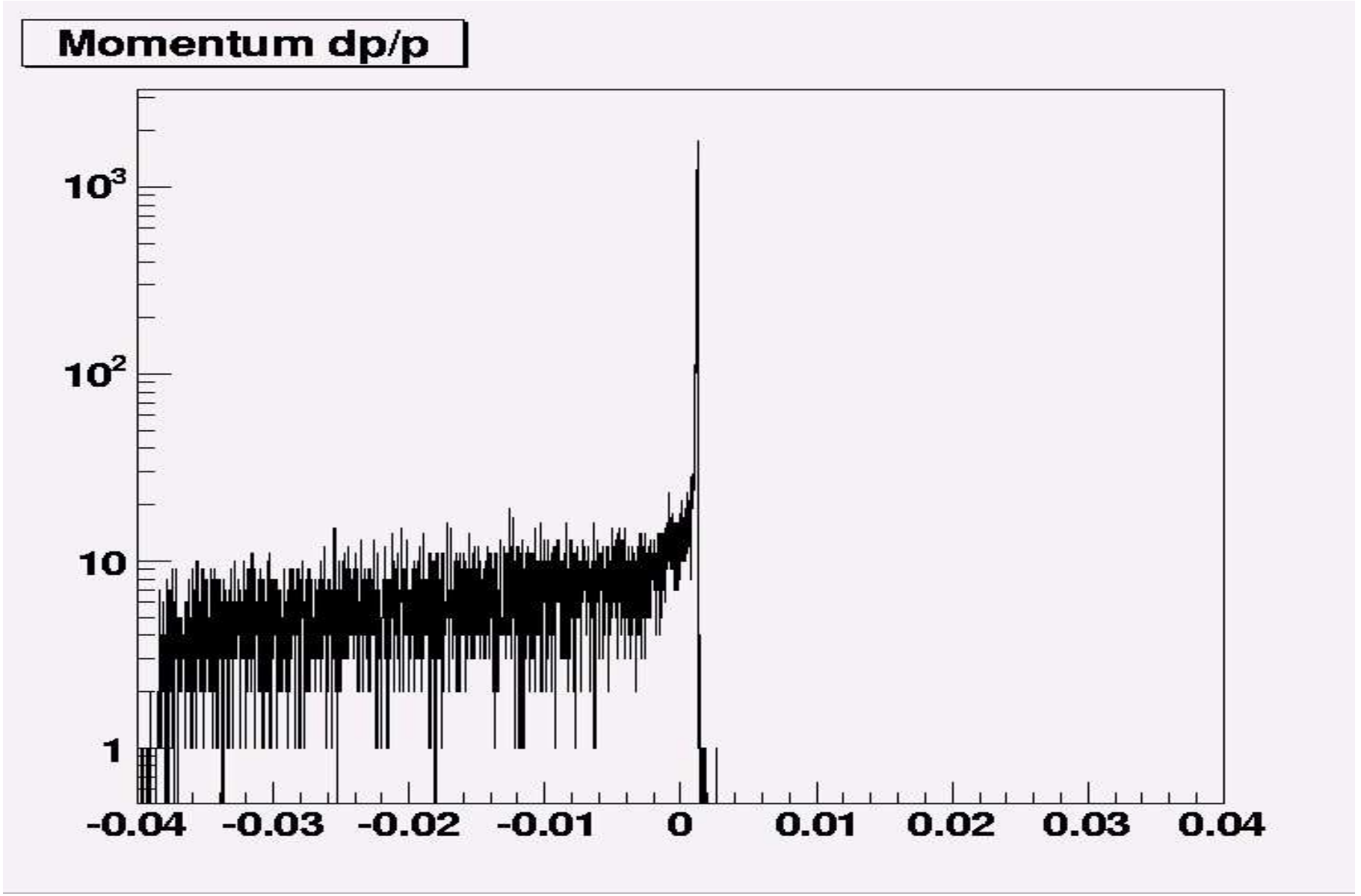


Single Hole Elastic Peak



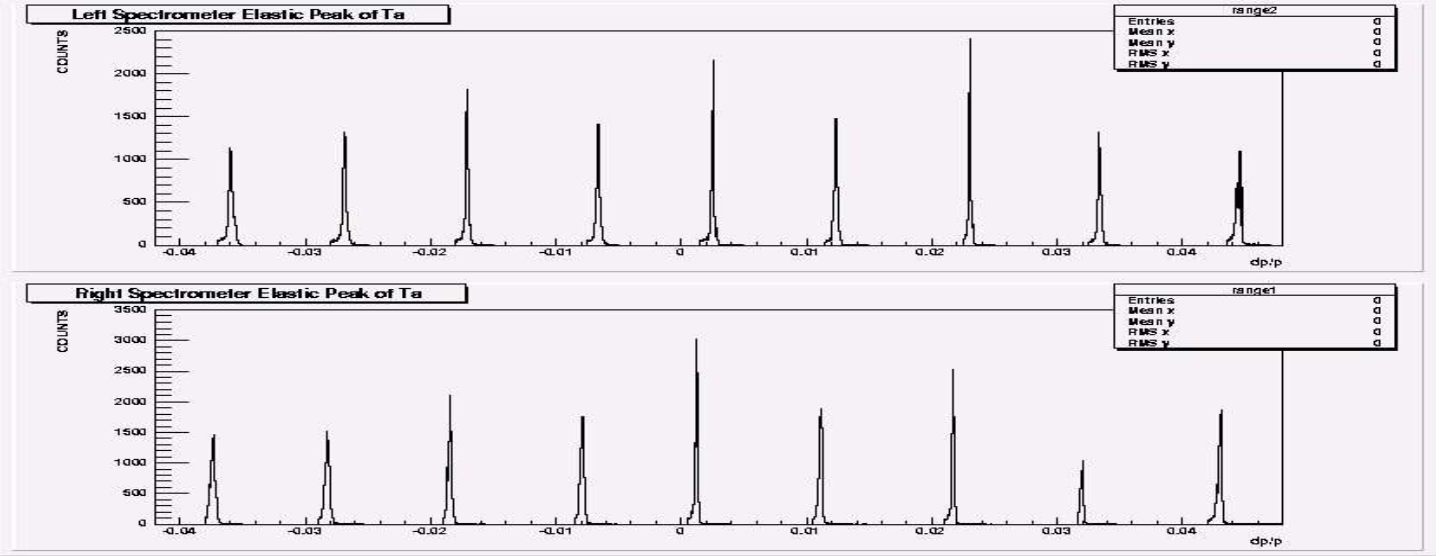


Single Hole Log Scale



Outlook

