

# **BC Reconstruction**

Fermilab Meeting, July 2005

*Sharon Seun*

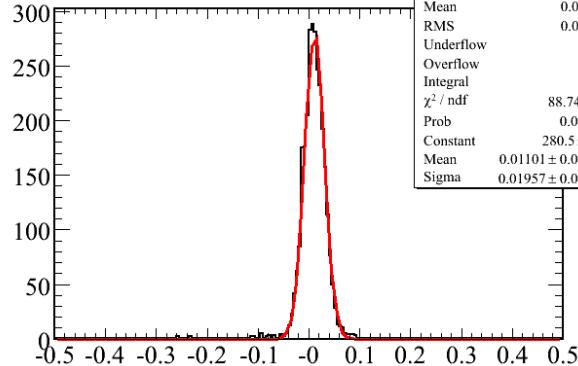
Alignment study, comparing

Run 13545: LH2, ~80GeV (March 26)

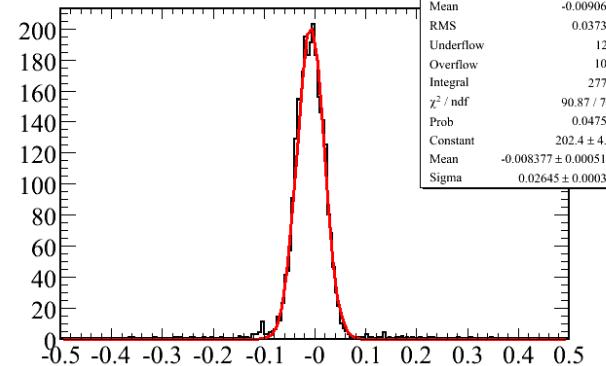
Run 14556: NuMI target, 120GeV (June 19)

# Run 13545: BC1 Residual Distribution

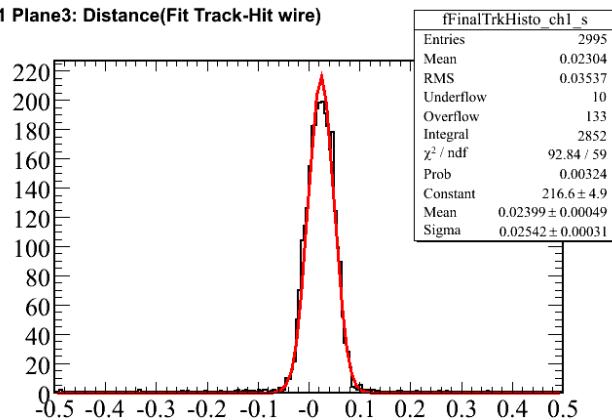
**BC1 Plane1: Distance(Fit Track-Hit wire)**



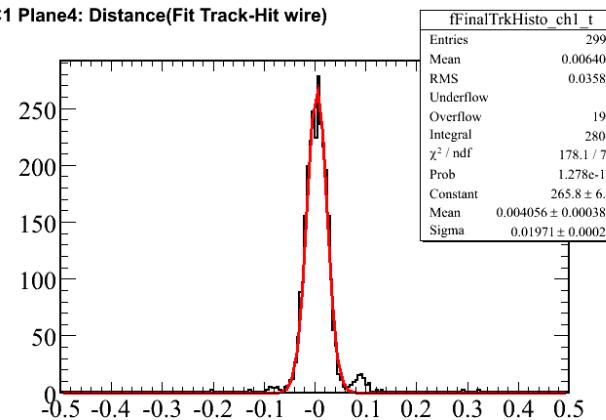
**BC1 Plane2: Distance(Fit Track-Hit wire)**



