SiW Ecal Readiness for 2010 data taking

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- Data taking at FNAL (Short Review on 2008)
- Towards 2010
- Manpower
- Summary and Conclusion

CALICE TB Review Meeting FNAL June 2009

Detector Installation in 2008

- Installation of SiW Ecal started on April 18th 2008

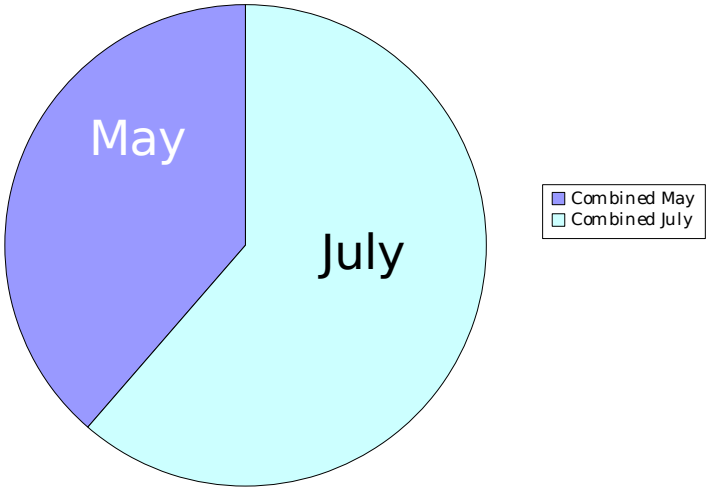
- Equipment ready by 25th of April – Ready to accept beam on the 29th of April

- Setup – Combined effort of DESY, Uni Heidelberg, NIU, LLR, LAL and FNAL

- Setup comprises SiW Ecal, Ahcal and TCMT
  plus beamline equipment

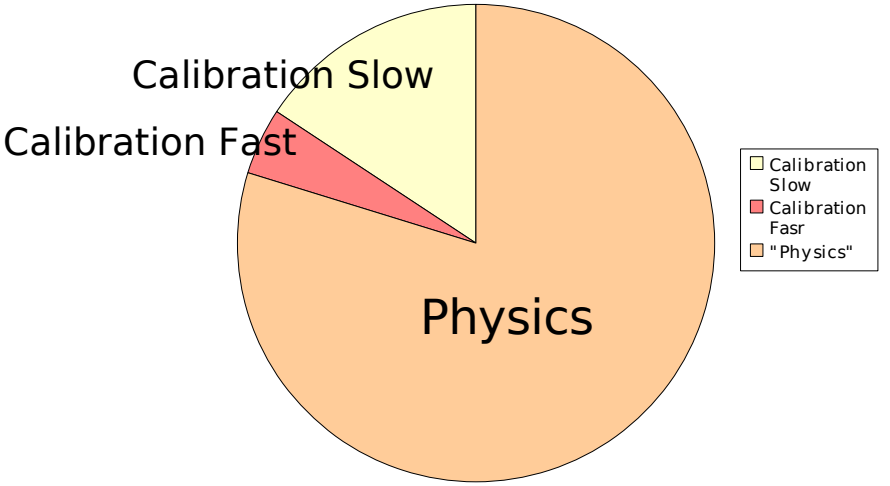
“Luminosity” - Recorded Data

Combined Data May/July



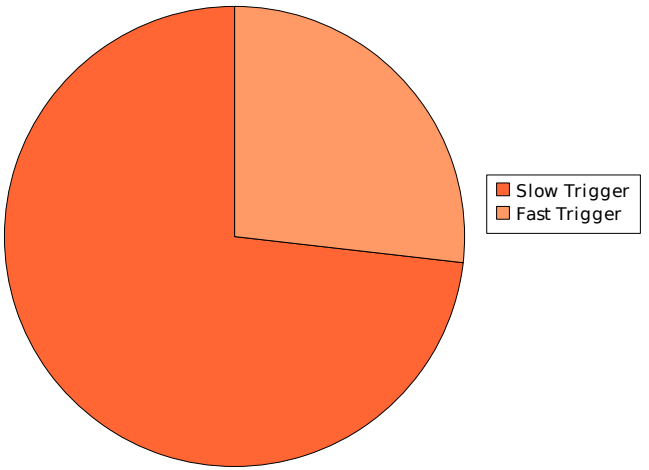
Total: 17.3 kEvens in beamData Runs

Calibration/"Physics"



