



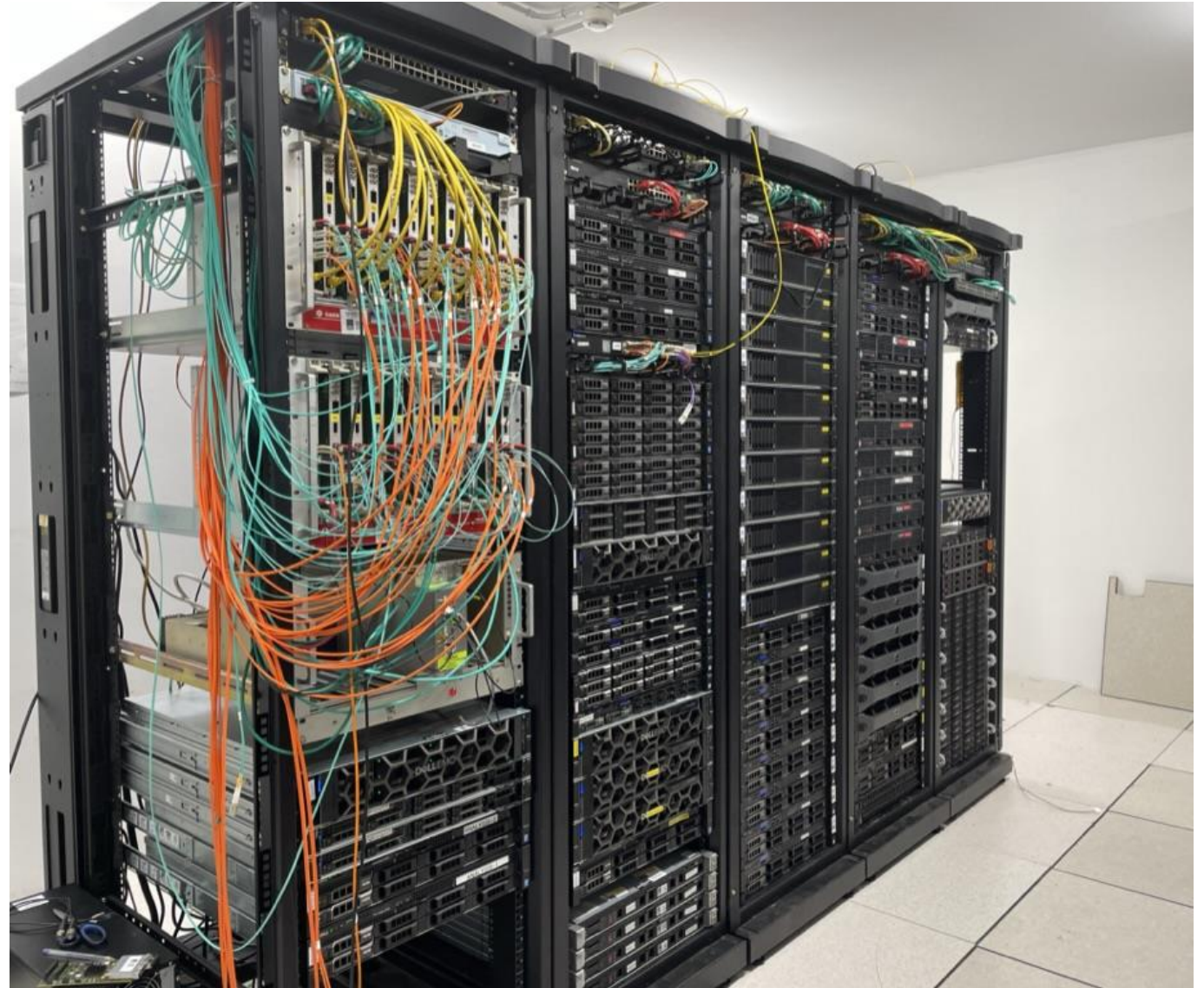
Istituto Nazionale di Fisica Nucleare
LABORATORI NAZIONALI DI LEGNARO

