

Pair Spectrometer Scintillator Tiles Distribution

2 mm tile width:

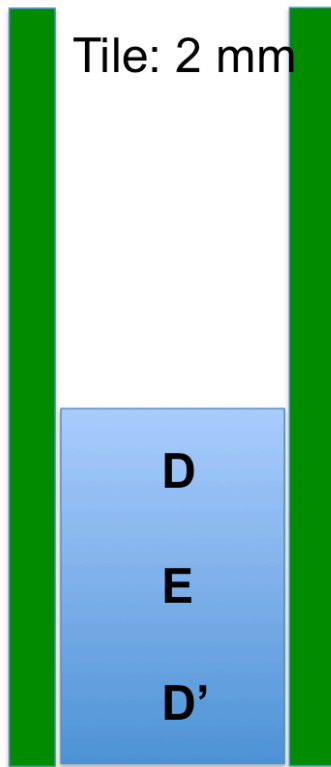


Figure 1. Schematic of a scintillator tile with 2 mm width.

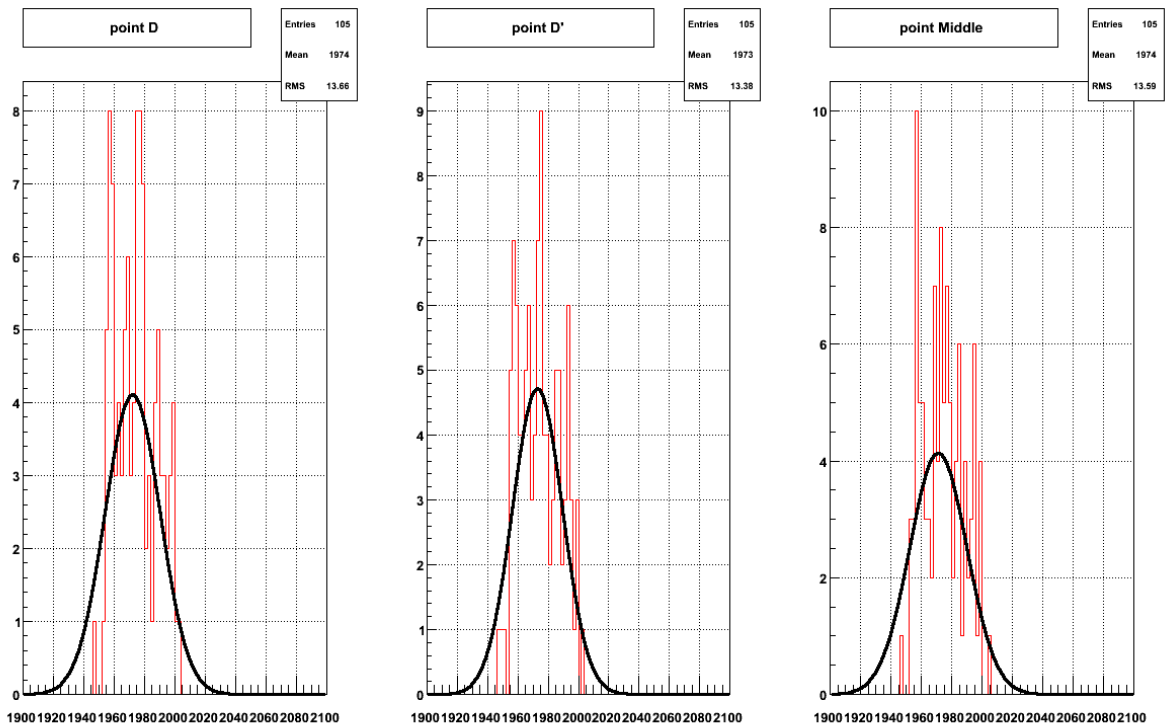


Figure 2. The distribution of the tile width for 3 points on a scintillator for channel #1.

