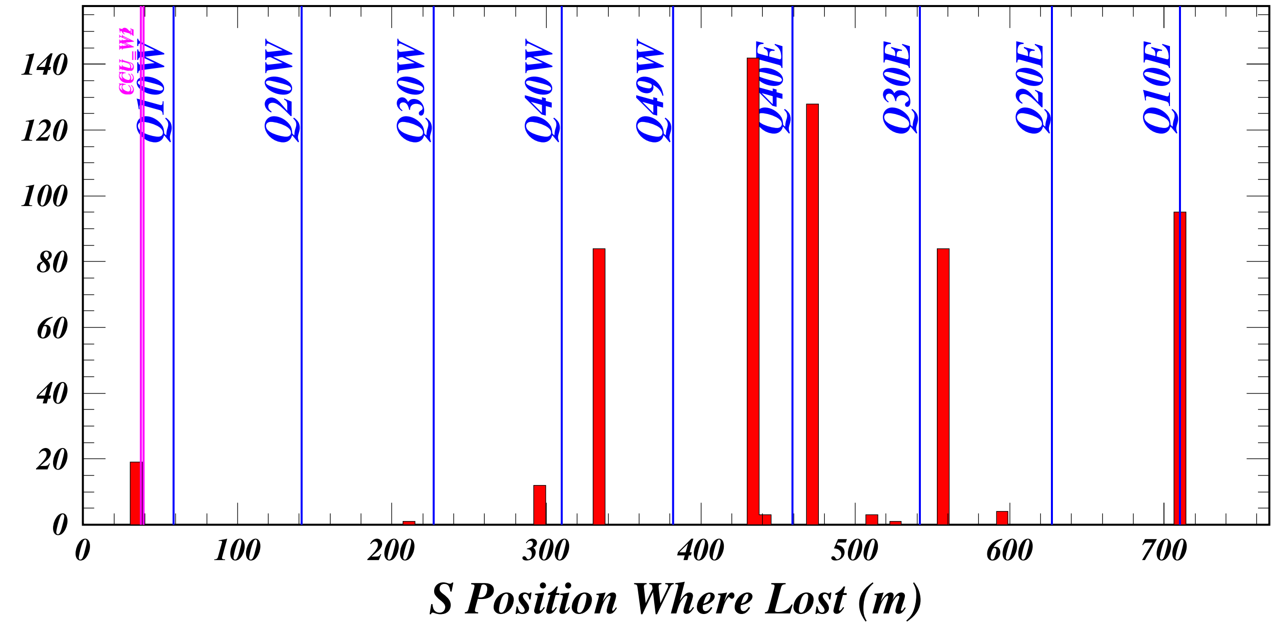
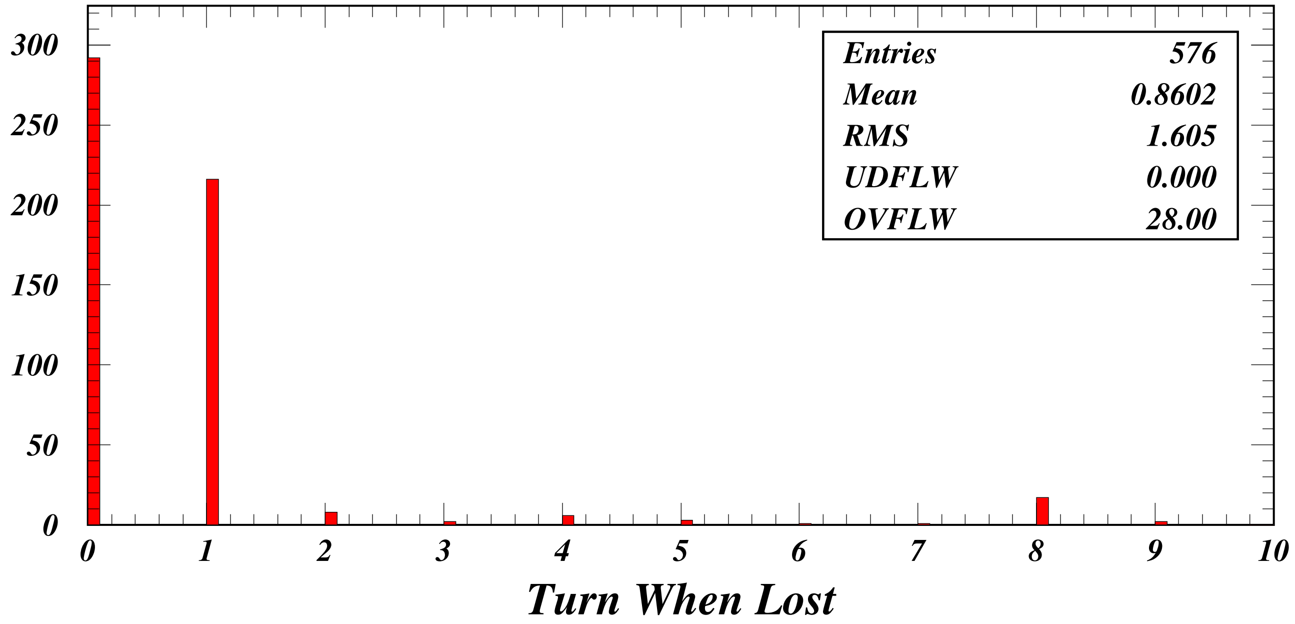
15/03/23 12.33

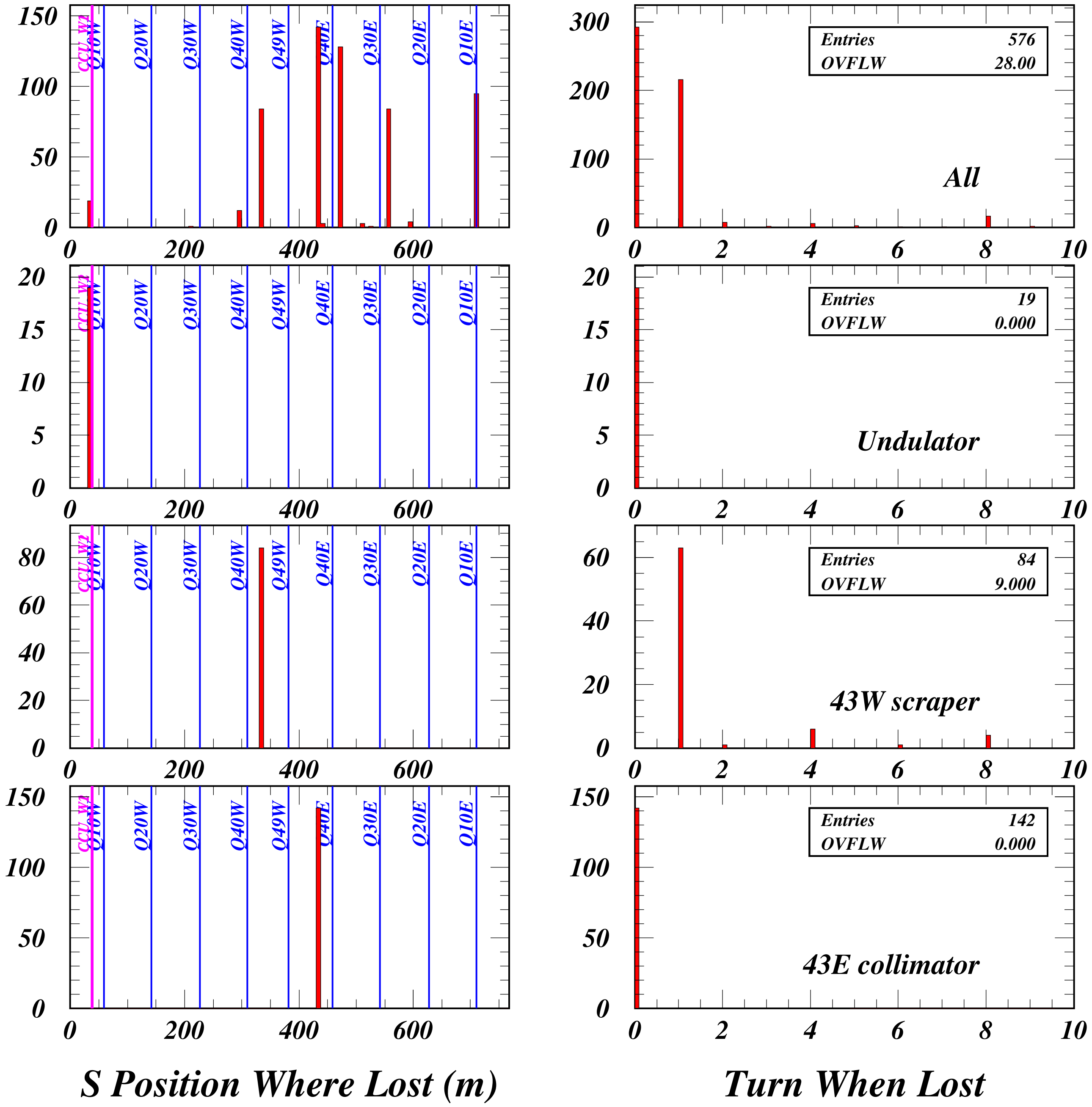
Energy Offset 0%





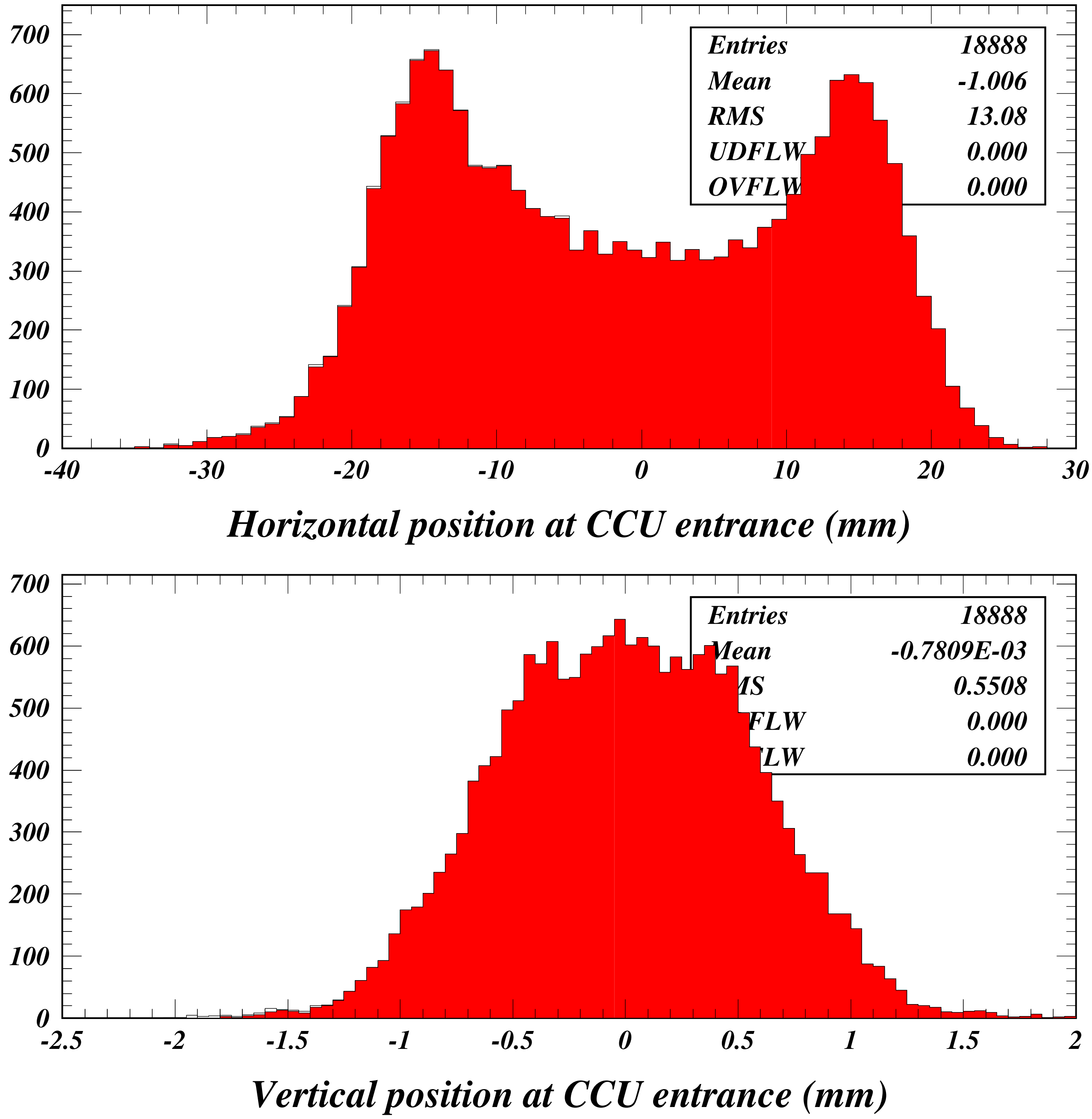
15/03/23 12.33

Energy Offset 0%

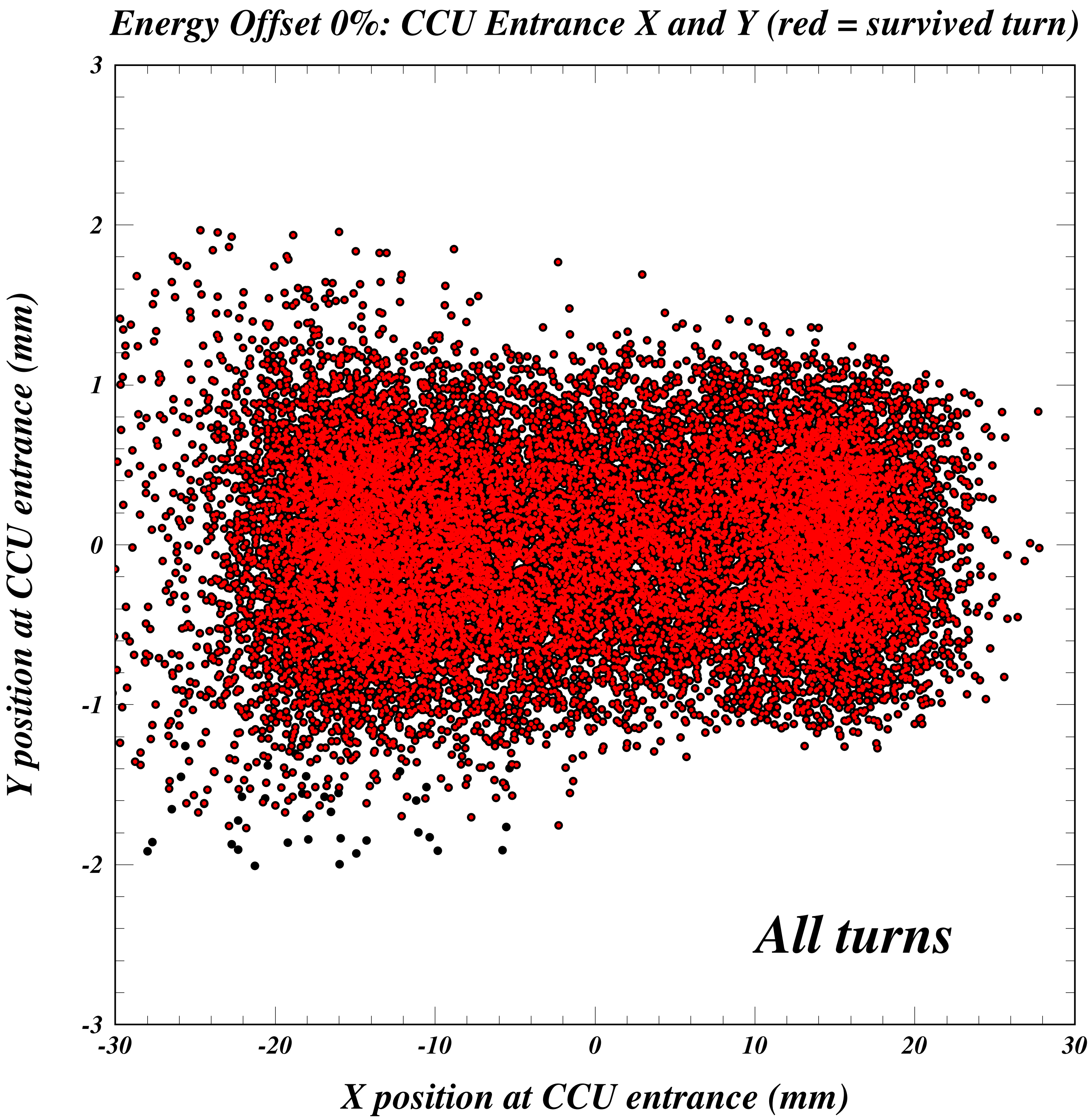


15/03/23 12.33

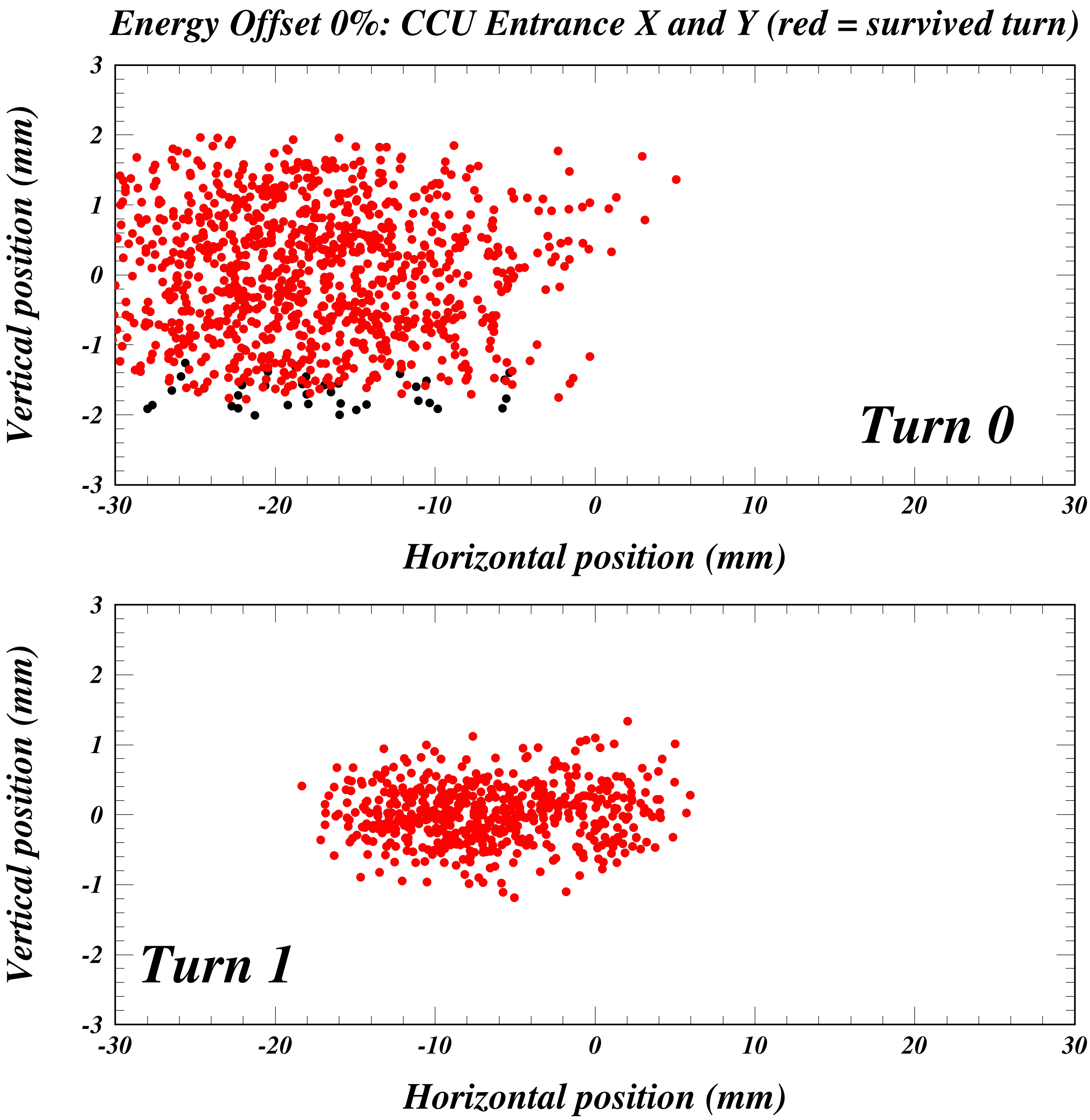
Energy Offset 0%: CCU Entrance X and Y (red = survived turn)



