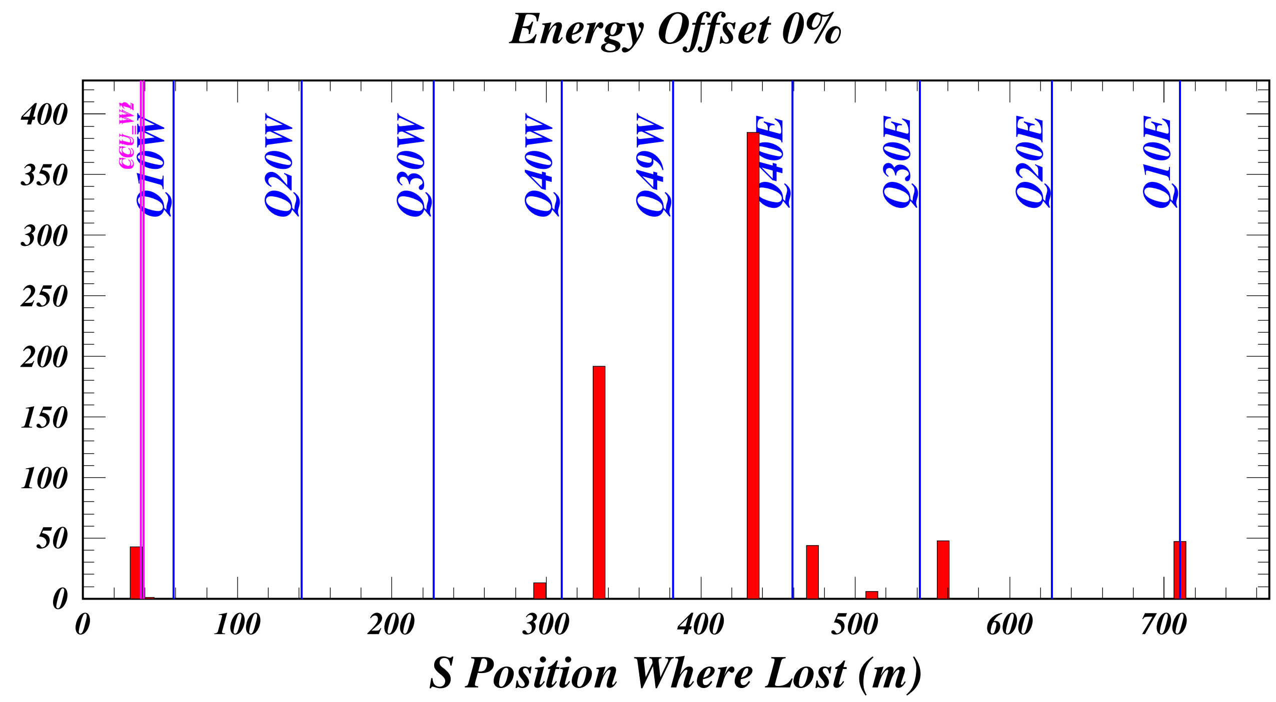
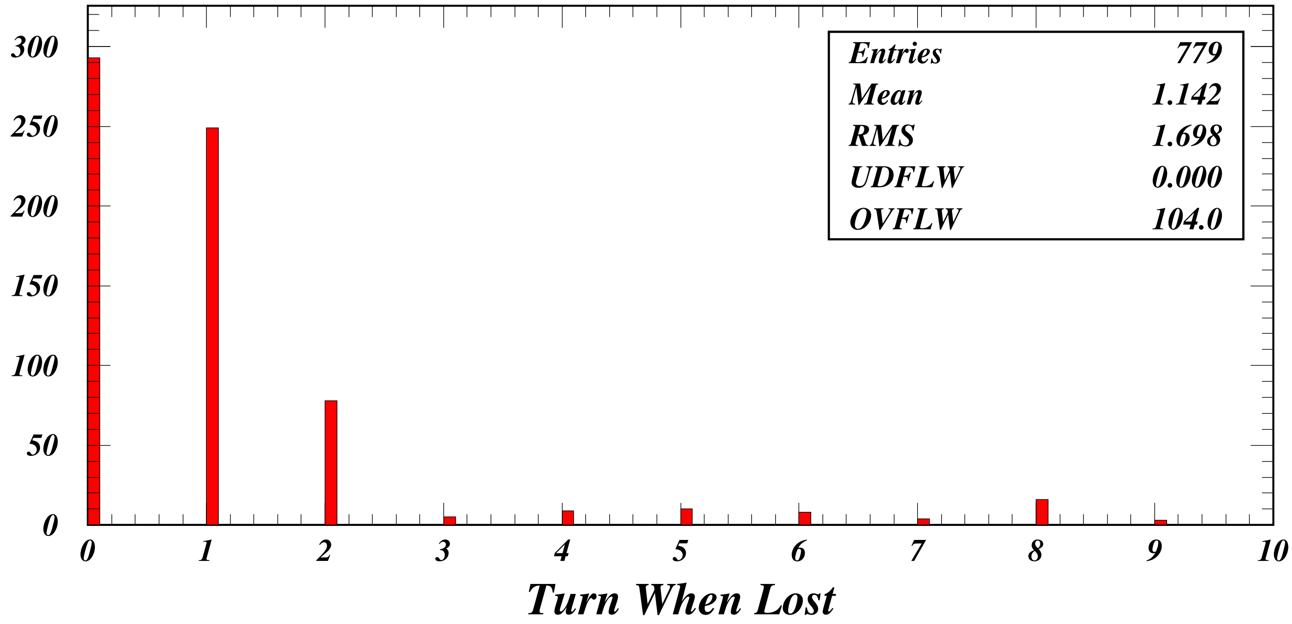
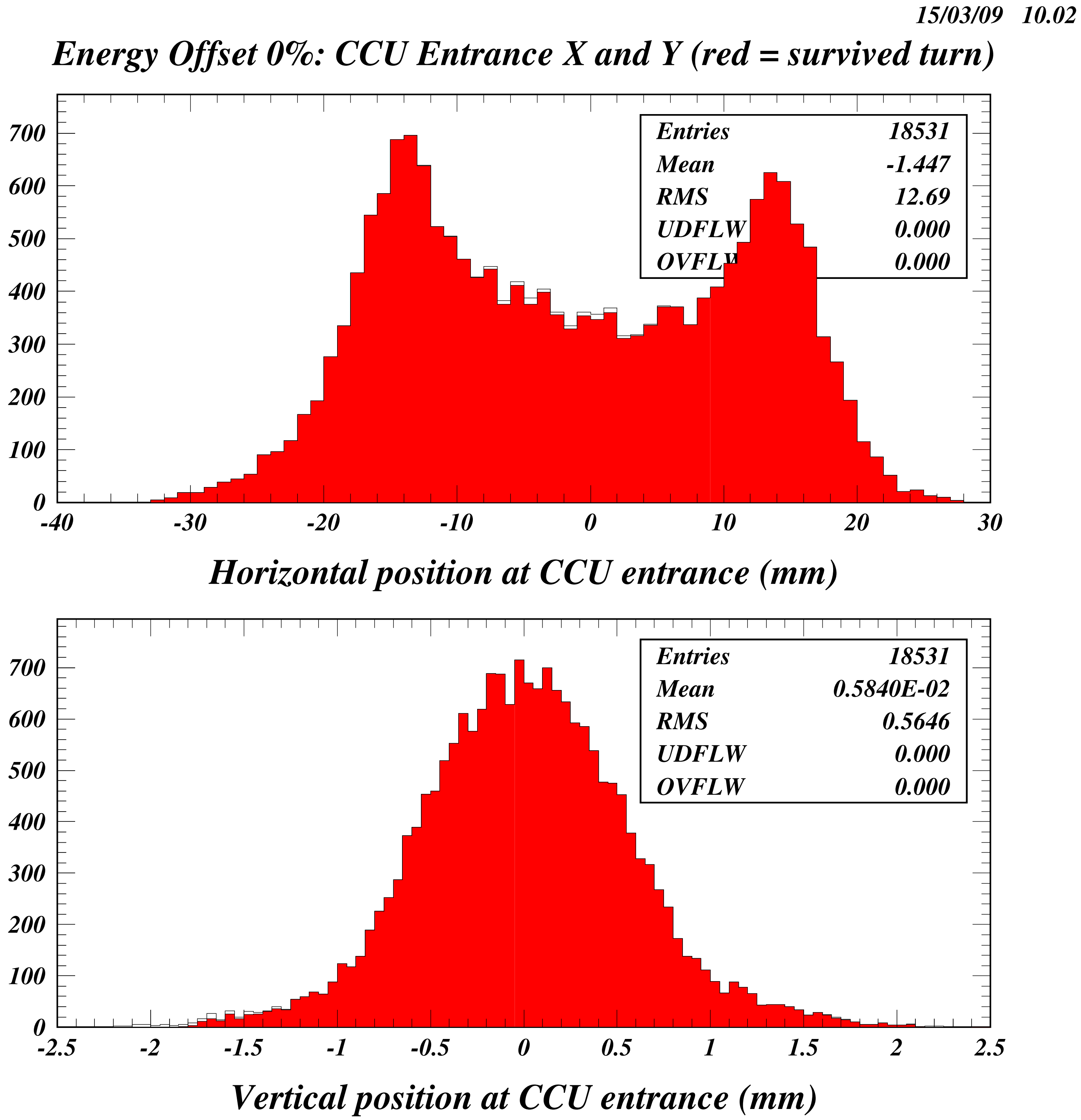
15/03/09 10.02



Energy Offset 0%
ecu_w
Q10W
Q20W
Q30W
Q40W
Q49W
Q40E
Q30E
Q20E
Q10E
S Position Where Lost (m)