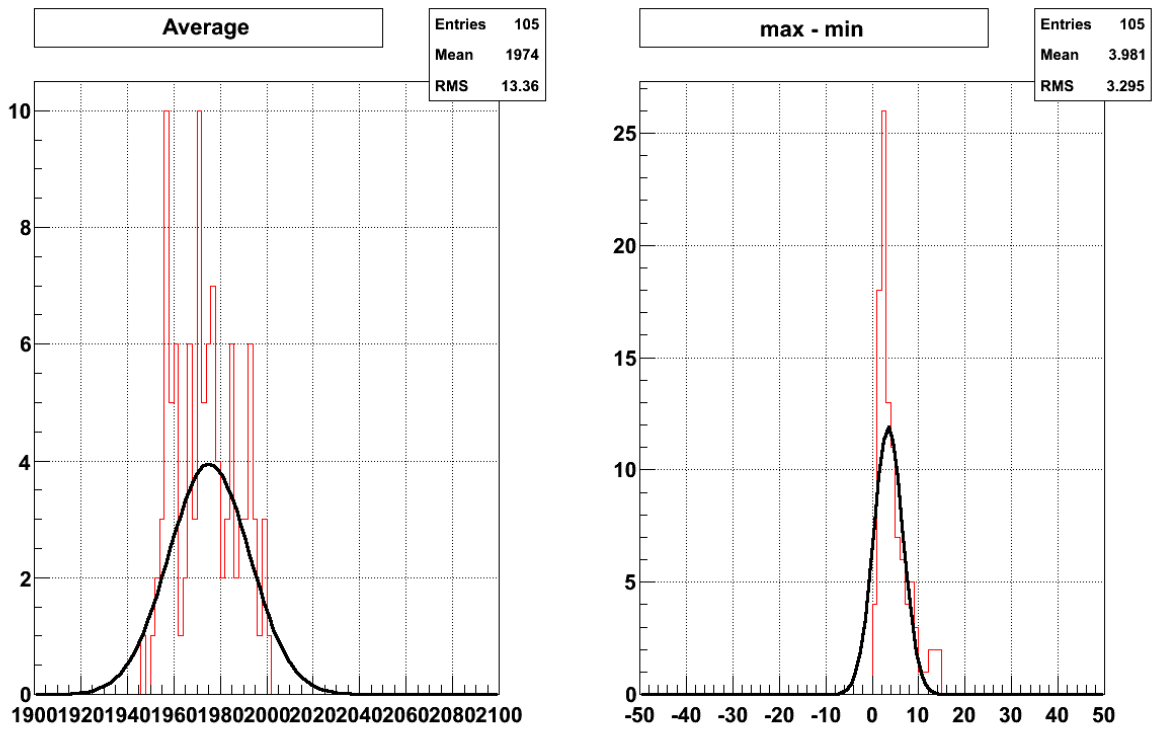


Figure 3. The distribution of the average value and difference between maximum and minimum of the tile width for channel #1.

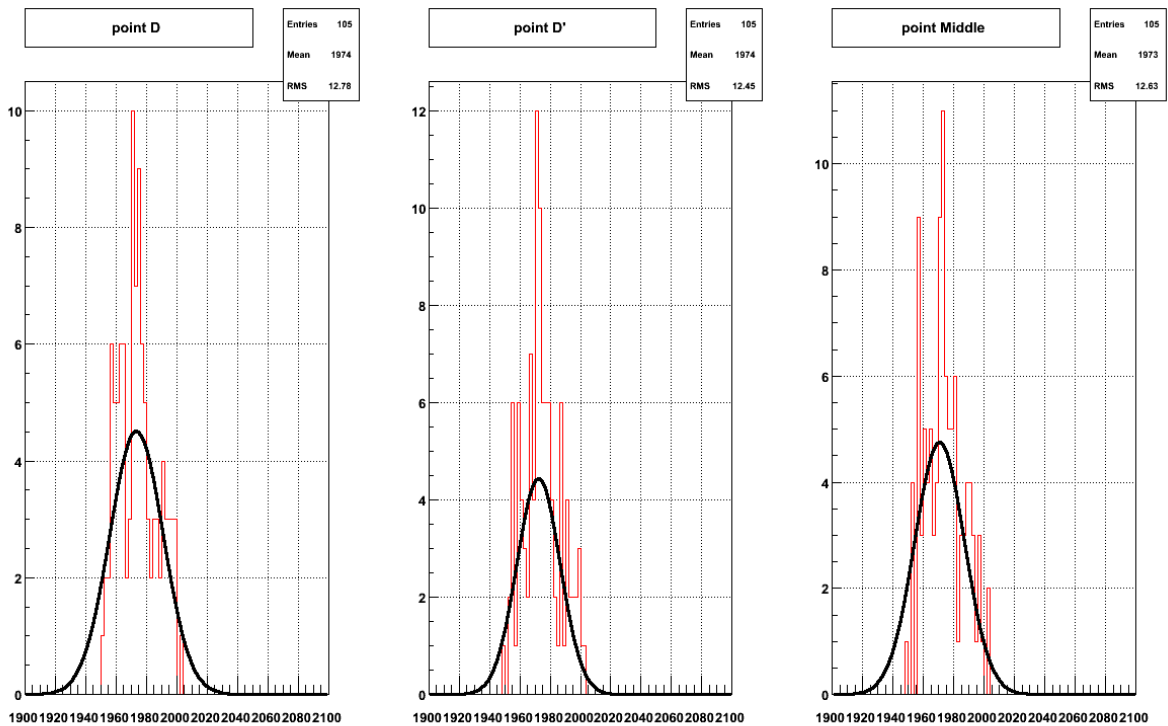


Figure 4. The distribution of the tile width for 3 points on a scintillator for channel #2.