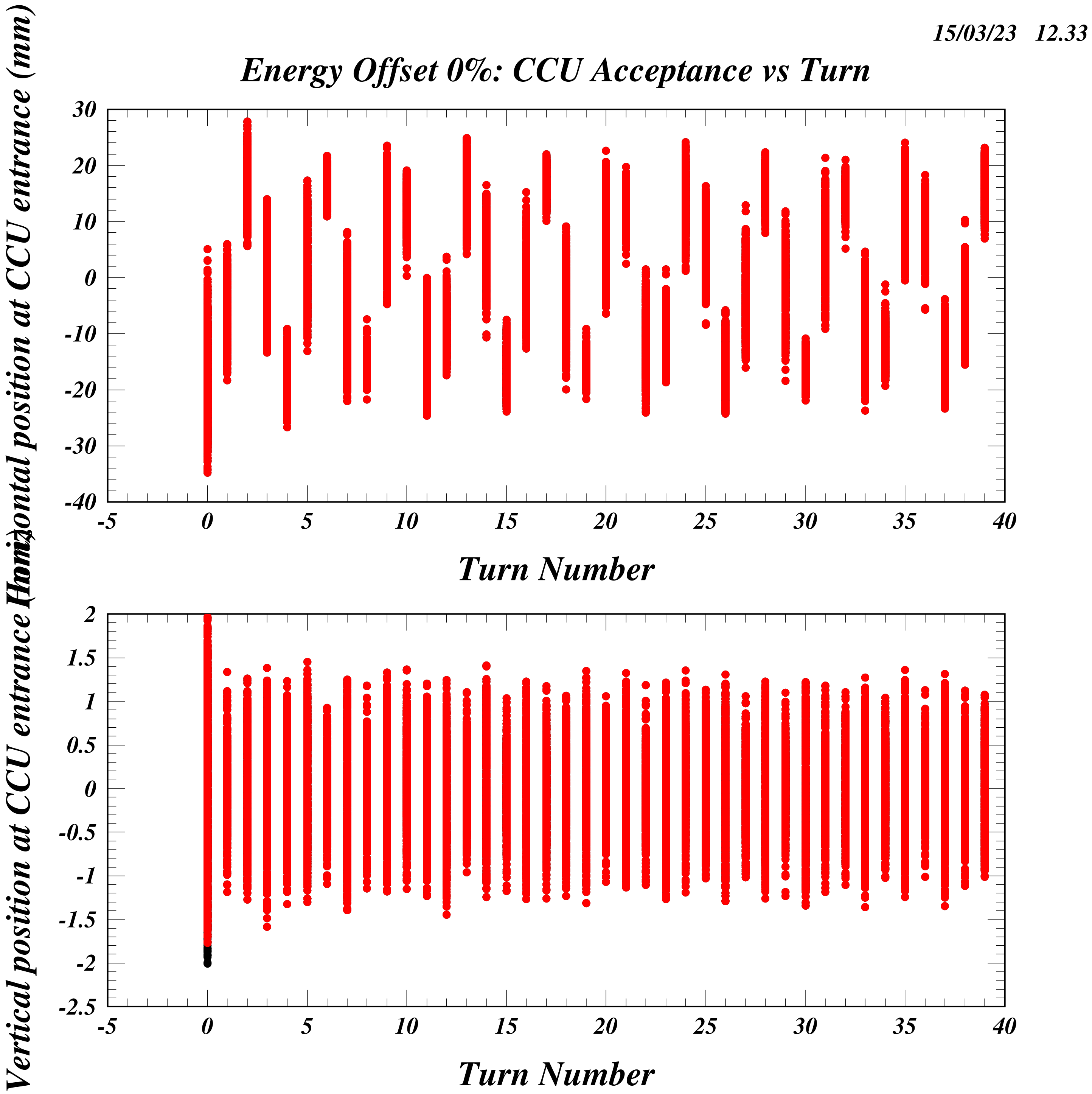
15/03/23 12.33


Energy Offset 0%: CCU Entrance X and Y (red = survived turn)
3
2
1
0
-1
-2
-3
-30
-20
-10
0
10
20
30
Y position at CCU entrance (mm)
X position at CCU entrance (mm)
All turns

15/03/23 12.33

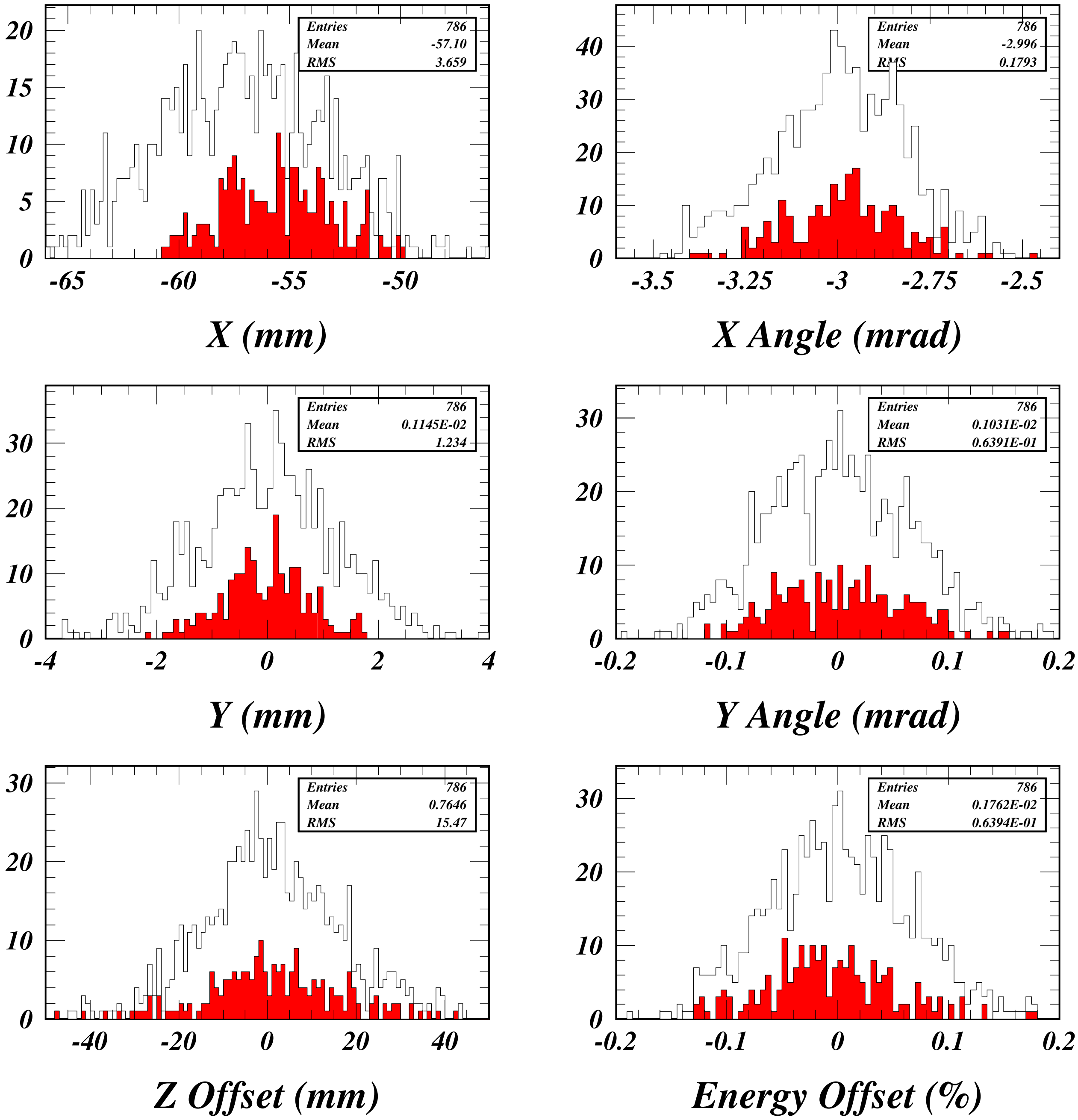


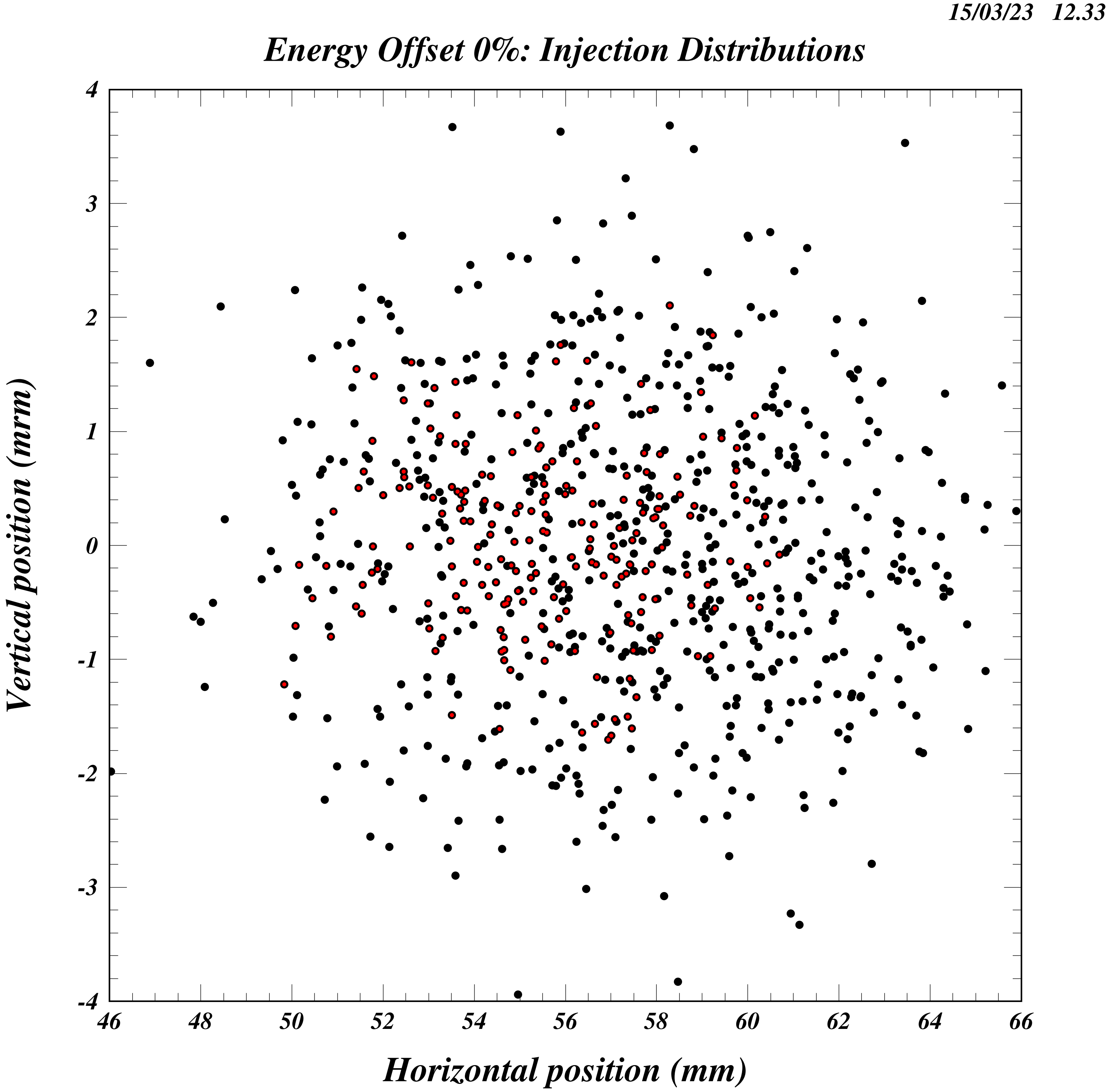
Energy Offset 0%: CCU Entrance X and Y (red = survived turn)
Vertical position (mm)
Horizontal position (mm)
Turn 0
Vertical position (mm)
Horizontal position (mm)
Turn 1


15/03/23 12.33
Energy Offset 0%: CCU Acceptance vs Turn
Horizontal position at CCU entrance (mm)
30
20
10
0
-10
-20
-30
-40
-5
0
5
10
15
20
25
30
35
40
Turn Number
Vertical position at CCU entrance (mm)
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
-2.5
-5
0
5
10
15
20
25
30
35
40
Turn Number

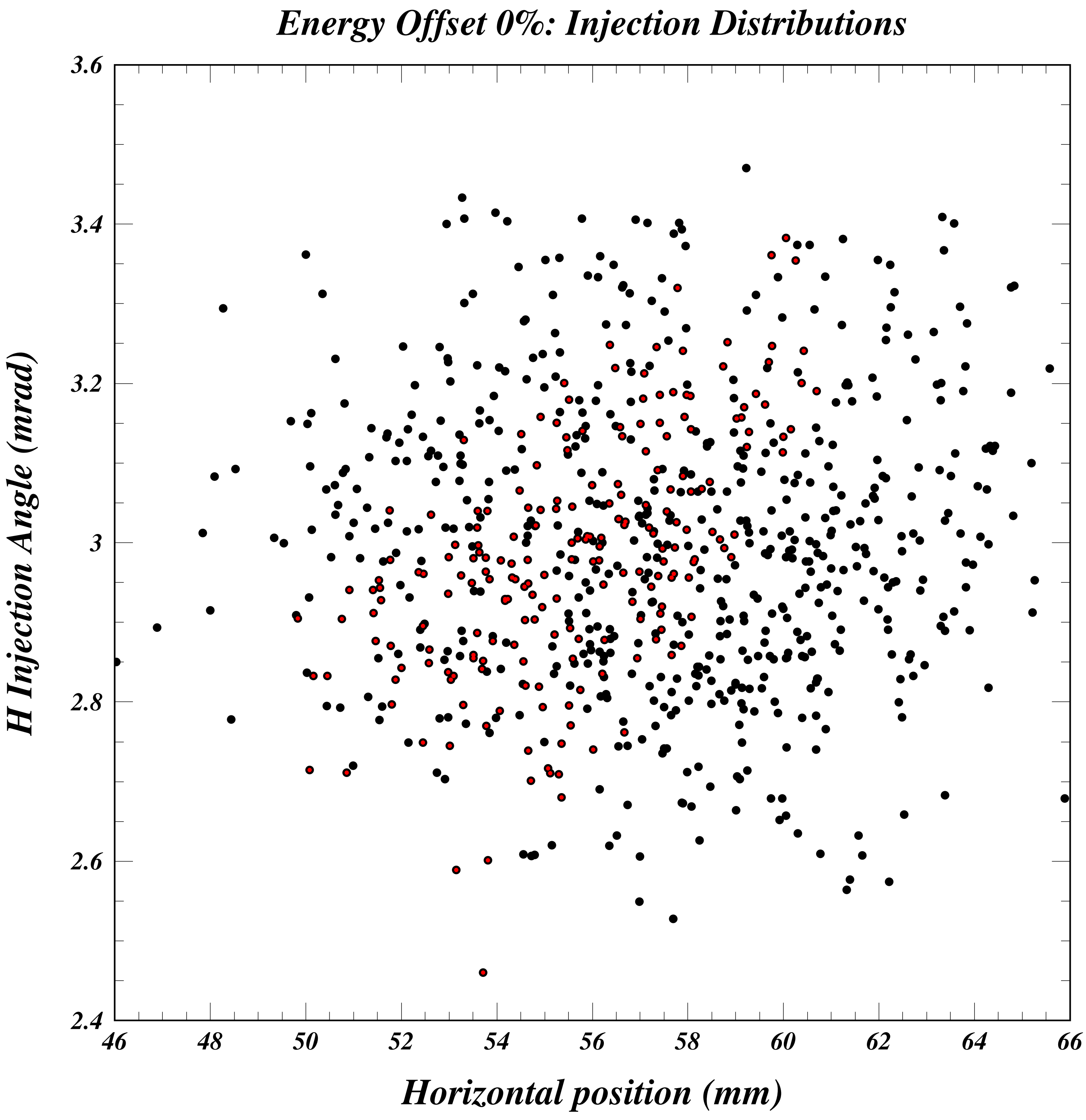
15/03/23 12.33

Energy Offset 0%: Injection Distributions




15/03/23 12.33
Energy Offset 0%: Injection Distributions
Vertical position (mrm)
Horizontal position (mm)
4
3
2
1
0
-1
-2
-3
-4
46
48
50
52
54
56
58
60
62
64
66

