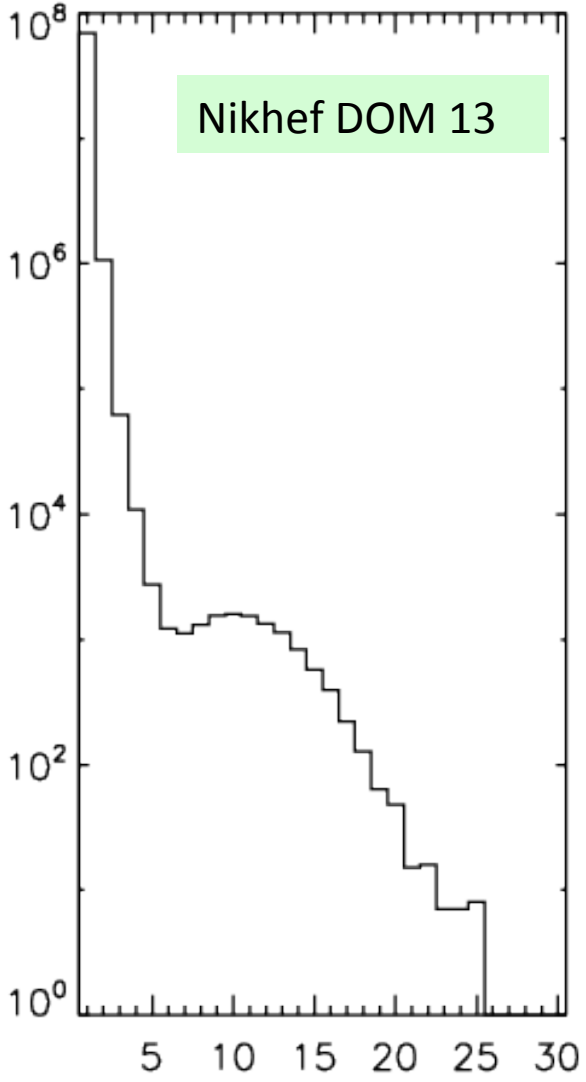
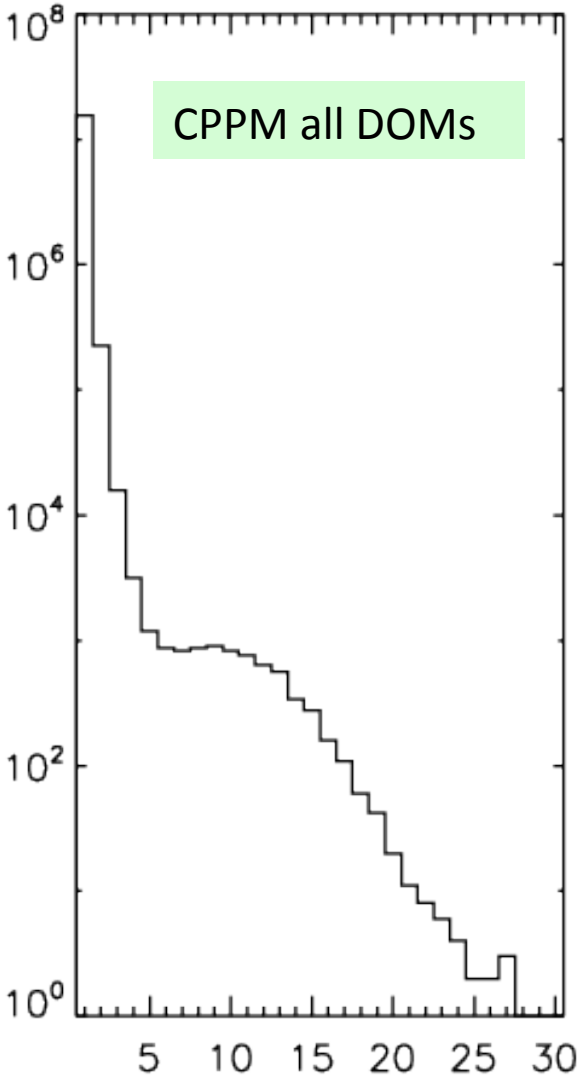