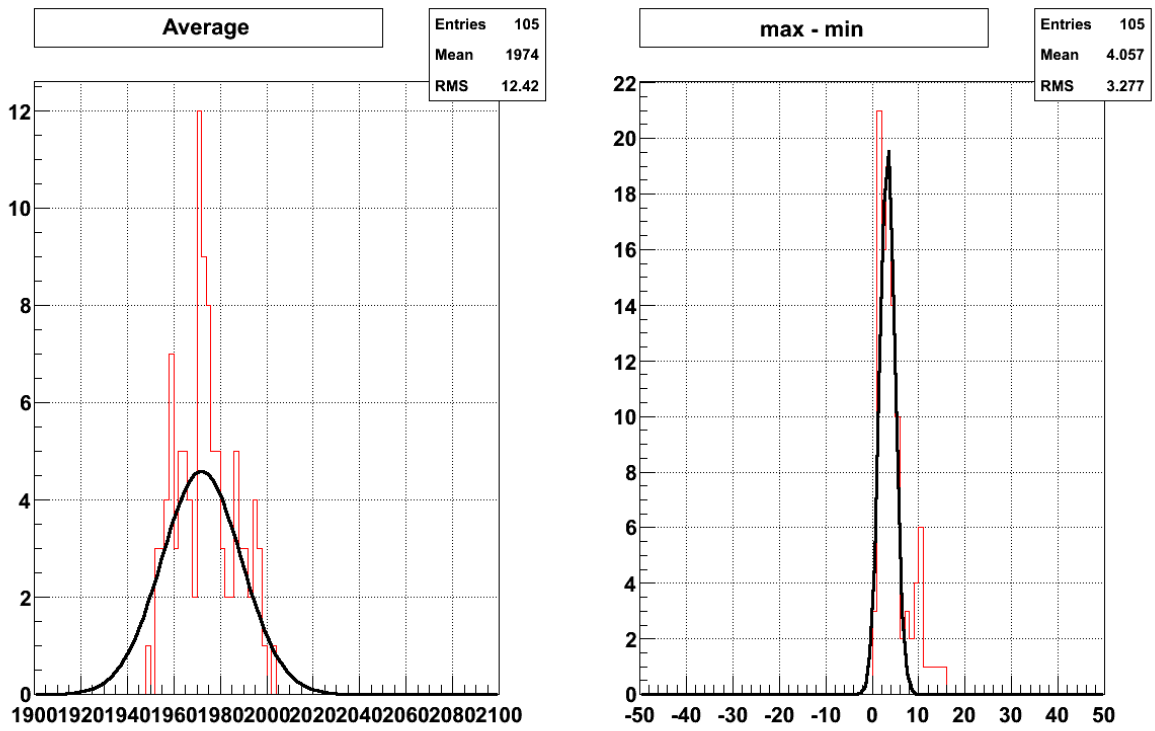


Figure 5. The distribution of the average value and difference between maximum and minimum of the tile width for channel #2.

1 mm tile width:

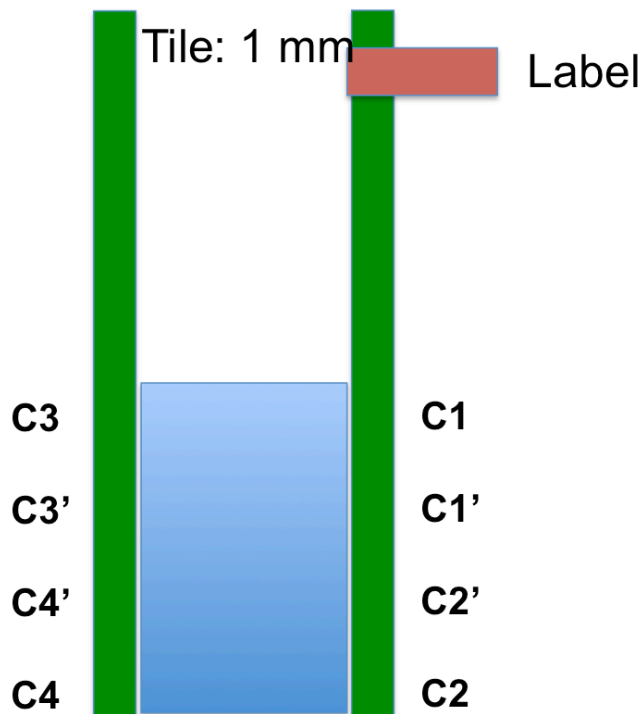


Figure 6. Schematic of a scintillator tile with 1 mm width.