~20% Calibration Data, i.e. muons

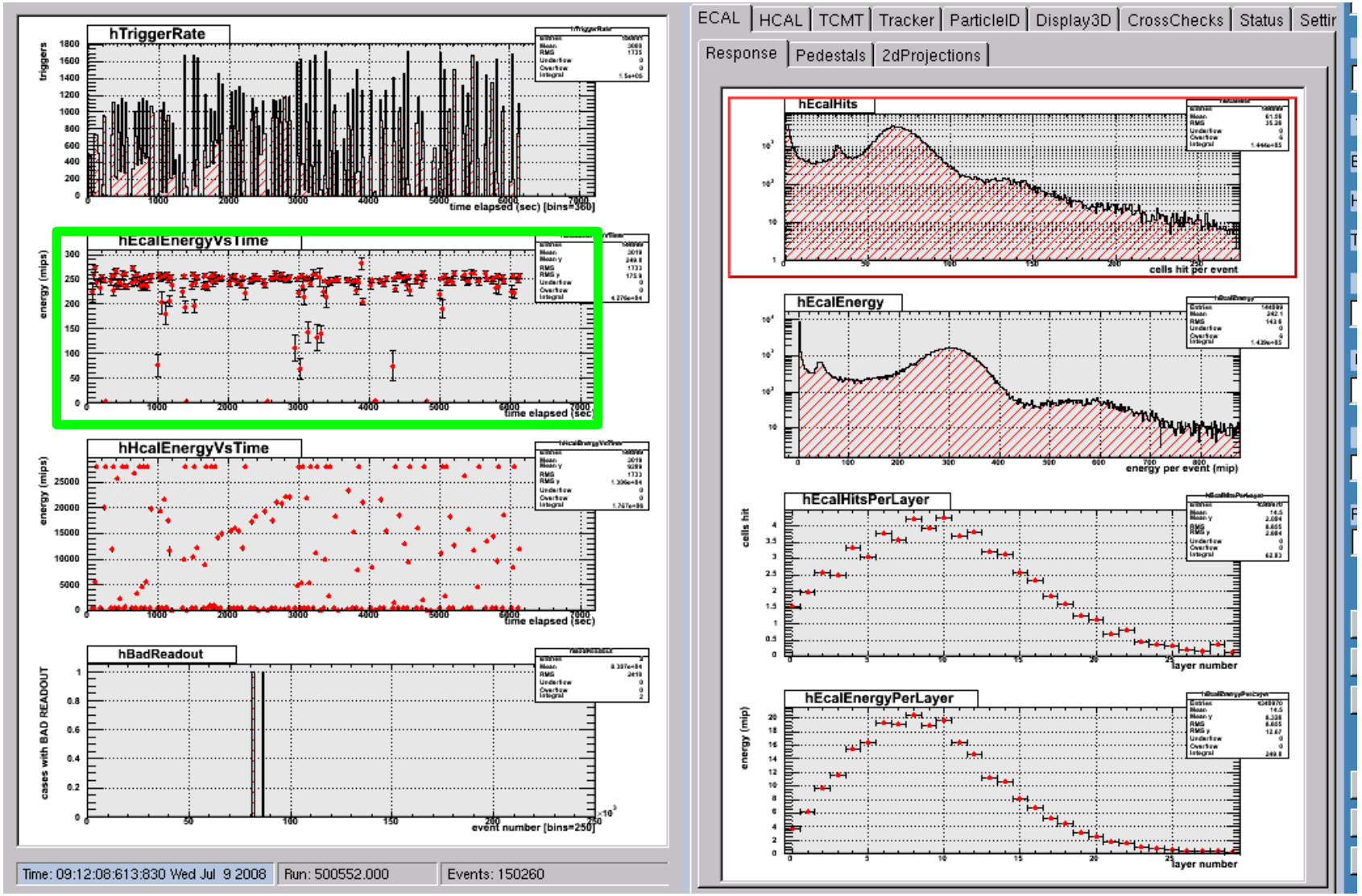
Fast/Slow Trigger Data



~25% with Fast Trigger (mostly e-)