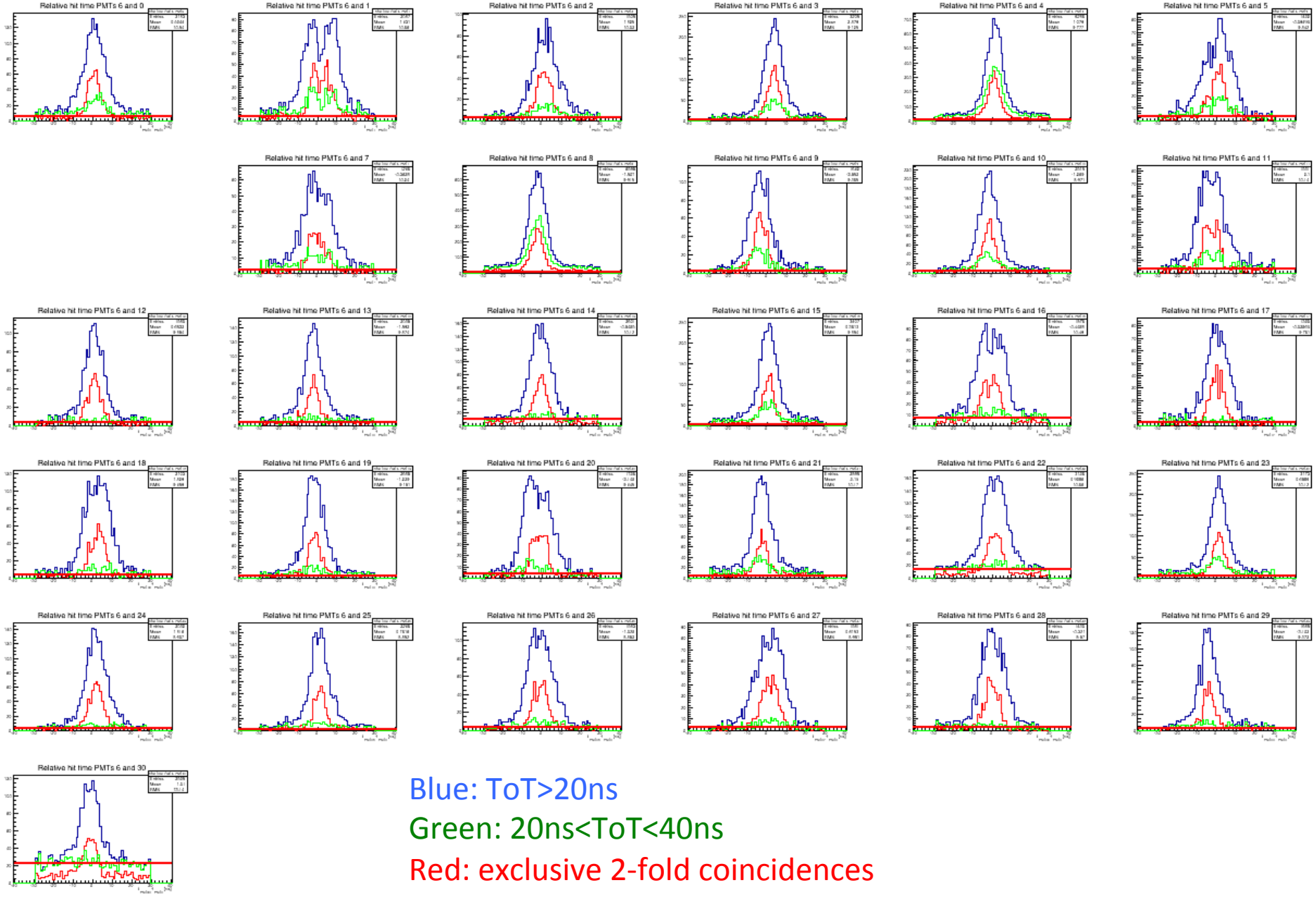
Coincidences of PMTs of DU-1 DOMs (lab data)

