## GIF++ status update

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### News

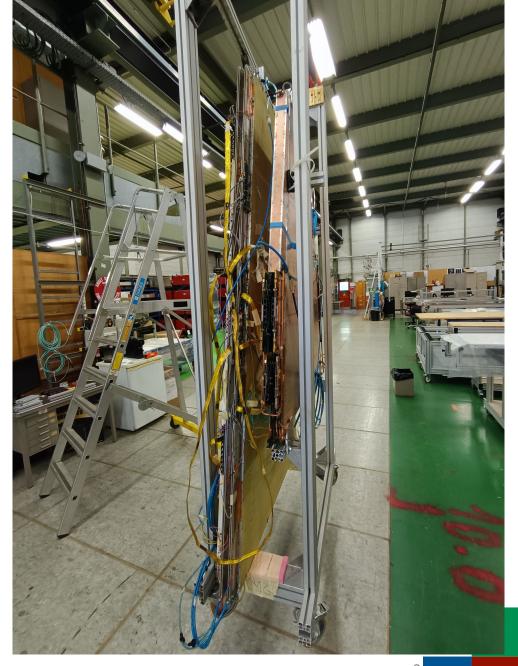
• Installed SM1-M40 trolley back into the bunker, far from the source

sTGC chamber mounted on the same trolley, on the back of the SM1 detector

Installed new copper gas line for the delivery of the sTGC gas mixture

CO2-n-pentane





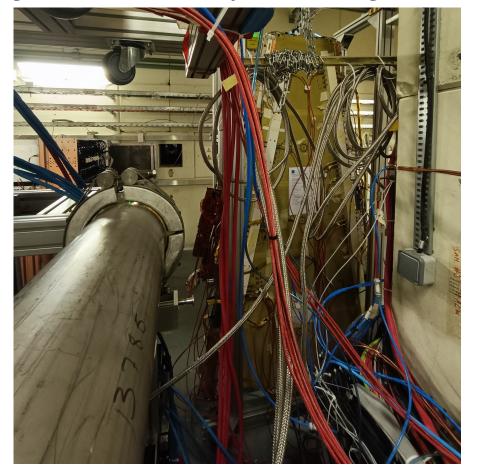
#### News

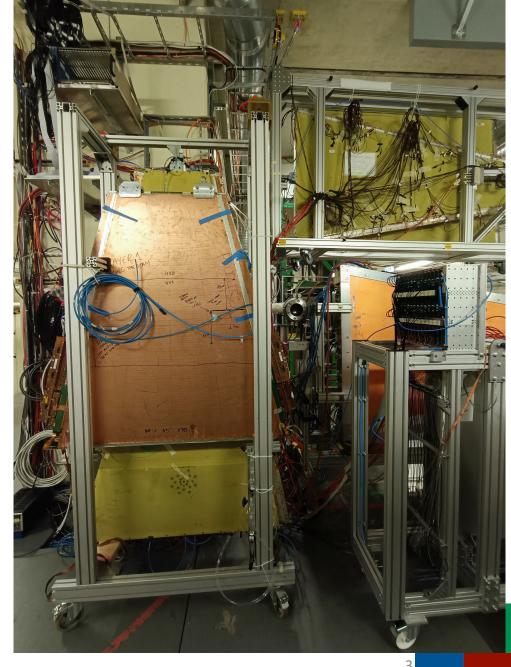
Installed SM1-M40 trolley back into the bunker, far from the source

sTGC chamber mounted on the same trolley, on the back of the SM1 detector

Installed new copper gas line for the delivery of the sTGC gas mixture

CO2-n-pentane





#### LM2-M40

- Ar+5%CO<sub>2</sub>+2%iC<sub>4</sub>H<sub>10</sub>
- Flux ~35 l/h
- RH ~5%

HV range	Number of HV sectors
HV = 520 V	23/24 (95.1%)
$500 V \leq HV < 520 V$	0/24 (0%)
$450 V \leq HV < 500 V$	0/24 (0%)
HV < 450 V	0/24 (0%)
OFF	1/24 (4.2%)

1.11.8 520 V	L1R8 520 V	1.21.8 520V	1.2R8 520 V	
L1L7 520 V	L1R7 520 V	1.21.7 520 V	1.2R7 520 V	
L1L6 520 V	L1R6 520 V	1.21.6 520 V	1.2R6 520V	
LID		I.21	D	

