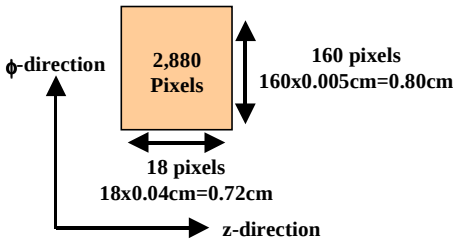
Preliminary PIX00 Results

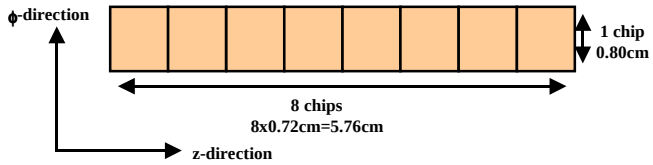
Pixel:
0.040 cm in z direction
0.005 cm in ϕ direction
300 μm = 0.03 cm thick

Chip (2,880 pixles)



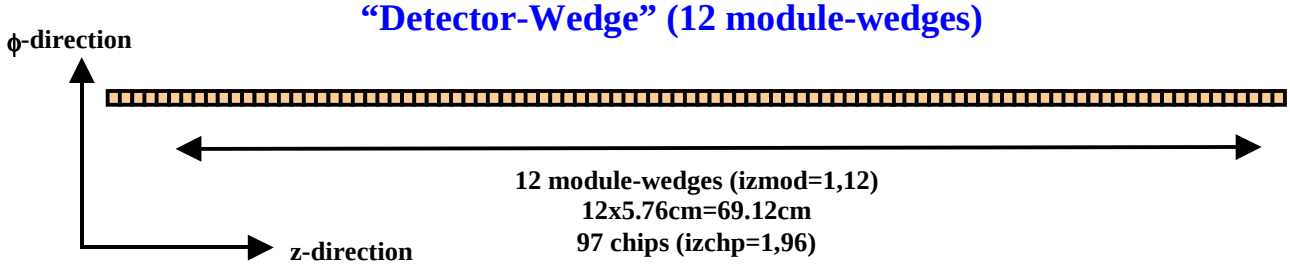
"Chip" (2,880 pixels):
18x0.04cm= 0.72 cm in z direction
160x0.005cm= 0.80 cm in ϕ direction
2,880 pixels (izpix=1,18; ifipix=1,160)

"Module-Wedge" (8 chips)



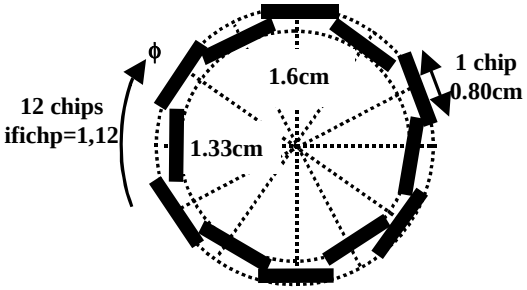
"Module-Wedge" (8 chips):
8x0.72cm= 5.76 cm in z direction
1x0.80cm= 0.8 cm in ϕ direction

"Detector-Wedge" (12 module-wedges)



"Detector-Wedge" (12 module-wedges, 96 chips):
12x5.76cm= 69.12 cm in z direction
1x0.80cm= 0.8 cm in ϕ direction
12 modules (izmod=1,12)
96 chips (izchp=1,96)

"Chip-Ring" (12 chips)



"Chip-Ring" (12 chips):
12 chips (ifichp=1,12)
34,560 pixels (12x2,880)

"Module-Ring" (12 modules):
8 chip-rings
96 chips (8x12)
276,480 pixels (8x34,560)

Full Detector (12 detector-wedges):
1,152 chips (izchp=1,96; ifichp=1,12)
12 module-rings (izmod=1,12)
3,317,760 pixels (12x26,480)
(izchp=1,96; ifichp=1,12; izpix=1,18; ifipix=1,160)