**BC1 Plane3: Distance(Fit Track-Hit wire)**

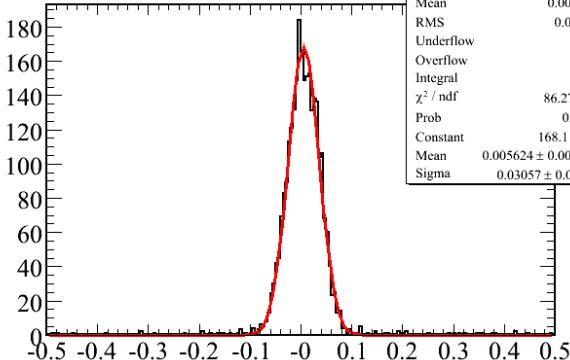


**BC1 Plane4: Distance(Fit Track-Hit wire)**

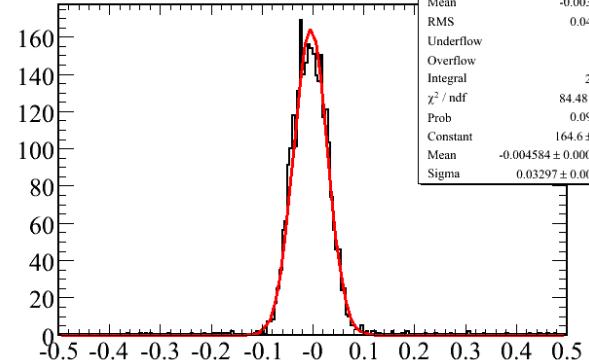


# Run 13545: BC2 Residual Distribution

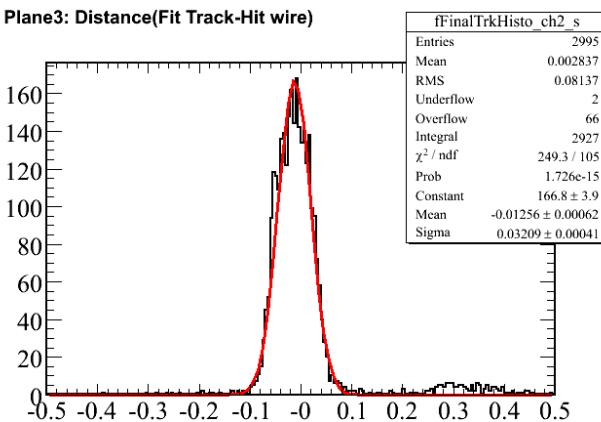
**BC2 Plane1: Distance(Fit Track-Hit wire)**



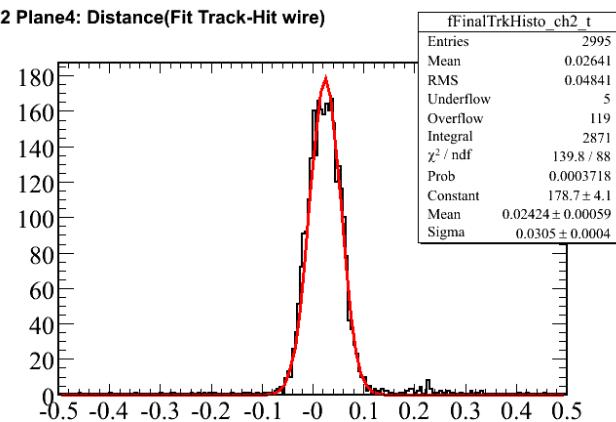
**BC2 Plane2: Distance(Fit Track-Hit wire)**



**BC2 Plane3: Distance(Fit Track-Hit wire)**

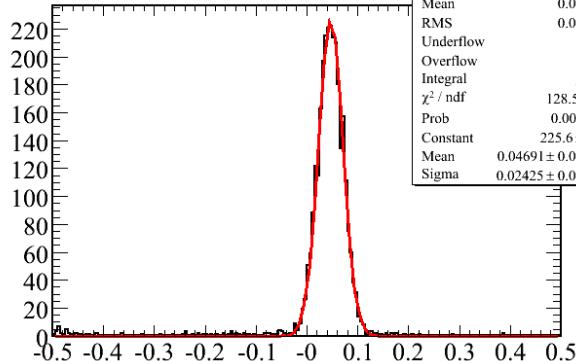


**BC2 Plane4: Distance(Fit Track-Hit wire)**

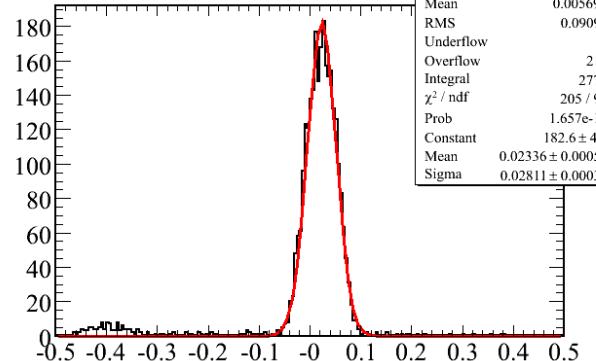


# Run 13545: BC3 Residual Distribution

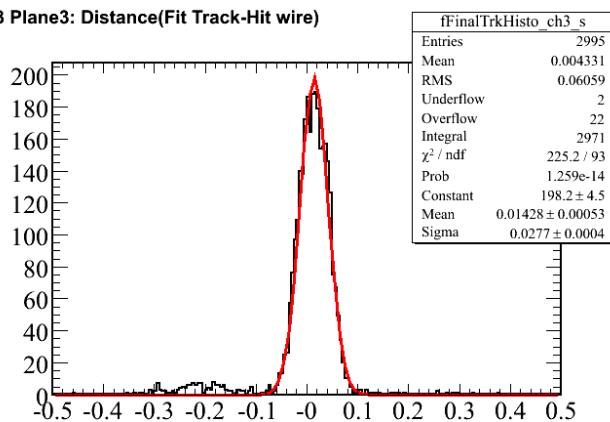
**BC3 Plane1: Distance(Fit Track-Hit wire)**