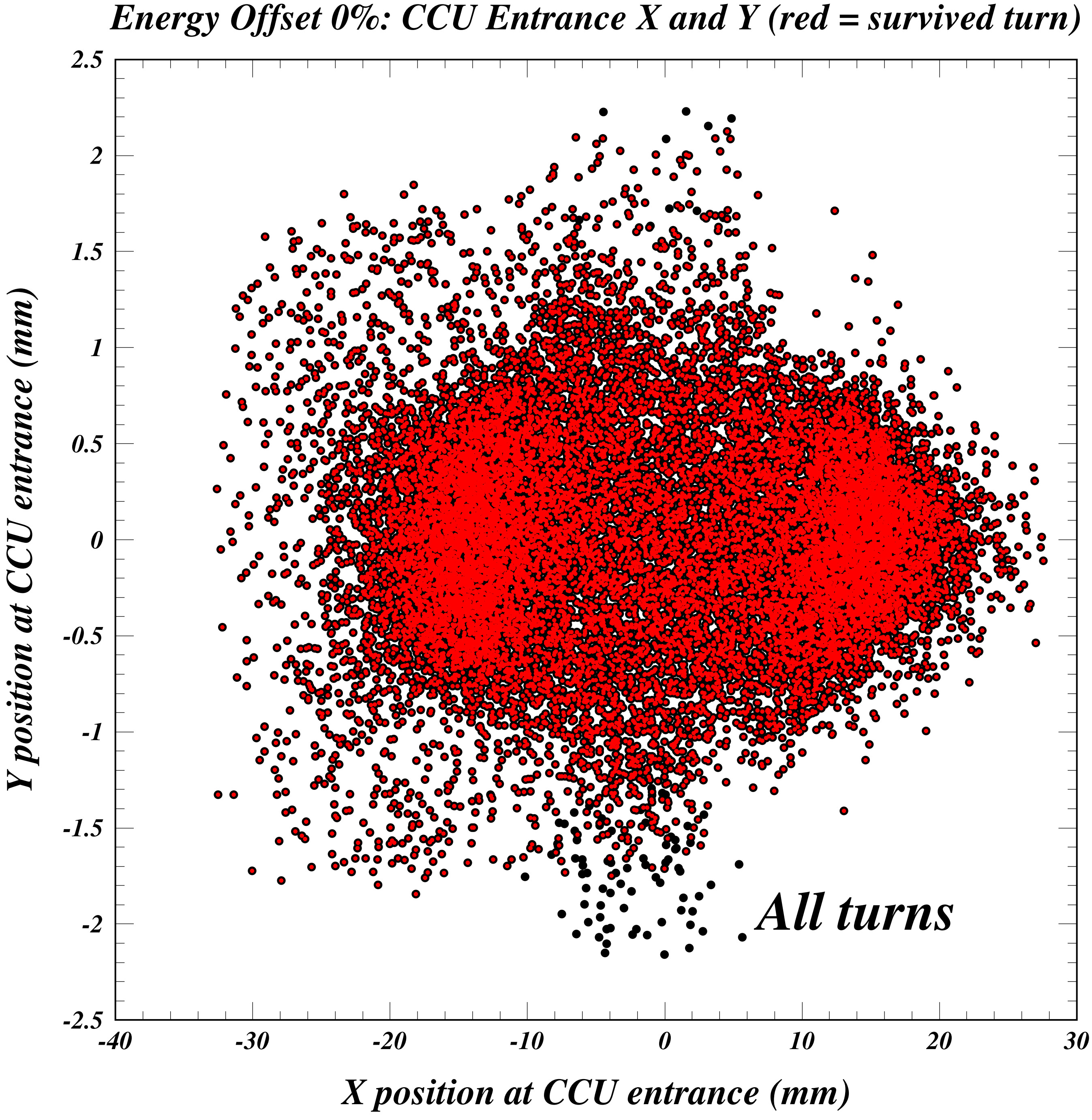


Entries 779
Mean 1.142
RMS 1.698
UDFLW 0.000
OVFLW 104.0
Turn When Lost

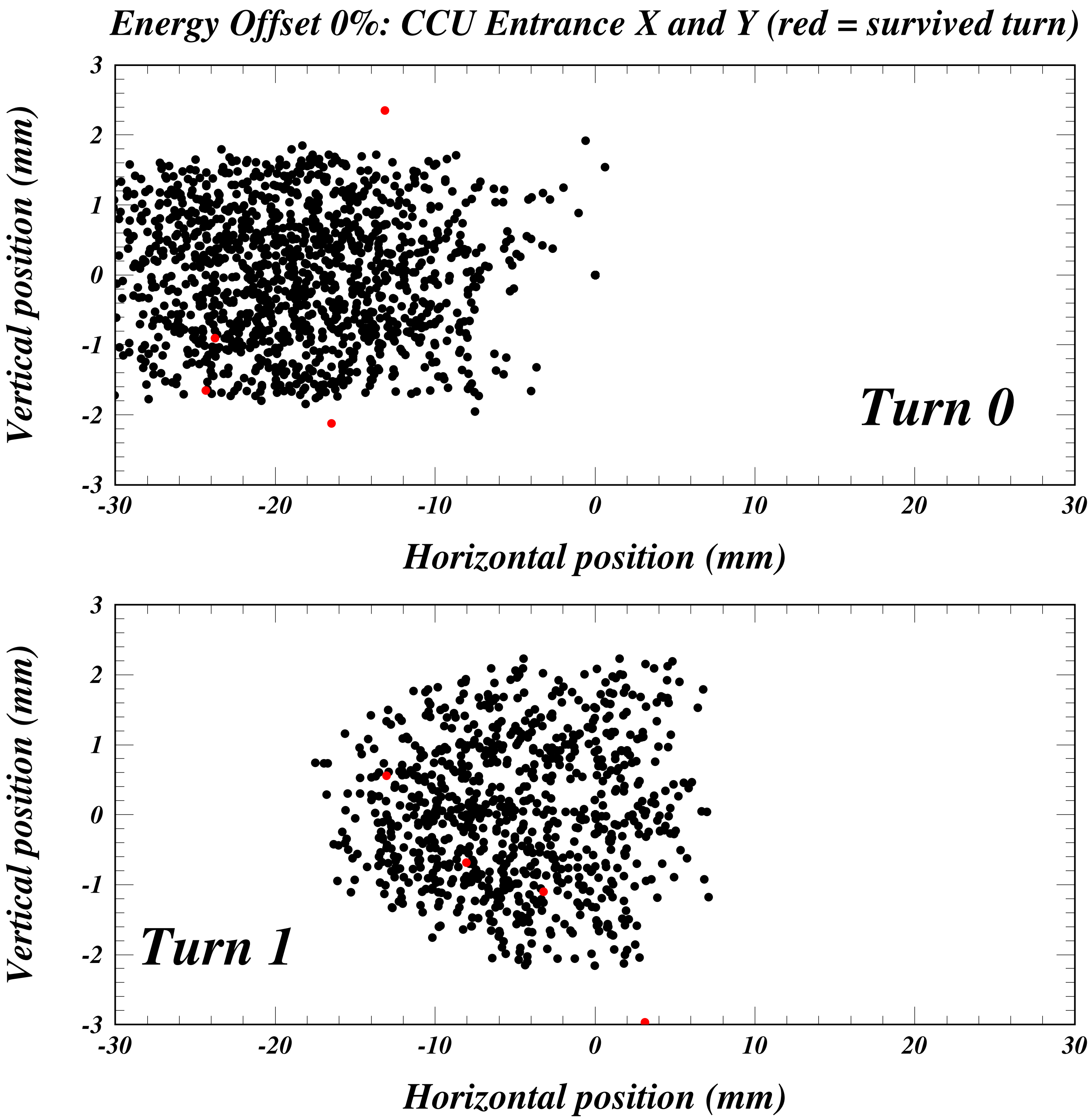


15/03/09 10.02
Energy Offset 0%: CCU Entrance X and Y (red = survived turn)
Entries 18531
Mean -1.447
RMS 12.69
UDFLW 0.000
OVFLW 0.000
Horizontal position at CCU entrance (mm)
Entries 18531
Mean 0.5840E-02
RMS 0.5646
UDFLW 0.000
OVFLW 0.000
Vertical position at CCU entrance (mm)

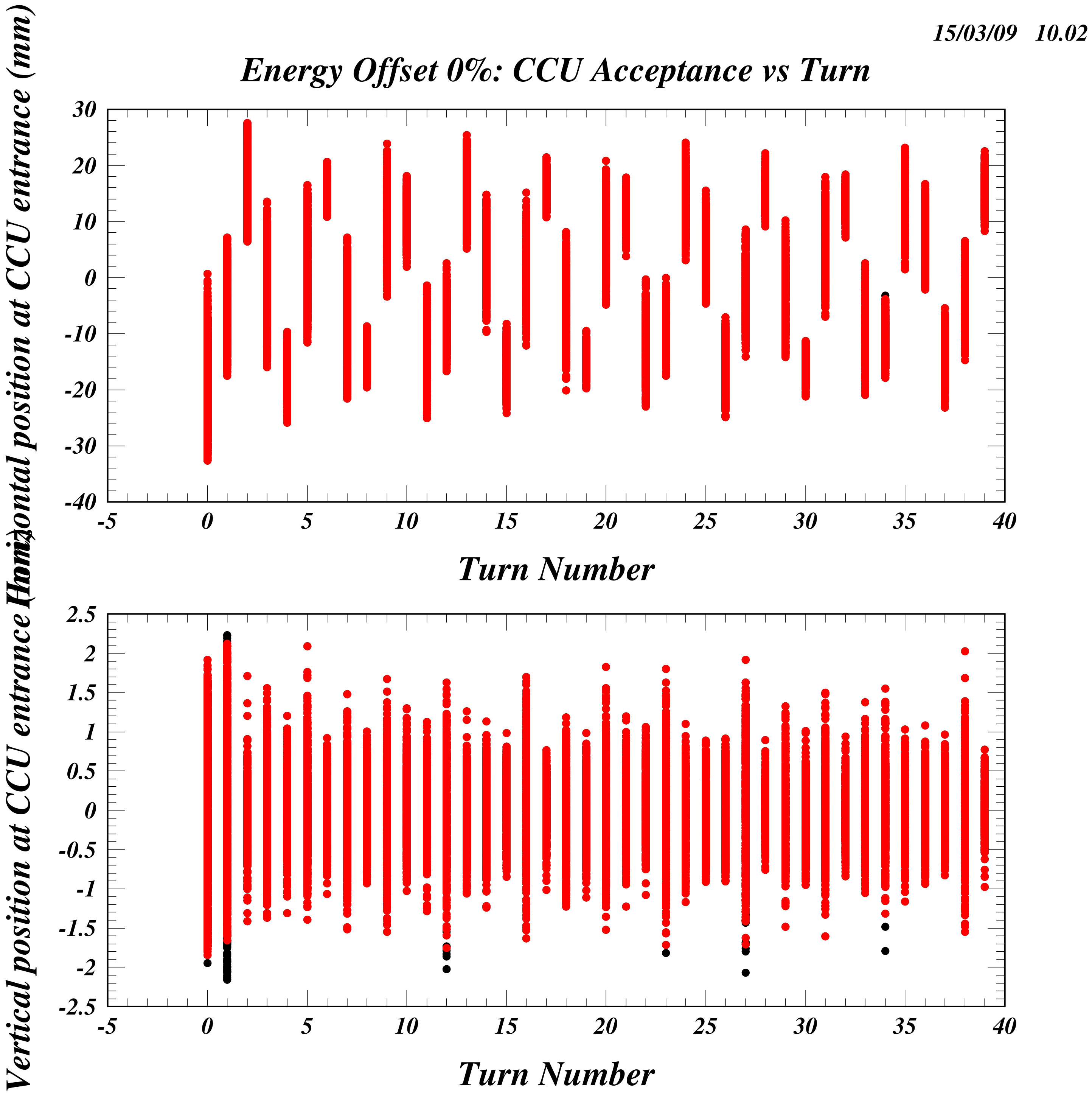
15/03/09 10.02


Energy Offset 0%: CCU Entrance X and Y (red = survived turn)
Y position at CCU entrance (mm)
X position at CCU entrance (mm)
All turns
2.5
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
-2.5
-40
-30
-20
-10
0
10
20
30

