NuMI Target Run Status

Jonathan M. Paley

MIPP Collaboration Meeting
07/22/05

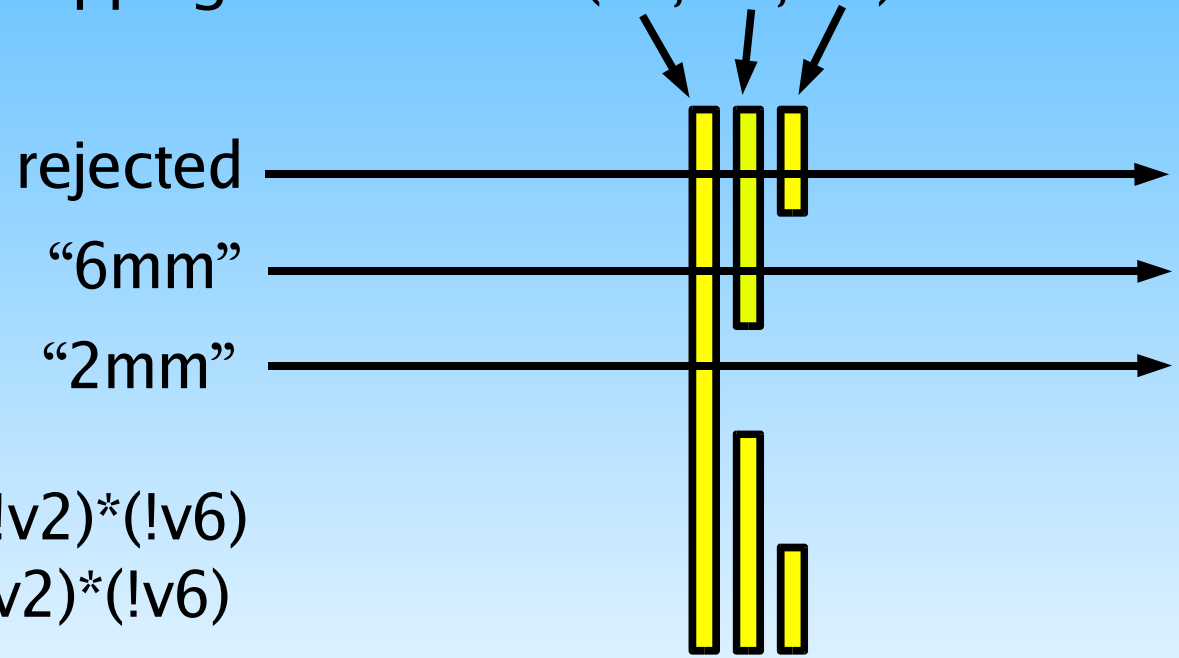
Indiana University

MIPP NuMI Run:

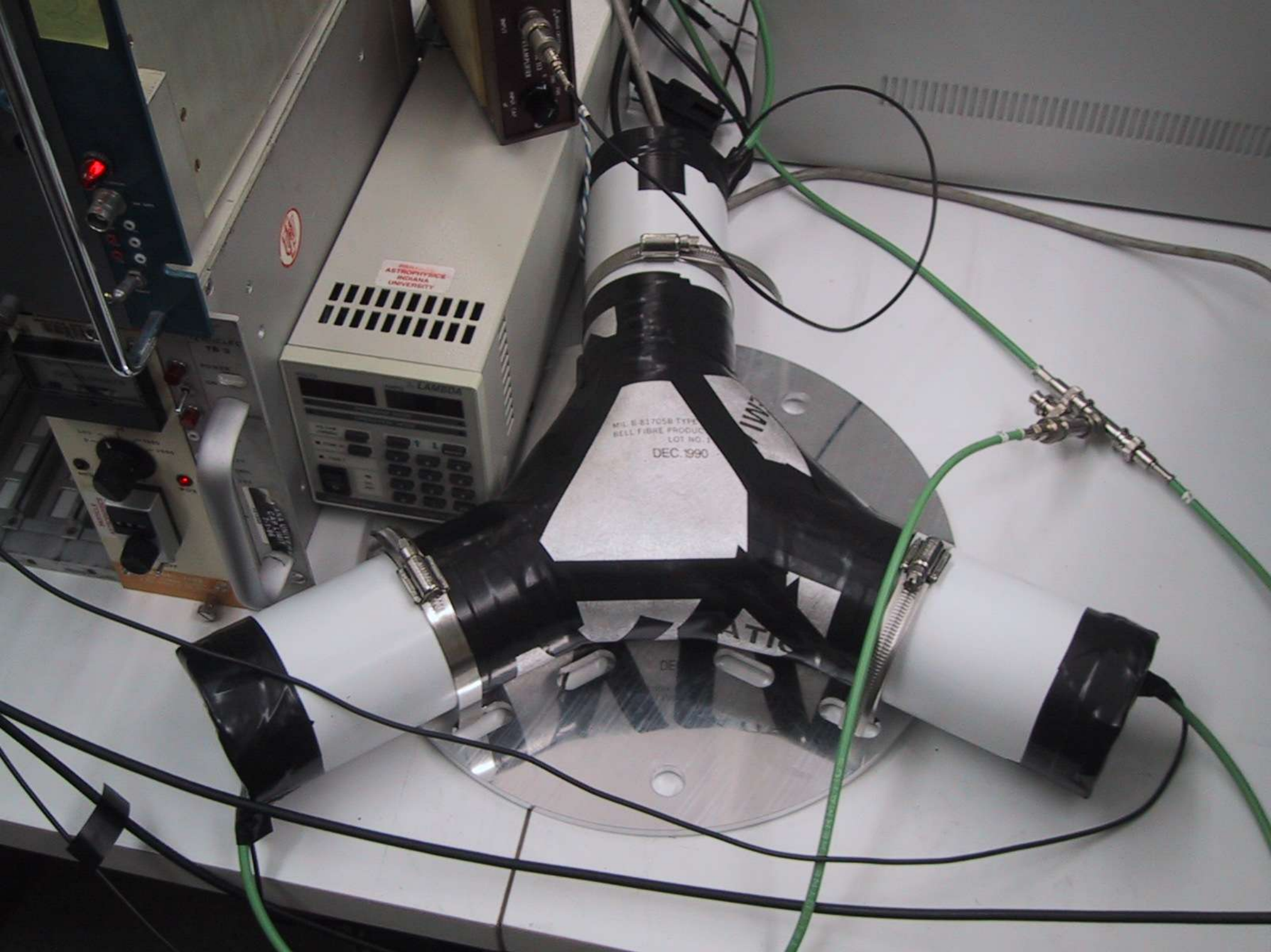
Second week of June: beam tuning with just the beam trigger.

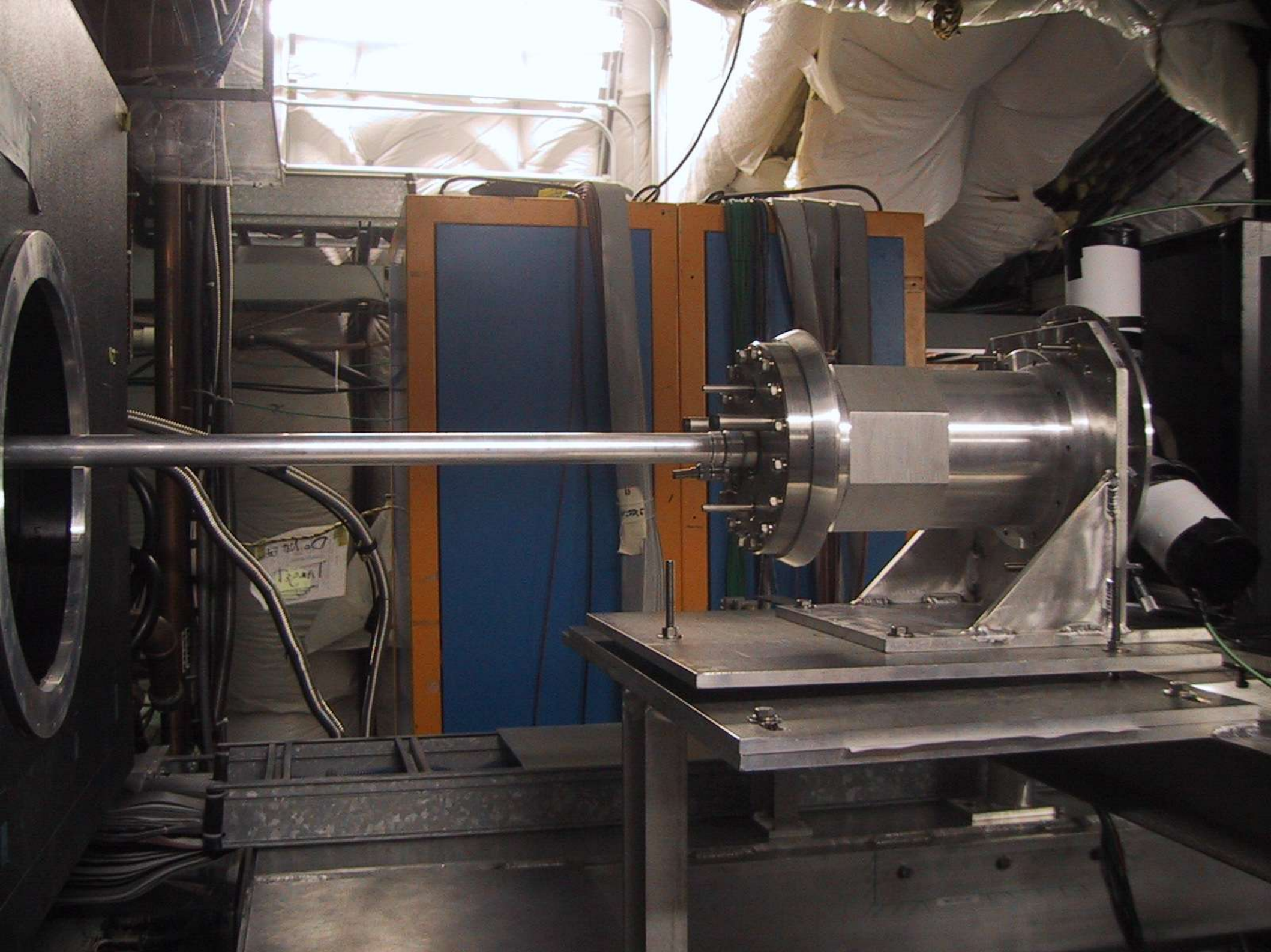
Middle of June: began collecting physics-quality data using the NuMI trigger built at IU.

