Update on Markov chain Monte Carlo photon path generation

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Reference Model

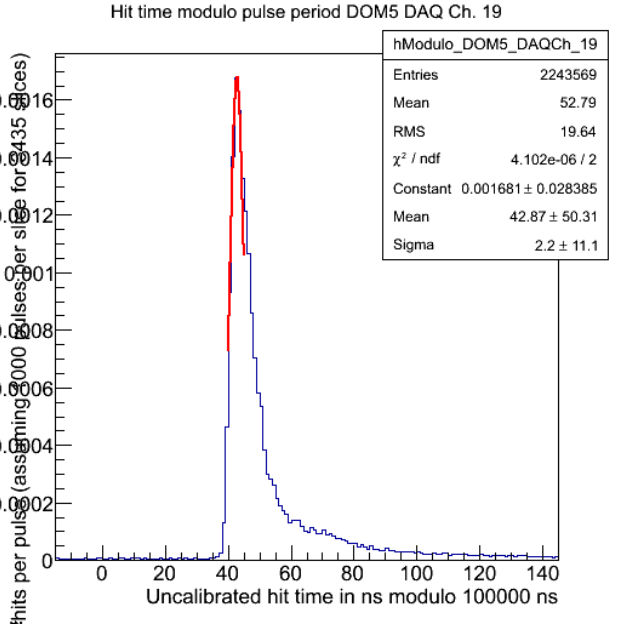
- Nanobeacon (isotropic) at origin
- DOM on z-axis @ 37 m
- Different PMT zenith angles (1 for each ring):
  - Ring F: 56
  - Ring E: 73
  - Ring D: 107
  - Ring C: 124
  - Ring B: 148
  - Ring A: 180

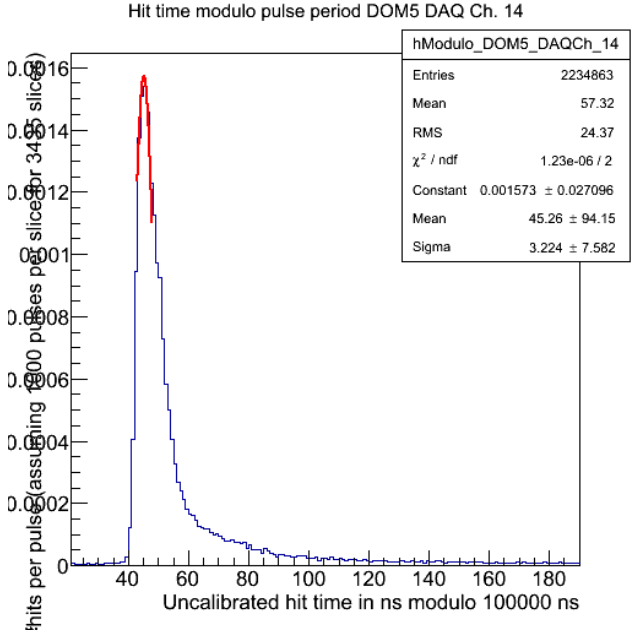
NOTE: 0 degrees is upwards along the positive z-direction, so the angle w.r.t. the target is 180 minus this

source: detector file, angles rounded to whole degrees

Nanobeacon pulse shape

- Based on run #494 (L0)
- Gaussian fits of pulse shapes of PMTs in ring B two DOMs above the NB
  - not overilluminated
  - but contain some scattered light already
- Assuming Gaussian pulse, width 2.6 ns (~average over ring B)