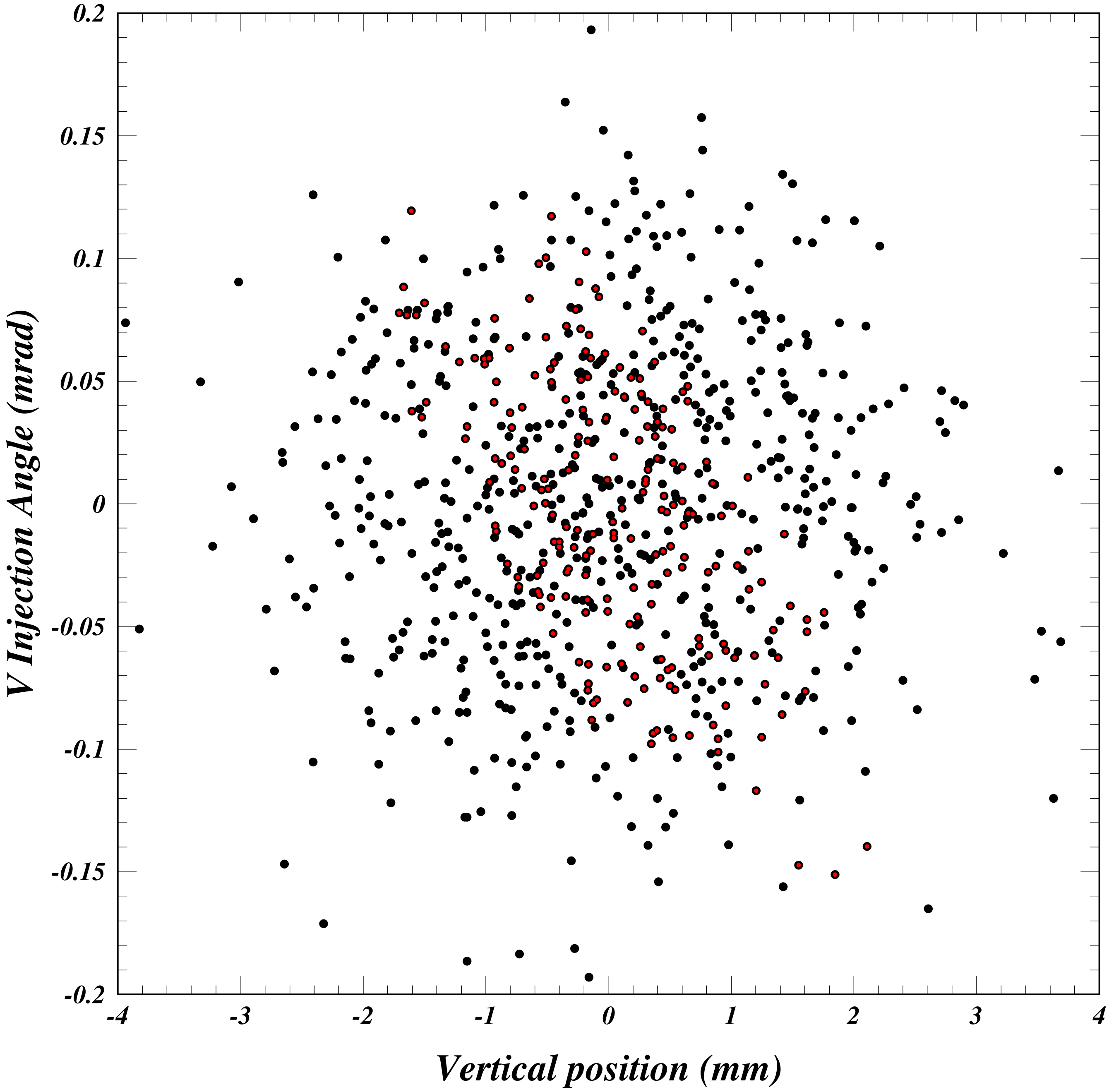
15/03/23 12.33



Energy Offset 0%: Injection Distributions
H Injection Angle (mrad)
Horizontal position (mm)
3.6
3.4
3.2
3
2.8
2.6
2.4
46
48
50
52
54
56
58
60
62
64
66

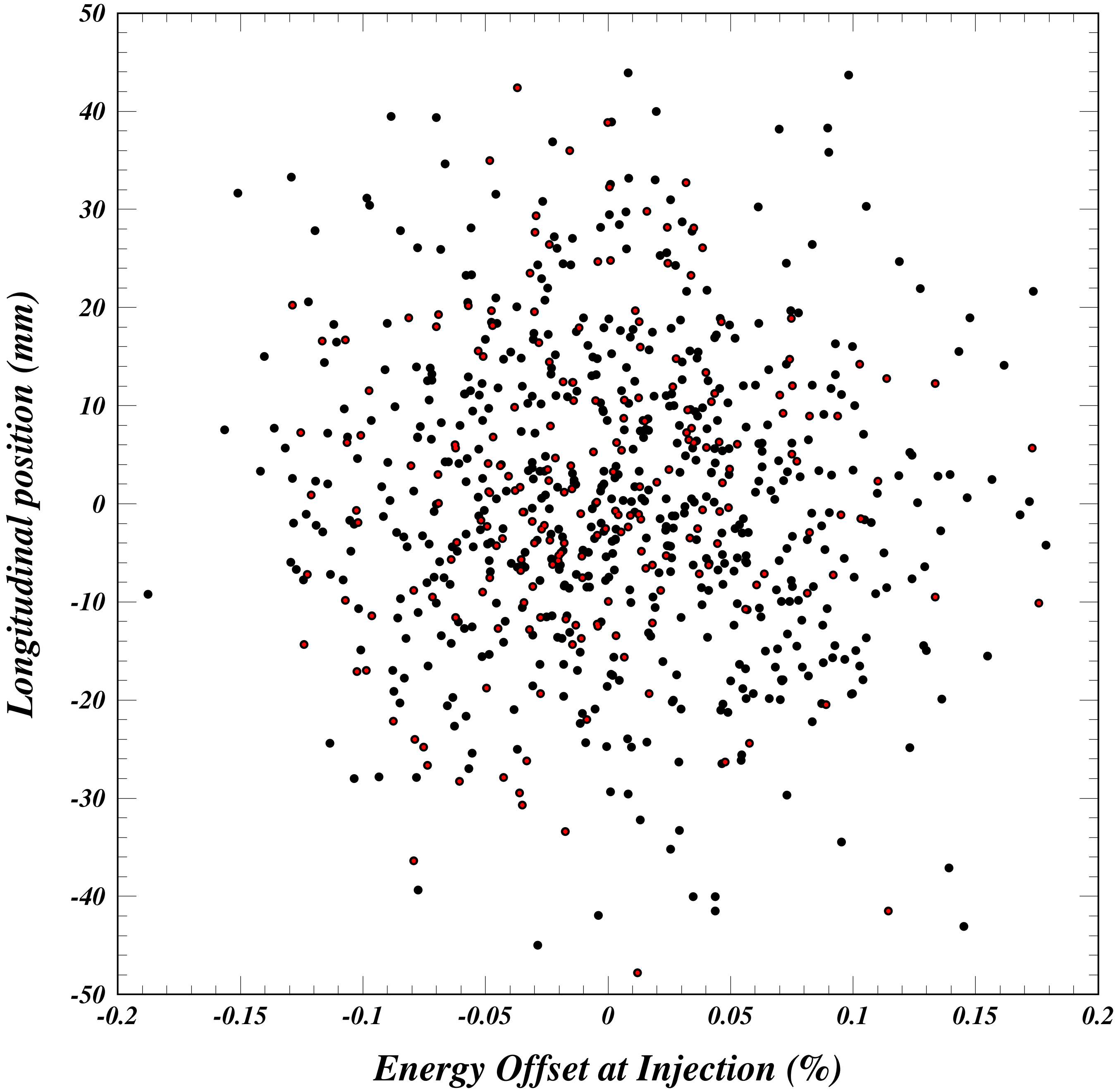
15/03/23 12.33

Energy Offset 0%: Injection Distributions



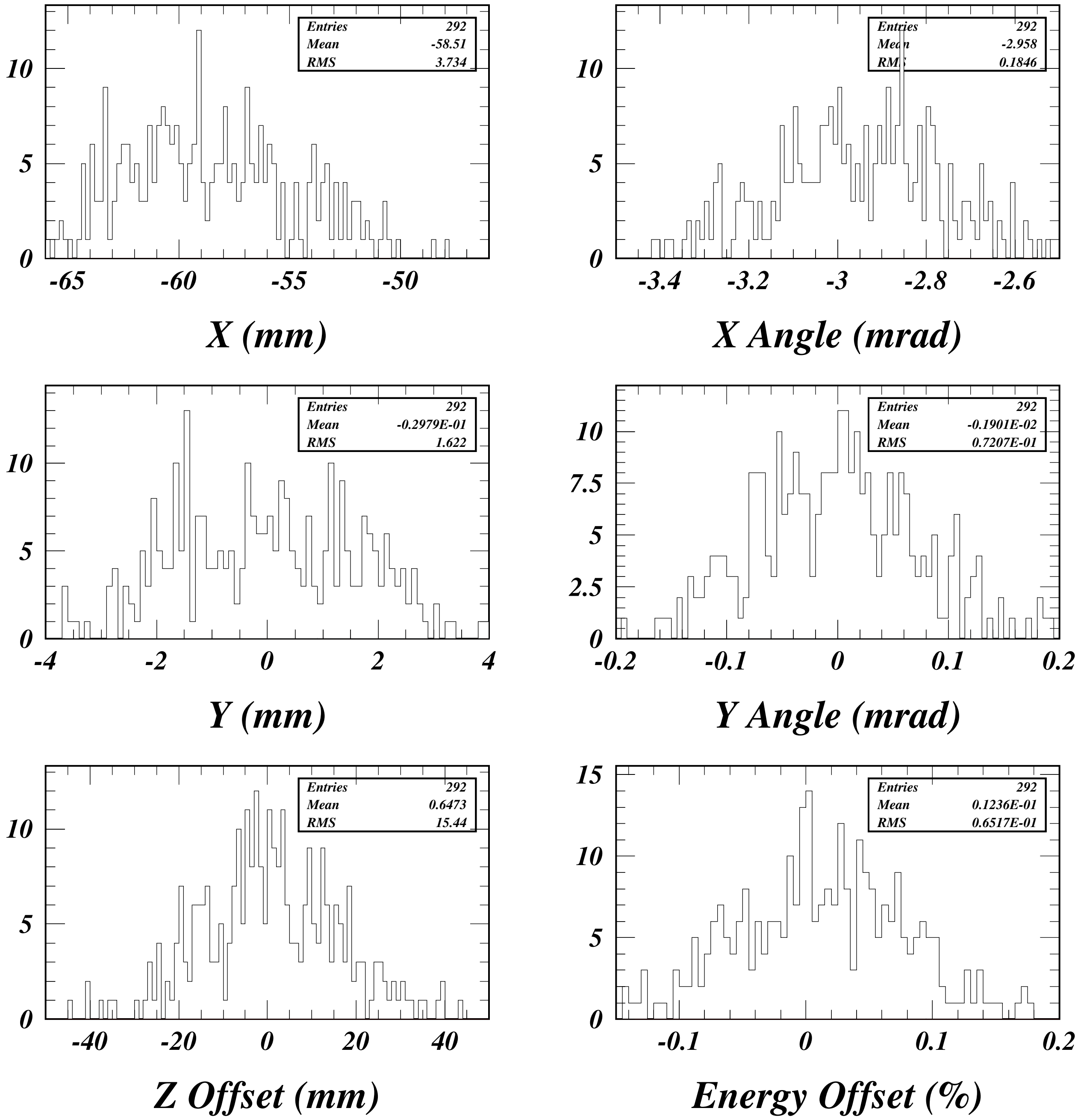
15/03/23 12.33

Energy Offset 0%: Injection Distributions

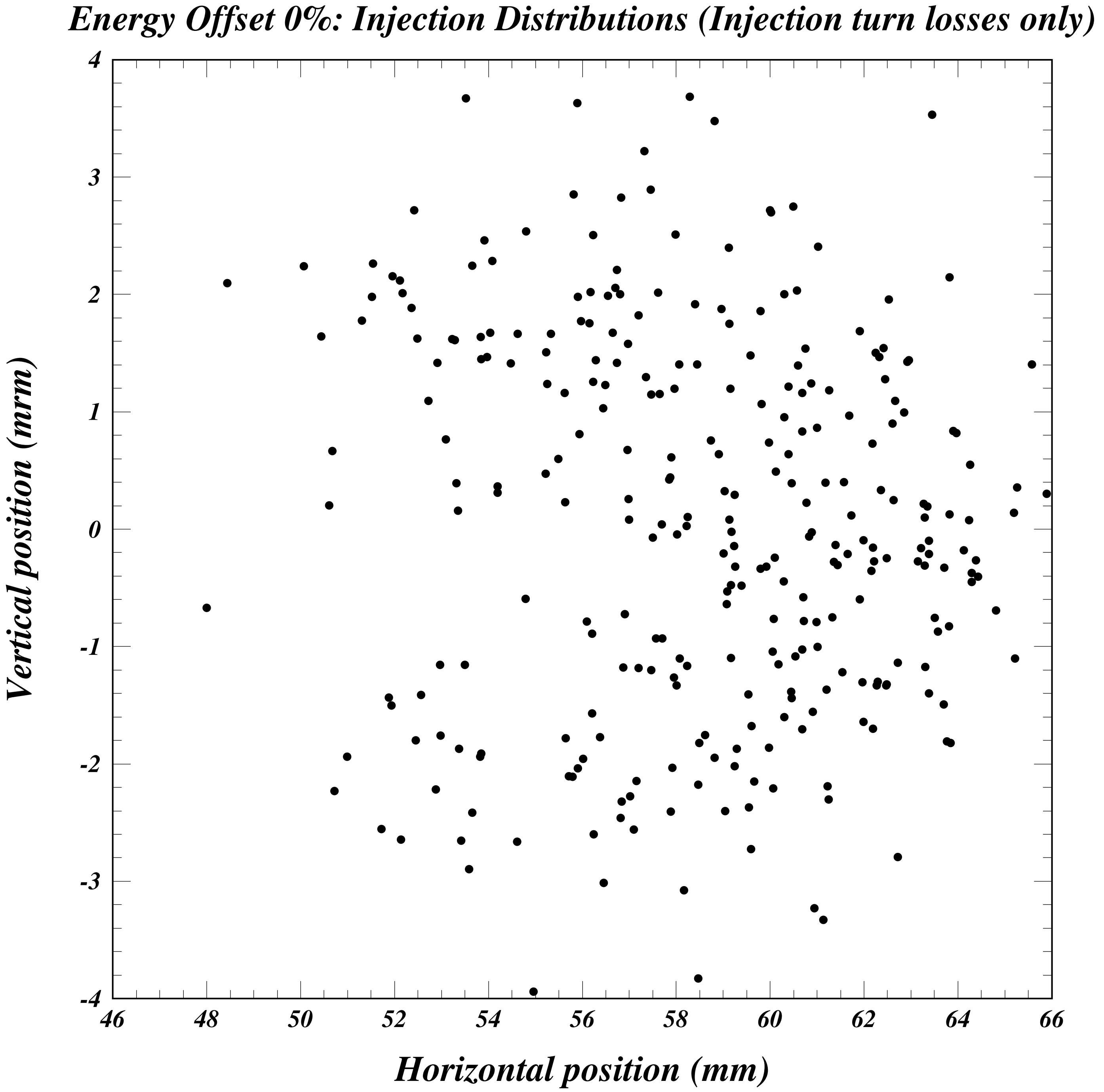


15/03/23 12.33

Energy Offset 0%: Injection Distributions (Injection turn losses only)

