

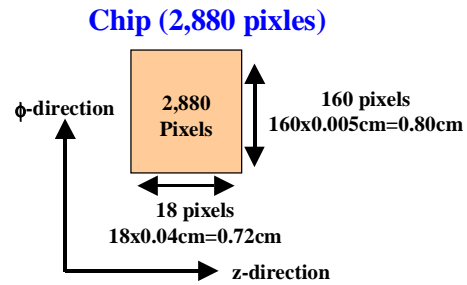
PIX00 Results

Pixel:

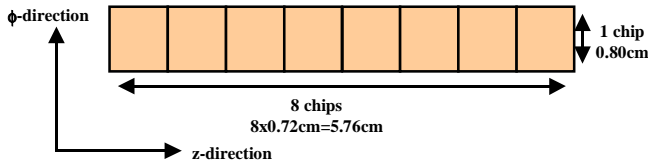
0.040 cm in z direction
 0.005 cm in ϕ direction
 250 μm = 0.025 cm thick

“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)



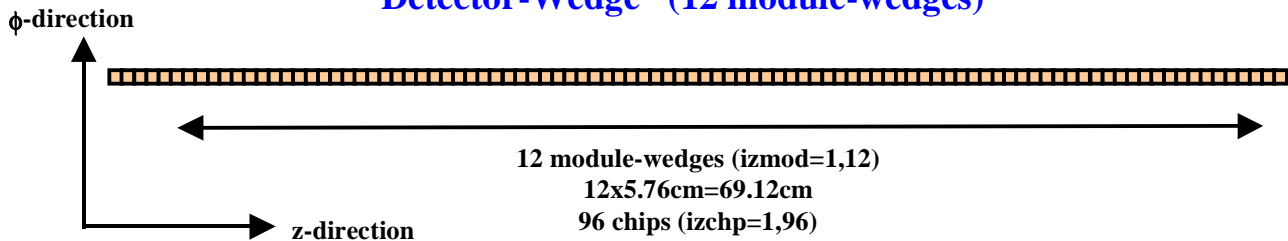
“Module-Wedge” (8 chips)



“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)

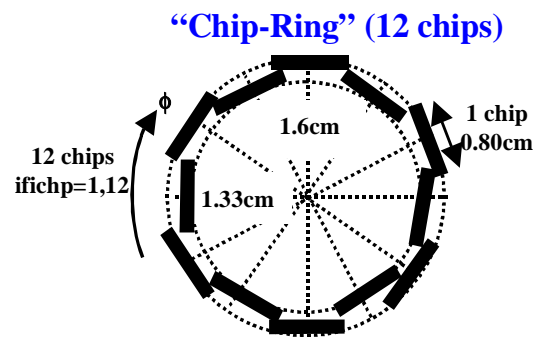


“Detector-Wedge” (12 module-wedges, 96 chips):

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):

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):

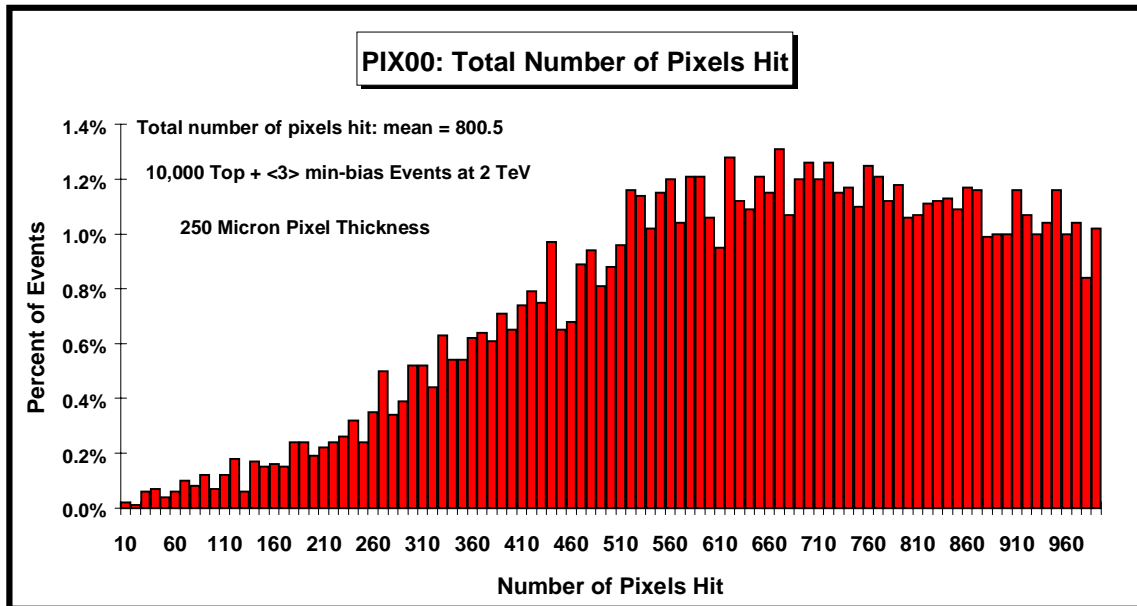
1,152 chips (izchp=1,96; ifichp=1,12)
 12 module-rings (izmod=1,12)
 3,317,760 pixels (12x26,480)
 (izchp=1,96; ifichp=1,12; izpix=1,18; ifipix=1,160)

PIX00 Results

PIX00: 10,000 Top + <3> min-bias Events at 2 TeV ($\sigma_z = 30$ cm)		
	Average	Abs Max in Run
Number of Pixels Hit	800.5	2545 pixels/3,317,760 pixels
Number of Pixel Hits	800.9	2549 pixels/3,317,760 pixels
Pixel wth Maximum Hits	1.23	3 hits/1 pixel
Chip with Maximum Hits	21.7	55 hits/2,880 pixels
Mod-Wedge with Max Hits	43.5	139 hits/23,040 pixels
Mod-Ring with Max Hits	184.6	531 hits/276,480 pixels
Number of Pixels with > 1 Hit	0.42	27 pixels/3,317,760 pixels
Hits/ Detected Track	4.3	98 hits/1 Track

