

# CLEAR summary for week 10

Supervisor: Wilfrid

Experimenters:

**Optic fibre BLM:** Sara, Erika

**EOS:** Stefano



## Week Summary Report

Supervisor: Wilfrid Farabolini

### A. Overall Summary

Week type: Experiments  
Date/Week Number: 31/05/2021 to 04/06/2021 (Week 10)  
EDMS number: 2493388 -  
  
Beam time: 3.5 days  
Fatal Failure time: 0.5 days  
Installation time: 1 days  
Number access: 2

#	Experiment Name	Responsible	Institute	Installation time	Access number	Beam time
1	Beam Loss Monitor w/ optical fibre	S. Berrocal	CERN/BI	4 h	1	8 h
2	EOS	S. Mazzoni	CERN/BI	5h	1	10 h
3	CHUV beam preparation	M.C. Vozenin	CHUV	0h	0	12 h

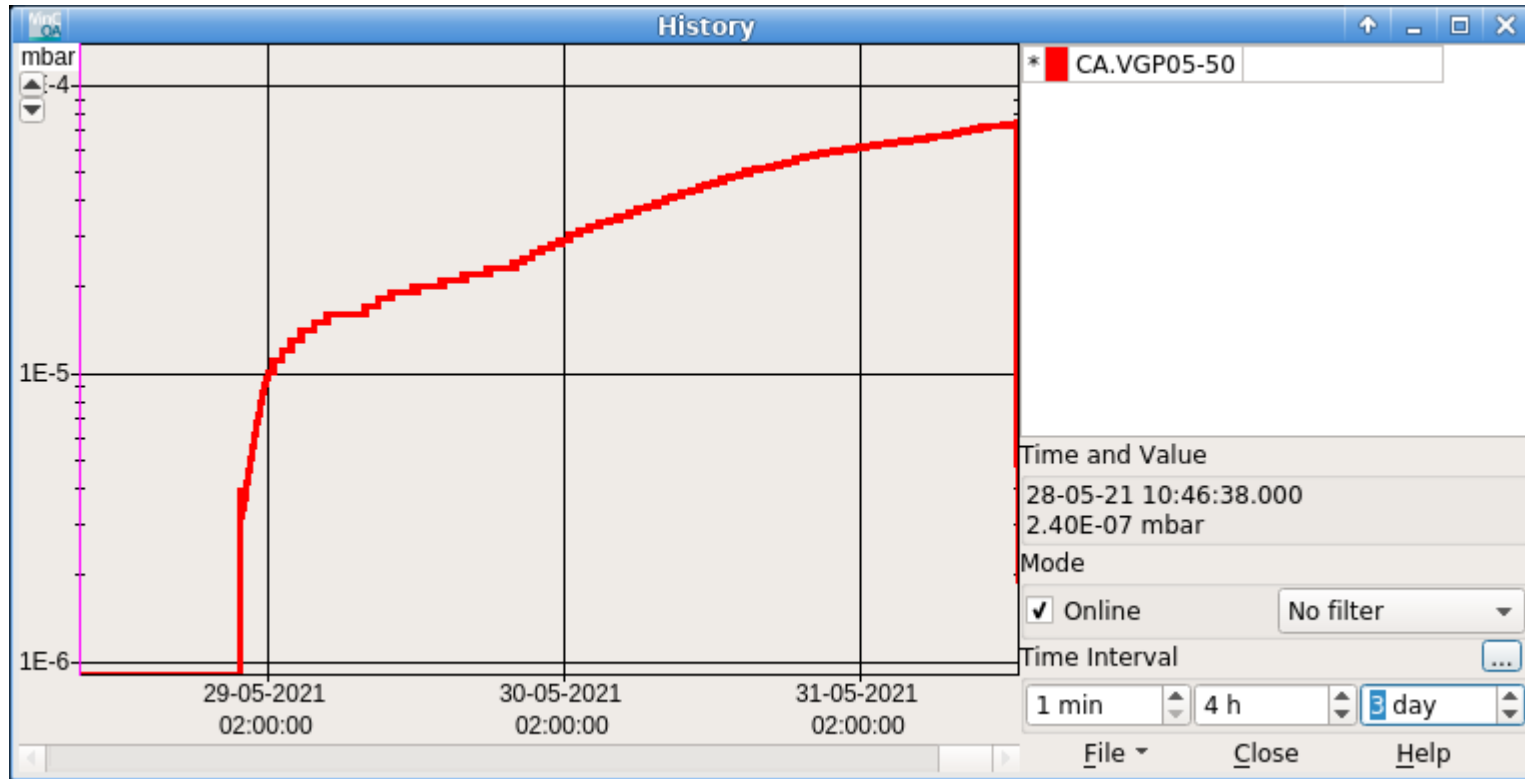
### Weekly activity

This week was dedicated to two experiments:

- Optic Fibre Beam Loss Monitor
- Electro-Optical Sampling

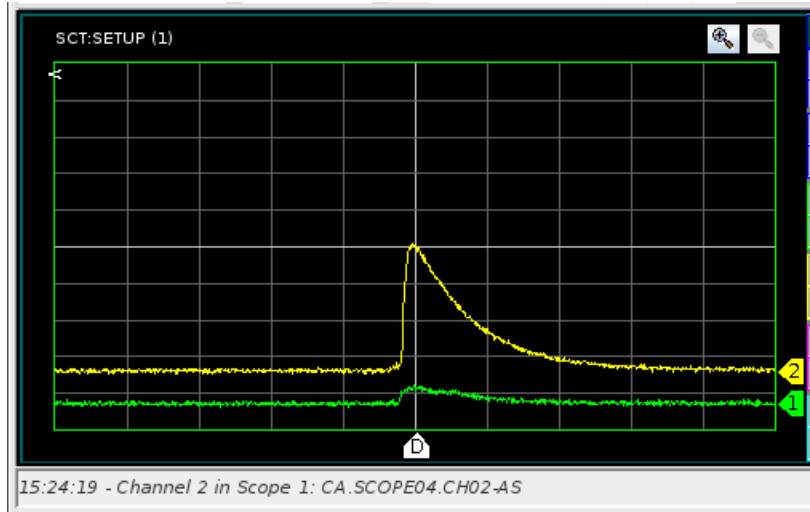
In addition, during period of user's unavailability, some beam preparation was done to fulfil the request of CHUV irradiation coming soon (high charge, single train)

# 2 ion pumps off

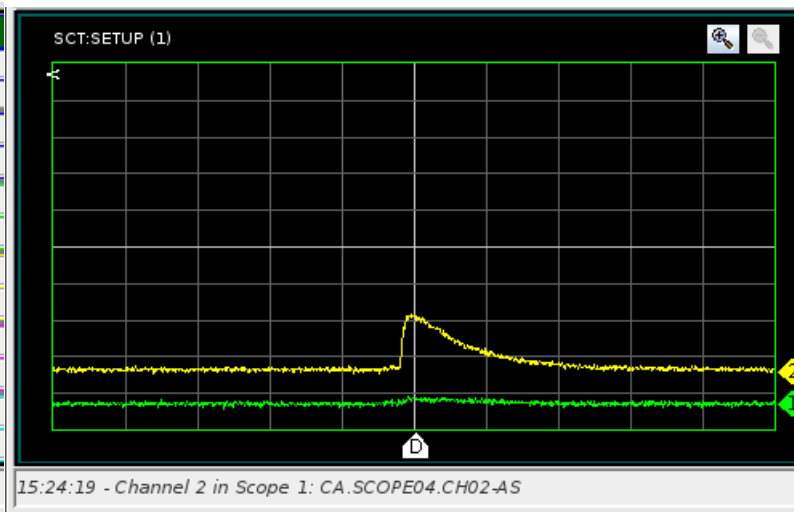


Vacuum reached 7E-04 mbar. We were lucky to be able to restart the ions pumps (bypassing interlocks)  
Better not to close all the sector valves