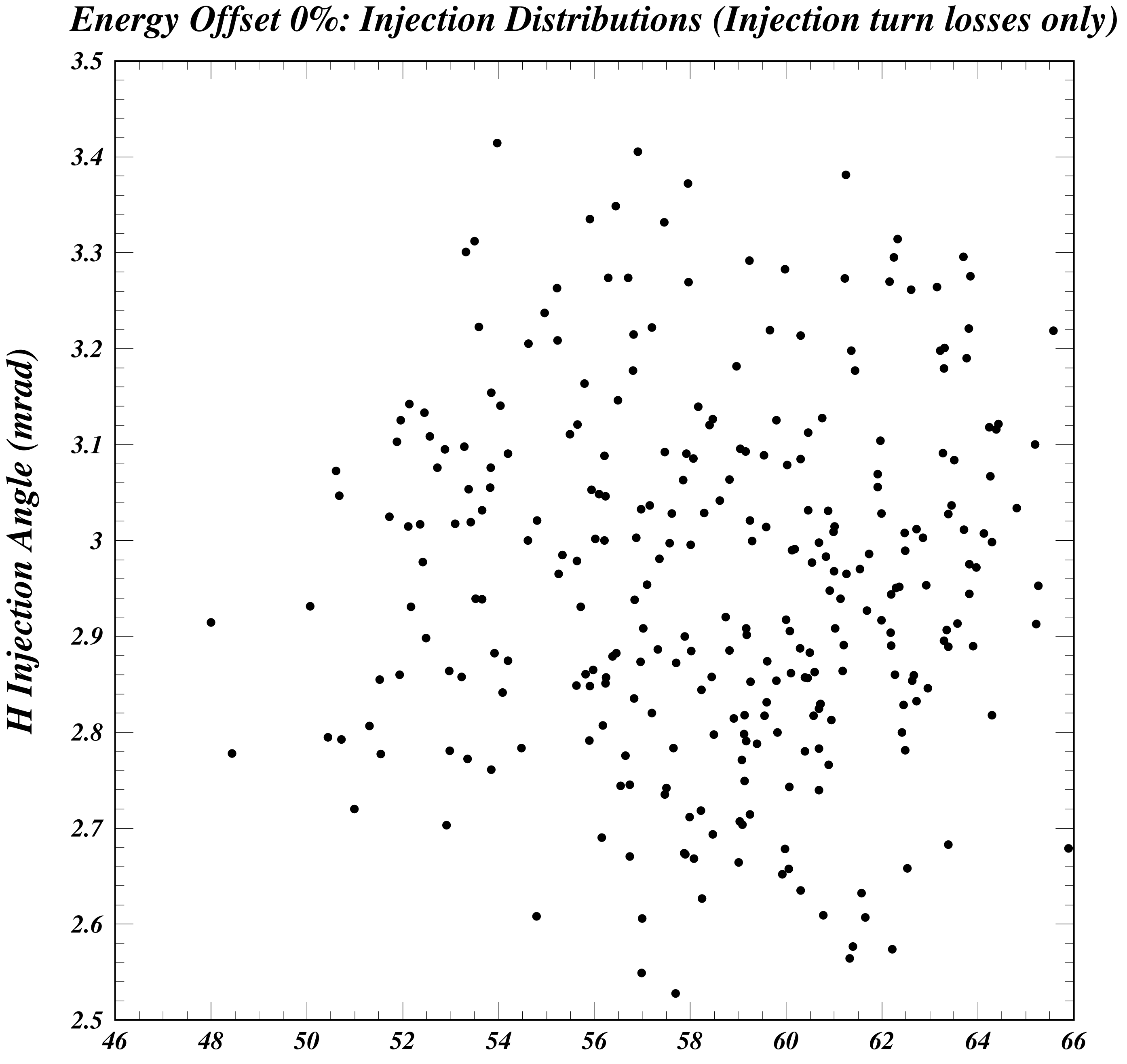


15/03/23 12.33



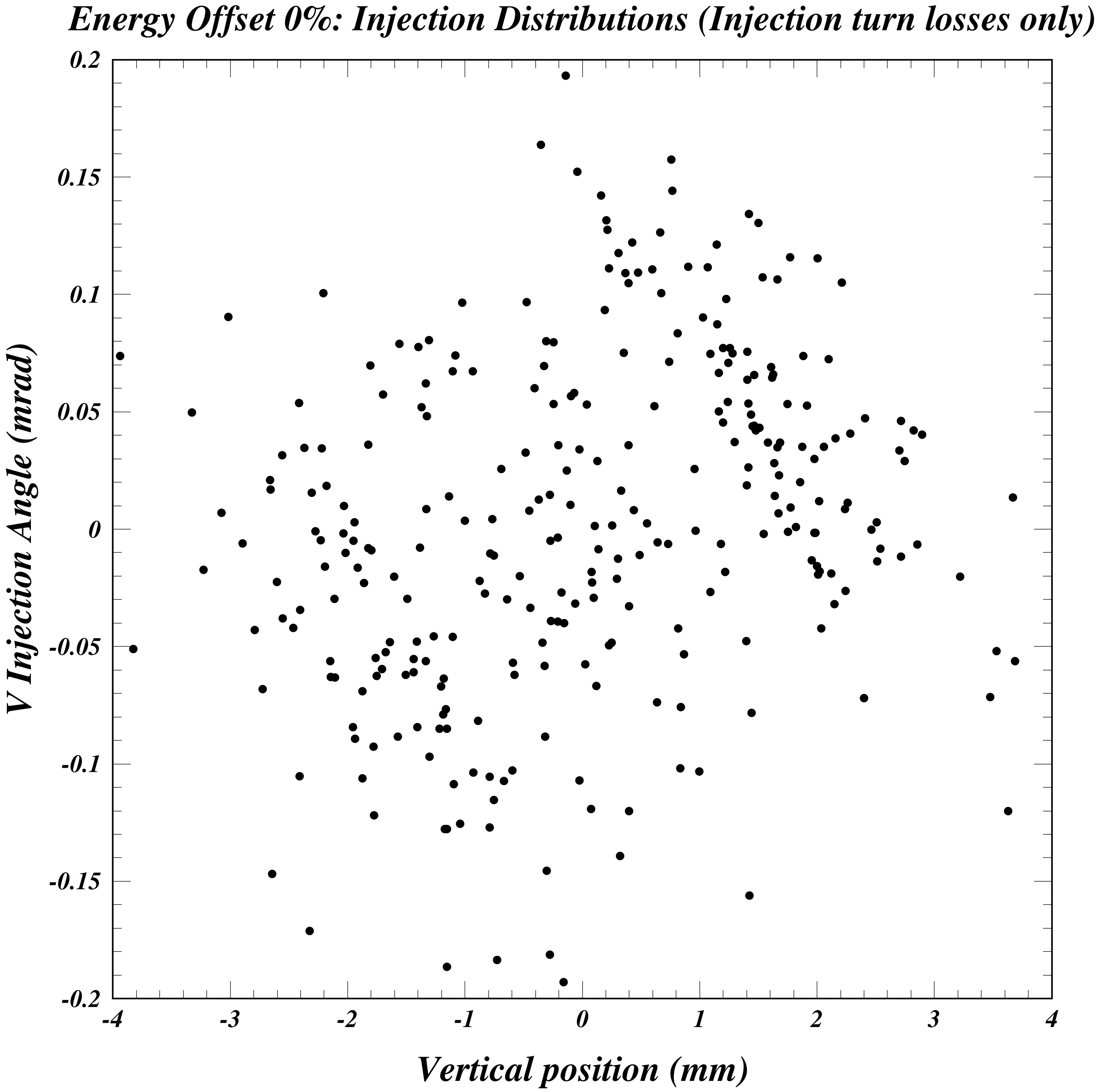
Energy Offset 0%: Injection Distributions (Injection turn losses only)
Vertical position (mrm)
Horizontal position (mm)
4
3
2
1
0
-1
-2
-3
-4
46
48
50
52
54
56
58
60
62
64
66

15/03/23 12.33



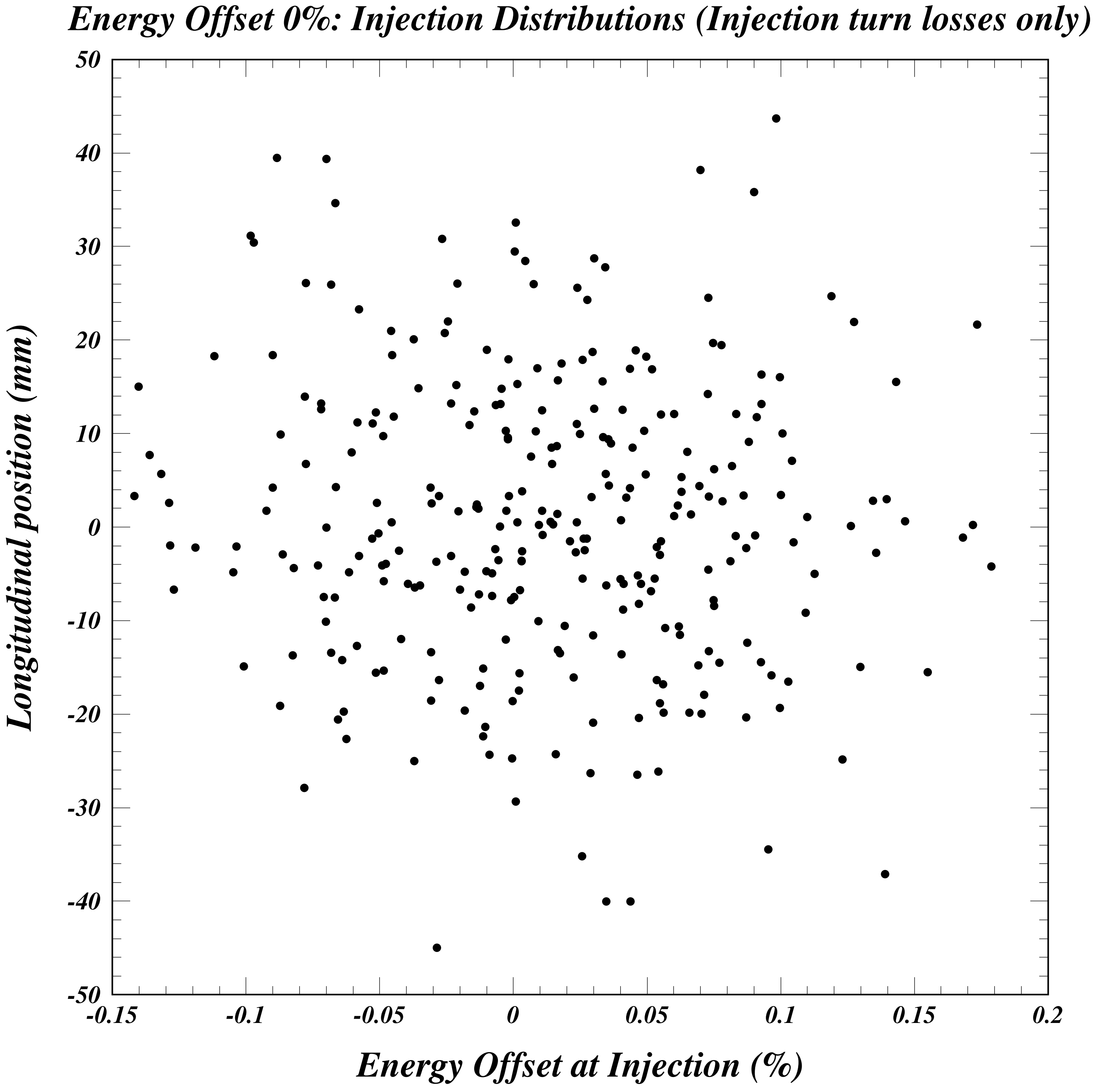
Energy Offset 0%: Injection Distributions (Injection turn losses only)
H Injection Angle (mrad)
Horizontal position (mm)
3.5
3.4
3.3
3.2
3.1
3
2.9
2.8
2.7
2.6
2.5
46
48
50
52
54
56
58
60
62
64
66

15/03/23   12.33



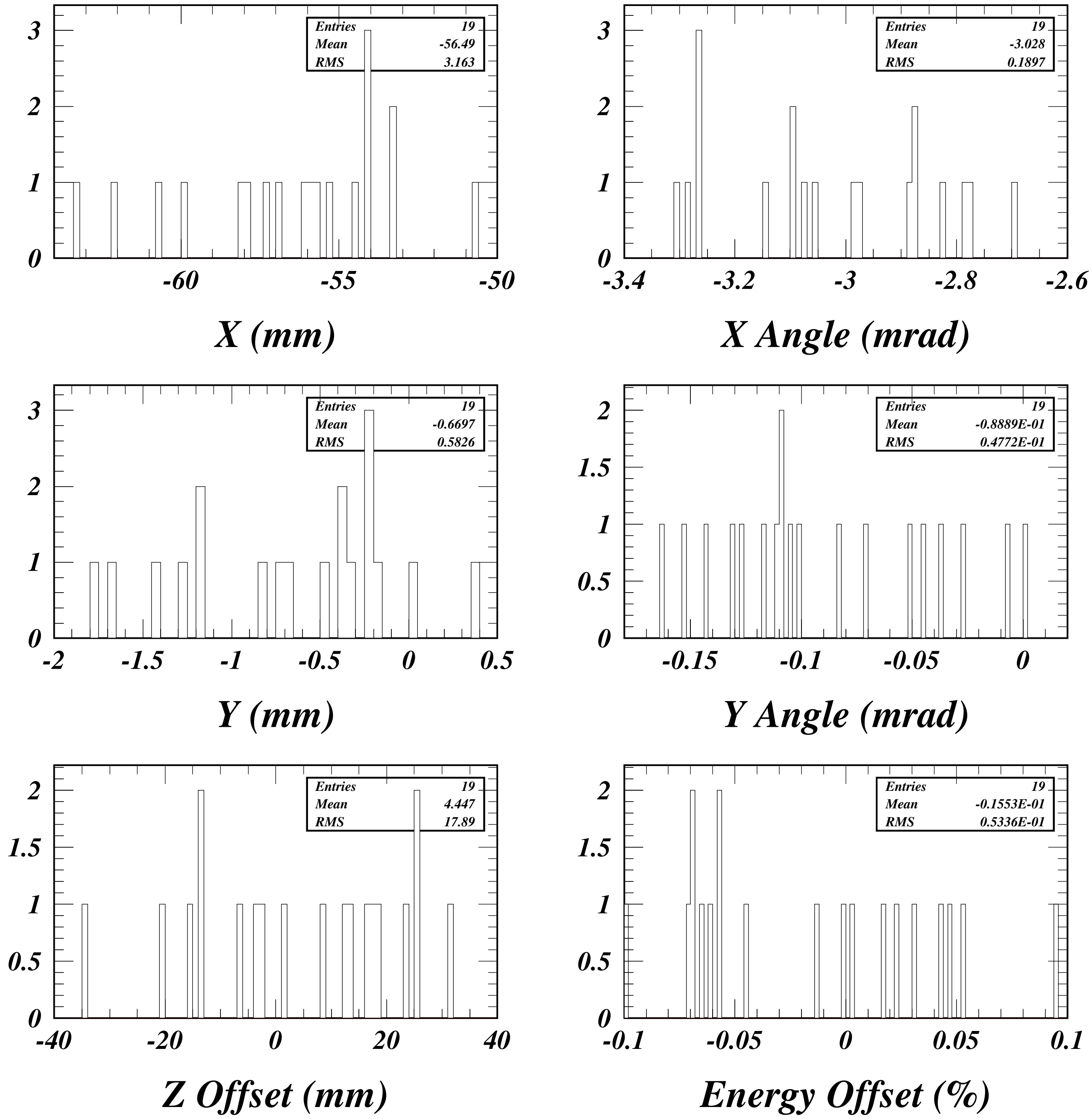
Energy Offset 0%: Injection Distributions (Injection turn losses only)
V Injection Angle (mrad)
Vertical position (mm)
0.2
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
-0.2
-4
-3
-2
-1
0
1
2
3
4

15/03/23 12.33


Energy Offset 0%: Injection Distributions (Injection turn losses only)
Longitudinal position (mm)
50
40
30
20
10
0
-10
-20
-30
-40
-50
-0.15
-0.1
-0.05
0
0.05
0.1
0.15
0.2
Energy Offset at Injection (%)

