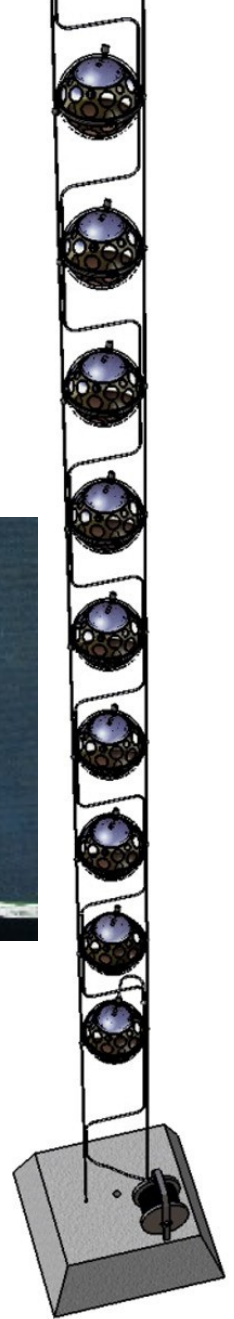


Depth dependence study - update

Martijn Jongen
KM3NeT group meeting
Nikhef
10 March 2017

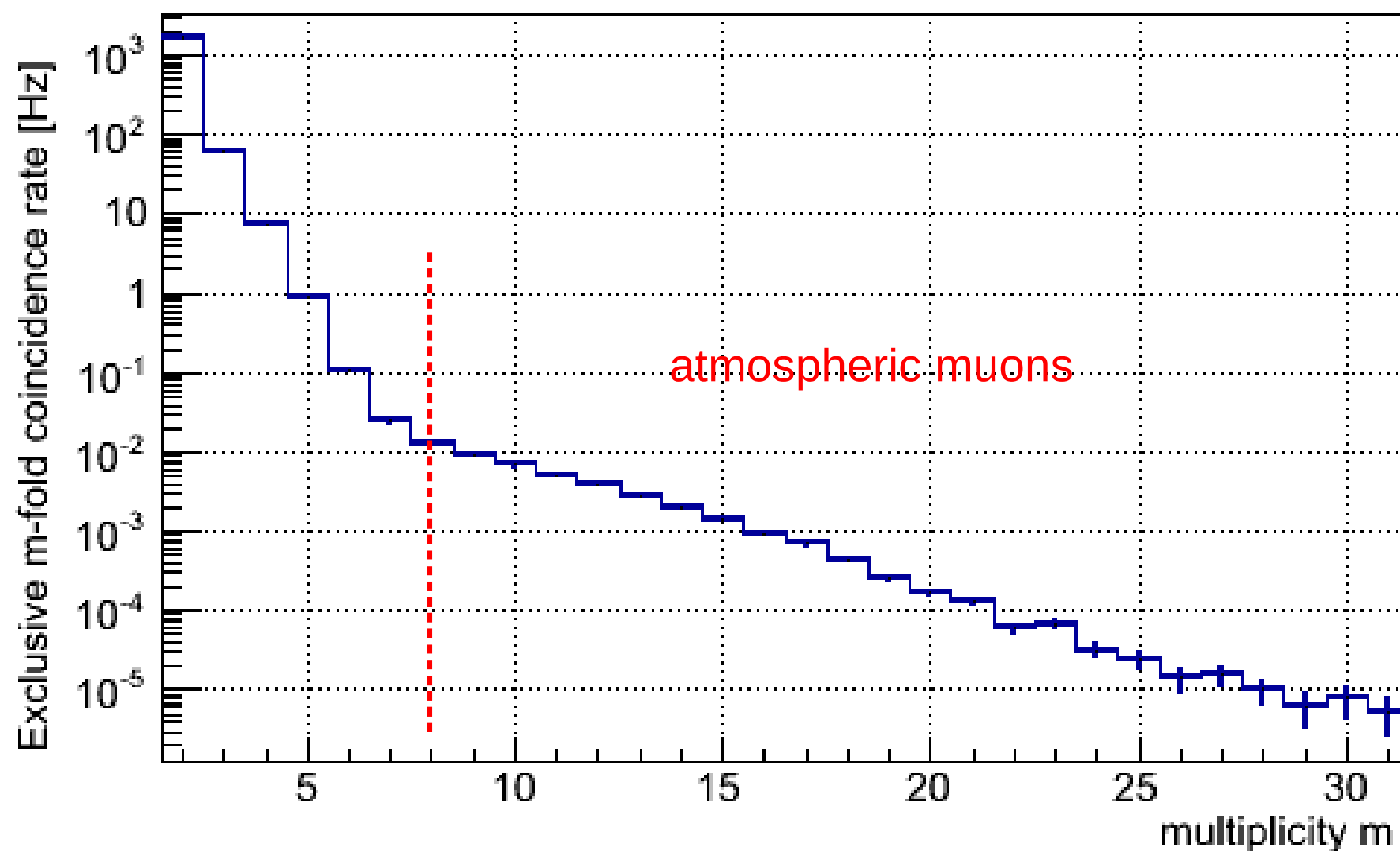
Depth dependence study

- Using first two Detection Units
 - height ~ 630 m between top and bottom DOM
- Study decrease of atmospheric muon flux with depth
- Select muons on a per-DOM basis by looking at high-multiplicity coincidence clusters

