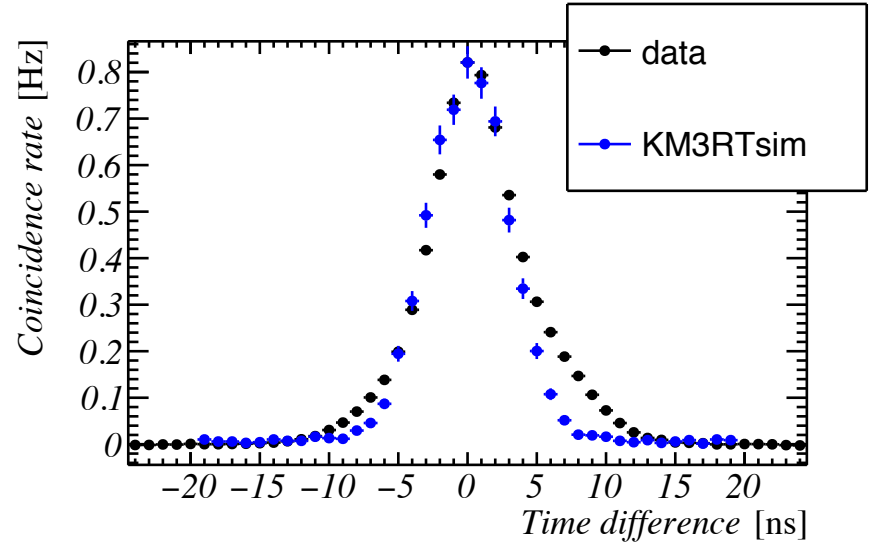
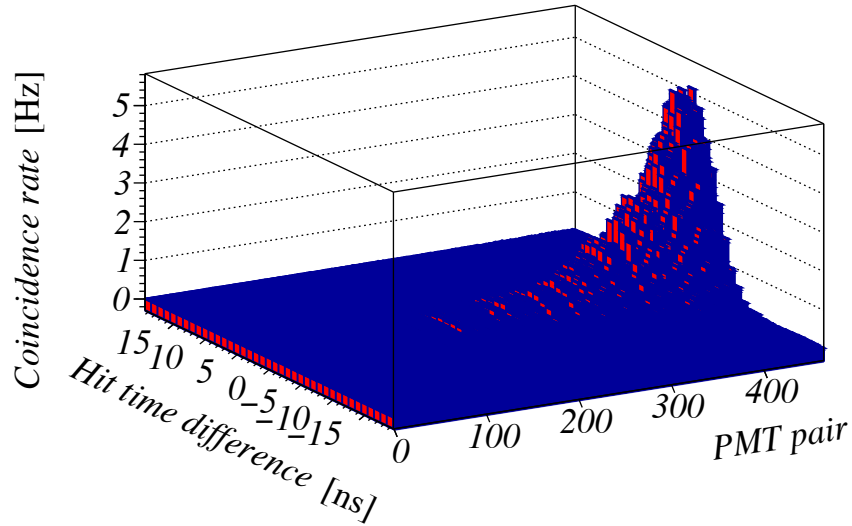