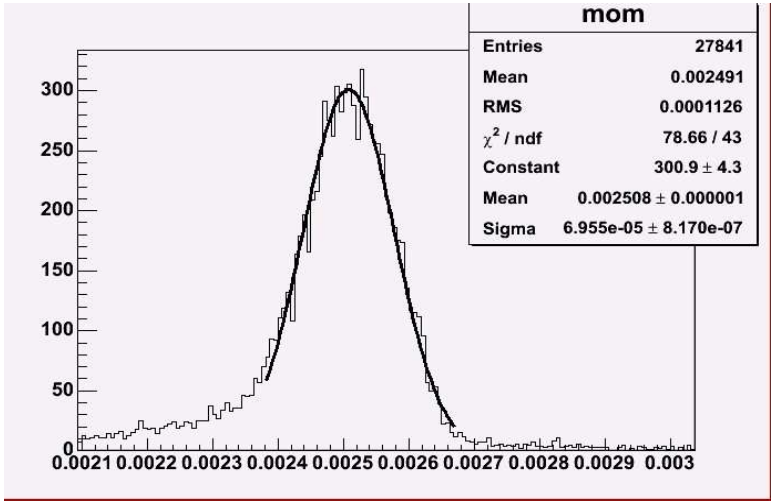
- Codes Compiled On 64bit AMD Processer (Analyzer, tree2ascii, and Optimization++)
- Summer Student Helping (Drew Whitbeck)

