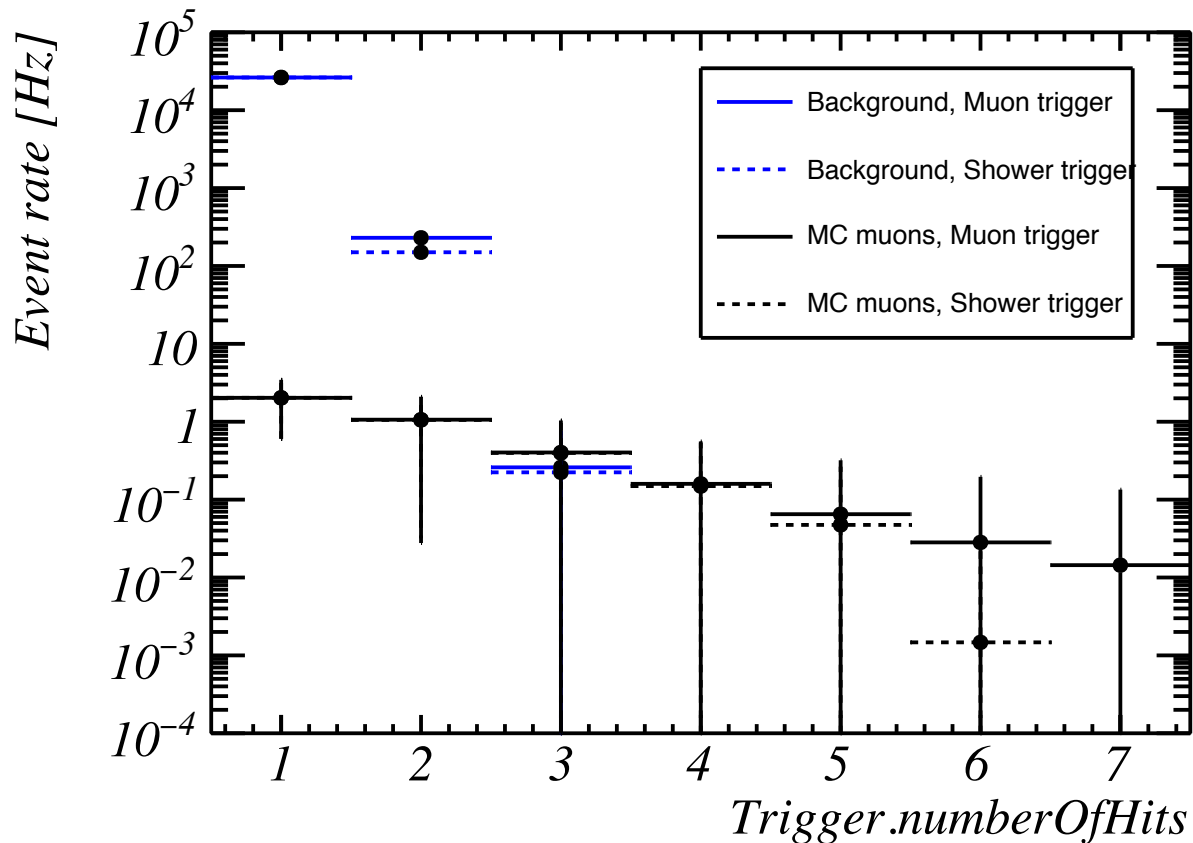


DU-1 Calibration

Trigger rates

- What can we expect?



