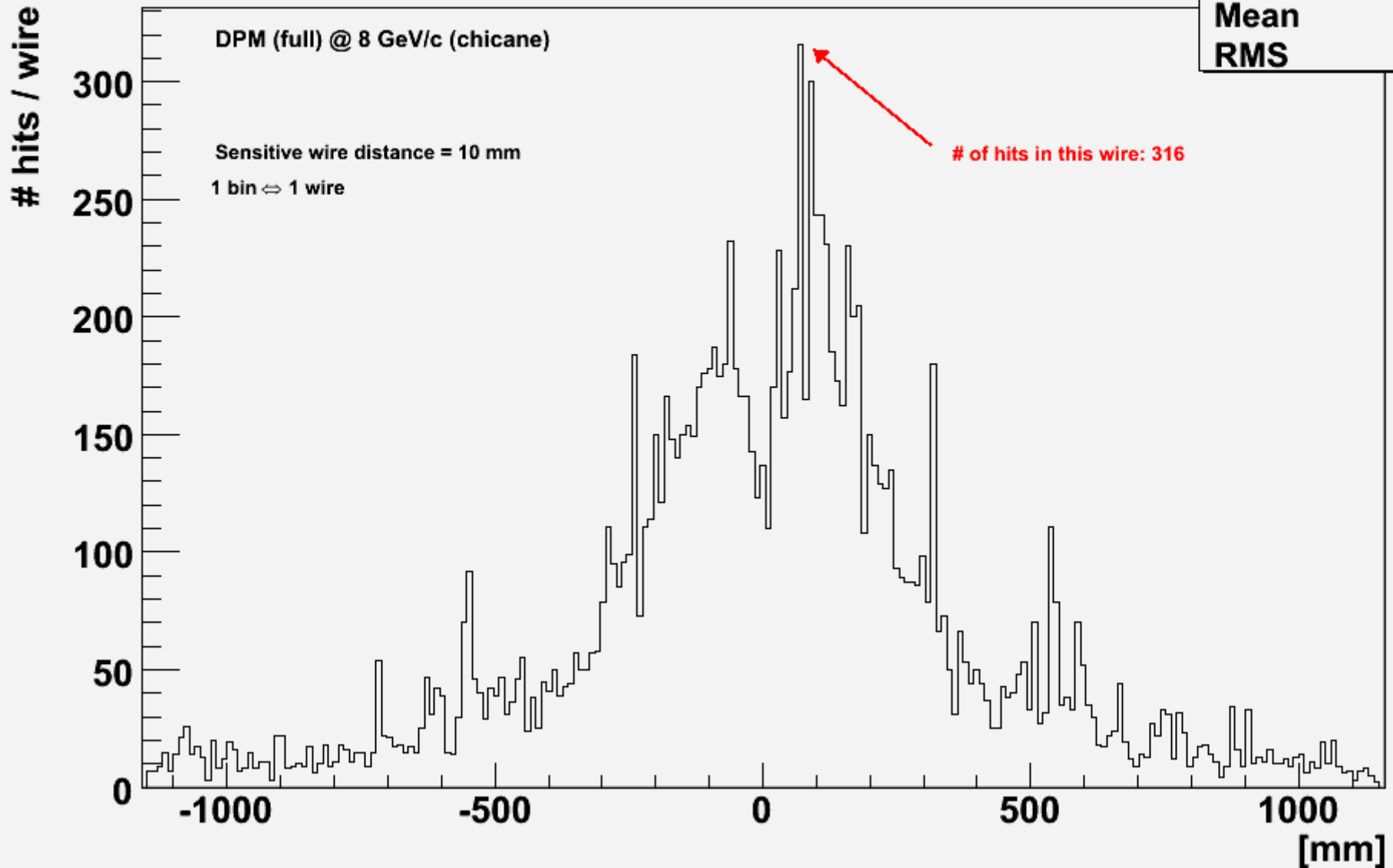


- 10.000 events, full DPM @ 1, 8, 15 GeV/c
- Chicane & iron plate option
- Assumptions:
 - Interaction rate: 10^7 s^{-1}
 - Sens. wire distance: 10 mm
 - DCH resolution: 200 ns
- Counted hits in DCH 3, 4, 5, 6, 7, 8
 - Counted hits in each layer of DCH 3, 4, 5
 - > Number of hits / layer ms

Histogram --> Max. hits / wire ms

x pos of hits in DCH5 L1



Results DCH 5

\bar{p} -momentum	1 GeV/c				8 GeV/c				15 GeV/c			
	<i>Chicane</i>		<i>Iron plate</i>		<i>Chicane</i>		<i>Iron plate</i>		<i>Chicane</i>		<i>Iron plate</i>	
	Hits / ms	σ / [μ s]	Hits / ms	σ / [μ s]	Hits / ms	σ / [μ s]	Hits / ms	σ / [μ s]	Hits / ms	σ / [μ s]	Hits / ms	σ / [μ s]
Hits in DCH 5	11456		6272		83191		97328		163294		217471	
Layer 1	1875		1116		14114		16741		27156		37485	
Max. hits / wire	57	17.54	36	27.78	316	3.16	381	2.62	556	1.8	715	1.4
Layer 2	1928		1104		13890		16597		26909		37294	
Max. hits / wire	49	20.41	44	22.73	334	2.99	417	2.4	564	1.77	748	1.34
Layer 3	1898		1028		13623		16217		26721		36058	
Max. hits / wire	50	20	37	27.03	267	3.75	352	2.84	495	2.02	784	1.28
Layer 4	1900		940		14018		15783		27106		35466	
Max. hits / wire	42	23.81	32	31.25	257	3.89	322	3.11	508	1.97	736	1.36
Layer 5	1903		989		13897		16060		27923		36196	
Max. hits / wire	48	20.83	54	18.52	285	3.51	395	2.53	559	1.79	820	1.22
Layer 6	1952		1095		13649		15930		27479		34972	
Max. hits / wire	42	23.81	46	21.74	272	3.68	379	2.64	558	1.79	695	1.44

