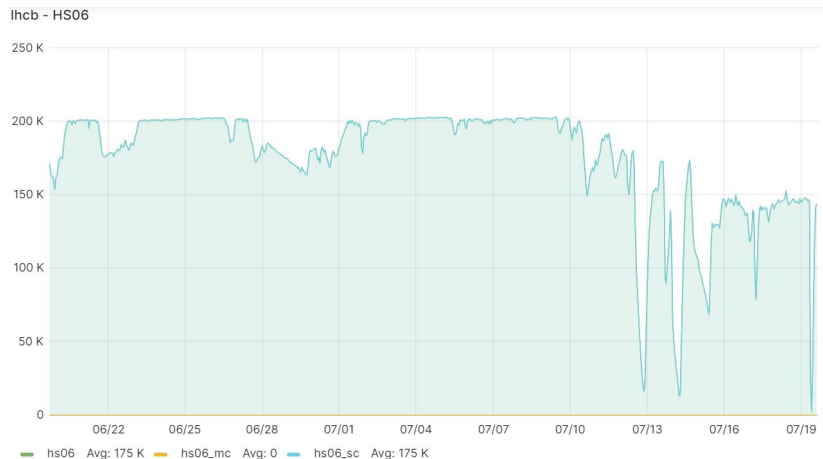


# Report LHCb

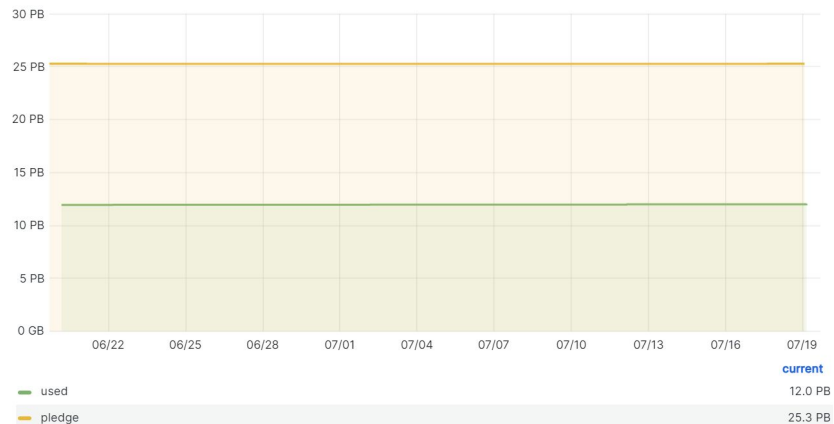
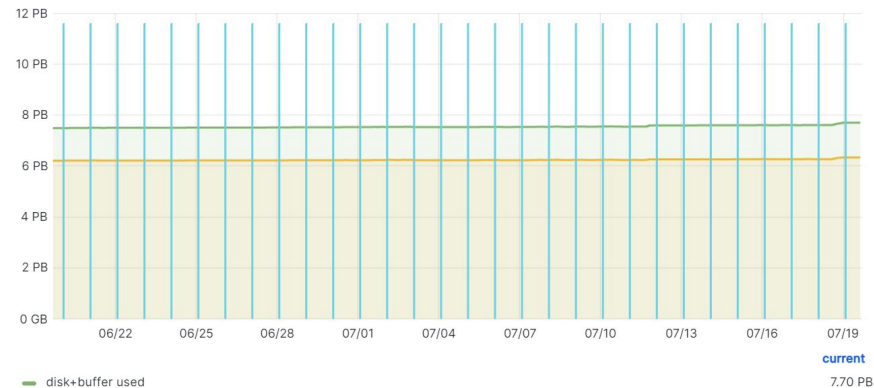
Lucio Anderlini

# Business as usual (in no-data-taking conditions)

- Reduced pressure on Run2 MC
- Disk quota below pledge
- Well below tape pledges