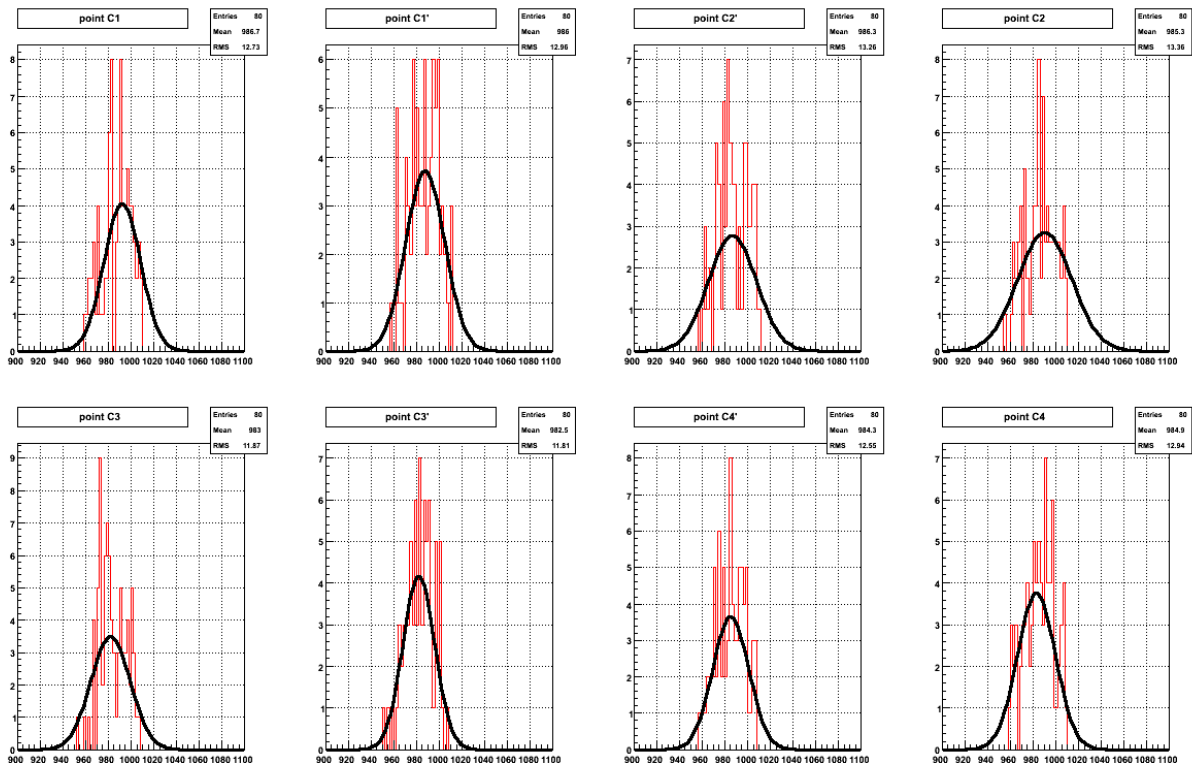


Figure 7. Distribution of the scintillator width for 8 points on a 1 mm tile.

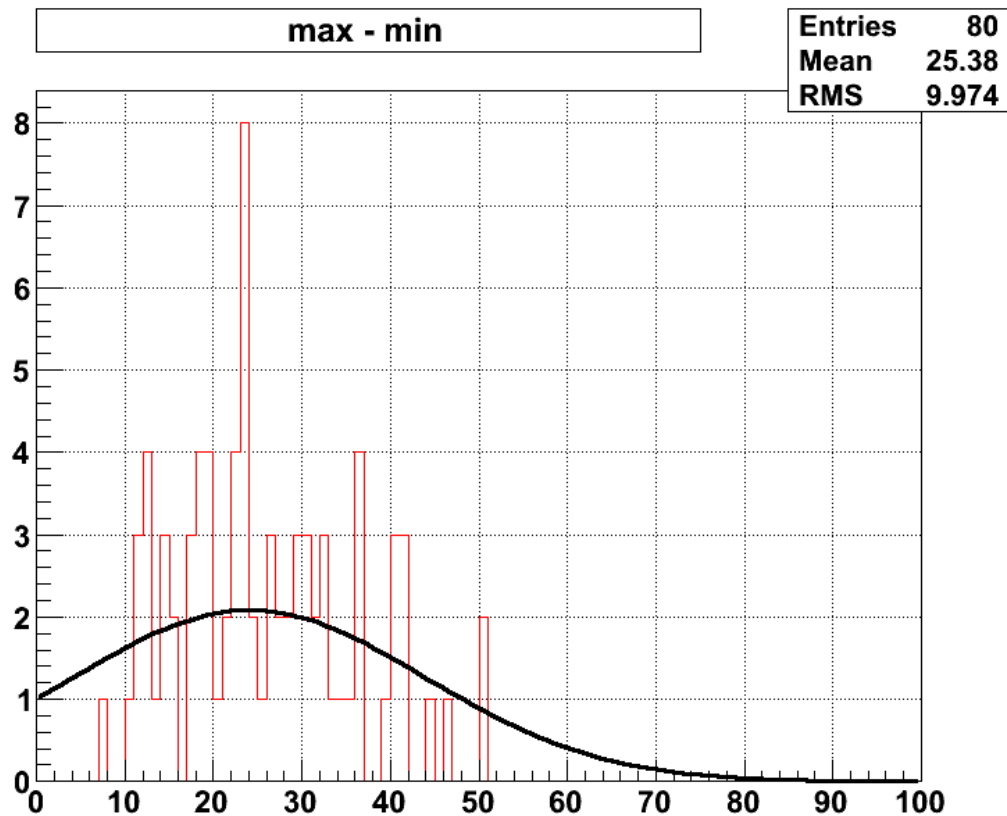


Figure 8. The distribution of the difference between maximum and minimum of the tile width for 1 mm tiles.