Dorothea Samtleben

Coincidences (within 30ns, no calibration)



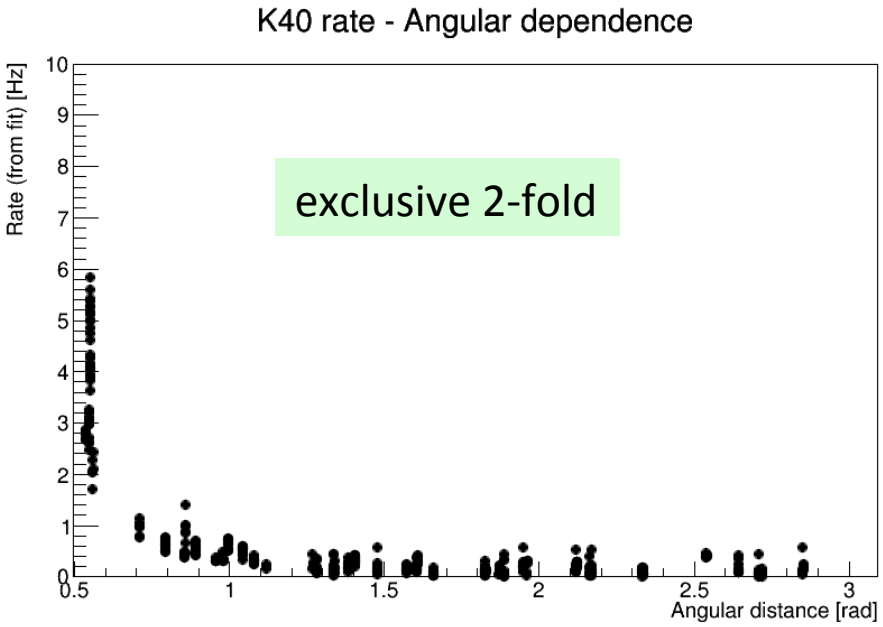


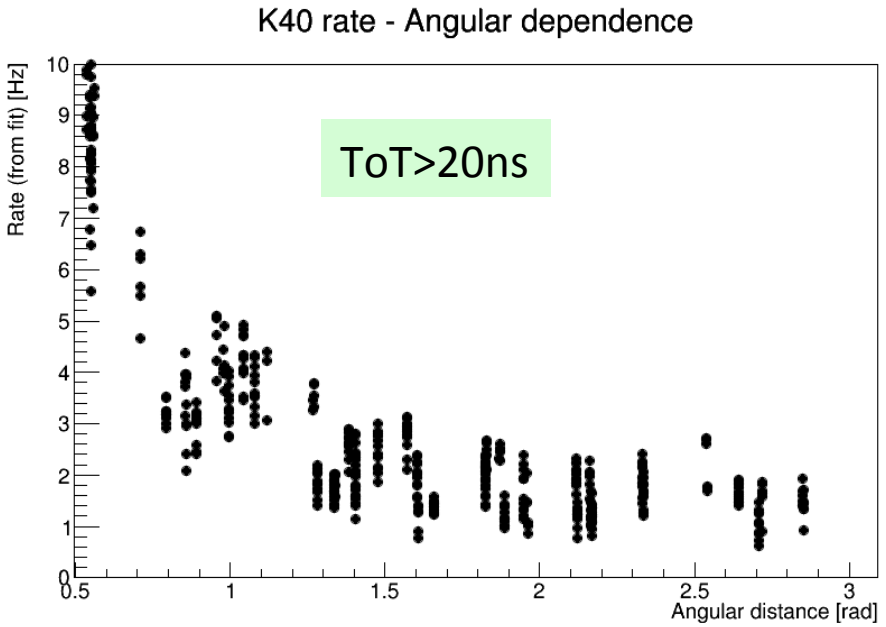


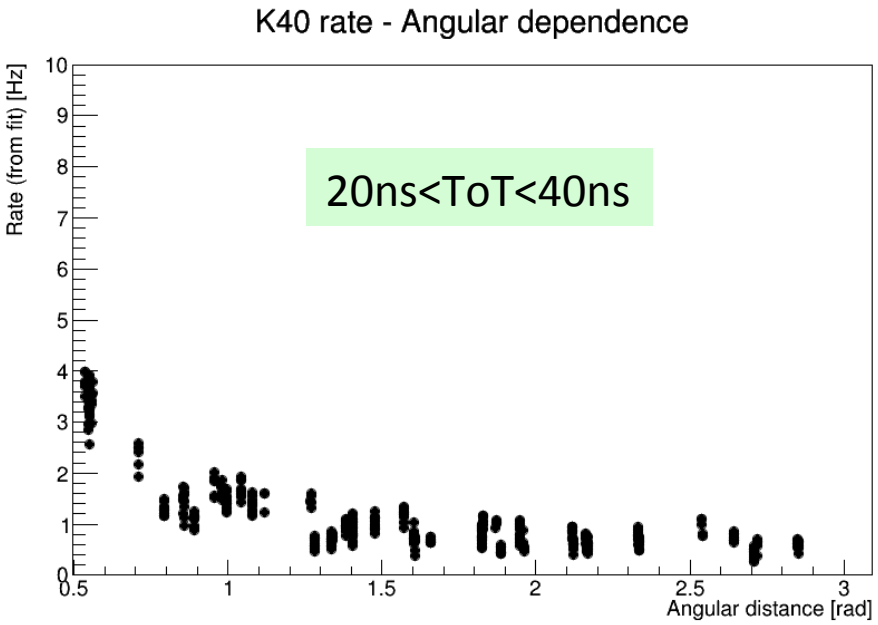
Blue: ToT>20ns

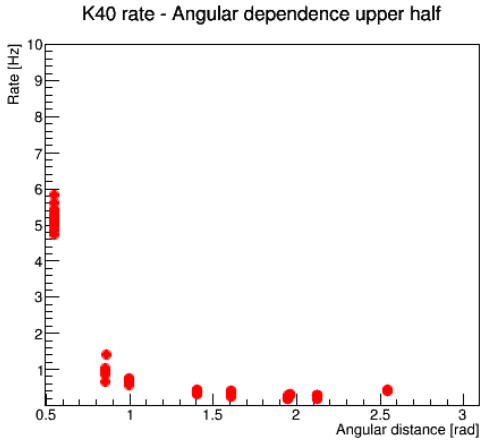
Green: 20ns<ToT<40ns

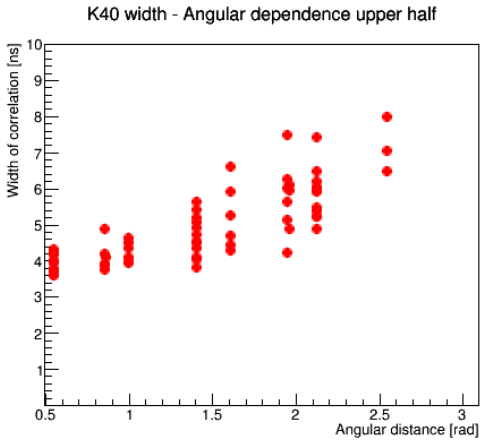