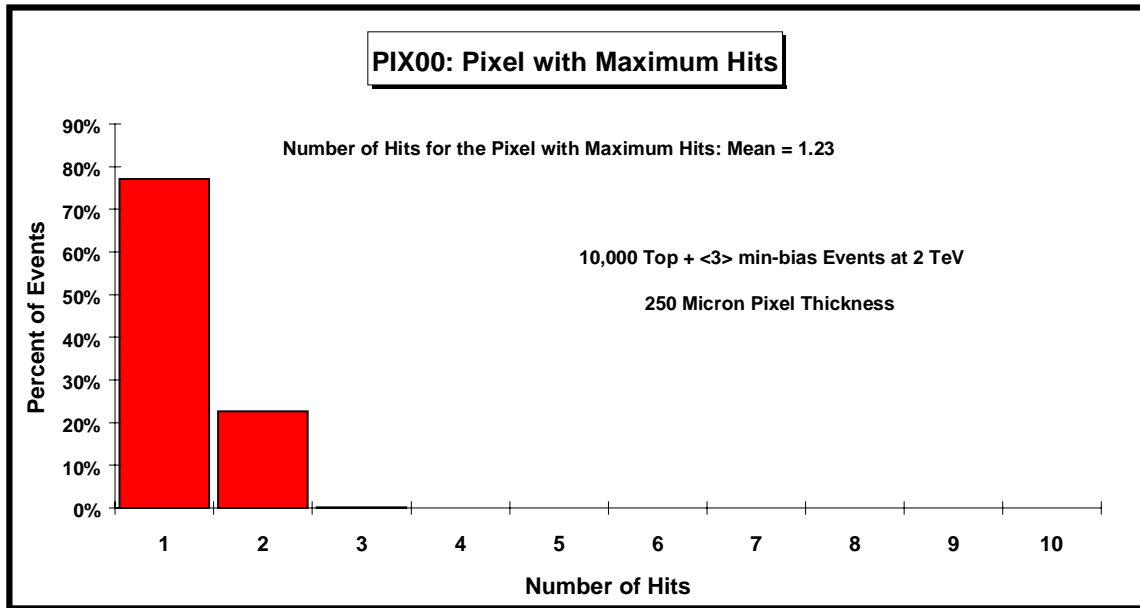
250 micron thick pixels

PIX00: Total number of pixels hit (Top + <3> min-bias, $\sigma_z = 30$ cm)

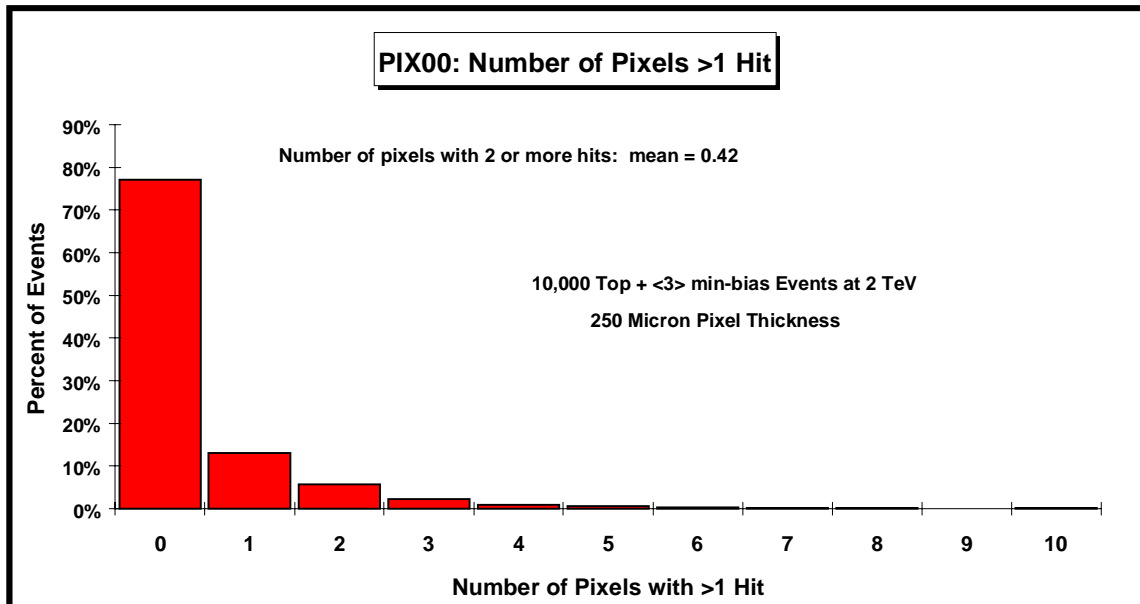


PIX00 Results

PIX00: Pixel with maximum hits (**Top + <3> min-bias**, $\sigma_z = 30$ cm)

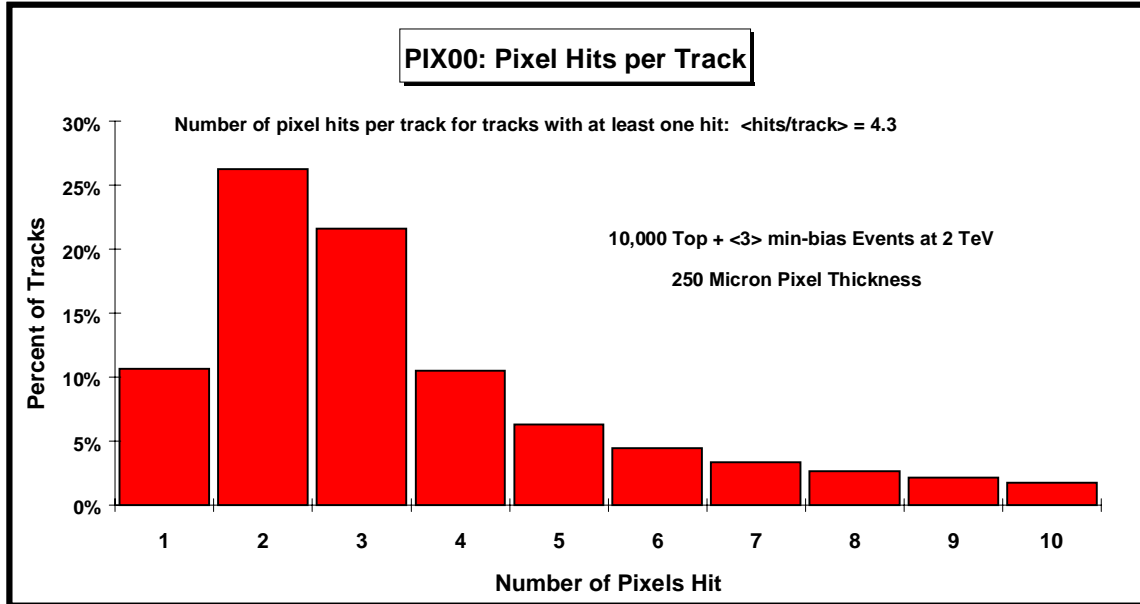


PIX00: Number of pixels with 2 or more hits (**Top + <3> min-bias**, $\sigma_z = 30$ cm)