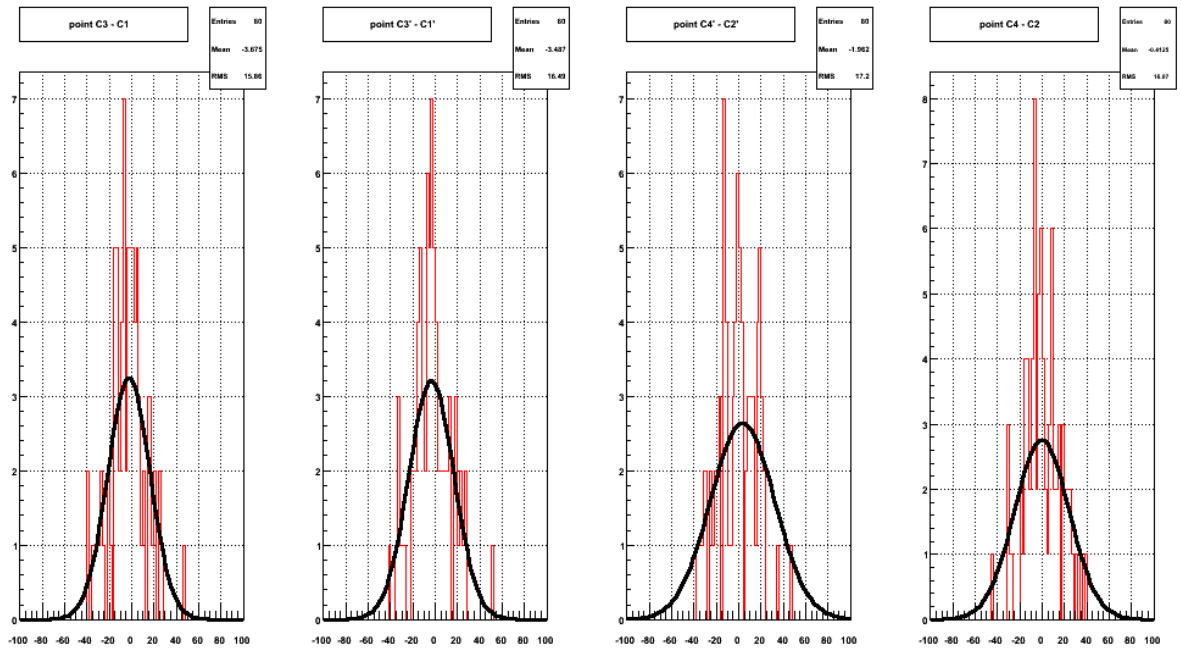


Figure 9. The distribution of the difference between the points in one line on the tile.

