# SCT Testbeam May/June/August 2000

- Introduction
- Offline status
- Preliminary analysis results

http://ific.uv.es/sct/tb00/tb00.html, http://ific.uv.es/ vos

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with help from: Alan Barr, Lars Eklund, John Hill, Peter Kodys, Gareth Moorhead and others

## MAY 2000

- 25 ns pulsed beam
- run at two beam intensities
- 3 barrel modules: RLT5, KEK3103, RLK6

## JUNE 2000

- 14 binary modules read out
- RLT9 with irradiated detectors
- 2 barrel modules for comparison hybrid: KEK3103, KEK3112
- 2 forward for comparison KII/KIII: FRK152, FRK158

## AUGUST 2000

- 10 binary modules read out
- 3 irradiated detectors: RLT9, K3113, RLT10
- 1 fully irradiated module: RLT4
- 3 forward for hybrid evaluation: FRK152, FRK153, VAL1

# Offline

- Raw data format no longer RD13
- ABCD protocol decoding in MuSTARD
- Update FORTRAN to C++ and PAW to ROOT

- New offline and alignment code written
- C++ with ROOT dependencies
- DST format and alignment algorithm follow closely the old system
- Sources available soon

- Nearly all 2000 data processed into DSTs
- Available on /hpss/cern.ch/atlas/testbeam/sct/2000/dst/
- Alignment parameters and run lists at http://ific.uv.es/sct/tb00/tb00.html

# Data formats

## DST

- DST is a ROOT Tree (ntuple)
- Binary and analog clusters
- Track parameters

## Summary Ntuple

- [runs] X [planes] events
- Entries: efficiency, noise, multiplicity, etc. (errors)
- Allows plotting of var1:var2:var3 with a condition
- Multidimensional representation of the results