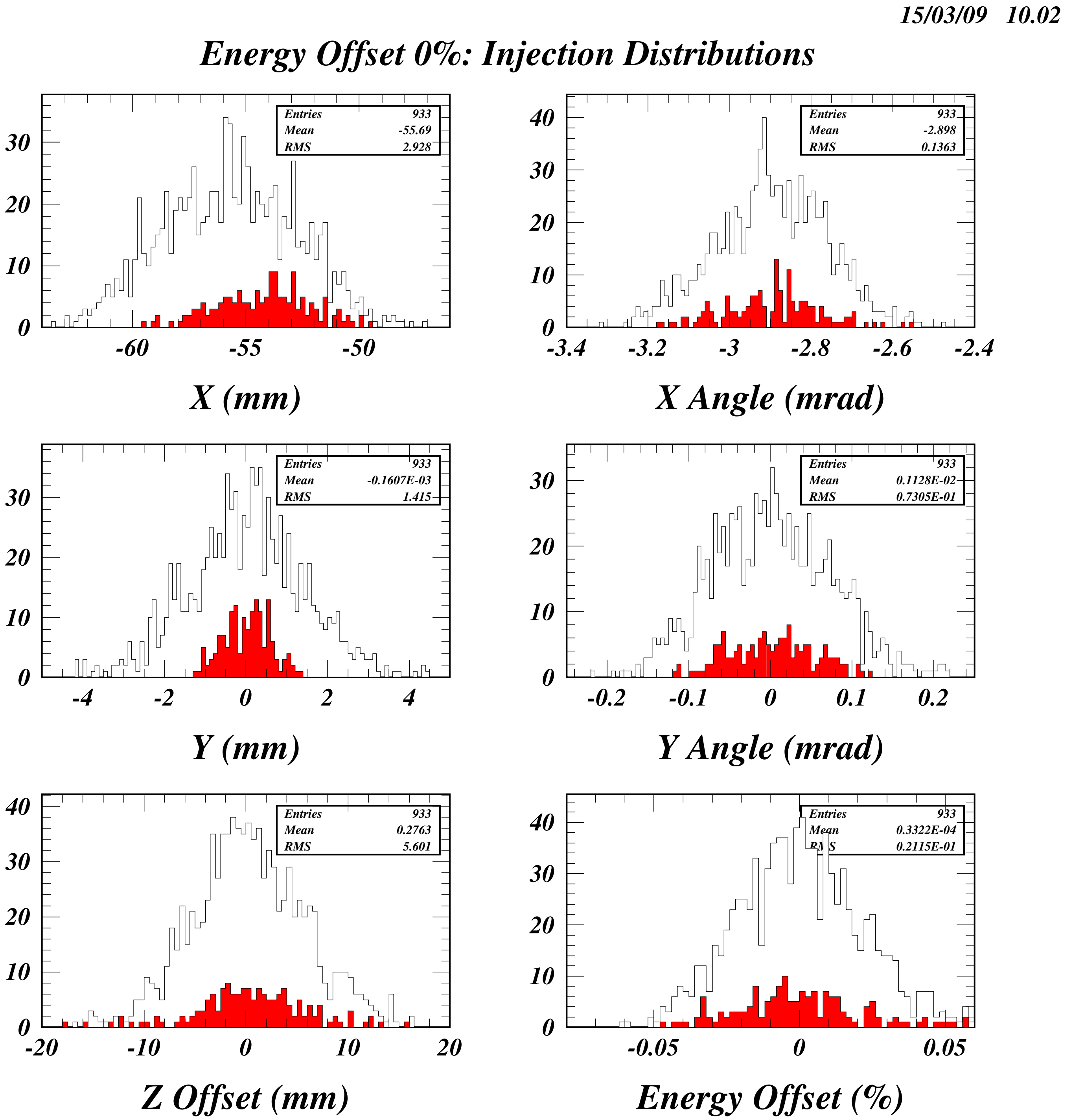
15/03/09 10.02



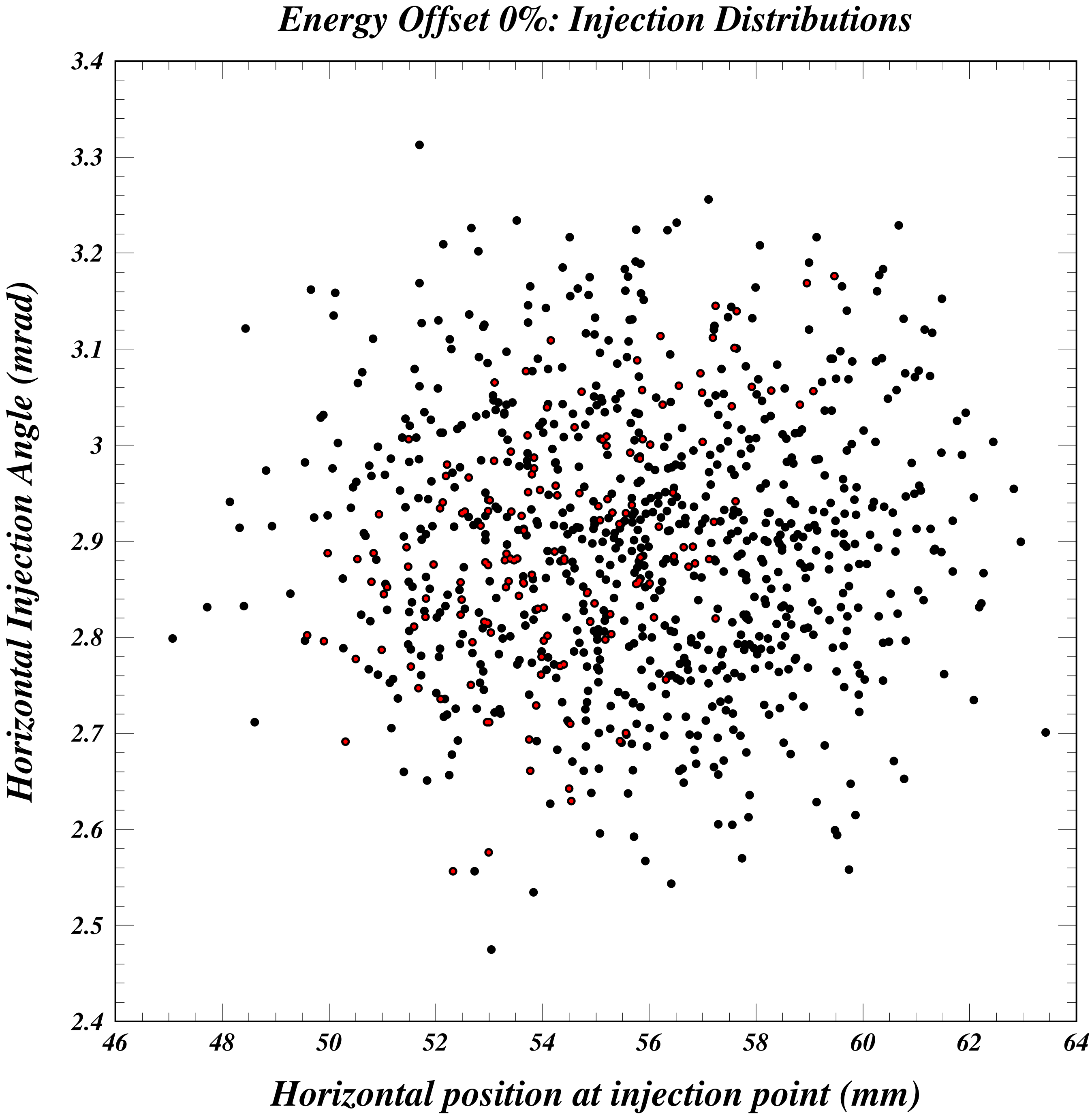
Energy Offset 0%: CCU Entrance X and Y (red = survived turn)
Vertical position (mm)
Horizontal position (mm)
Turn 0
Vertical position (mm)
Horizontal position (mm)
Turn 1



15/03/09 10.02
Energy Offset 0%: CCU Acceptance vs Turn
Horizontal position at CCU entrance (mm)
Turn Number
Vertical position at CCU entrance (mm)
Turn Number

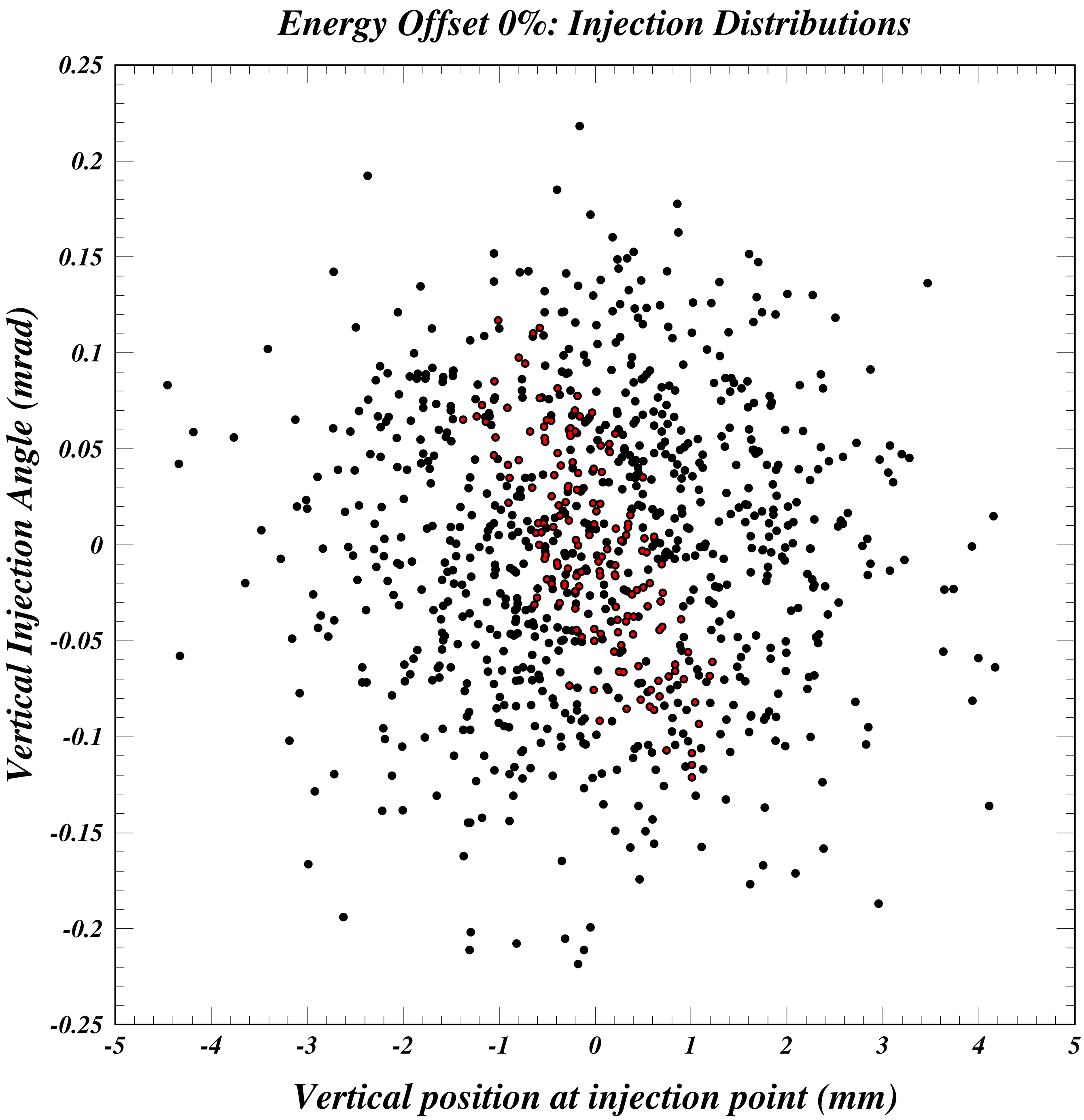

15/03/09 10.02
Energy Offset 0%: Injection Distributions
Entries 933
Mean -55.69
RMS 2.928
X (mm)
Entries 933
Mean -2.898
RMS 0.1363
X Angle (mrad)
Entries 933
Mean -0.1607E-03
RMS 1.415
Y (mm)
Entries 933
Mean 0.1128E-02
RMS 0.7305E-01
Y Angle (mrad)
Entries 933
Mean 0.2763
RMS 5.601
Z Offset (mm)
Entries 933
Mean 0.3322E-04
RMS 0.2115E-01
Energy Offset (%)

15/03/09 10.02



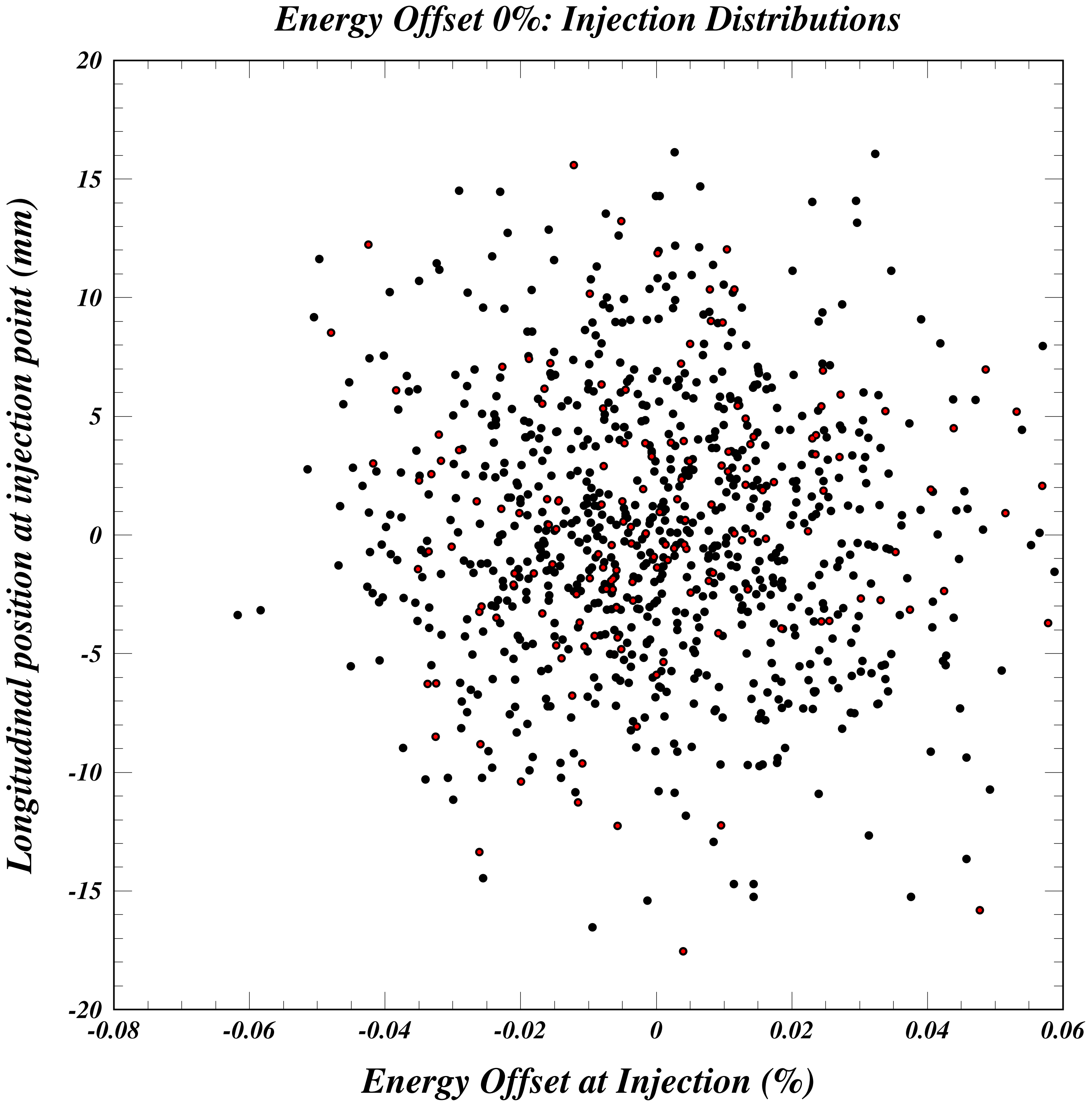
Energy Offset 0%: Injection Distributions
Horizontal Injection Angle (mrad)
Horizontal position at injection point (mm)
3.4
3.3
3.2
3.1
3
2.9
2.8
2.7
2.6
2.5
2.4
46
48
50
52
54
56
58
60
62
64