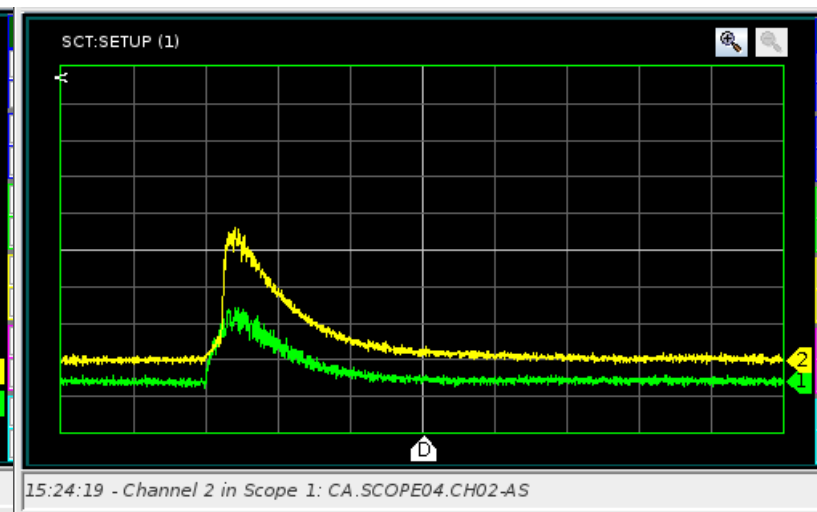
# Optic Fibre beam loss monitor



Beam on thick target edge

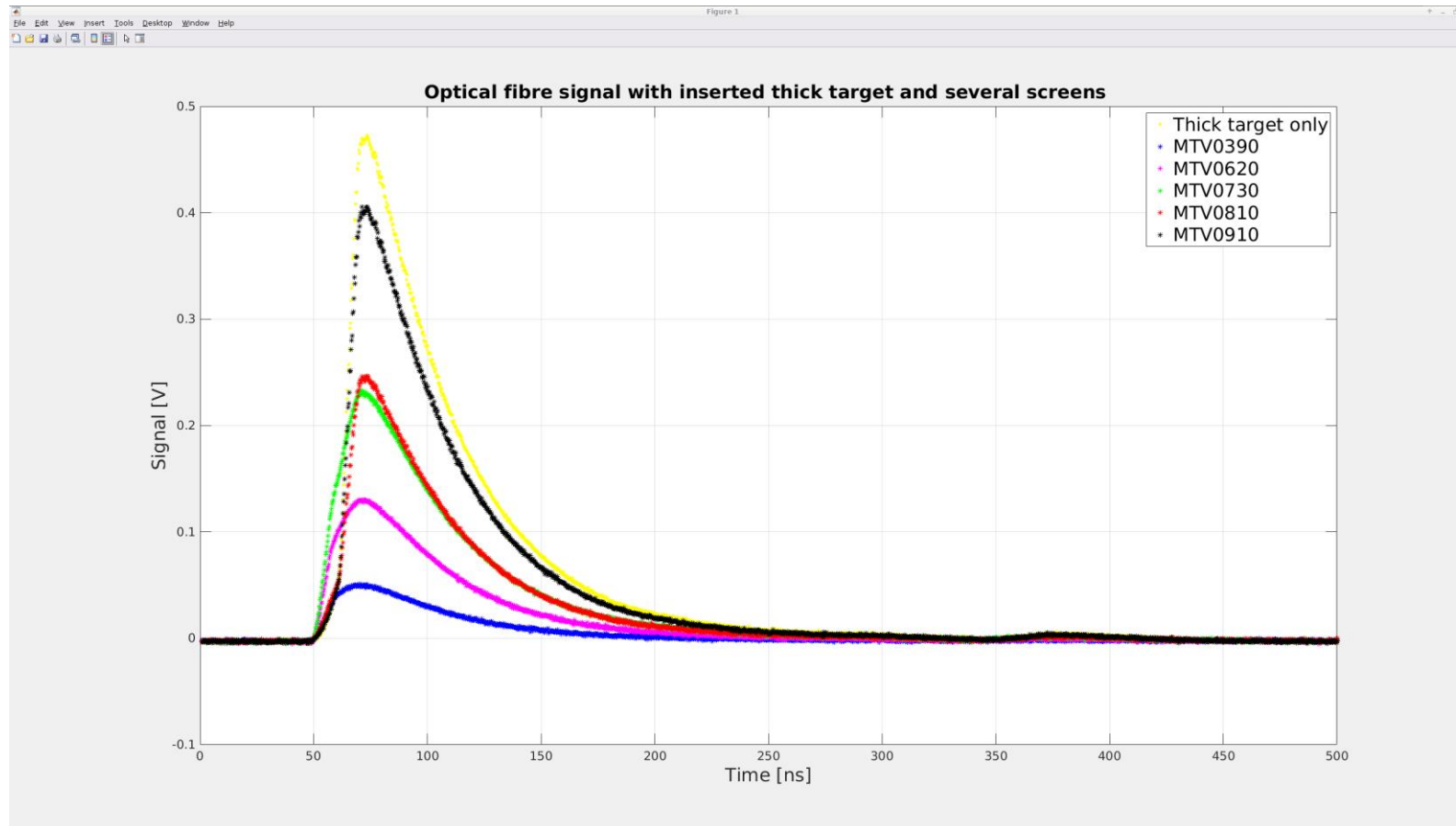


