

# **Bias Voltage Scan of Bcal Mini-Module**

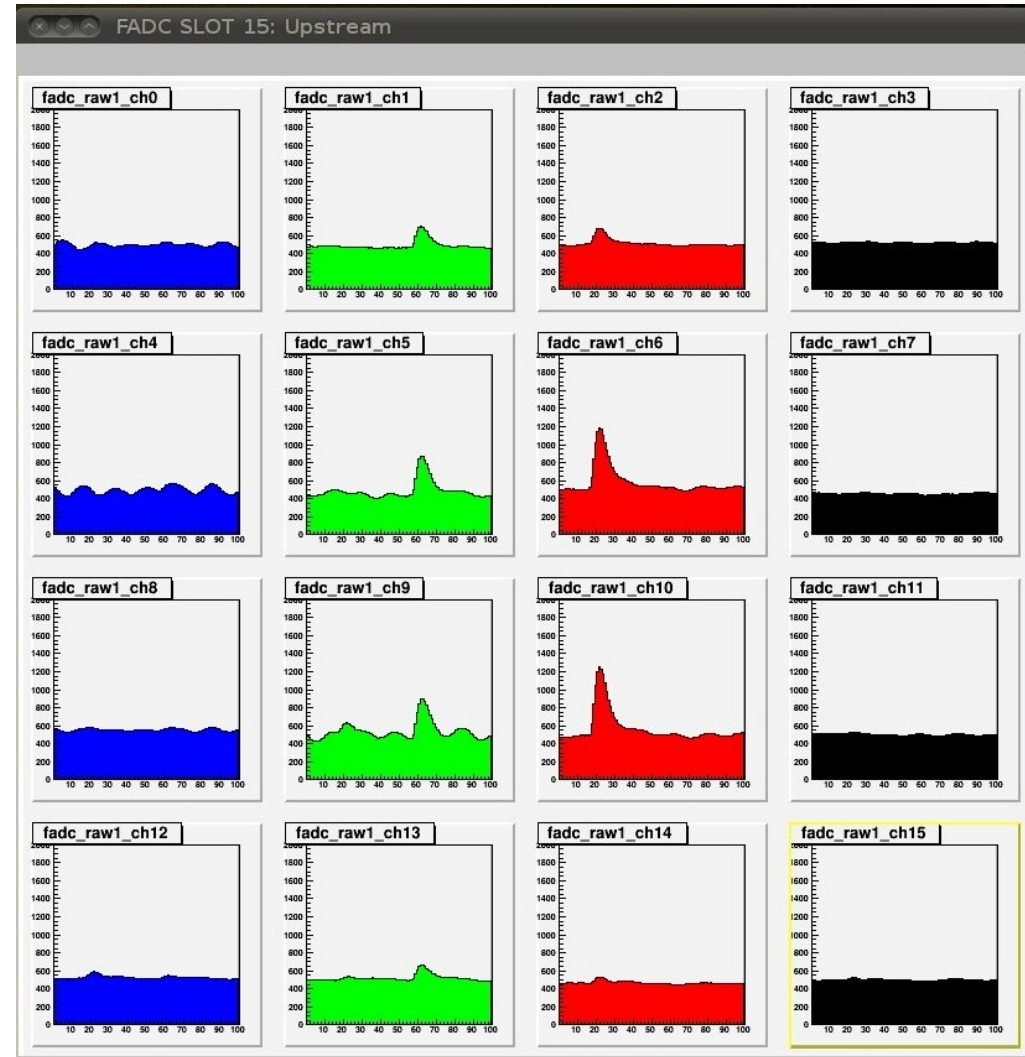
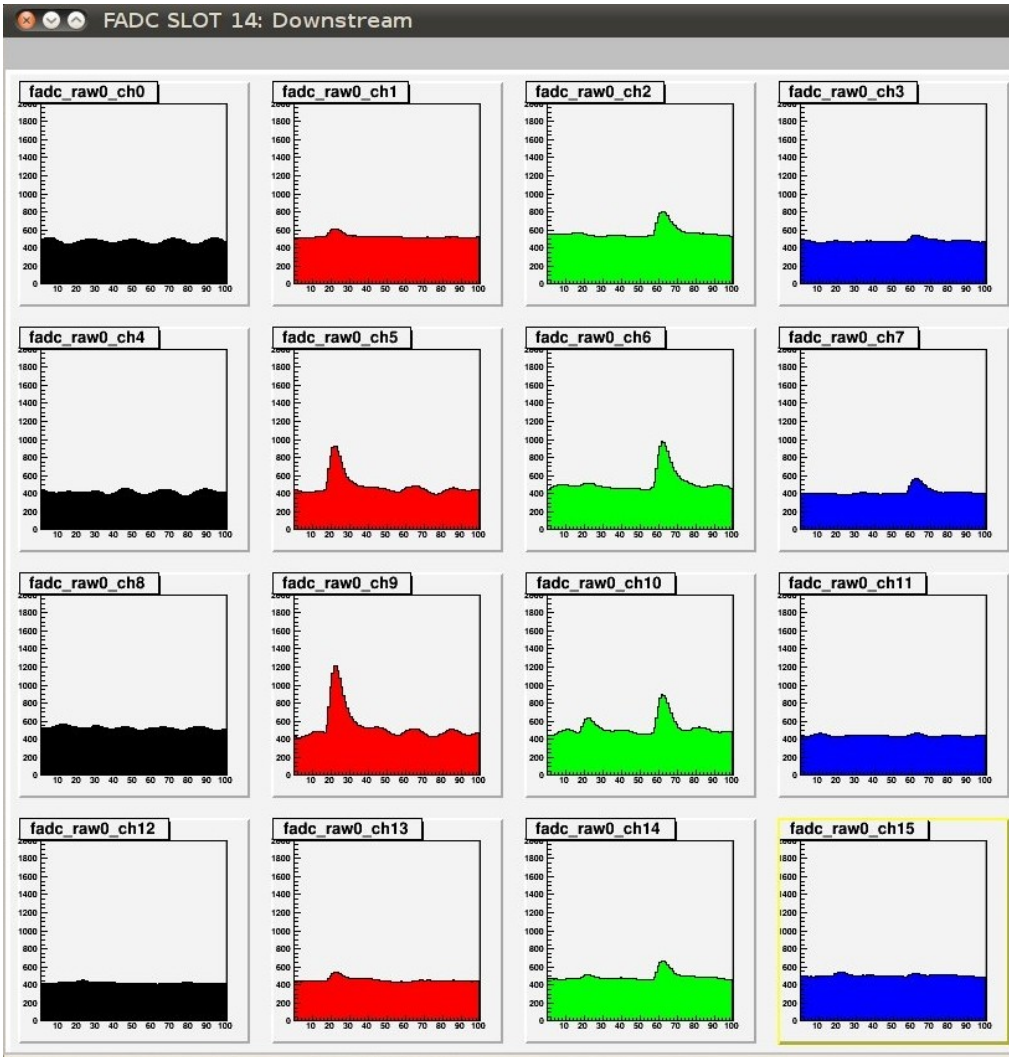
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***Bcal Test Meeting: April 23, 2012***

