

# HCAL PFG status

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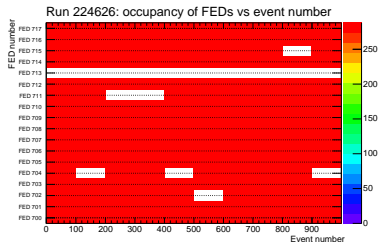


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# Status

- Ongoing tasks
  - Laser plots in DQM (Edmund, Kadri, Fatma)
  - HO validation plots in DetDiag (Edmund, HO experts)
- New task
  - Missing channels in HBHE laser runs
- All tasks listed here
  - HcalPromTaskList2014

## Run 224626



- x-axis: Event number (1000 events in these runs)
- y-axis: FED numbers
- z-axis: Number of digis produced given FED & event

# Missing channels in HBHE laser runs

- Symptoms when FEDs are “missing”
  - No digis produced
  - FED data size = 0 bytes
  - Can't access FED headers
- Three kinds of failure:
  - 1 Some FEDs drop out of laser runs entirely
  - 2 Some FEDs drop out for 100 events at a time
  - 3 Some FEDs “flicker” in and out of the run for 100 events
- Failure mode is unclear (to me, anyway):
  - Are FEDs sporadically not being read out? (impossible?)
  - Are digis in these FEDs so bad that the unpacker won't unpack them?
    - `hcalDigis.FilterDataQuality` set to `False`

# Missing channels in HBHE laser runs

- DAQ logs have the following errors:
  - ERROR Caught exception:  
`hcal::exception::Exception 'Expected 100 events, saw 32 from QDC 0' raised at readout(hcalQDCTDCReadout.cc:209)`
  - WARN Chunk received for unknown source 711

# Missing channels in HBHE laser runs

- Investigation continues:
  - DAQ expert (Chris West) investigating
  - Currently only see these problems in HBHE laser runs
    - Looking in other run types too