Beam on thick target centre



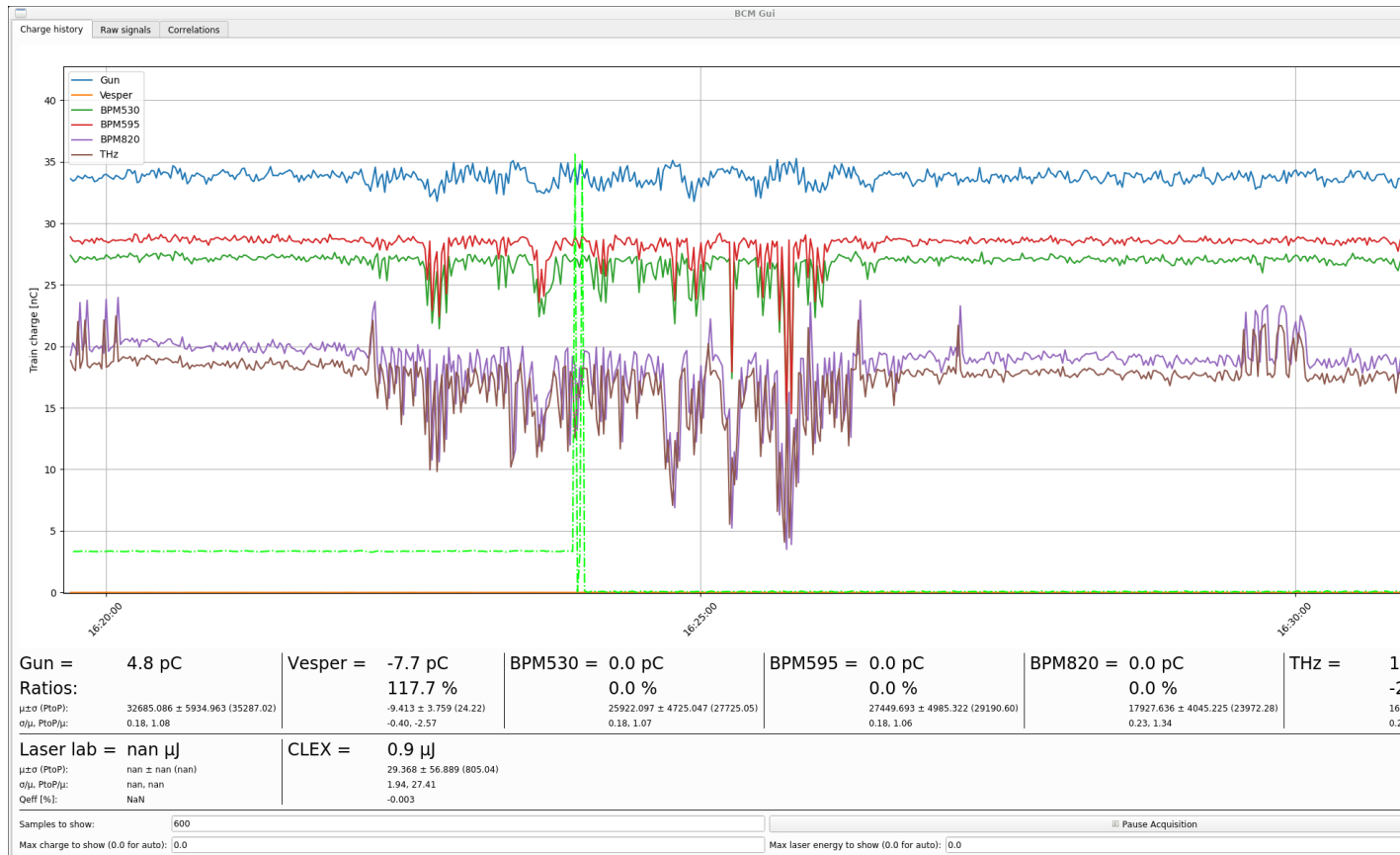
Beam on thick target centre  
and on MTV screen 730