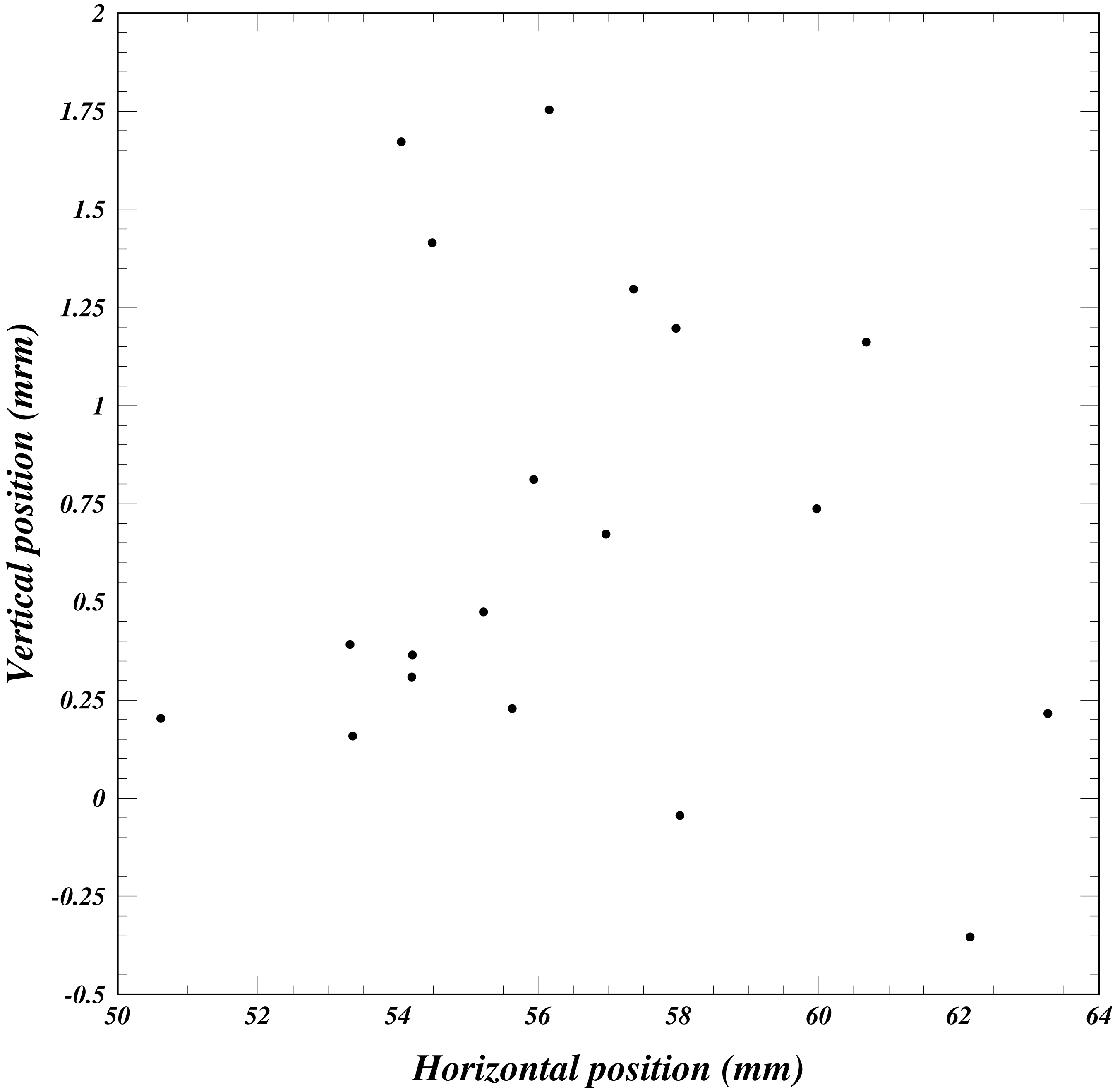
15/03/23 12.33

Energy Offset 0%: Injection Distributions (Injection turn losses at undulator on



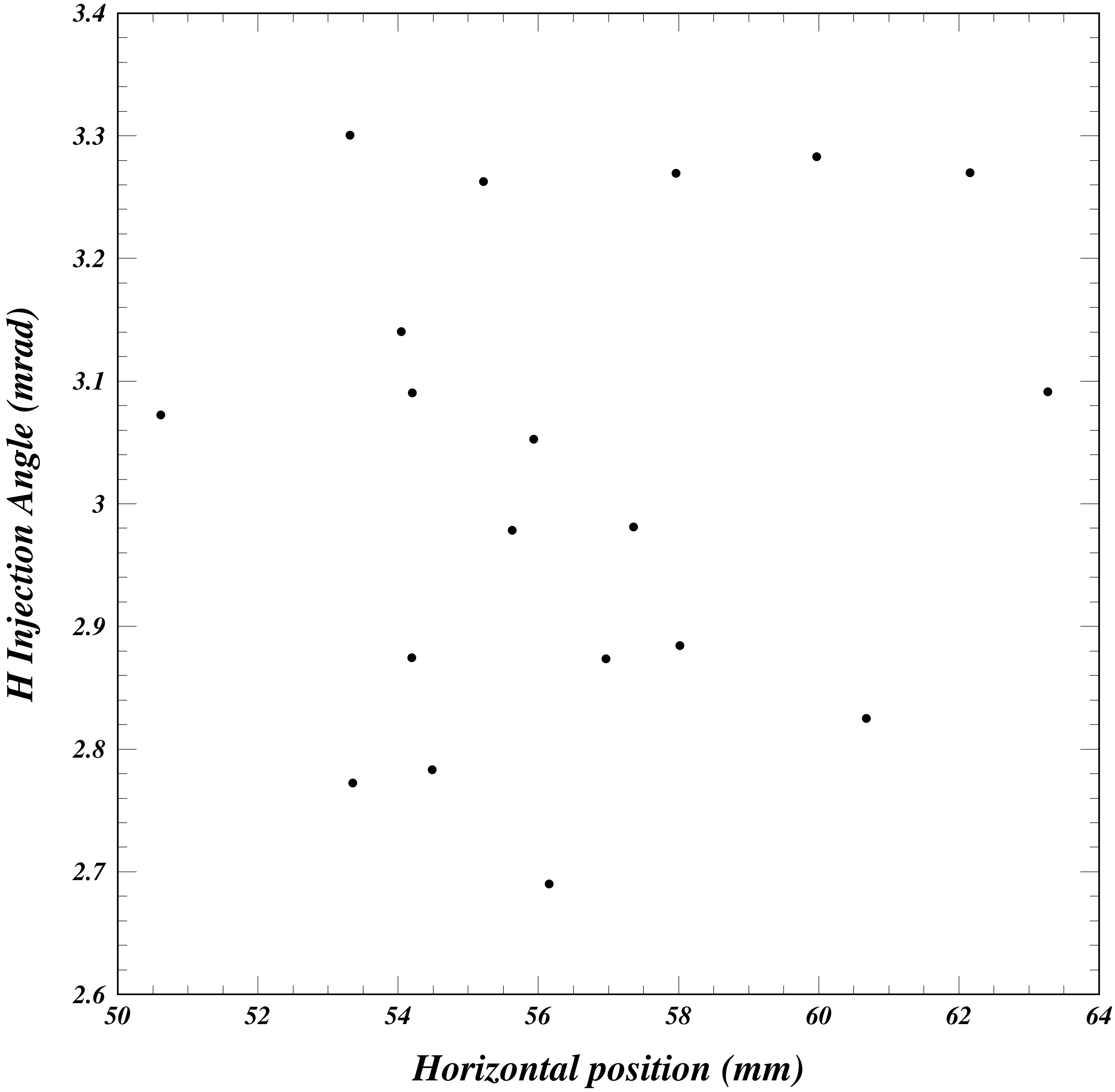
15/03/23 12.33

Energy Offset 0%: Injection Distributions (Injection turn losses at undulator on



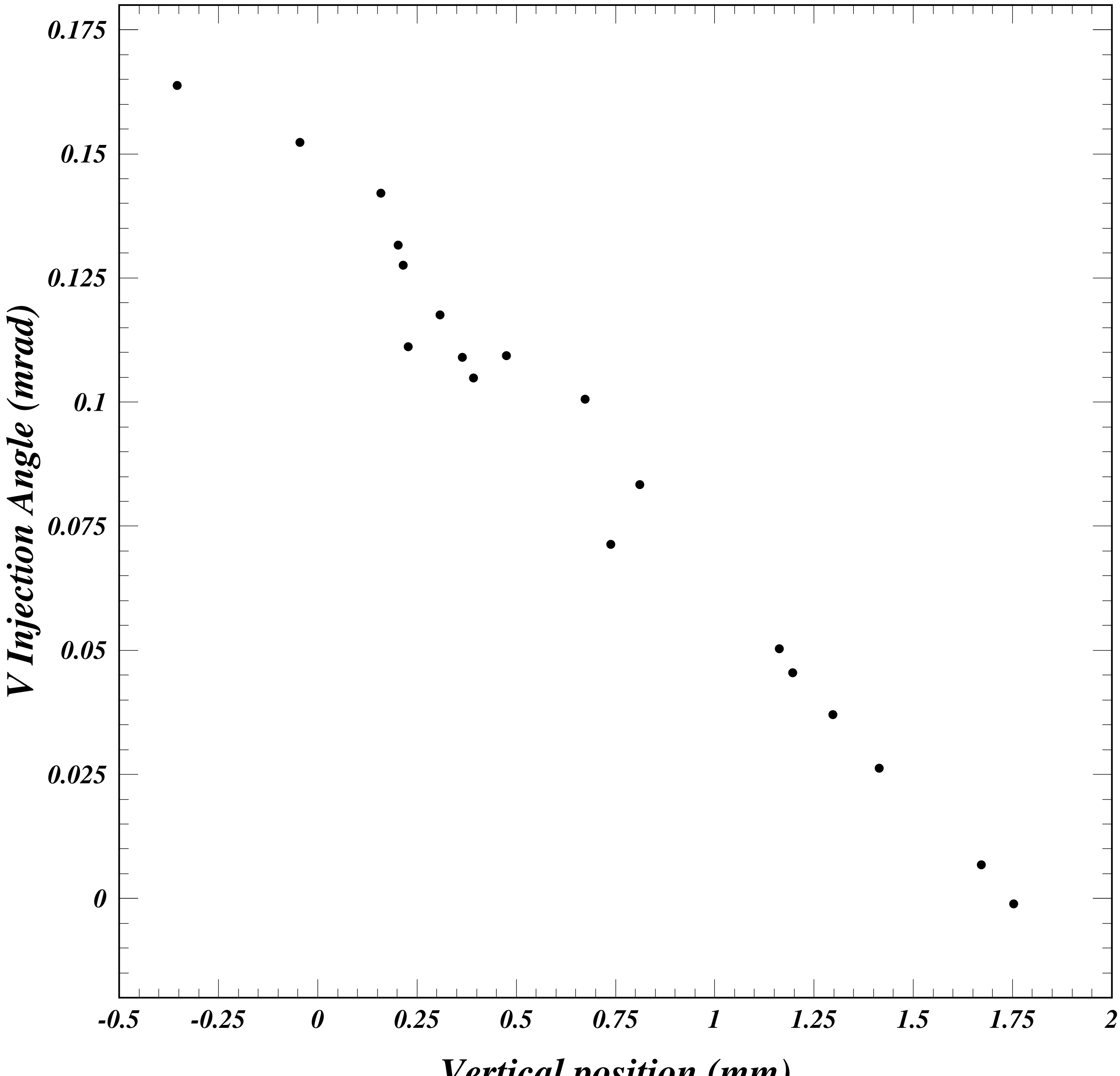
15/03/23 12.33

Energy Offset 0%: Injection Distributions (Injection turn losses at undulator on



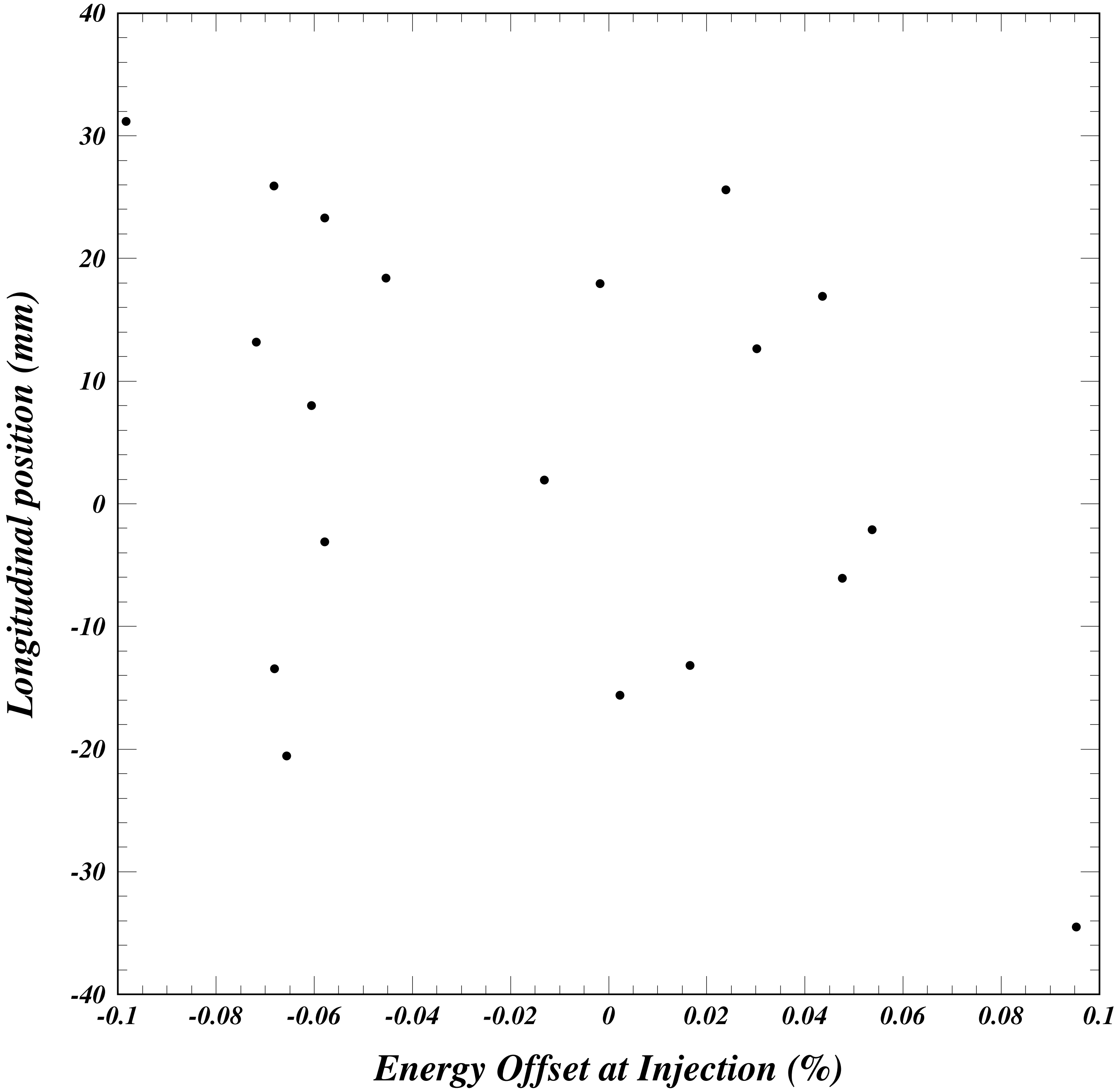
15/03/23 12.33

Energy Offset 0%: Injection Distributions (Injection turn losses at undulator on

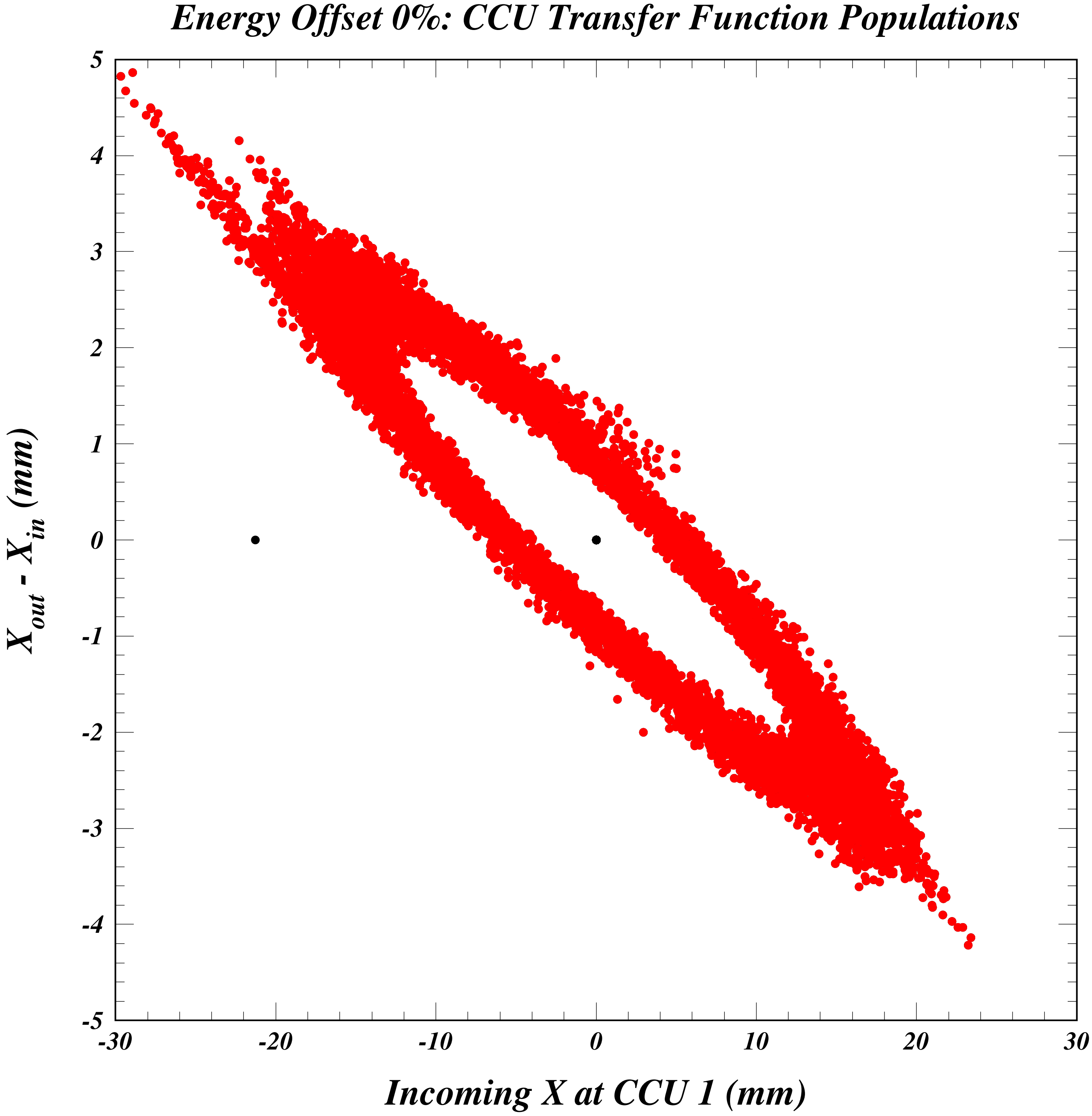


15/03/23 12.33

Energy Offset 0%: Injection Distributions (Injection turn losses at undulator on

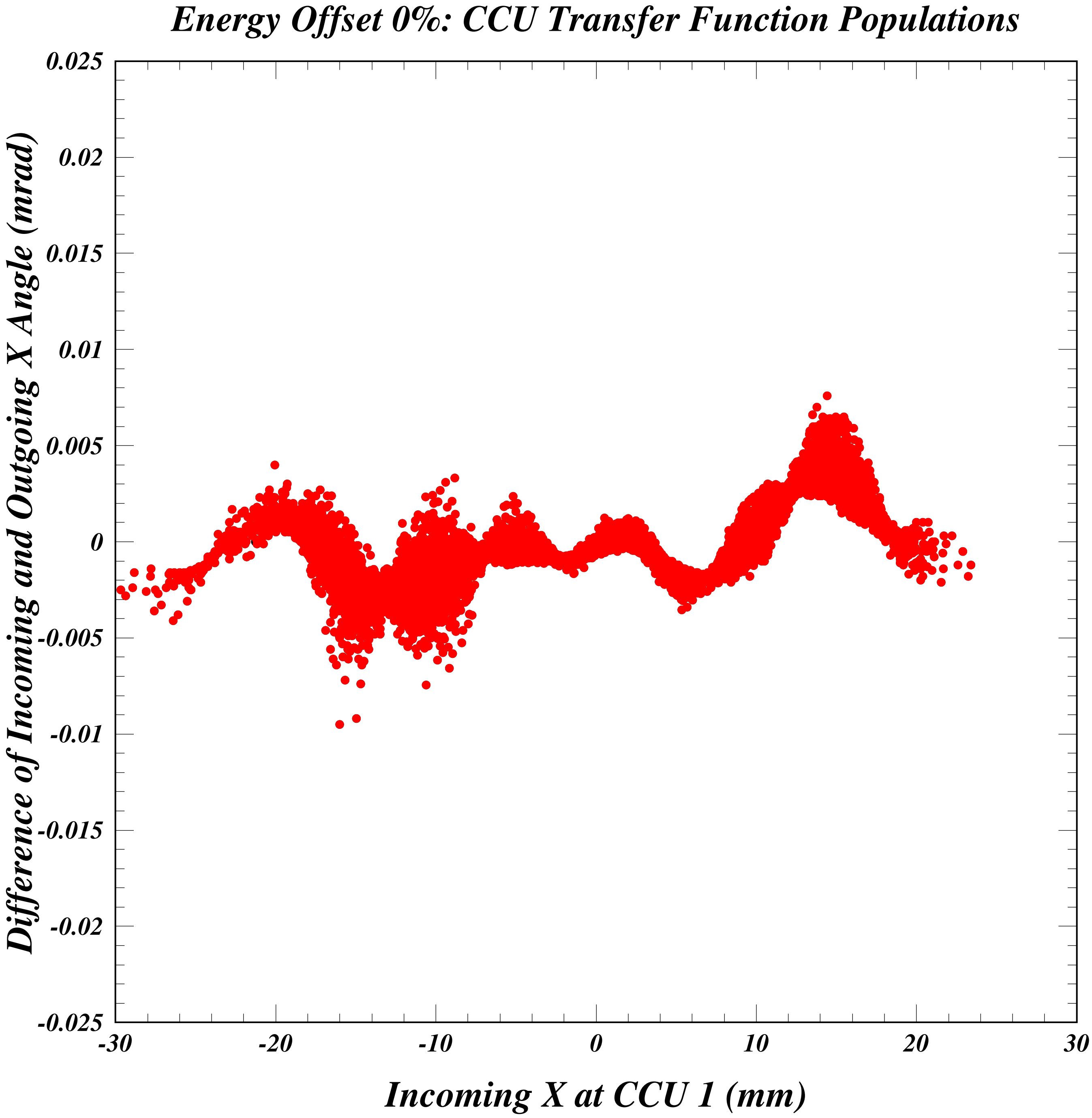


15/03/23 12.33



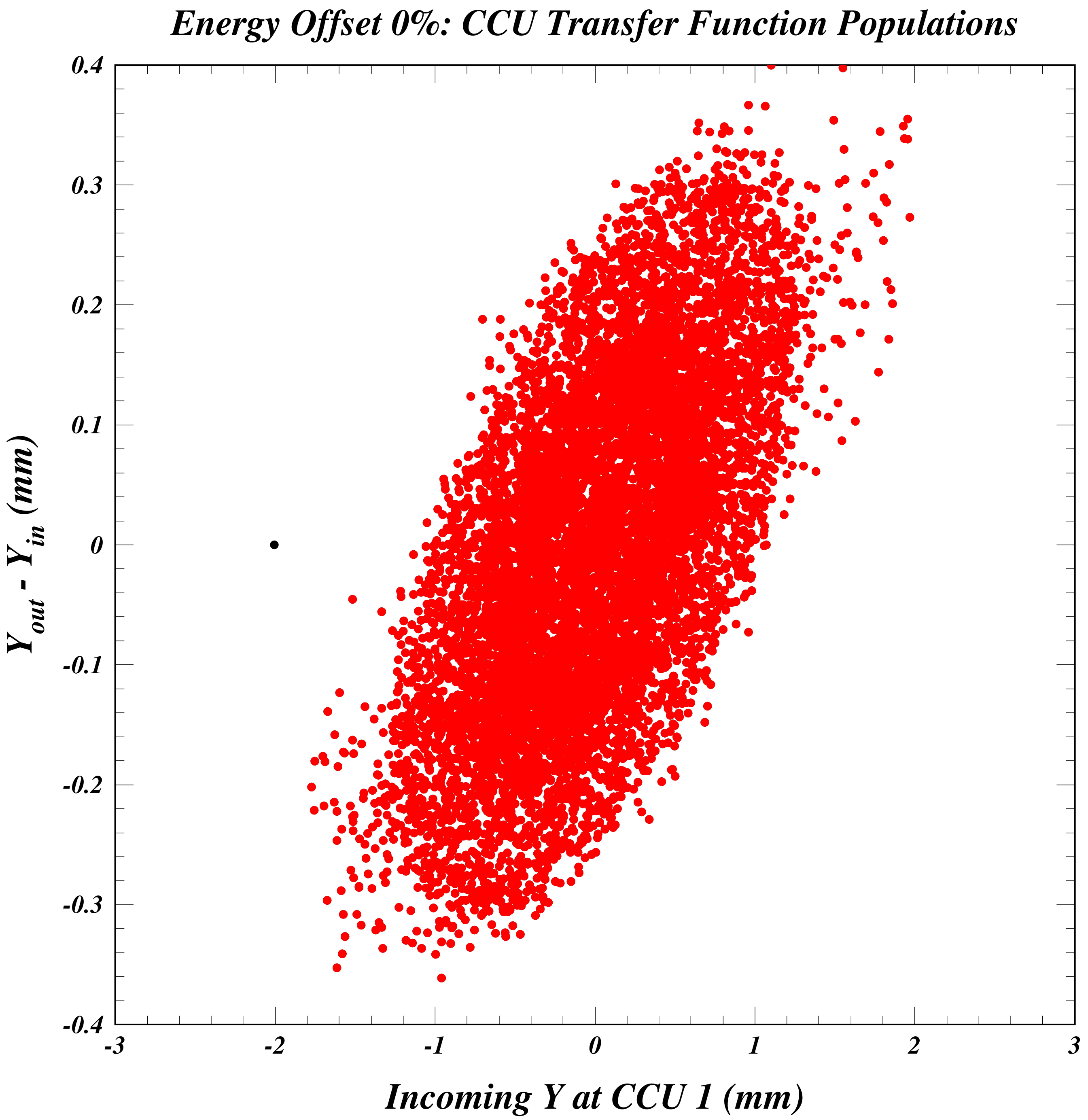
Energy Offset 0%: CCU Transfer Function Populations
$X_{out} - X_{in}$ (mm)