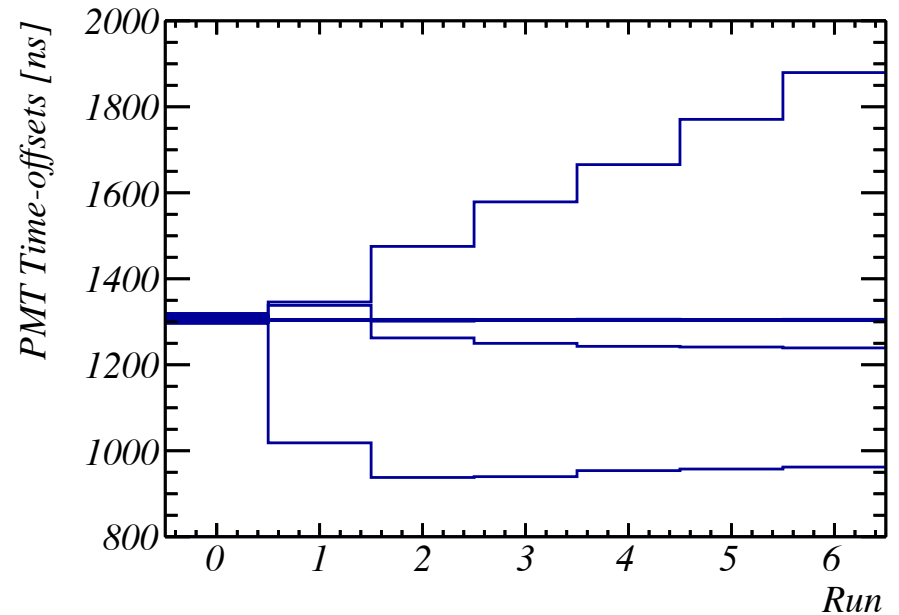
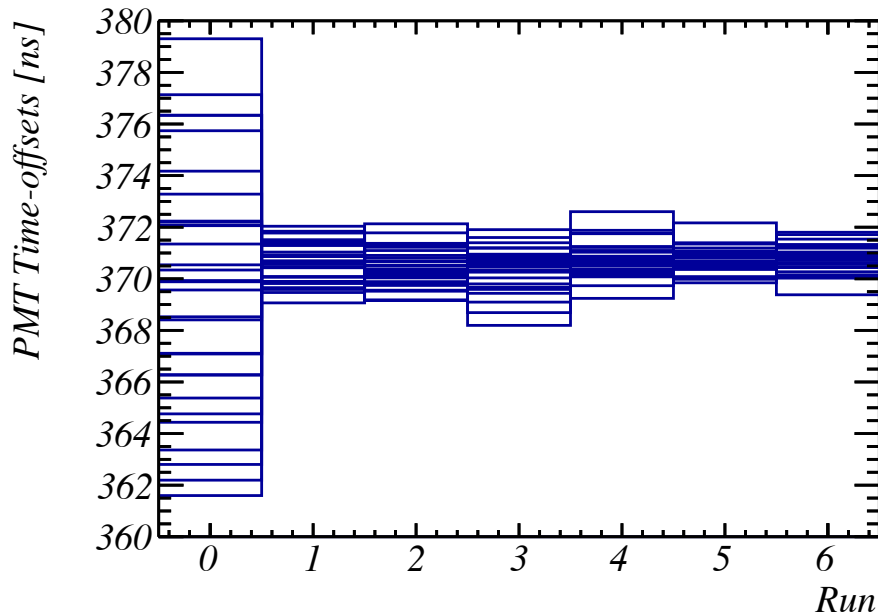
Triggered file size (5 min.): 3GB 143MB 106MB 106MB ...

Calibration

- Intra-DOM (=inter-PMT)
 - K40 background
- Inter-DOM
 - Atmospheric muons
- Preferably long runs with loose trigger
 - What is long?

