BCM1F4LHC

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Setup

Optical Receiver

Negative signal from diamond

Fan In Fan Out

DC output → Diamond signal

AC output → Diamond signal

Orbit Clock

Orbit clock

ADC v1721

Discr v814

Threshold voltage -14mV

Scaler v560E
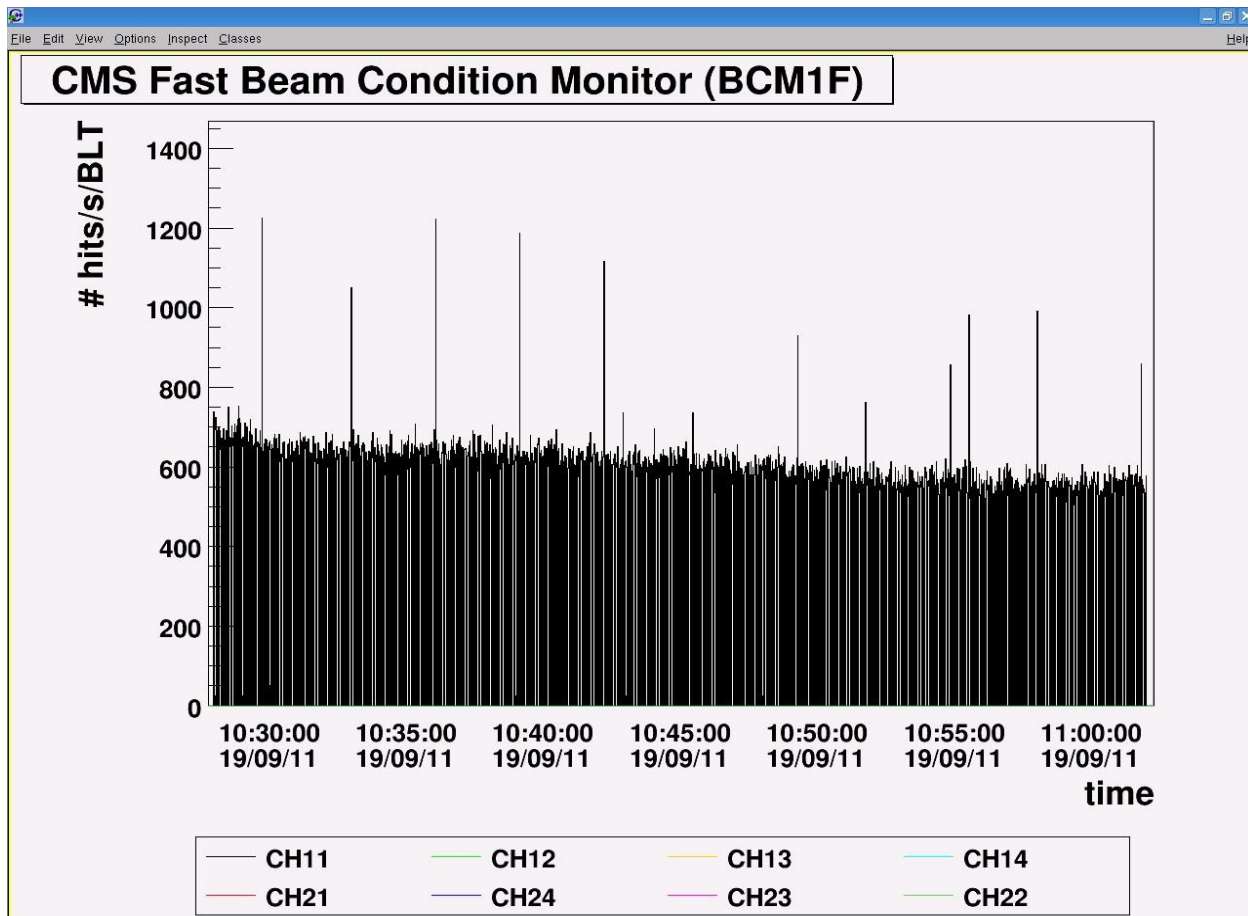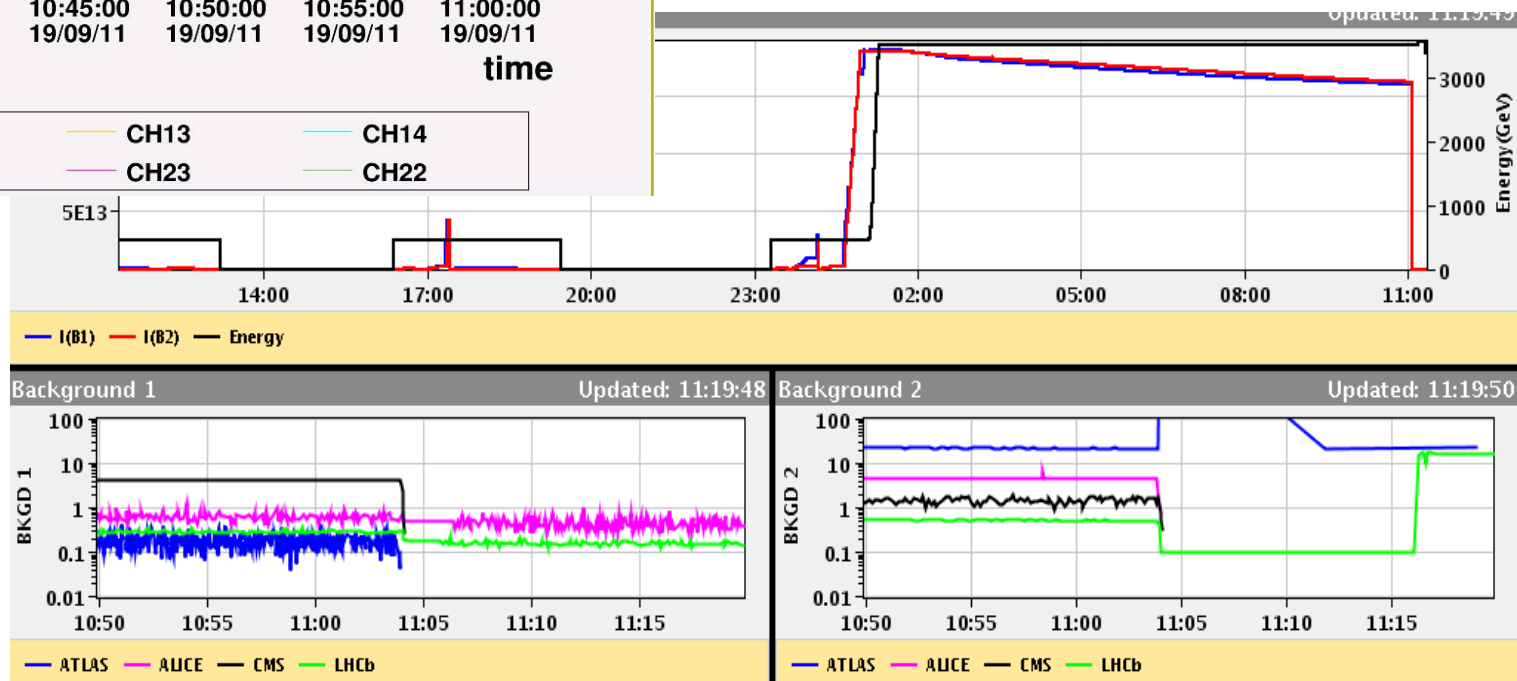
TDC v767
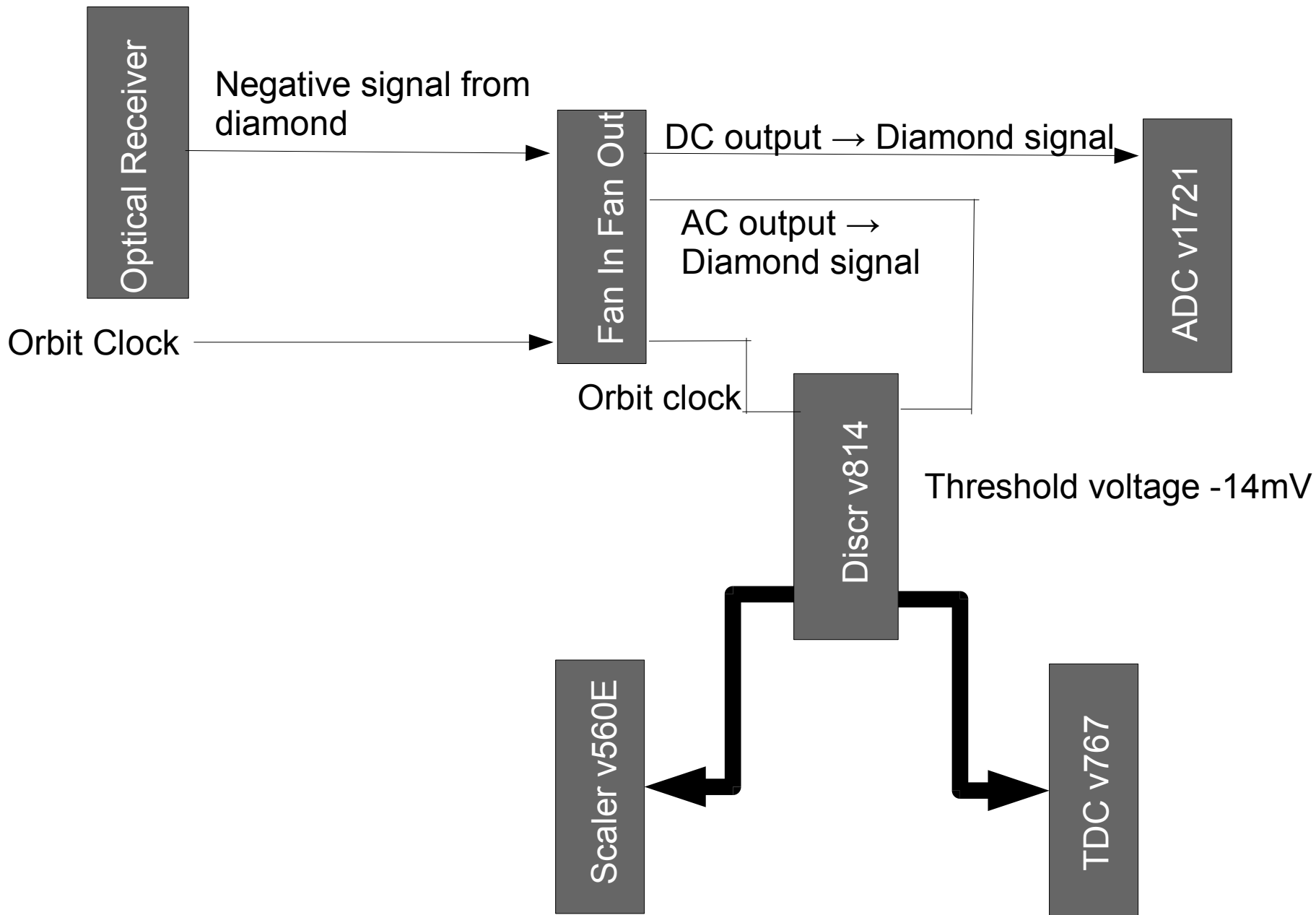
TDC