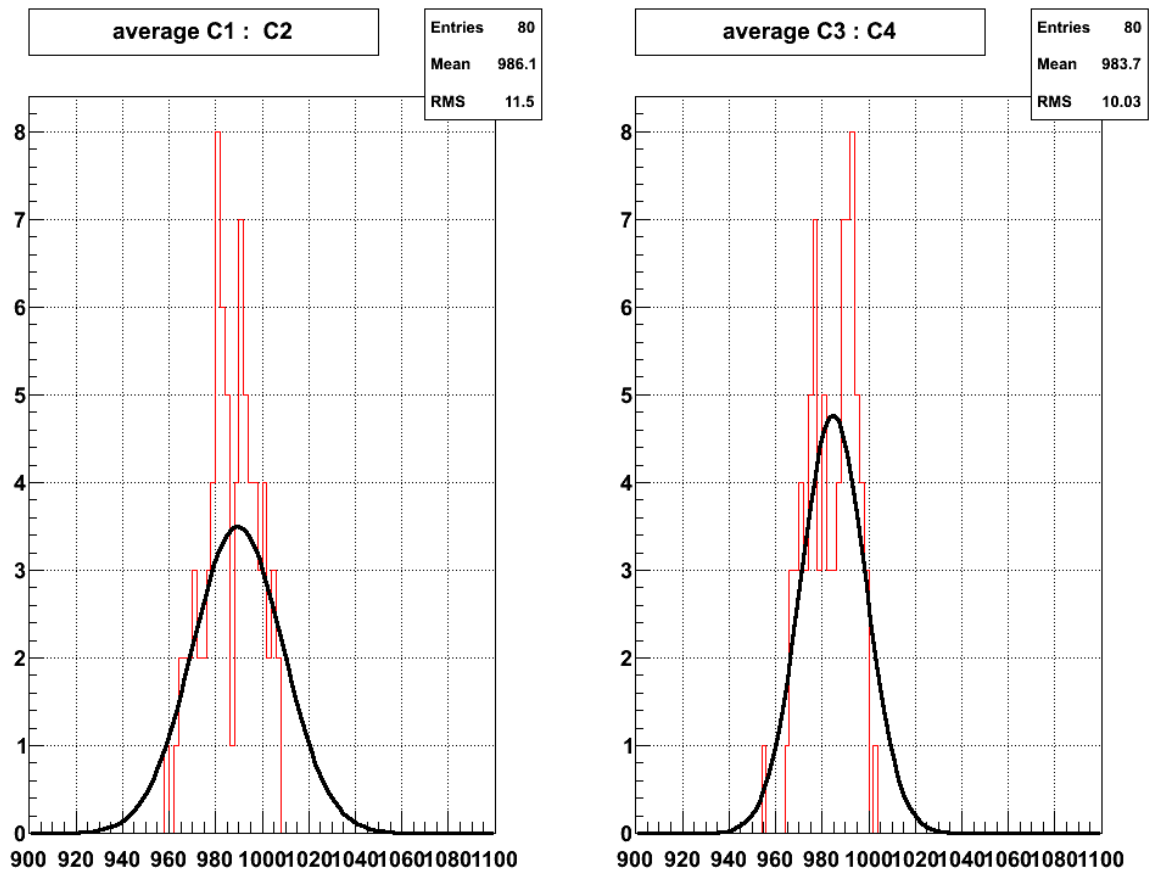


Figure 10. The distribution of the average value of the width in top and bottom line. The average value of the top line is larger on 3 μm .

PS construction (Channel #1)

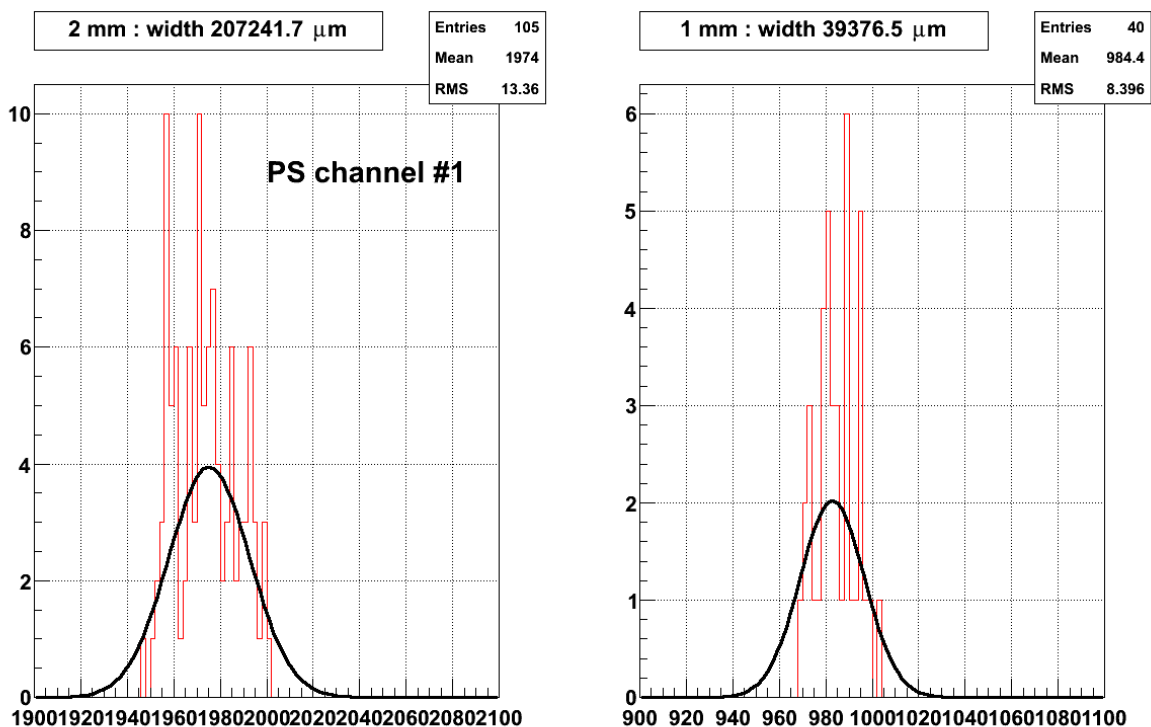


Figure 11. The distribution of the average width for channel #1. The 2 mm tiles is on the left, one mm tiles is on the right figure.

	2 mm scintillators			
position	Tile #	Label position	Average width	Max - min
1	111		2001.3	5
2	12		1947.0	0
3	85		1998.7	1
4	64		1951.3	2
5	83		1998.7	8
6	46		1952.7	8
7	121		1998.0	2
8	95		1953.7	1
9	213		1997.3	9
10	119		1954.7	1
11	36		1995.7	7
12	91		1955.3	3
13	50		1995.0	2
14	41		1955.7	1
15	29		1994.3	3
16	58		1956.0	3
17	171		1993.3	6
18	59		1956.0	2
19	54		1993.3	2
20	102		1956.0	3
21	22		1993.3	2
22	1		1956.3	5