Red: exclusive 2-fold coincidences

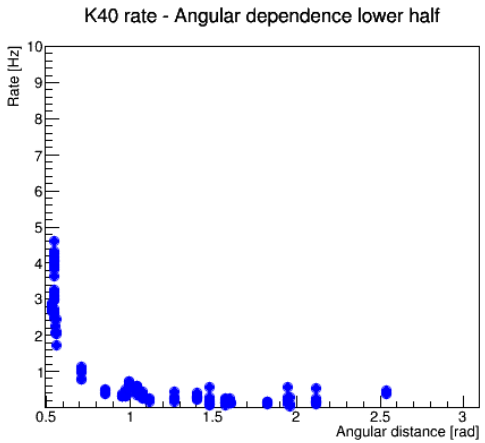

K40 rate - Angular dependence
Rate (from fit) [Hz]
Angular distance [rad]
exclusive 2-fold

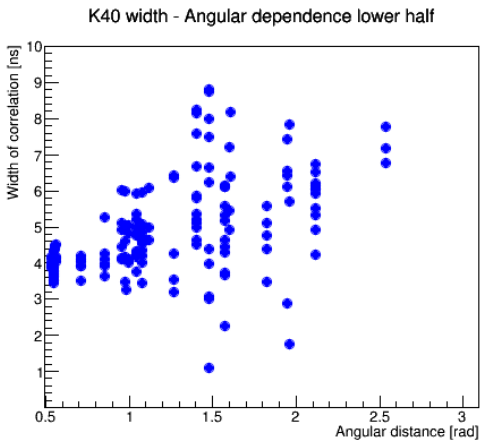

K40 rate - Angular dependence
Rate (from fit) [Hz]
Angular distance [rad]
ToT>20ns