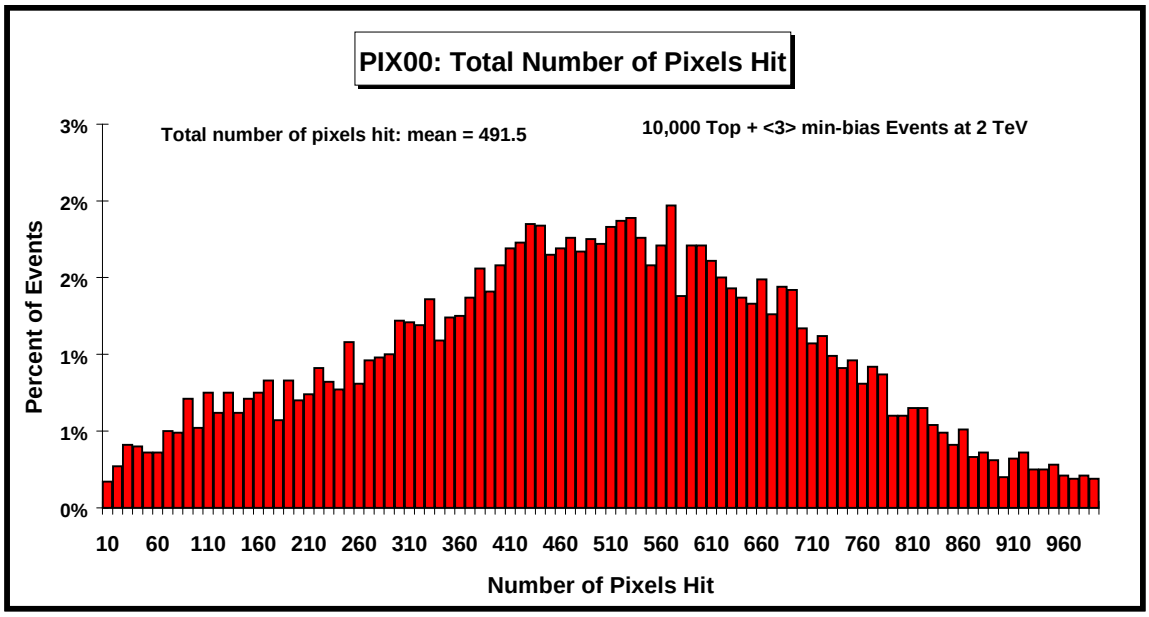
Preliminary PIX00 Results

PIX00: 10,000 Top + <3> min-bias Events at 2 TeV	Average	Abs Max in Run
Number of Pixels Hit	491.5	1533 pixels/3,317,760 pixels
Number of Pixel Hits	491.9	1538 pixels/3,317,760 pixels
Pixel wth Maximum Hits	1.26	4 hits/1 pixel
Chip with Maximum Hits	17.0	67 hits/2,880 pixels
Mod-Wedge with Max Hits	34.6	107 hits/23,040 pixels
Mod-Ring with Max Hits	181.6	611 hits/276,480 pixels
Number of Pixels with > 1 Hit	0.45	9 pixels/3,317,760 pixels
Hits/ Detected Track	3.0	10 hits/1 Track

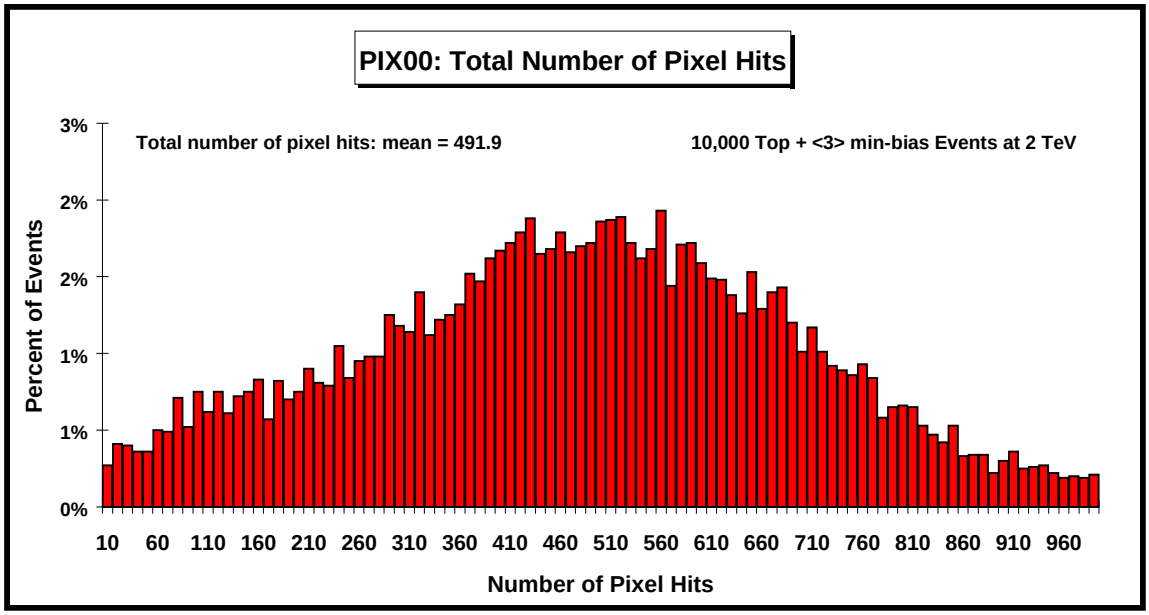
PIX00: 10,000 Top + <3> min-bias Events at 2 TeV					Module-Wedge
			Pixel with Max Hits	Chip with Max Hits	with Max Hits
izmod	Ave Pixels Hit/Tot Pixels	Ave Pixel Hits	Ave Hits/Abs Max Hits	Ave Hits/Abs Max Hits	Ave Hits/Abs Max Hits
1	30.3 / 276,480	30.3	0.94 / 2	4.5 / 60	8.0 / 90
2	35.1 / 276,480	35.2	0.95 / 3	4.9 / 53	8.9 / 97
3	40.3 / 276,480	40.4	0.97 / 3	5.3 / 53	9.7 / 89
4	43.9 / 276,480	43.9	0.98 / 3	5.6 / 46	10.4 / 107
5	46.7 / 276,480	46.7	0.98 / 3	5.8 / 50	10.9 / 98
6	48.9 / 276,480	49.0	0.99 / 3	6.0 / 46	11.3 / 92
7	48.2 / 276,480	48.3	1.00 / 3	6.0 / 44	11.2 / 106
8	46.5 / 276,480	46.5	0.98 / 4	5.8 / 43	10.9 / 99
9	43.5 / 276,480	43.5	0.98 / 3	5.6 / 55	10.4 / 98
10	40.5 / 276,480	40.5	0.97 / 3	5.3 / 54	9.8 / 85
11	36.1 / 276,480	36.1	0.96 / 2	4.9 / 63	9.0 / 97
12	31.5 / 276,480	31.6	0.94 / 3	4.5 / 67	8.1 / 83
all	**491.5 / 3,317,760**	**491.9**	**1.26 / 4**	**17.0 / 67**	**34.6 / 107**

Preliminary PIX00 Results

PIX00: Total number of pixels hit (Top + <3> min-bias)