23	45			1992.3	9
24	2			1956.7	2
25	38			1992.3	7
26	60			1956.7	2
27	56			1992.0	2
28	47			1957.0	3
29	37			1991.3	2
30	61			1957.3	1
31	55			1991.0	3
32	10			1957.7	1
33	63			1990.0	2
34	25			1957.7	2
35	90			1989.7	14
36	5			1958.0	2
37	32			1989.7	4
38	74			1958.0	0
39	44			1961.7	11
40	78			1988.7	4
41	21			1987.0	2
42	71			1959.3	9
43	13			1987.0	3
44	84			1959.3	8
45	69			1985.7	4
46	43			1960.7	1
47	28			1985.3	6
48	67			1960.7	1
49	15			1985.3	3
50	142			1960.7	4
51	9			1984.7	2
52	27			1961.7	1
53	93			1984.3	14
54	62			1959.3	1
55	26			1984.3	3
56	105			1961.7	2
57	108			1983.7	2
58	75			1962.0	2
59	65			1983.0	5
60	48			1964.3	1
61	101			1982.7	3
62	23			1965.3	3
63	51			1981.0	6
64	98			1966.0	6
65	70			1980.3	4
66	82			1966.3	12
67	57			1979.3	4
68	88			1967.0	4
69	24			1979.0	8
70	106			1967.0	0
71	94			1978.3	1

72	35			1967.3	1
73	14			1978.0	2
74	189			1967.7	4
75	104			1977.7	2
76	52			1968.0	2
77	87			1977.7	4
78	4			1968.3	6
79	103			1977.3	5
80	6			1968.7	13
81	107			1976.7	7
82	53			1970.0	5
83	77			1976.7	1
84	99			1970.3	1
85	31			1976.7	1
86	97			1971.3	12
87	17			1976.7	1
88	16			1971.0	4
89	158			1975.3	6
90	34			1971.0	7
91	92			1974.7	1
92	68			1971.0	3
93	76			1974.7	2
94	86			1971.3	13
95	18			1974.7	2
96	96			1970.7	8
97	11			1974.3	2
98	66			1971.7	2
99	7			1974.0	5
100	100			1971.7	3
101	72			1973.7	2
102	19			1972.0	0
103	81			1972.7	10
104	80			1972.0	5
105	79			1972.7	4
1 mm width scintillators					
106	70		X	1002.5	10
107	74	X		968.5	3
108	4		X	983.0	-13
109	29	X		970.5	-1
110	102	X		998.0	-2
111	16		X	988.8	33.5
112	26	X		988.8	33.5
113	63	X		980.8	-48.5
114	46	X		989.8	20.5
115	52	X		981.5	33
116	101		X	989.5	-14
117	33	X		978.3	-30.5
118	95		X	991.0	-17
119	20	X		988.0	22

120	69		X	981.5	28
121	80	X		971.5	-20
122	27	X		996.5	1
123	35	X		973.8	18.5
124	12		X	995.5	1
125	98		X	995.5	-5
126	45		X	973.0	19
127	99		X	994.5	-13
128	39		X	988.5	0
129	24		X	994.5	17
130	50	X		973.0	17
131	19		X	994.5	17
132	40		X	978.5	-17
133	96	X		982.0	2
134	100		X	993.0	13
135	67	X		974.0	10
136	37		X	976.8	-1.5
137	43	X		986.0	3
138	79		X	978.0	3
139	10		X	979.3	1.5
140	104		X	985.0	-14
141	36		X	980.3	34.5
142	90	X		985.0	17
143	11	X		982.3	19.5
144	62	X		985.0	-4
145	89		X	980.5	5

Channel #2.

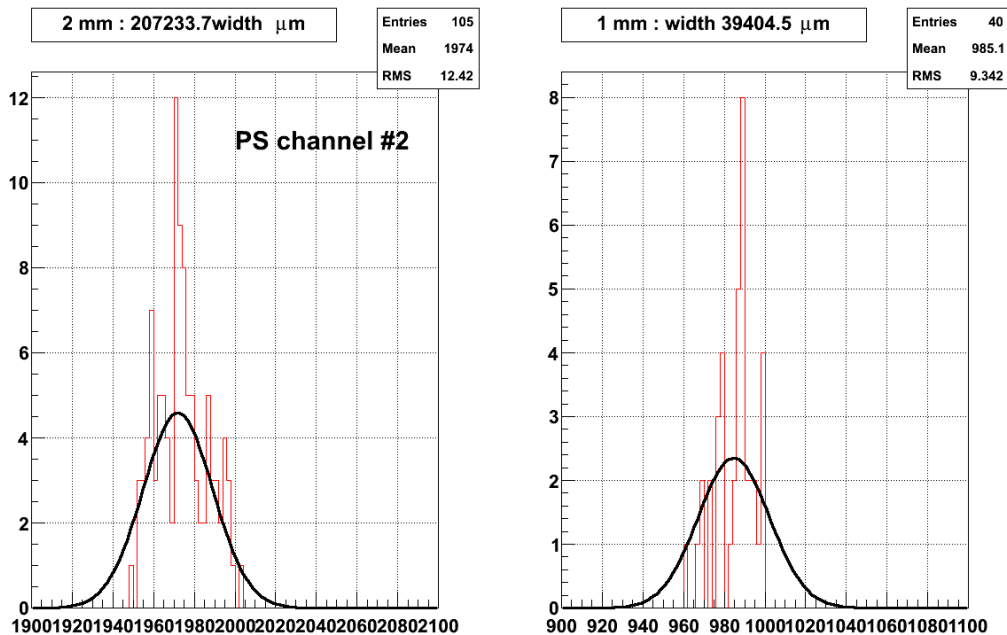


Figure 12. The distribution of the average width for channel #2. The 2 mm tiles is on the left, one mm tiles is on the right figure.