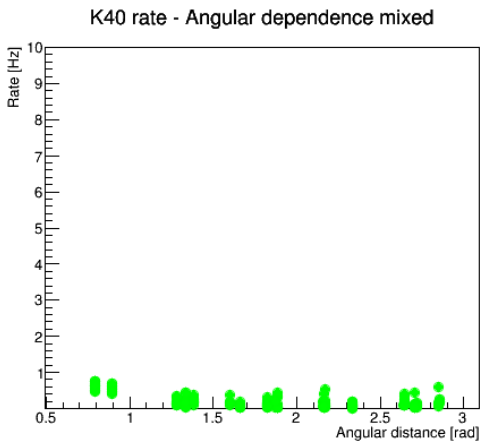

K40 rate - Angular dependence
Rate (from fit) [Hz]
Angular distance [rad]
20ns<ToT<40ns

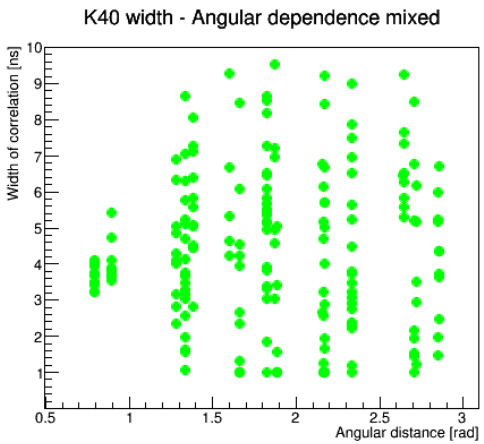

K40 rate - Angular dependence upper half
Rate [Hz]
Angular distance [rad]

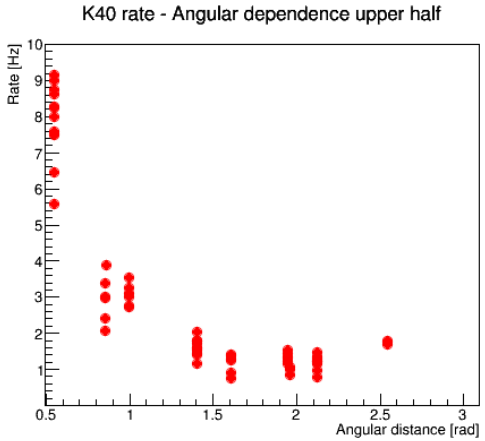

K40 width - Angular dependence upper half
Width of correlation [ns]
Angular distance [rad]

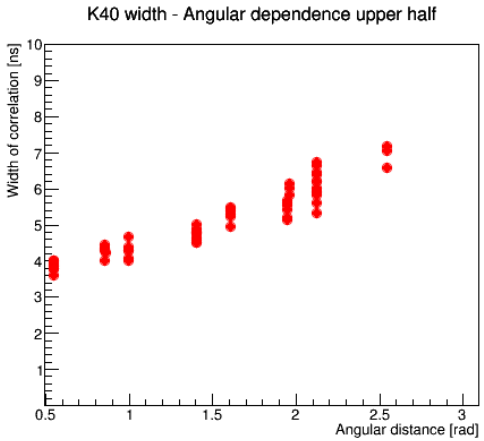

K40 rate - Angular dependence lower half
Rate [Hz]
Angular distance [rad]

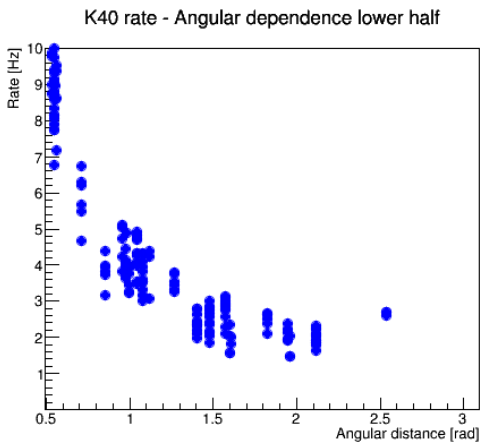

K40 width - Angular dependence lower half
Width of correlation [ns]
Angular distance [rad]