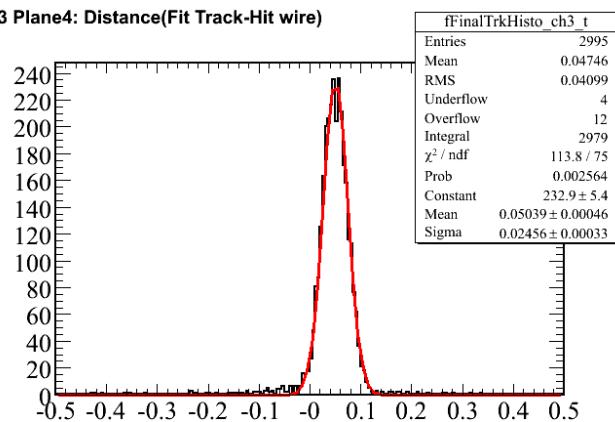
**BC3 Plane2: Distance(Fit Track-Hit wire)**



**BC3 Plane3: Distance(Fit Track-Hit wire)**

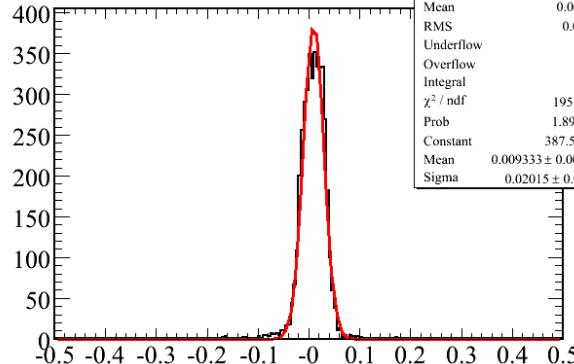


**BC3 Plane4: Distance(Fit Track-Hit wire)**

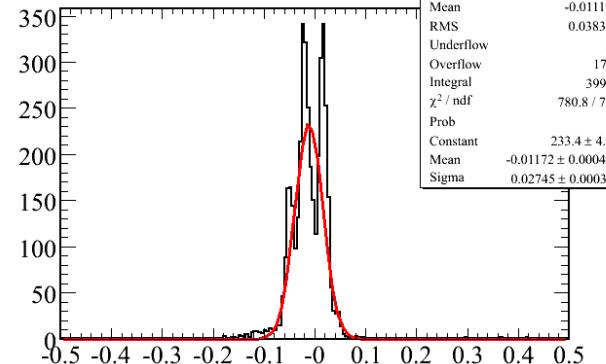


# Run 14556: BC1 Residual Distribution

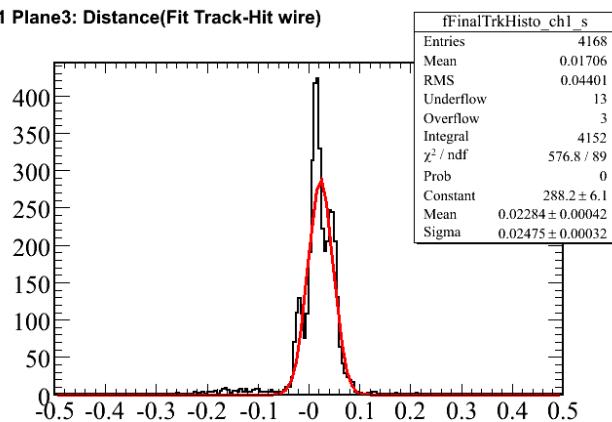
**BC1 Plane1: Distance(Fit Track-Hit wire)**



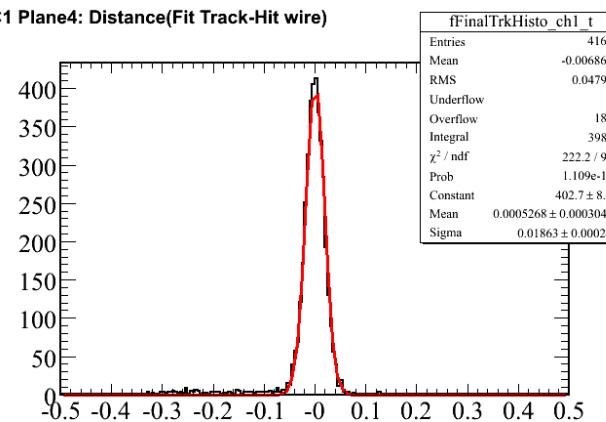
**BC1 Plane2: Distance(Fit Track-Hit wire)**