40K fit

An update

Basic principle



Mean

-> PMT time offset

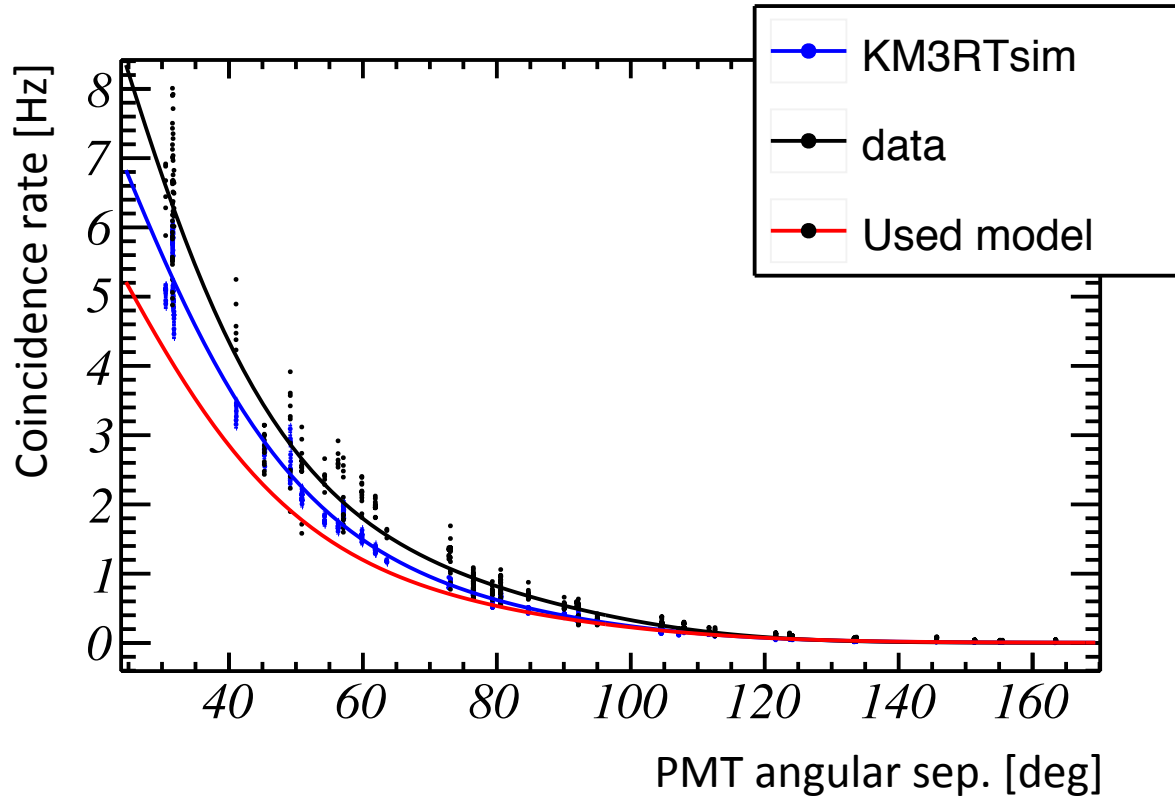
Width

-> (upper bound on) PMT time spread

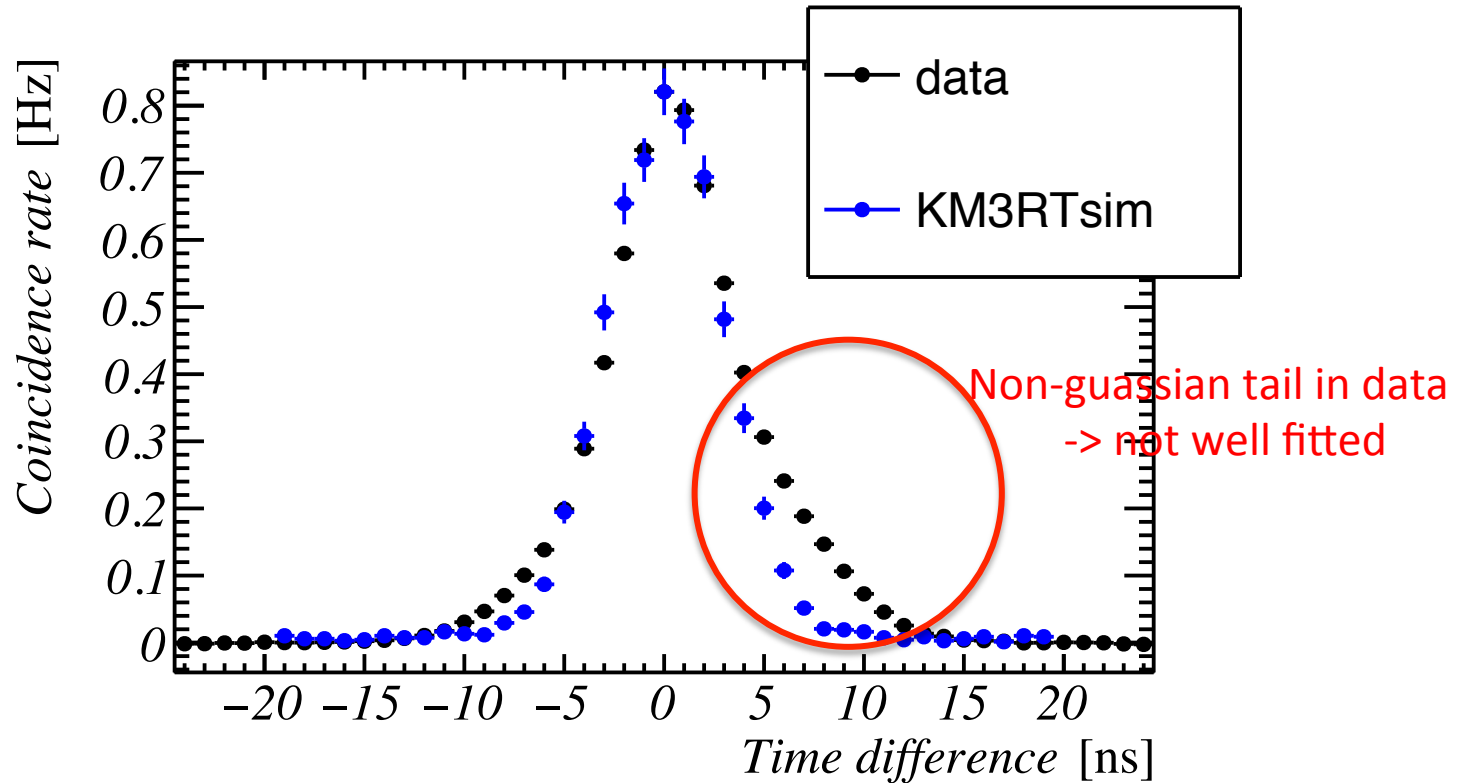
Gaussian amplitude

-> PMT efficiency