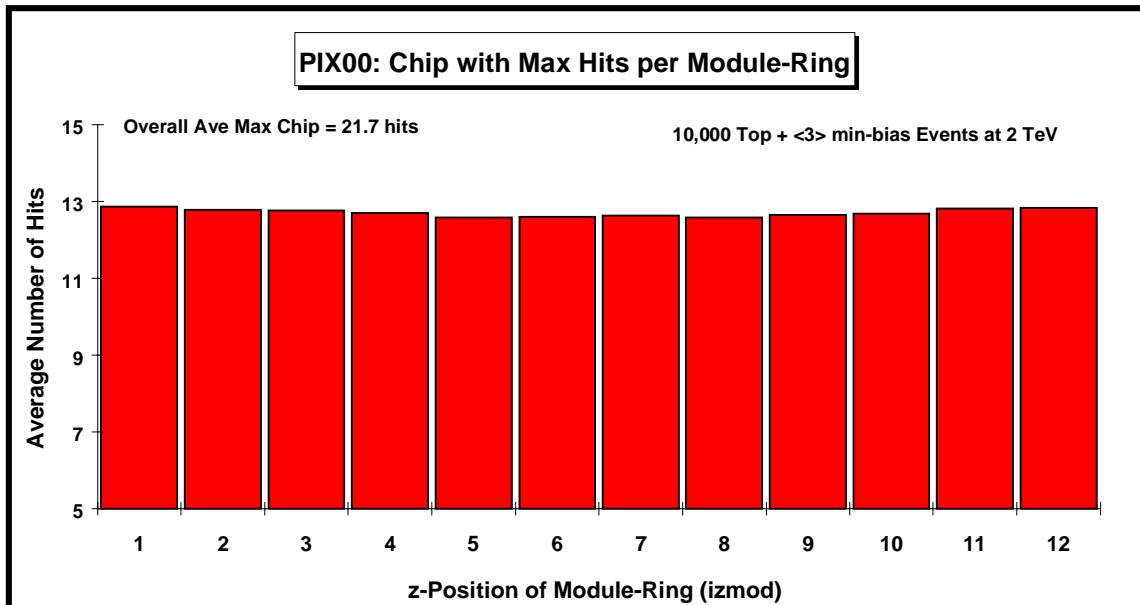
PIX00 Results

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



Top + <3> min-bias, $\sigma_z = 30$ cm

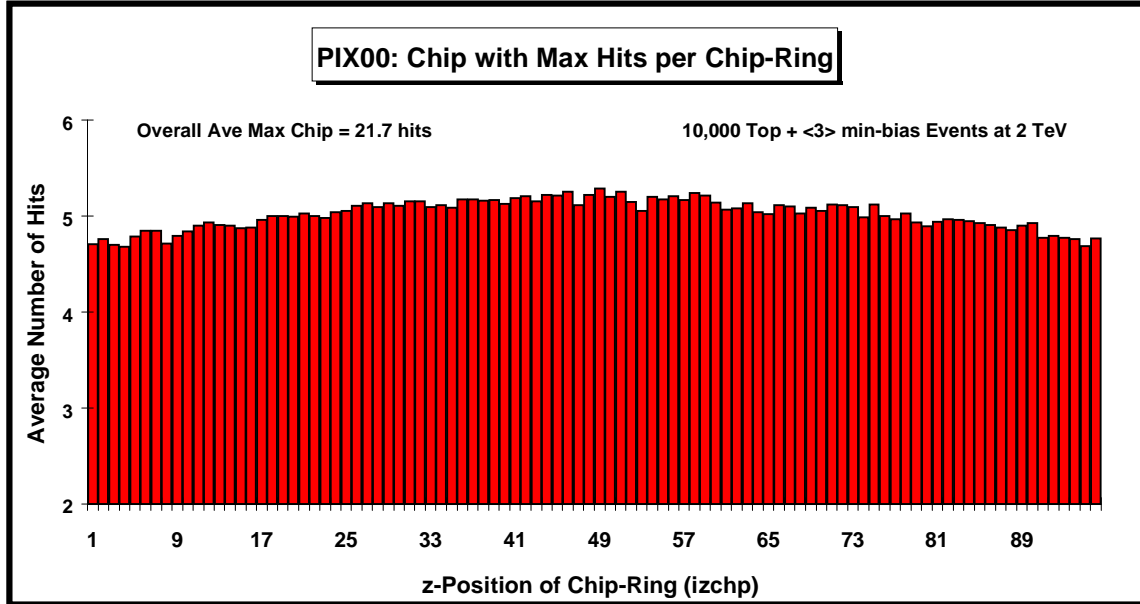
PIX00: Chip with max hits per module-ring (izmod=1,12)



Top + <3> min-bias, $\sigma_z = 30$ cm

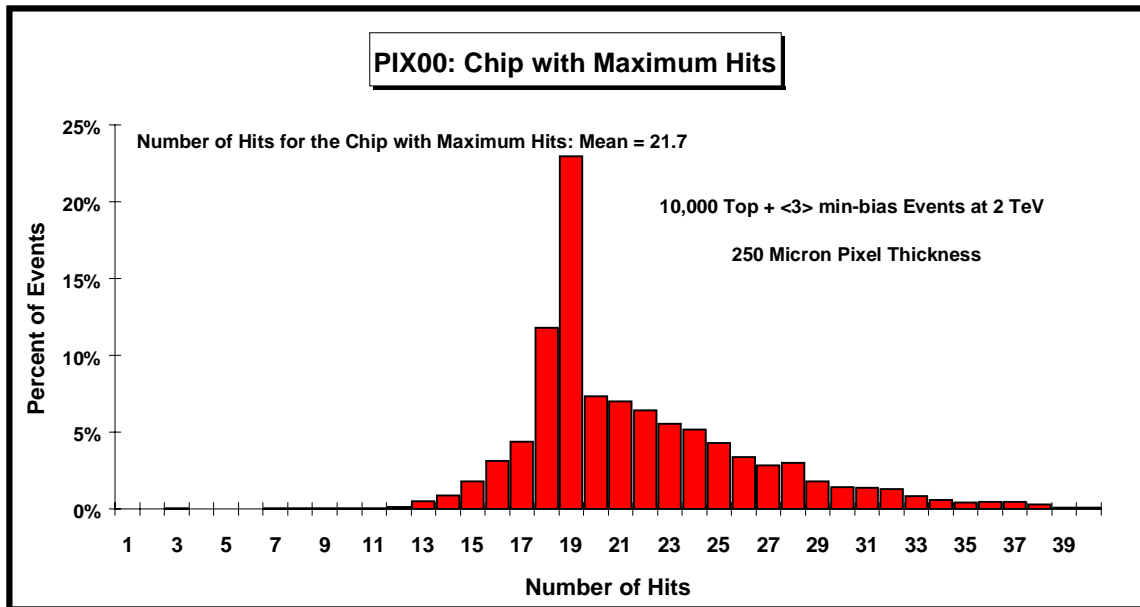
PIX00 Results

PIX00: Chip with max hits per chip-ring (izchp=1,96)