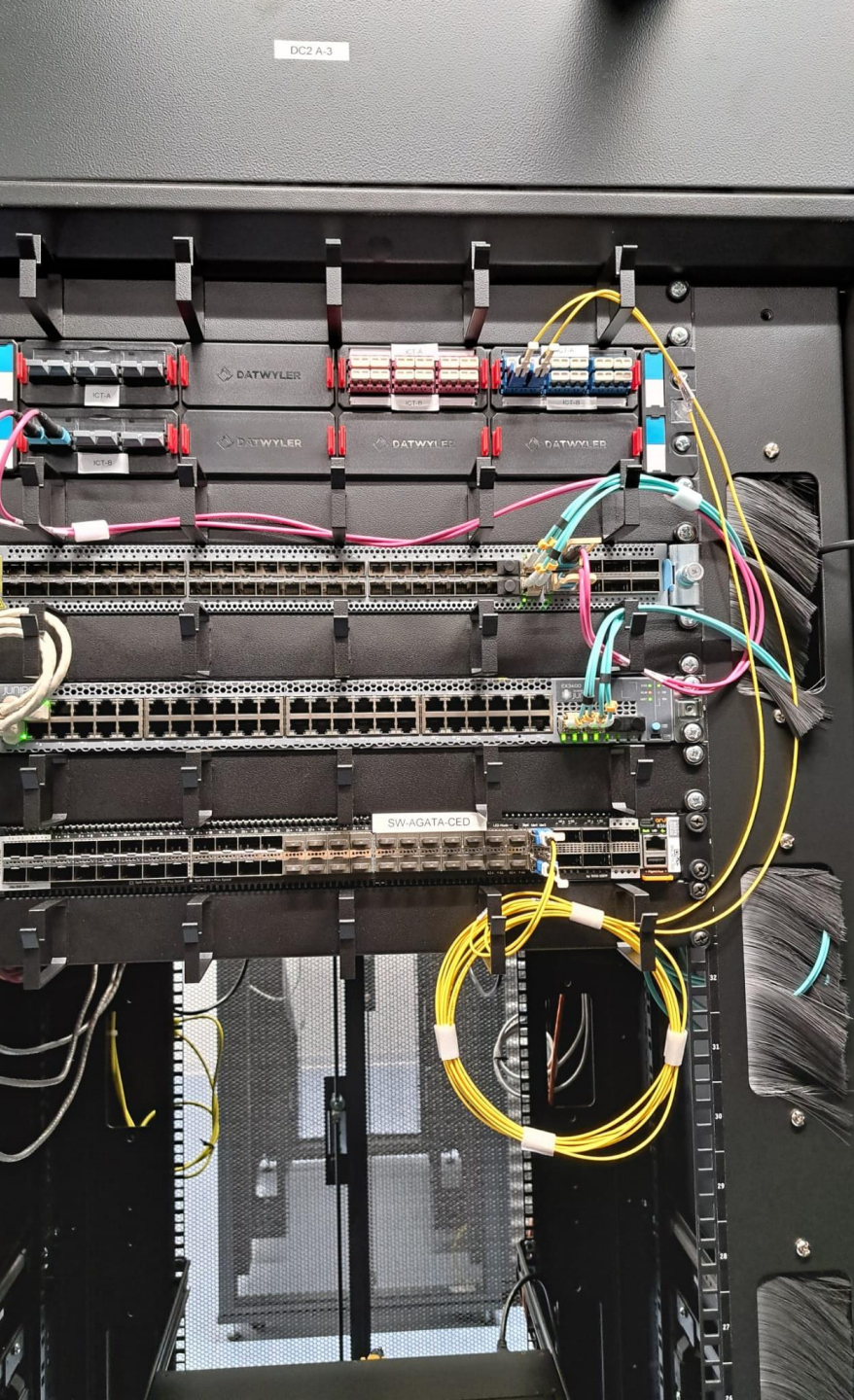
LNL DAQ INFRASTRUCTURE

Alain Goasduff (INFN LNL)

CURRENT SITUATION

- Upgrade of the CEPH Storage (Patrick's talk)
- Upgrade of the Analysis cluster (Guillaume's talk)
- Migration of XDAQ nodes to Alma9 in progress (missing PRISMA)





NETWORK EXTENSION TO THE CC

- AGATA Services already extended (172.16.0.0/16),
 - Moving the ancillary servers out of VAX (Fall 2025)
 - Ancillary event building
 - Run Control server
 - Ancillary disk servers
 - Starting to move AGATA servers (January 2026 – Shutdown manutention TANDEM):
 - Analysis nodes
 - Knodes
 - Disk servers (after extension of the 172.17.0.0/16)
-

V2 INSTALLATION

- LVPS delivered at LNL
- 4x 100Gbps link installed between the experimental hall and VAX (MTP-MTP OM5)

RUN CONTROL UPGRADE

- Slow control of the Hardware Trigger
- Timed run for source measurement
- Automatic post to the elog at stop
- Generation of MetaData
 - No dependency root file

```
[xdaq@anc-rc run_0182_01-08-2025_22h24m04s]$ ll
total 68
drwxrwxrwx 41 dcod data_group 4096 Aug  1 20:08 Conf
dr-xr-xr-x 31 dcod data_group 4096 Aug  2 01:05 Data
-rwxrwxrwx  1 dcod data_group 57384 Aug  1 20:08 gen_conf.py
drwxrwxrwx  2 dcod data_group  47 Aug  2 01:05 MetaData
[xdaq@anc-rc run_0182_01-08-2025_22h24m04s]$ cd MetaData/
[xdaq@anc-rc MetaData]$ ll
total 260
-rw-rw-rw- 1 dcod data_group 266236 Aug  2 01:05 data_monitor_run_182.root
[xdaq@anc-rc MetaData]$
```