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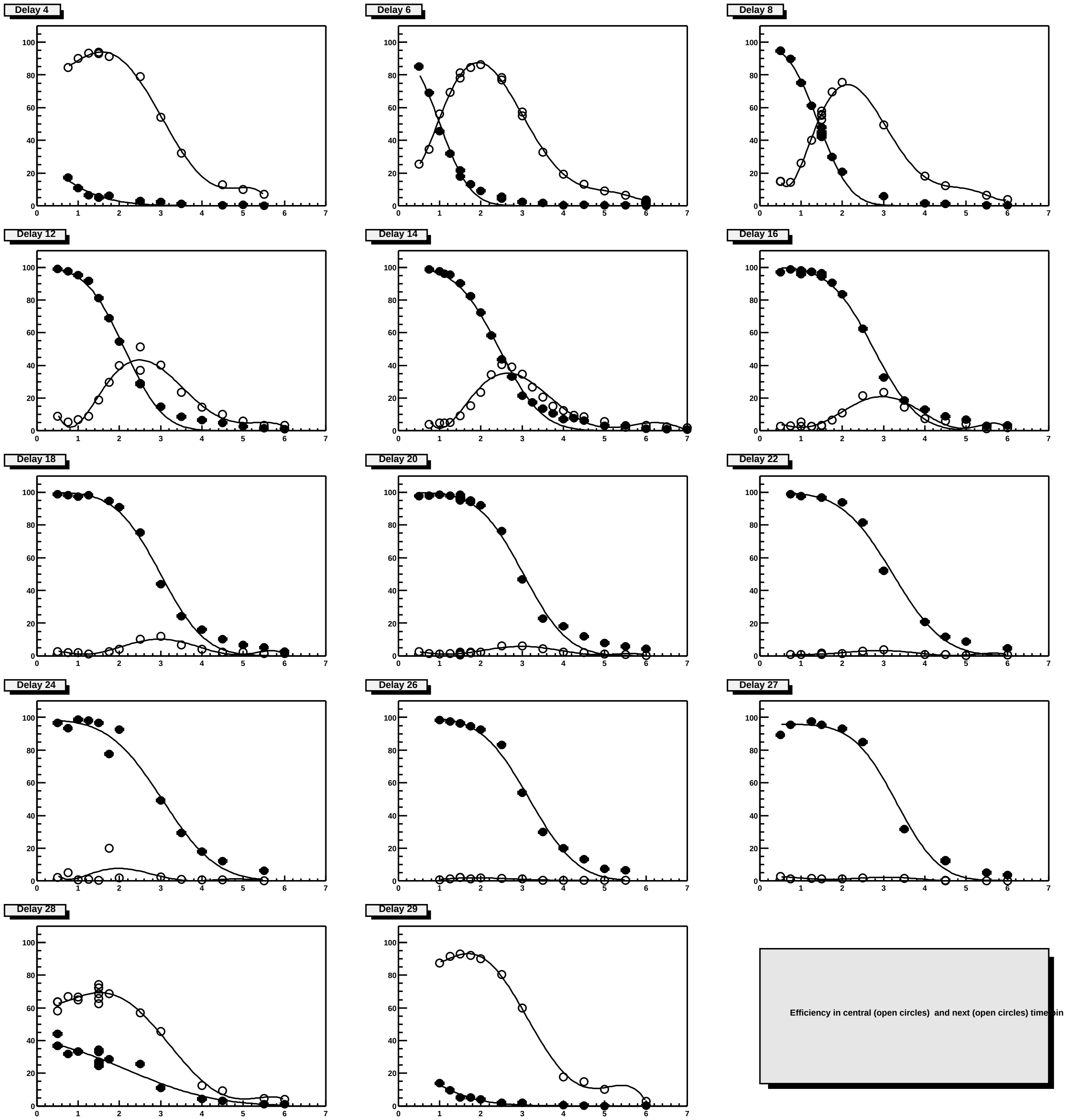
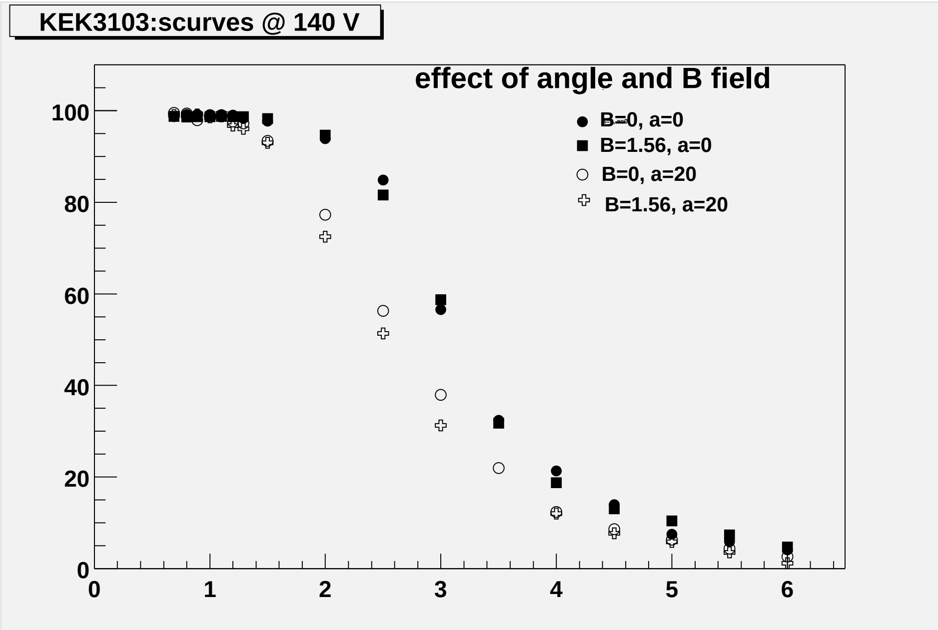
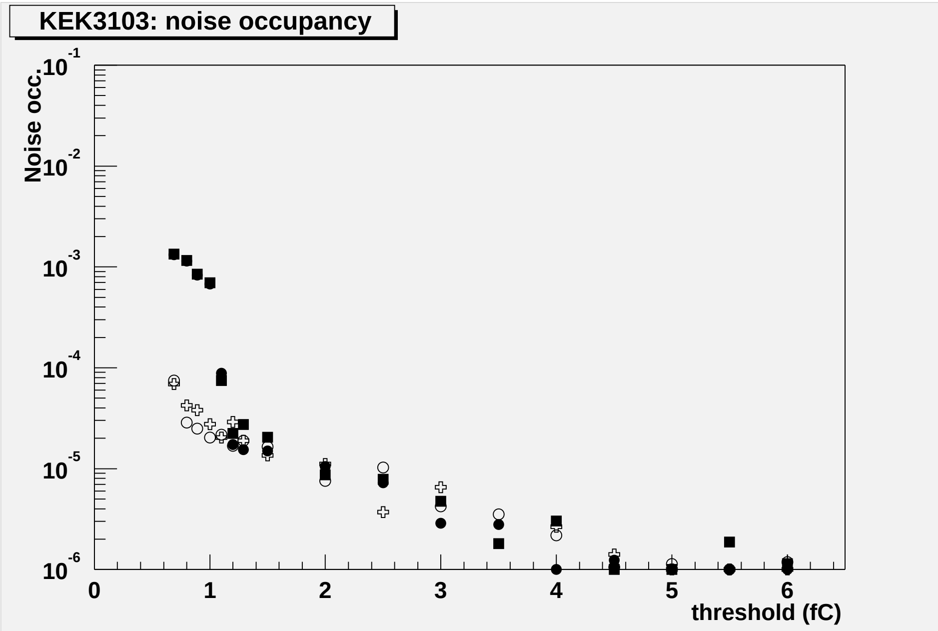
## TB May 2000 - Cable Delay Scan - KEK3103.0