NuMI Trigger: three overlapping scintillators (vb, v2, v6)

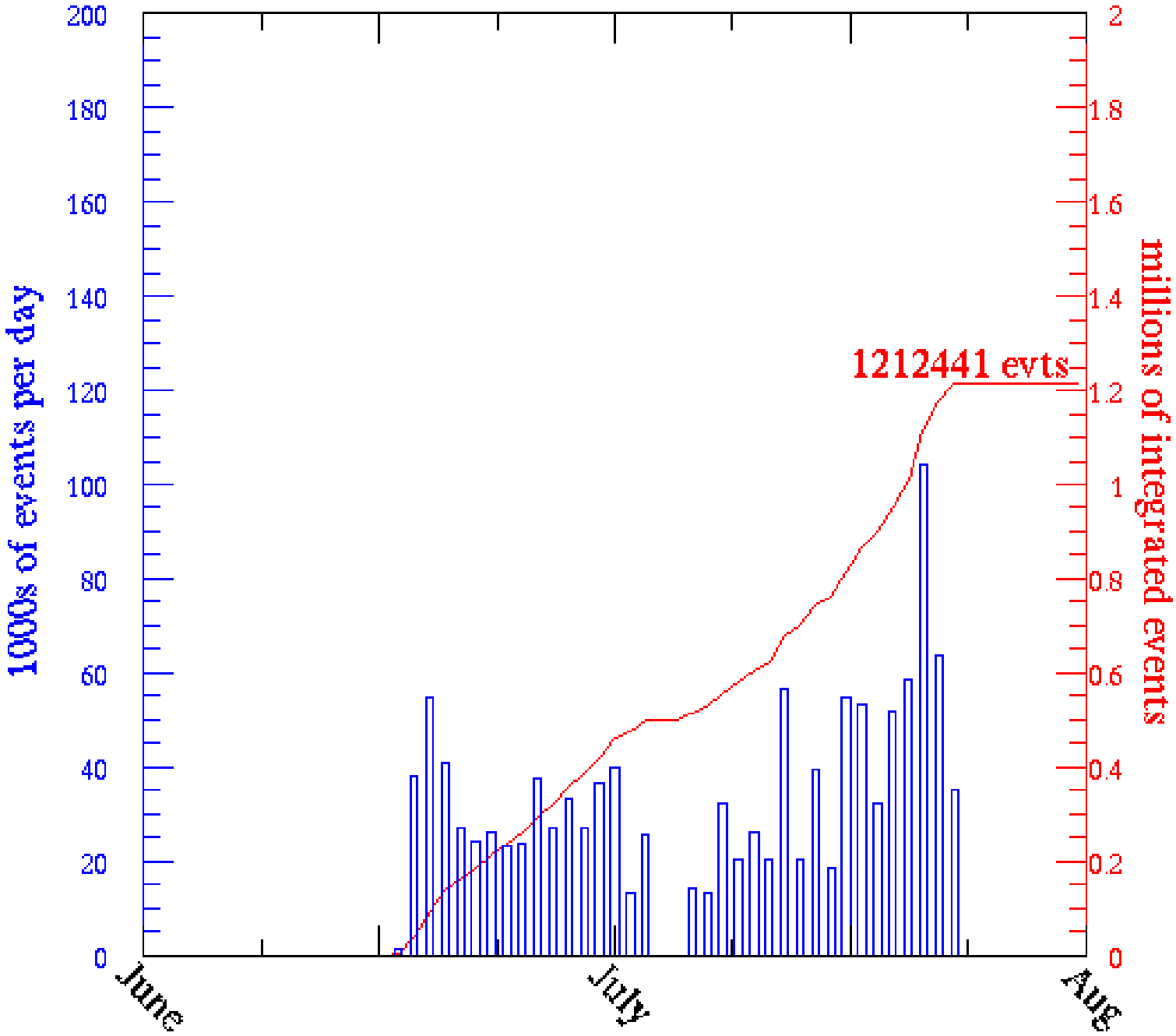


“2mm” trigger: (vb)*(!v2)*(!v6)
“6mm” trigger: (vb)*(v2)*(!v6)