All data recorded with Ecal on

Impressions from the Ecal Running 2008

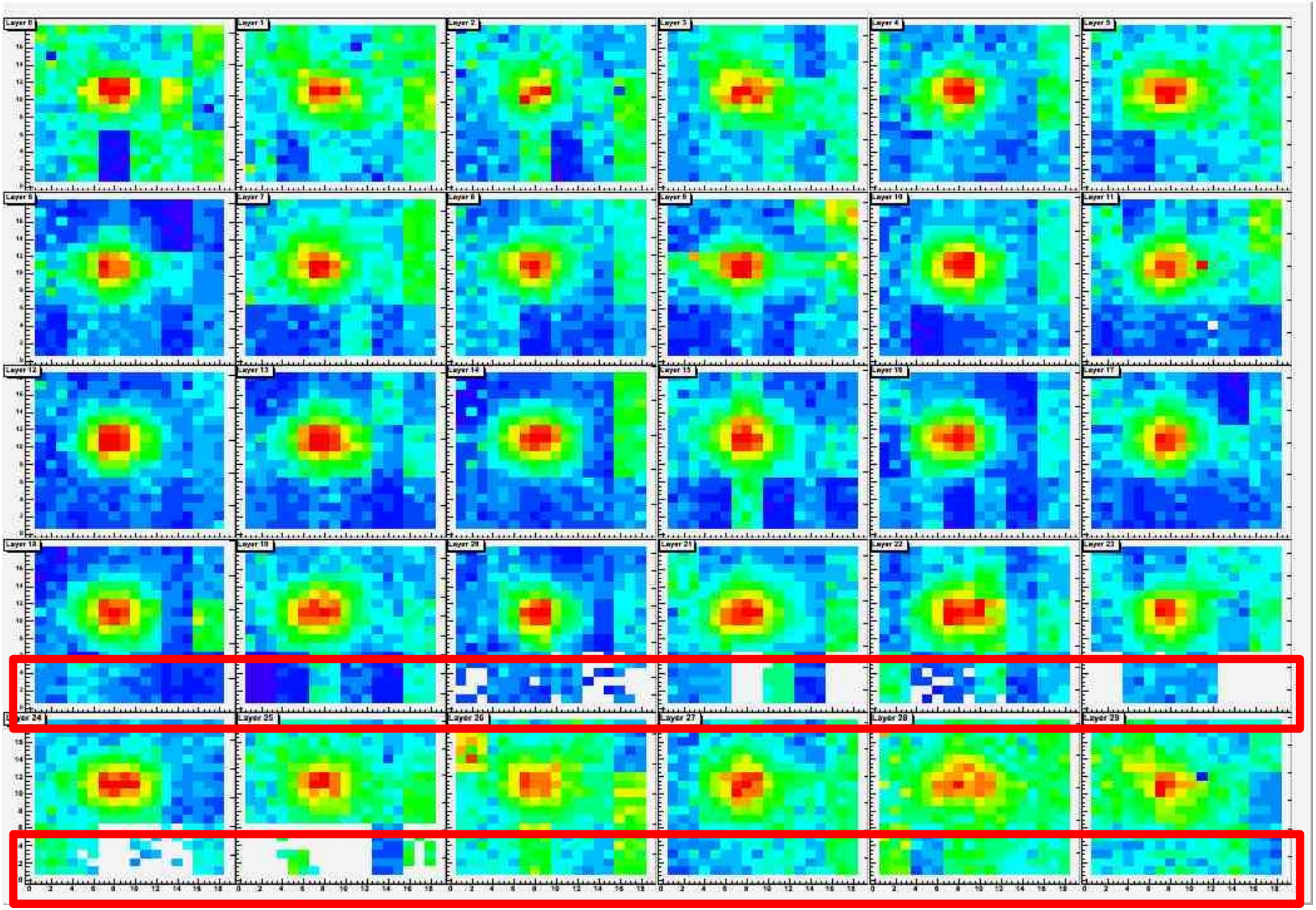


Ecal Noise largely tamed (Required frequent intervention)

But then No noisy layers for > 90% of time

Noise seem to be caused by power connectors, will try to replace them in Winter 2009/10

Hit Maps ...