Intra-DOM calibration

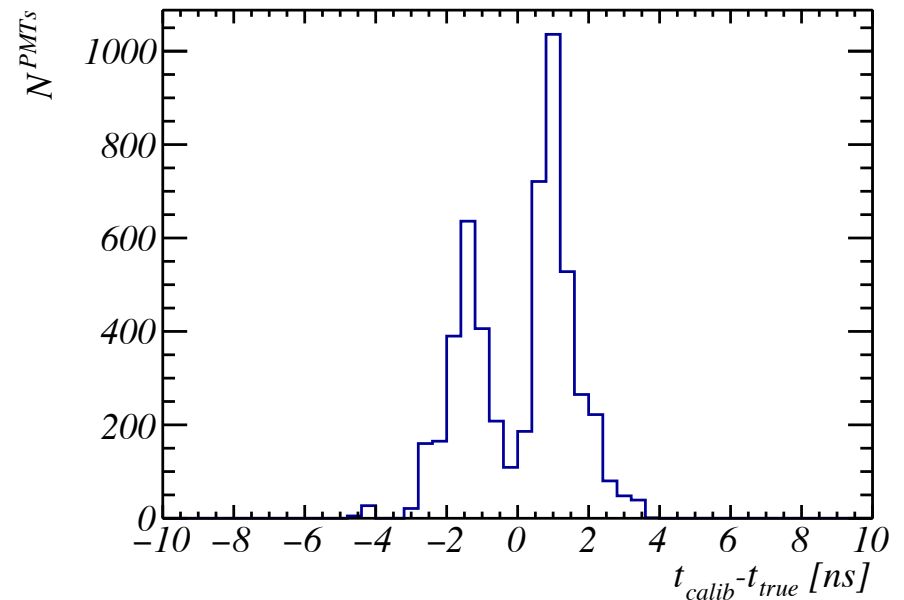
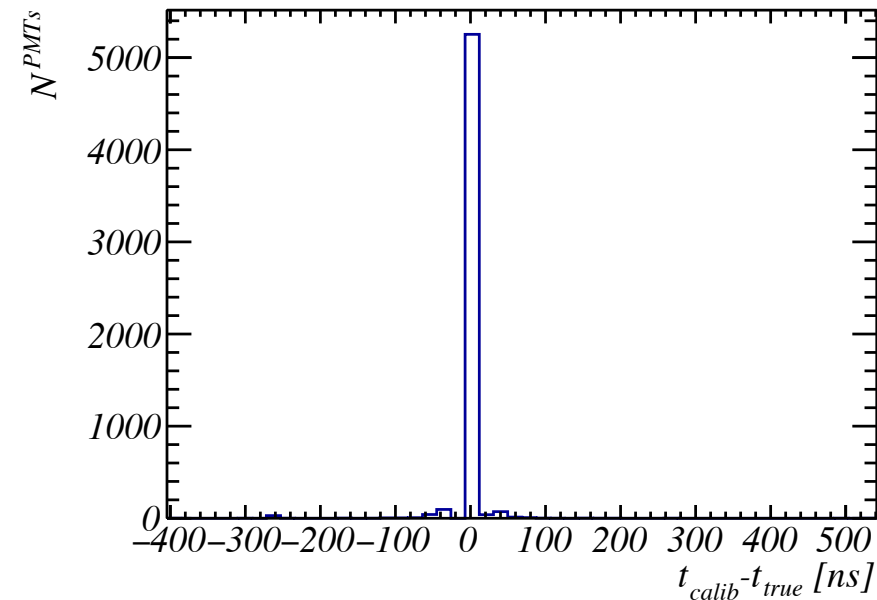
- Two 1-minute run-sequences:



- Not enough data to give a proper fit

Intra-DOM calibration

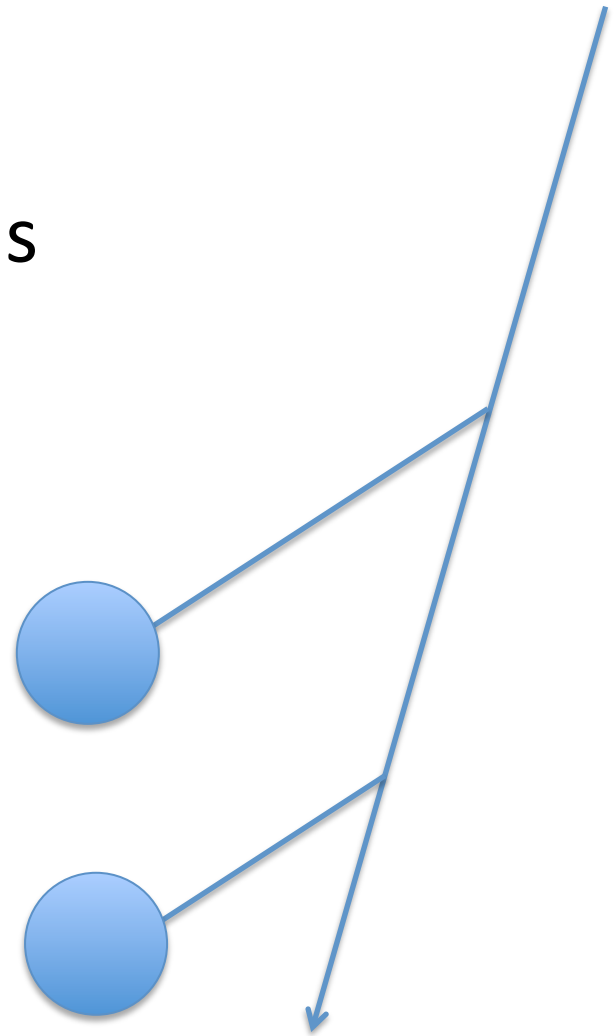
- 5 minutes runs:



- Influence of outliers still too big

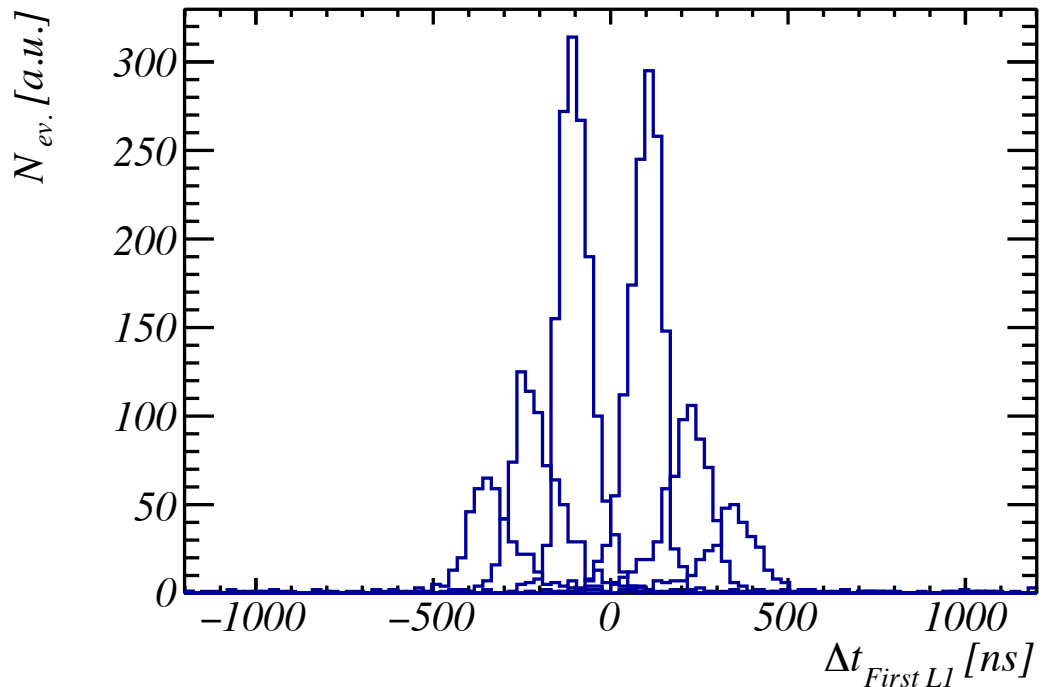
Inter-DOM calibration

- First estimate
- Time offsets between DOMs
 - First L1 on each DOM



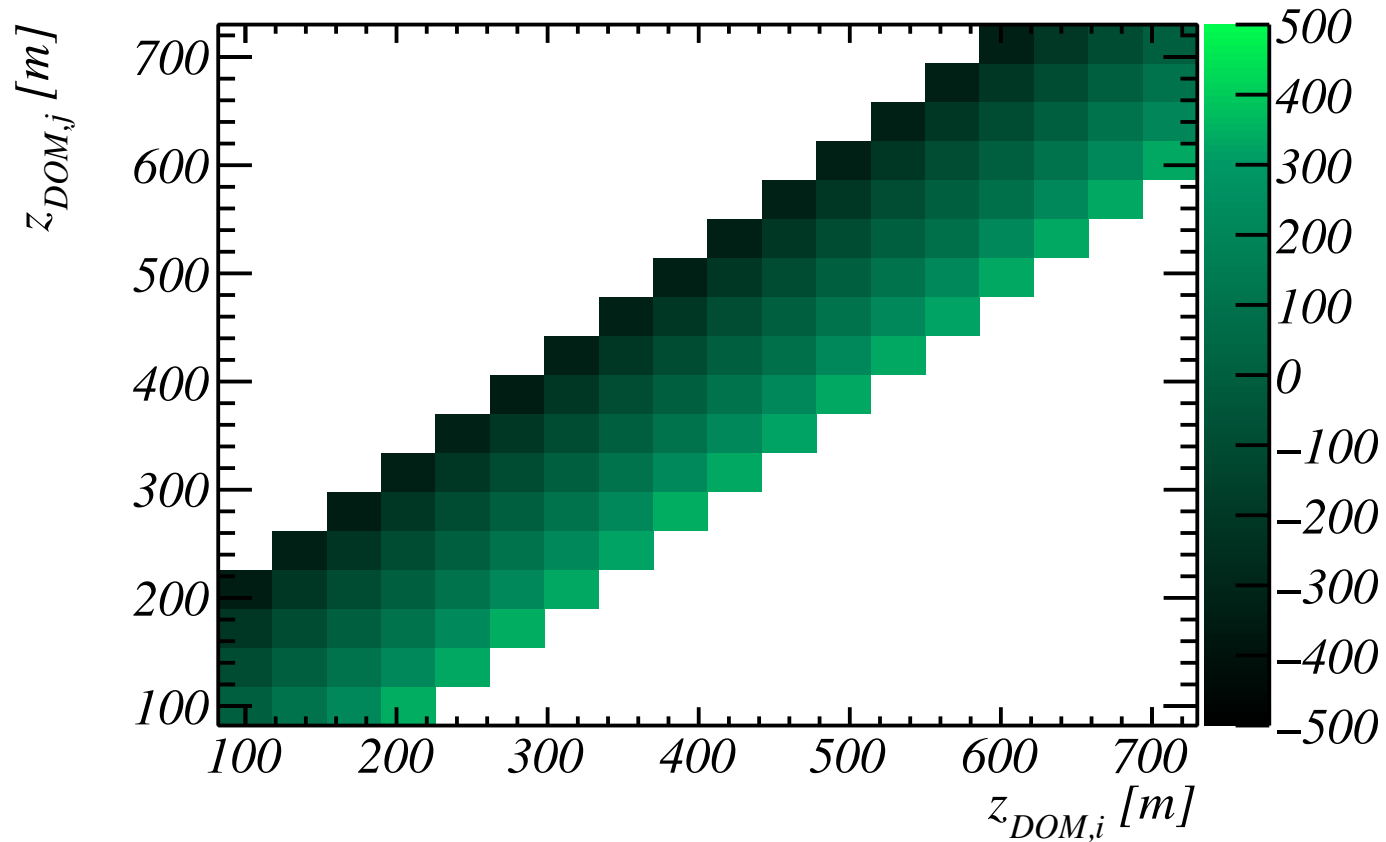
Inter-DOM calibration

- First estimate
- Time offsets between DOMs
 - First L1 on each DOM
- Expected:



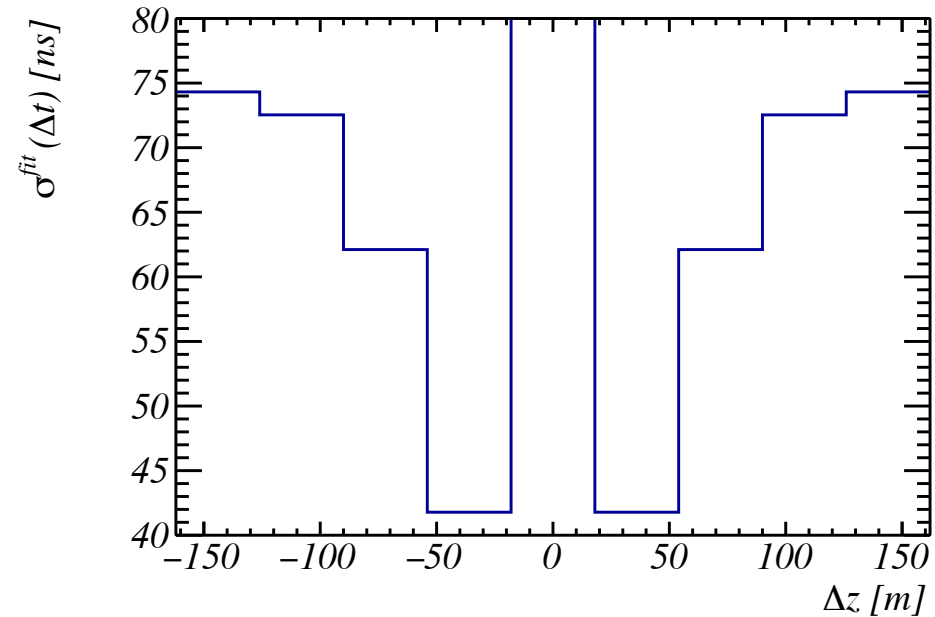
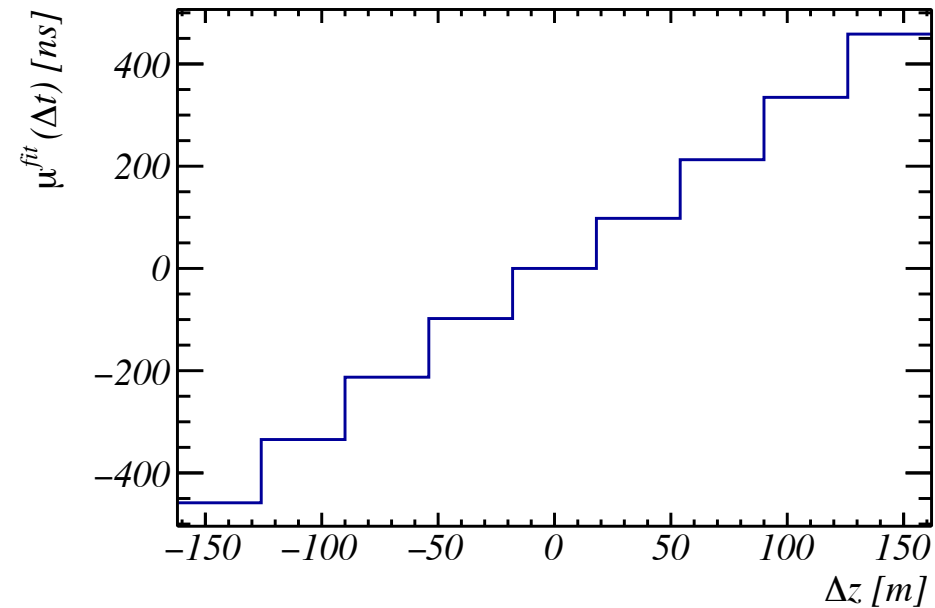
Inter-DOM calibration