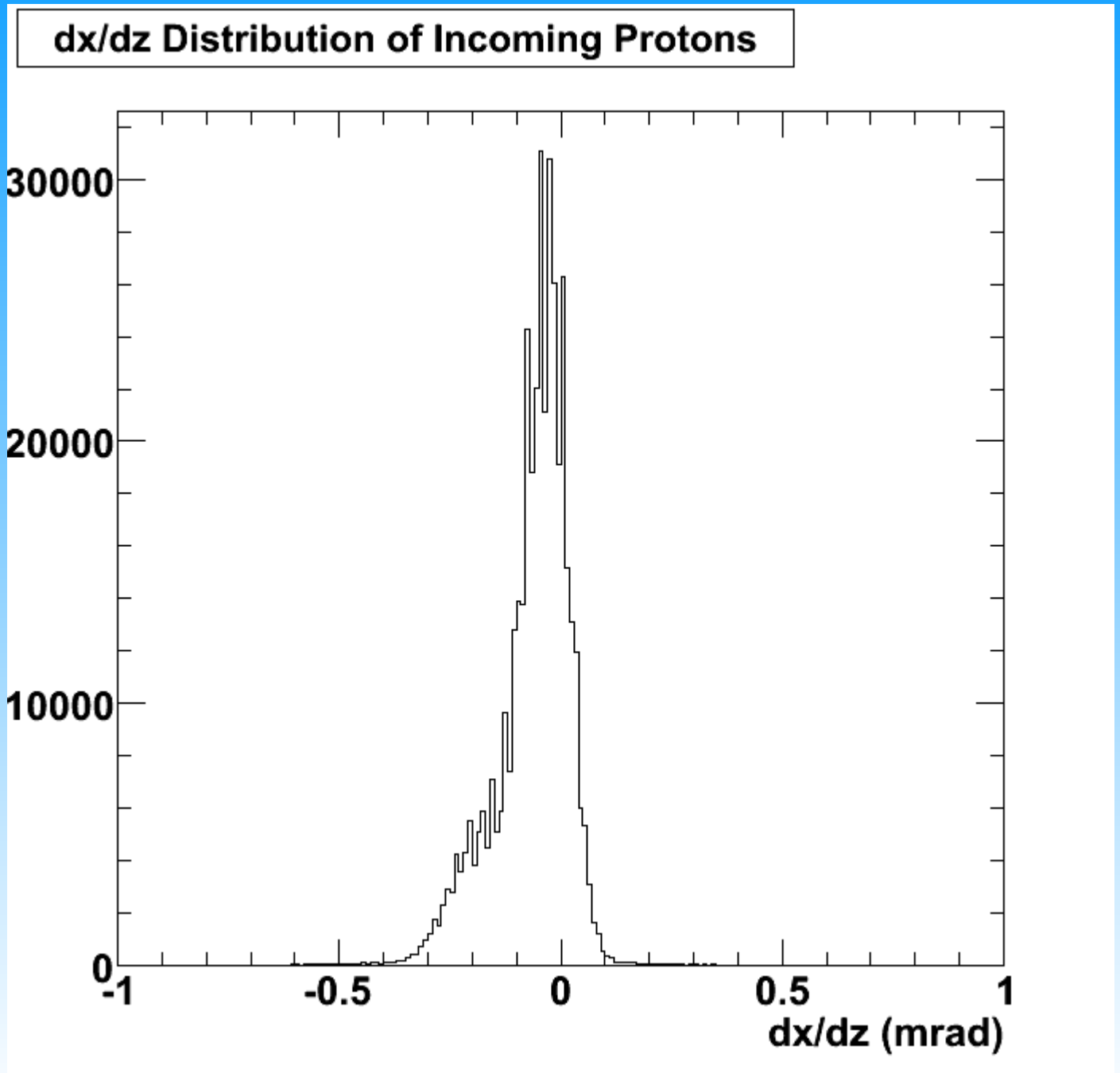

ASTROPHYSICS
INDIANA
UNIVERSITY
LAMBDA
DEC. 1990



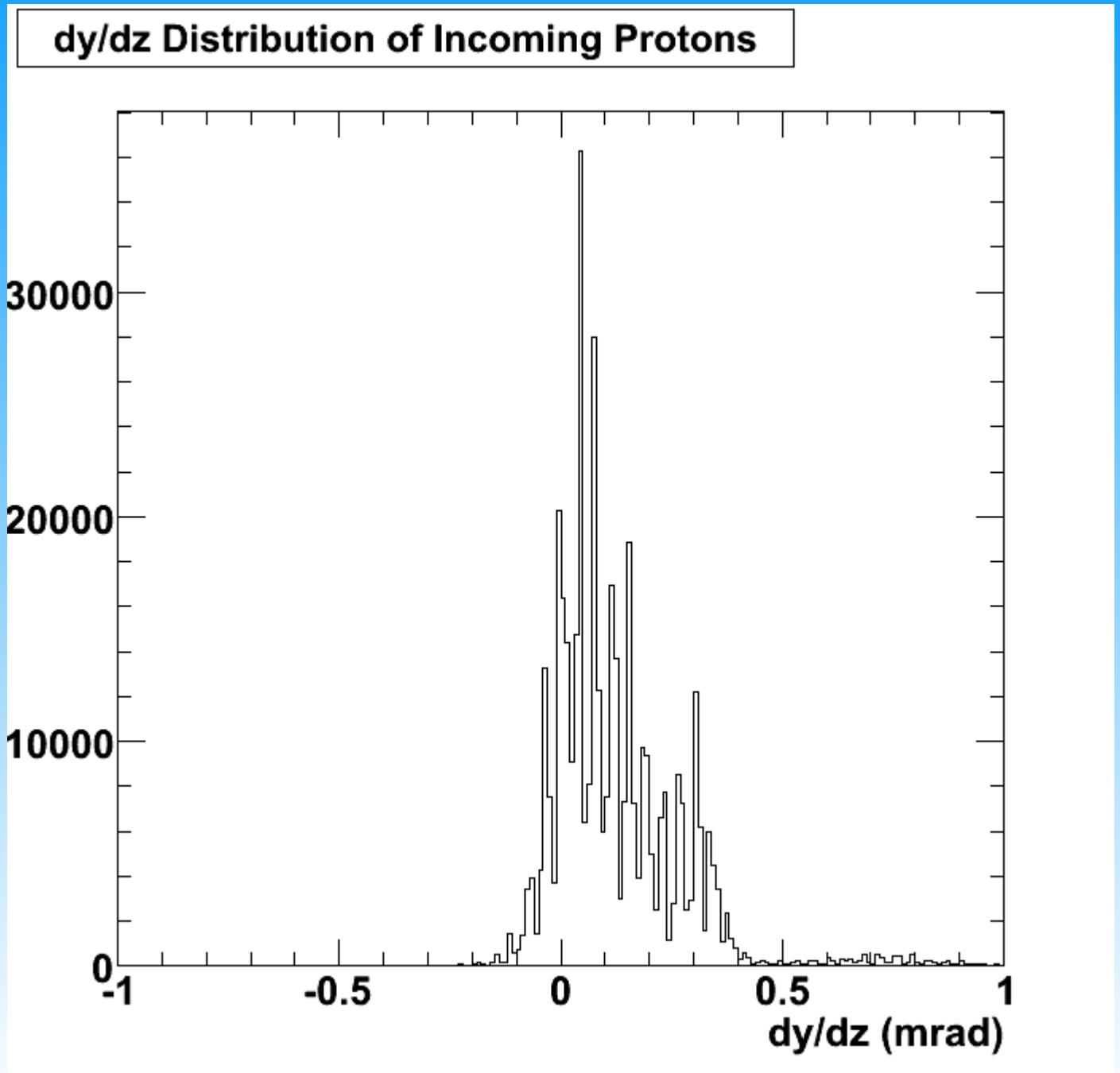
22/07/2005 10.00.48



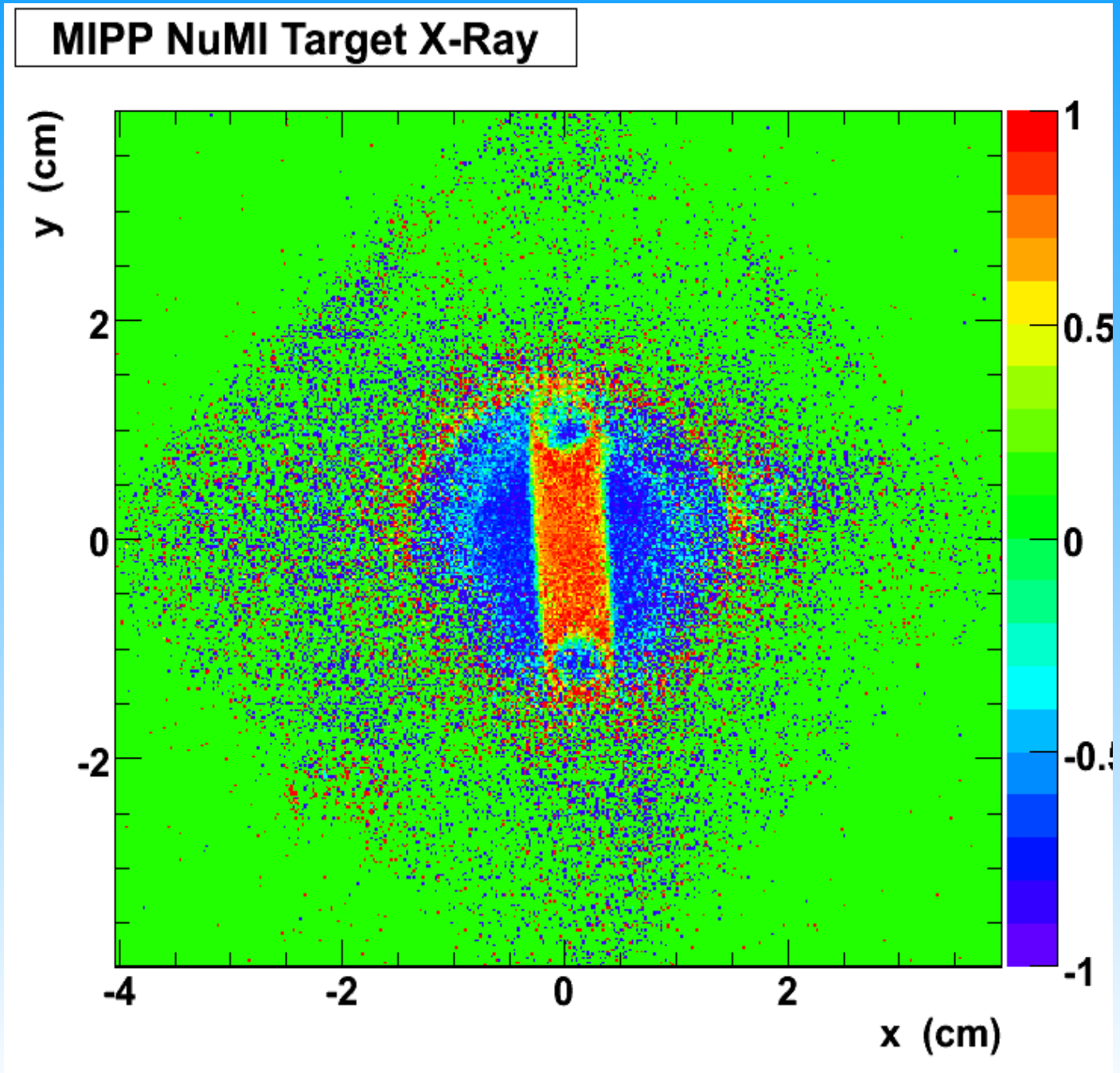
How Straight Is the Beam?



How Straight Is the Beam?

