# CGEM operations Week 12-26 August

Damiano & Michela for the WG

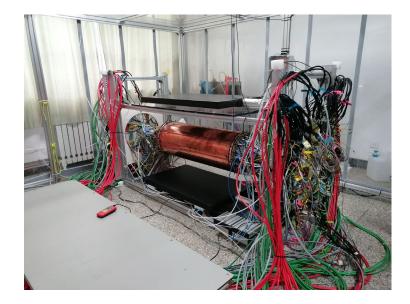
### CGEM detector:

Powered on at operation values



- H from 35% to 65% (also depending on the weather outside)
- Damiano left August 20
- Ar bottle changed on Friday 23: thanks!
- Isobutane bottle finished:

Is it possible to change after the meeting?



# CGEM-DAQ

- Pawel changed the firmware of the upper FPGA in the DC BOARD to fulfill the IRQ requirements.
- Pawel flashed the firmware on the DC board in Tingxuan's lab on August 21.
- The first test was fine and also the all night test. Tingxuan will report back.

# CGEM DAQ : trigger signal test/ first phase



Check CLK, TRG, L1 CHECK signals **DONE shortly after August 12th meeting** 

# ✓ DAQ : trigger signal test/ first phase

Thanks to Angelo

log: Trig @ 2024/08/12 10:37:31 (0:0:0.2 elapsed)				
Туре	Alias Name	, -24., -20., -16., -12., -8., -4., -9., -4., -9., -4., -8., -12., 16., 22., -24., 28., 32., 36., 40., 44., 48., 52., 56., 60., 64., 68., 72., 76., 80., 84., 88.,		
*	BESIII_CLK_IN			
*	L1_CHK_IN	0		
•*	L1_TRIGGER_IN			
*	L1_CHOKE_OUT	0		
*	T1_T0_SPI_CLK	0		
*	T3_T2_SPI_CLK	0		

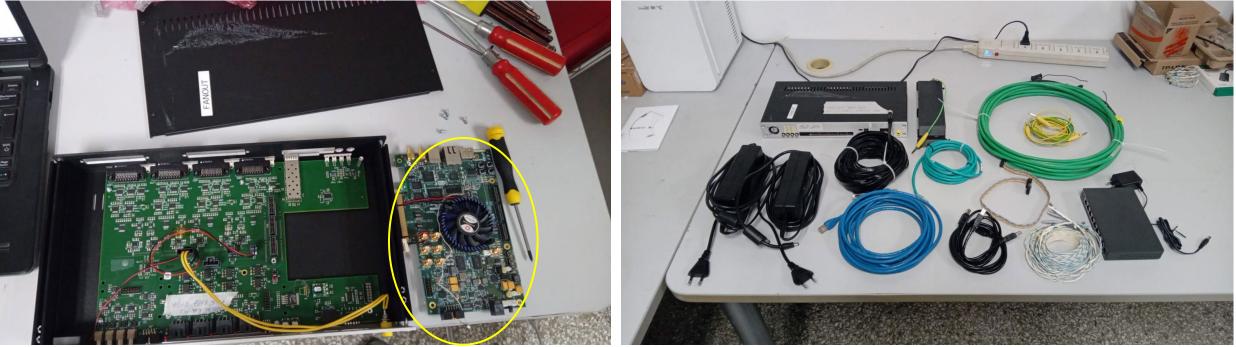
log: Trig @ 2024/08/12 10:42:10 (0:0:3.5 elapsed)				
Туре	Alias Name	- <u>24</u> - <u>16</u> - <del>β</del> Ο <u>8</u> 1 <u>6</u> 2 <u>4</u> 3 <u>2</u> 4 <u>ρ</u> 4 <u>β</u> 5 <u>6</u> 6 <u>4</u> 7 <u>2</u> 8 <u>ρ</u> 8 <u>β</u> 9 <u>6</u> 10 <u>4</u> 11 <u>2</u> 12 <u>0</u> 12 <u>8</u> 13 <u>6</u> 14 <u>4</u> 15 <u>2</u> 16 <u>0</u> 16 <u>8</u> 176 184 192 200		
*	BESIII_CLK_IN			
*	L1_CHK_IN			
*	L1_TRIGGER_IN	0		
	L1_CHOKE_OUT			
*	T1_T0_SPI_CLK	0		
*	T3_T2_SPI_CLK			
*	T5_T4_SPI_CLK			
×	T7_T6_SPI_CLK	0		
*				

#### ✓ CLK, L1TRG, L1 CHK Signals acquired with SignalTAP using the Fanout MODULE that we use for Cosmic rays data acquisition

The spare FANOUT module used until August 12th morning has **a malfunction of the JTAG interface.** We will retrieve the spare FANOUT module for the second phase but we need some time because we have to do an HW replacement → Damiano did

In the meantime, Tingxuan performed real data acquisition tests (noise data) in 106 @ variable rate [200 Hz-4 kHz]: she will report

# ✓ FANOUT spare





- JTAG IFC replaced,
- firmware updated:

we are ready to send the full signal.

• Everything ready: remote operation for the next days

Thanks to Angelo Damiano

#### **CGEM-SC** updates

End of July:

meeting with Federico & GG for interlock;

Mid August:

I distributed a document with the update of HV power on/off procedure

Work in progress with Si MA: remote operation next days as soon as the Isobutane bottle is replaced