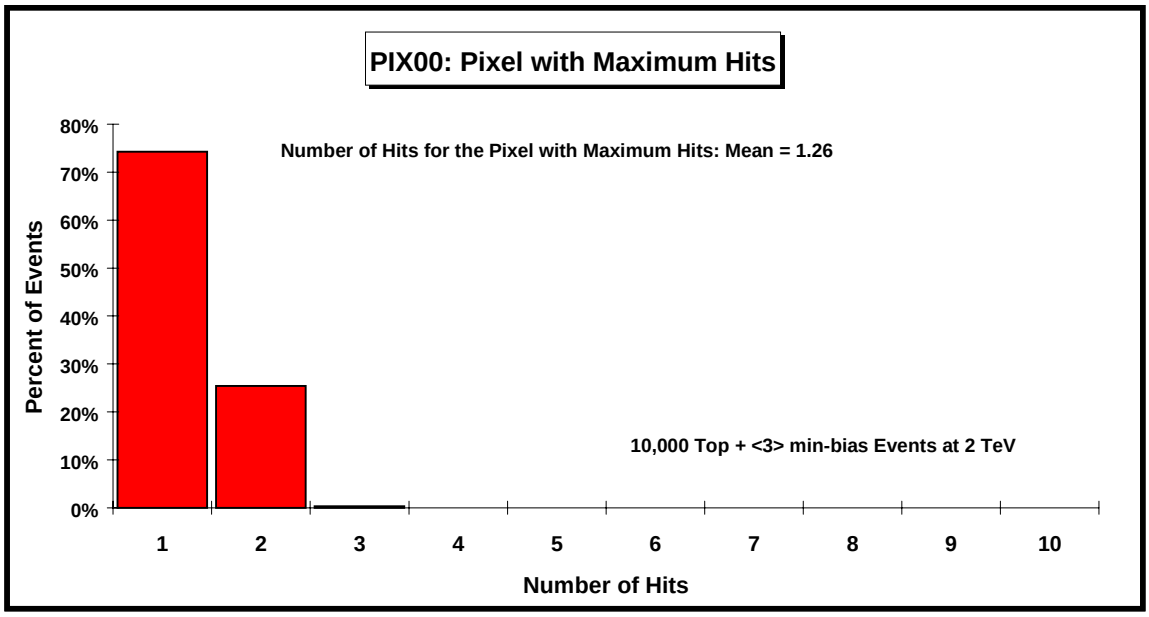


PIX00: Total number of pixel hits (Top + <3> min-bias)

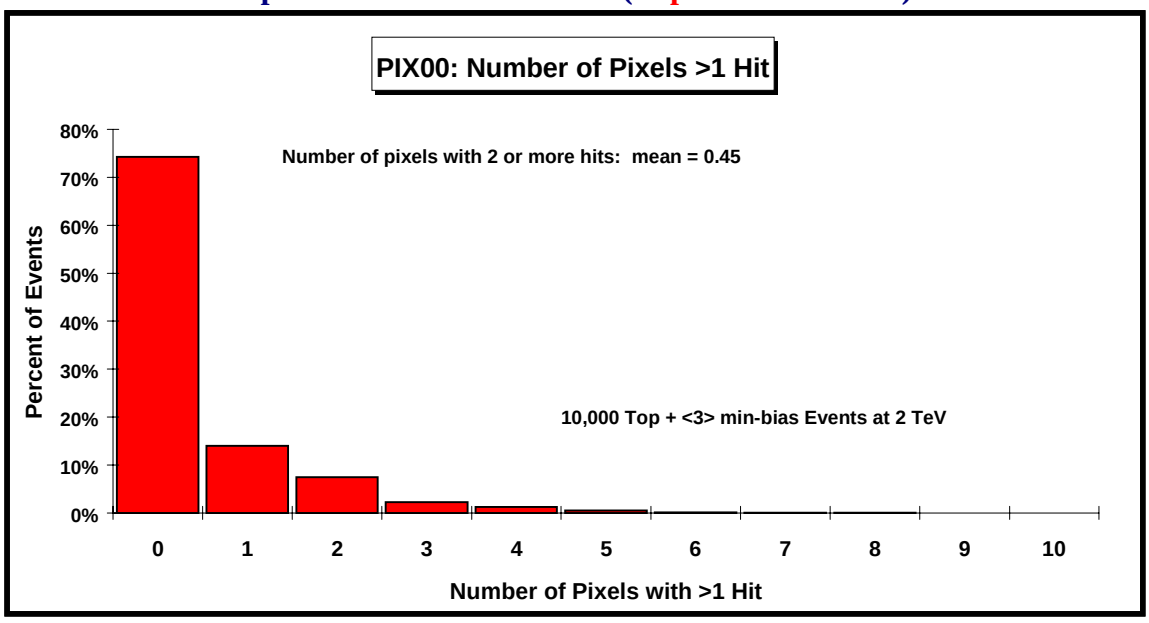


Preliminary PIX00 Results

PIX00: Pixel with maximum hits (Top + <3> min-bias)

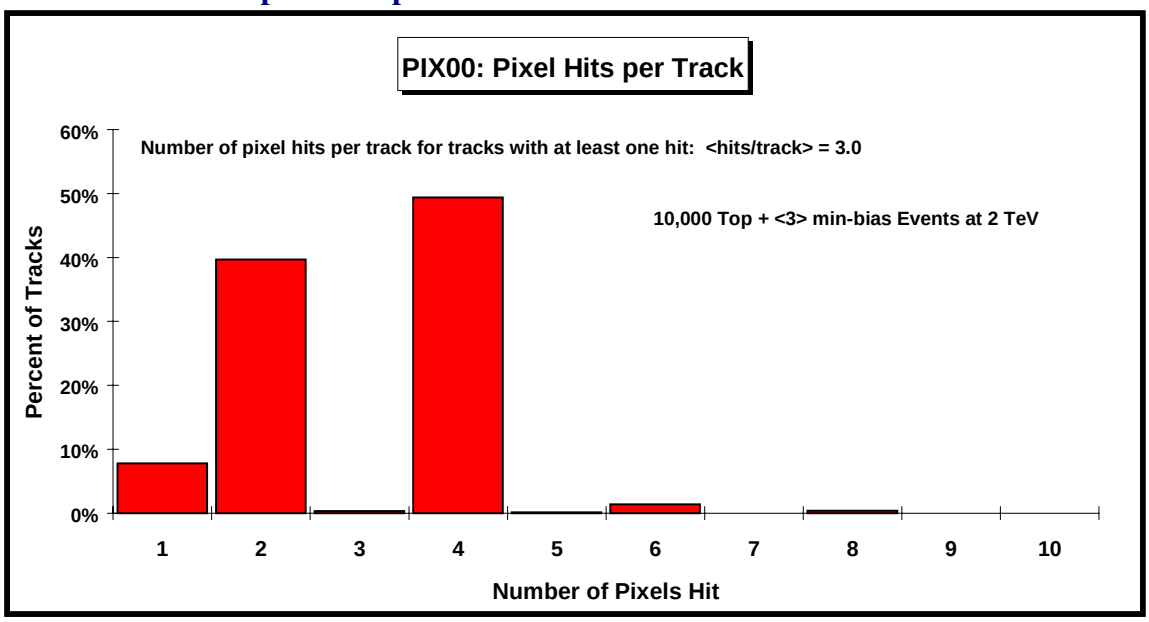


PIX00: Number of pixels with 2 or more hits (Top + <3> min-bias)