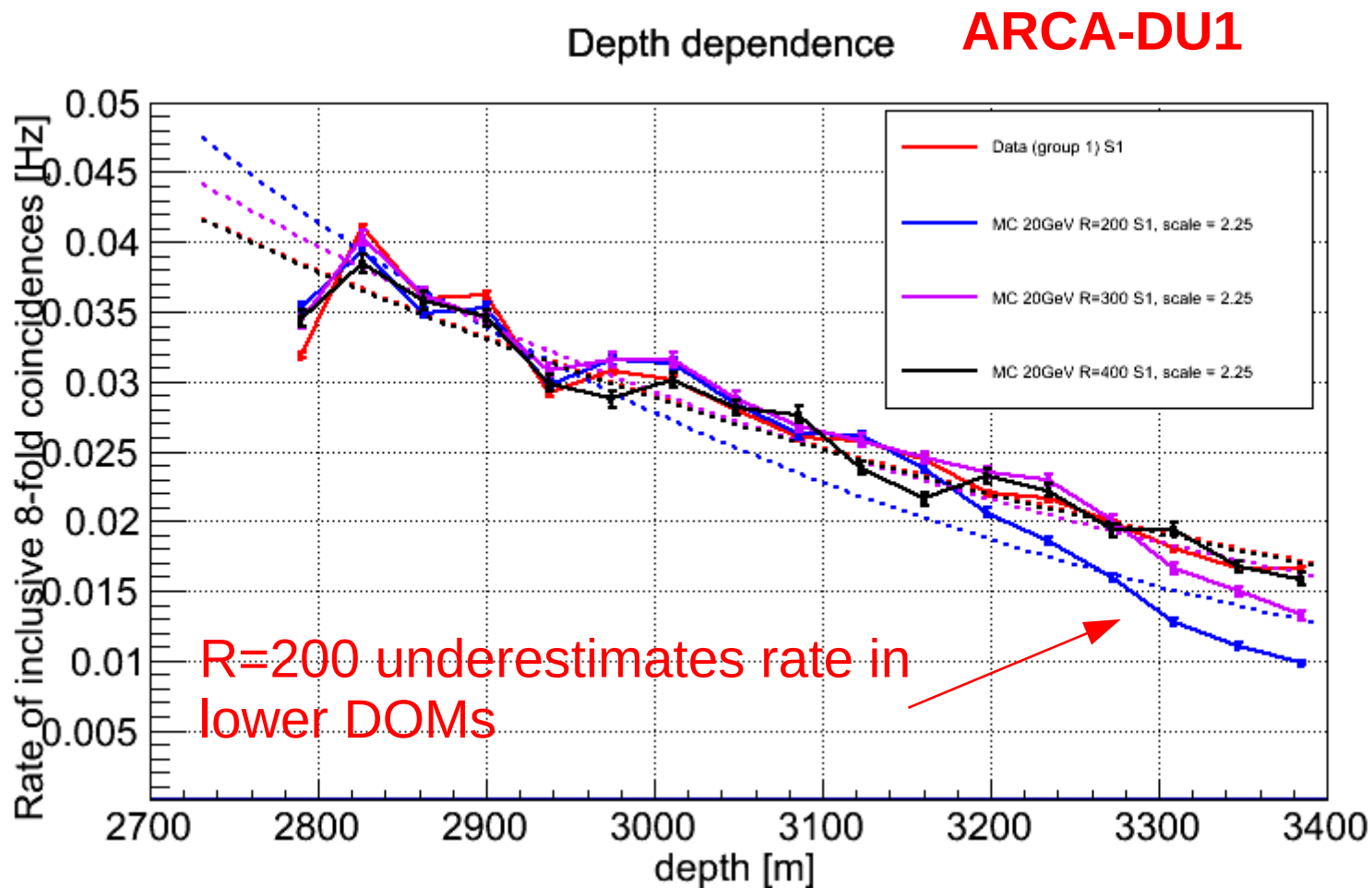


Depth dependence study

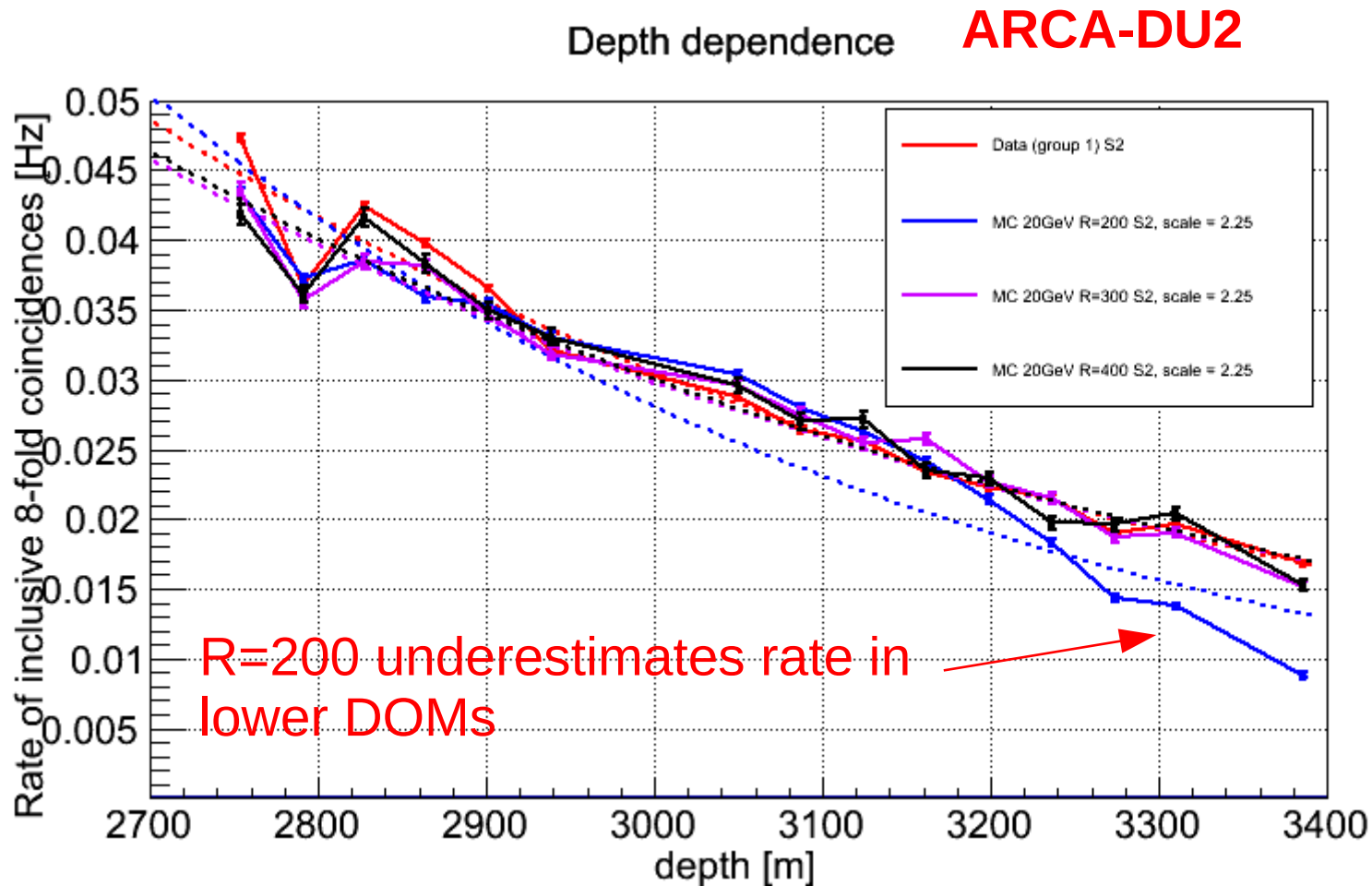
string 2 floor18