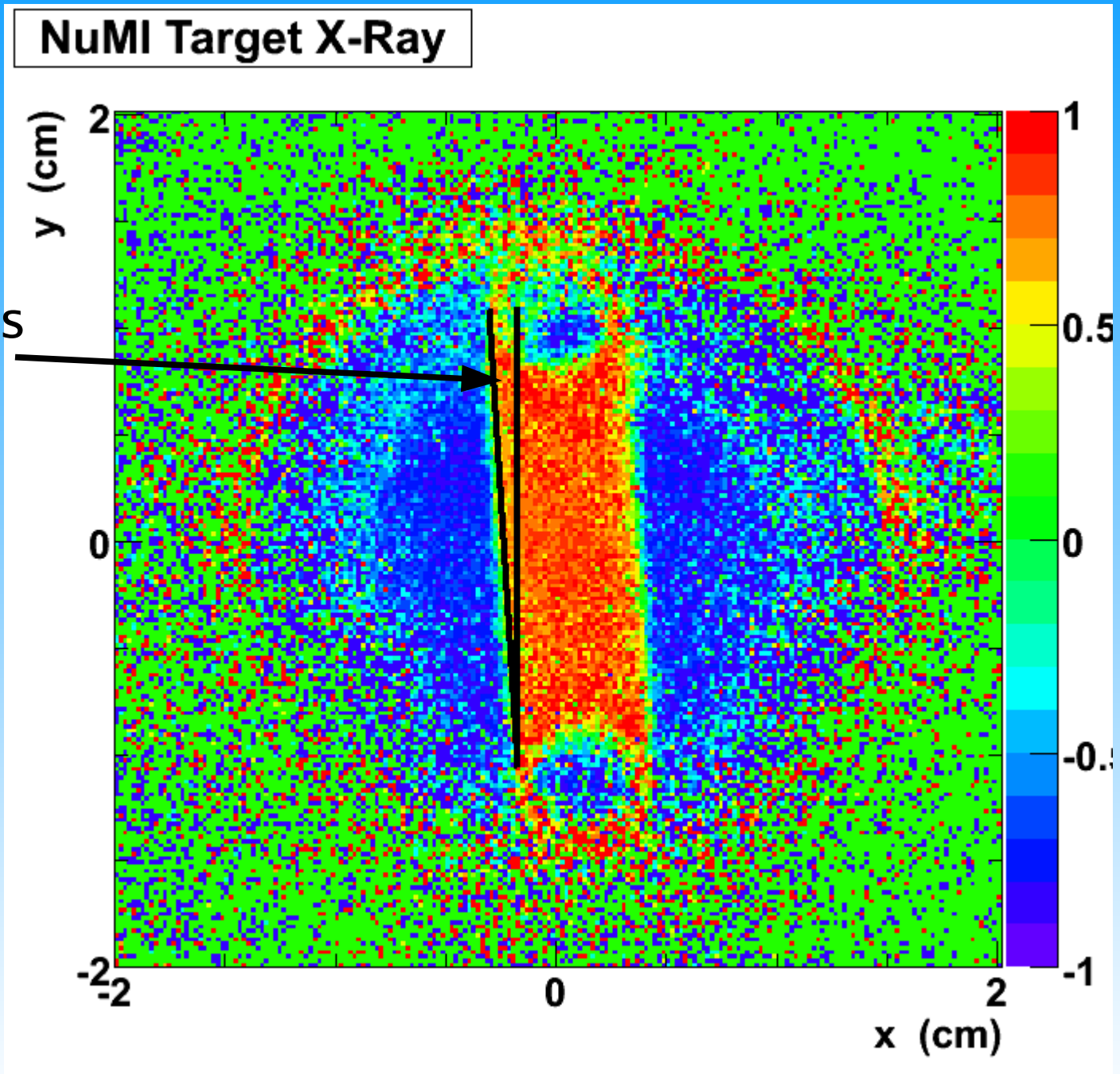


NuMI Target X-ray

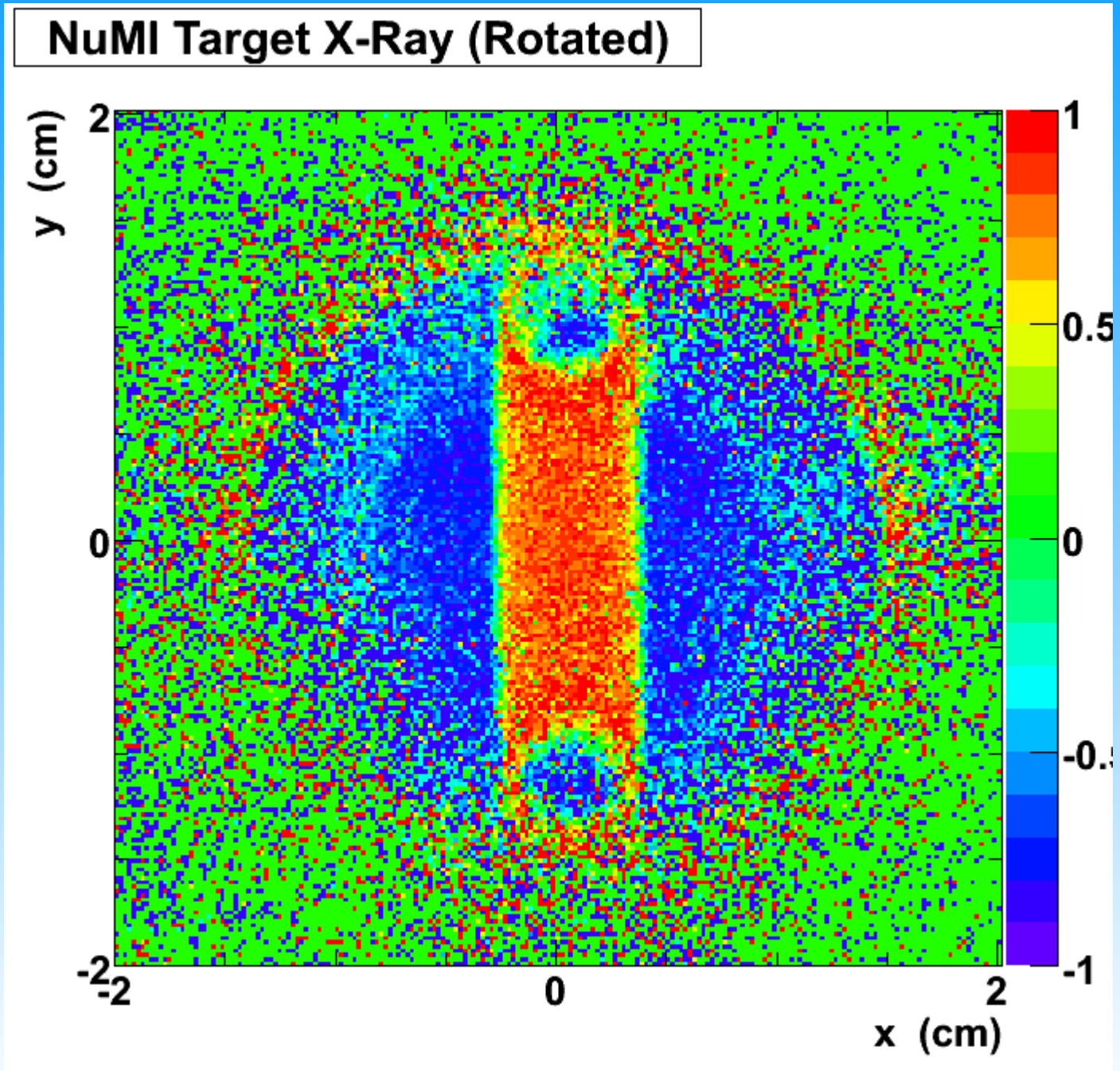


NuMI Target X-ray

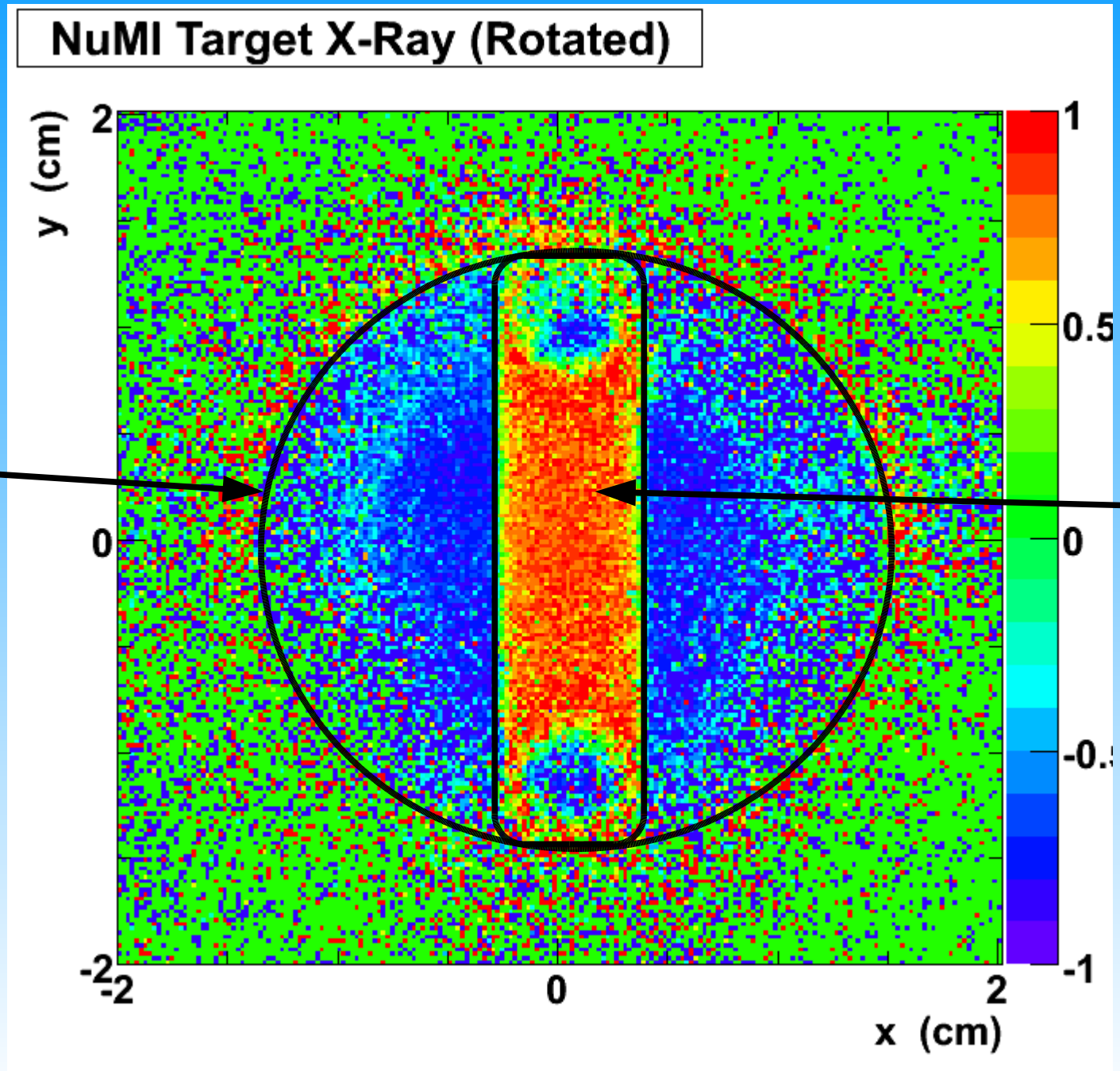
~3 degrees rotation!