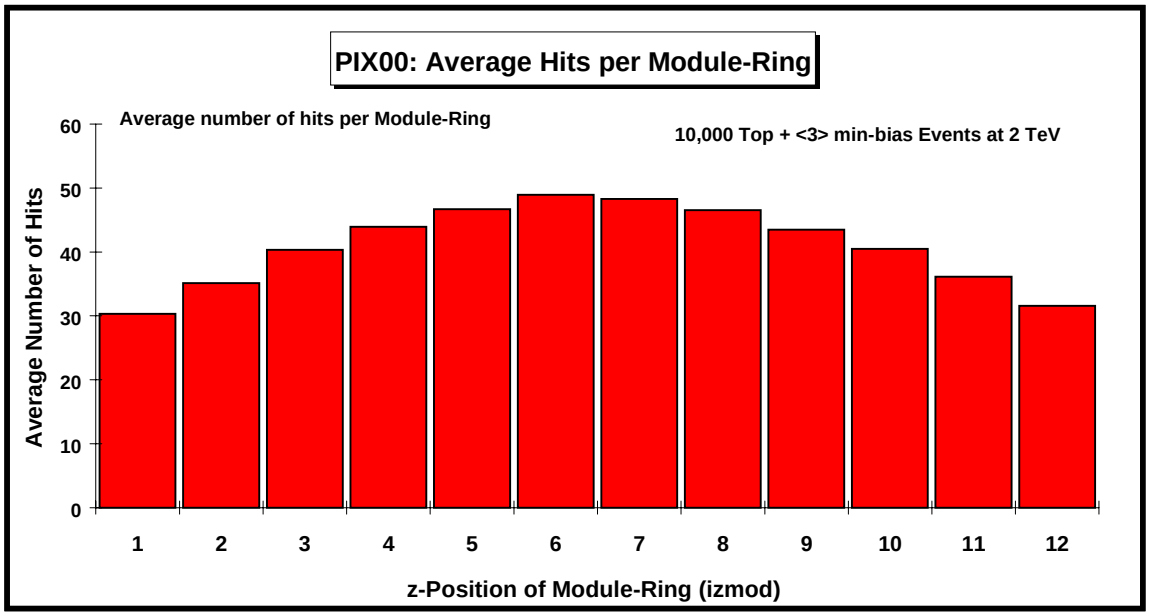


Preliminary PIX00 Results

PIX00: Number of pixel hits per track for tracks with at least one hit

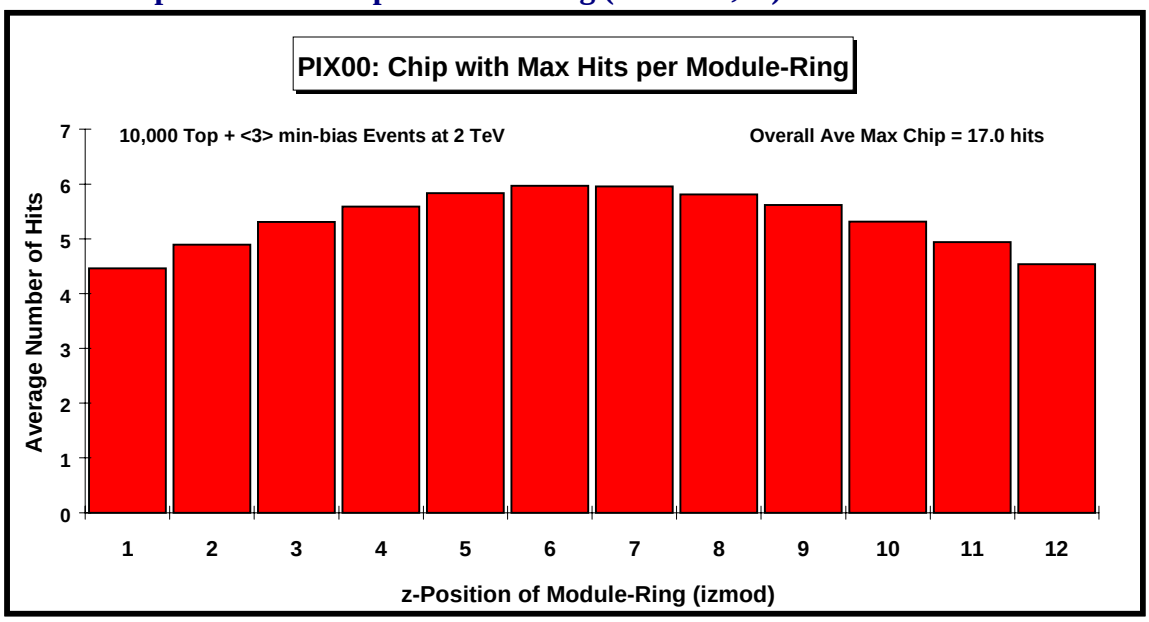


PIX00: Total number of hits per module-ring (izmod=1,12)