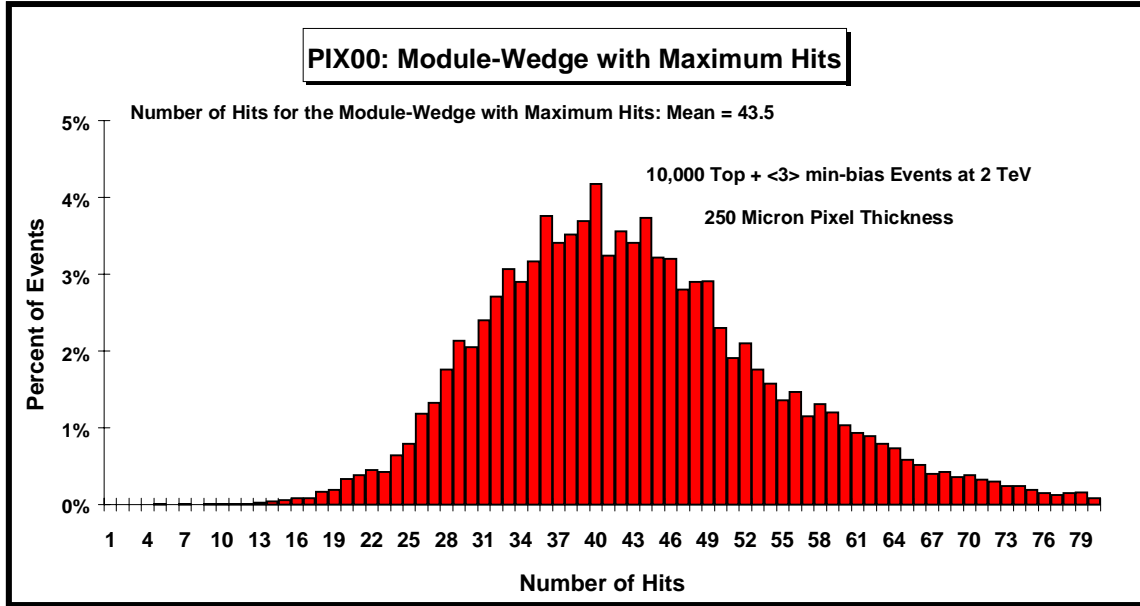
Top + <3> min-bias, $\sigma_z = 30$ cm

PIX00: Chip with maximum hits (Top + <3> min-bias, $\sigma_z = 30$ cm)

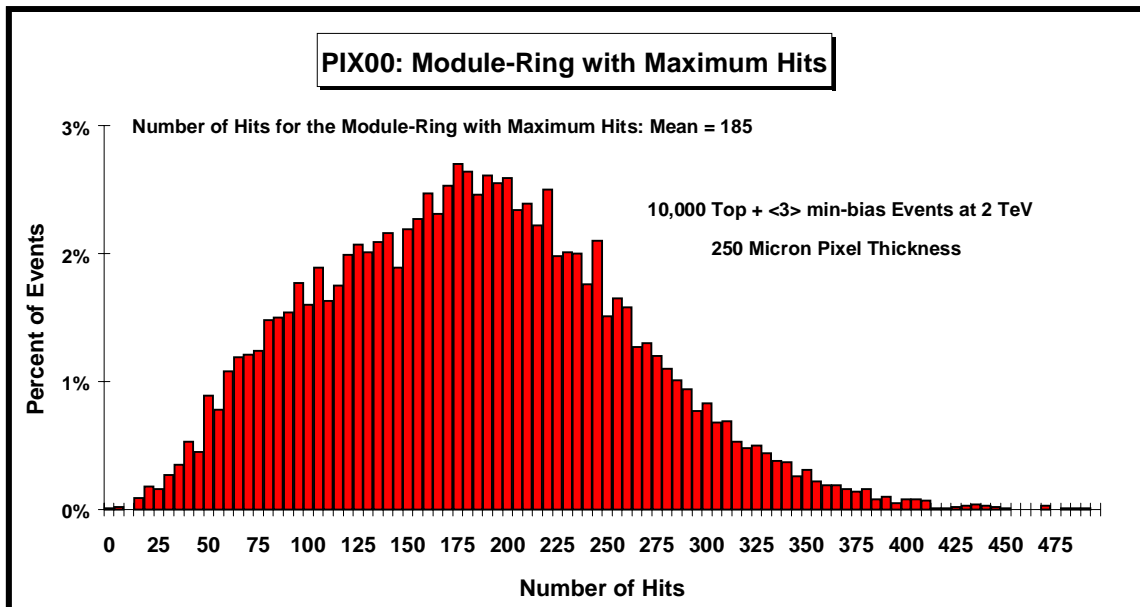


PIX00 Results

PIX00: Module-Wedge with maximum hits (**Top** + **<3>** min-bias, $\sigma_z = 30$ cm)

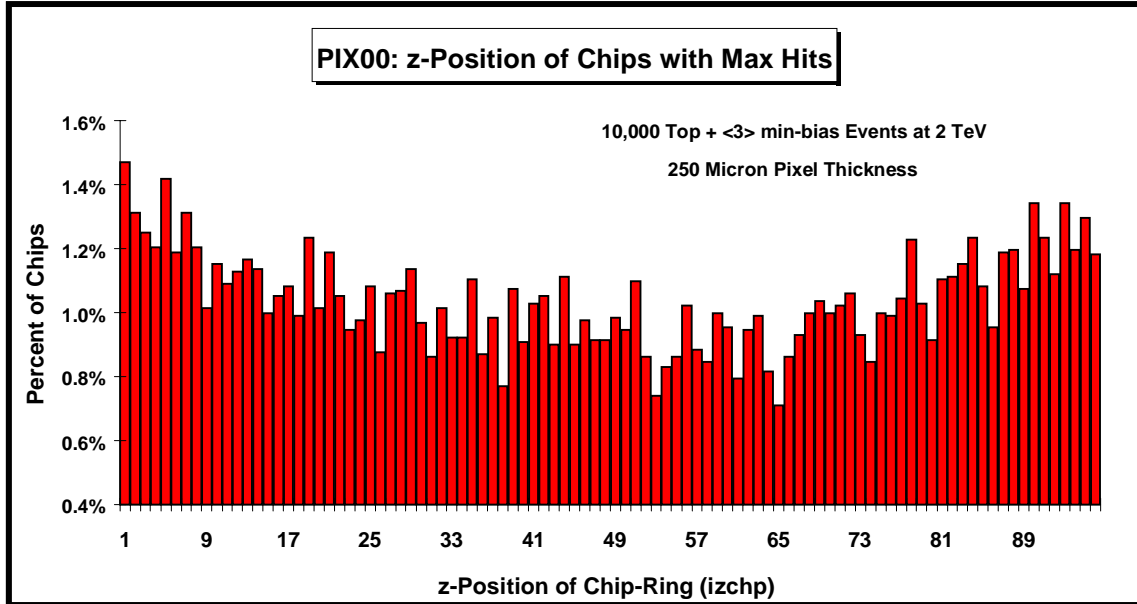


PIX00: Module-Ring with maximum hits (**Top** + **<3>** min-bias, $\sigma_z = 30$ cm)



