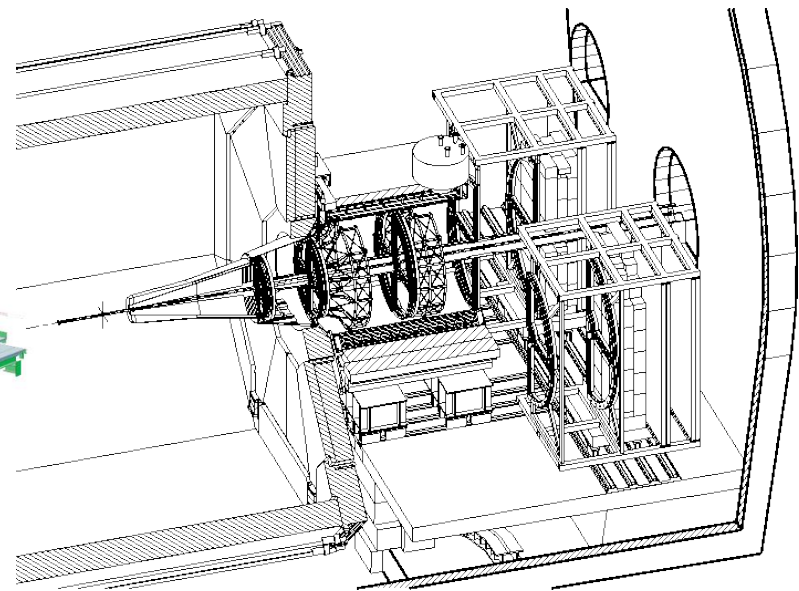
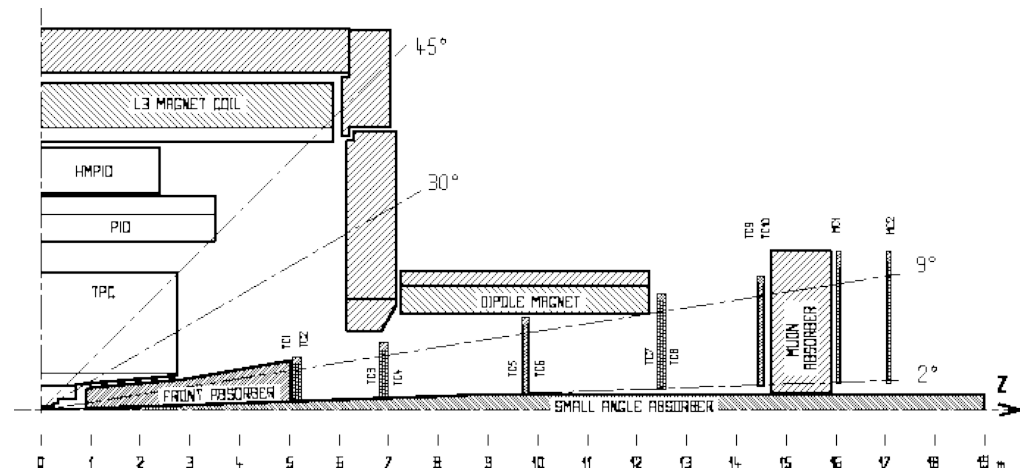
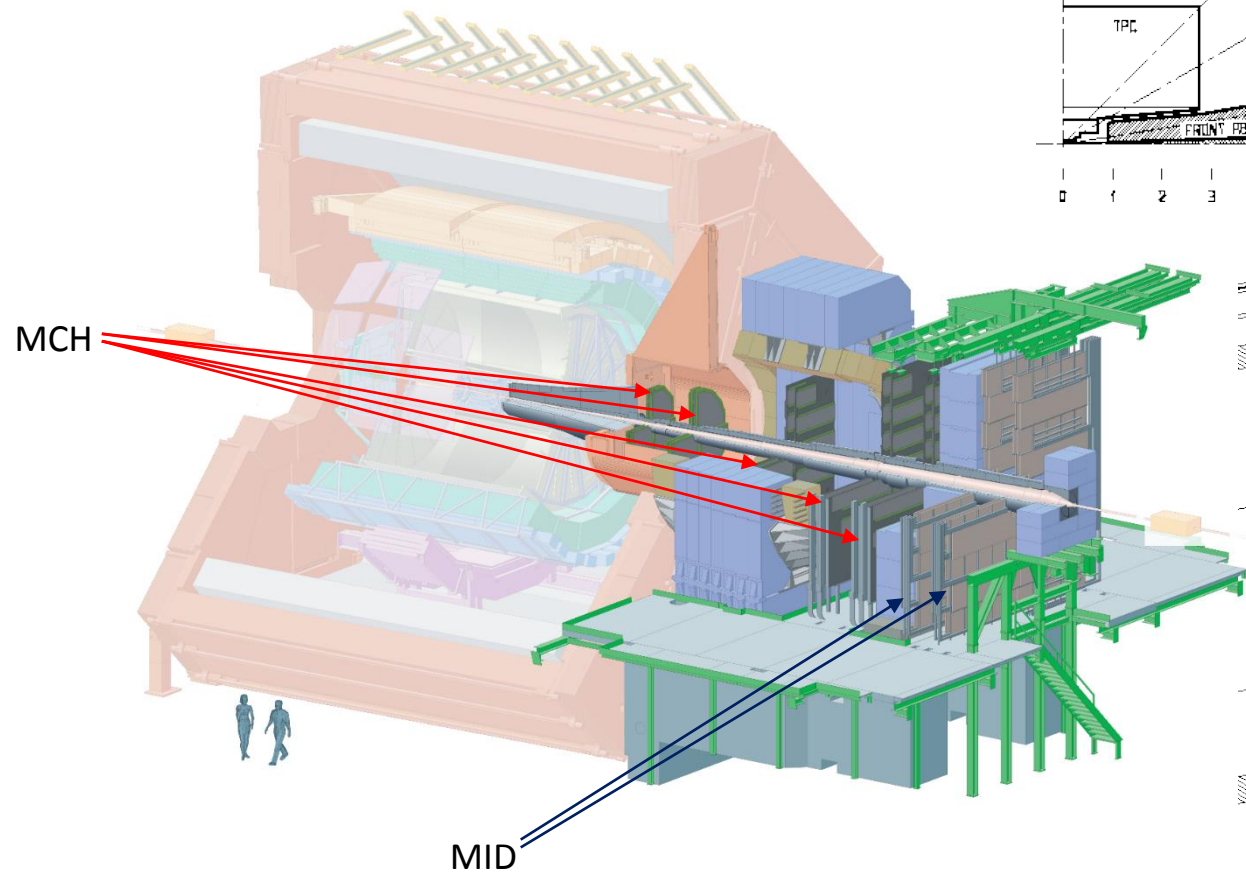