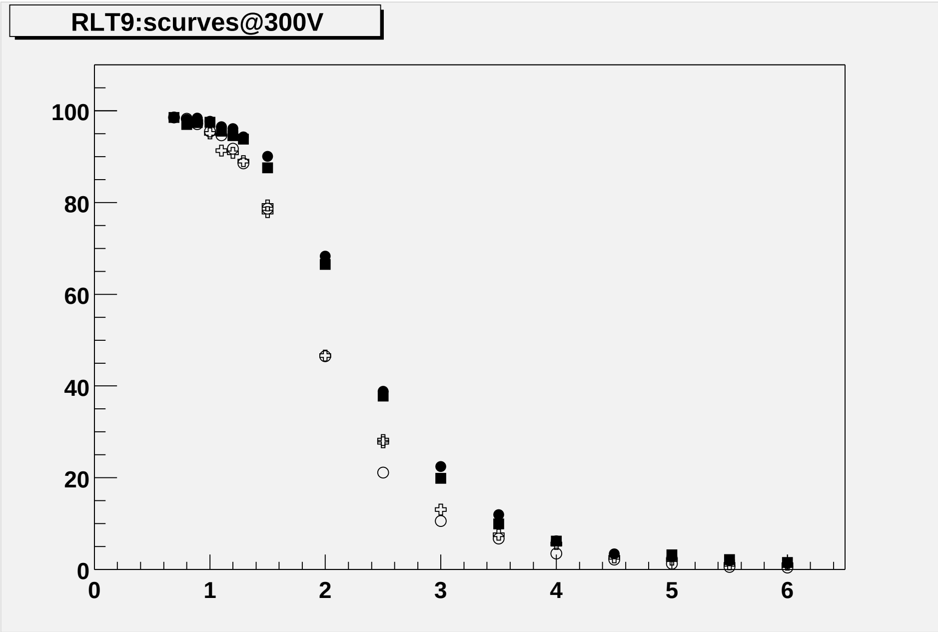


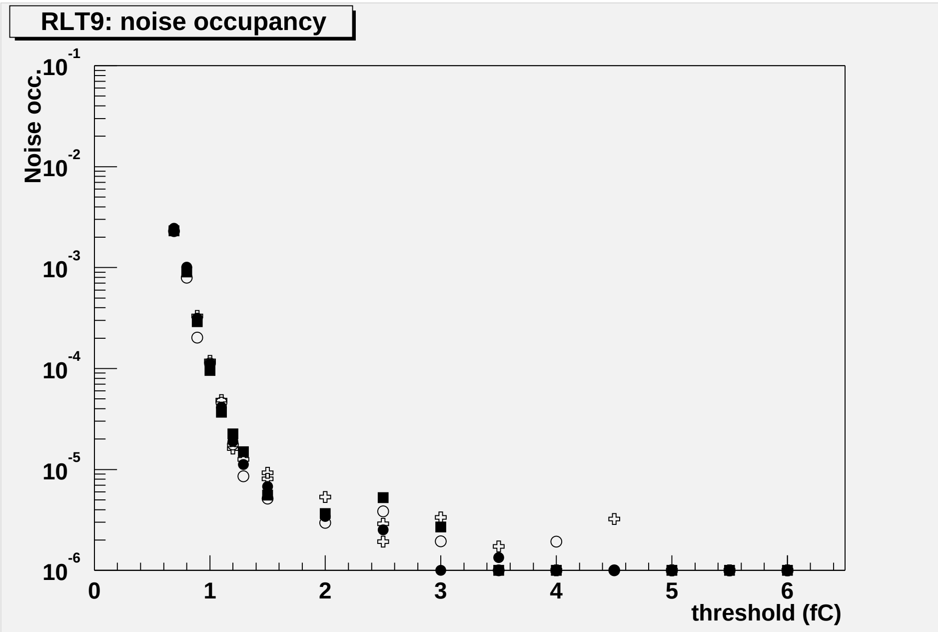
# June Results: efficiency and noise