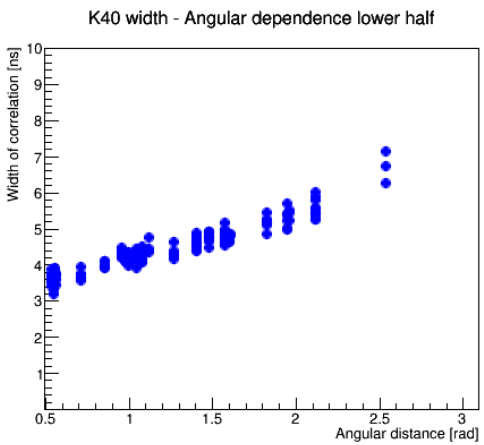

K40 rate - Angular dependence mixed
Rate [Hz]
Angular distance [rad]

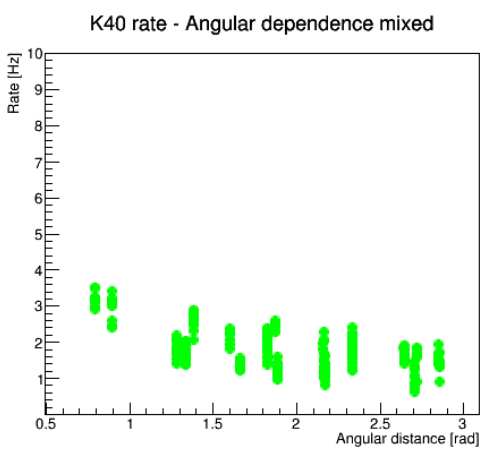

K40 width - Angular dependence mixed
Width of correlation [ns]
Angular distance [rad]

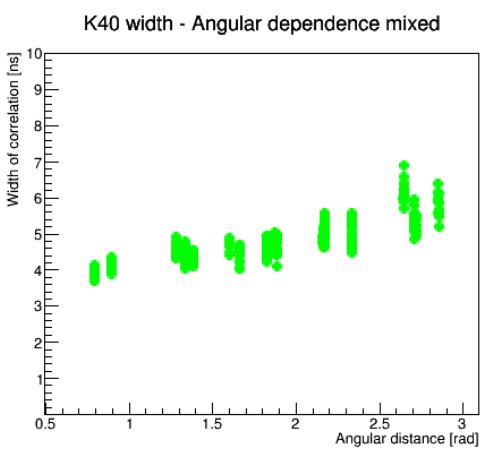

K40 rate - Angular dependence upper half
Rate [Hz]
Angular distance [rad]


K40 width - Angular dependence upper half
Width of correlation [ns]
Angular distance [rad]

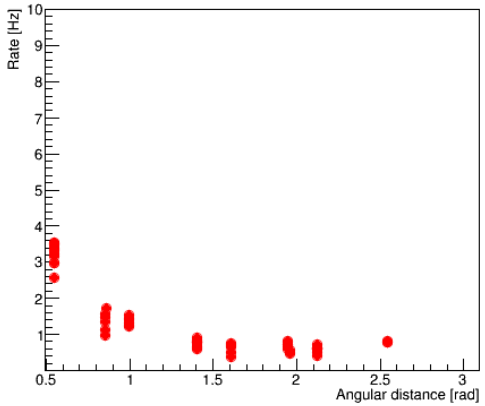

K40 rate - Angular dependence lower half
Rate [Hz]
Angular distance [rad]


K40 width - Angular dependence lower half
Width of correlation [ns]
Angular distance [rad]