Incoming X at CCU 1 (mm)
5
4
3
2
1
0
-1
-2
-3
-4
-5
-30
-20
-10
0
10
20
30

15/03/23 12.33



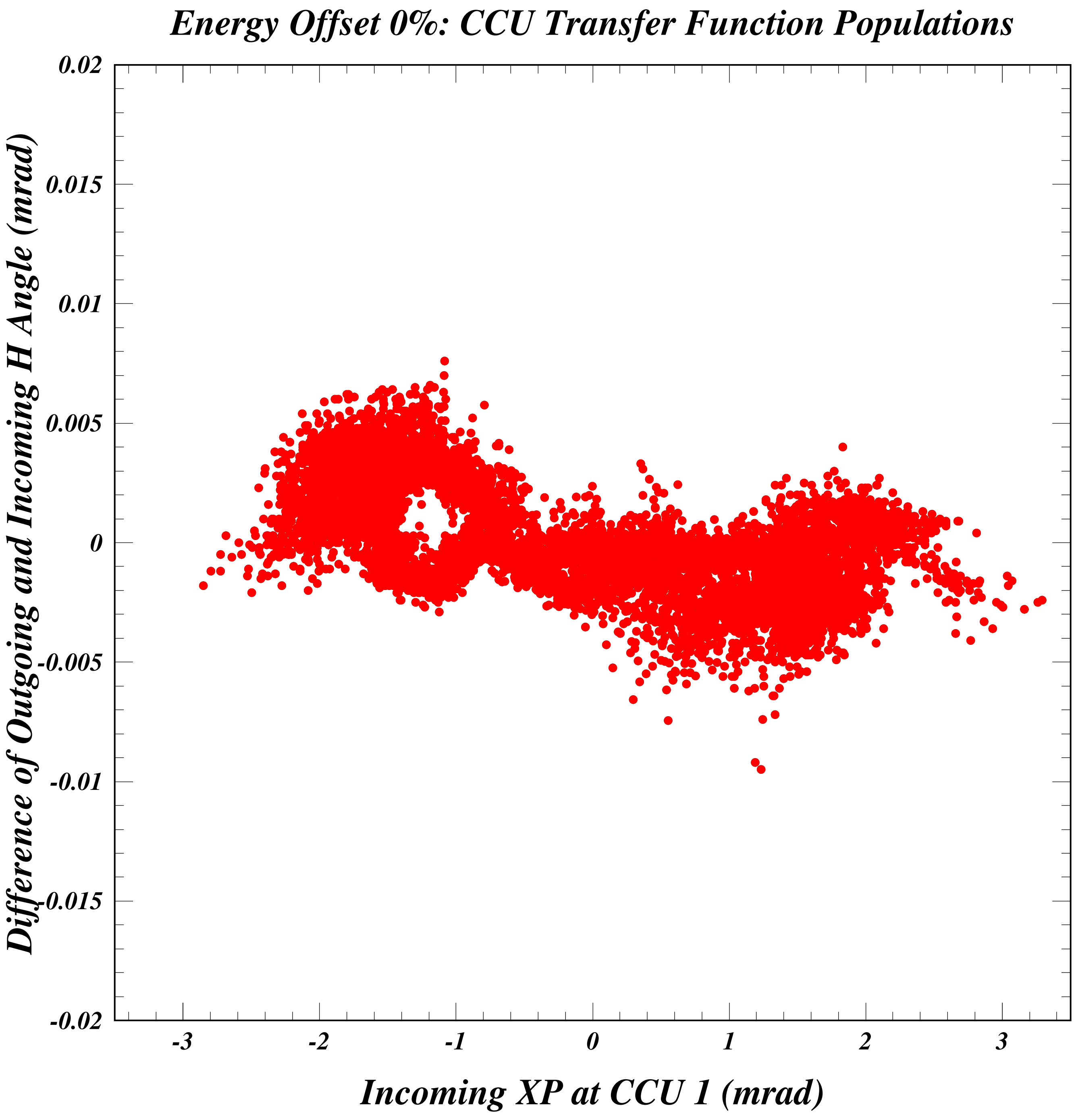
Energy Offset 0%: CCU Transfer Function Populations
Difference of Incoming and Outgoing X Angle (mrad)
Incoming X at CCU 1 (mm)
0.025
0.02
0.015
0.01
0.005
0
-0.005
-0.01
-0.015
-0.02
-0.025
-30
-20
-10
0
10
20
30

15/03/23 12.33

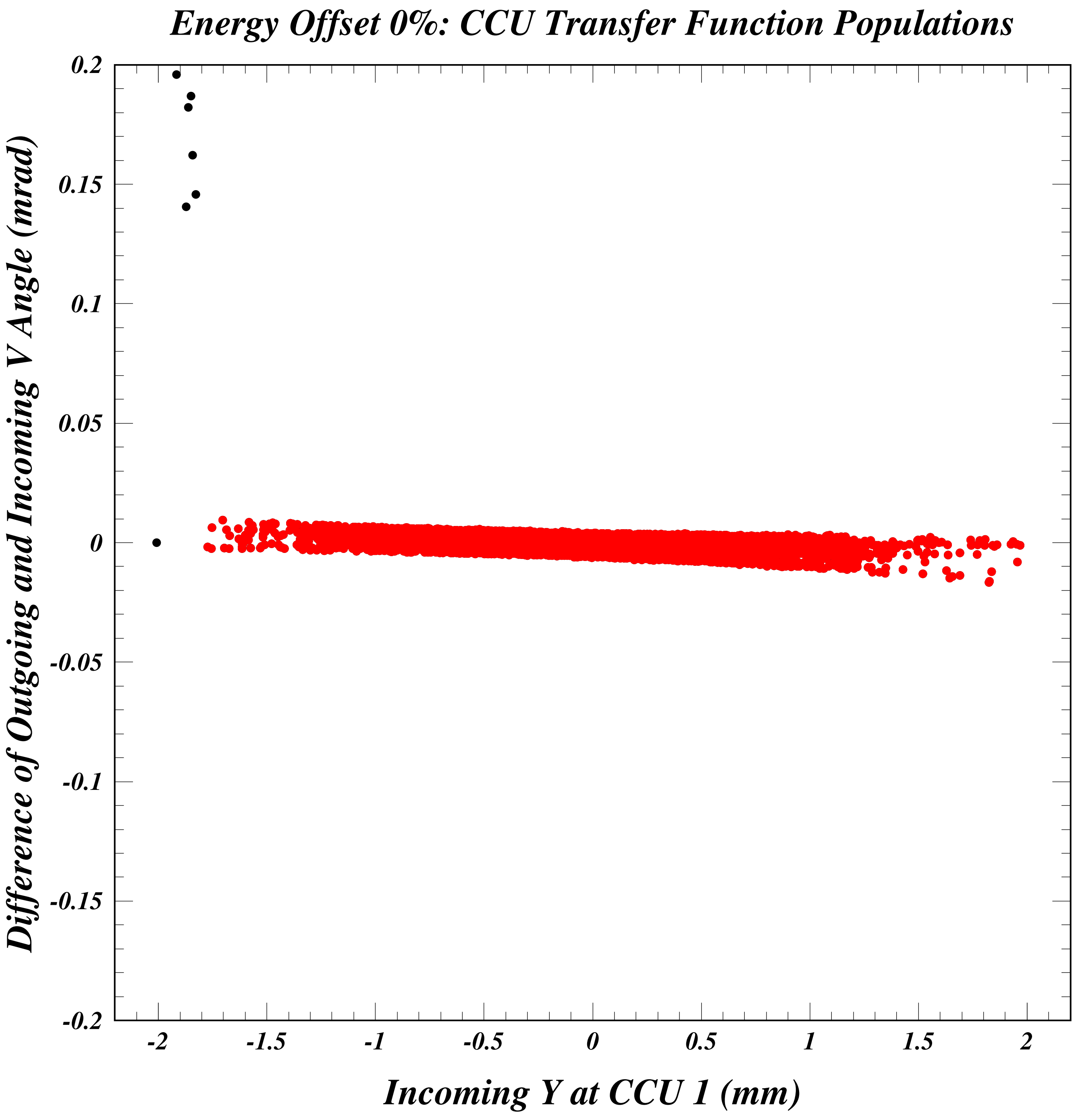


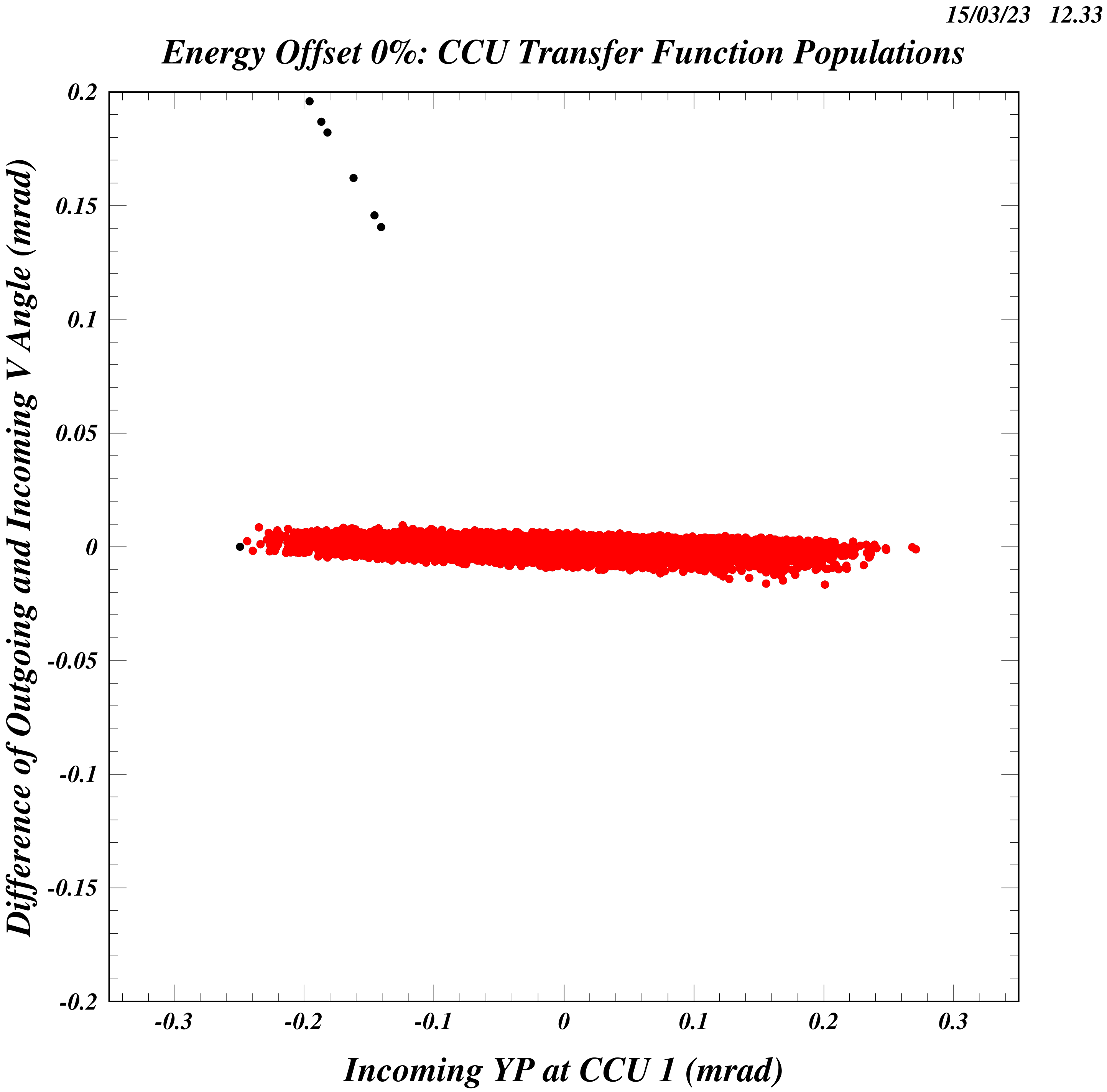
Energy Offset 0%: CCU Transfer Function Populations
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-3
-2
-1
0
1
2
3
Y_{out} - Y_{in} (mm)
Incoming Y at CCU 1 (mm)

15/03/23 12.33

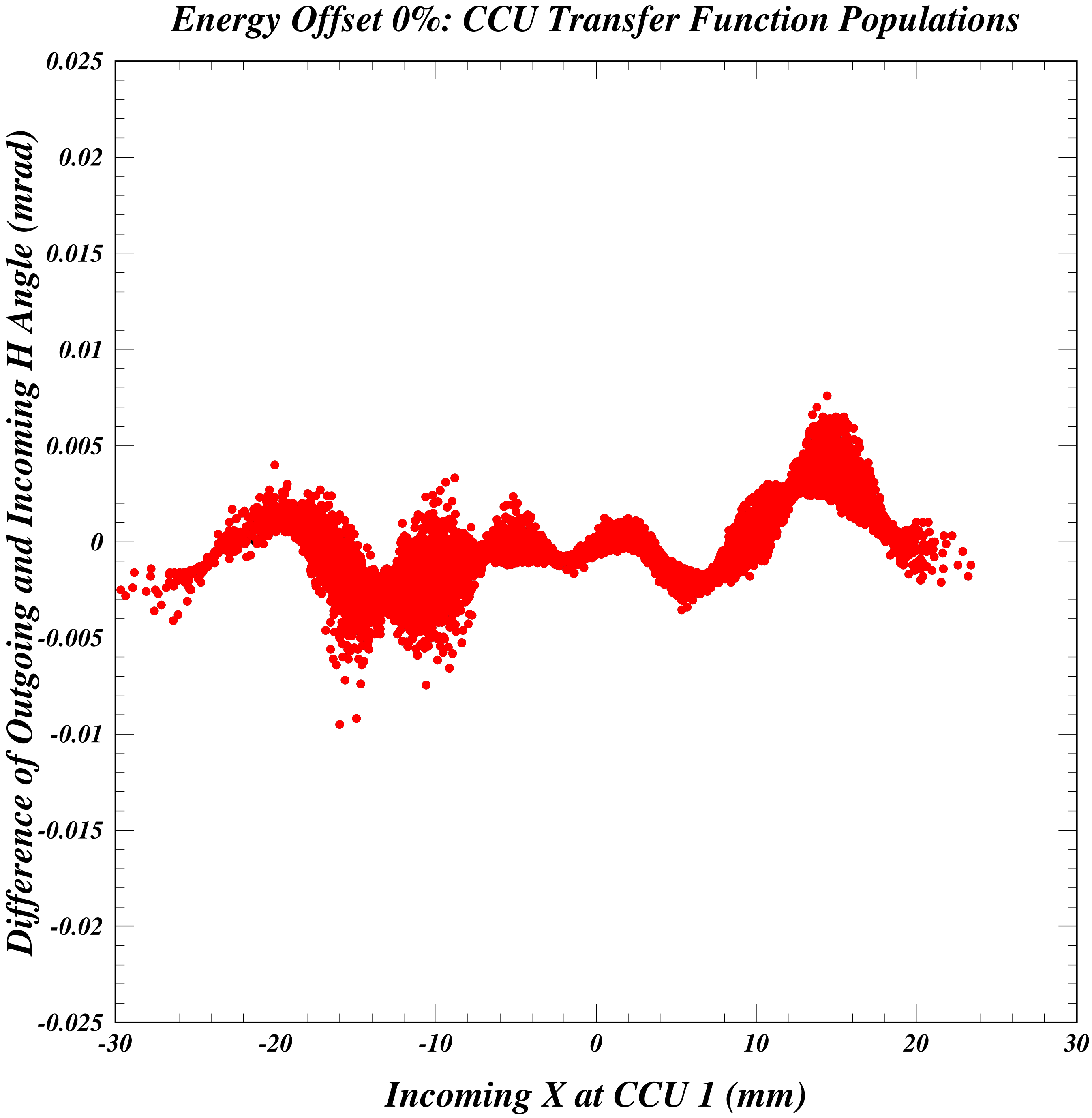

Energy Offset 0%: CCU Transfer Function Populations
0.02
0.015
0.01
0.005
0
-0.005
-0.01
-0.015
-0.02
Difference of Outgoing and Incoming H Angle (mrad)
-3
-2
-1
0
1
2
3
Incoming XP at CCU 1 (mrad)