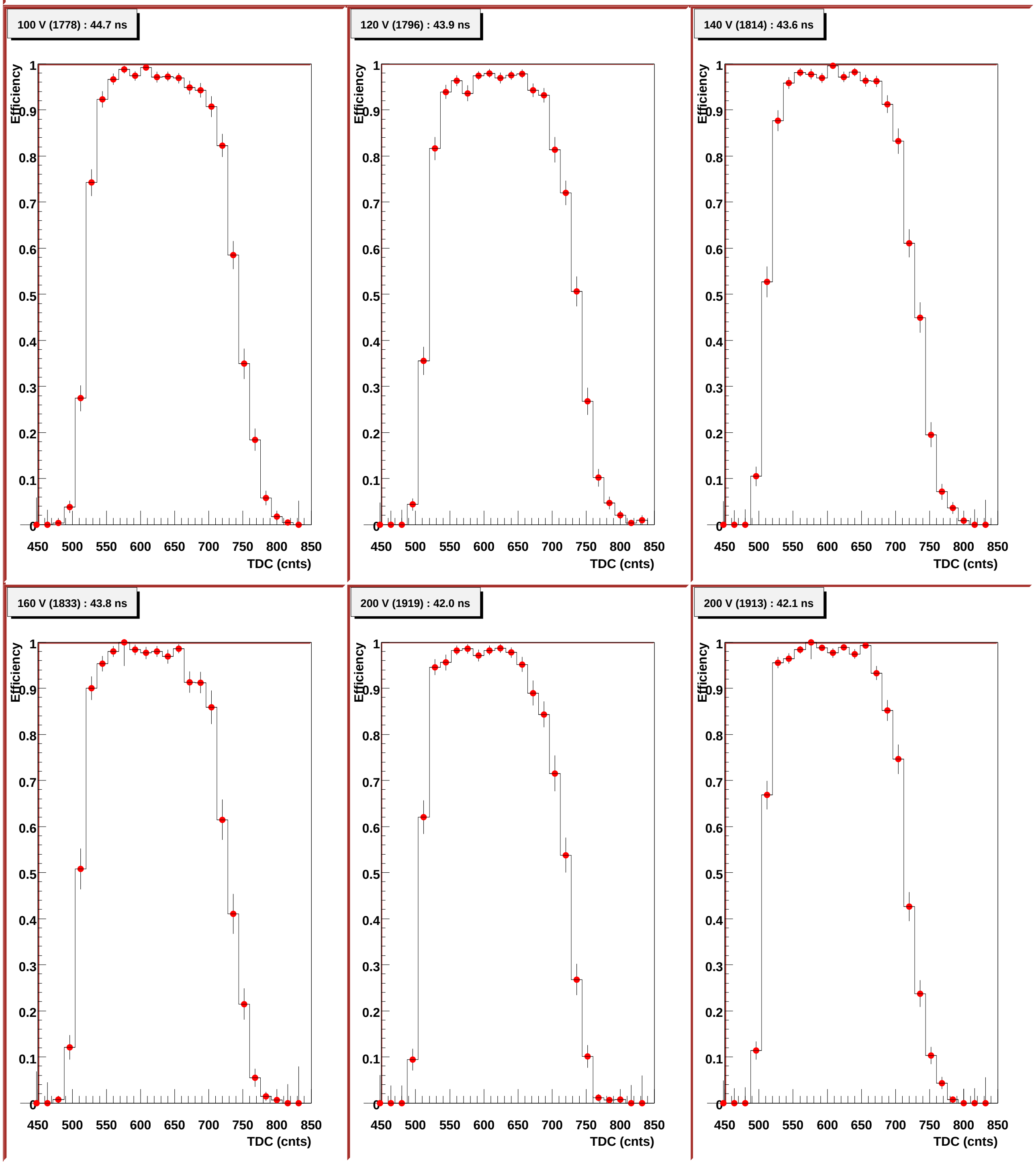



# June Results: irradiated detector

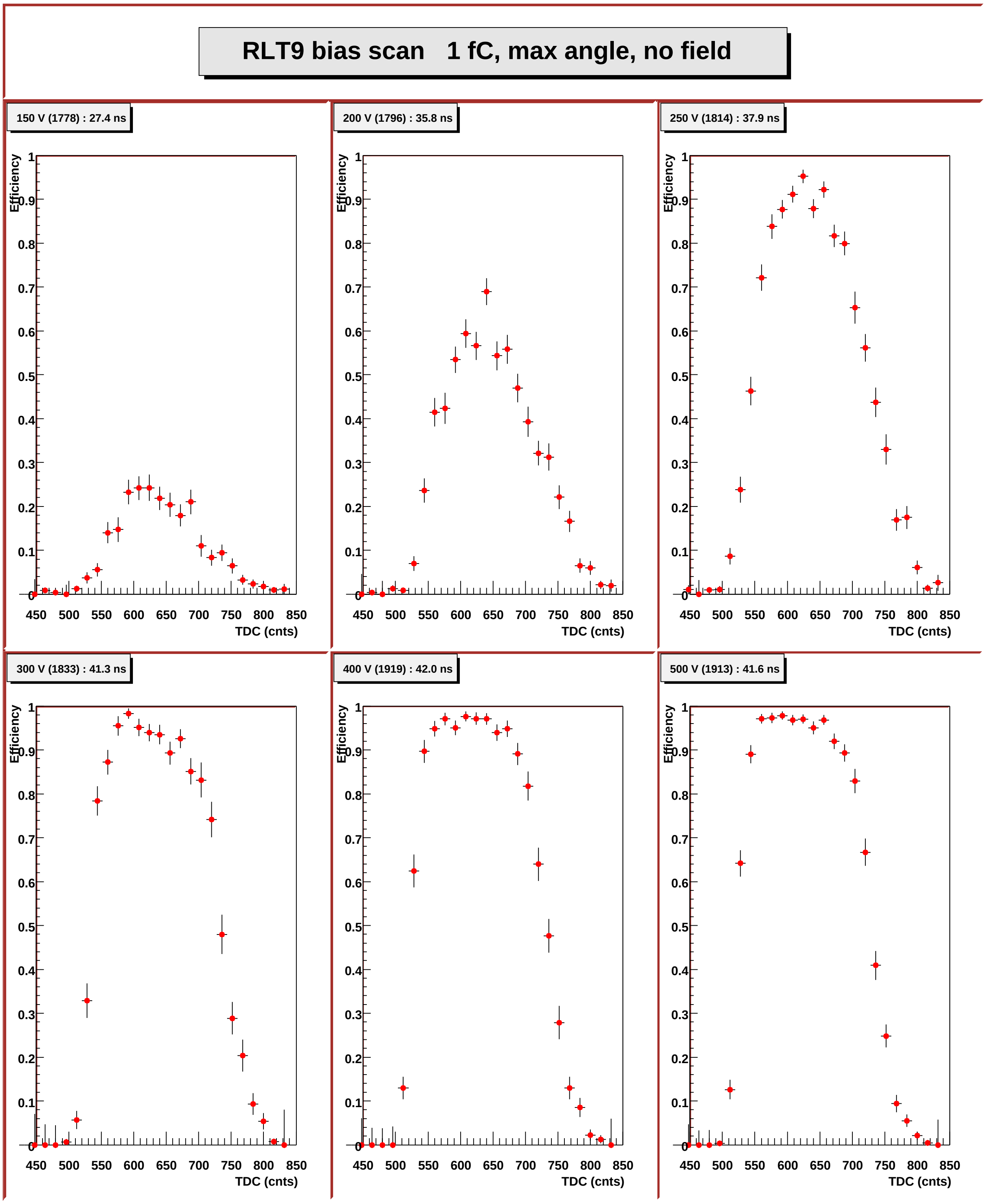


## KEK3103-0 bias