# Optic Fibre beam loss monitor

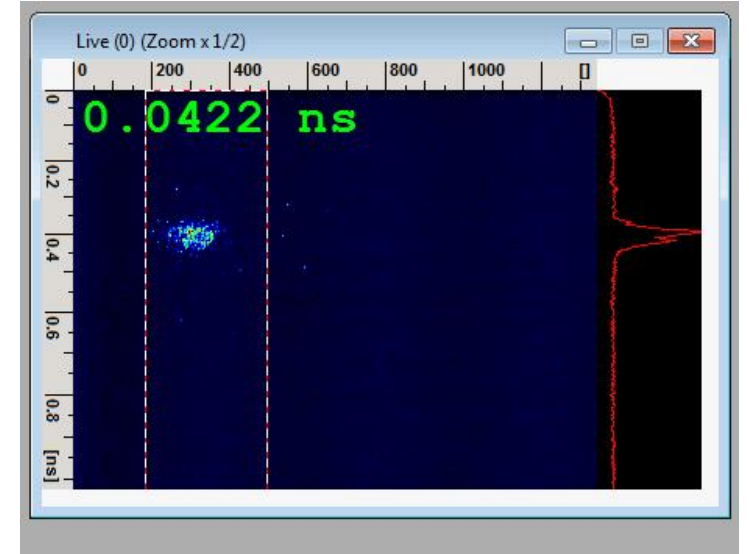
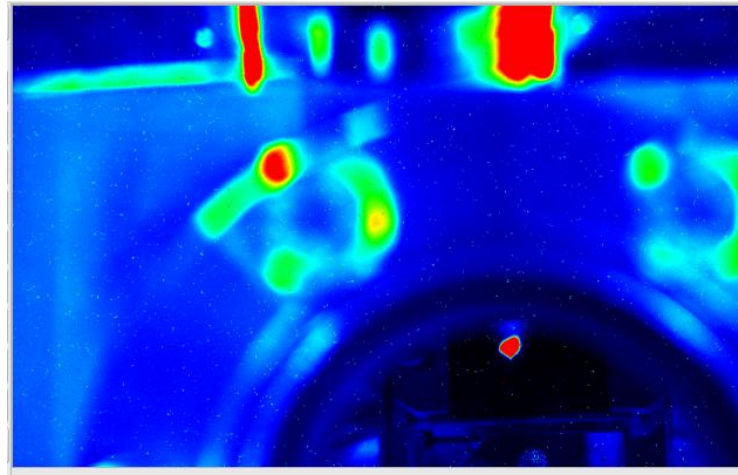
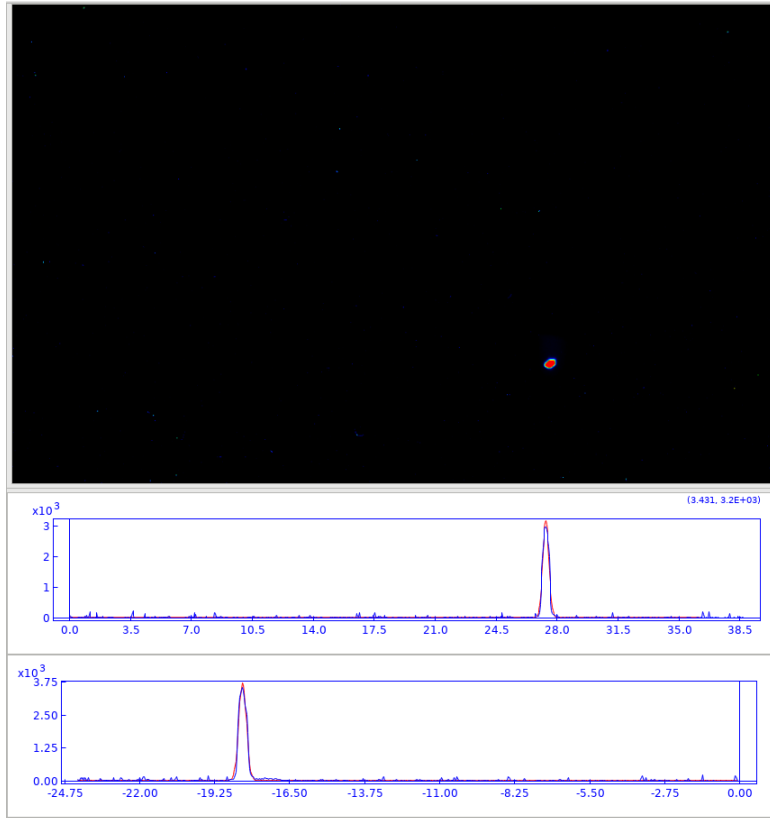