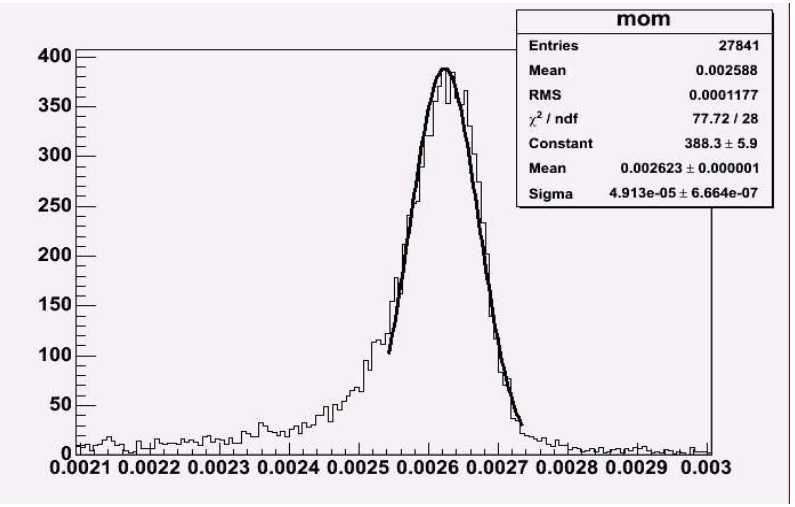


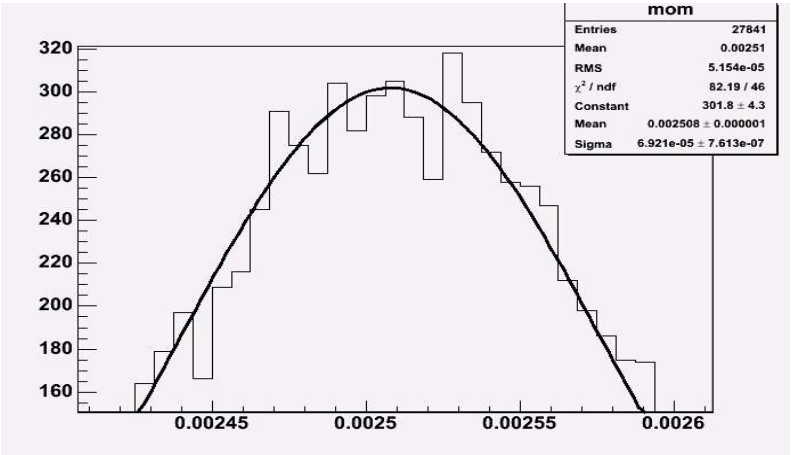
- Lots of beautiful data should improve the dp/p matrix reconstuction.

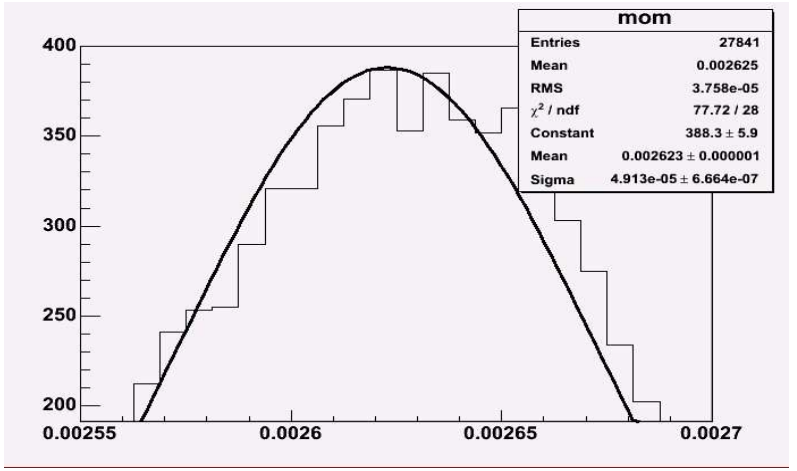
VERY Preliminary Result (8:43 am)

Only cuts abs(L.gold.ph)<0.01 and abs(L.gold.th)<0.01









BEFORE

AFTER