scan 1fC, max angle, no field



# SCT Testbeam 2000

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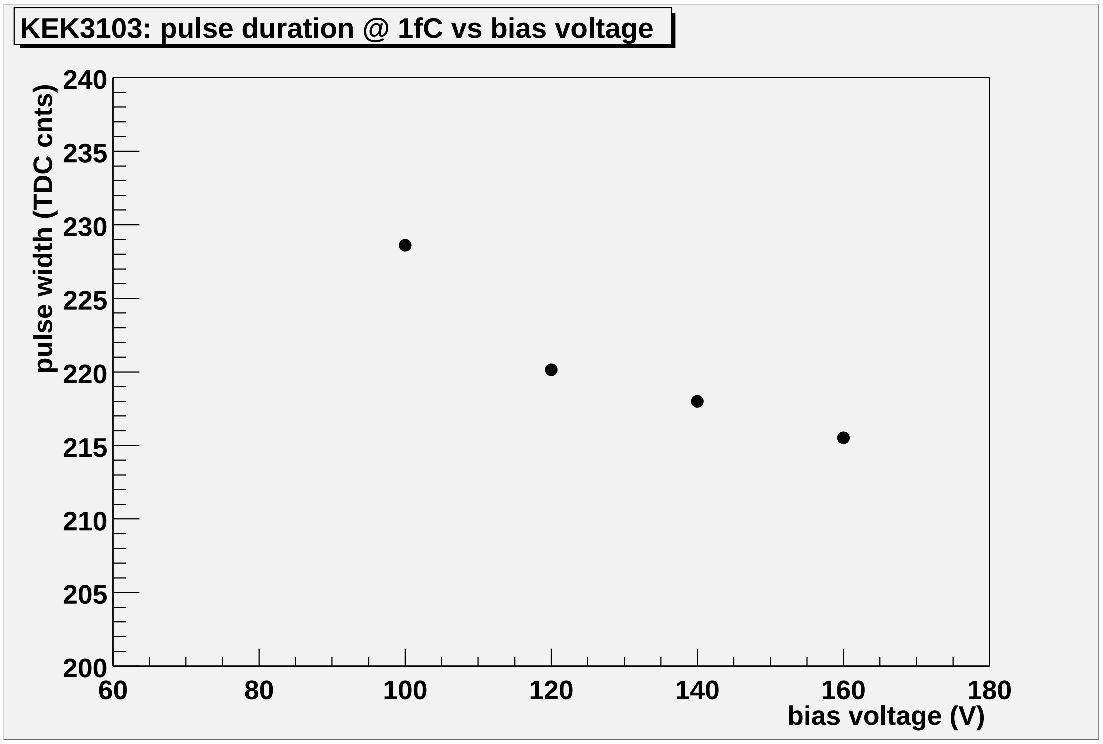