From various beam loss positions

# Beam perturbations by ground vibrations

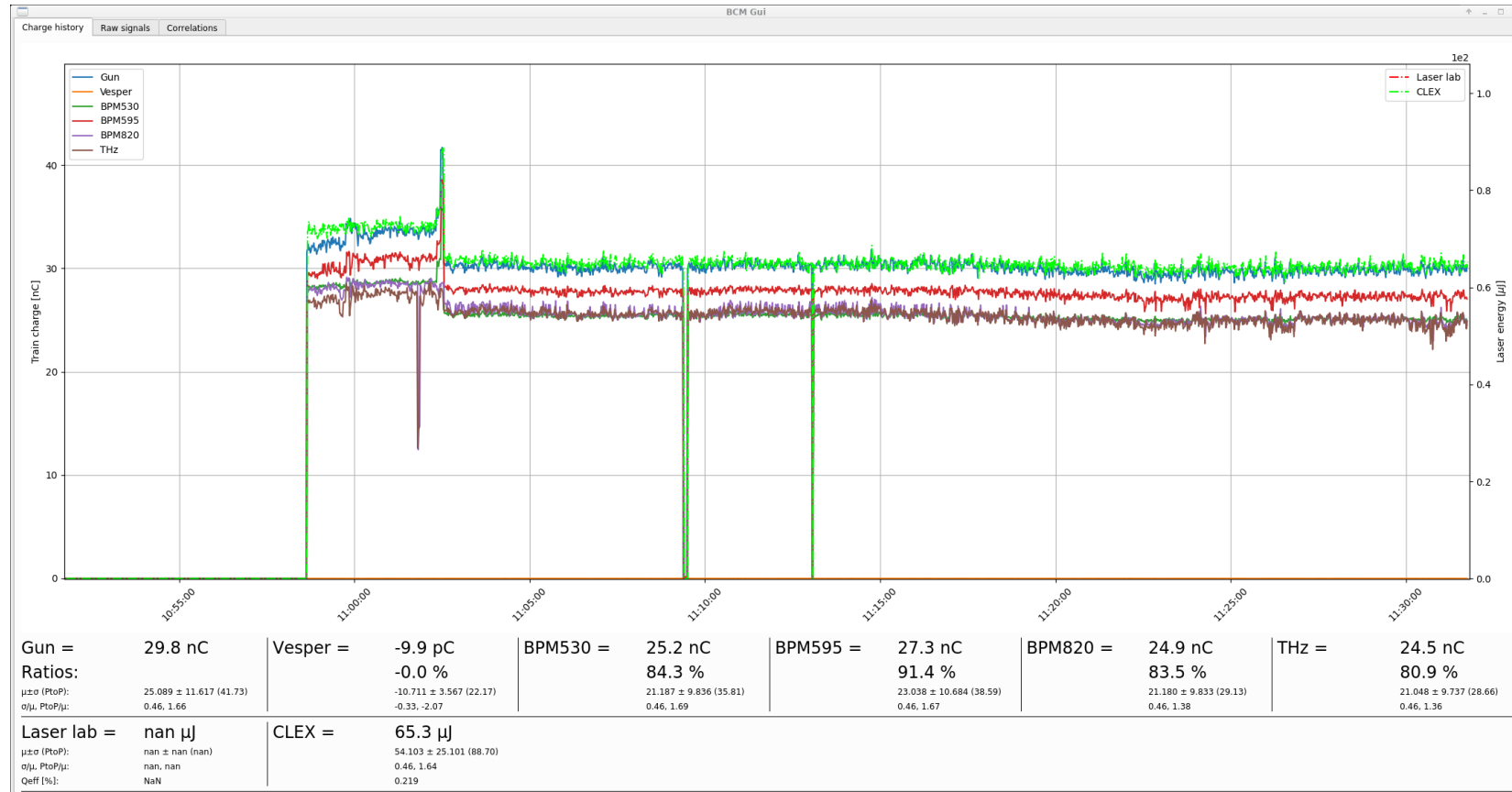


# EOS



Beam clearly optimized but no EOS signal yet

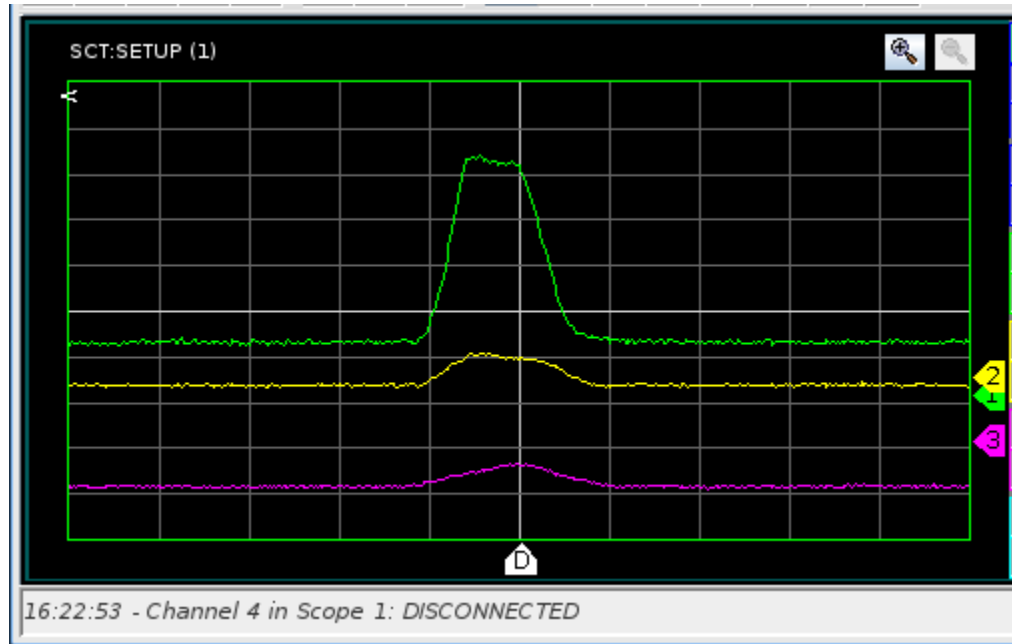
# CHUV beam preparation



Rather stable beam of 25nC with 50 bunches  
 Above 50 bunches beam losses appear at the CLIC ACS position.



# Signal from ACS output coupler



RF generated by the beam in the structure.  
With down-mixing we will check the tuning frequency