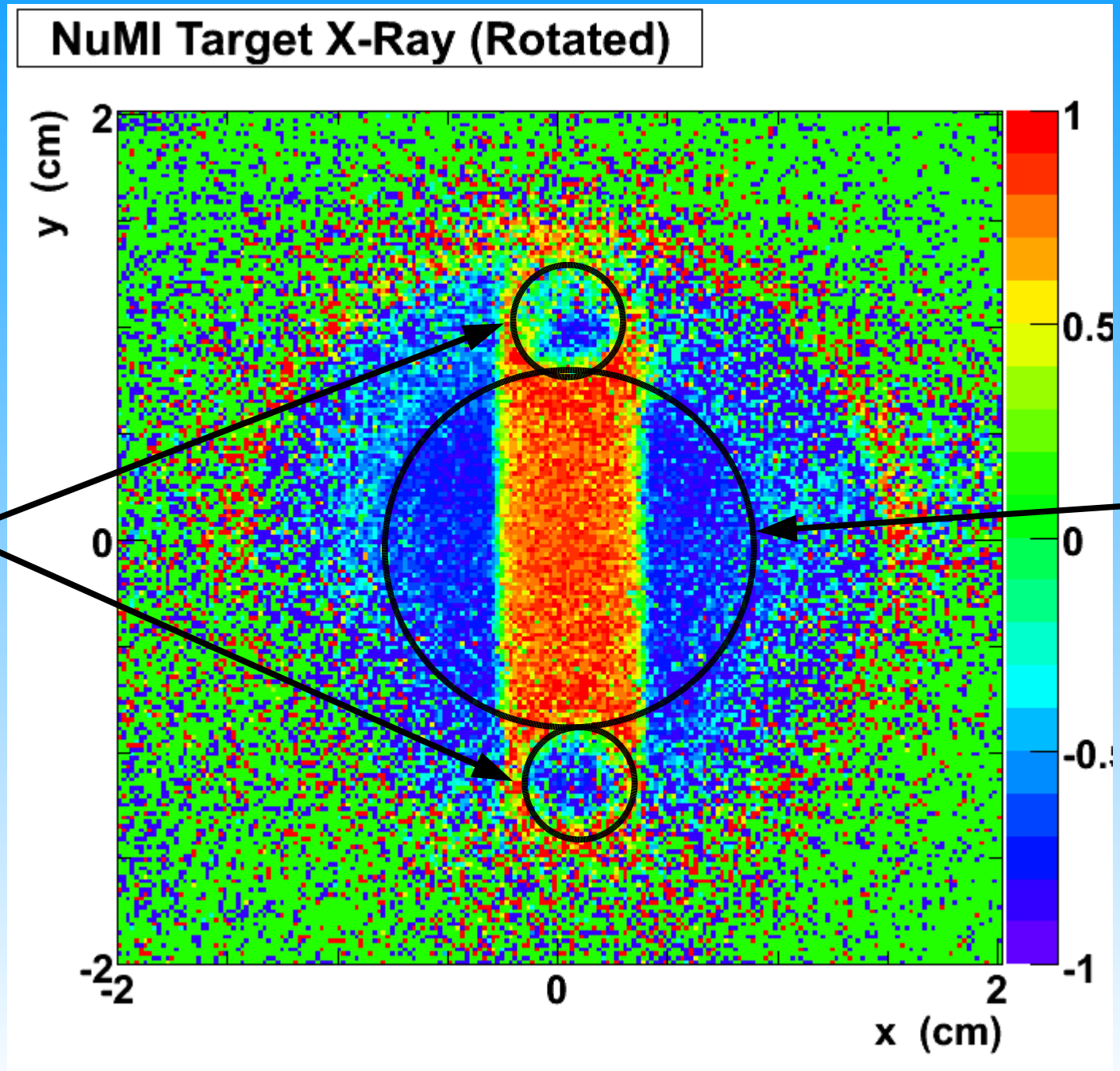
NuMI Target X-ray



NuMI Target X-ray



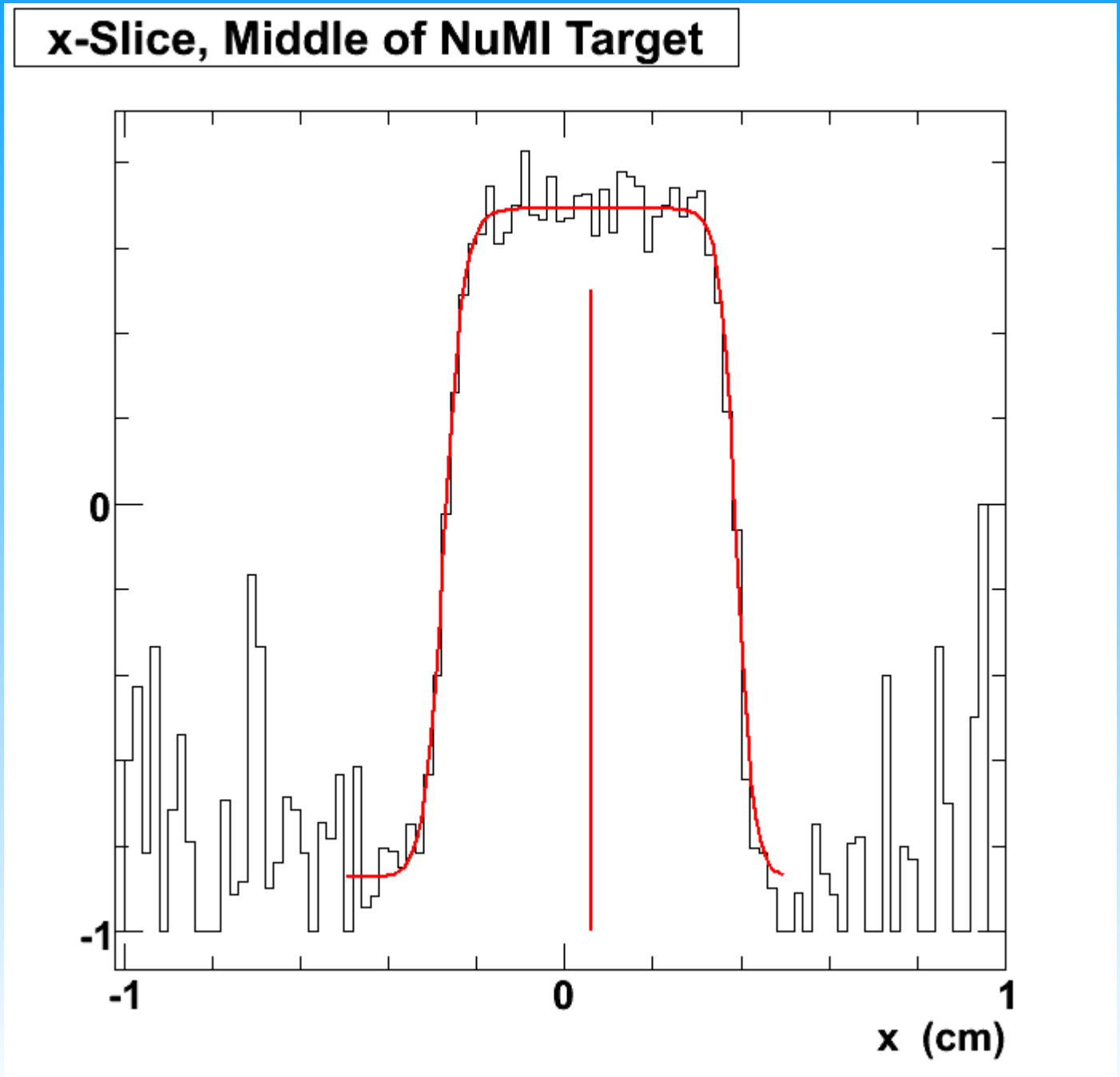
NuMI Target X-ray



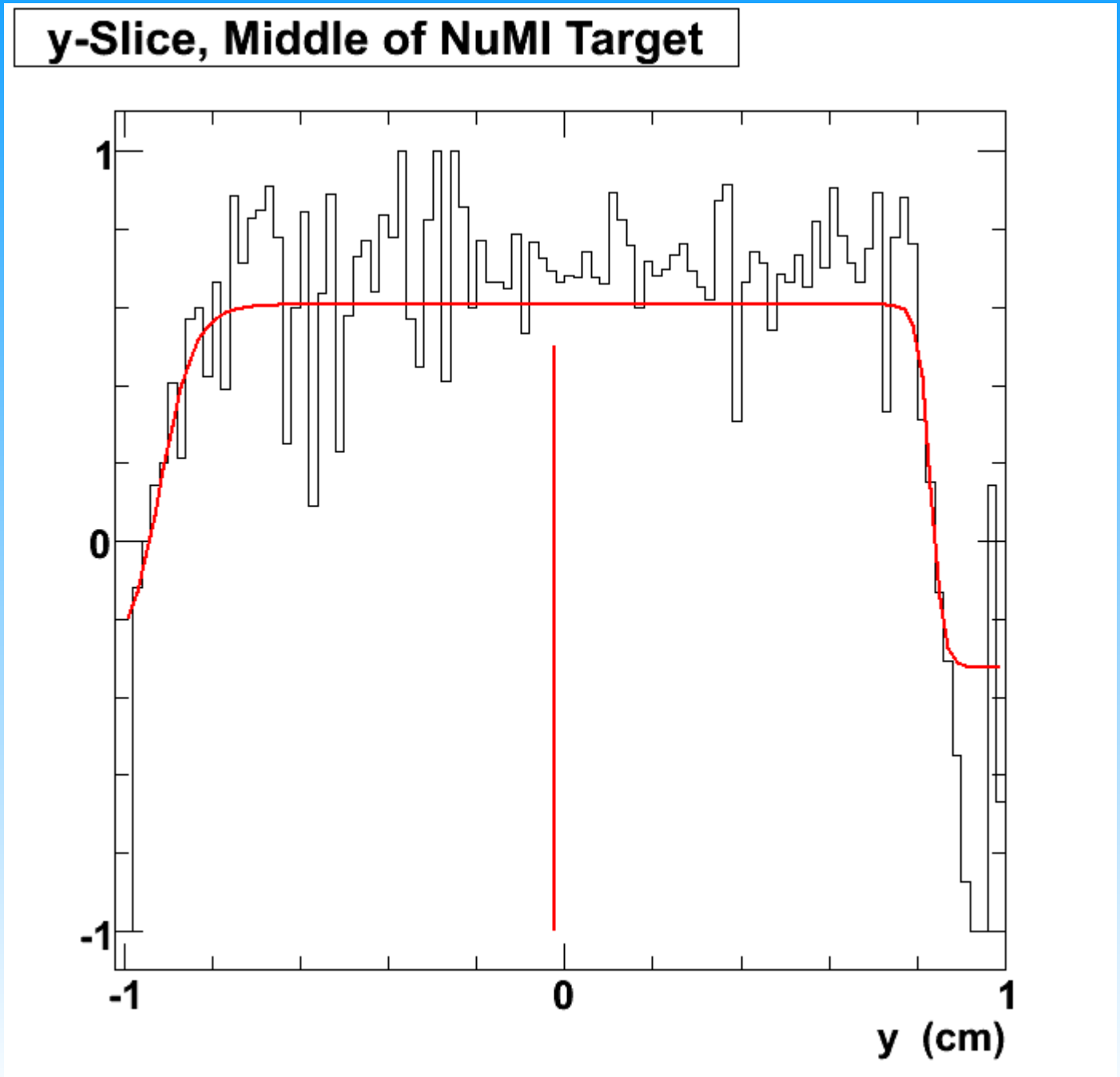
Water Cooling Pipes

Be Window

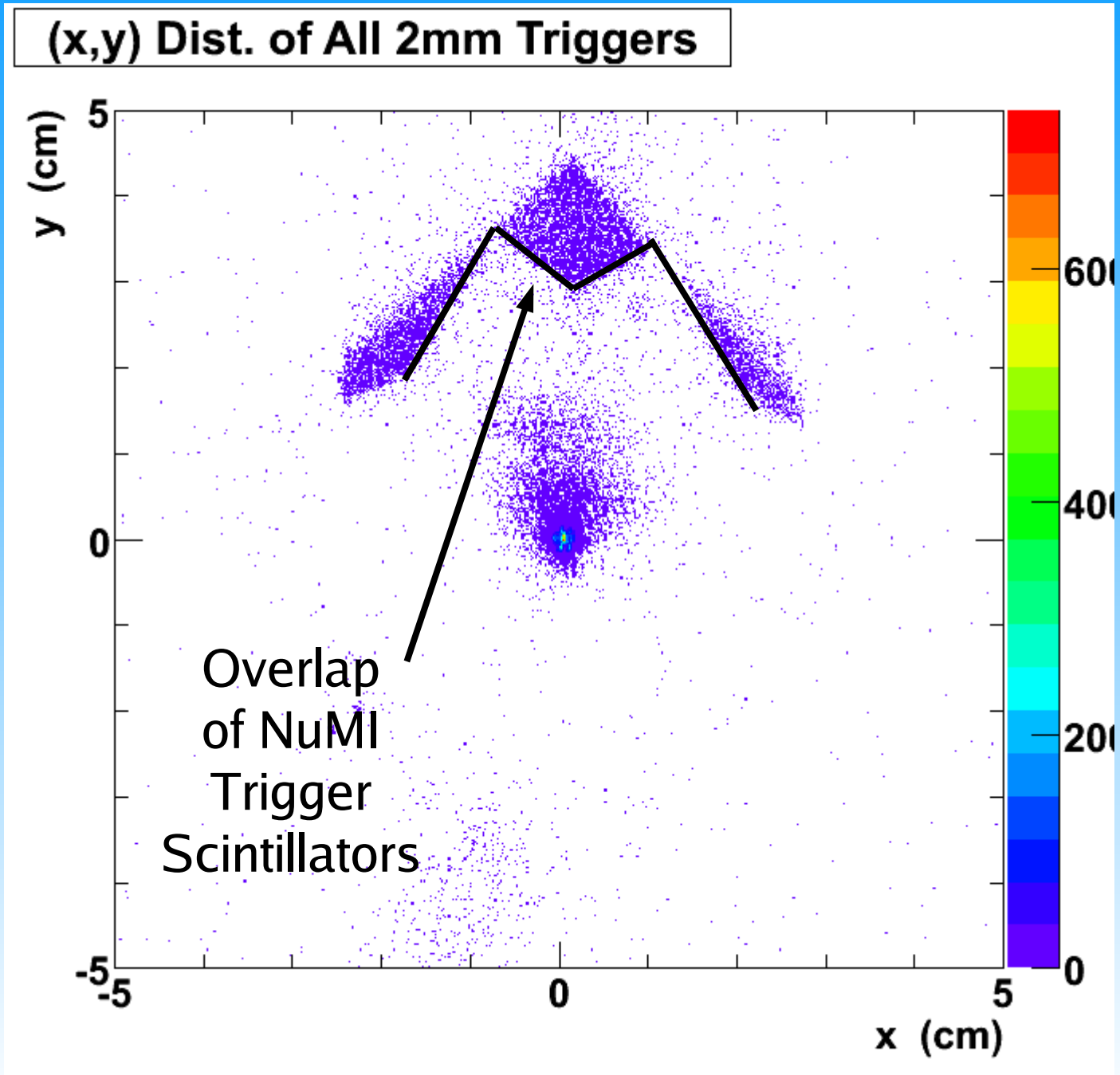
Finding the Center of the Target...



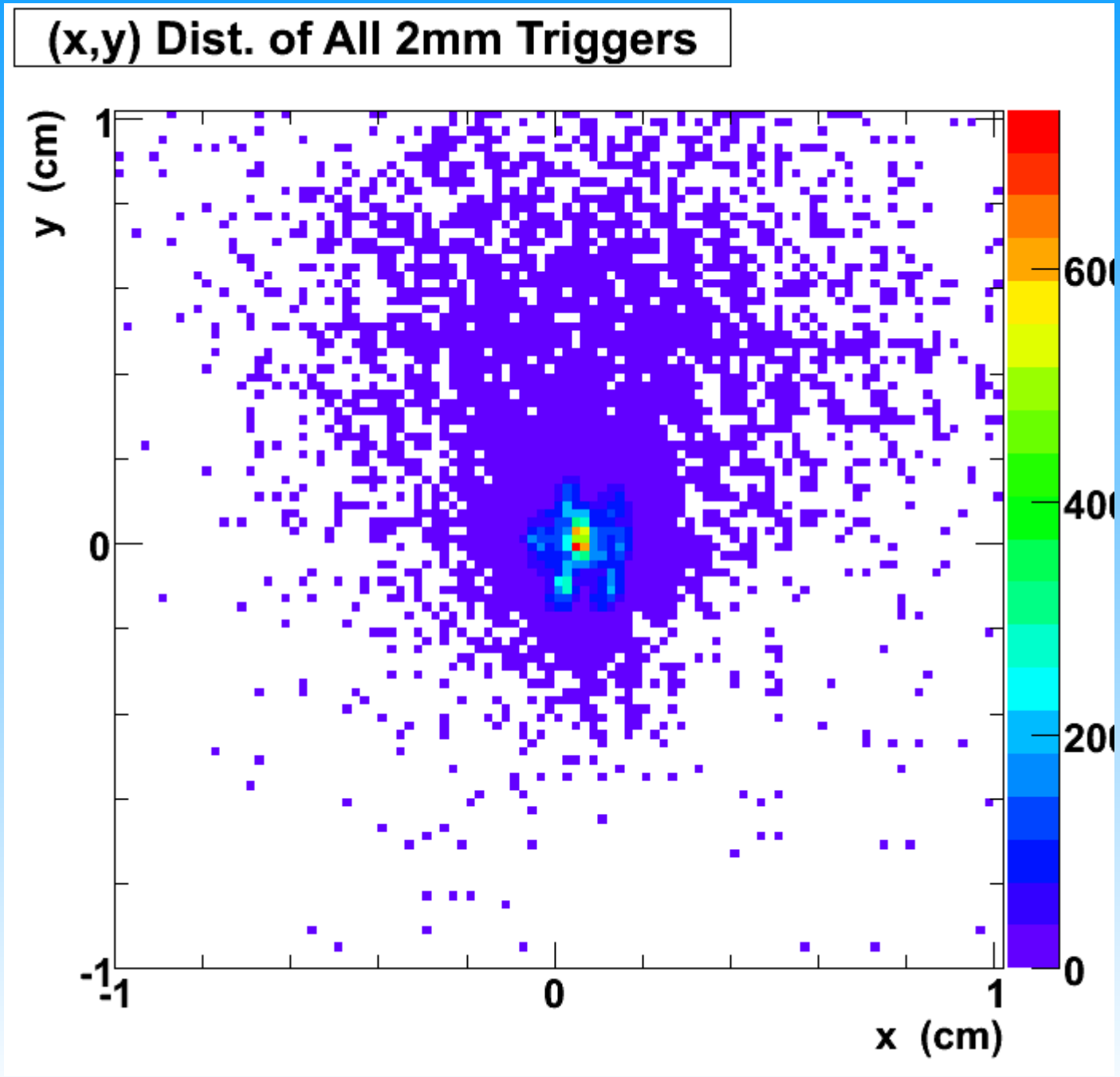
Finding the Center of the Target...



Finding the Beam Center...