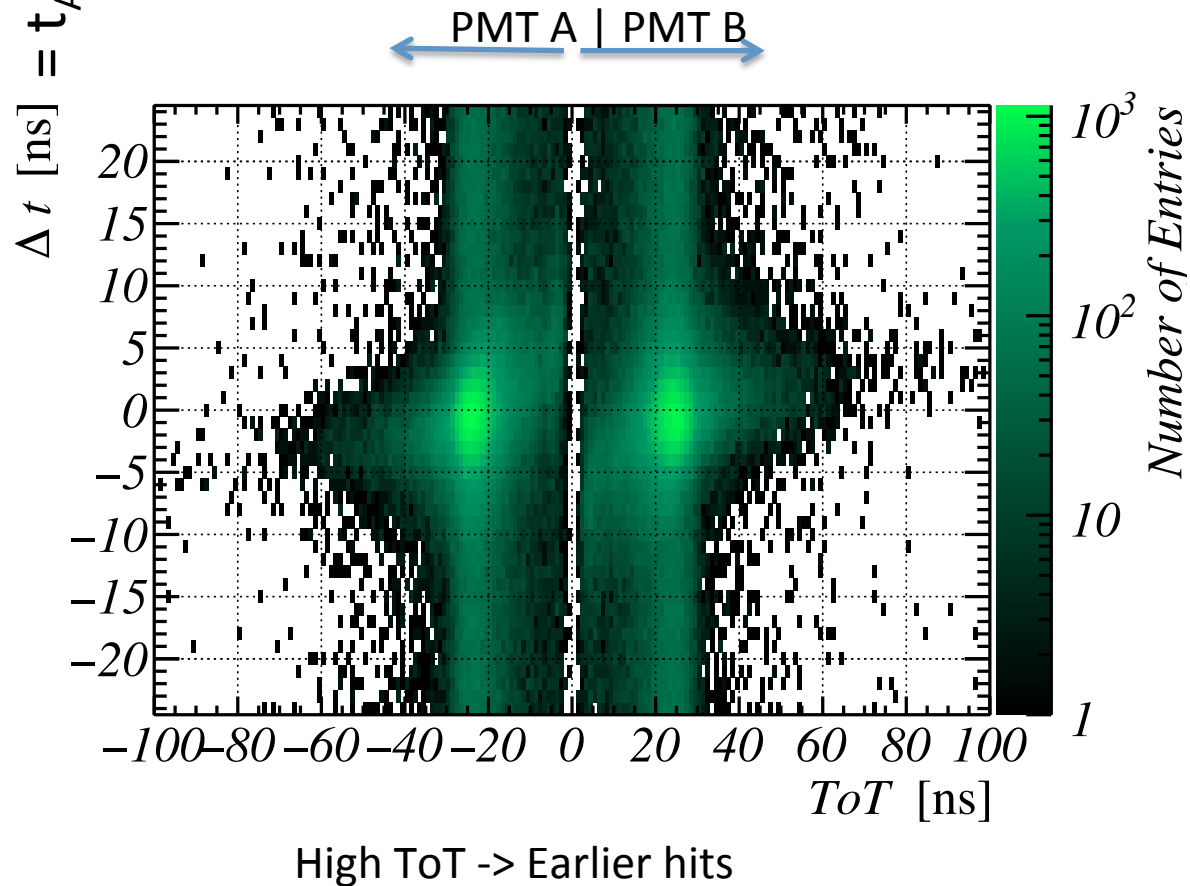
Efficiency: Model used



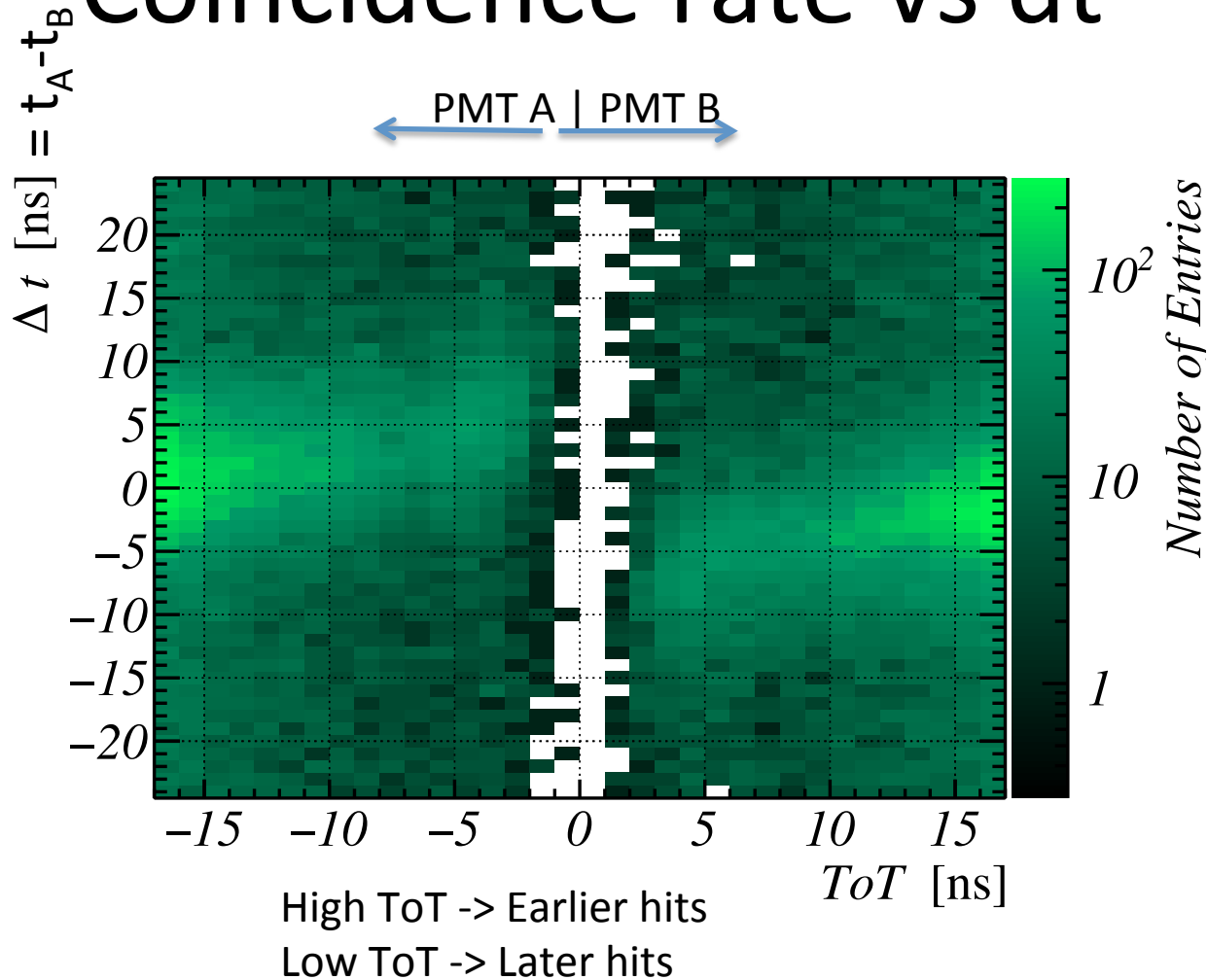
Efficiency: data-MC



Coincidence rate vs dt



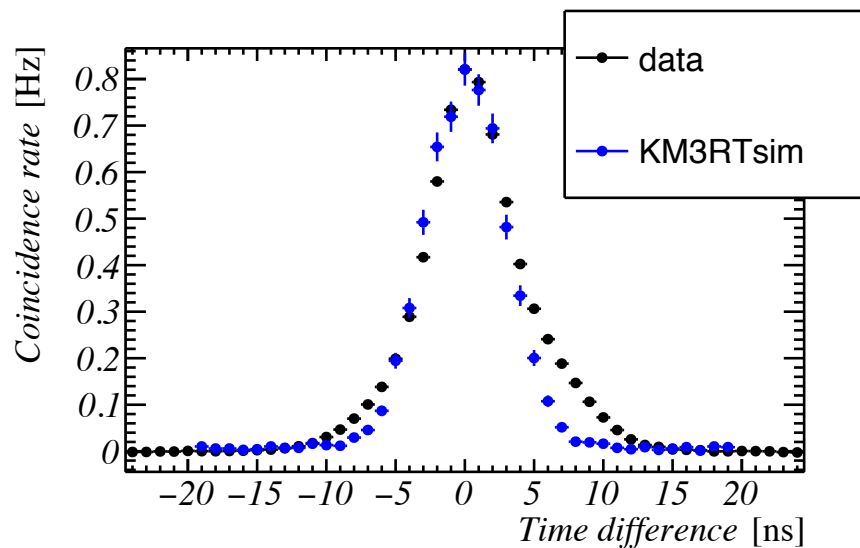
Coincidence rate vs dt



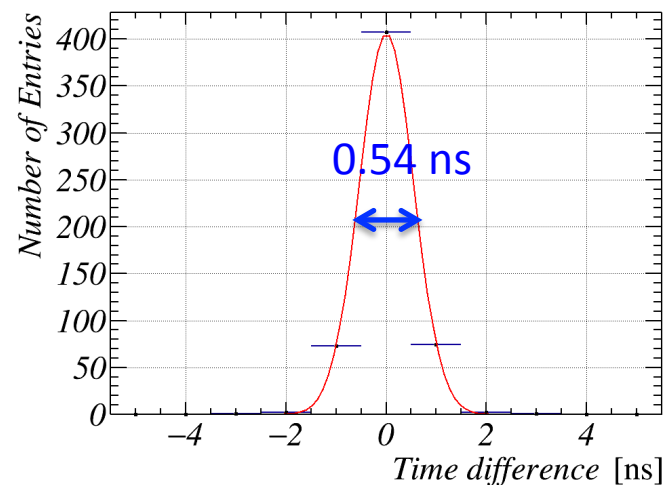
Improve data-MC (1)

- ToT-cut?
 - Not really a solution -> Thrown-away fraction influences integral -> efficiency
- The low/high ToT hits must be from physics
 - (Time correlated)
- ... and from separate events
 - (otherwise ToT -> merged with previous hit)

Improve data-MC (2)



No PMT transit time spread (MC):



Peak mean -> PMT time offset
Peak width – 0.54 ns -> PMT time spread
Integral -> PMT efficiency

Backup

Coincidence rate vs t, TOT : MC