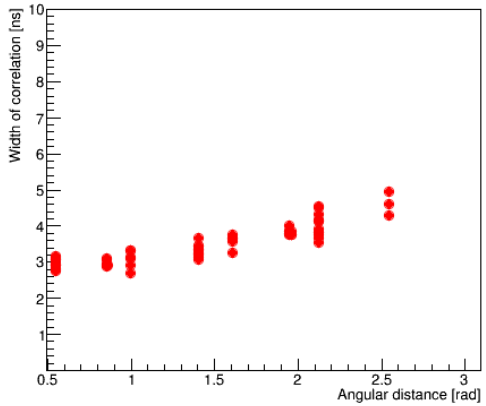

K40 rate - Angular dependence mixed
Rate [Hz]
Angular distance [rad]


K40 width - Angular dependence mixed
Width of correlation [ns]
Angular distance [rad]

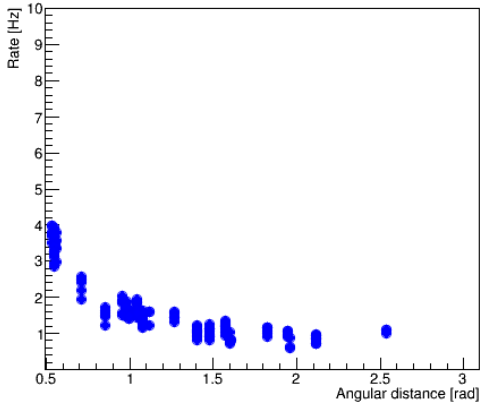
K40 rate - Angular dependence upper half



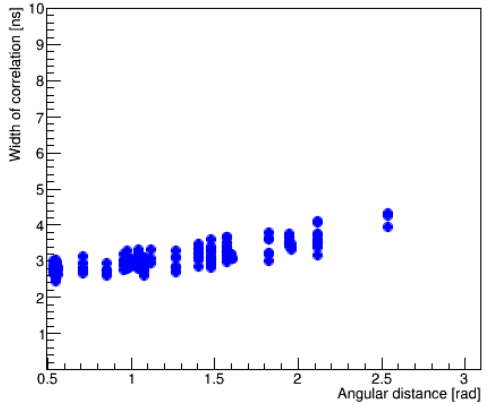
K40 width - Angular dependence upper half



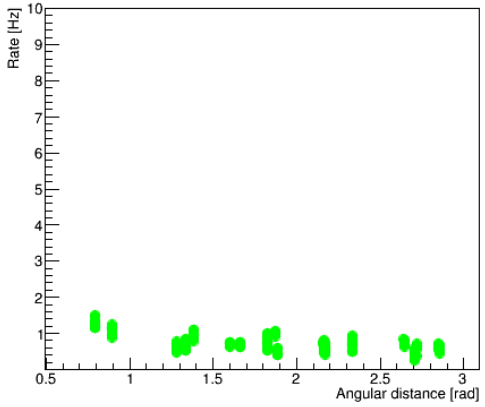
K40 rate - Angular dependence lower half



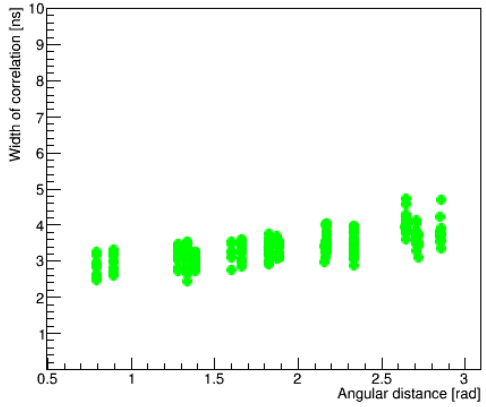
K40 width - Angular dependence lower half