- Readout with BLT_arrays_v0.5.1.1 → program from Roberval

  → using block transfer and no Ring Buffer

- Implementation of Ring Buffer this week
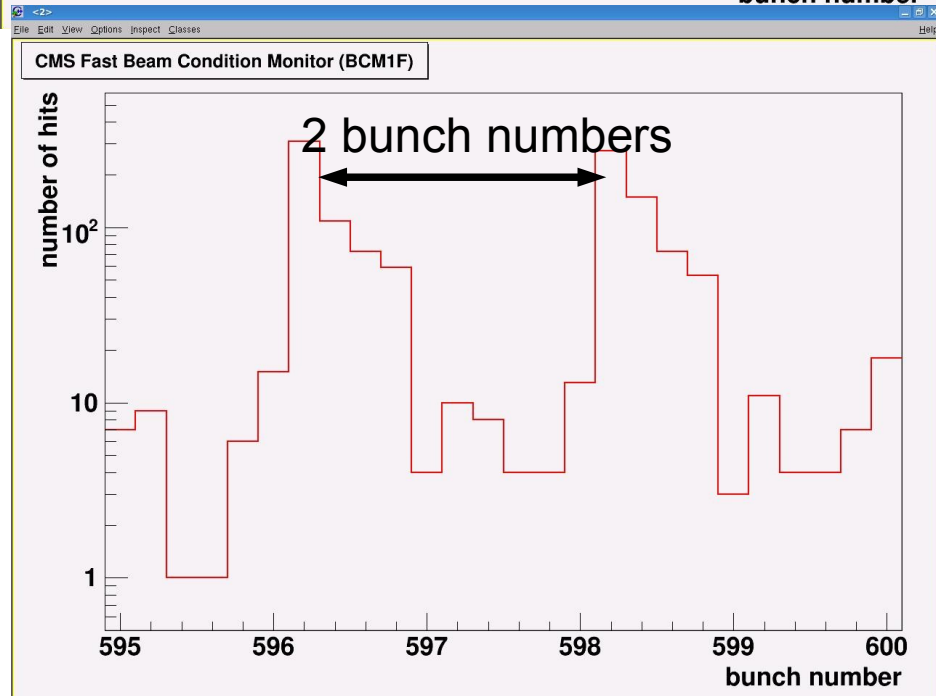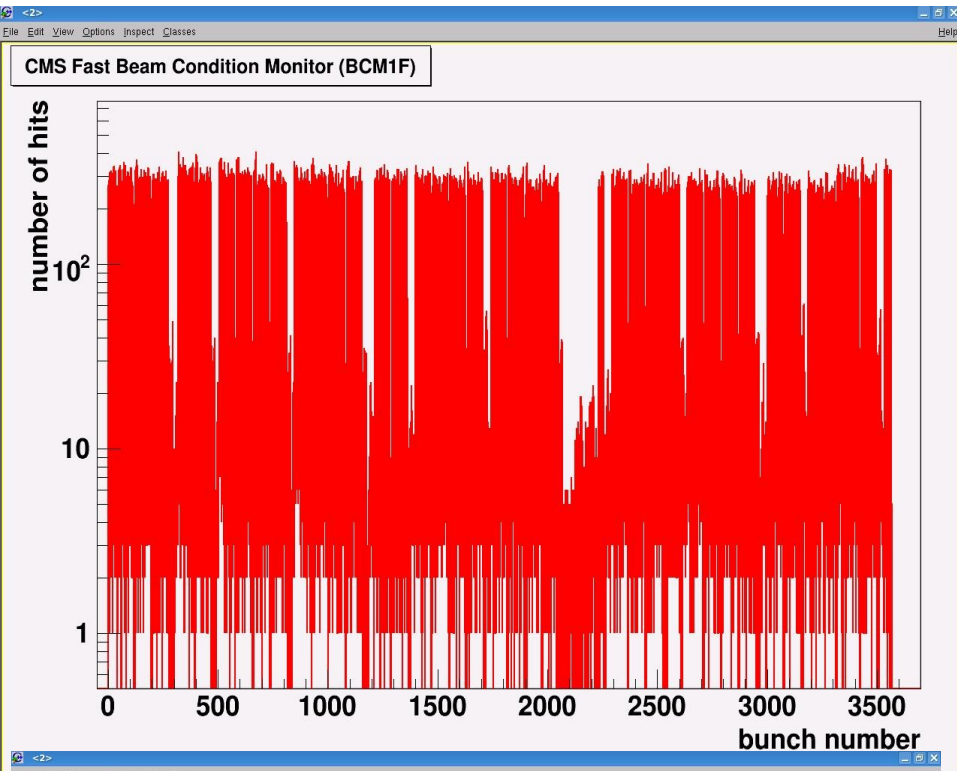
- TDC is working and got some data