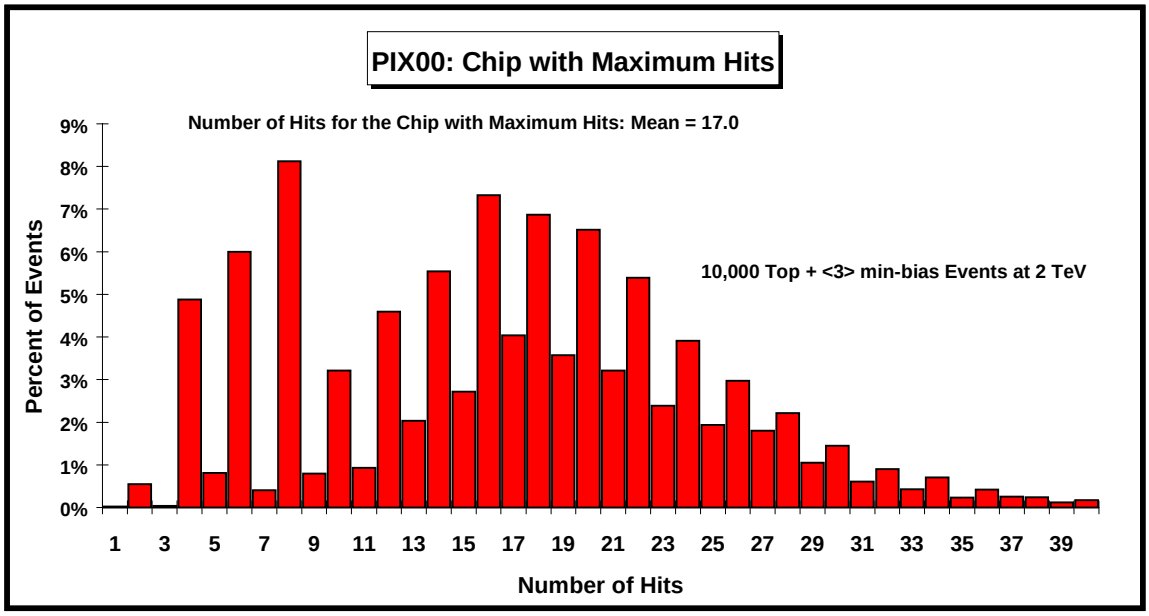


Preliminary PIX00 Results

PIX00: Chip with max hits per module-ring (izmod=1,12)

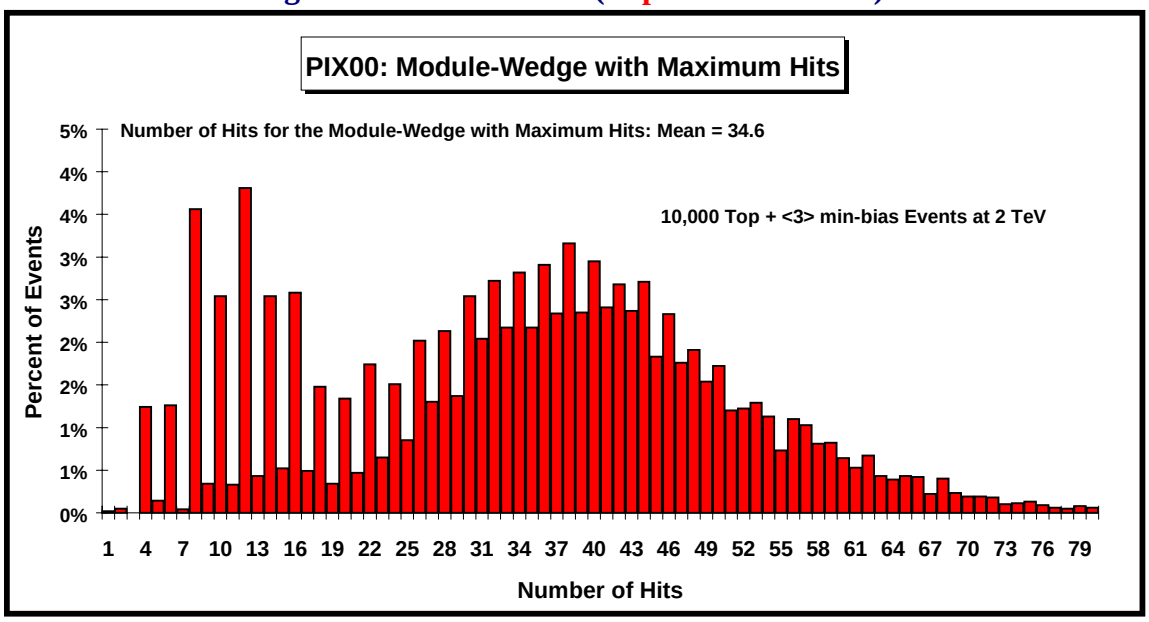


PIX00: Chip with maximum hits (Top + <3> min-bias)

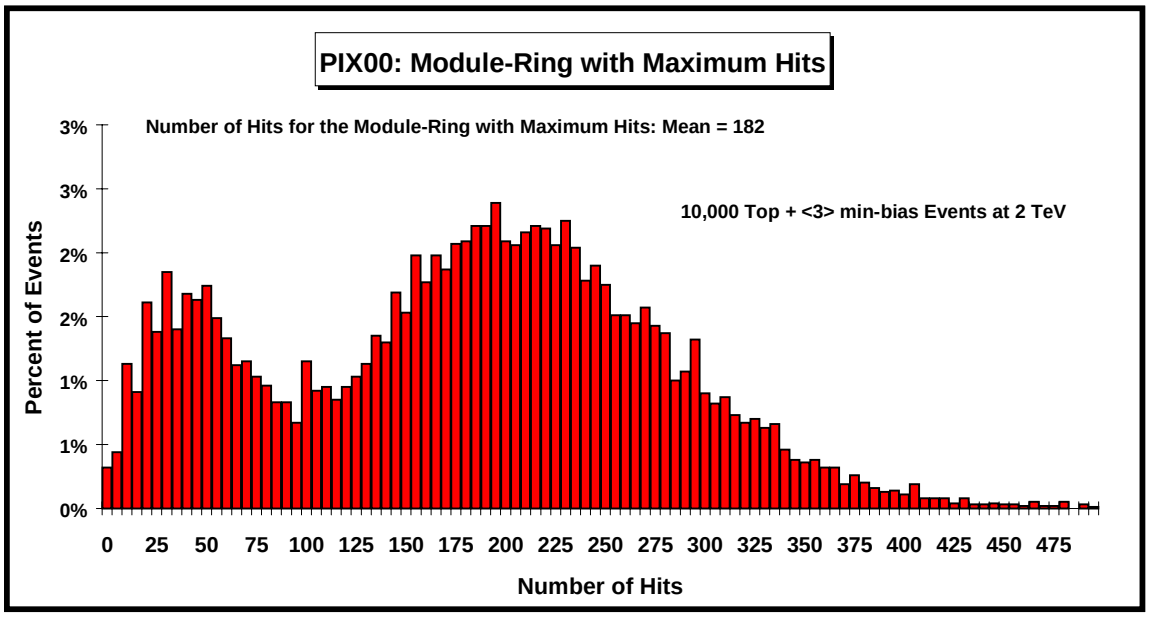


Preliminary PIX00 Results

PIX00: Module-Wedge with maximum hits (Top + <3> min-bias)