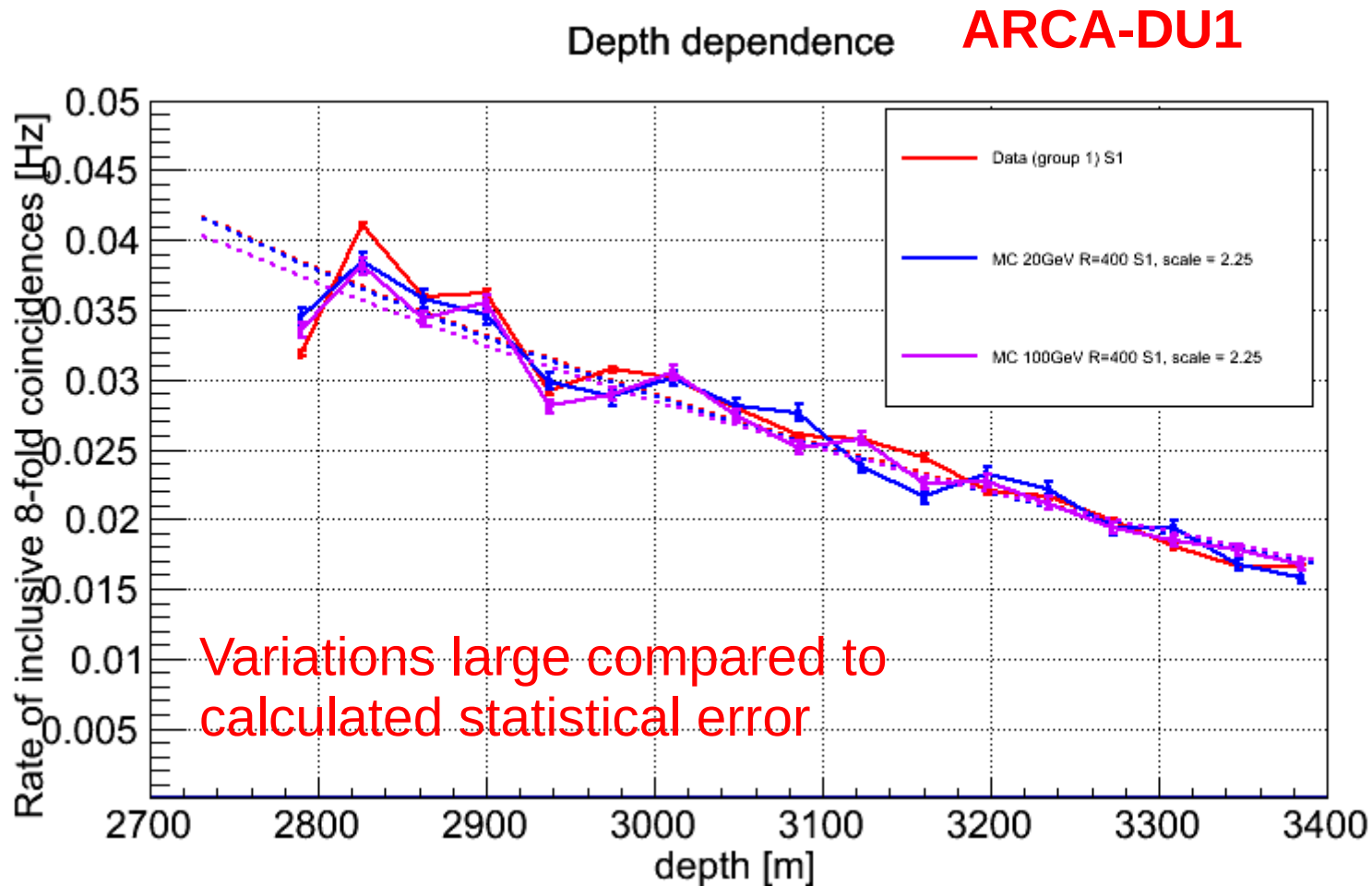
Data/MC comparison



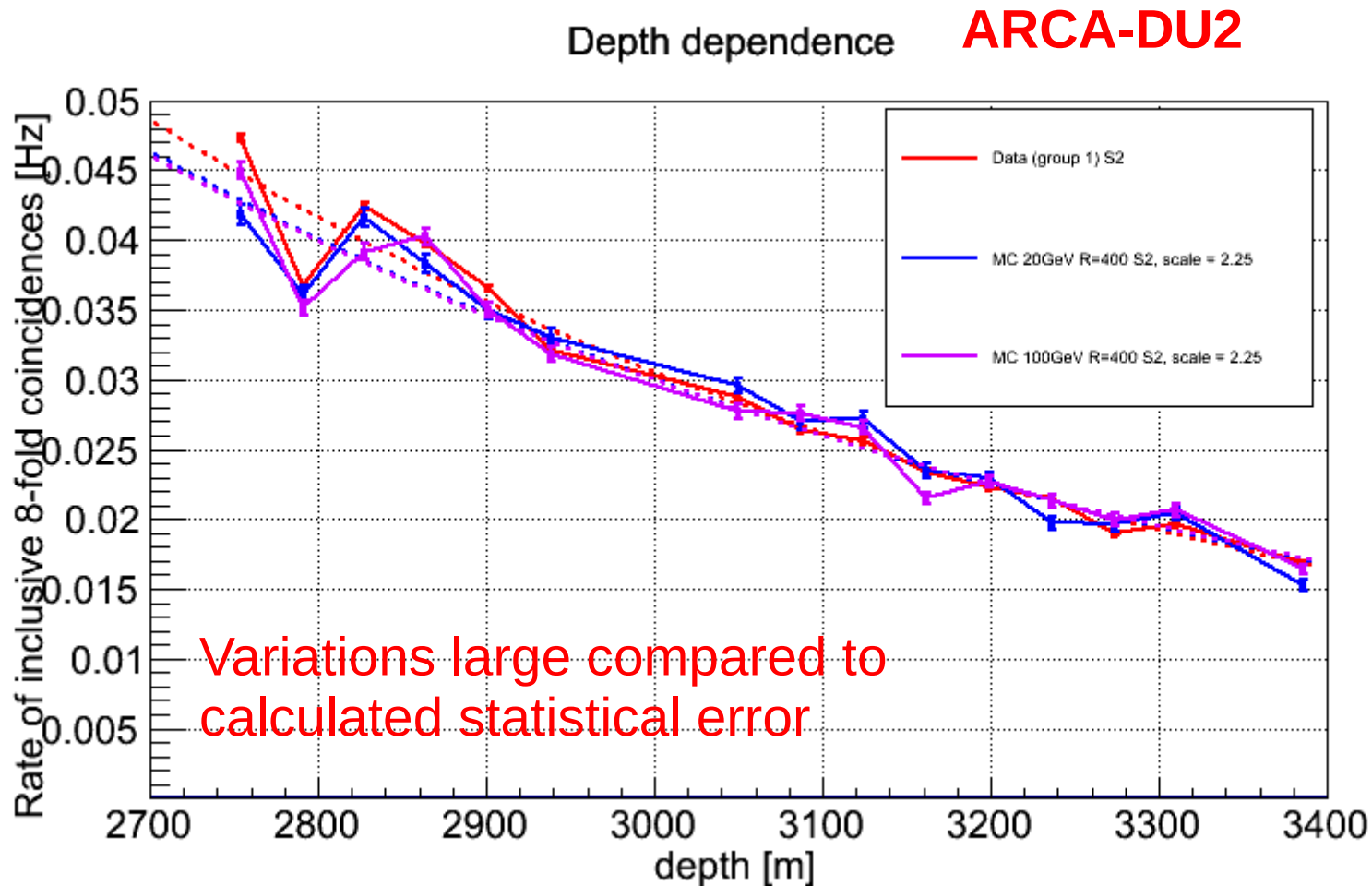
Data/MC comparison



Data/MC comparison