TDC Measurements

- Using channel 81 of the TDC
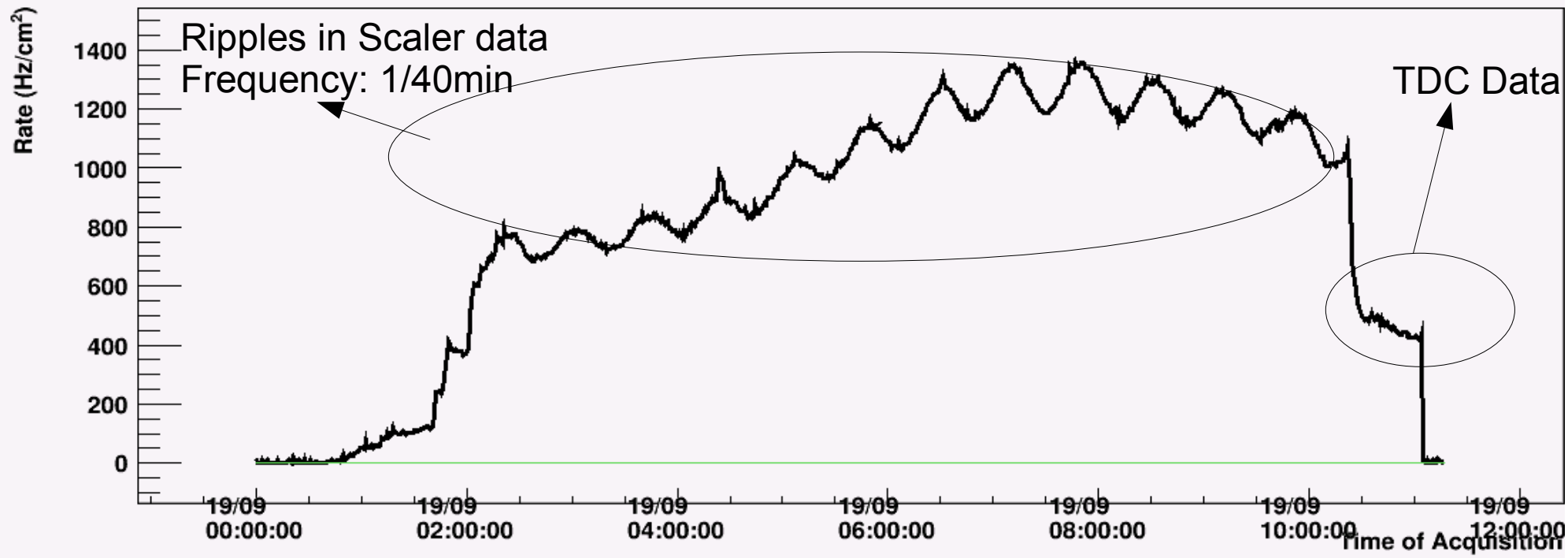