Modelling of PMT analogue signal (II)

Tuning of threshold and rise time

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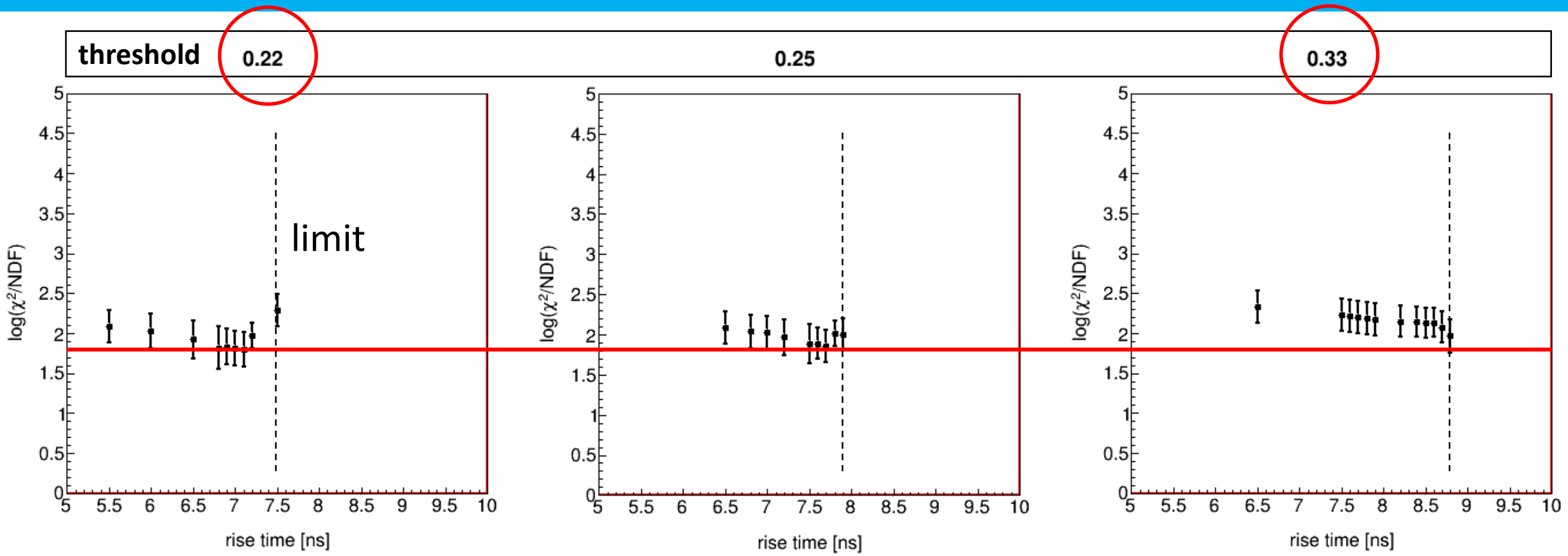
Procedure

- JCalibrateToT / JMergeCalibrateToT / JFitToT
  - input
    - ARCA2 runs 5005 - 5015
  - write fixed threshold and rise time values to file
    - JFitToT option -P <file name>
  - extract mean and RMS from χ^2 distributions
    - JPrintResult -f <file name>:\^chi2\$ -F “GetMean”
    - JPrintResult -f <file name>:\^chi2\$ -F “GetRMS”
  - put values into TGraph
    - JGraph -f <input file> -o <output file>
  - plot TGraph
    - JPlot1D

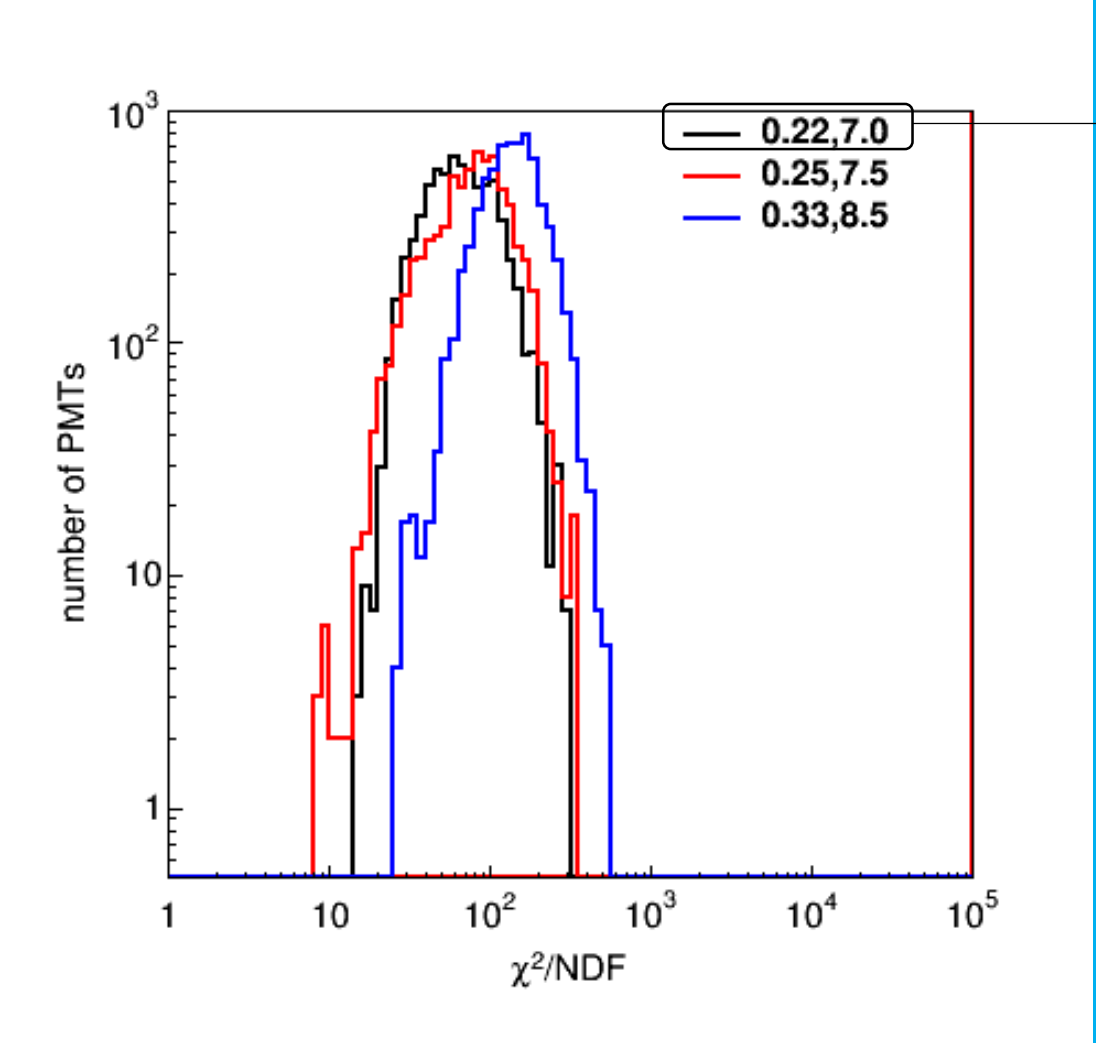
time-over-threshold

value measured in lab

current value



χ^2 distributions



optimum

Summary & Outlook

- Tuned common values of PMT analogue signal model
  - results compliant with measurements in lab

- Need to verify simulation of time slewing (shorter rise time)