**BC1 Plane3: Distance(Fit Track-Hit wire)**

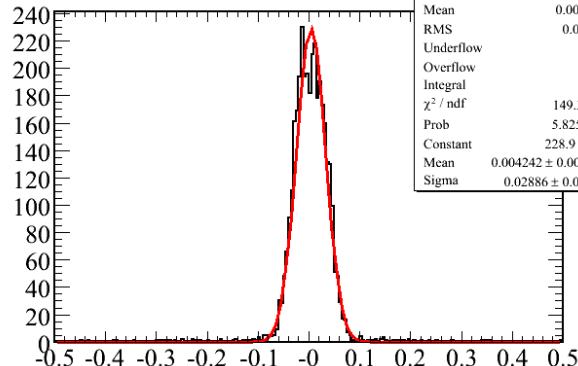


**BC1 Plane4: Distance(Fit Track-Hit wire)**

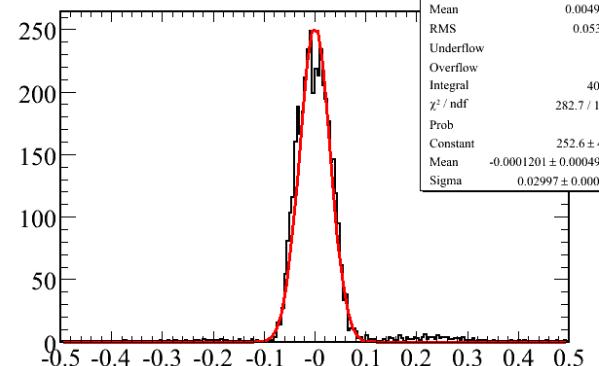


# Run 14556: BC2 Residual Distribution

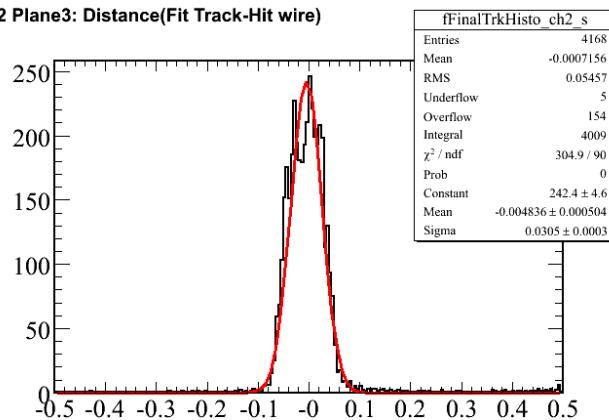
**BC2 Plane1: Distance(Fit Track-Hit wire)**



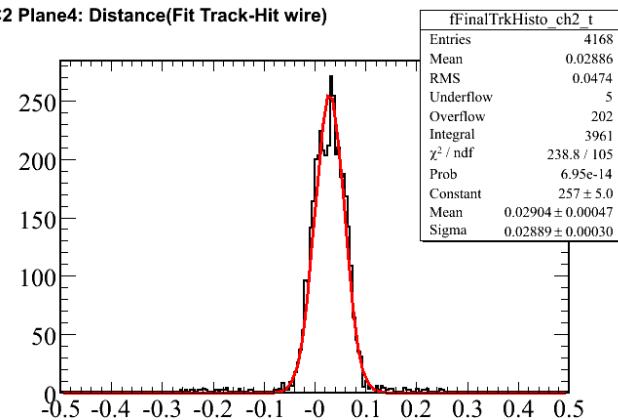
**BC2 Plane2: Distance(Fit Track-Hit wire)**