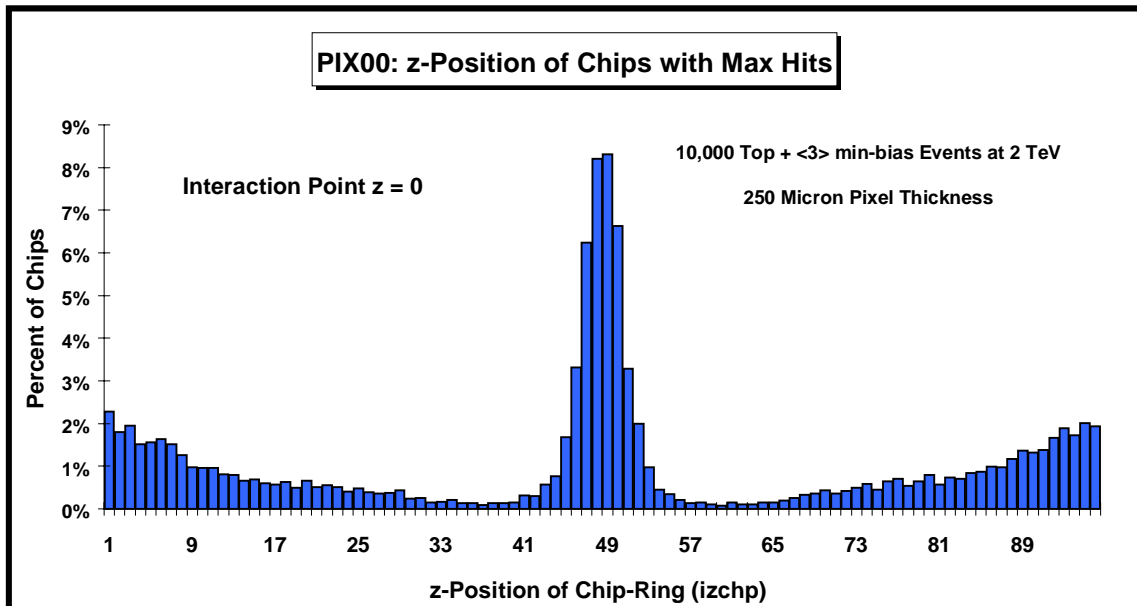
PIX00 Results

PIX00: z-Position of Chips with Max Hits (Top + <3> min-bias, $\sigma_z = 30$ cm)



This plot includes all max chips.

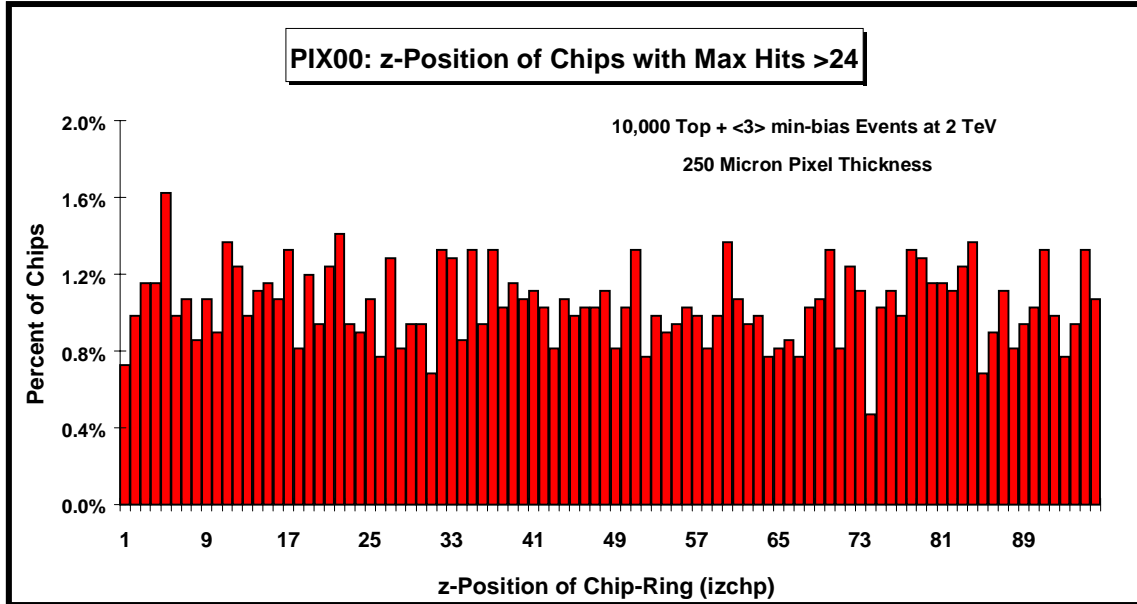
PIX00: z-Position of Chips with Max Hits (Top + <3> min-bias, $\sigma_z = 0$)



This plot includes all max chips.

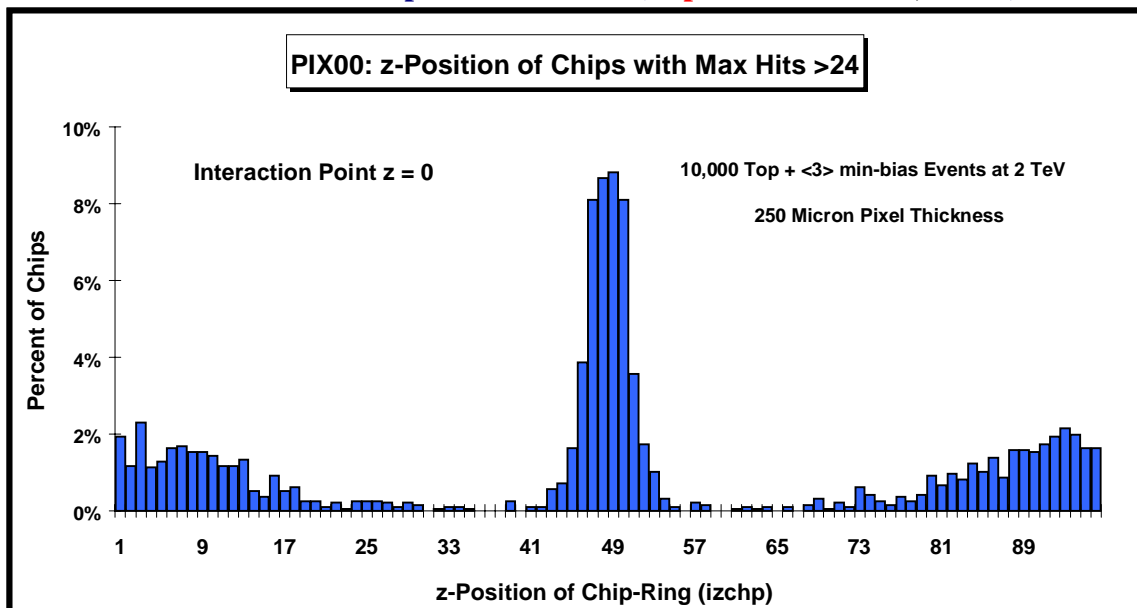
PIX00 Results

PIX00: z-Position of Max Chips with >24 Hits (Top + <3> min-bias, $\sigma_z = 30$ cm)



This plot includes only max chips with > 24 hits.