2 mm scintillators

position	Tile #	Label position	Average width	Max - min
1	206		2002.0	3
2	8		1949.0	3
3	193		1998.0	9
4	33		1952.3	1
5	190		1997.7	2
6	168		1953.3	1
7	129		1997.7	1
8	40		1953.7	2
9	182		1996.3	10
10	30		1954.0	2
11	198		1995.3	3
12	112		1955.7	1
13	209		1995.0	3
14	3		1955.7	1
15	177		1994.7	7
16	199		1956.0	2
17	20		1994.7	1
18	135		1956.3	1
19	170		1992.7	14
20	143		1957.7	2
21	175		1989.0	4
22	214		1957.7	3
23	181		1991.3	3
24	136		1958.3	2
25	169		1990.7	5
26	127		1959.3	1
27	184		1990.3	10
28	166		1958.3	3
29	126		1989.7	1
30	212		1958.7	4
31	160		1992.7	10
32	113		1959.0	0
33	133		1988.7	6
34	161		1958.3	10
35	153		1987.7	4
36	210		1959.7	1
37	201		1987.3	5
38	165		1960.7	1
39	145		1987.3	1
40	200		1961.3	2
41	157		1986.3	2
42	134		1961.7	3
43	73		1986.0	3
44	195		1962.0	8
45	186		1985.3	15
46	149		1963.0	3
47	144		1985.0	11
48	150		1963.0	9

49	167			1983.0	4
50	115			1963.3	4
51	131			1982.3	12
52	109			1963.7	4
53	185			1981.0	3
54	211			1964.0	4
55	208			1980.7	5
56	203			1964.3	1
57	118			1980.3	2
58	164			1965.0	5
59	192			1979.3	13
60	172			1966.7	4
61	137			1979.3	3
62	42			1965.0	5
63	187			1979.0	4
64	207			1966.3	5
65	173			1978.3	3
66	205			1965.0	10
67	159			1978.3	4
68	124			1967.3	5
69	191			1977.3	4
70	132			1967.3	4
71	188			1977.0	2
72	146			1969.0	8
73	180			1976.7	5
74	114			1969.7	7
75	178			1976.7	2
76	123			1970.3	2
77	138			1976.0	3
78	141			1970.3	3
79	130			1975.7	2
80	197			1970.3	5
81	116			1975.7	1
82	196			1970.7	1
83	183			1975.0	7
84	110			1971.0	9
85	147			1975.0	4
86	174			1971.0	0
87	216			1974.7	6
88	176			1971.0	0
89	128			1974.7	1
90	152			1971.3	1
91	140			1974.3	10
92	154			1971.3	1
93	122			1974.0	5
94	155			1971.3	2
95	148			1973.7	3
96	163			1971.3	1
97	202			1973.3	4

98	204			1971.7	1
99	162			1973.0	3
100	156			1972.0	3
101	125			1973.0	9
102	120			1972.3	2
103	179			1972.7	3
104	194			1972.3	1
105	151			1972.7	2
1 mm width scintillators					
106	83		X	992.0	-22
107	54	X		973.8	-22.5
108	31		X	999.3	8.5
109	56	X		960.8	14.5
110	64		X	998.5	23
111	53	X		967.0	10
112	42	X		995.0	17
113	61		X	977.8	10.5
114	92		X	985.3	-22.5
115	76		X	986.5	17
116	85		X	987.0	24
117	93		X	982.5	-22
118	72	X		968.5	-12
119	7	X		999.0	9
120	68		X	968.8	-2.5
121	41	X		997.5	5
122	97		X	998.3	-12.5
123	34		X	973.8	4.5
124	58		X	995.5	13
125	30		X	992.5	2
126	44		X	991.8	11.5
127	94	X		989.3	10.5
128	17		X	976.0	7
129	81		X	987.3	-14.5
130	77	X		976.0	-9
131	78	X		990.3	4.5
132	49		X	978.8	-6.5
133	66		X	989.3	13.5
134	91		X	989.0	10
135	82		X	978.8	-16.5
136	73	X		988.8	-7.5
137	88	X		979.3	4.5
138	71		X	988.8	-2.5
139	60		X	988.5	1
140	87		X	979.5	4
141	47		X	988.5	9
142	103	X		988.0	-6
143	23		X	986.8	0.5
144	84		X	986.0	-7
145	86		X	985.3	-12.5