MCH fibers for Run 3&4

By Giuseppe Simonetti

ALICE-DAQ, O2-Project WG17

Muon side: MCH and MID

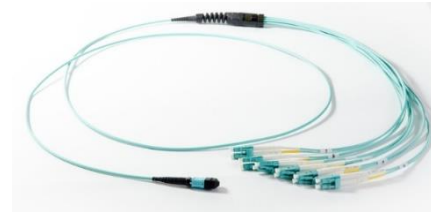
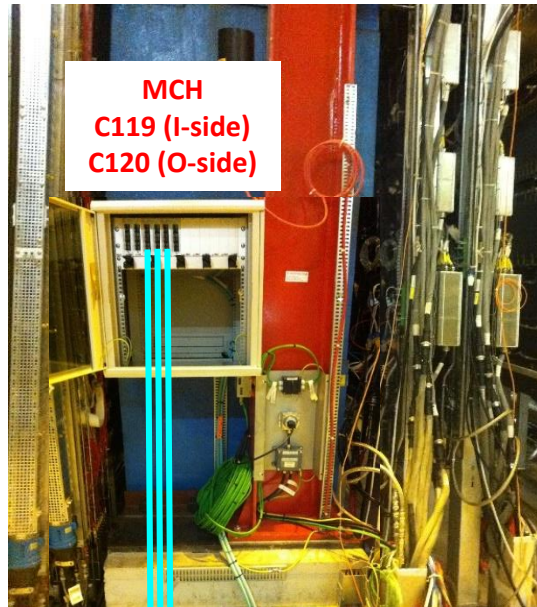