Menu

- Home
- Hardware Monitoring
- Hardware Control
- Rate Monitoring
- DAQ Monitoring
- File Monitoring
- E-log
- Trigger processor

AGATA Run Control

Run Control for AGATA and its complementary instrumentation @ LNL

General Information:

- Current Global DAQ topology set to: /online/ANCILLARY/topologies/exp_23.53_agata_standalone.xml
- Current AGATA DCOD topology set to: Topology not set yet
- Experiment Name set to: EXP_23.53
- Experiment data directory set to: AGATAD_P2_EXP_035
- Current date: Wed Sep 11 2024 09:12:21 GMT+0200 (Central European Summer Time)

Current run information:

- Run number: 1024
- Start time: 31/07/2024 17:04:25
- GTS time-stamp at start: 0x00C473946728
- Stop time: 31/07/2024 18:21:23
- GTS time-stamp at stop: 0x012FFA49BD0E
- AGATA rates
 - Total request: 72185
 - Total validation: 60432
 - Total rejection: 0

DAQ Server messages:

None

→ None

Run Control

DAQ Status: Created

Initialize Configure Start Stop

GGP Drain: Enabled

Automatic next run number: 1025

Manual run number (click to validate):

Timed run in minutes (click to validate):

Hardware Trigger setup

Current Configuration:

- Current trigger: Validate All
- Gate rate (Hz): 4999
- Gate width (ns): 500
- Gate delay (ns): 0

Modify Configuration:

Hardware trigger (click to validate):

Gate width [ns] (click to validate):

Gate delay [ns] (click to validate):

Pulser frequency [Hz] (click to validate):