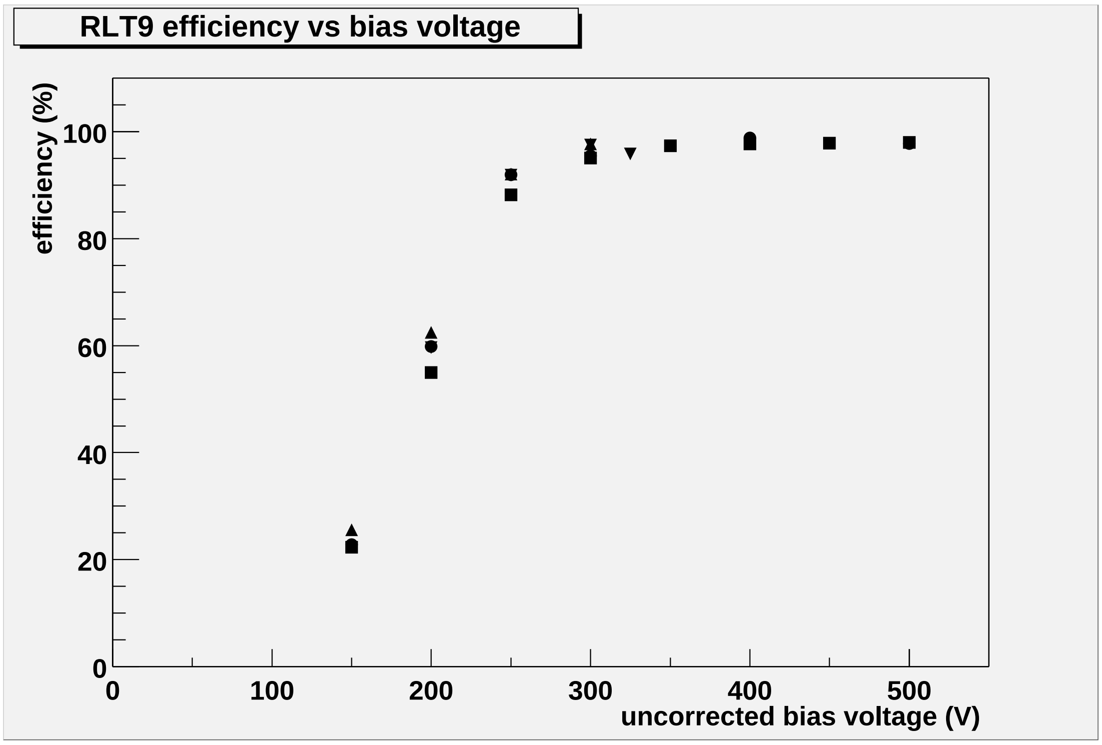
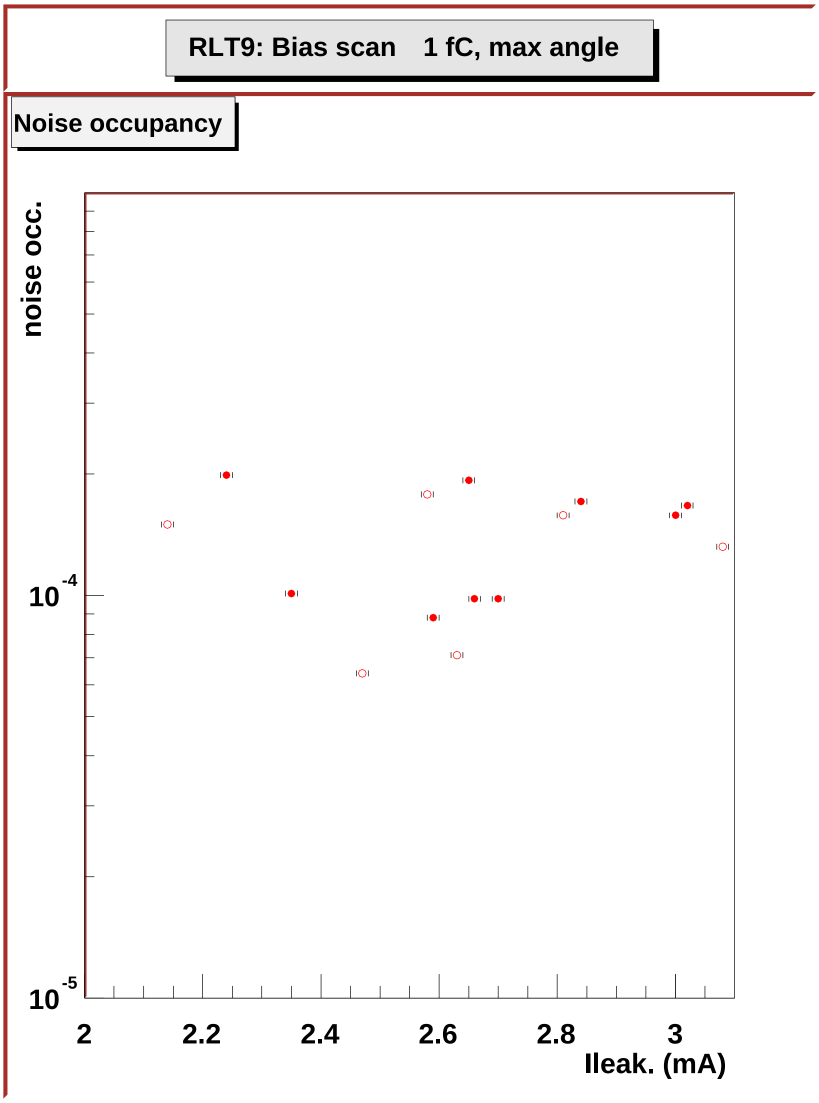
# June Results: detector bias voltage



