

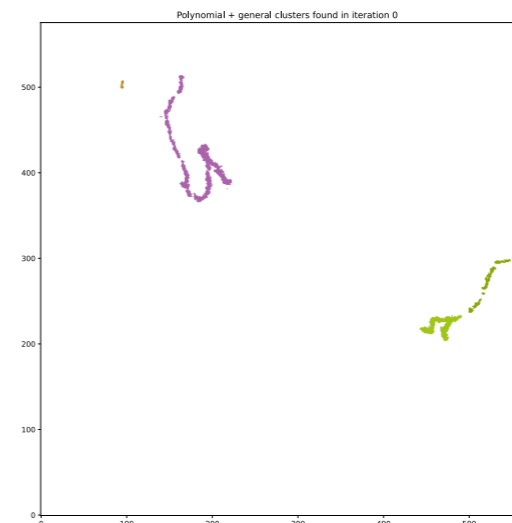
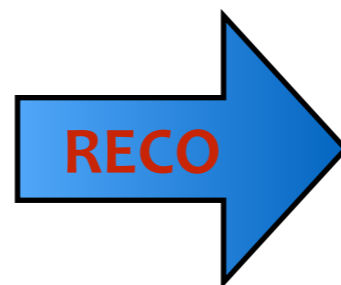
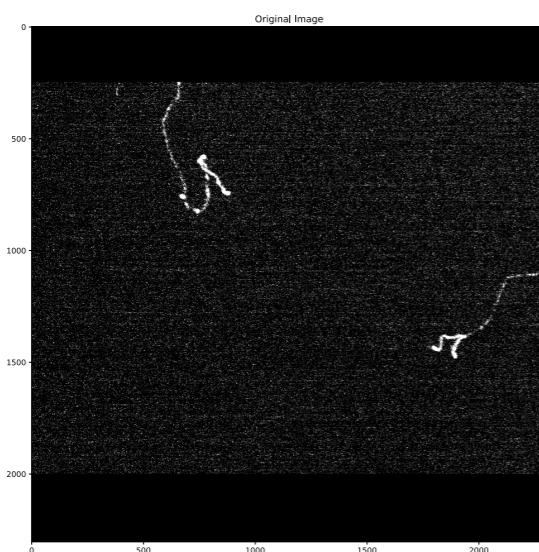


News

E. Di Marco

Reconstruction & analysis meeting, 16 March 2023

- Last week the data taking of LIME Run 2 ended. It compounds:
 - Many studies of GEM gain, light yield, and detector stability for CYGNO performance and future R&D
 - A dataset with background-only images in *golden* configuration: **1104 runs**, i.e. **400k images** \times **300 ms/image** exposure
 - Dataset with stably best conditions: $HV_{GEM} = 440 V$, gas flux = 20 l/h for optimal S/B of images and PMTs
 - Dataset contains images + 4 PMT waveforms
- All the runs have been reconstructed with “winter23” reconstruction version. All ROOT trees are stored in [this cloud directory](#)
 - always refer to the [RECO wiki page](#) of central productions for details



- From S. Piacentini's presentation last at last General Meeting
- Runlog table with details in Grafana in [this link](#)

Run 2 - History

Legend:

	Daily calibration		Relevant stops
	Specific measurements		Golden data
	LY stability studies		

Week 1 and Week 2

	Description	Fe source	Gas flow [l/h]	VGEM [V]	Run number
15-02 17:30 – to – 16-02 11:10	Start of Run 2	No	5	420	7792-7928
16-02 11:10 – to – 16-02 12:20	Calibration	Yes	5	420	7929-7935
16-02 12:45 – to – 16-02 15:40	Scan in VGEM ALL	Yes	5	///	7938-7954
16-02 16:15 – to – 17-02 10:10	LY vs time	Yes	5	440	7955-8169
17-02 10:10 – to – 17-02 11:05	Calibration	Yes	5	440	8170-8180
17-02 11:05 – to – 20-02 15:20	LY vs time	Yes	5	440	8181-9048
20-02 16:00 – to – 20-02 16:40	Calibration	Yes	5	440	9049-9055
20-02 19:10 – to – 21-02 09:35	LY vs time	Yes	20	420	9083-9134
21-02 09:35 – to – 21-02 10:25	Calibration	Yes	20	420	9134-9141
21-02 12:25 – to – 22-02 08:45	LY vs time	Yes	20	420	9171-9250
22-02 08:45 – to – 22-02 12:50	Technical operations	///	///	///	///
22-02 12:50 – to – 22-02 14:48	LY vs time	Yes	20	420	9251-9341
22-02 16:02 – to – 22-02 23:25	Scan VGEM 1	Yes	20	///	9352-9446
22-02 23:23 – to – 23-02 09:40	LY vs time	Yes	20	420	9447-9710
22-02 09:40 – to – 23-02 13:00	Scan VGEM 1	Yes	20	///	9711-9753
23-02 15:59 – to – 23-02 16:51	Calibration	Yes	20	420	9755-9762
23-02 16:51 – to – 23-02 18:10	LY vs time	Yes	20	420	9763-9773
23-02 18:10 – to – 23-02 19:20	Scan in pressure	Yes	20	420	9774-9783
23-02 19:25 – to – 24-02 08:33	LY vs time	Yes	20	420	9784-9850
24-02 08:35 – to – 24-02 09:10	Calibration	Yes	20	420	9851-9857
24-02 09:10 – to – 24-02 11:00	LY vs time	Yes	20	420	9858-9867
24-02 12:13 – to – 24-02 13:58	LY vs time	Yes	20	440	9872-9887
24-02 14:01 – to – 25-02 13:51	Golden	No	20	440	9888-10131
25-02 14:00 – to – 27-02 16:15	STOP	///	///	///	///

Week 3 and Week 4

	Description	Fe source	Gas flow [l/h]	VGEM [V]	Run number
25-02 14:00 – to – 27-02 16:15	STOP	///	///	///	///
27-02 16:16 – to – 28-02 13:10	LY vs time	Yes	20	420	10345-10435
28-02 13:10 – to – 28-02 13:56	Calibration	Yes	20	420	10436-10443
28-02 13:56 – to – 01-03 09:58	LY vs time	Yes	20	420	10444-10518
01-03 10:00 – to – 01-03 21:09	Technical operations	///	///	///	///
01-03 21:09 – to – 04-03 09:52	STOP	///	///	///	///
04-03 09:52 – to – 06-03 11:25	LY vs time	Yes	20	420	11031-11279
06-03 11:25 – to – 06-03 12:17	Calibration	Yes	20	440	11281-11287
06-03 12:21 – to – 07-03 11:29	Golden	No	20	440	11288-11582
07-03 11:36 – to – 07-03 12:10	Calibration	Yes	20	440	11583-11589
07-03 12:18 – to – 08-03 16:48	Golden	No	20	440	11590-11951
08-03 16:48 – to – 08-03 17:36	Calibration	Yes	20	440	11951-11958
08-03 17:36 – to – 09-03 09:55	Golden	No	20	440	11959-12165
09-03 09:55 – to – 09-03 10:30	Calibration	Yes	20	440	12168-12174
09-03 10:30 – to – 09-03 11:30	Golden	Yes	20	440	12175-xxxxx

- To do list before closing:
1. Scan in VGEM 1 and z
 2. LY vs gas flow

- We will have a meeting dedicated to results of analysis of data and simulations of LIME in **Coimbra on the days June 7-9**
 - Thanks to the Coimbra's group to host this meeting, save the date!



The End