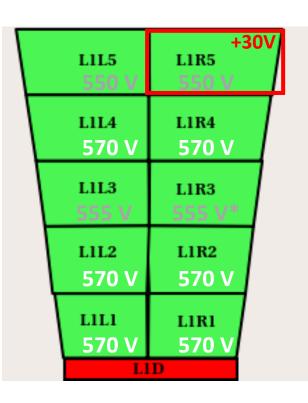
	1.31.8 520 V	L3R8 520 V	L4L8 OFF*	1.4R8 520 V	
١	L3L7 520 V	L3R7 520 V	L4L7 520 V	1.4R7 520 V	
	L3L6 520 V	13R6 520V	L4L6 520 V	1.4R6 520V	
	L3D		LA	D	

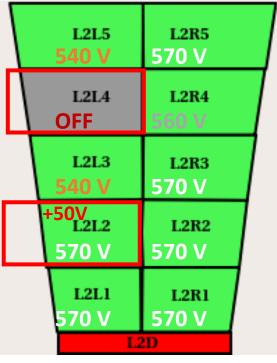
<sup>\*</sup> Tested the channel -> shows resistive behaviour: 58.7 uA at 520V at attenuation 1 (neighbour with 17.2 uA)

#### SM1-M35

- Ar+7%CO<sub>2</sub>
- Flux ~22 l/h
- RH ~8%

	HV range		Number of HV sectors			After Argon treatment		
	HV = 570	V	20/40	(50%)		21/40	(52.5%)	
	$550 V \leq HV < 570 V$		5/40 (12.5%)			9/40 (22.5%)		
	$500 V \le HV < 550 V$ $HV < 500 V$ $OFF$		14/40 (35%) 0/40 (0%) 1/40 (2.5%)			9/40 (22.5%)		
						0/40 (0%) 1/40 (2.5%)		
R5		L3L5	L3R5			L4L5	L4R5	





L3L5	L3R5
570 V	540 V
L3L4	L3R4
540 V	540 V
+30V L3L3 560 V	L3R3 540 V
+30V L3L2 560 V	L3R2 570 V
L3L1	L3R1
560 V	570 V
Li	BD

_			
	L4L5 570 V	L4R5 570 V	
+4	10V 1.41.4 550 V	1.4R4 540 V	
	L4L3 540 V	L4R3 540 V	
	L4L2 570 V	L4R2 570 V	
	L4L1 570 V	L4R1 570 V	
	L	4D	

<sup>\*</sup>Recurring trips

# Back-up

#### SM1-M40

- Ar+5%CO<sub>2</sub>+2%iC<sub>4</sub>H<sub>10</sub>
- Flux ~32 l/h
- RH ~3.7%

HV range	Number of HV sectors
HV = 520 V	34/40 (85%)
$500 V \leq HV < 520 V$	2/40 (5%)
$450 V \leq HV < 500 V$	1/40 (2.5%)
HV < 450 V	1/40 (2.5%)
OFF	2/40 (5%)

L1L5 OFF*	L1R5 350 V**	
L11.4 520 V	L1R4 520 V	
L1L3 520 V	L1R3 520 V	
1.11.2 520 V	L1R2 520 V	
L1L1 520 V	L1R1 520 V	
LI	D	

	~Resistive
L2L5	L2R5
 520 V	450 V
L2L4 520 V	L2R4 520 V
L2L3 520 V	L2R3 520 V
1.21.2 520 V	I.2R2 510 V
I.2I.1 520 V	L2R1 520 V
L2	2D

L3L5 OFF*** L3L4 520 V	L3R5 520 V L3R4 520 V		I.4L5 510 V I.4L4 520 V	L4R5 520 V L4R4 520 V	
1.31.3 520 V	L3R3 520 V	Resistive since 2/5	L4L3 520 V	L4R3 520 V	
L3L2 520 V	L3R2 520 V	7 uA @520V	1.41.2 520 V	L4R2 520 V	
L3L1 520 V	L3R1 520 V		L4L1 520 V	L4R1 520 V	
L3	BD		L4	ID	

<sup>\*</sup> Tested the channel -> shows resistive behaviour: 68.5 uA at 520V at attenuation 1 (neighbour with 10.5 uA)

<sup>\*\*</sup> Tested the channel -> shows resistive behaviour:  $^{\sim}60$  uA at 520V at attenuation 1 (was 10.5 uA before switching)<sub>7</sub>

<sup>\*\*\*</sup> Tested the channel -> shows resistive behaviour: ~80 uA at 520V at attenuation 1 (neighbour with 13.9 uA)