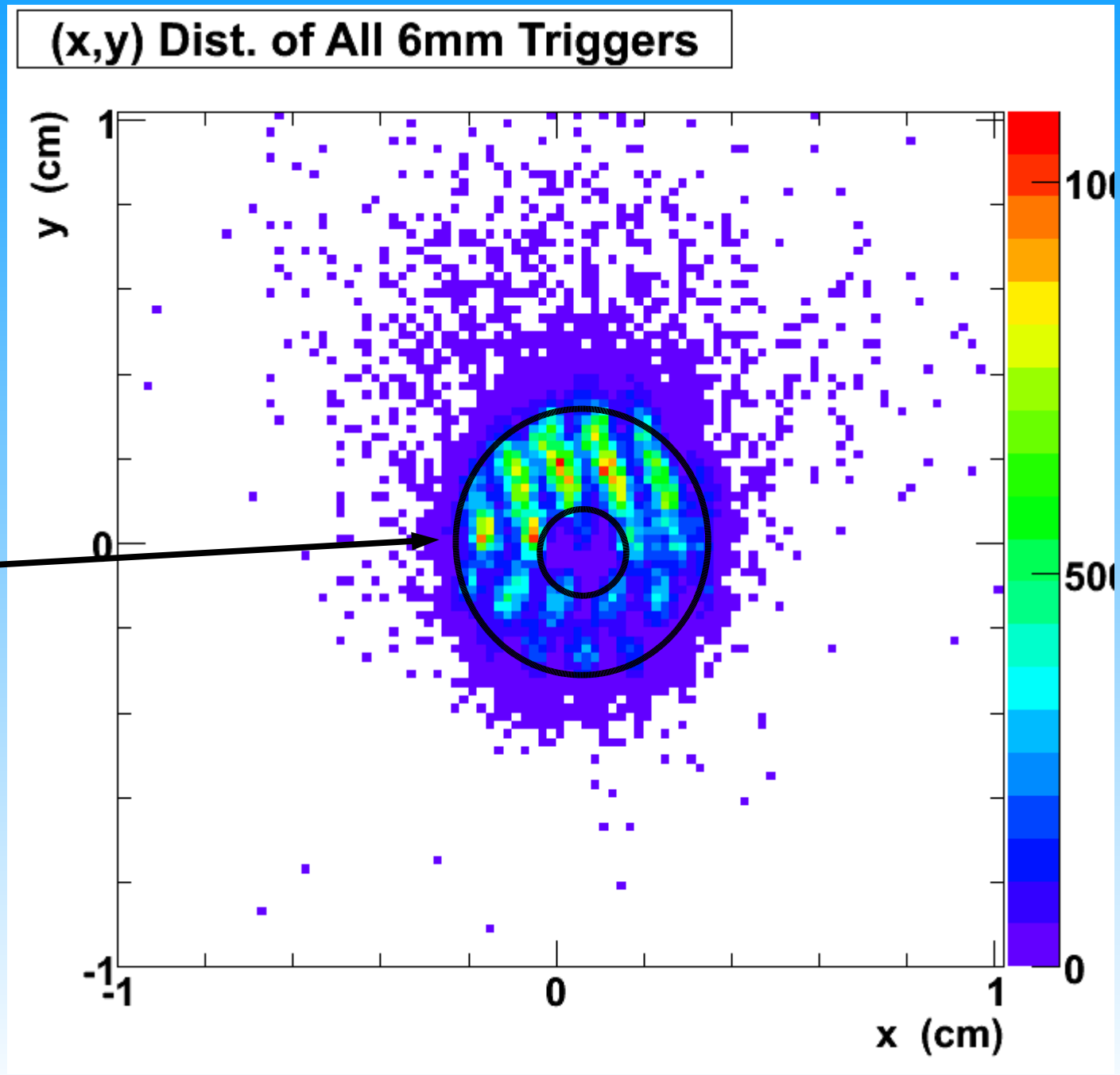


Finding the Beam Center...

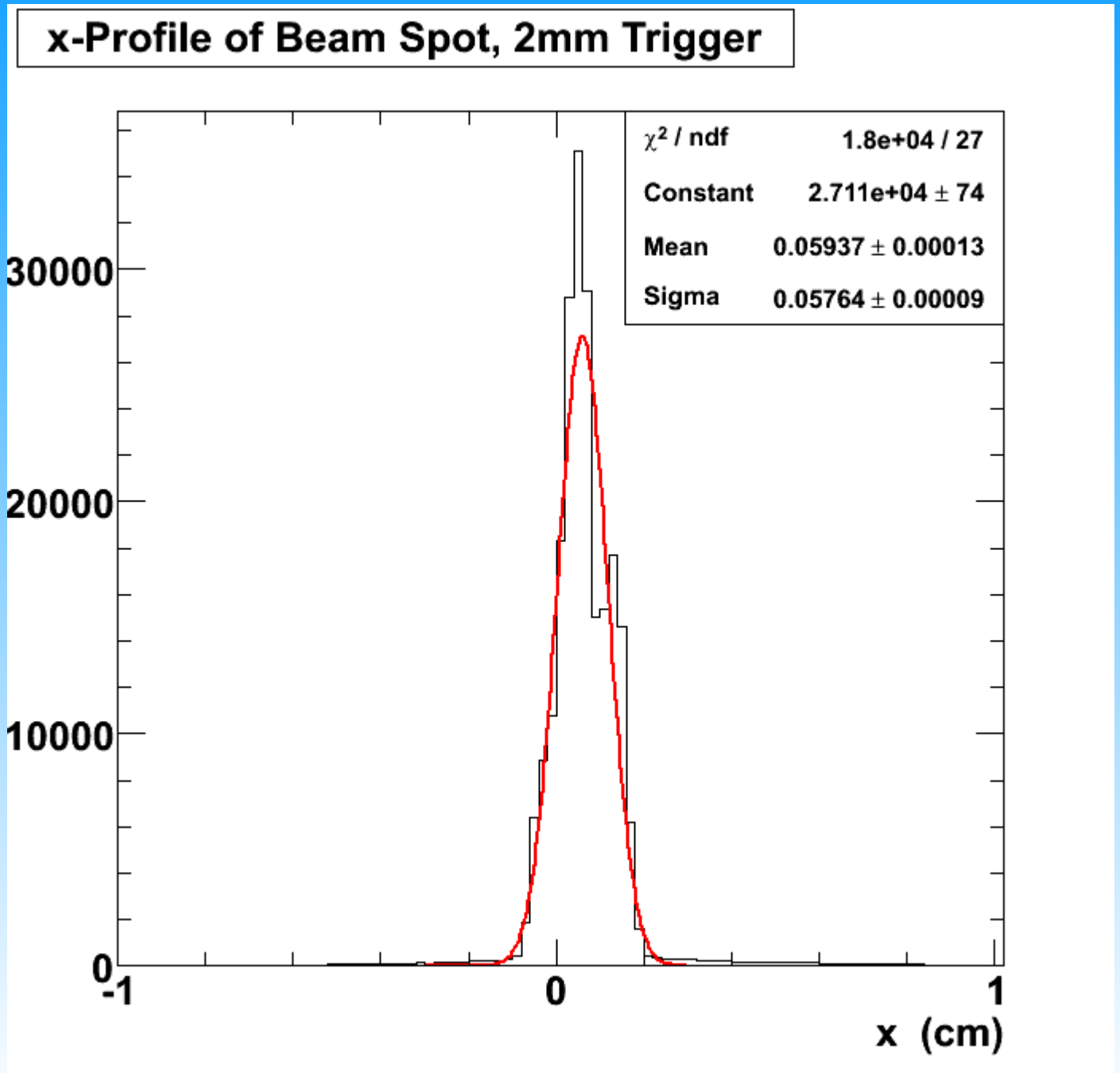


Finding the Beam Center...