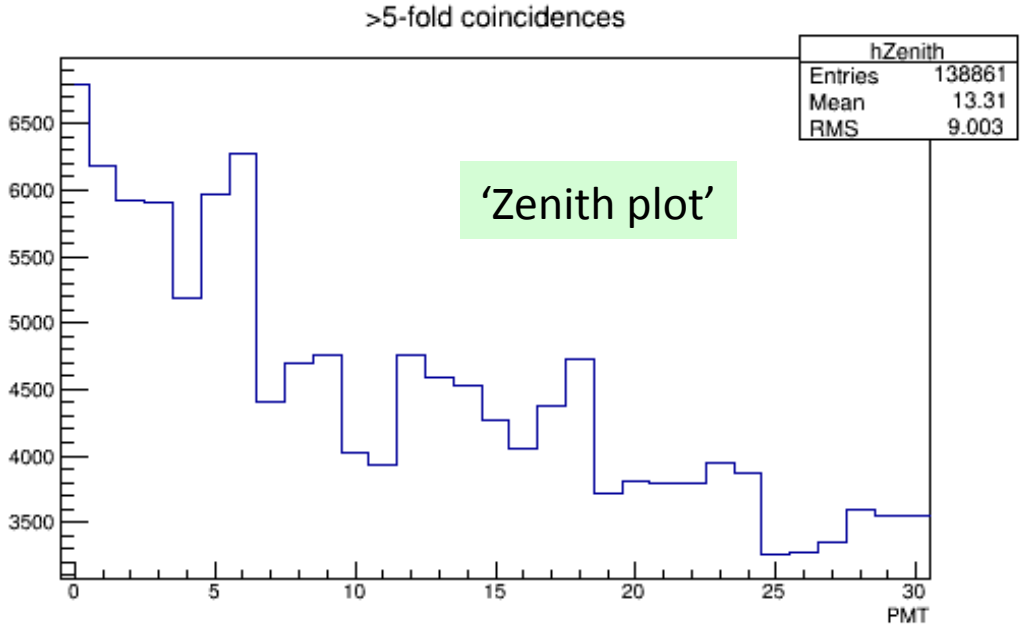


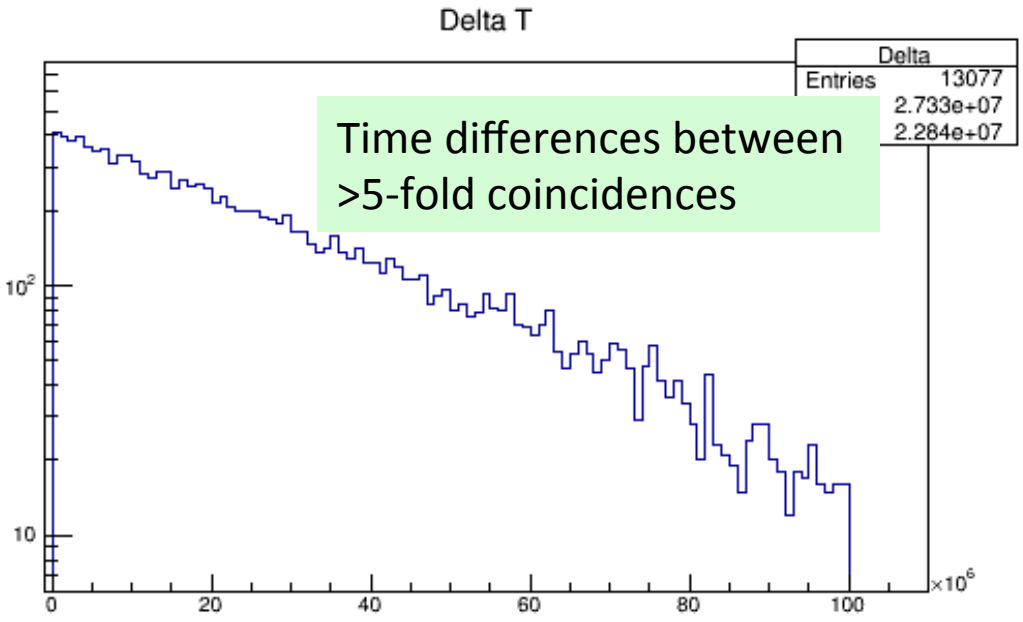
K40 rate - Angular dependence mixed



K40 width - Angular dependence mixed




>5-fold coincidences
hZenith
Entries 138861
Mean 13.31
RMS 9.003
6500
6000
5500
5000
4500
4000
3500
0
5
10
15
20
25
30
PMT
'Zenith plot'


Delta T
Delta
Entries 13077
2.733e+07
2.284e+07
Time differences between
>5-fold coincidences
10^2
10
0
20
40
60
80
100
$\times 10^6$