

# Update on PPM-DU

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# Nano Beacon calibration

Improved to take the actual travel distance of the light (from beacon to the corresponding PMT) rather than the average distance between DOMs

Jonas Reubelt (Erlangen) processed all available beacon runs for DOM 1 (only two for DOM 2 in total) from phase 1 and applied my calibration

# DOM DeltaT beacon

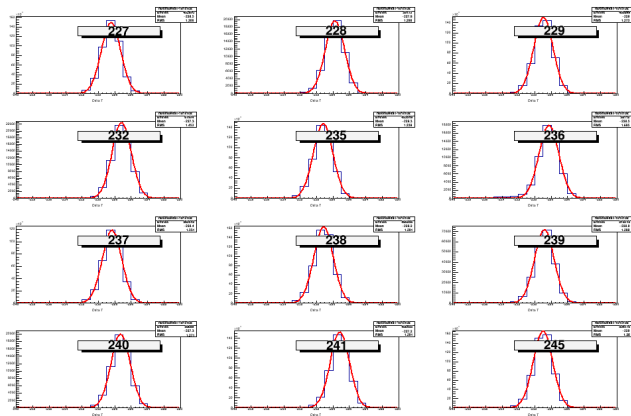


Figure : DOM deltaT 1-2 for different beacon runs

# DOM DeltaT beacon scatter

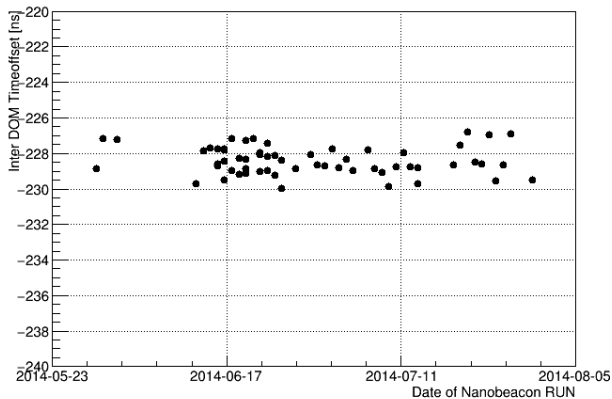


Figure : Calculated calibration value for DOM 2 for all DOM 1 runs

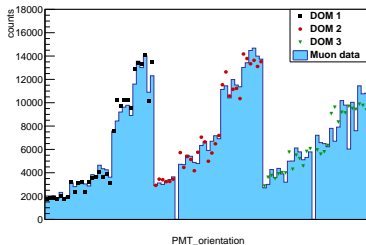
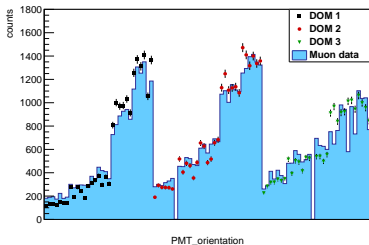
# PPM-DU reprocessing

Retriggered false old files and converted all files to trunk like data status

- All data files of the PPM-DU now easily available
- Phase 1 data now with 25 ns L1 window
- Phase 2 is 1000 runs in total which is around 500 h

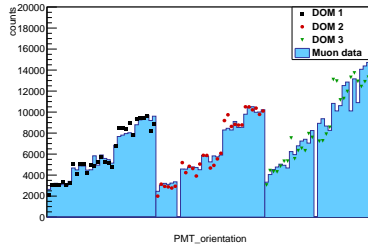
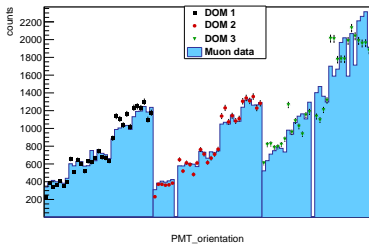
# Phase 1 and 2 plots: Zenith PPM-DU

Enter all hits from a three DOM trigger



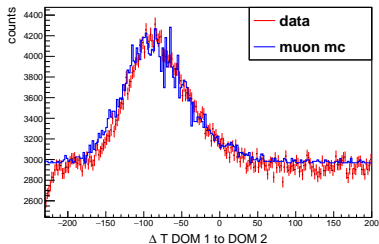
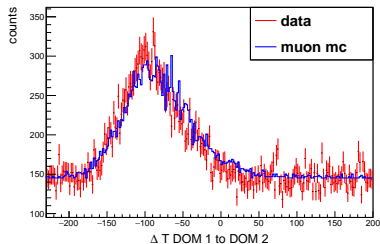
# Phase 1 and 2 plots: Zenith PPM-DOM

Enter all hits if a DOM has more than 7 hits within 20 ns



# Phase 1 and 2 plots: DOM DeltaT

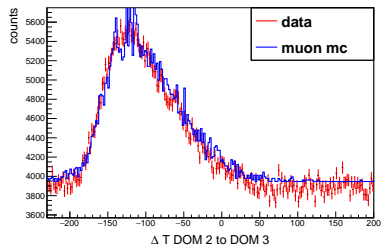
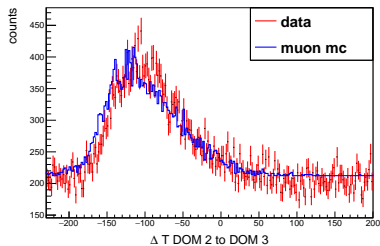
Hit time between the second hits on the respective DOMs: DOM 1-2





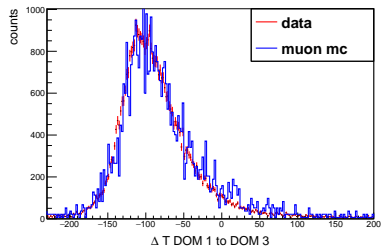
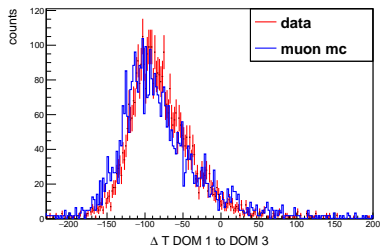
# Phase 1 and 2 plots: DOM DeltaT

Hit time between the second hits on the respective DOMs: DOM 2-3



# Phase 1 and 2 plots: DOM DeltaT

Hit time between the second hits on the respective DOMs: DOM 1-3



# Something else than atmospheric muons?

## Selection

If an event has an L1 on the bottom ring of each DOM and more hits in the bottom two rings than in the top two, save it

Happens how often? 92 events in 560 h

# Something else than atmospheric muons?

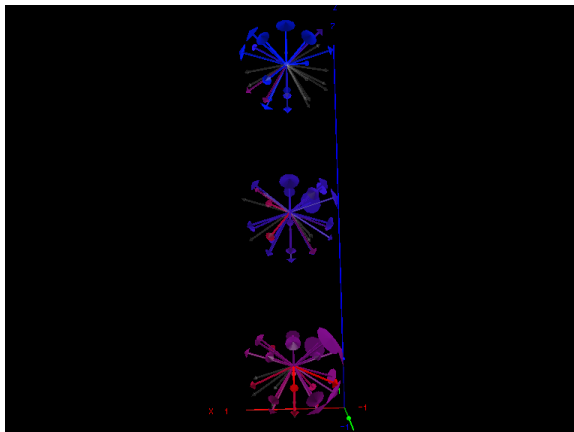


Figure : An example: red early hit, blue late