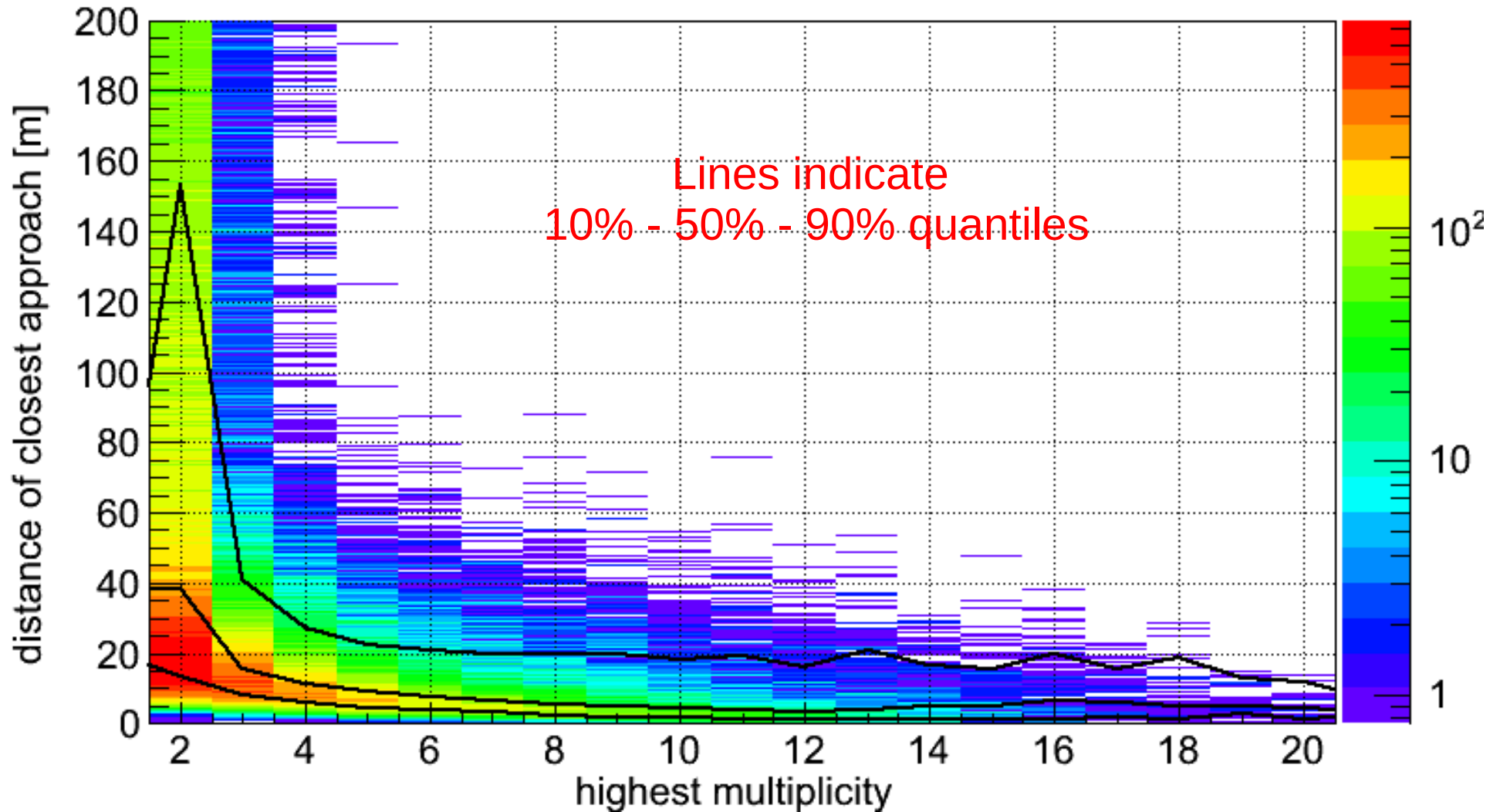


Data/MC comparison



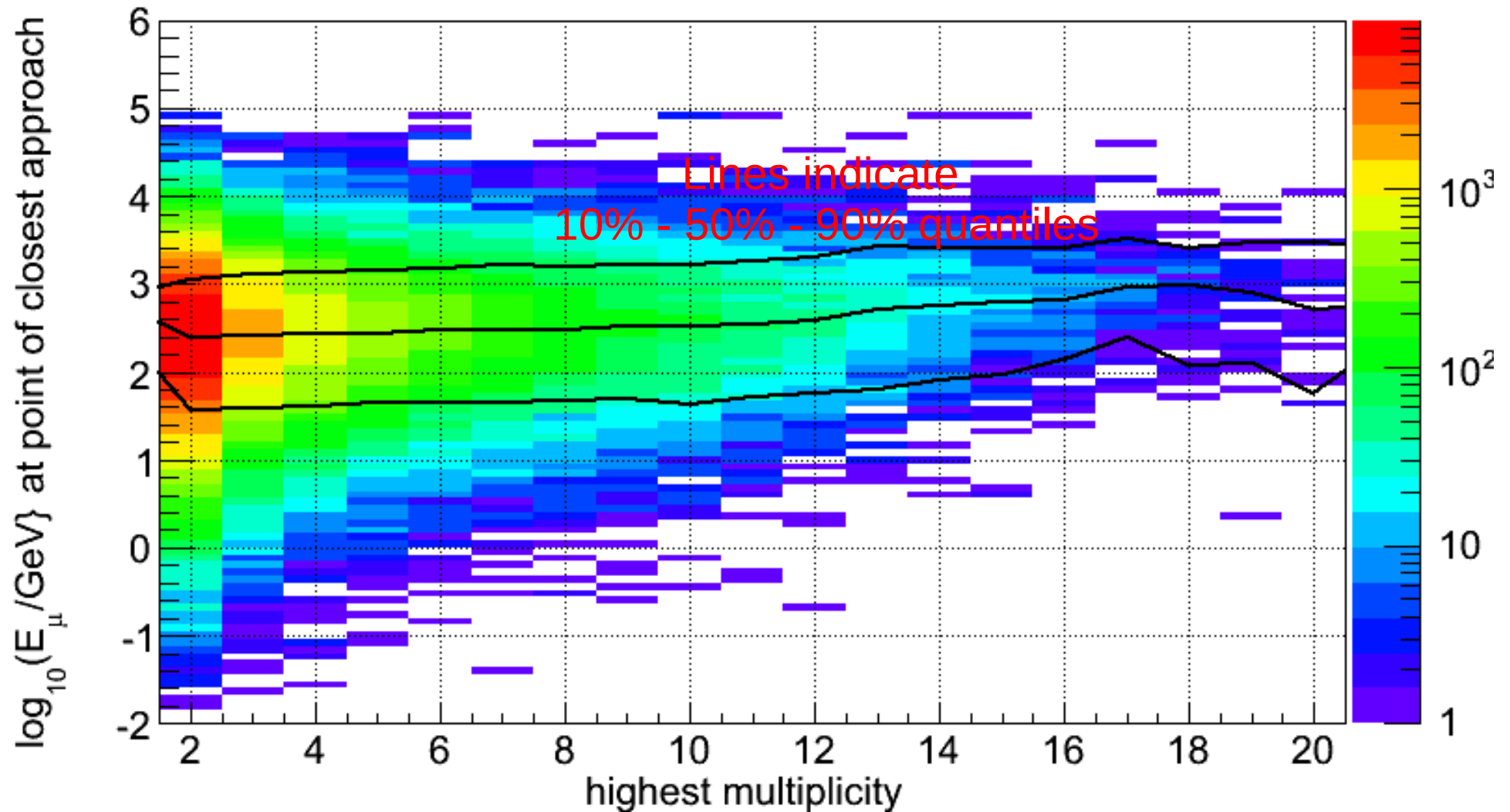
Data/MC comparison

One entry per active DOM per single-muon MC event