15/03/09 10.02

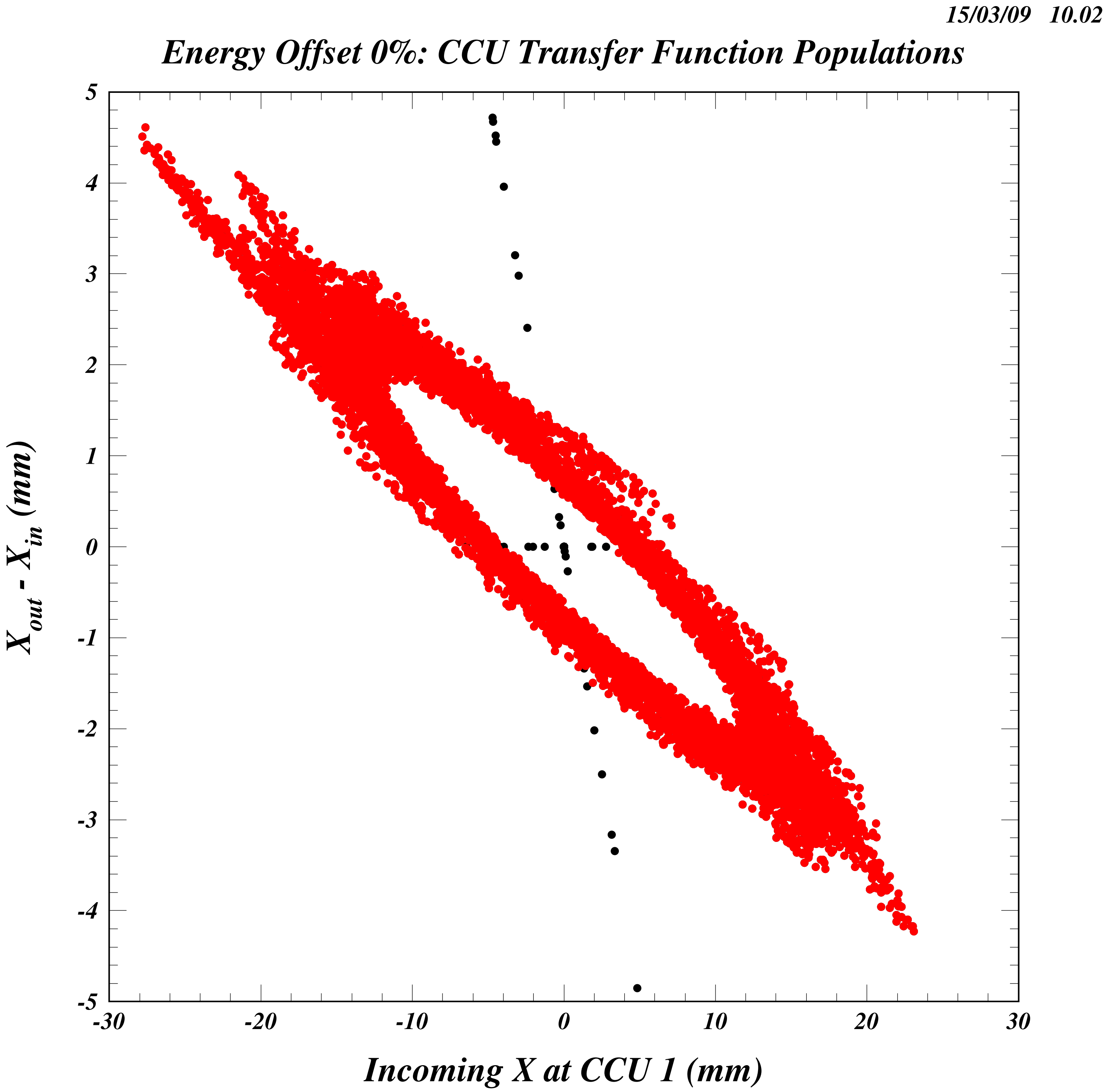


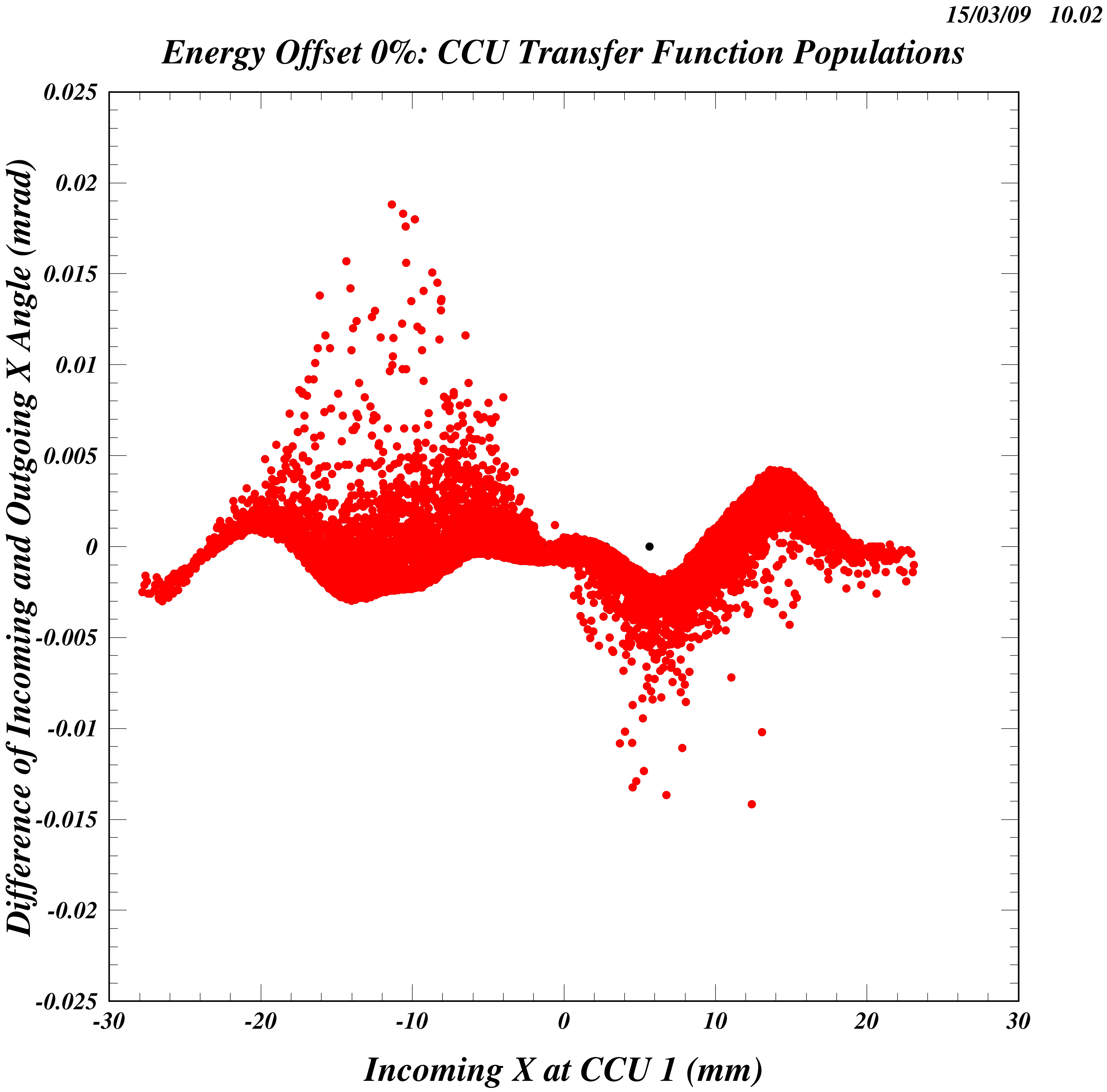
Energy Offset 0%: Injection Distributions
Vertical Injection Angle (mrad)
Vertical position at injection point (mm)
0.25
0.2
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
-0.2
-0.25
-5
-4
-3
-2
-1
0
1
2
3
4
5

15/03/09 10.02

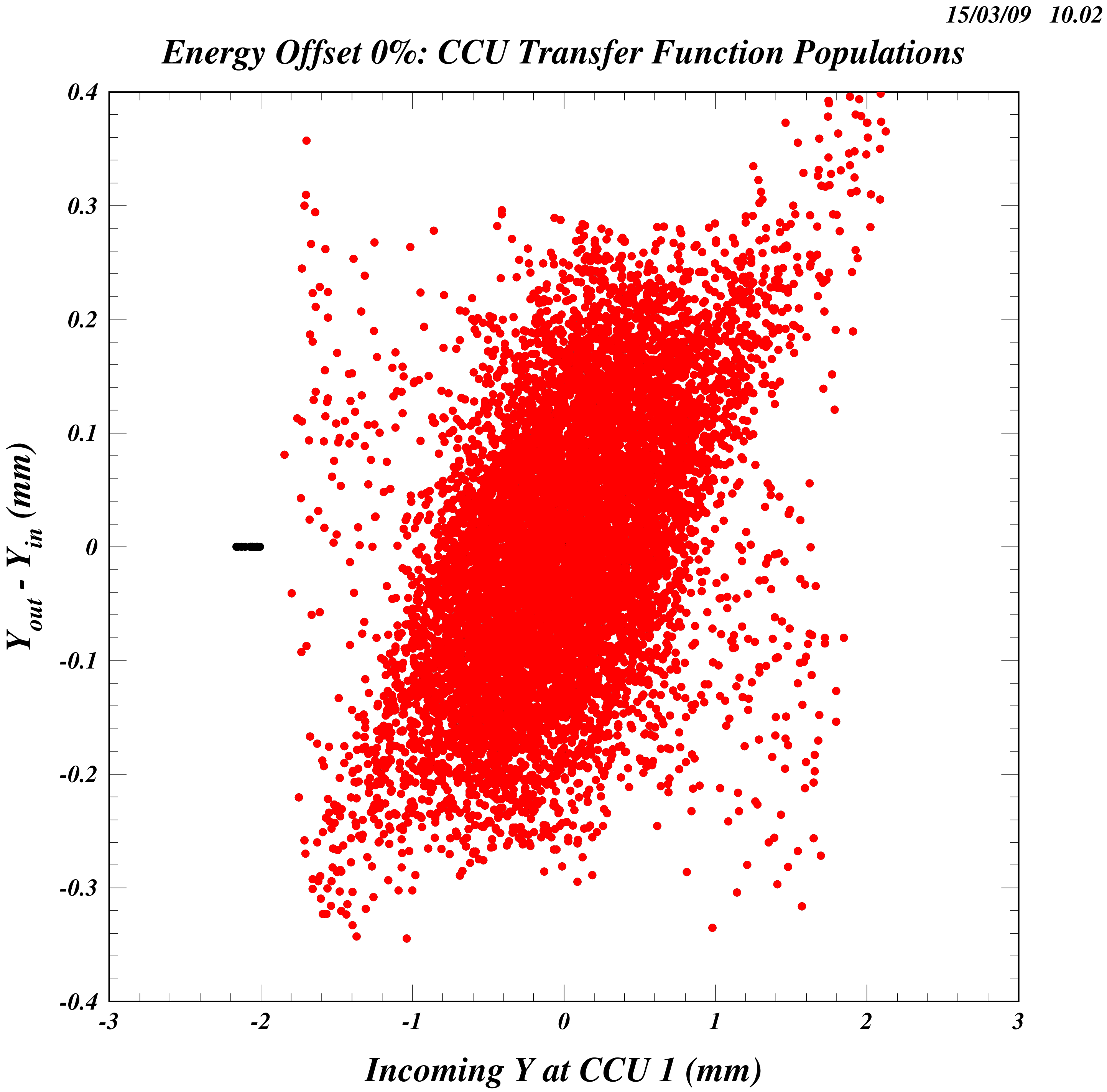


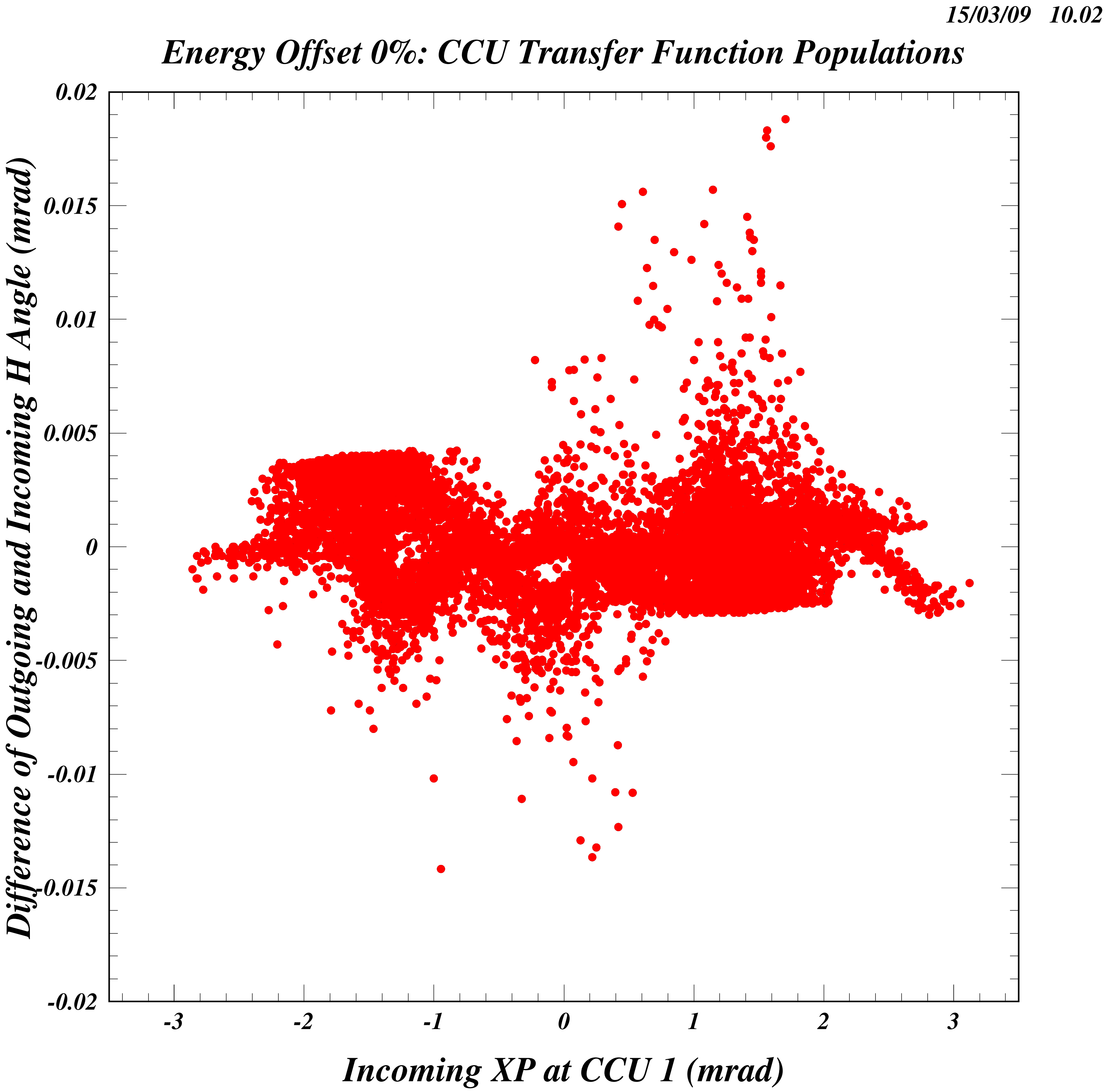
Energy Offset 0%: Injection Distributions
Longitudinal position at injection point (mm)
Energy Offset at Injection (%)
20
15
10
5
0
-5
-10
-15
-20
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06