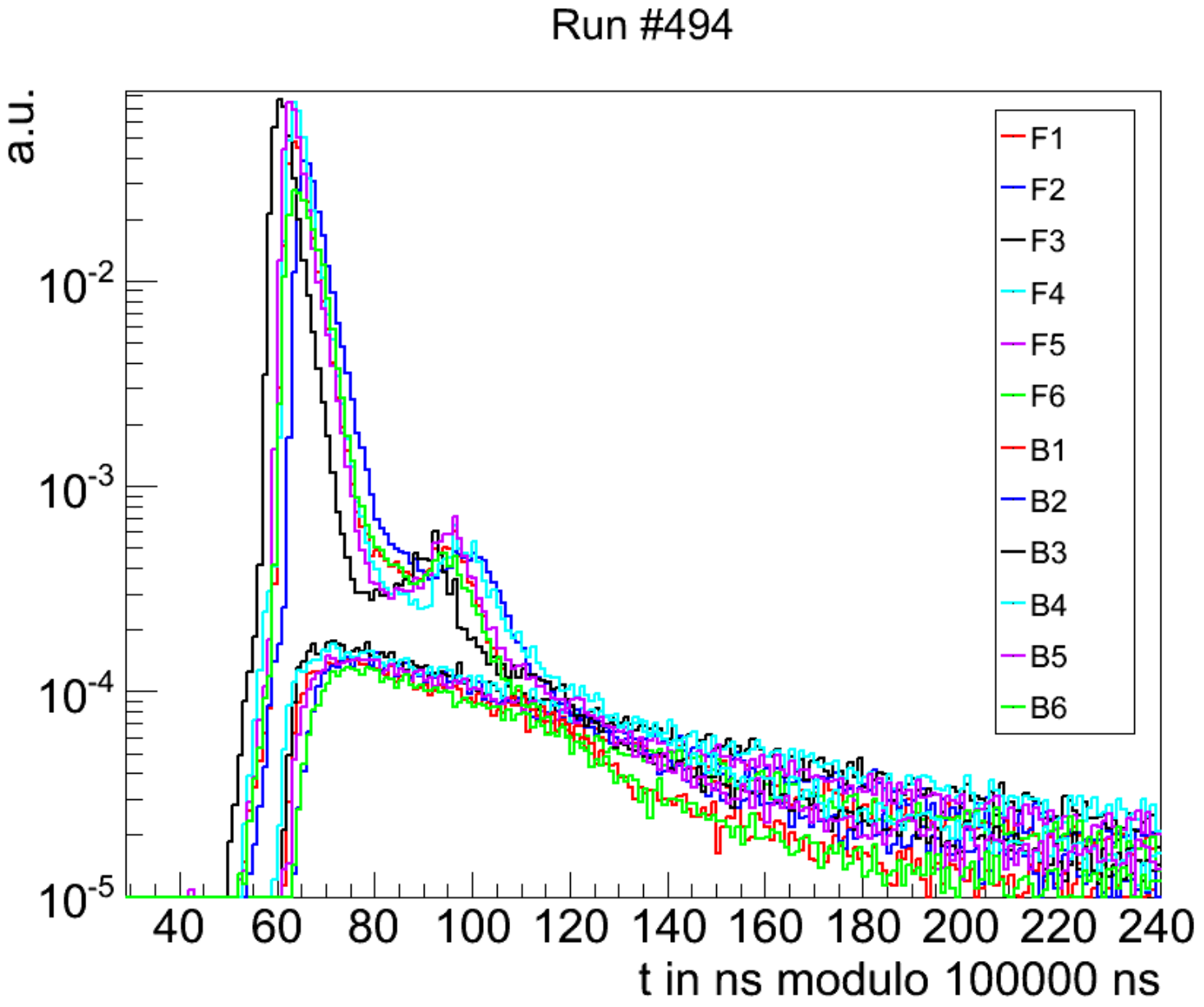




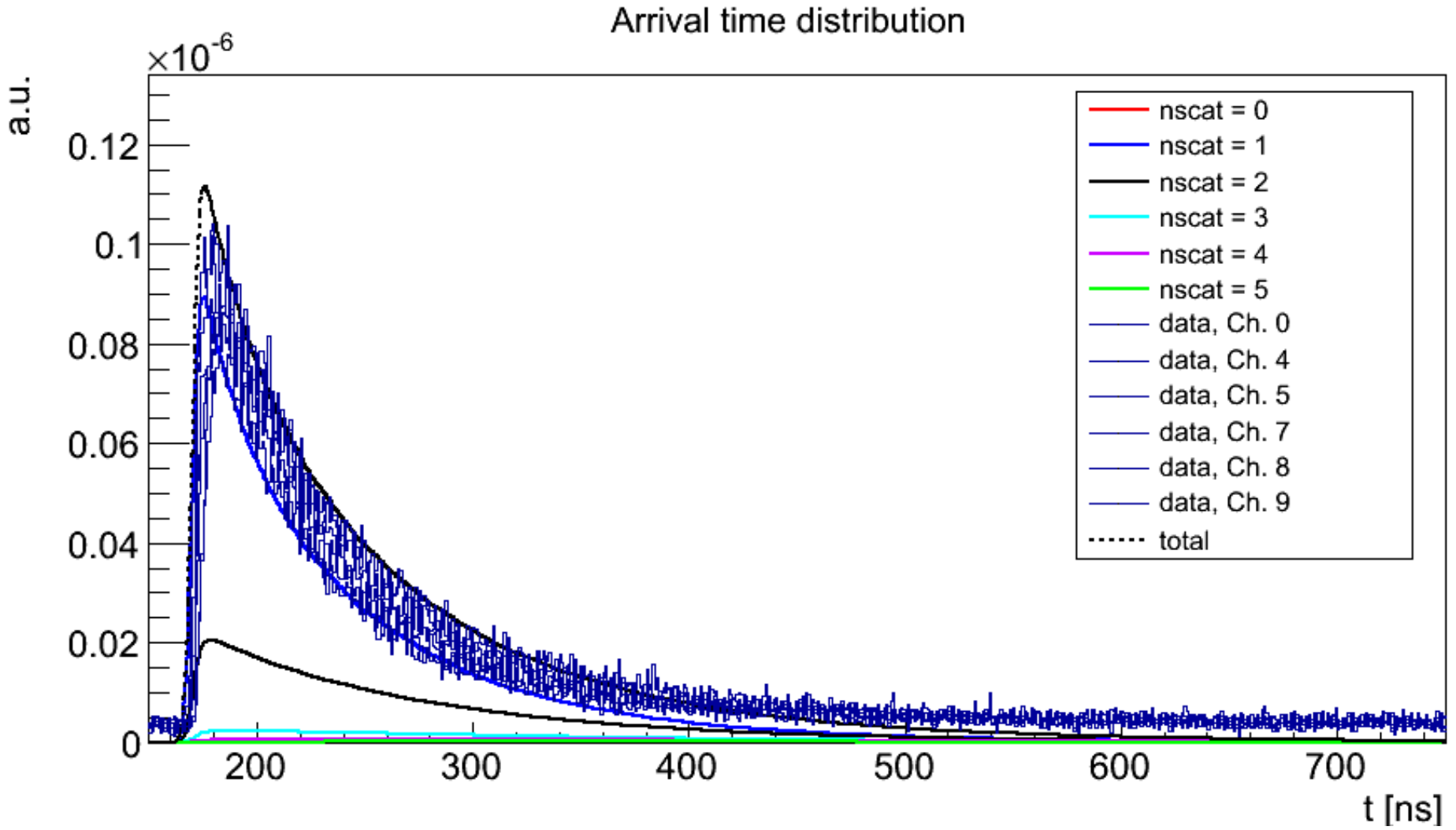
Data comparison

- Run #494
- DU-2 L0
- NB on DOM3
- Look at DOM4

Data comparison



Data comparison, zenith 124 deg



Data comparison, zenith 124 deg