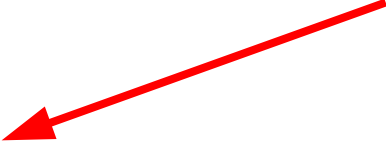


Data/MC comparison

One entry per active DOM per single-muon MC event

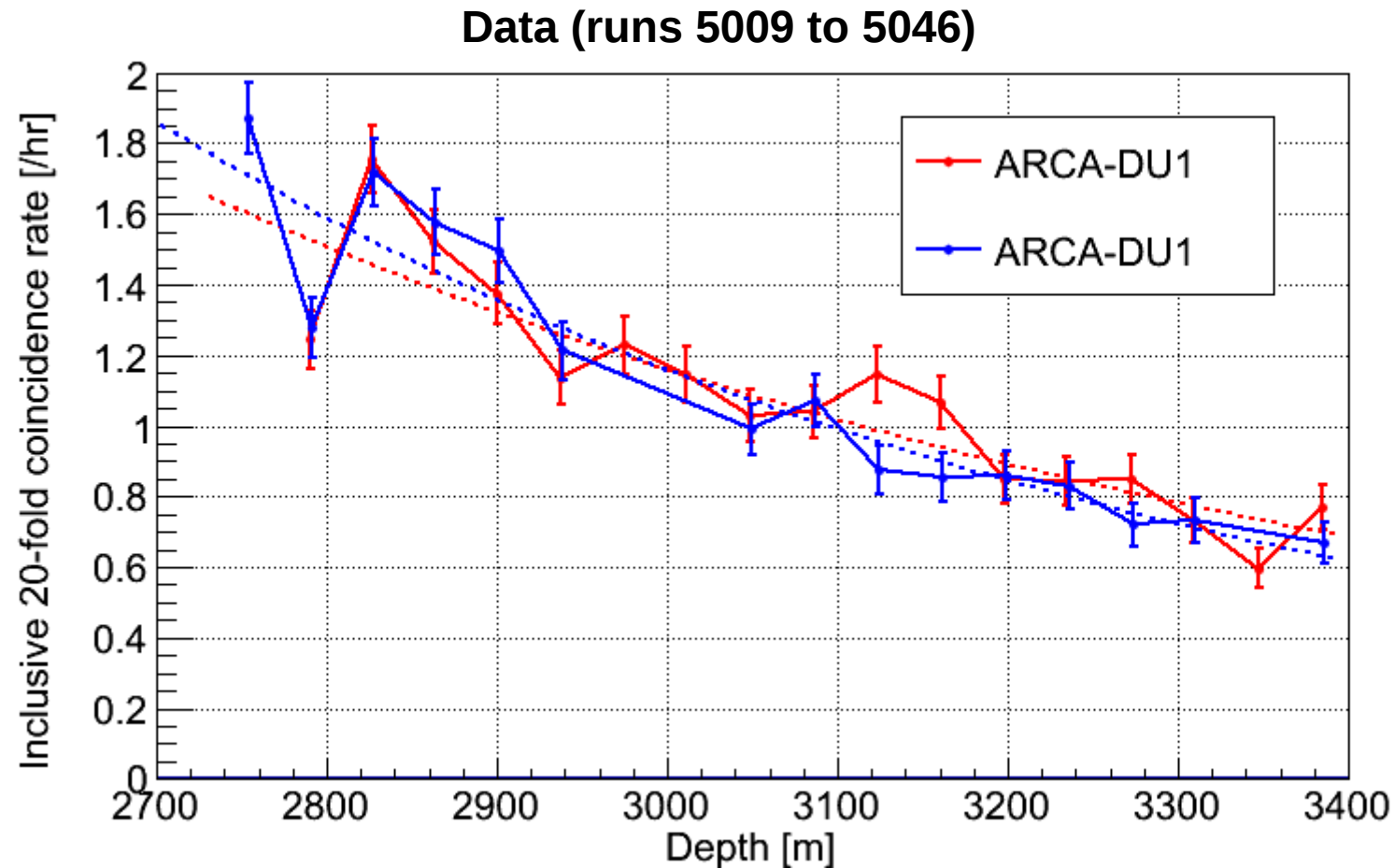


Forming multiplicity clusters

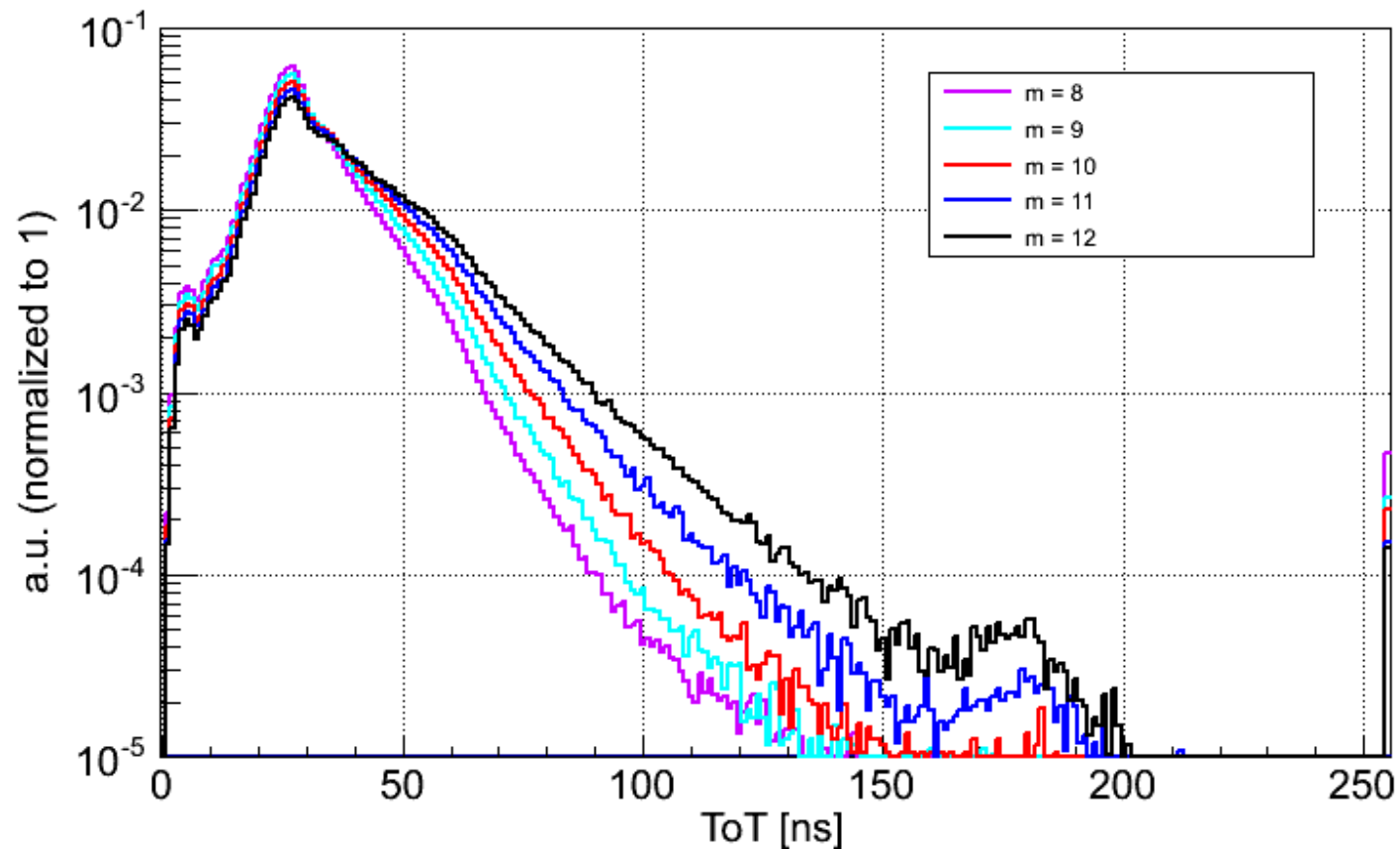
- Created JPP class JClusterBuilder
 - committed to SVN)
 - uses `JBuildL1<JHitL1>`
 - sorts clusters by **multiplicity** 
 - easy interface: feed it a JDAQSuperframe and a JModule, get clusters