15/03/09 10.02
Energy Offset 0%: CCU Transfer Function Populations
5
4
3
2
1
0
-1
-2
-3
-4
-5
-30
-20
-10
0
10
20
30
X_{out} - X_{in} (mm)
Incoming X at CCU 1 (mm)

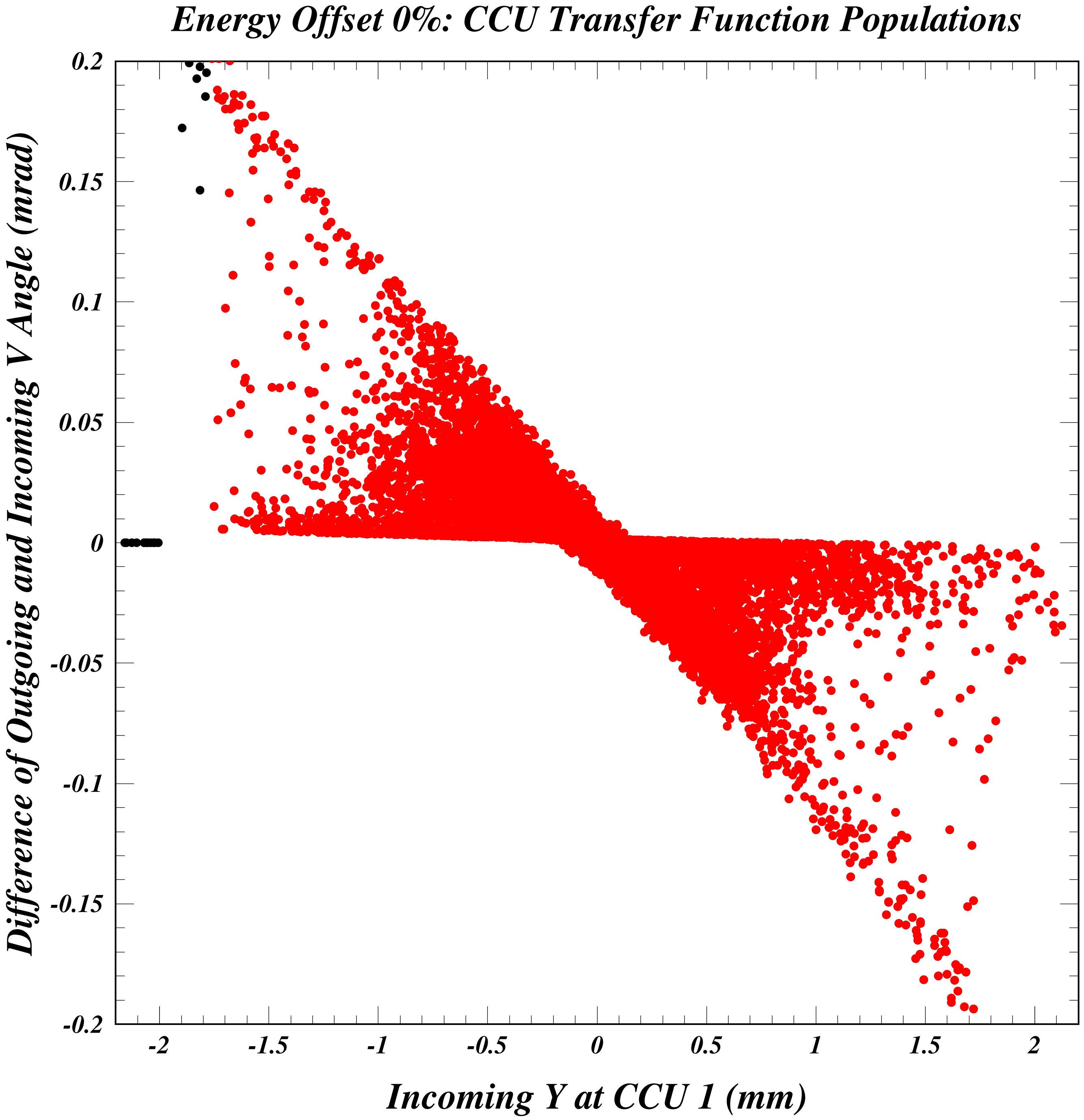


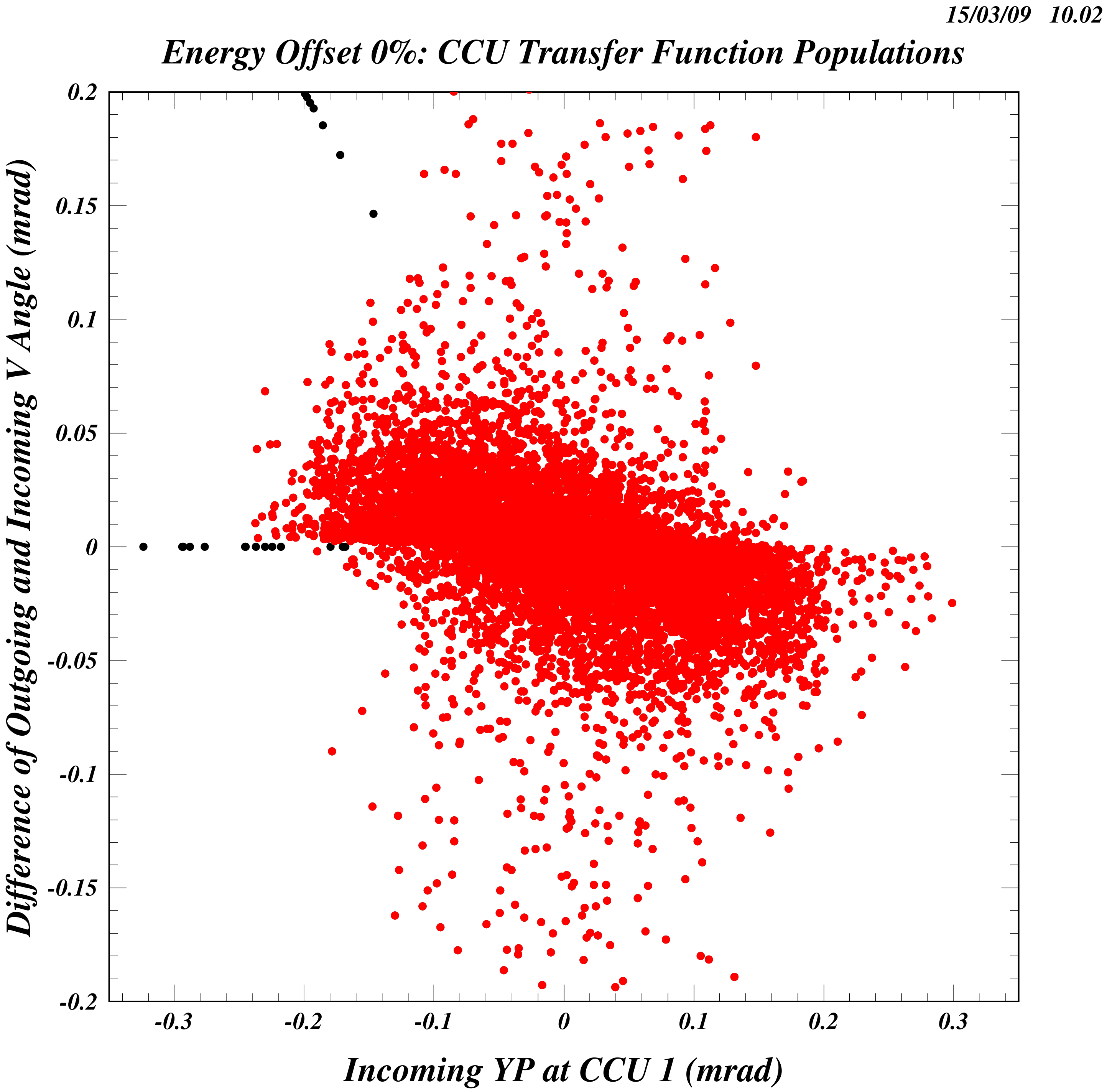
15/03/09 10.02
Energy Offset 0%: CCU Transfer Function Populations
Difference of Incoming and Outgoing X Angle (mrad)
Incoming X at CCU 1 (mm)
0.025
0.02
0.015
0.01
0.005
0
-0.005
-0.01
-0.015
-0.02
-0.025
-30
-20
-10
0
10
20
30

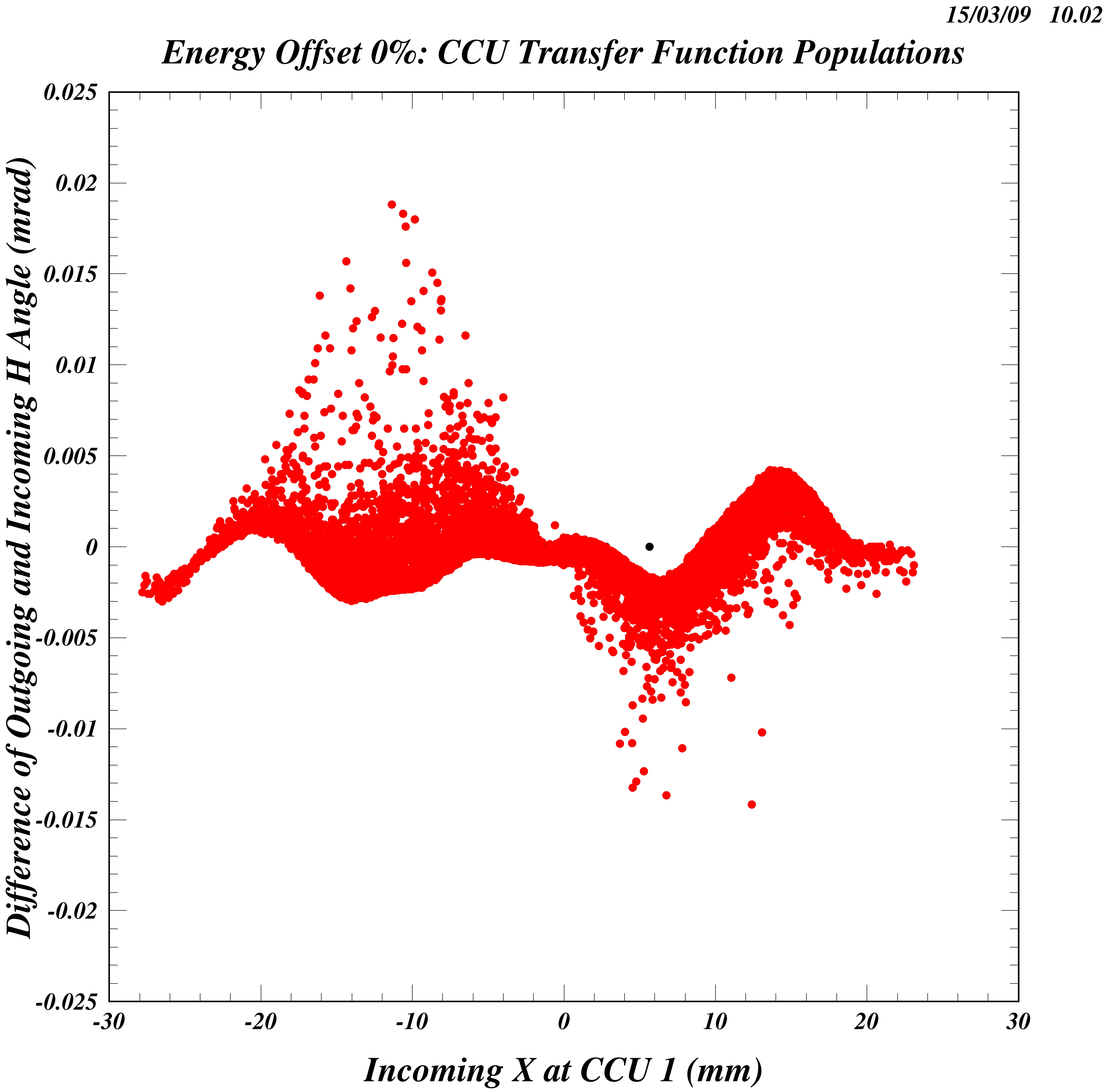

15/03/09 10.02
Energy Offset 0%: CCU Transfer Function Populations
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-3
-2
-1
0
1
2
3
$Y_{out} - Y_{in}$ (mm)
Incoming Y at CCU 1 (mm)