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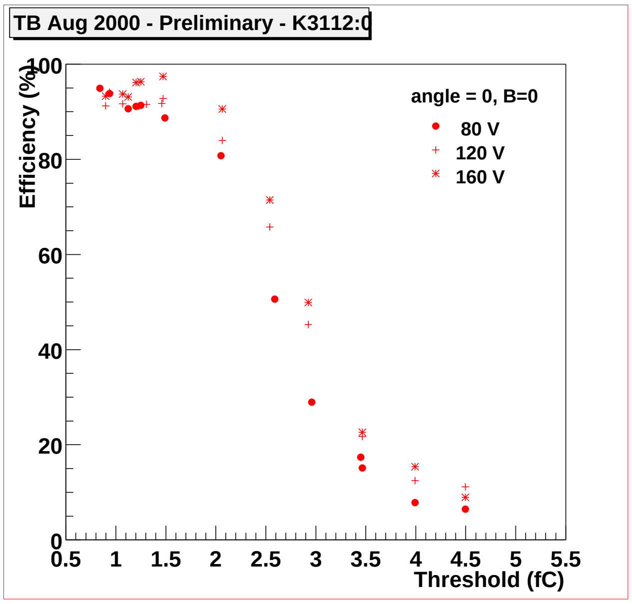
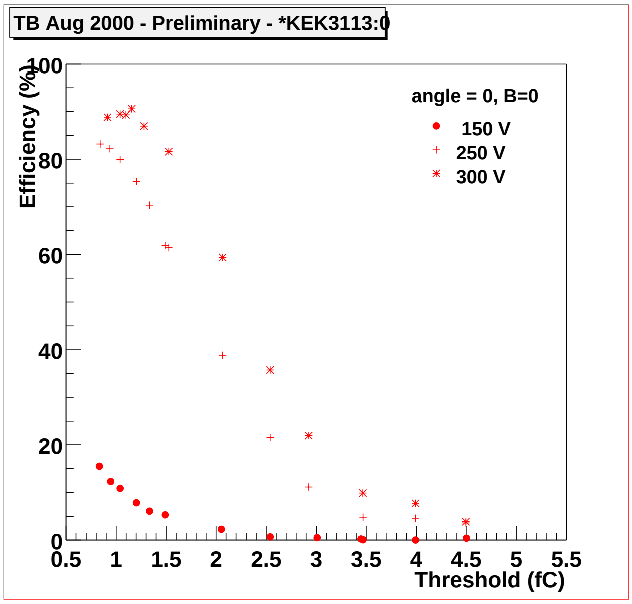
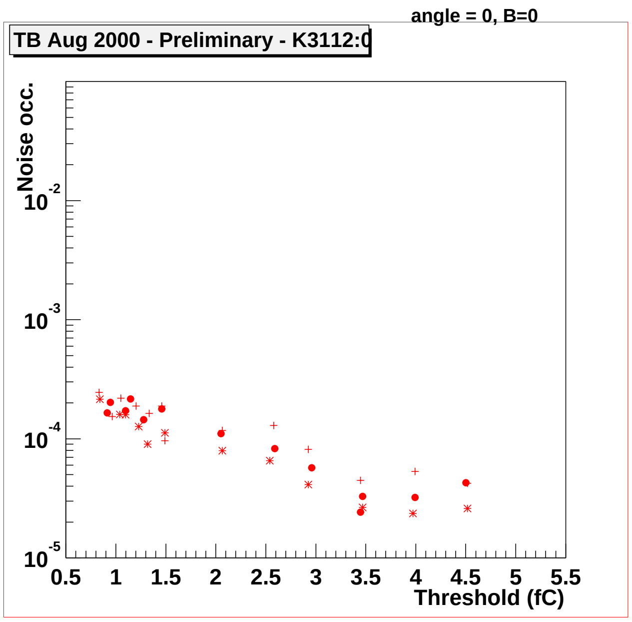
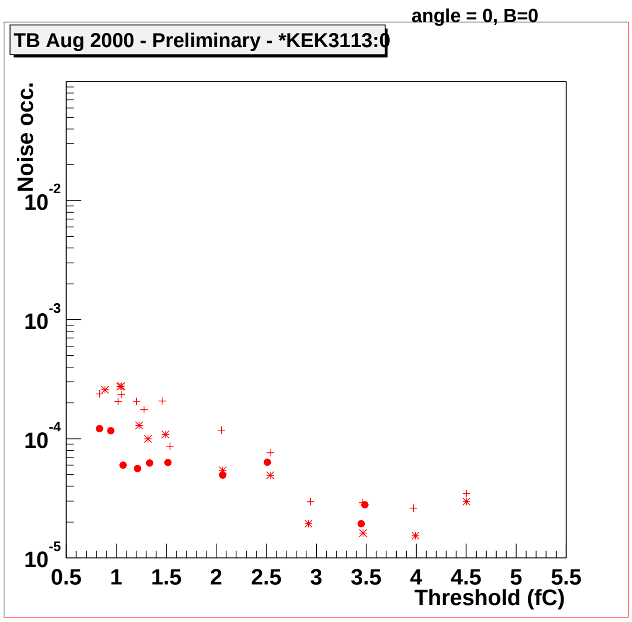
# August Preliminary Results