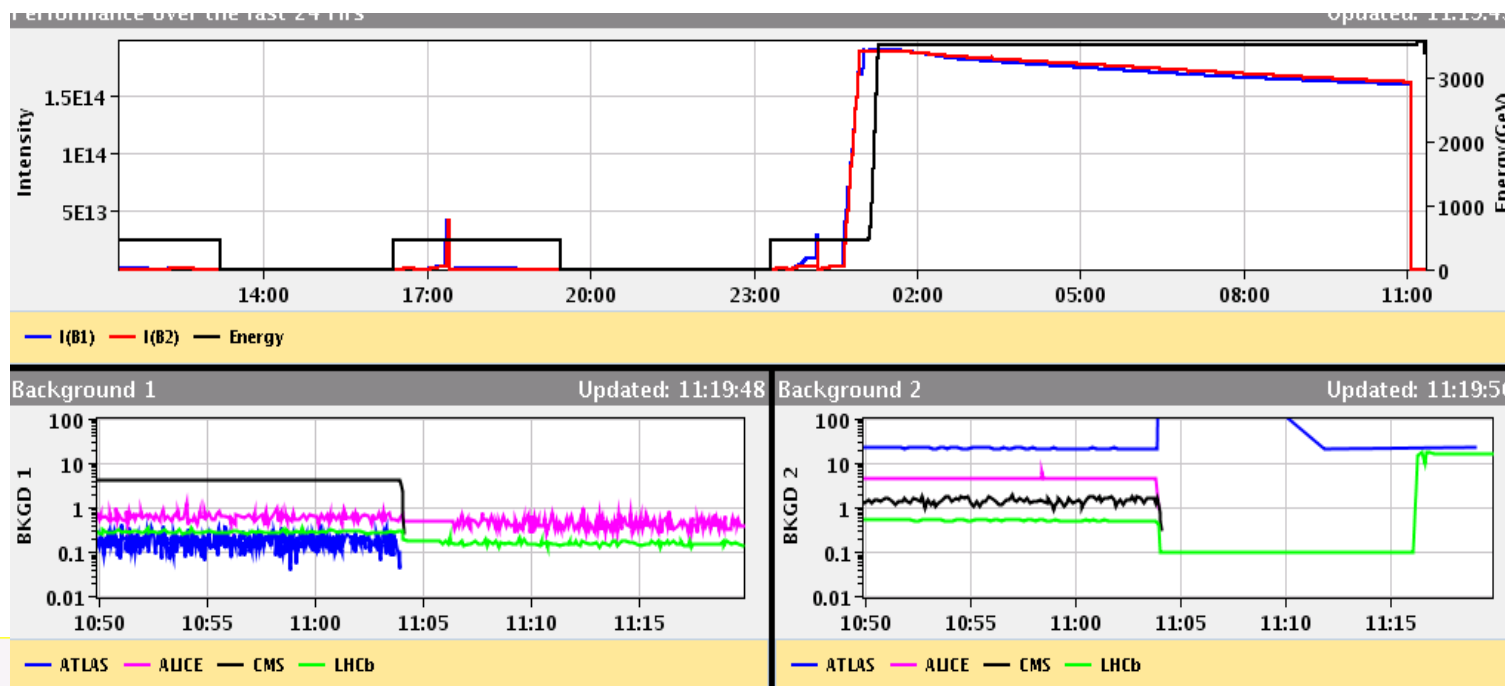
TDC Measurements