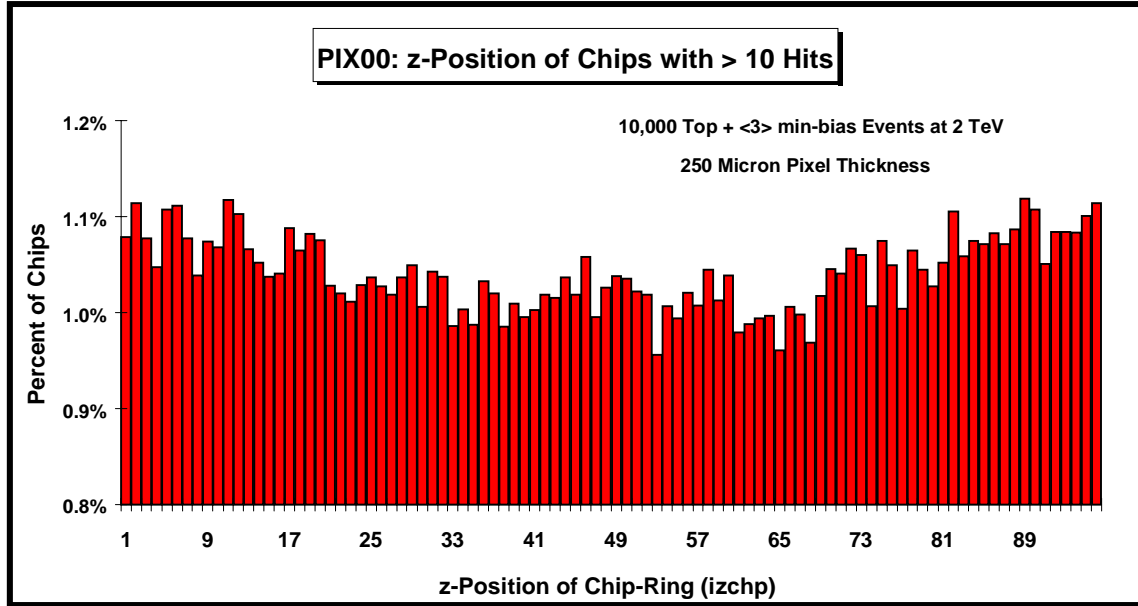
PIX00: z-Position of Max Chips with >24 Hits (Top + <3> min-bias, $\sigma_z = 0$)



This plot includes only max chips with > 24 hits.

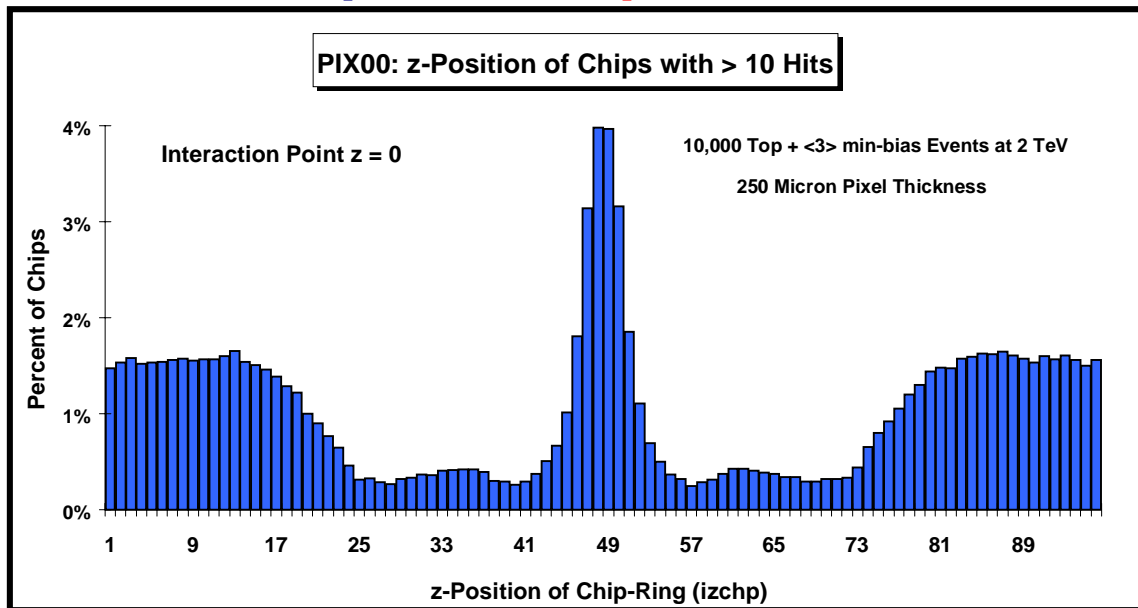
PIX00 Results

PIX00: z-Position of Chips with >10 Hits (Top + <3> min-bias, $\sigma_z = 30\text{cm}$)



This plot includes all chips with > 10 hits.