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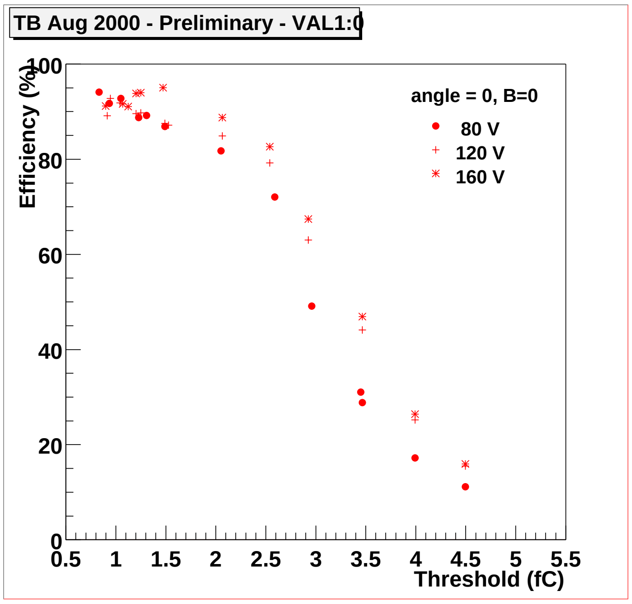


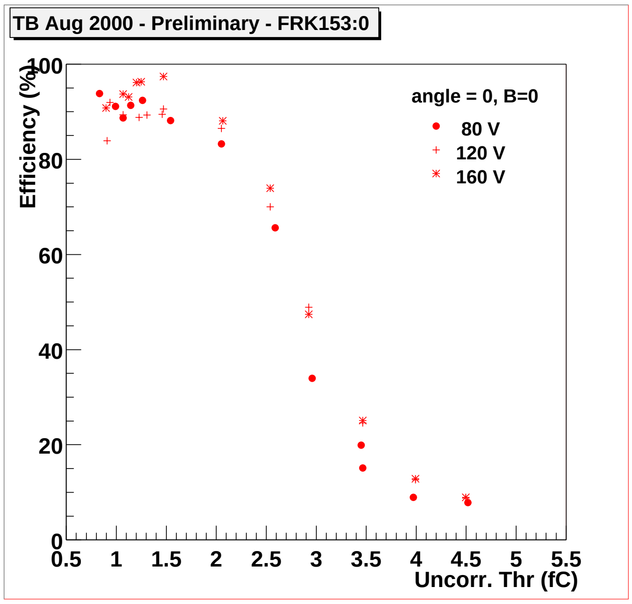


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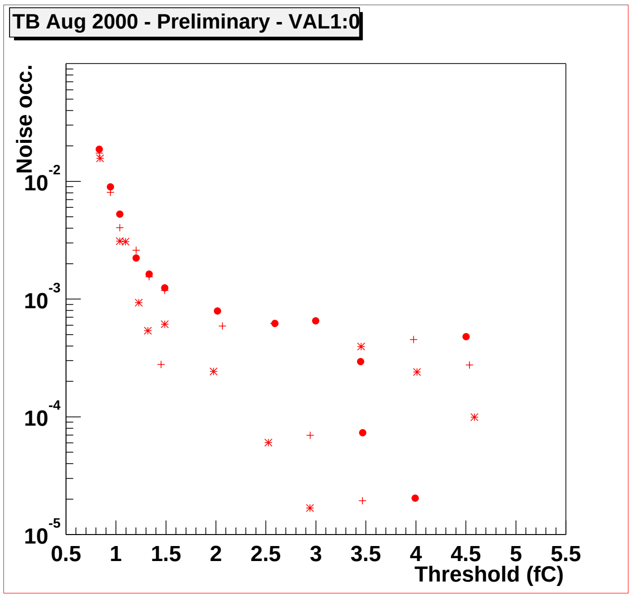


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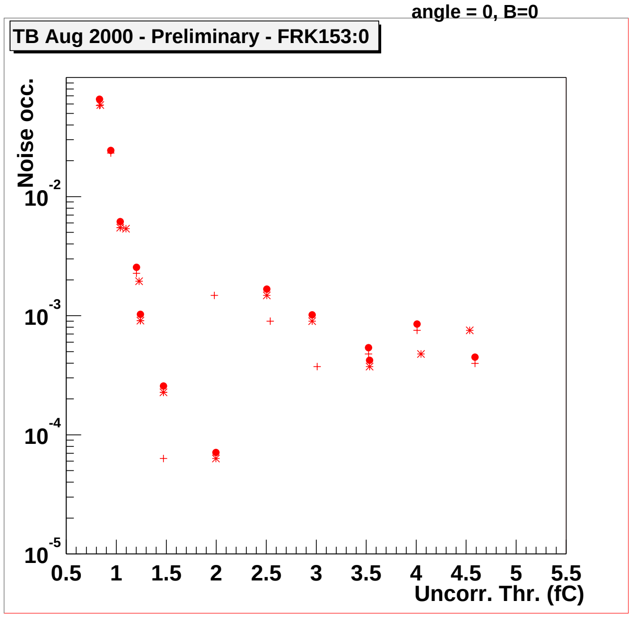

# Test Beam Metrology