**BC2 Plane3: Distance(Fit Track-Hit wire)**

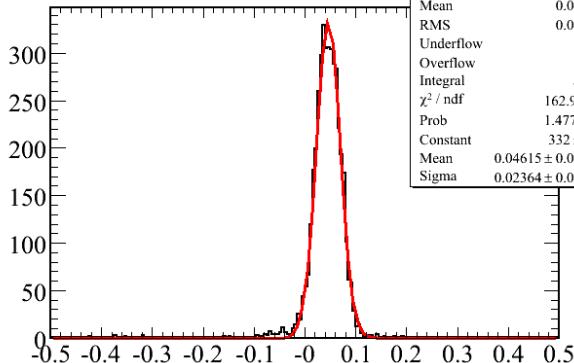


**BC2 Plane4: Distance(Fit Track-Hit wire)**

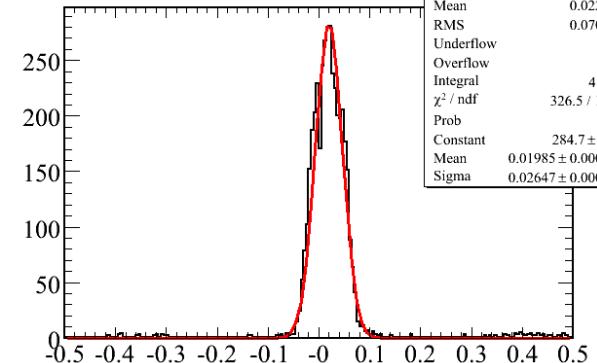


# Run 14556: BC3 Residual Distribution

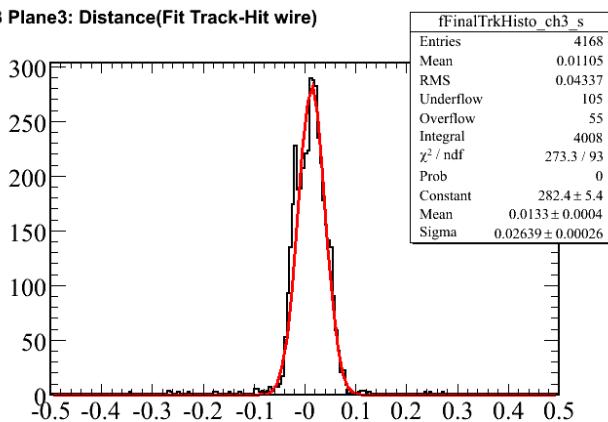
BC3 Plane1: Distance(Fit Track-Hit wire)



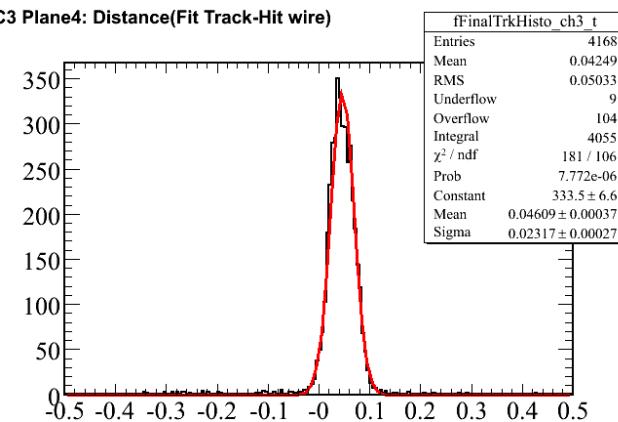
BC3 Plane2: Distance(Fit Track-Hit wire)



BC3 Plane3: Distance(Fit Track-Hit wire)



BC3 Plane4: Distance(Fit Track-Hit wire)



# Residual Summary

Chamber.Plane	Average Residual (mm) (80 GeV)	Plane angle (120GeV)	$\Delta x$ (mm) (80 GeV)	$\Delta y$ (mm) (80 GeV)	$\Delta x$ (mm) (120 GeV)	$\Delta y$ (mm) (120 GeV)
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BC1.1	0.11	0.09	21.60	0.04	0.10	0.03	0.08	✓
BC1.2	-0.08	-0.12	7.93	-0.01	-0.08	-0.02	-0.12	?
BC1.3	0.23	0.22	-7.93	-0.03	0.23	-0.03	0.22	✓
BC1.4	0.04	0.00	-21.60	-0.01	0.04	0.00	0.00	??

BC2.1	0.05	0.04	21.60	0.02	0.05	0.01	0.04	✓
BC2.2	-0.04	0.00	7.93	-0.01	-0.04	0.00	0.00	?
BC2.3	-0.13	-0.05	-7.93	0.02	-0.13	0.01	-0.05	??
BC2.4	0.24	0.29	-21.60	-0.09	0.22	-0.11	0.27	?

BC3.1	0.47	0.46	21.60	0.17	0.44	0.17	0.43	✓
BC3.2	0.23	0.20	7.93	0.03	0.23	0.03	0.20	✓
BC3.3	0.14	0.13	-7.93	-0.02	0.14	-0.02	0.13	✓
BC3.4	0.50	0.46	-21.60	-0.18	0.46	-0.17	0.43	✓