15/03/09 10.02
Energy Offset 0%: CCU Transfer Function Populations
0.02
0.015
0.01
0.005
0
-0.005
-0.01
-0.015
-0.02
Difference of Outgoing and Incoming H Angle (mrad)
-3
-2
-1
0
1
2
3
Incoming XP at CCU 1 (mrad)

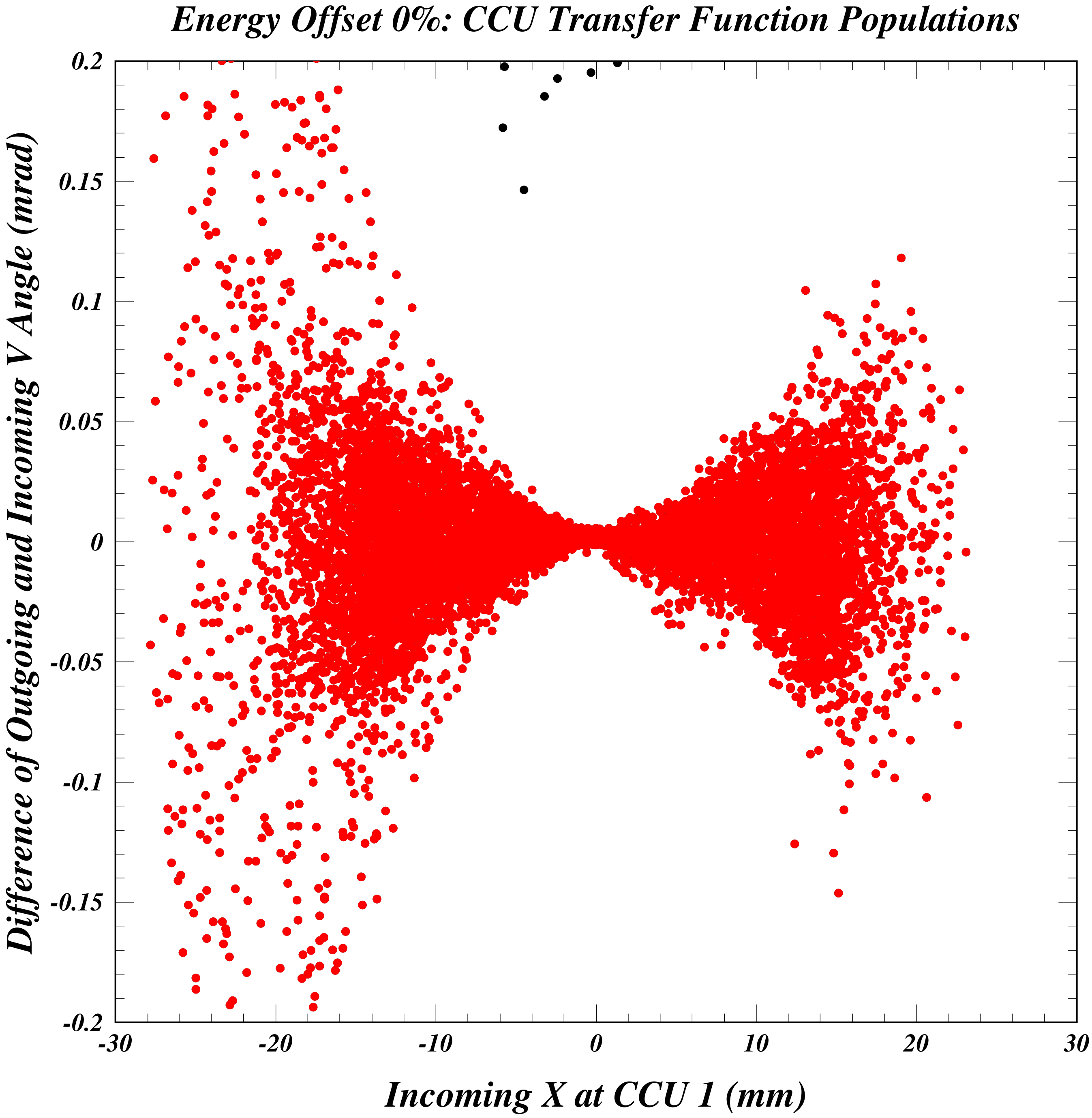
15/03/09 10.02

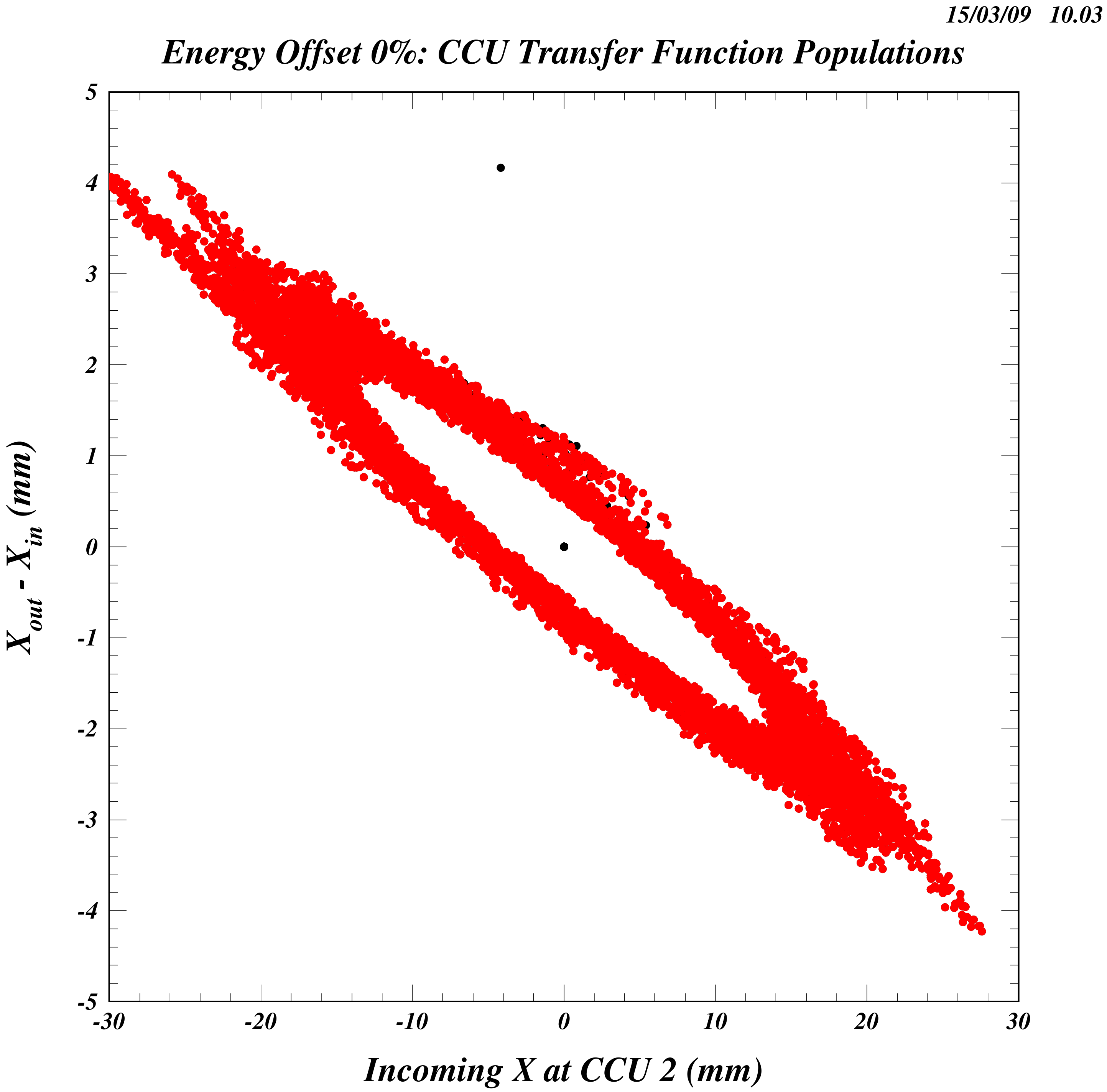

Energy Offset 0%: CCU Transfer Function Populations
Difference of Outgoing and Incoming V Angle (mrad)
Incoming Y at CCU 1 (mm)
0.2
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
-0.2
-2
-1.5
-1
-0.5
0
0.5
1
1.5
2


15/03/09 10.02
Energy Offset 0%: CCU Transfer Function Populations
Difference of Outgoing and Incoming V Angle (mrad)
Incoming YP at CCU 1 (mrad)
0.2
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
-0.2
-0.3
-0.2
-0.1
0
0.1
0.2
0.3

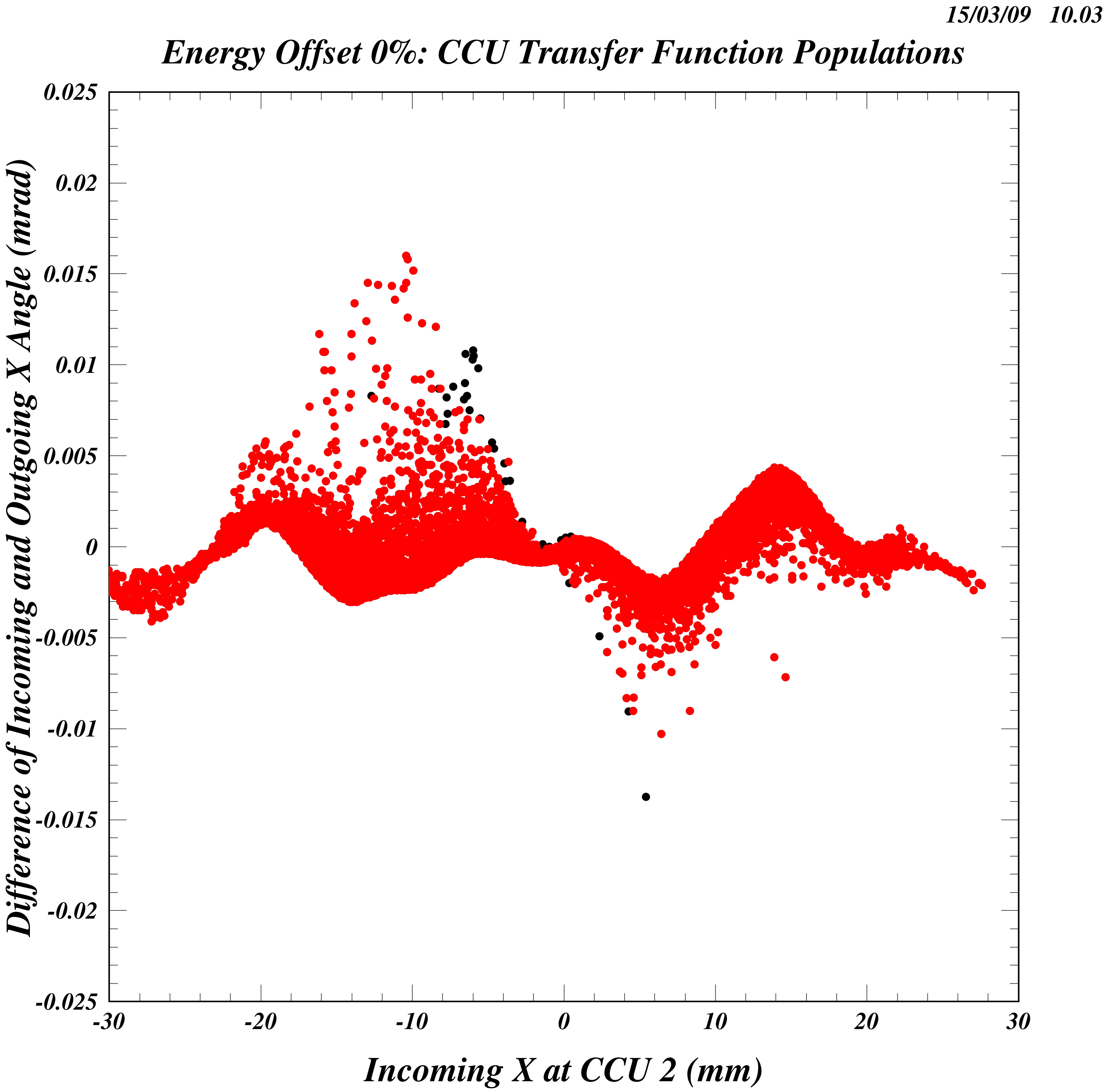

15/03/09 10.02
Energy Offset 0%: CCU Transfer Function Populations
Difference of Outgoing and Incoming H Angle (mrad)
Incoming X at CCU 1 (mm)
0.025
0.02
0.015
0.01
0.005
0
-0.005
-0.01
-0.015
-0.02
-0.025
-30
-20
-10
0
10
20
30