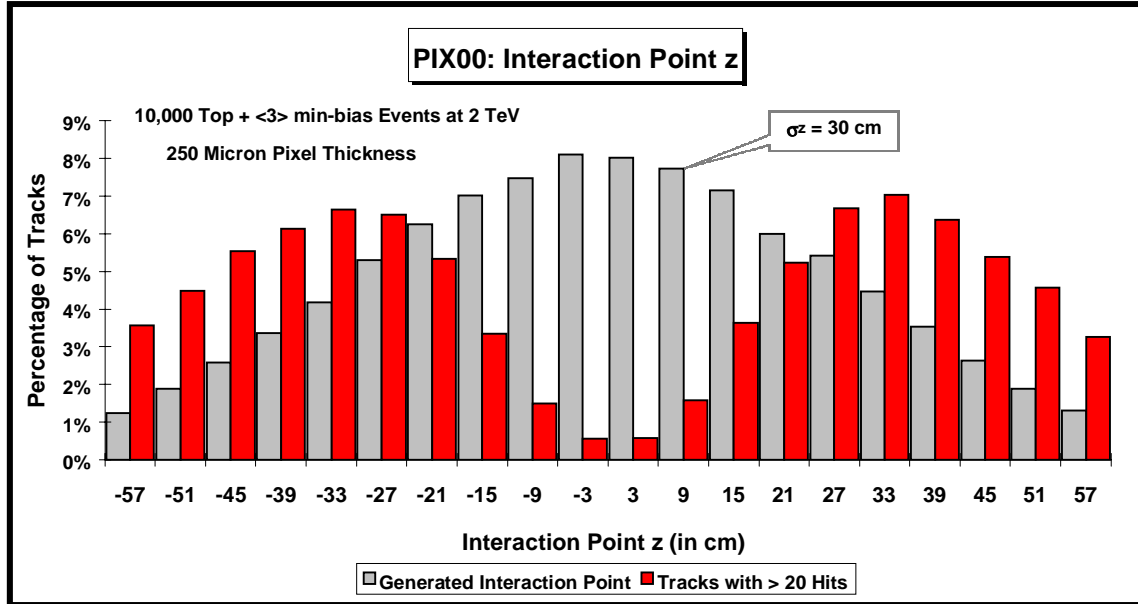
PIX00: z-Position of Chips with >10 Hits (Top + <3> min-bias, $\sigma_z = 0$)



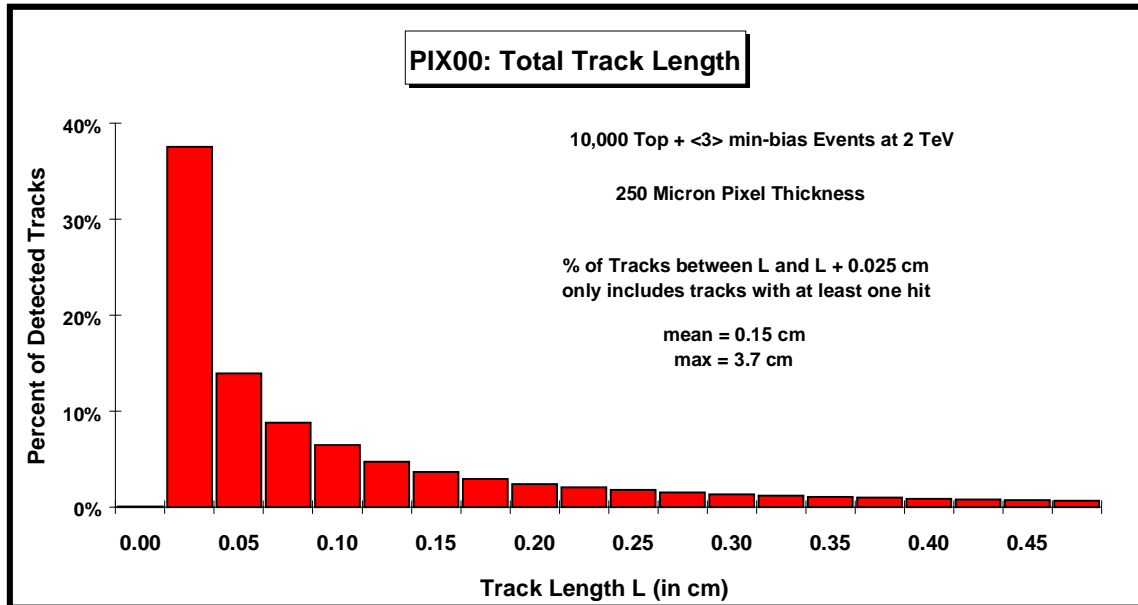
This plot includes all chips with > 10 hits.

PIX00 Results

PIX00: Interaction Point z in cm (Top + <3> min-bias, $\sigma_z = 30$ cm)



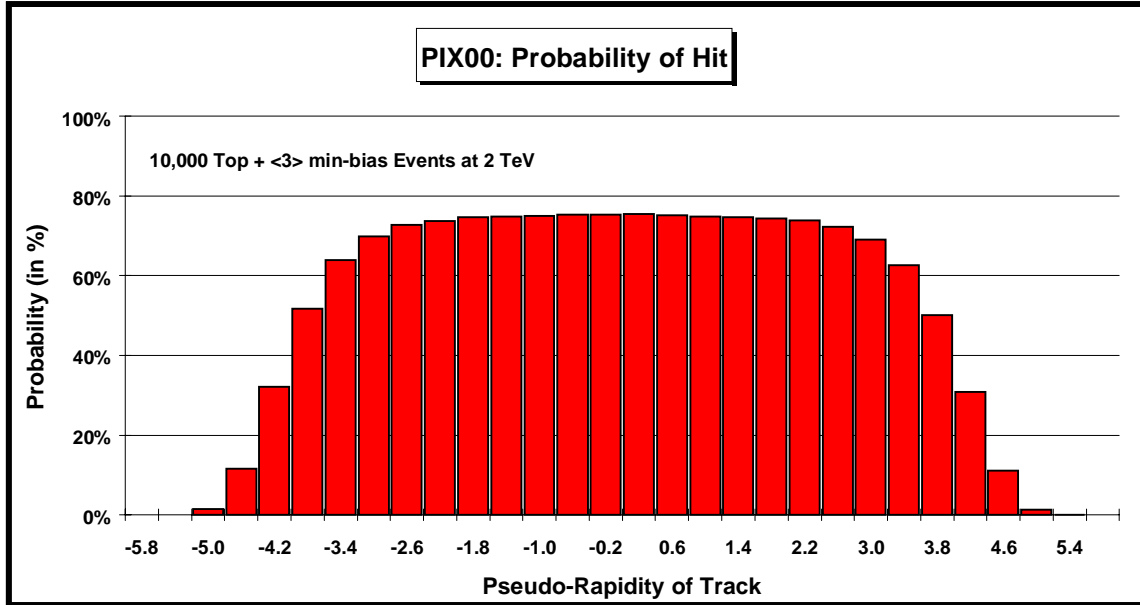
PIX00: Total track length in cm (Top + <3> min-bias, $\sigma_z = 30$ cm)



Includes all tracks with at least one hit.