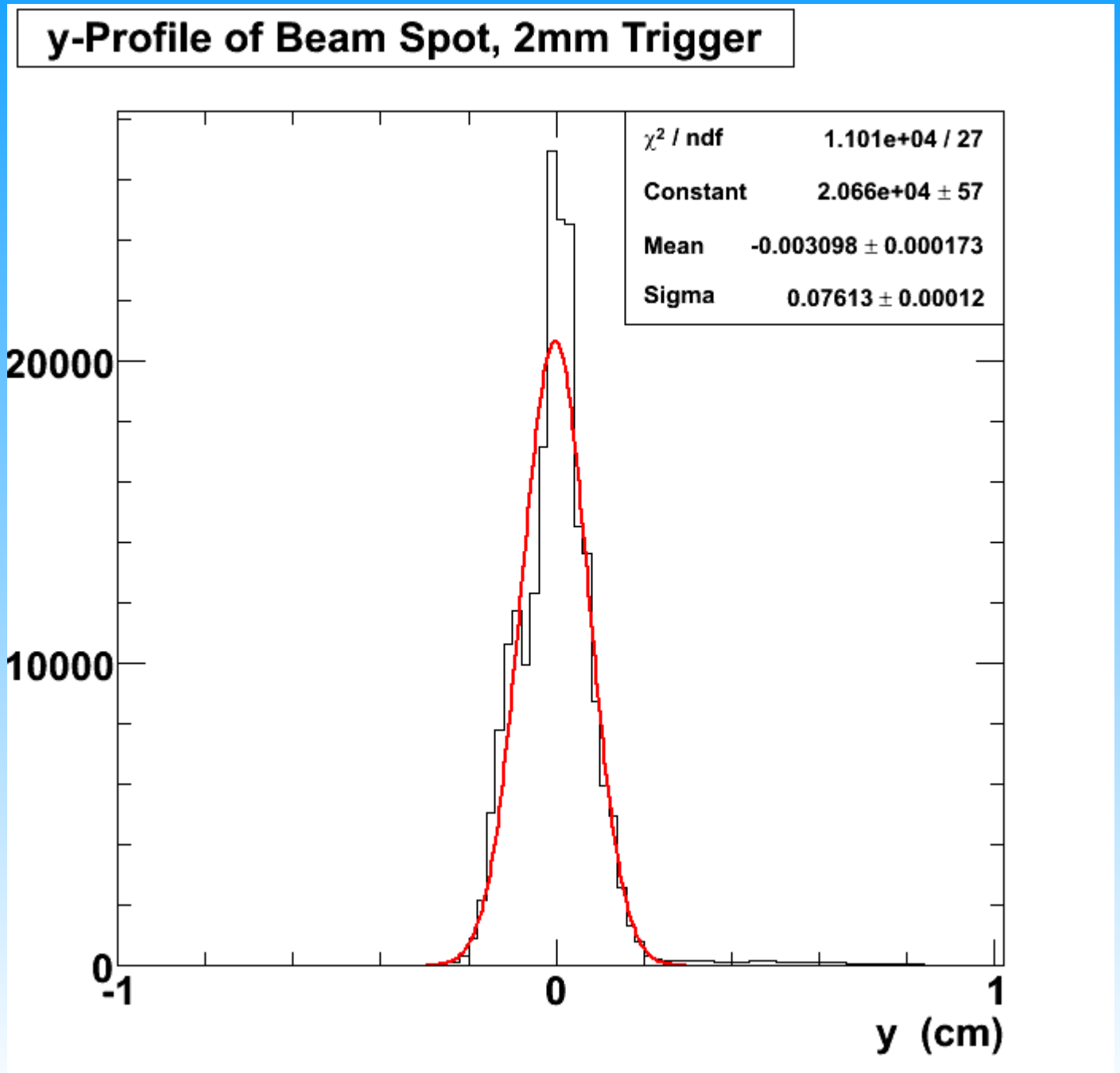
Annulus of 6mm Trigger



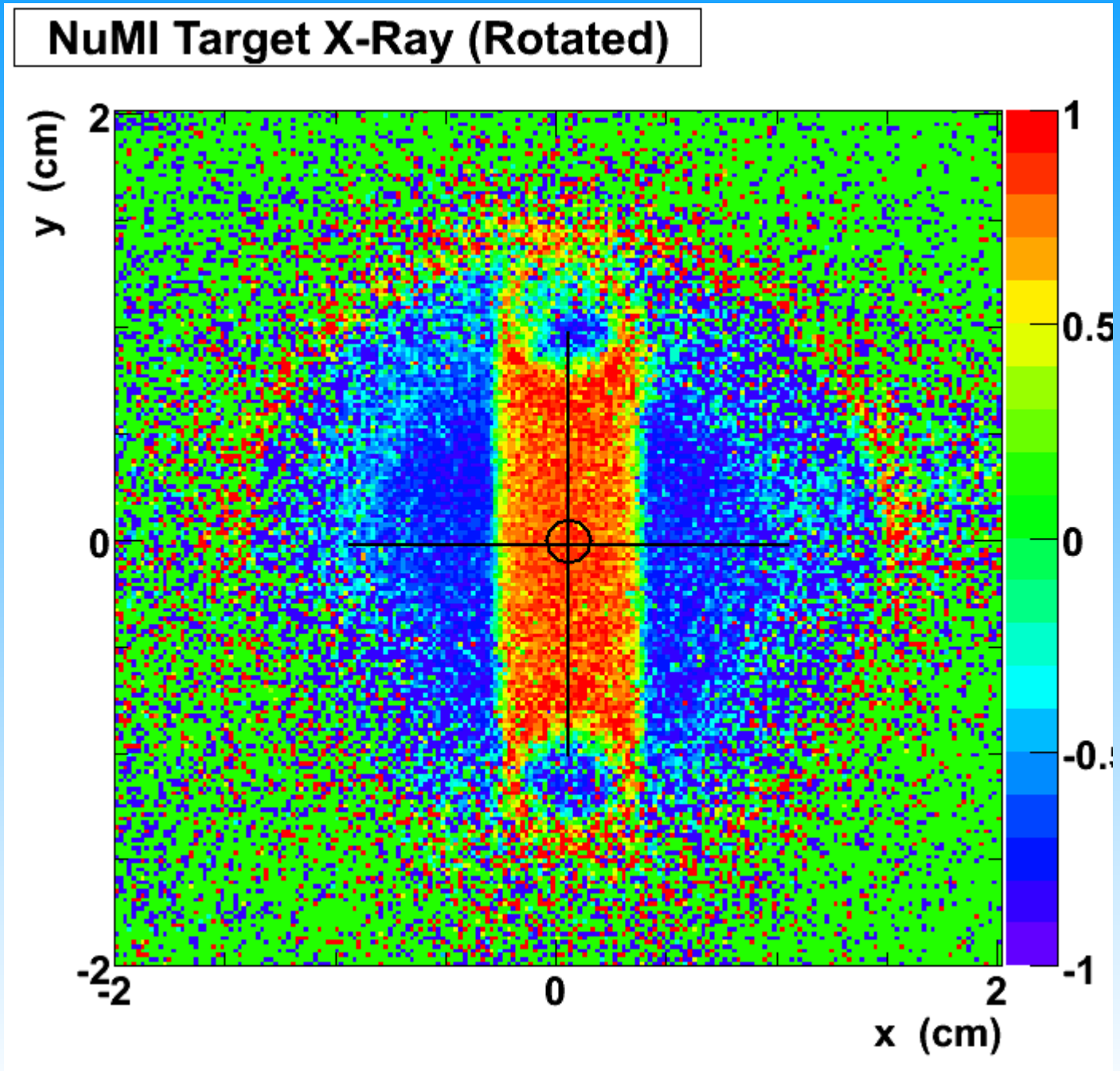
Finding the Beam Center...



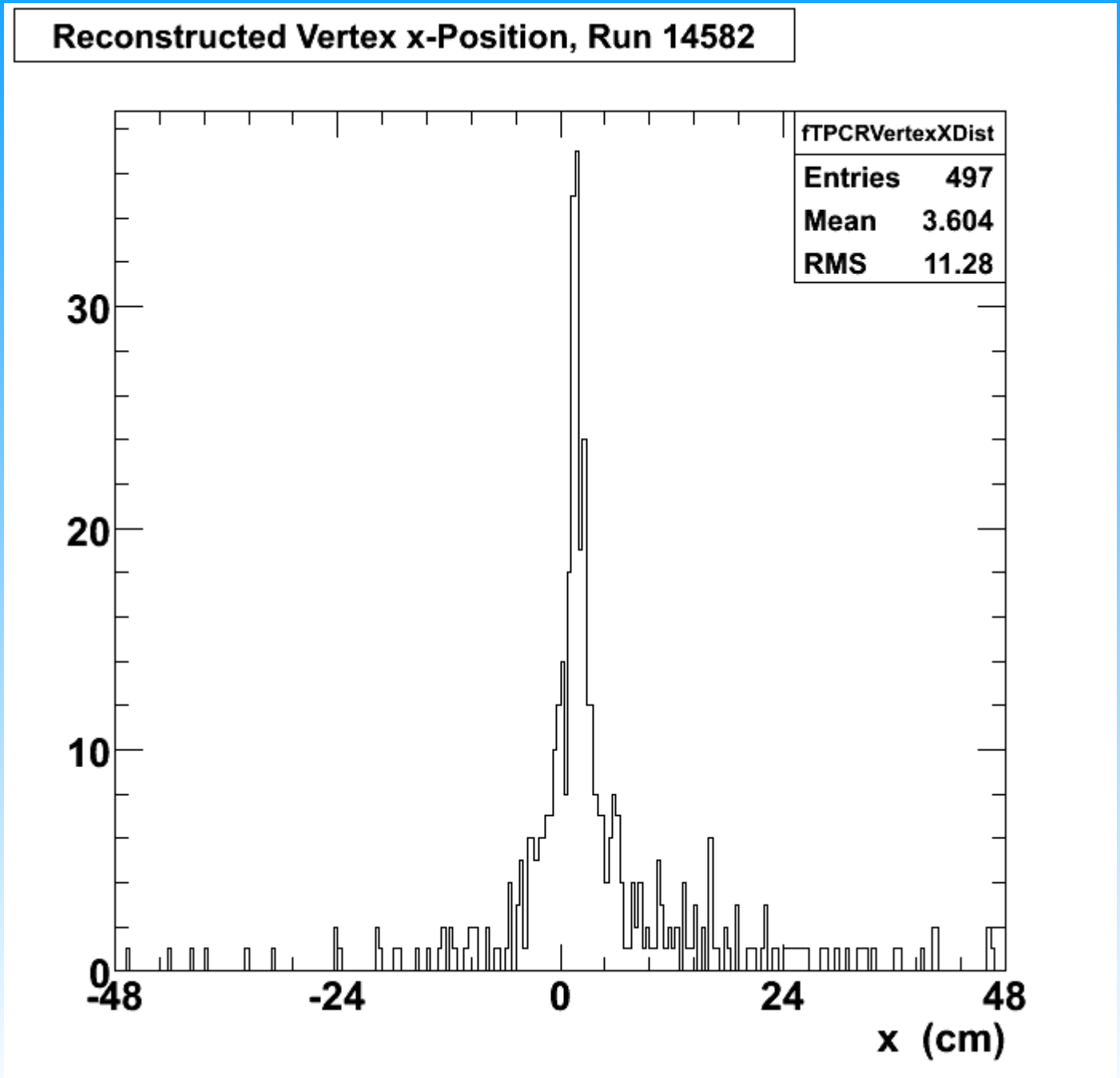
Finding the Beam Center...



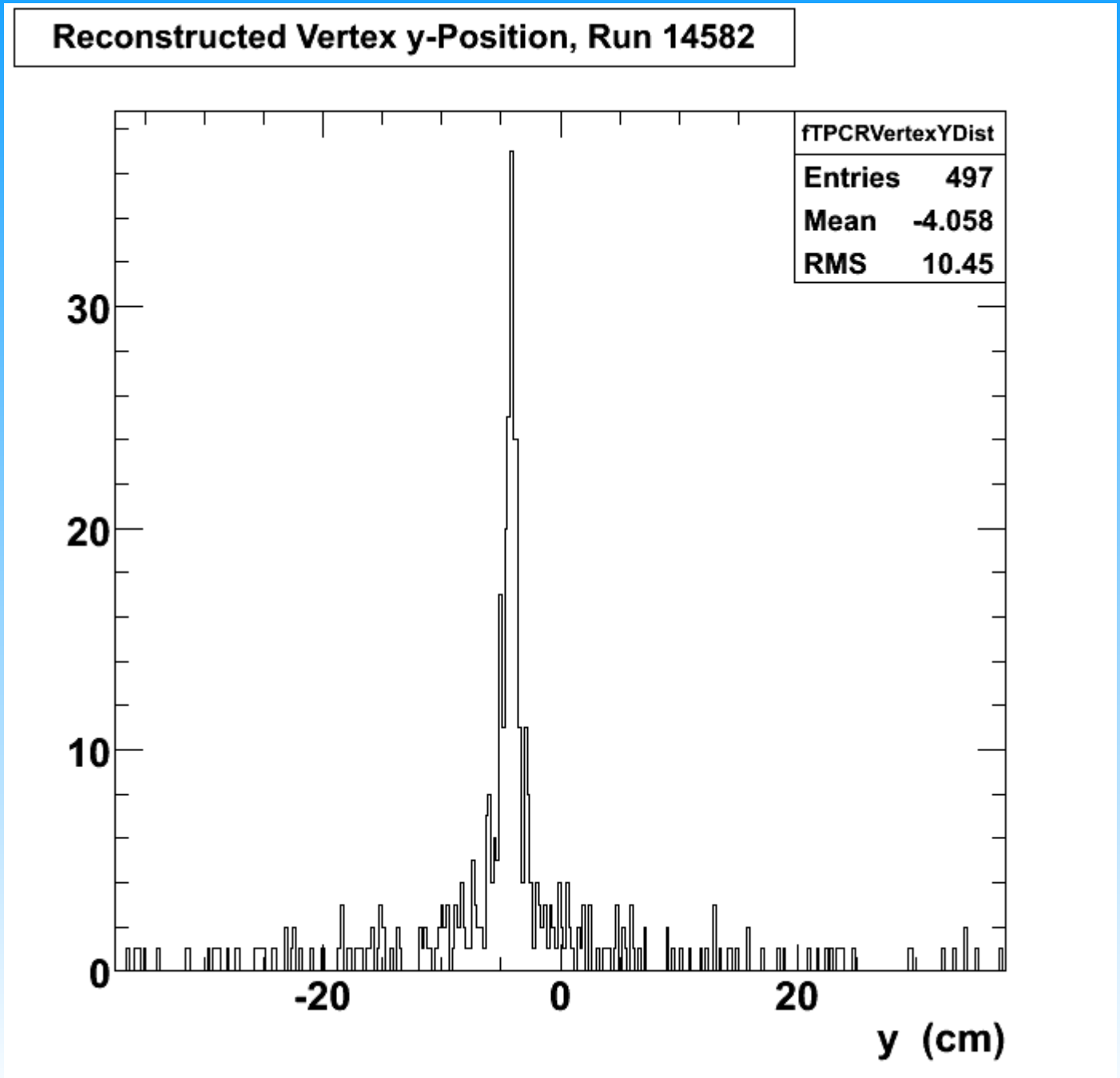
How Well Are We Aligned?