Fibers for each MCH chamber (DAQ)

Detector	Half Chambers (1-2, 3-4, 5-6)	GBTx	Fibers	Patch cords Pit
				MPO-12LC
MCH-I ch 1	1	24	48	4
MCH-I ch 2	1	24	48	4
MCH-I ch 3	1	24	48	4
MCH-I ch 4	1	24	48	4
MCH-I ch 5	1	26	52	6
MCH-I ch 6	1	26	52	6
Total	6	148	296	28
MCH-O ch 1	1	24	48	4
MCH-O ch 2	1	24	48	4
MCH-O ch 3	1	24	48	4
MCH-O ch 4	1	24	48	4
MCH-O ch 5	1	26	52	6
MCH-O ch 6	1	26	52	6
Total	6	148	296	28
Total	12	296	592	56

Detector	Half Chambers (7-8, 9- 10)	GBTx	Fibers	Patch cords Pit		Subracks Pit	Terminal Plates Pit
				MPO-MPO	LC-LC	3U box 2MPO-24LC	# LC x plate
						4	24
MCH-I ch 7	1	38	76	8	76	1	4
MCH-I ch 8	1	38	76	8	76	1	4
MCH-I ch 9	1	44	88	8	88	1	4
MCH-I ch 10	1	44	88	8	88	1	4
Total	4	164	328	32	328	4	16
MCH-O ch 7	1	38	76	8	76	1	4
MCH-O ch 8	1	38	76	8	76	1	4
MCH-O ch 9	1	44	88	8	88	1	4
MCH-O ch 10	1	44	88	8	88	1	4
Total	4	164	328	32	328	4	16
Total	8	328	656	64	656	8	32

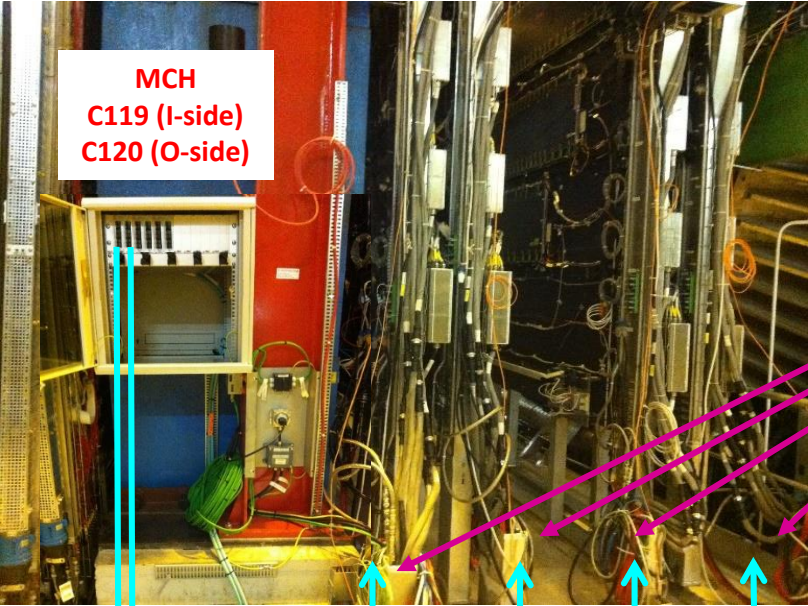
Muon side (MCH ch. 1-6 I/O-side)



MPO-12LC
patch-cords

To be passed under the floor and through the Dipole

Muon side (MCH ch. 7-10 I/O-side)