Defined as number of
unique hit PMTs (≤ 31)

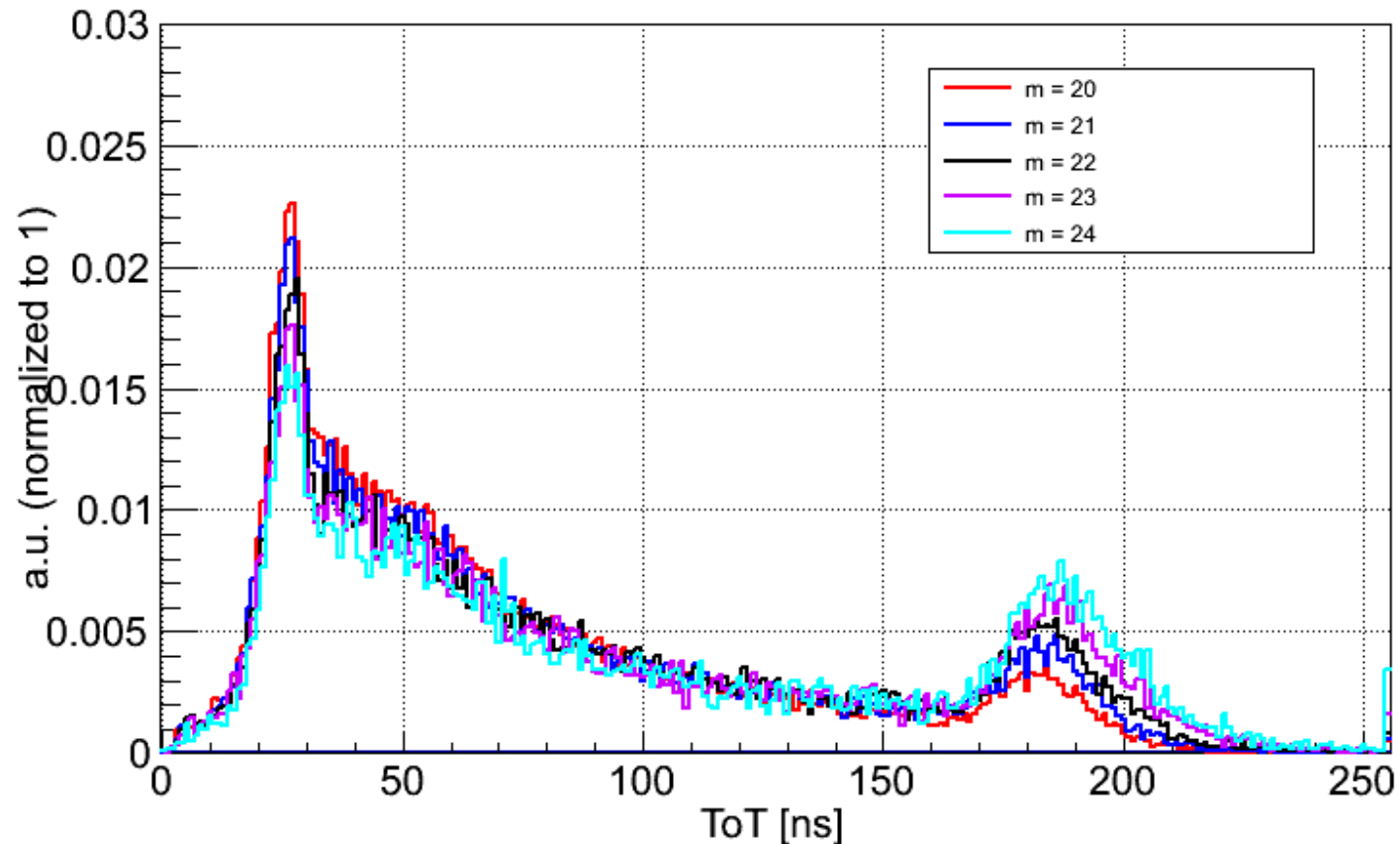
Very high multiplicity clusters



ToTs of low-multiplicity clusters



ToTs of high-multiplicity clusters



Backup slides

PMT efficiencies