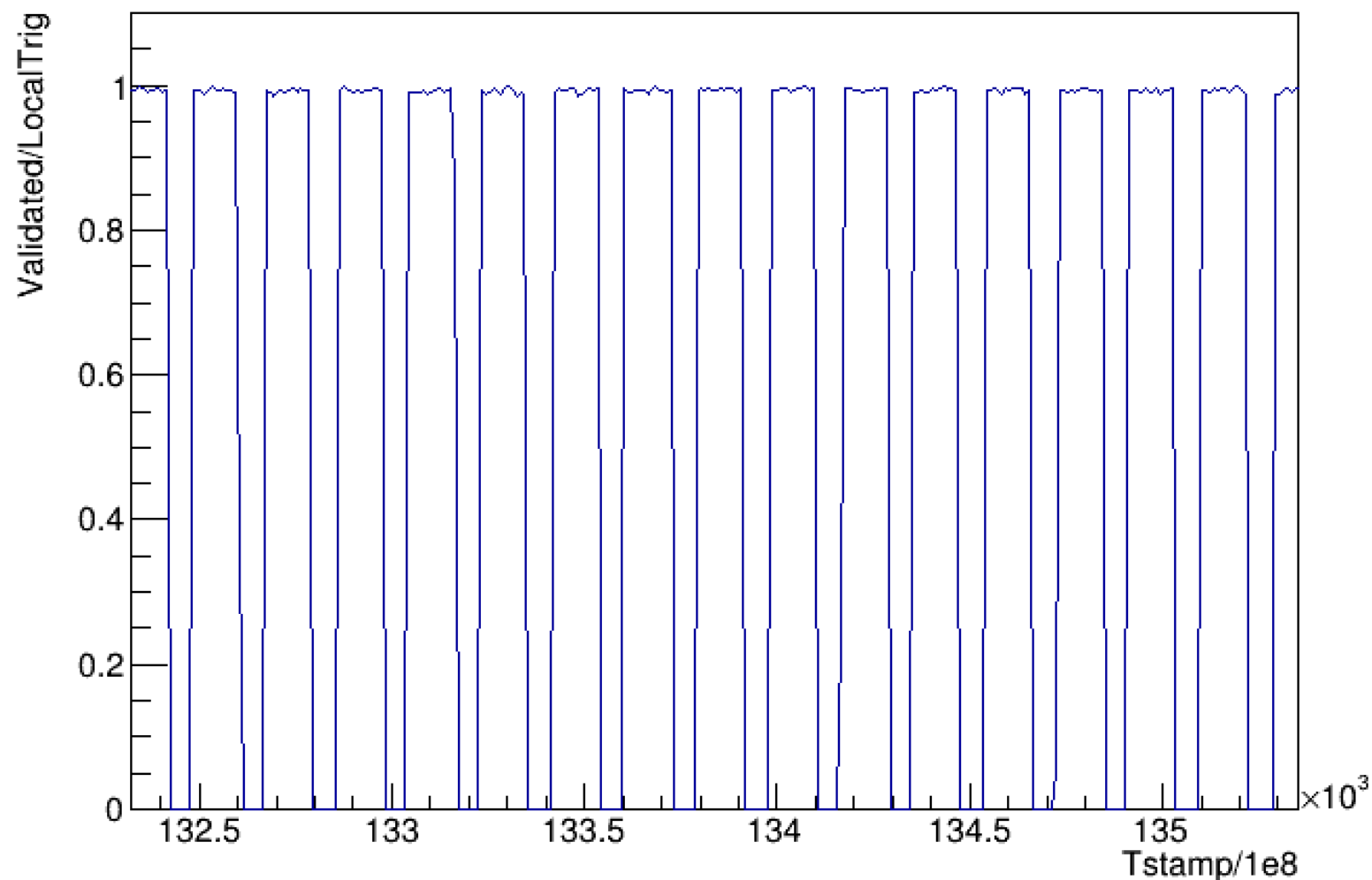
Enabled AGATA files

(settable before Configure)

Disabled	Crystal Producer CDAT (Traces)
Disabled	Crystal Producer BDAT
Enabled	Crystal Producer Spectra files
Enabled	Preprocessing Filter Spectra files
Enabled	PSA Filter Spectra files

DEAD TIME MONITORING

Validated/LocalTrig:Tstamp/1e8 {crystalID==30}



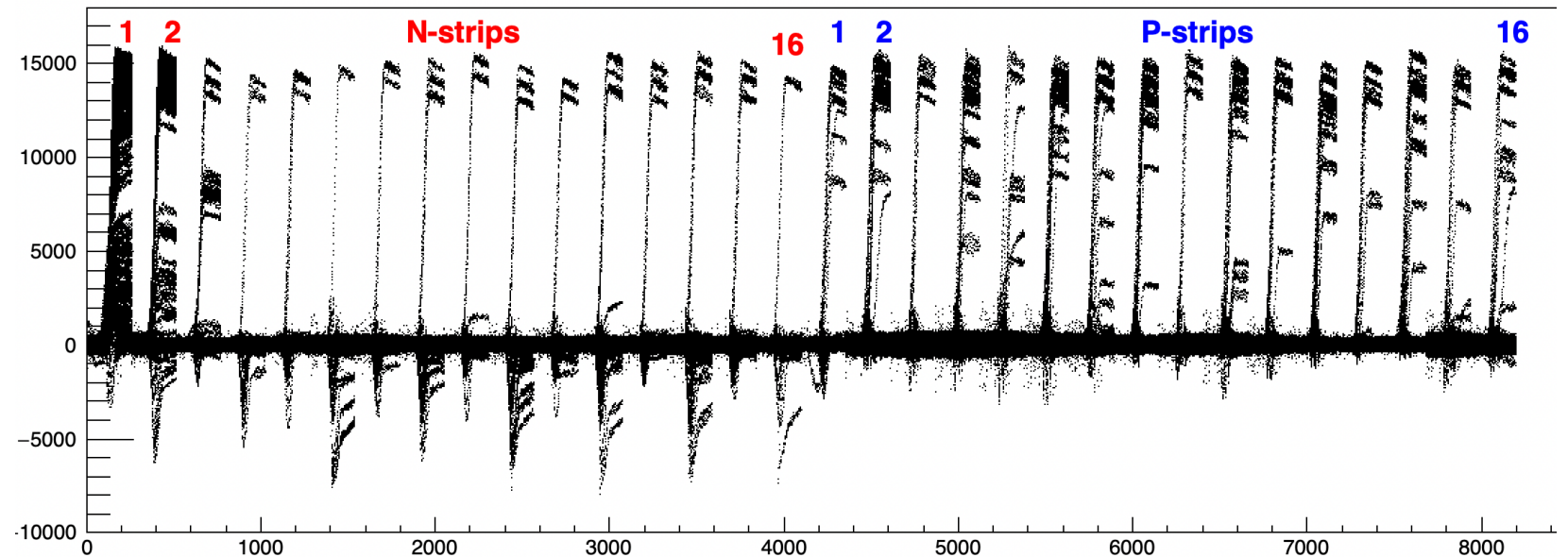
ANCILLARY UPGRADE

- New DPP-PHA version for VX2740 PHA: 1 single analog trace in 16-bits
 - Data Bandwidth / 2 for the traces → Done
 - Switch from 1 Gbps to 10 Gbps network connection → To be done

Tested with GRIT 1.5
mm detector
(32 channels)



ITL of the board
compatible with
AGATA (one master +
37 slaves)





That's all Folks!