- Mean of gaussian fit:



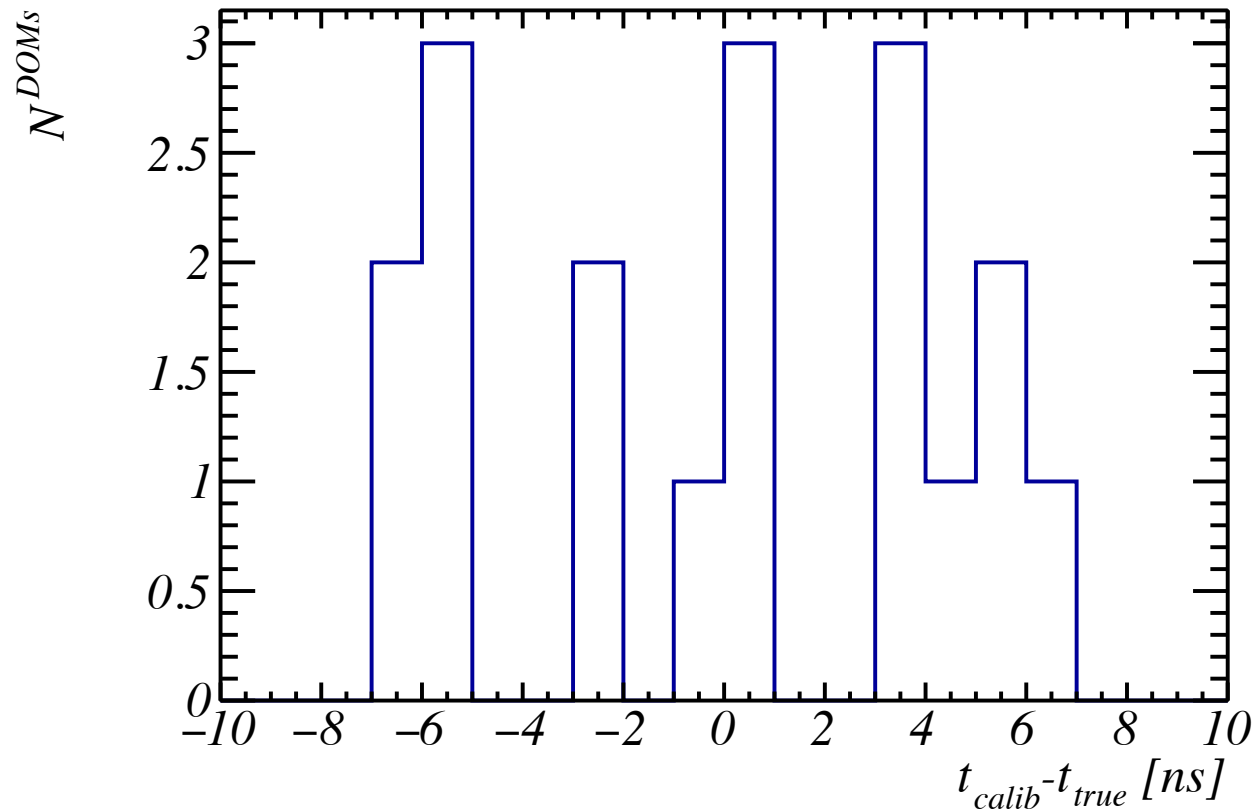
Inter-DOM calibration

- Mean and standard deviation of gaussian fit:



Inter-DOM calibration

- Simultaneous fit of DOM time-offsets:



Summary

- Sub-ns calibration might already be in reach with this simple method
 - (And more time to do it properly)
- Better inter-DOM calibration by reconstructing the track in absence of one DOM.