PIX00: Module-Ring with maximum hits (Top + <3> min-bias)



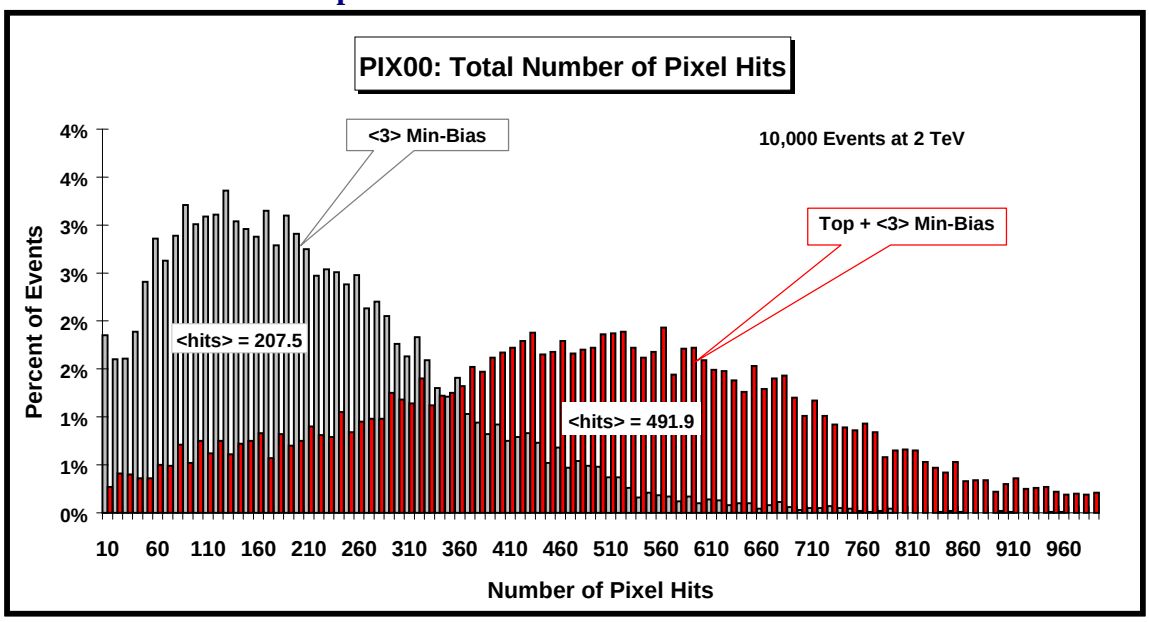
Preliminary PIX00 Results

PIX00: 10,000 <3> Min-Bias Events at 2 TeV	Average	Abs Max in Run
Number of Pixels Hit	207.5	951 pixels/3,317,760
Number of Pixel Hits	207.5	951 pixels/3,317,760
Pixel wth Maximum Hits	1.00	2 hits/1 pixel
Chip with Maximum Hits	6.4	18 hits/2,880 pixels
Mod-Wedge with Max Hits	11.6	40 hits/23.040 pixels
Mod-Ring with Max Hits	47.4	251 hits/276,480
Number of Pixels with > 1 Hit	0.02	4 pixels/3,317,760 pixels
Hits/ Detected Track	3.0	10 hits/1 Track

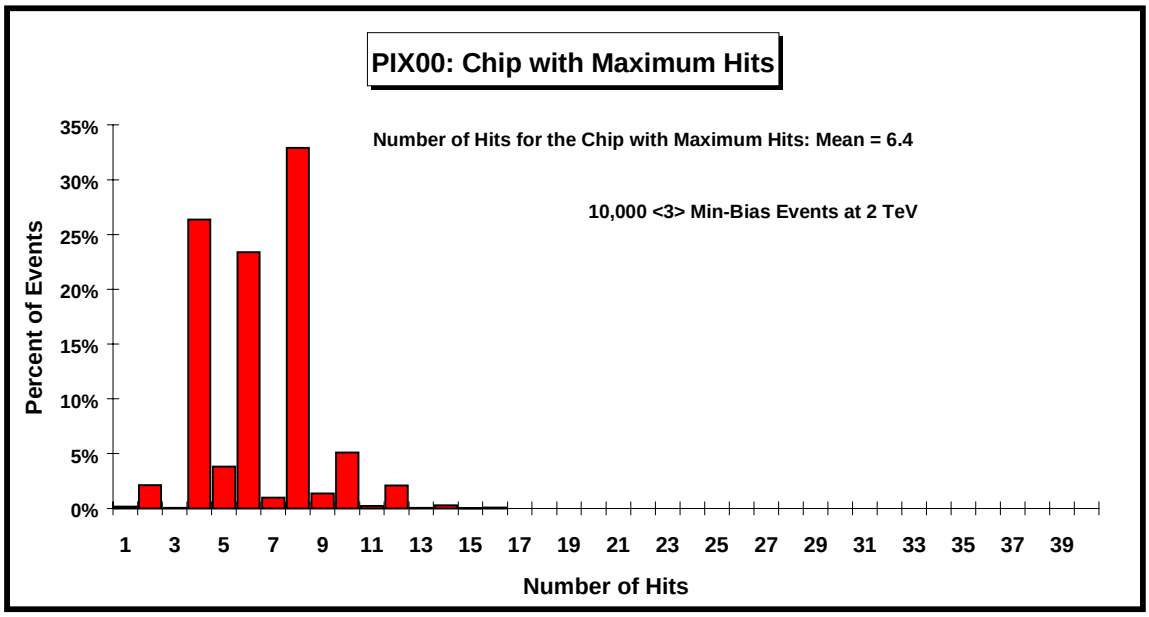
PIX00: 10,000 <3> Min-Bias Events at 2 TeV			Pixel with Max Hits	Chip with Max Hits	Mod-Wedge with Max Hits
izmod	Ave Pixels Hit/Tot Pixels	Ave Pixel Hits	Ave Hits/Abs Max Hits	Ave Hits/Abs Max Hits	Ave Hits/Abs Max Hits
1	13.6 / 276,480	13.6	0.82 / 2	2.9 / 14	4.6 / 32
2	15.3 / 276,480	15.3	0.84 / 2	3.1 / 14	5.0 / 27
3	16.9 / 276,480	16.9	0.86 / 2	3.3 / 16	5.3 / 36
4	18.4 / 276,480	18.4	0.87 / 2	3.4 / 16	5.6 / 34
5	19.3 / 276,480	19.3	0.88 / 2	3.5 / 16	5.8 / 32
6	19.7 / 276,480	19.7	0.88 / 2	3.6 / 16	5.9 / 33
7	20.0 / 276,480	20.0	0.89 / 2	3.6 / 14	5.9 / 38
8	19.6 / 276,480	19.6	0.88 / 2	3.5 / 14	5.8 / 36
9	18.5 / 276,480	18.5	0.87 / 2	3.4 / 14	5.6 / 31
10	17.2 / 276,480	17.2	0.86 / 2	3.3 / 16	5.3 / 34
11	15.6 / 276,480	15.6	0.84 / 2	3.1 / 18	5.0 / 40
12	13.6 / 276,480	13.6	0.82 / 2	2.8 / 16	4.6 / 29
all	**207.5 / 3,317,760**	**207.5**	**1.00 / 2**	**6.4 / 18**	**11.6 / 40**