Results DCH 3

\bar{p} -momentum	1 GeV/c				8 GeV/c				15 GeV/c			
	<i>Chicane</i>		<i>Iron plate</i>		<i>Chicane</i>		<i>Iron plate</i>		<i>Chicane</i>		<i>Iron plate</i>	
	Hits / ms	σ / [μ s]	Hits / ms	σ / [μ s]	Hits / ms	σ / [μ s]	Hits / ms	σ / [μ s]	Hits / ms	σ / [μ s]	Hits / ms	σ / [μ s]
Hits in DCH 3	20339		19099		137023		138508		251132		246180	
Layer 1	3338		3267		23257		23378		42633		41960	
Max. hits / wire	105	9.52	174	5.75	515	1.94	546	1.83	985	1.02	1029	0.97
Layer 2	3369		3193		23036		23133		42595		41635	
Max. hits / wire	106	9.43	191	5.24	499	2	532	1.88	1017	0.98	1020	0.98
Layer 3	3467		3275		23246		23300		41431		40844	
Max. hits / wire	119	8.4	206	4.85	531	1.88	549	1.82	959	1.04	978	1.02
Layer 4	3392		3251		22750		23061		41568		40587	
Max. hits / wire	108	9.26	164	6.1	490	2.04	557	1.8	986	1.01	965	1.04
Layer 5	3315		3023		22301		22793		41839		40371	
Max. hits / wire	112	8.93	92	10.87	499	2	522	1.92	975	1.03	972	1.03
Layer 6	3458		3090		22433		22843		41066		40783	
Max. hits / wire	118	8.47	93	10.75	490	2.04	556	1.8	936	1.07	970	1.03

Results DCH 4

\bar{p} -momentum	1 GeV/c				8 GeV/c				15 GeV/c			
	<i>Chicane</i>		<i>Iron plate</i>		<i>Chicane</i>		<i>Iron plate</i>		<i>Chicane</i>		<i>Iron plate</i>	
	Hits / ms	σ / [μ s]	Hits / ms	σ / [μ s]	Hits / ms	σ / [μ s]	Hits / ms	σ / [μ s]	Hits / ms	σ / [μ s]	Hits / ms	σ / [μ s]
Hits in DCH 4	16133		14967		123056		125843		240939		244567	
Layer 1	2774		2549		20724		21504		40438		40466	
Max. hits / wire	116	8.62	71	14.08	396	2.53	414	2.42	819	1.22	764	1.31
Layer 2	2702		2471		20842		21160		40024		40487	
Max. hits / wire	63	15.87	62	16.13	412	2.43	427	2.34	745	1.34	738	1.36
Layer 3	2638		2495		20713		21244		40285		40971	
Max. hits / wire	64	15.63	60	16.67	388	2.58	400	2.5	758	1.32	902	1.11
Layer 4	2688		2498		20446		20838		40201		41894	
Max. hits / wire	61	16.39	51	19.61	373	2.68	403	2.48	758	1.32	973	1.03
Layer 5	2684		2477		20240		20563		40040		40680	
Max. hits / wire	95	10.53	56	17.86	376	2.66	377	2.65	734	1.36	753	1.33
Layer 6	2647		2477		20091		20534		39951		40069	
Max. hits / wire	77	12.99	66	15.15	369	2.71	389	2.57	760	1.32	735	1.36

Concerning event-mixing:

events which made at least 1 hit in a DCH

\bar{p} -momentum	1 GeV/c				8 GeV/c				15 GeV/c			
	<i>Chicane</i>		<i>Iron plate</i>		<i>Chicane</i>		<i>Iron plate</i>		<i>Chicane</i>		<i>Iron plate</i>	
	# events	[%]	# events	[%]	# events	[%]	# events	[%]	# events	[%]	# events	[%]
DCH 3	1725	17.25	1489	14.89	7313	73.13	7322	73.22	8349	83.49	8374	83.74
DCH 4	1464	14.64	1238	12.38	6999	69.99	7019	70.19	8102	81.02	8158	81.58
DCH 5	1073	10.73	547	5.47	5924	59.24	5288	52.88	7470	74.7	7159	71.59
DCH 6	997	9.97	378	3.78	5572	55.72	4647	46.47	7203	72.03	6821	68.21
DCH 7	868	8.68	141	1.41	5109	51.09	3719	37.19	6890	68.9	5991	59.91
DCH 8	859	8.59	117	1.17	5241	52.41	3706	37.06	7142	71.42	6176	61.76