



Weekly Update

Andrea Falcone

We were aware on everything in LArLAT thanks to:

(in rigorous order of appearance)

- Ohana Rodrigues
- Felipe Kamiya
- Daniel Smith
- Flavio Cavanna
- Jason St.John
- Elena Gramellini
- Fabio Spagliardi
- Michael Kirby
- Alberto Marchionni
- Andrzej Szelc
- Mitch Soderberg
- William Meltca
- Mônica Nunes
- Diego Garcia Gamez
- Pawel Guzowski
- Tingjun Yang

DAQ

- On Friday Jen and Jonathan Paley confirmed that the V1742 has some strange behavior associated with its data blocks (extra "empty"/non-TPC events shown in event display, even during pedestals)
- It was disabled from readout until we can understand some of these strange things.

DAQ

- On Tuesday evening the shifters could non keep the run going where the beam was turned off.
- Bill found that the ACnet ACL script that automatically detects the presence or absence of beam had stopped on May 6, 2017 at 16:02. This should explain why we were having problems starting runs when the beam mode changed.

DAQ

- Between Monday and Tuesday we started to have some problem with the FTS, i.e. the File Transfer System which is responsible for registering files in SAM, once they are moved to their permanent storage location in /pnfs/lariat/.
- SAM stopped to have new raw data registered to it since 17:11 of 7th May for 3 days.
- On Wednesday (after a service ticket request), the problem was solved, with FTS showing no pending files.

Event Display

- On Tuesday Andrzej noticed that noticed that for some spill sets of wires seemed to be less "crisp". Sort of as if purity was bad, except it looked so for bands. Next spills and subsequent looked ok.

The screenshot displays the Lariat DQM Online Monitor interface. On the left, a control panel includes a 'Go to:' input field, event information (Ev: 29, Run: 11465, Spill: 193), and navigation buttons for 'Next', 'Previous', and 'Select File'. Below these are buttons for 'Restore Defaults', 'Max Range', 'ClearPoints', 'Eval. Points', and 'FFT Wire'. A list of checkboxes includes 'Auto Range', 'Lock A.R.', 'Wire Drawing', 'Use cm', 'Draw Scale Bar', and 'Draw Logo'. Under 'View Options', radio buttons are set to 'All'. A 'Quit' button is at the bottom left. The main area contains two event displays. The top display is labeled 'Lariat DQM Online Monitor' with a scale from 160 to -40 and an 'Event update ON' indicator with a 2-second delay and a 'PAUSE' button. The bottom display is labeled 'Spill update ON' with a scale from 320 to -80 and a 'PAUSE' button. Both displays show a blue background with yellow and red streaks representing particle tracks. At the bottom left, the status 'W: 191, T: 2372' is shown, and at the bottom right, there is a 'Capture Screen' button.

Event Display

- This problem seems to be related with the filling of the cryostat: the configuration corruption is 98% correlated with the LAr fill periods (Bill study from last year – docdb 1813).
- It can be due to the vibration of the wires given by the refill or to other effects.
- These kind of events can be selected (or avoided) with SAM: `asic_readback_errors >0`.

Special Run

- This night Andrzej, WillFo and Pawel made a series of special run with and without beam, acquiring only the PMTs:
 - 1hr, no beam, 0V/cm
 - 1hr, 1e10ppp, 0V/cm
 - 1hr, no beam, 0V/cm
 - 1hr, 1e10ppp, 200V/cm
 - 1hr, no beam, 200V/cm
 - 1hr, 1e10ppp, 400V/cm
 - 1hr, no beam, 400V/cm
 - 1hr, 1e10ppp, 500V/cm
 - 1hr, no beam, 500V/cm
 - 1hr, 1e10ppp, 600V/cm
 - 1hr no beam, 600V/cm

May 15 power outage

- On Monday there will be 2 power outage for all the Fermilab, at 6:35 am and ~5 pm.
- We decided to turn off all our detectors on Sunday late evening, and let them off till after the second outage.
- If the power outage is cancelled (which will be determined at 5am Monday), then we should power back up at start of day shift.

Date	Shifts				
Mon, 05/15/2017	<u>On-Call Body</u> Mon-Sun 00:01-23:59	<u>CAL Shifter</u> Mon-Sun 00:01-23:59	<u>Owl</u> Mon 00:01-07:00	<u>Day</u> Mon 07:00-16:00	<u>Evening</u> Mon 16:00-23:59
	On-Call Body (0.5) Brian Rebel <u>request swap</u>	CAL Shifter (0.5) Andrea Falcone	Shifter (2.0) Justin Evans <u>request swap</u>	Shifter (1.0) Michael Kirby <u>request swap</u>	Shifter (1.0) Will Foreman <u>request swap</u>
Tue, 05/16/2017			<u>Owl</u> Tue 00:01-07:00	<u>Day</u> Tue 07:00-16:00	<u>Evening</u> Tue 16:00-23:59
			Shifter (2.0) Justin Evans <u>request swap</u>	Shifter (1.0) Elena Gramellini <u>request swap</u>	Shifter (1.0) William Metcalf <u>request swap</u>
Wed, 05/17/2017			<u>Owl</u> Wed 00:01-07:00	<u>Day</u> Wed 07:00-16:00	<u>Evening</u> Wed 16:00-23:59
			Shifter (2.0) Andrzej Szelc <u>request swap</u>	Shifter (1.0) Will Foreman <u>request swap</u>	Shifter (1.0) Zachary Williams <u>request swap</u>
Thu, 05/18/2017			<u>Owl</u> Thu 00:01-07:00	<u>Day</u> Thu 07:00-16:00	<u>Evening</u> Thu 16:00-23:59
			Shifter (2.0) Luke Batten <u>request swap</u>	Shifter (1.0) Monica Nunes <u>request swap</u>	Shifter (1.0) Zachary Williams <u>request swap</u>
Fri, 05/19/2017			<u>Owl</u> Fri 00:01-07:00	<u>Day</u> Fri 07:00-16:00	<u>Evening</u> Fri 16:00-23:59
			Shifter (2.0) Justin Evans <u>request swap</u>	Shifter (1.0) Will Foreman <u>request swap</u>	Shifter (1.0) Ohana Rodrigues <u>request swap</u>
Sat, 05/20/2017			<u>Owl</u> Sat 00:01-07:00	<u>Day</u> Sat 07:00-16:00	<u>Evening</u> Sat 16:00-23:59
			Shifter (2.0) Felipe Kamiya <u>request swap</u>	Shifter (1.0) <u>sign-up</u>	Shifter (1.0) Ohana Rodrigues <u>request swap</u>
Sun, 05/21/2017			<u>Owl</u> Sun 00:01-07:00	<u>Day</u> Sun 07:00-16:00	<u>Evening</u> Sun 16:00-23:59
			Shifter (2.0) <u>sign-up</u>	Shifter (1.0) <u>sign-up</u>	Shifter (1.0) Alberto Marchionni <u>request swap</u>