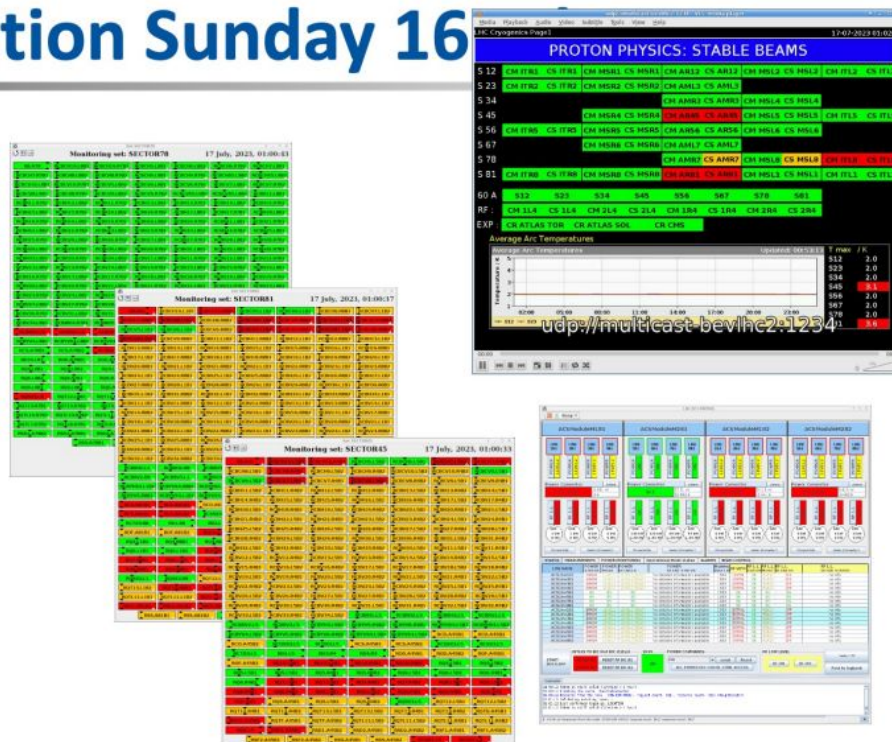
Disk usage LHCB



# Major LHC incident

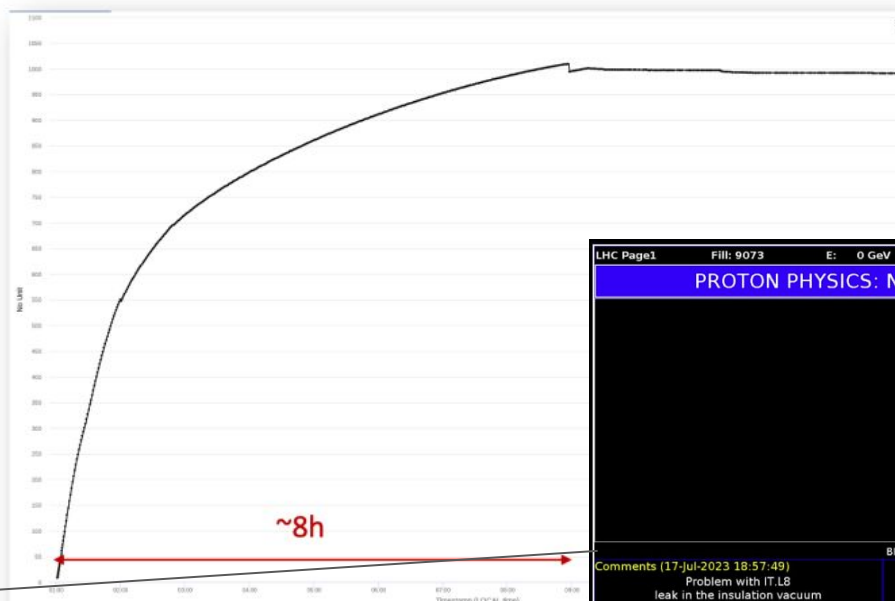
## Electrical perturbation Sunday 16

- Beams dumped at 01:00:17 by RF trip
- Few hundreds of milliseconds later **several magnets quenched**:
  - RQ7/9/10.R4
  - RQ10.R8
  - RQX.L8
- The heat wave generated by RQX.L8 quench made **IP8 cold compressor trip**



# RQX.L8 insulation vacuum

- Following the quench, the insulation vacuum **pressure increased**
- Visible **effect of magnet depressurization** on insulation vacuum pressure
- Indication of a **possible leak** in the vacuum vessel



**Comments (17-Jul-2023 18:57:49)**  
 Problem with IT.L8  
 leak in the insulation vacuum  
 No beam until further notice (weeks)

LHC Page1    Fill: 9073    E: 0 GeV    17-07-23 21:00:48

**PROTON PHYSICS: NO BEAM**

Comments (17-Jul-2023 18:57:49)  
 Problem with IT.L8  
 leak in the insulation vacuum  
 No beam until further notice (weeks)

BIS status and SMP flags		B1	B2
Link Status of Beam Permits		true	true
Global Beam Permit		false	false
Setup Beam		false	false
Beam Presence		false	false
Moveable Devices Allowed In		false	false
Stable Beams		false	false

AFS: 25ns\_2464b\_2452\_1842\_1821\_236bpi\_12inj\_hybrid    PM Status B1    ENABLED    PM Status B2    ENABLED

# Updated Plan for a next Tape Challenge

## Plan for a next Tape Challenge

October

**Target:** complete the challenge before the end of ~~September~~

1. ✓ Remount `/storage/gpfs_lhcb/lhcb/disk/LHCB` → `/storage/gpfs_lhcb/lhcb/lhcb/LHCB`  
scheduling downtime if needed
2. ✓ We run a validation test on a CNAF *user interface* to ensure everything is in place
3. ✓ We restart the production and validate
4. If in the meanwhile developments for Storm TAPE Rest API get ready, we include them also for LHCB
5. We run the tape challenge

Moving buffer to SSD would not cause any issue for LHCB, but might require more time CNAF side: test postponed

Token-based AuthN/Z for storage requires some additional discussion and agreement on the policy to adopt. Definitely not for this Tape Challenge. CNAF agreed on being a “test-bed”.