Preliminary PIX00 Results

PIX00: Total number of pixel hits

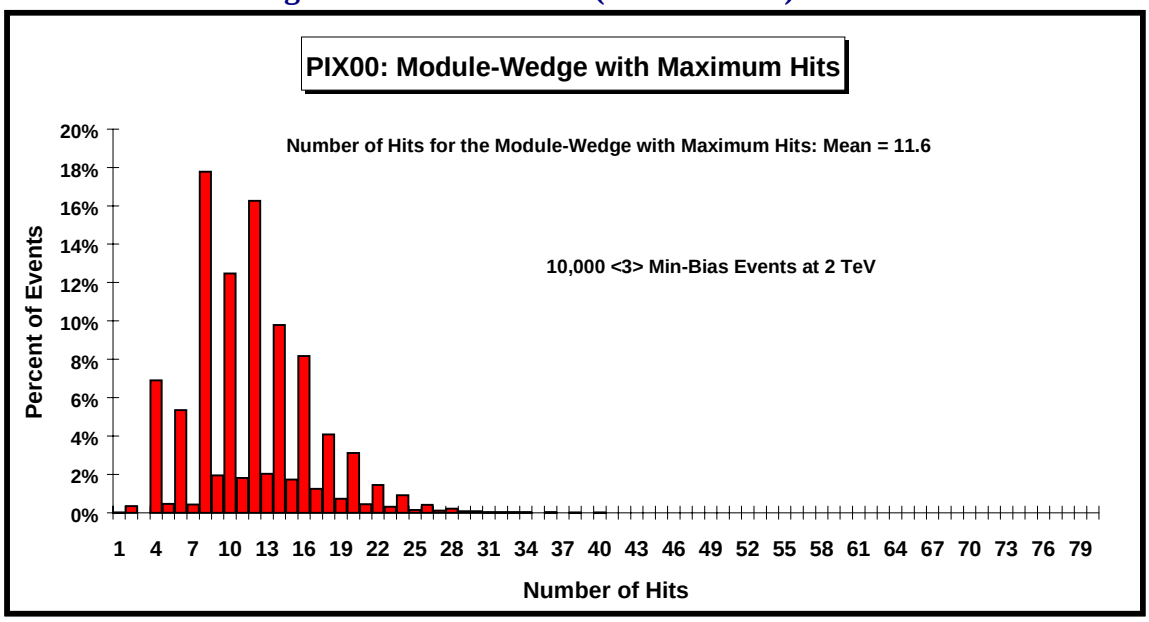


PIX00: Chip with maximum hits (<3> min-bias)

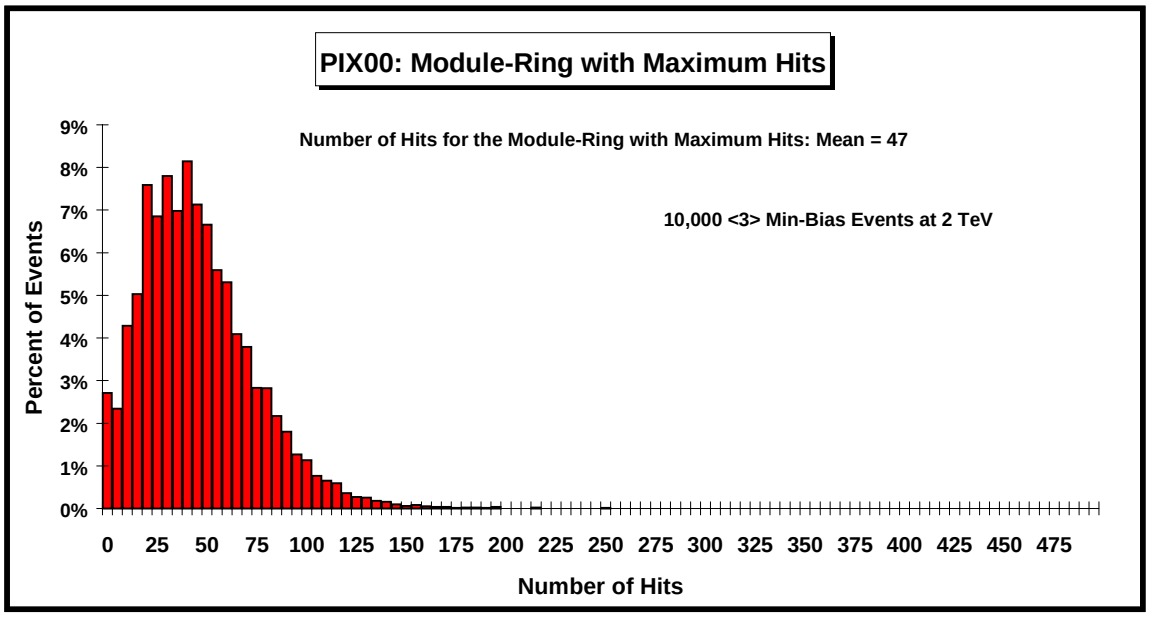


Preliminary PIX00 Results

PIX00: Module-Wedge with maximum hits (<3> min-bias)