- Time between 2 consecutive bunches: 2 bunch numbers --> 50ns

- Problem: find the bunch #1

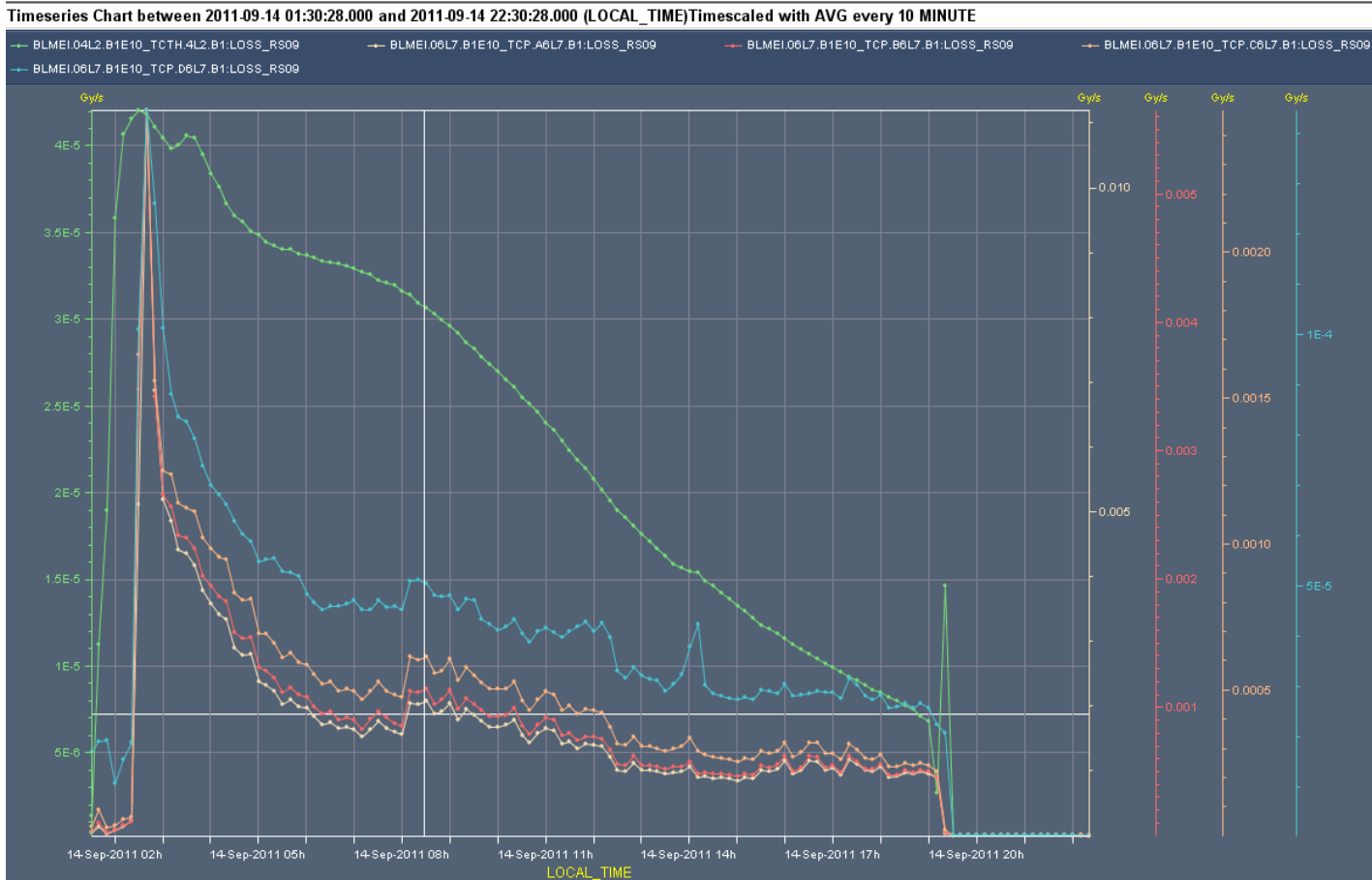 --> too many bunches

  --> need it for time calibration

Scaler

- Record of 1 file/day

- Same working operation as in BRM scalers

- Applied orbit clock, bunch clock and diamond signal

Scaler Measurements

Ripples in Scaler data
Frequency: 1/40min

TDC Data

Explanation of Ripples?

- plot of the BLM in R2 and at the TCP of IR7, betatron cleaning.

- I think you can also see the variations, less pronounced but visible.

Next Tasks

- Time calibration for TDC

- Installation of Ring Buffer (this week)

- Calibration of discriminator

- Signal from ADC

- Install the DAQ to the new computer