15/03/23 12.33

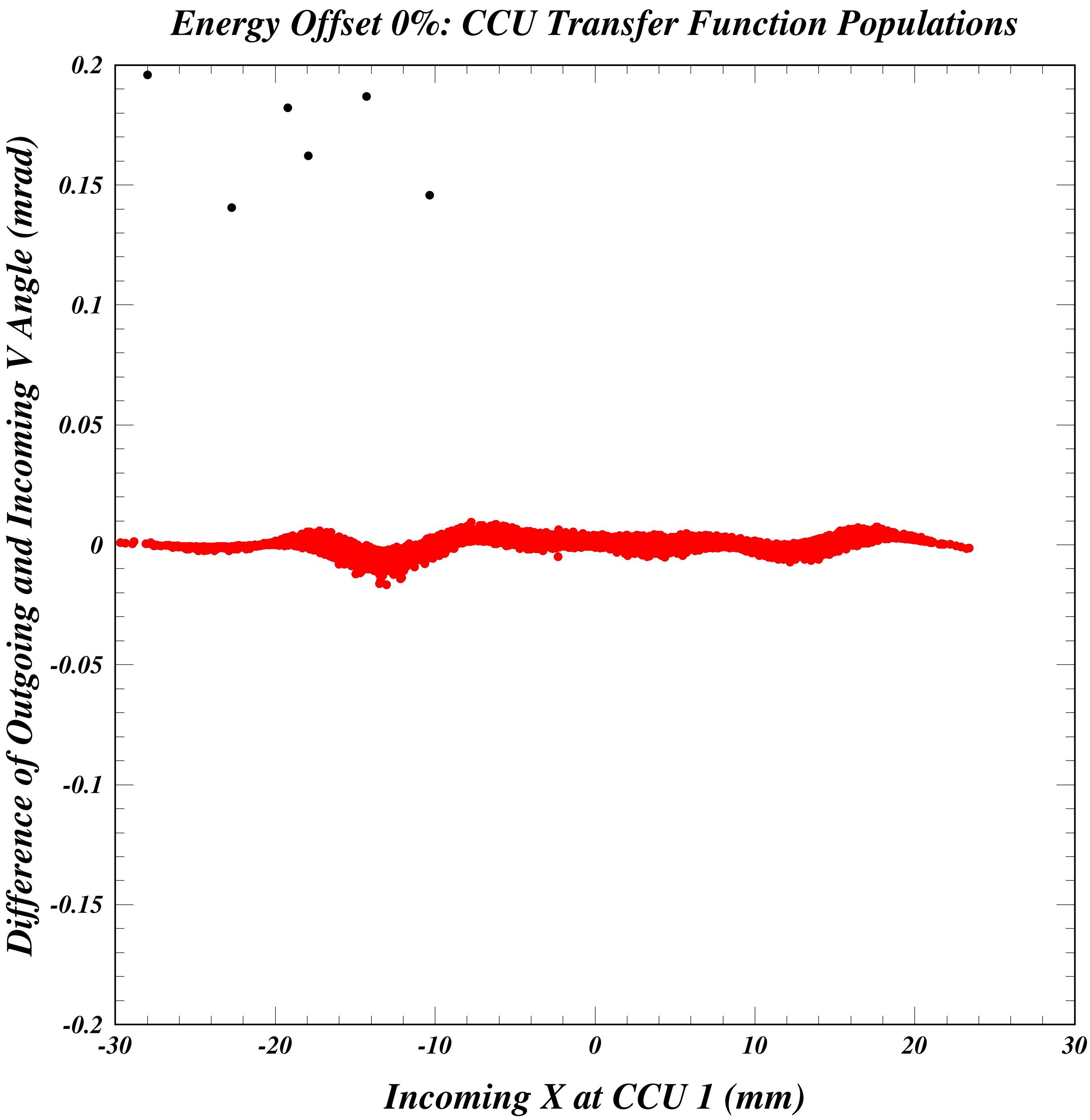

Energy Offset 0%: CCU Transfer Function Populations
Difference of Outgoing and Incoming V Angle (mrad)
0.2
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
-0.2
-2
-1.5
-1
-0.5
0
0.5
1
1.5
2
Incoming Y at CCU 1 (mm)


15/03/23 12.33
Energy Offset 0%: CCU Transfer Function Populations
0.2
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
-0.2
Difference of Outgoing and Incoming V Angle (mrad)
-0.3
-0.2
-0.1
0
0.1
0.2
0.3
Incoming YP at CCU 1 (mrad)

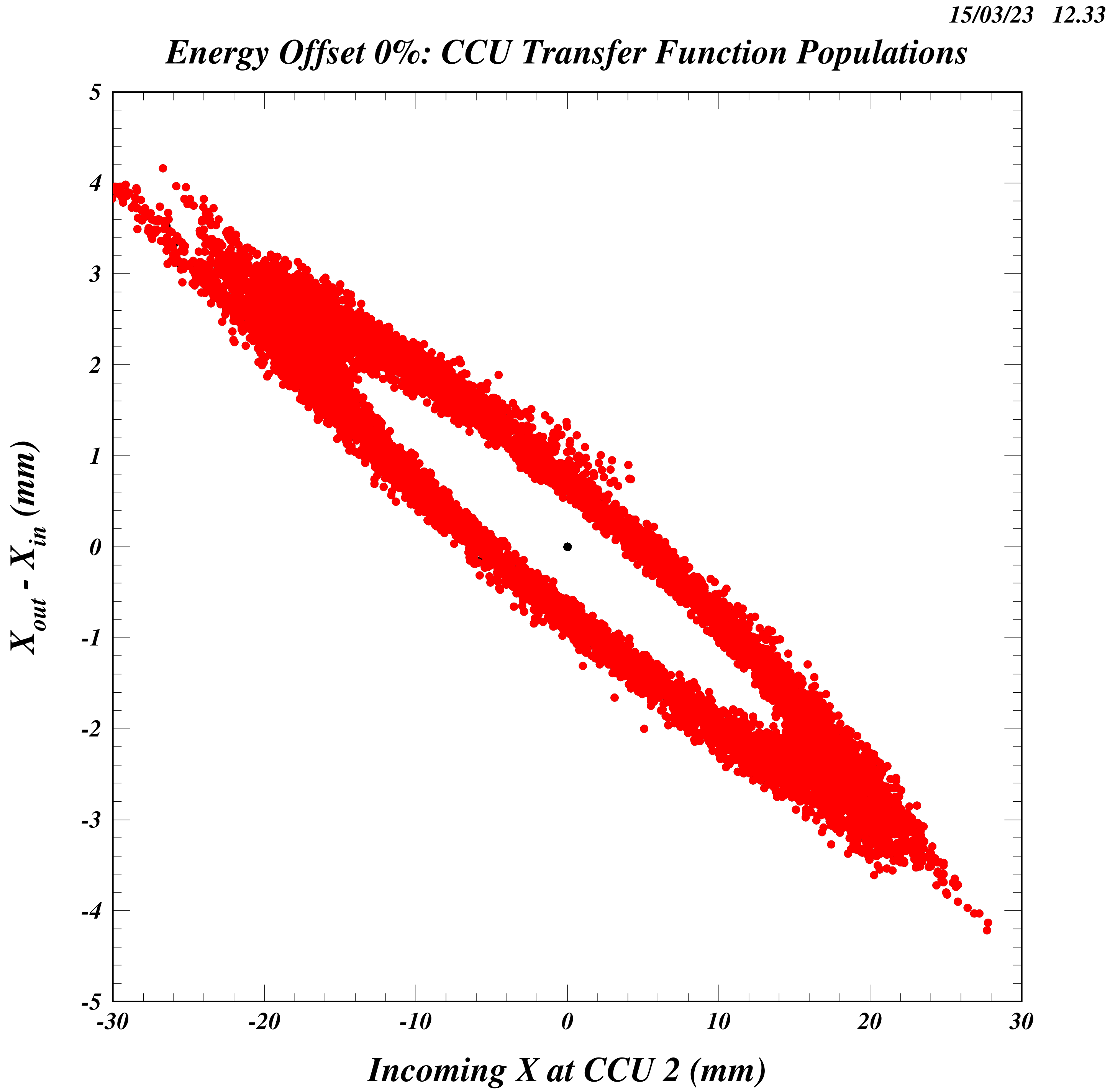
15/03/23   12.33



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

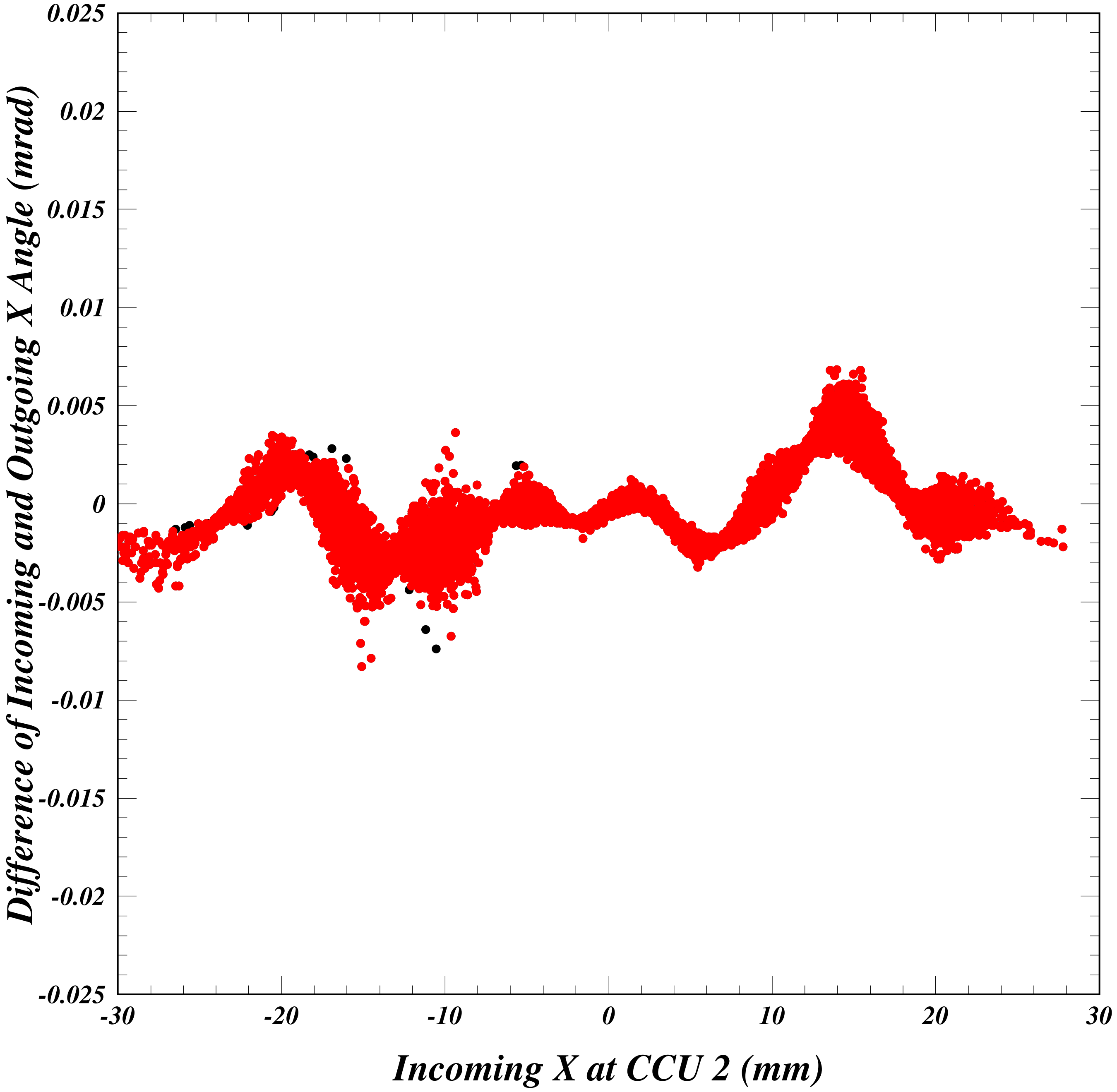


Energy Offset 0%: CCU Transfer Function Populations
0.2
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
-0.2
Difference of Outgoing and Incoming V Angle (mrad)
-30
-20
-10
0
10
20
30
Incoming X at CCU 1 (mm)

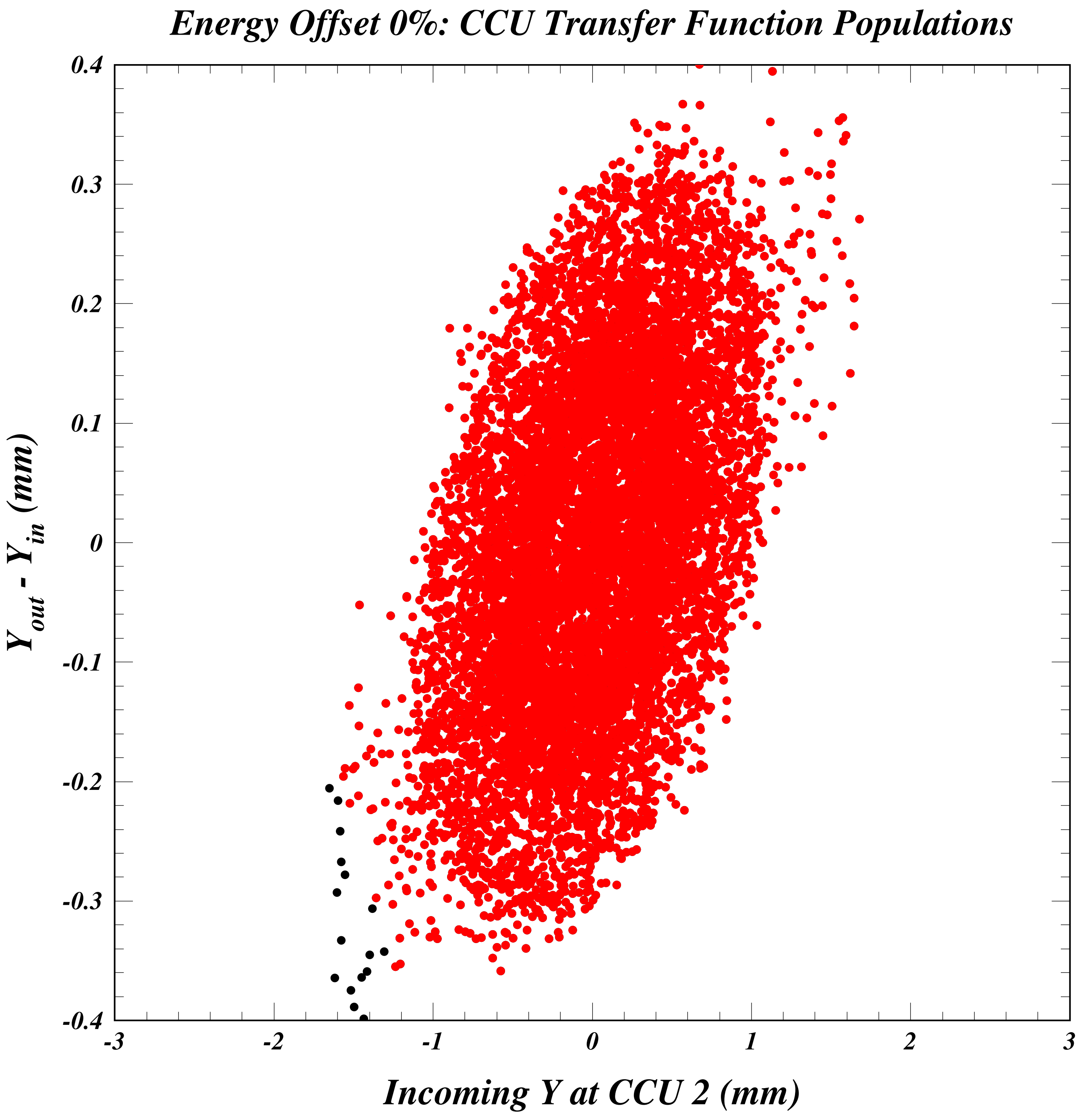

15/03/23 12.33
Energy Offset 0%: CCU Transfer Function Populations
$X_{out} - X_{in}$ (mm)
Incoming X at CCU 2 (mm)
5
4
3
2
1
0
-1
-2
-3
-4
-5
-30
-20
-10
0
10
20
30