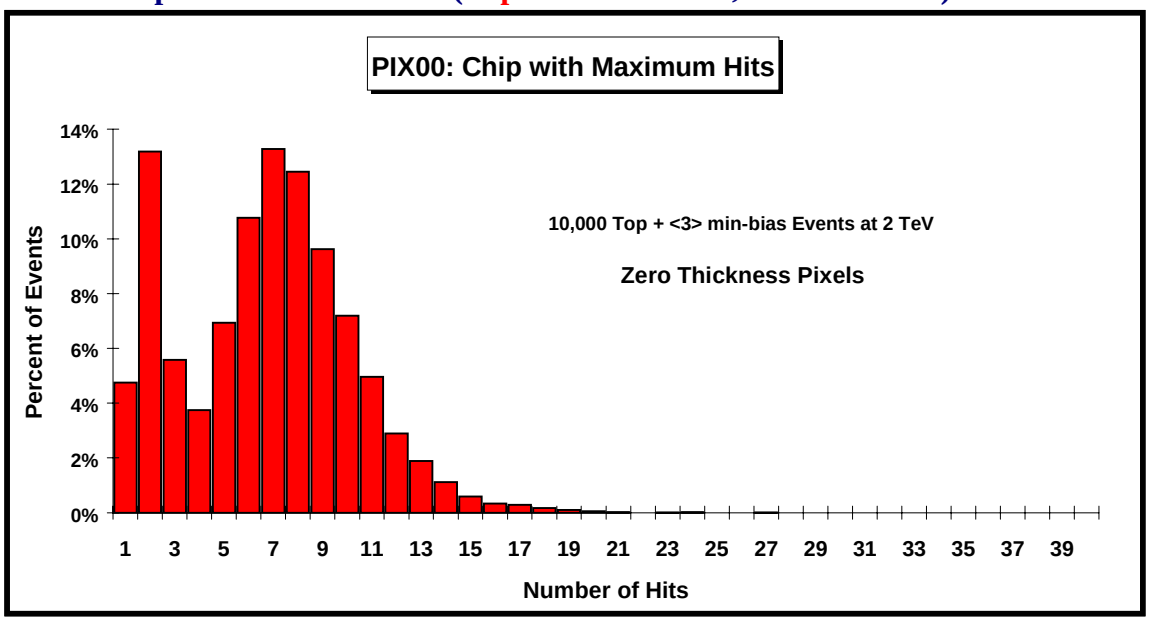


PIX00: Module-Ring with maximum hits (<3> min-bias)

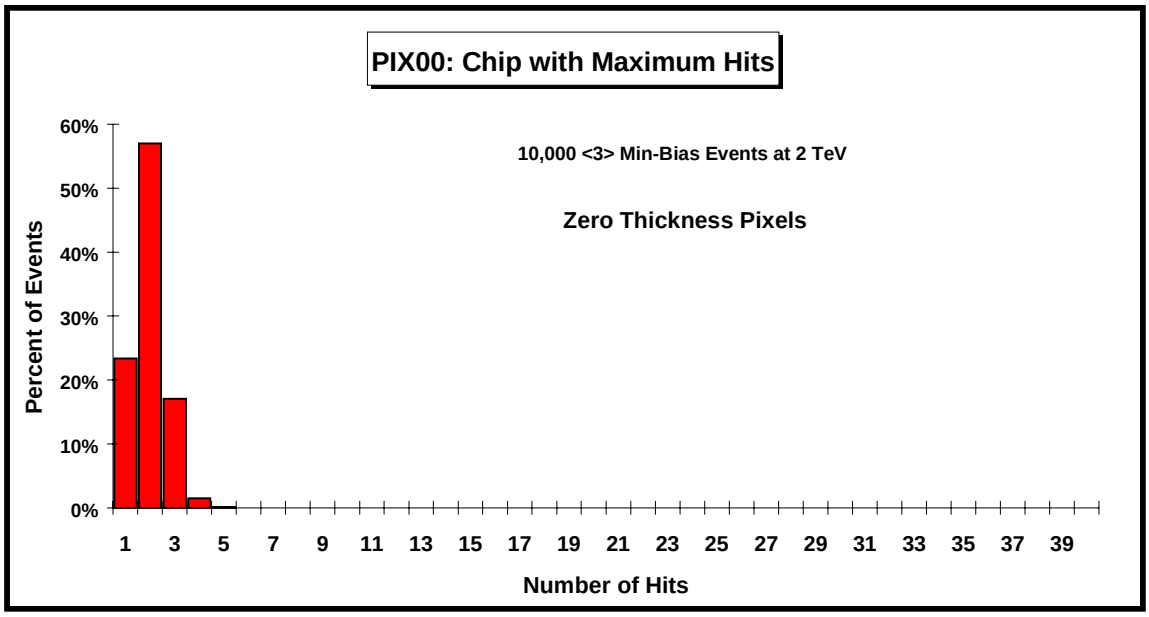


Preliminary PIX00 Results

PIX00: Chip with maximum hits (Top + <3> min-bias, zero thickness)



PIX00: Chip with maximum hits (<3> min-bias, zero thickness)



Preliminary PIX00 Results

PIX00: Chip with maximum hits (Top + <3> min-bias, 250 micron pixel thickness)