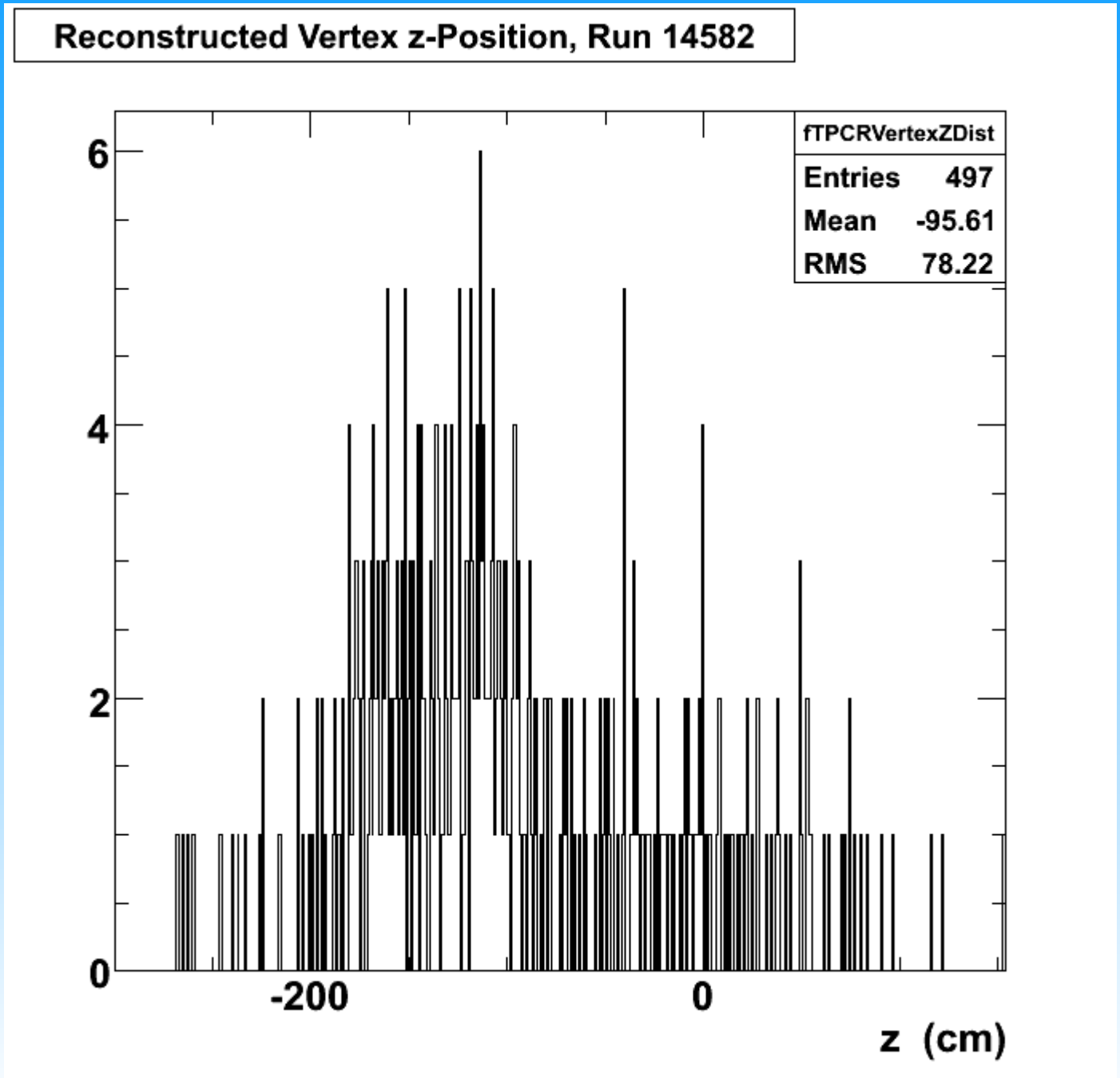
Some Results from TPC Reco



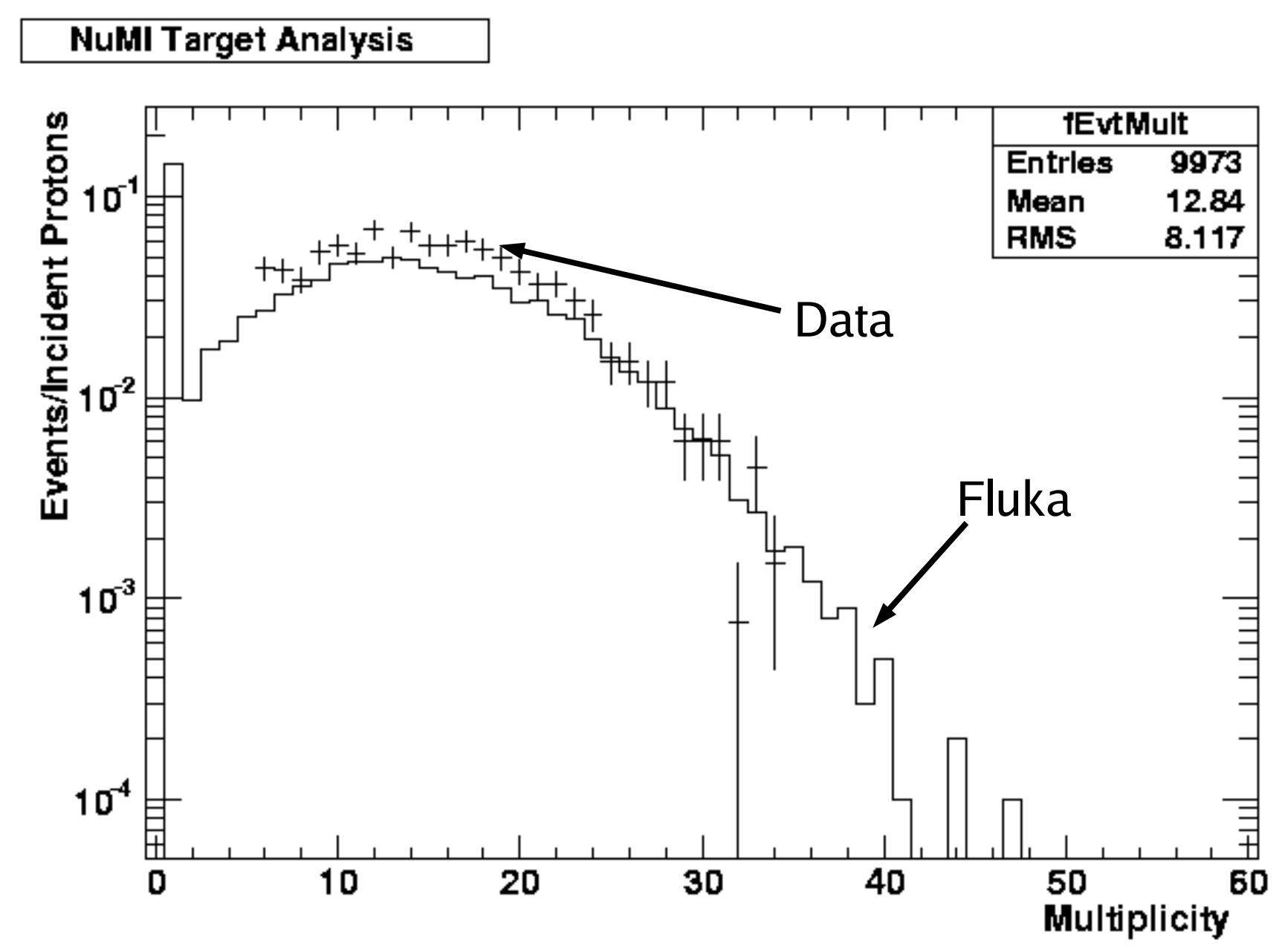
Some Results from TPC Reco



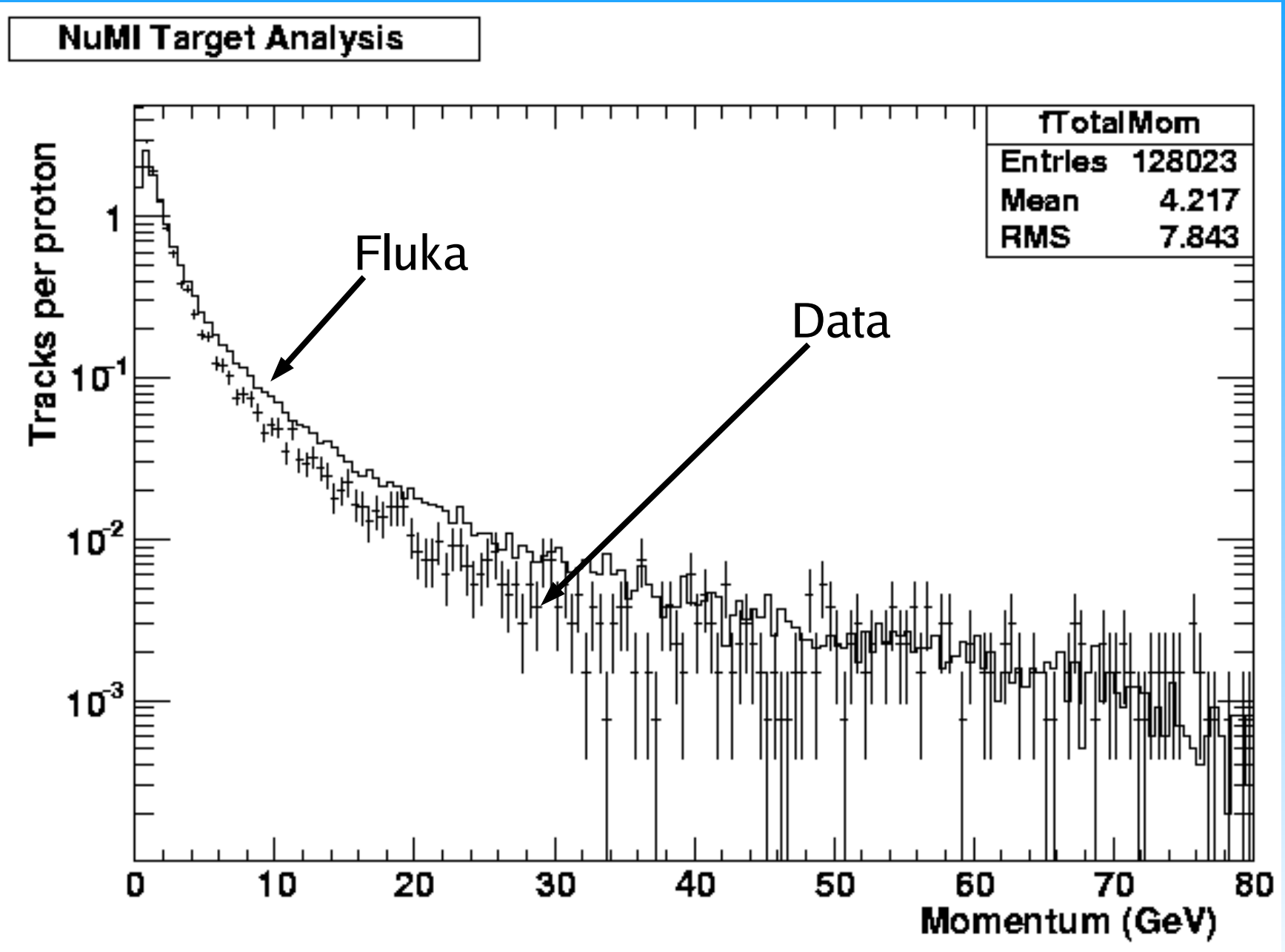
Some Results from TPC Reco



Comparison of TPC Reco to Fluka



Comparison of TPC Reco to Fluka



Summary

- The NuMI target run has gone very smoothly so far. Beam is on target and fairly steady.

- With 1 spill/minute, we could reach 1.8 million triggered events by the end of the month.

- Data looks good so far! More to come...