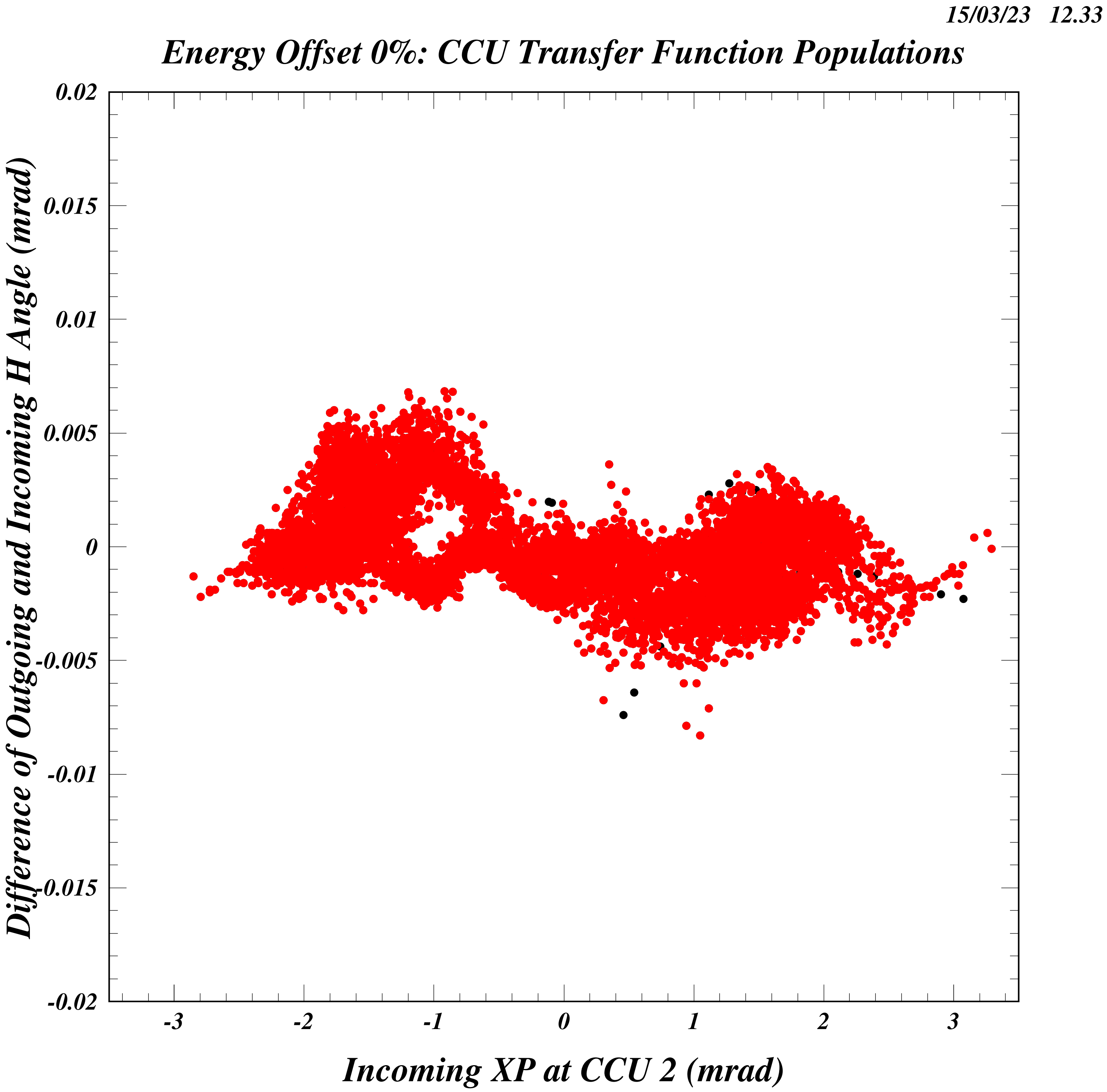
15/03/23 12.33

Energy Offset 0%: CCU Transfer Function Populations

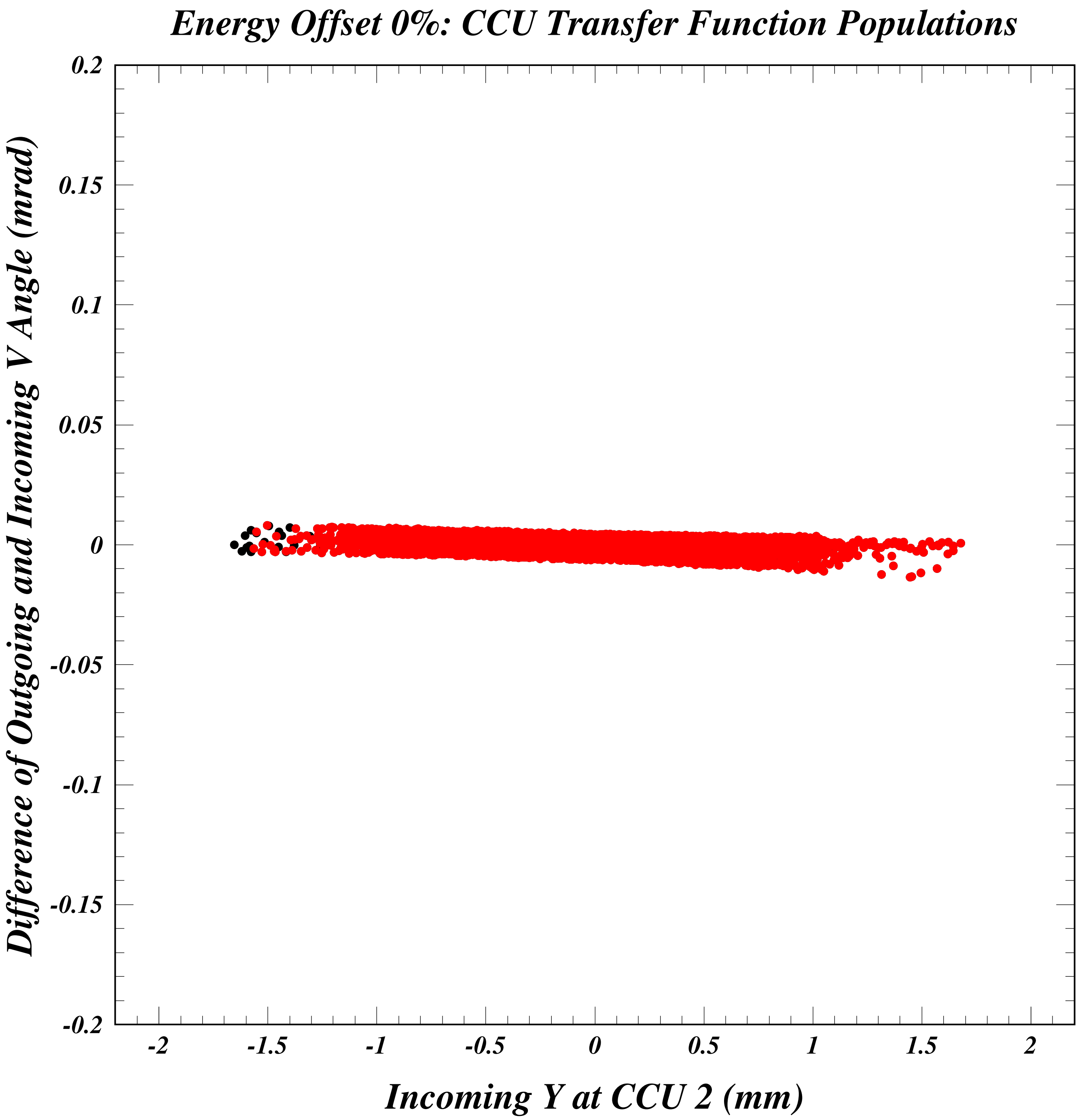


15/03/23 12.33

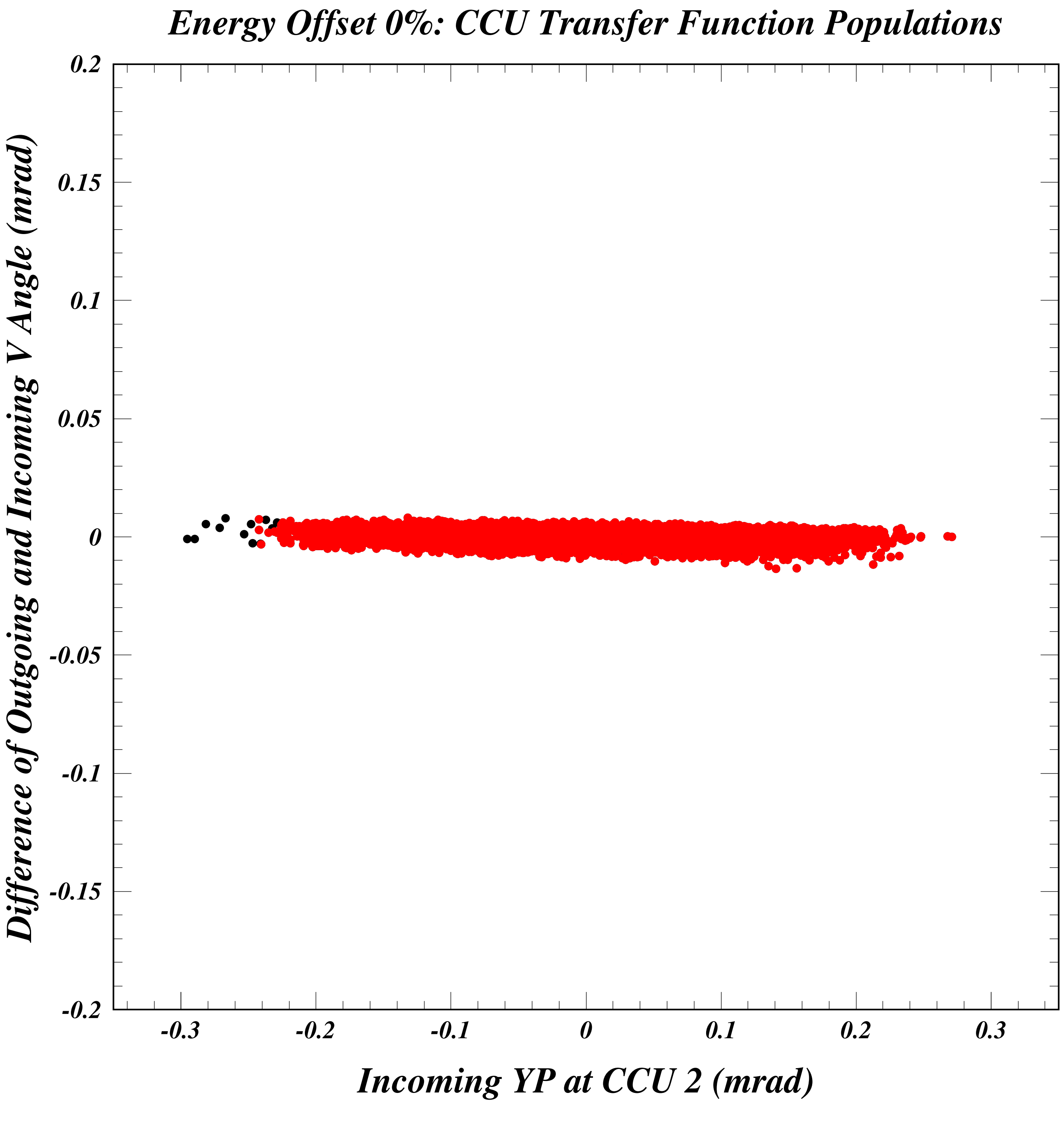

Energy Offset 0%: CCU Transfer Function Populations
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
Y_{out} - Y_{in} (mm)
-3
-2
-1
0
1
2
3
Incoming Y at CCU 2 (mm)


15/03/23 12.33
Energy Offset 0%: CCU Transfer Function Populations
Difference of Outgoing and Incoming H Angle (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
Incoming XP at CCU 2 (mrad)

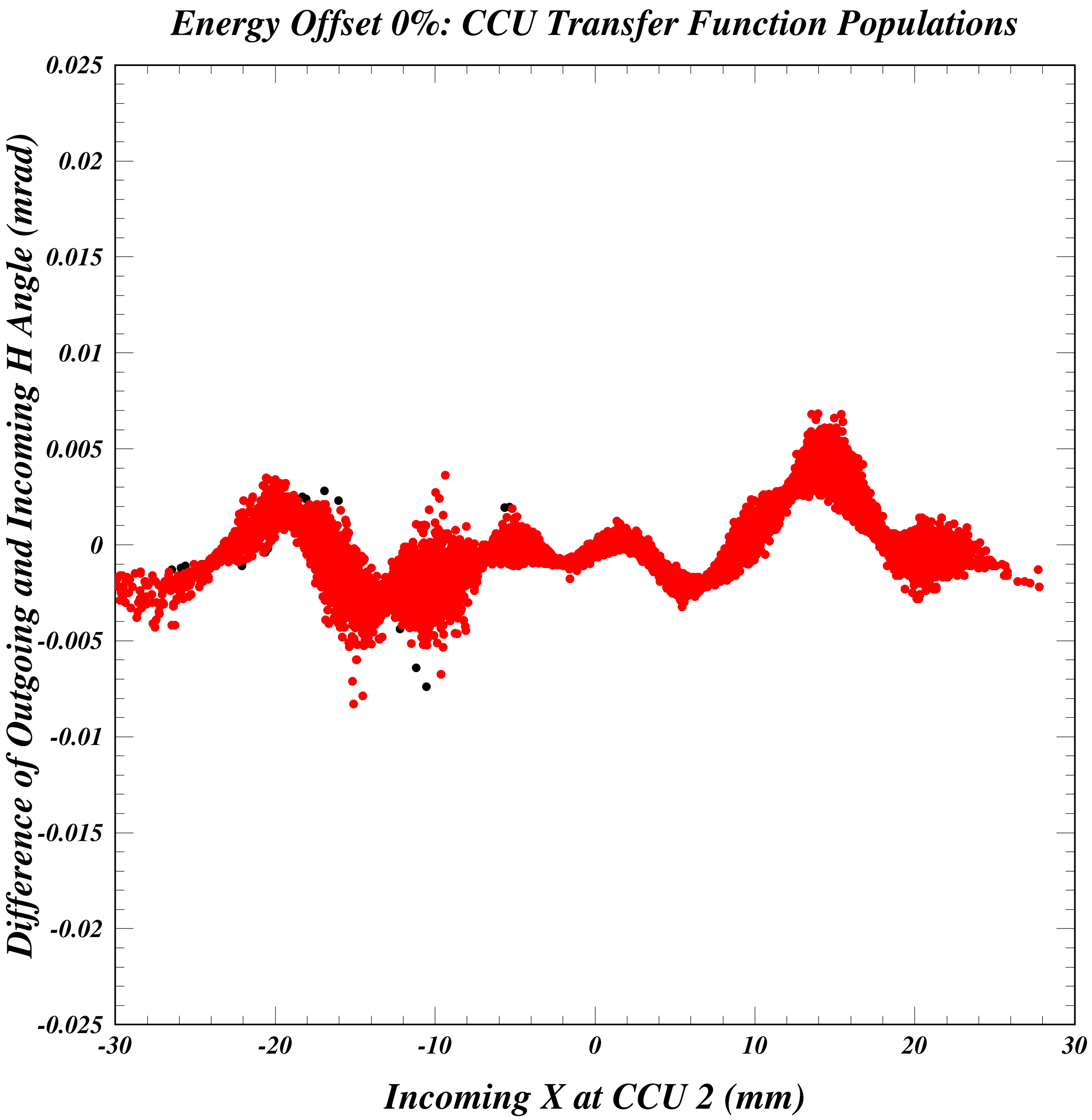
15/03/23 12.33

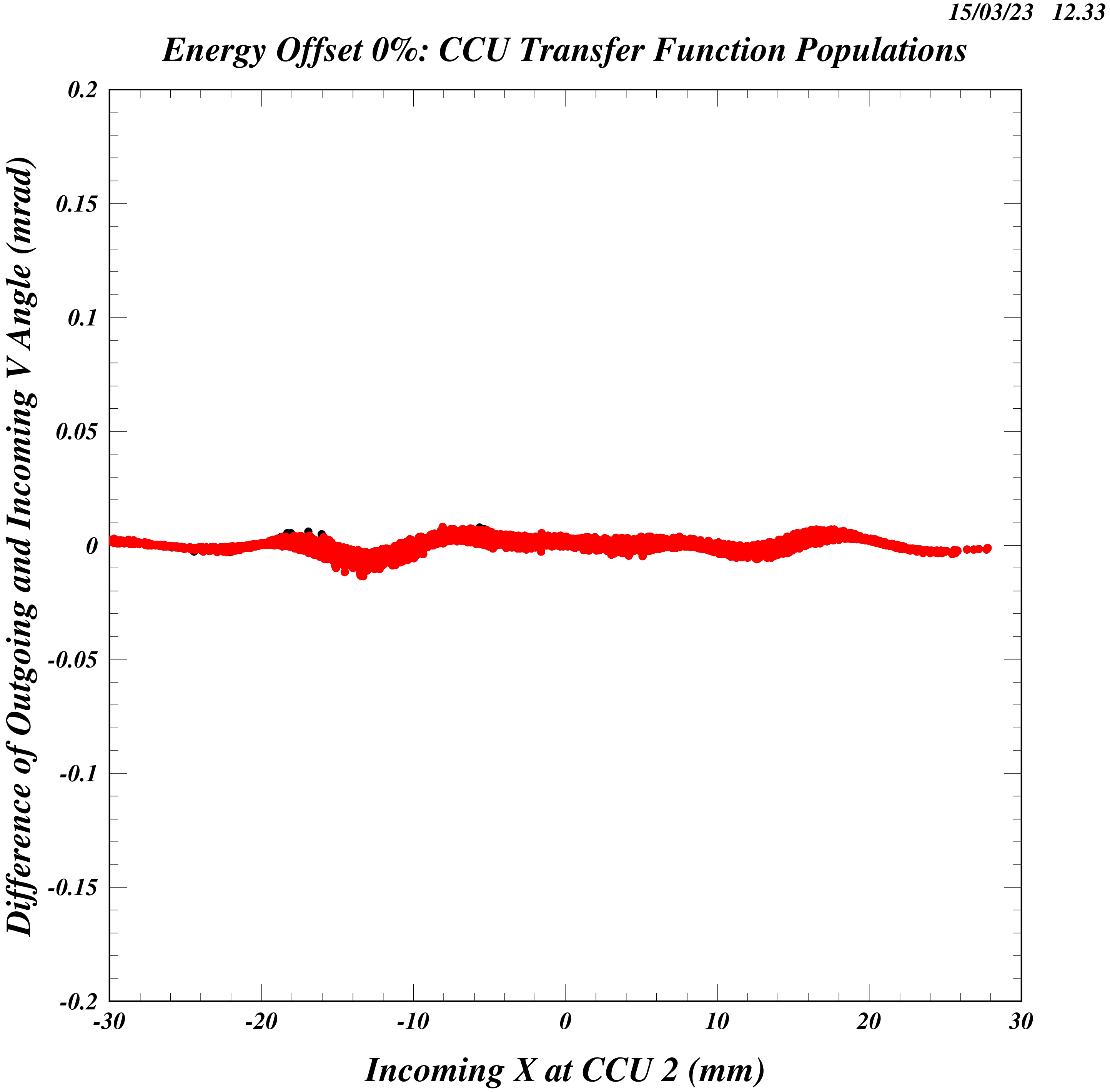

Energy Offset 0%: CCU Transfer Function Populations
0.2
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
-0.2
Difference of Outgoing and Incoming V Angle (mrad)
-2
-1.5
-1
-0.5
0
0.5
1
1.5
2
Incoming Y at CCU 2 (mm)

15/03/23 12.33


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
-0.3
-0.2
-0.1
0
0.1
0.2
0.3
Incoming YP at CCU 2 (mrad)

15/03/23 12.33


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


15/03/23 12.33
Energy Offset 0%: CCU Transfer Function Populations
0.2
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
-0.2
Difference of Outgoing and Incoming V Angle (mrad)
-30
-20
-10
0
10
20
30
Incoming X at CCU 2 (mm)