Marcel Reinhard, LLR

Dead Cells in bottom layers – Main reason for repatriation of Ecal

Studies for repair work 2nd half of July 2009 at LLR

Runplan and Manpower

- Setup phase
  Not more than three days including electronics commissioning
  Would need support (at least from remote) for computing

- 2 – 3 days of cosmic running

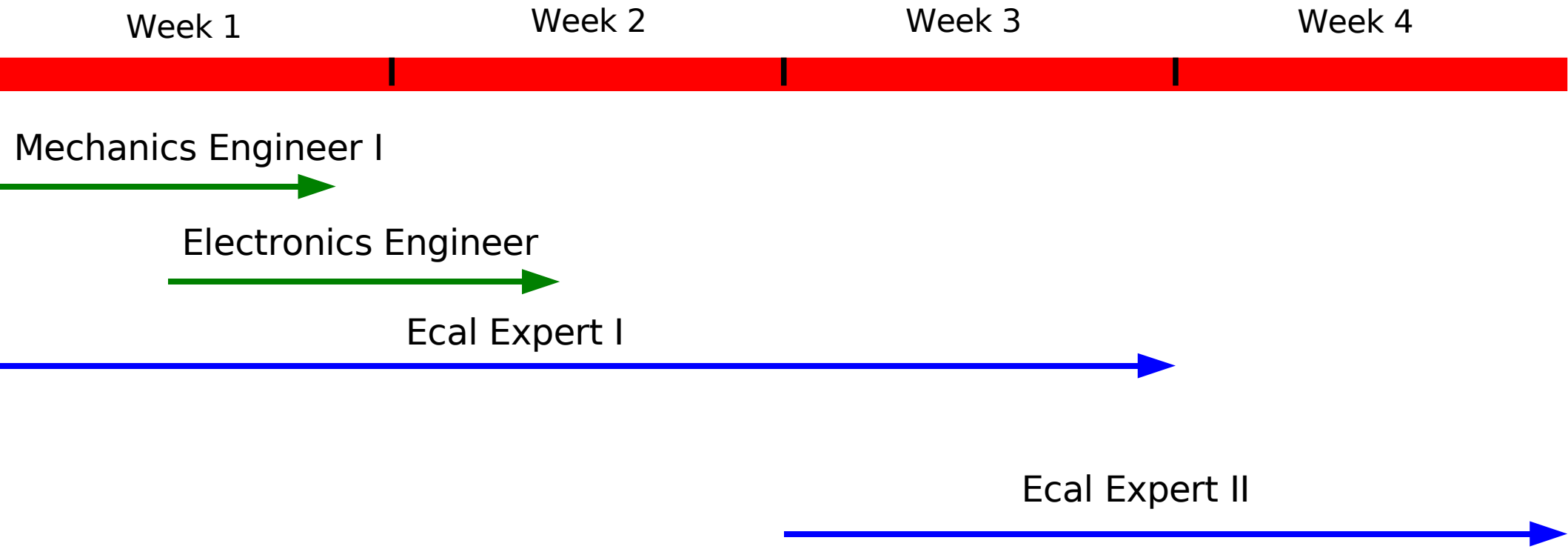
- Should concentrate on data taking with hadrons
  Maybe 1 day dedicated electron running for reference
  Combined hadron testbeam ~3 Weeks

=> Total time for Testbeam with SiW Ecal ~4 Weeks

- Reduced funding forces us to deploy only a minimal team of experts
  - No large shift coverage on place by SiW Ecal groups possible

- Establishment of a remote control room in France
  Will have to make heavy use of that

The four Ecal Weeks



- Given the experience from the past I believe that we can shoulder the testbeam period with four persons
- The Ecal Expert II may need a local helping hand during disassembly takes ~1/2 day including stowing in crates

Summary

- Combined SiW DHCAL running at FNAL is vital (and indispensable) part of CALICE program

- SiW Ecal prototype is operational and can be shipped back to FNAL and switched on at any time

- Verification of dead areas in bottom part of detector
  1-2 Months (could be omitted if time would be pressing)

- Try to improve the noise situation (which was already quite good during 2008 running)

- Need to take reduced funding for ILC into account for shift plans
  Remote control is central to realisation of testbeam

- Need to avoid conflict with the construction of the Technological Prototype
  Staff to be deployed for Testbeam is or will be heavily employed in construction of Technological Prototype