15/03/09 10.03


Energy Offset 0%: CCU Transfer Function Populations
Difference of Outgoing and Incoming V Angle (mrad)
Incoming X at CCU 1 (mm)
0.2
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
-0.2
-30
-20
-10
0
10
20
30

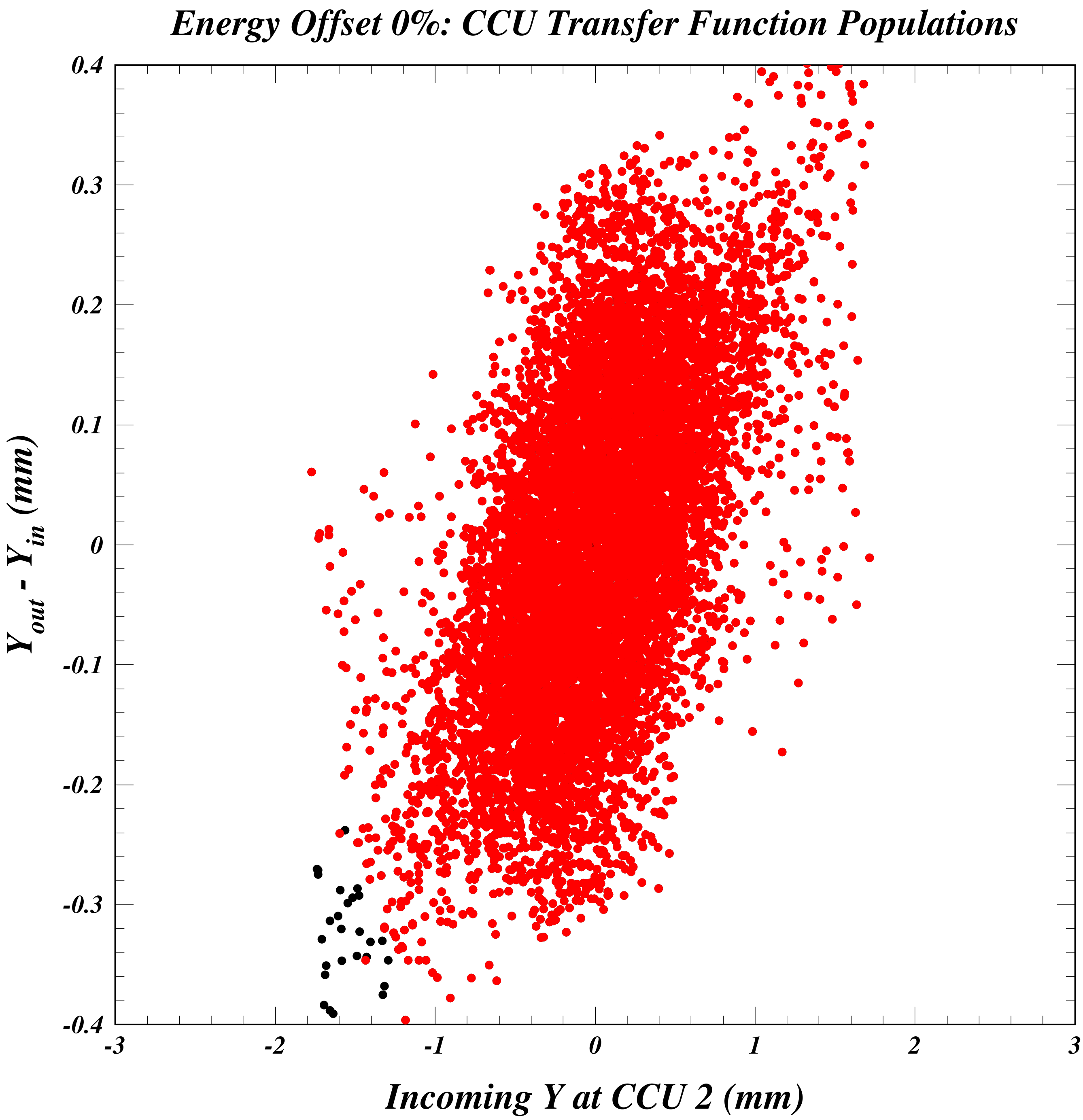


15/03/09 10.03
Energy Offset 0%: CCU Transfer Function Populations
X_{out} - X_{in} (mm)
Incoming X at CCU 2 (mm)
5
4
3
2
1
0
-1
-2
-3
-4
-5
-30
-20
-10
0
10
20
30



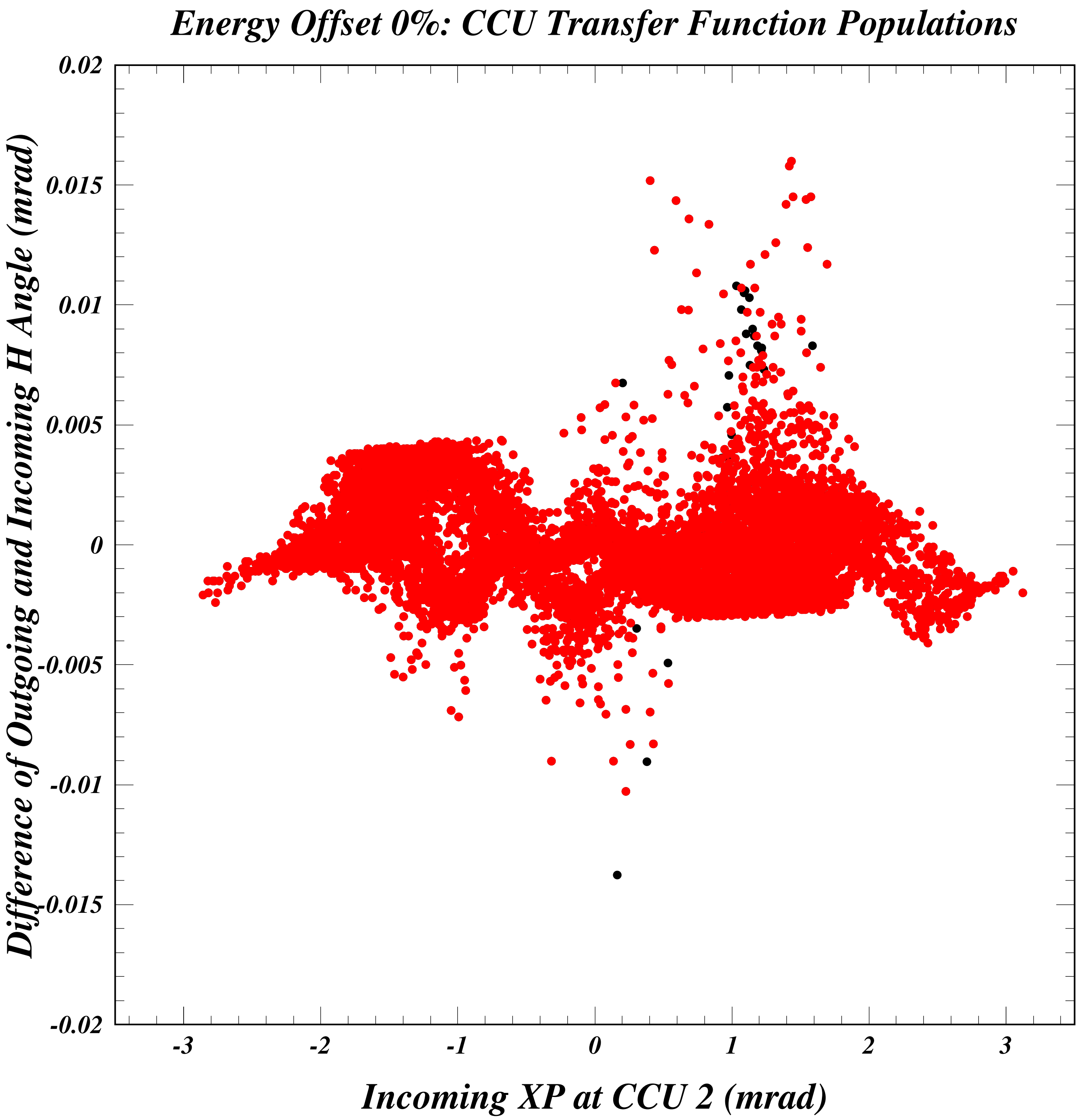
15/03/09 10.03
Energy Offset 0%: CCU Transfer Function Populations
Difference of Incoming and Outgoing X Angle (mrad)
0.025
0.02
0.015
0.01
0.005
0
-0.005
-0.01
-0.015
-0.02
-0.025
-30
-20
-10
0
10
20
30
Incoming X at CCU 2 (mm)

15/03/09 10.03

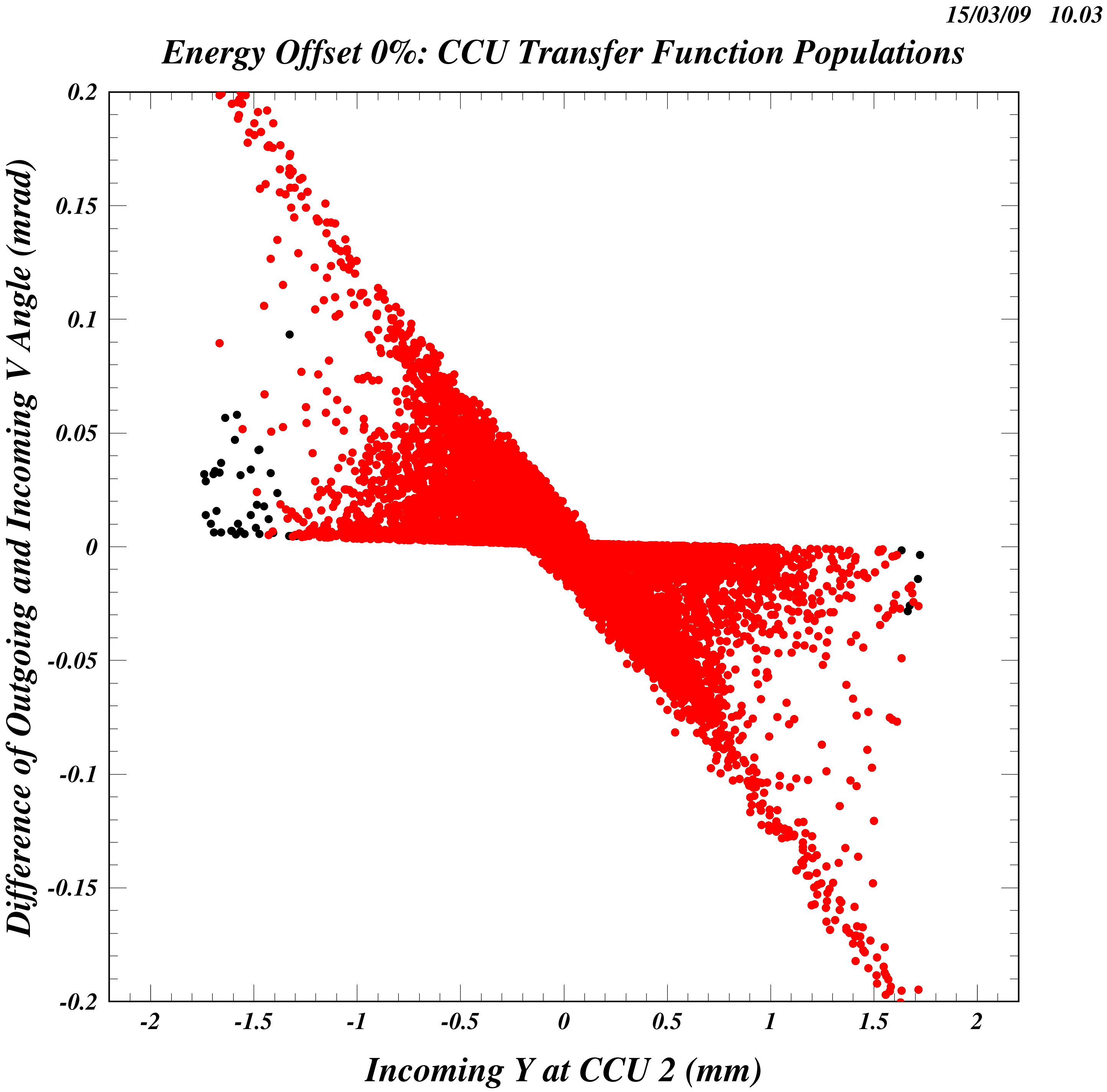


Energy Offset 0%: CCU Transfer Function Populations
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-3
-2
-1
0
1
2
3
$Y_{out} - Y_{in}$ (mm)
Incoming Y at CCU 2 (mm)