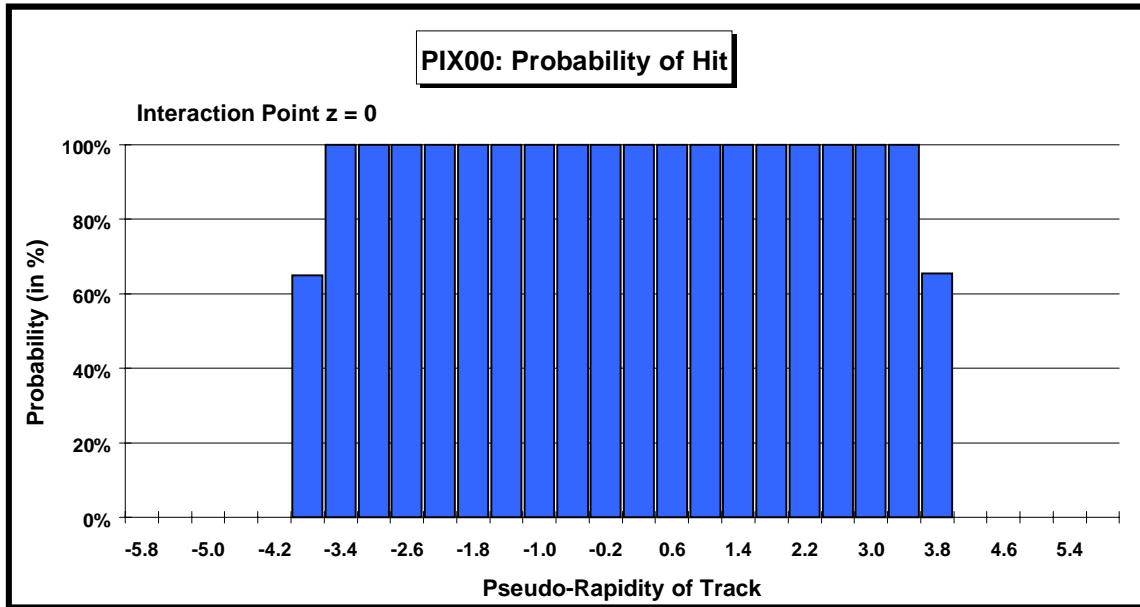
PIX00 Results

PIX00: Probability that a charged track has at least one hit



Top + <3> min-bias, $\sigma_z = 30$ cm

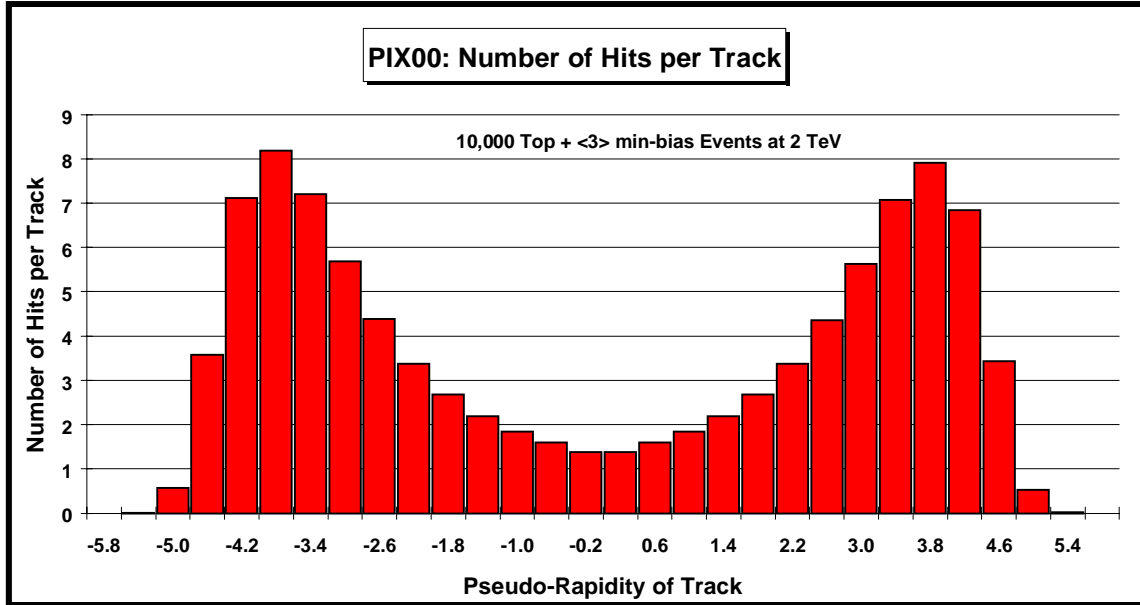
PIX00: Probability that a charged track has at least one hit



Top + <3> min-bias, $\sigma_z = 0$

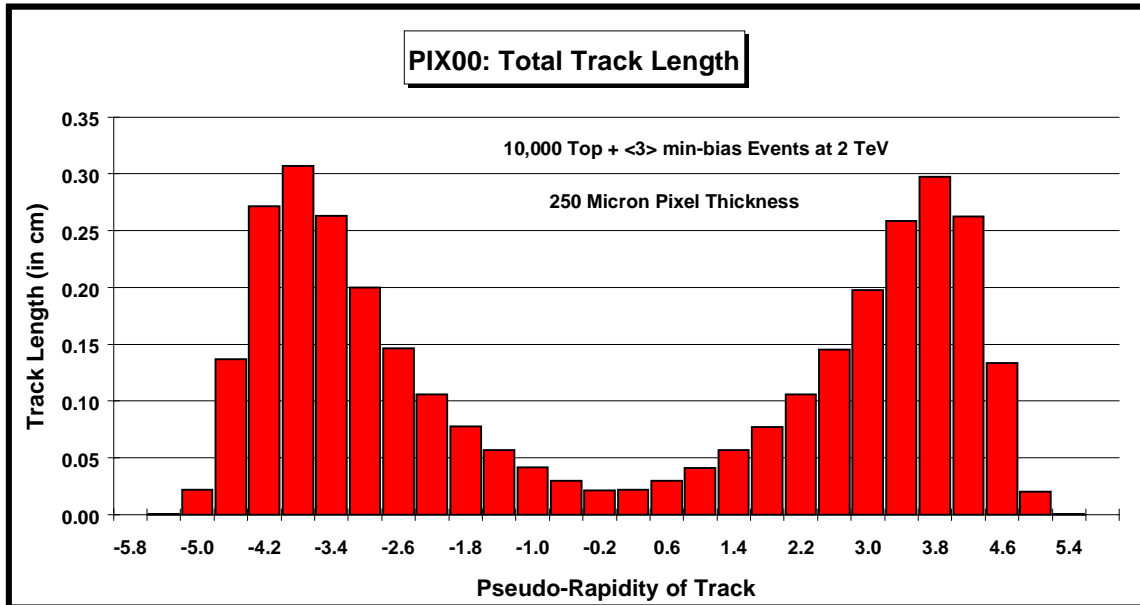
PIX00 Results

PIX00: Number of hits per track versus the pseudo-rapidity of the track



Top + <3> min-bias, $\sigma_z = 30$ cm

PIX00: Total track length versus the pseudo-rapidity of the track



Top + <3> min-bias, $\sigma_z = 30$ cm