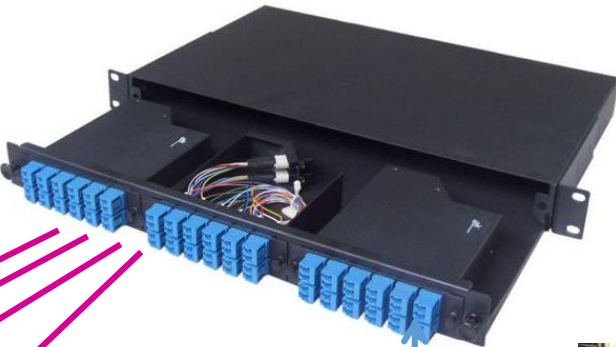
MCH
C119 (I-side)
C120 (O-side)

Ch. 10	Ch. 9	Ch. 8	Ch. 7
O-side (6)	O-side (6)	O-side (6)	O-side (6)
I-side (6)	I-side (6)	I-side (6)	I-side (6)

MPO-MPO
 patch-cords



To be passed under the floor:
 #: 2 (sides) x 4 (ch.) x 6 (cords) = 48



Patch-panel with terminal
 plates of 2xMPOs-24xLCs
 to be fixed beside the box
 where exit the cables

LC-LC single patch-cords



GBTx
 link

Material and number of OM3 fibers for MCH (DAQ)

MCH	Length [m]	All Detector				
		I-side	Spare	O-side	Spare	Total
Half-chamber		10		10		20
SOLAR boards		312		312		624
DAQ-Trigger-Ctrl Fibers		624		624		1248
Not used Fibers		96		96		192
Spare Fibers			144		144	288
Total Fibers		864		864		1728
MPO-12LC patch-cords (Pit):	27.0					
fan-out included	1.0	28	3	28	3	62
MPO-MPO patch-cords (Pit):						
base-12	10.0	32	3	32	3	70
Sub-racks 1U (Pit)		8		8		16
Terminal plate 1U 2xMPO-24xLC (Pit)		16		16		32
Single LC-LC patch-cords (Pit):	7.0	328	12	328	12	680
Terminal plates 3U 12xMPO-MPO (Pit)		6		6		12
Mini-racks 12U		1		1		2
Sub-racks 4U (Pit)		1		1		2
Trunk cables of 144 fibers:						
Type A	140.0	5	1	5	1	12
Sub-racks 4U (CR1)		0		0		0
Terminal plates 3U 12xMPO-MPO (CR1)		6		6		12
MPO-MPO patch-cords (CR1):						
base-12	5.0	60	6	60	6	132
# CRUs		16		16		32

Material and number of Single Mode fibers for CTP GPON

CTP GPON Standard	Length [m]	TPC (1x64)	TRD (3x16)	TOF (1x4)	MCH (1x32)	MID (1x2)	FIT (1x2)	ZDC	ACO	CTP	Spare	Total
GPON link		6	3	1	1	1	1	1	1	1	0	16
Optical passive splitter		6	3	1	1	1	1	0	0	0	0	13
GPON fibers		6	3	1	1	1	1	1	1	0	33	48
Total fibers		15									33	48
MPO-12SC/UPC patch-cords:												
50 cm fan-out included	3.0	2									3	5
Terminal plate 12xMPO-MPO (Pit)		1										1
Sub-racks 4U (Pit)		0										0
Trunk cables of 48 fibers:												
Single Mode	145.0	1										1
Sub-racks (CR1)		0										0
Terminal plate 2MPO-24LC/APC (CR1)		2										2
LC/APC-SC/APC patch-cords (to splitters)	10.0	6	3	1	1	1	1	0	0	0	7	20
LC/APC-SC/UPC patch cords (direct to CRU)	10.0	0	0	0	0	0	0	1	1	0	3	5
LC/APC-SC/UPC patch cords (direct to CRU)	5.0	0	0	0	0	0	0	0	0	1	4	5
SC/APC-SC/UPC patch-cords (to other CRUs)	5.0	360	37	4	32	2	2	0	0	0	23	460

EN/EL installation