15/03/09 10.03

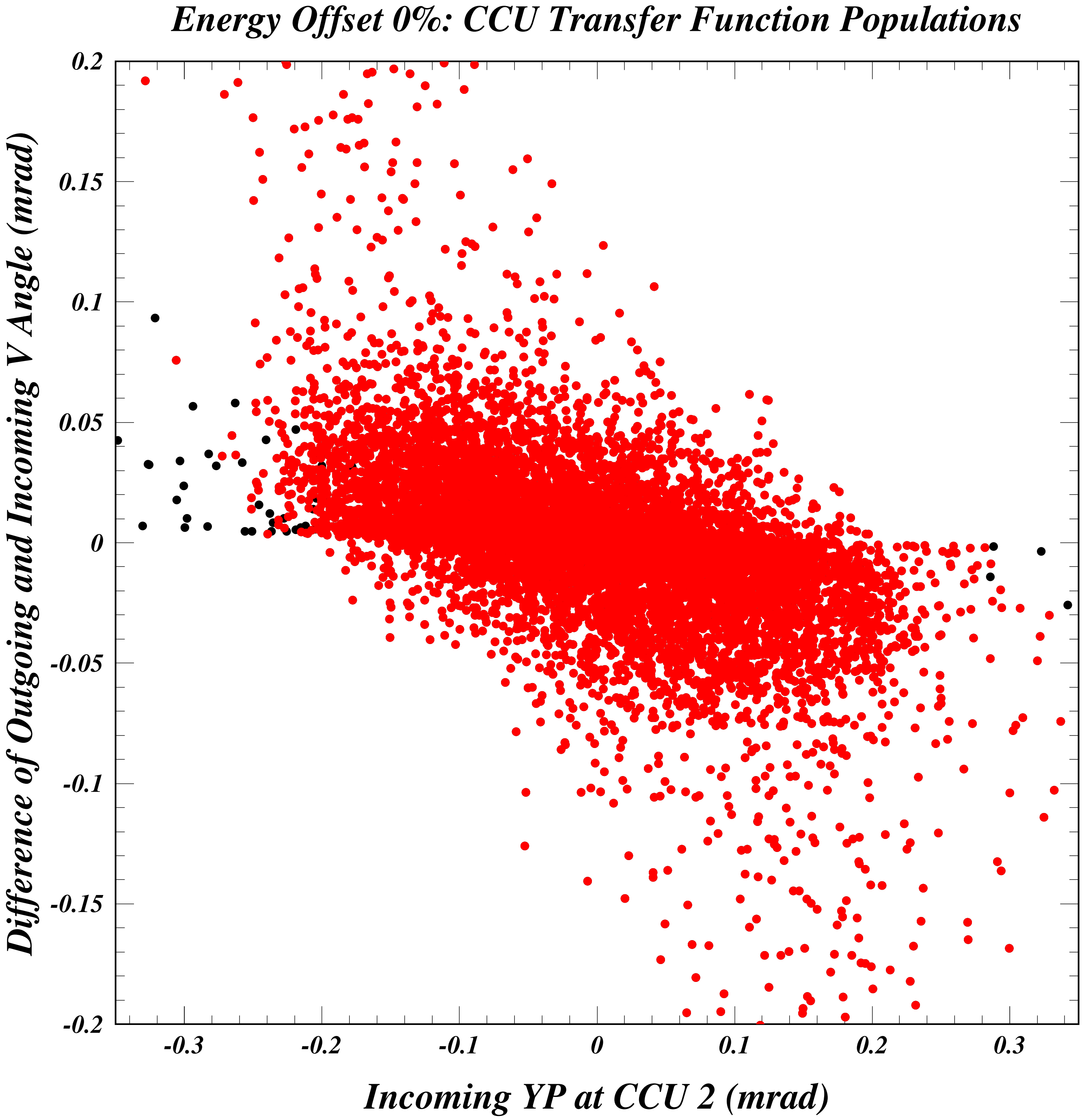


Energy Offset 0%: CCU Transfer Function Populations
Difference of Outgoing and Incoming H Angle (mrad)
Incoming XP at CCU 2 (mrad)
0.02
0.015
0.01
0.005
0
-0.005
-0.01
-0.015
-0.02
-3
-2
-1
0
1
2
3

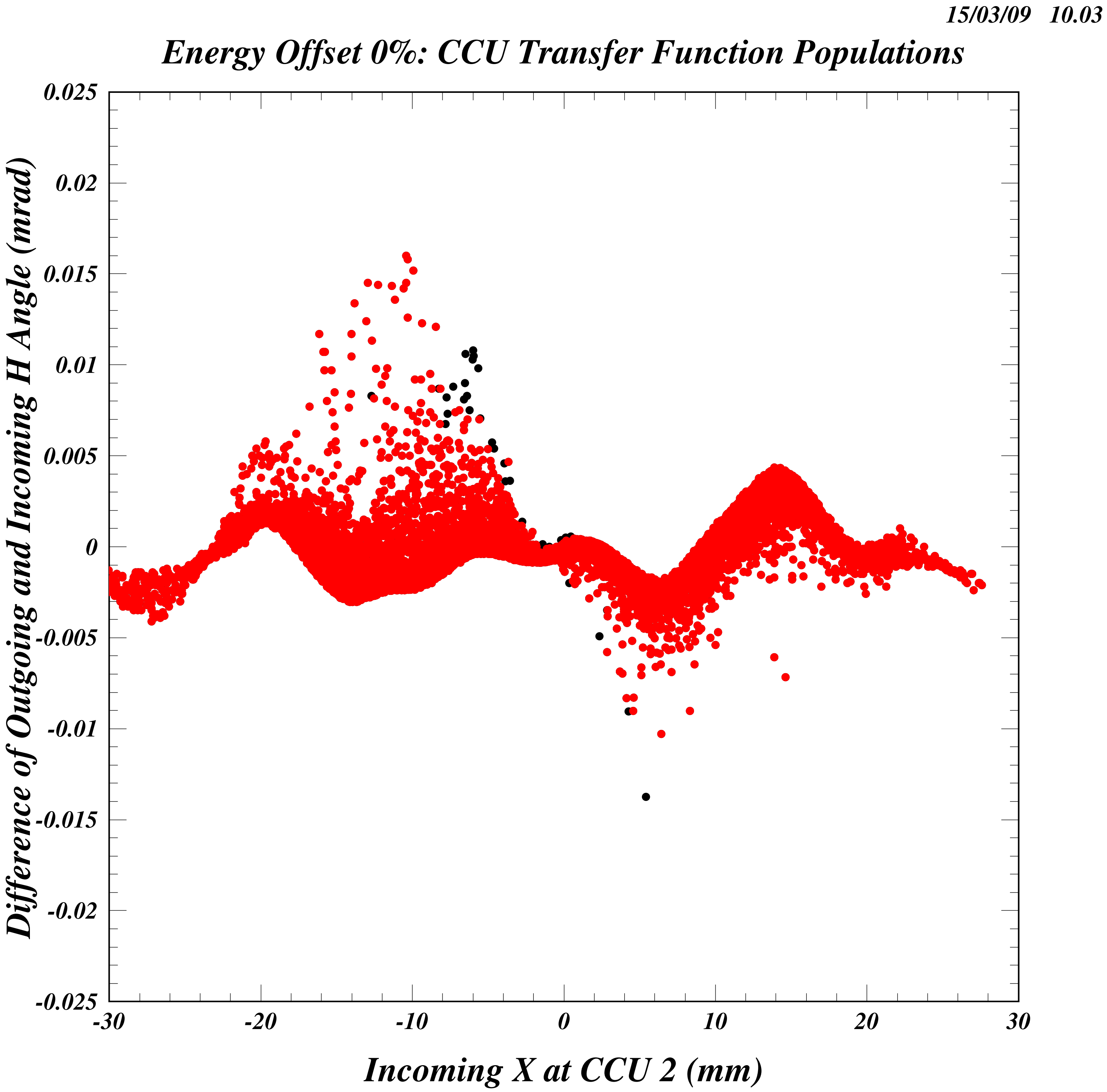


15/03/09 10.03
Energy Offset 0%: CCU Transfer Function Populations
Difference of Outgoing and Incoming V Angle (mrad)
0.2
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
-0.2
-2
-1.5
-1
-0.5
0
0.5
1
1.5
2
Incoming Y at CCU 2 (mm)

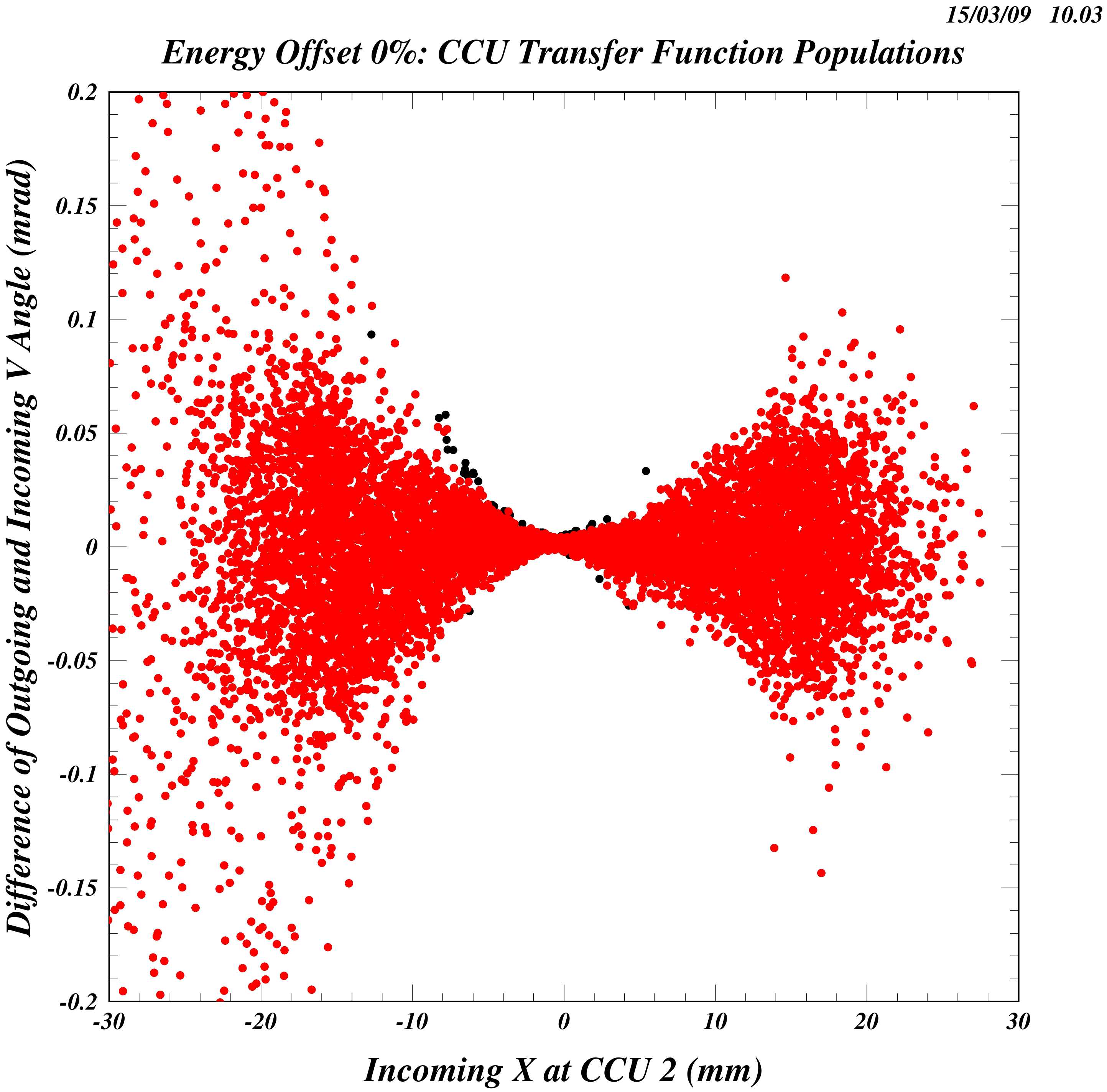
15/03/09 10.03



Energy Offset 0%: CCU Transfer Function Populations
Difference of Outgoing and Incoming V Angle (mrad)
Incoming YP at CCU 2 (mrad)
0.2
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
-0.2
-0.3
-0.2
-0.1
0
0.1
0.2
0.3



15/03/09 10.03
Energy Offset 0%: CCU Transfer Function Populations
Difference of Outgoing and Incoming H Angle (mrad)
Incoming X at CCU 2 (mm)
0.025
0.02
0.015
0.01
0.005
0
-0.005
-0.01
-0.015
-0.02
-0.025
-30
-20
-10
0
10
20
30


15/03/09 10.03
Energy Offset 0%: CCU Transfer Function Populations
Difference of Outgoing and Incoming V Angle (mrad)
Incoming X at CCU 2 (mm)
0.2
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
-0.2
-30
-20
-10
0
10
20
30