# Data

- \* Hall B 3-pass beam;  $E/E_0 = 22.8\%$ ;  $I = 120 \text{ nA}$
- \* Temperatures: 15.2C (Upstream) and 19.0C (Downstream)
- \* Significant ringing (left-hand columns are more affected)
- \* Bias voltage scan: from 0.3 to 1.4 V over breakdown
- \* Runs: 423-437

# Event

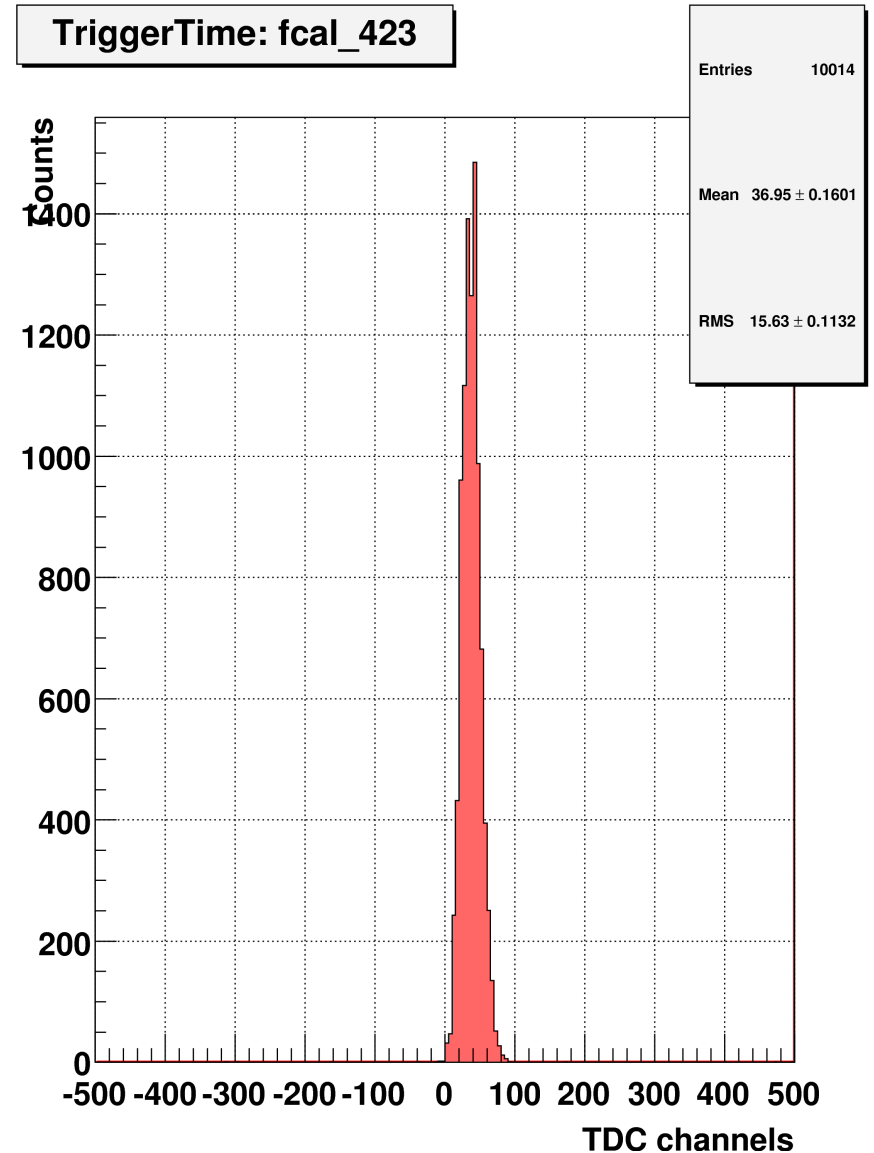


\* Peaks were found with Root TSpectrum class

\* Background: No peak found in the “quiet” column

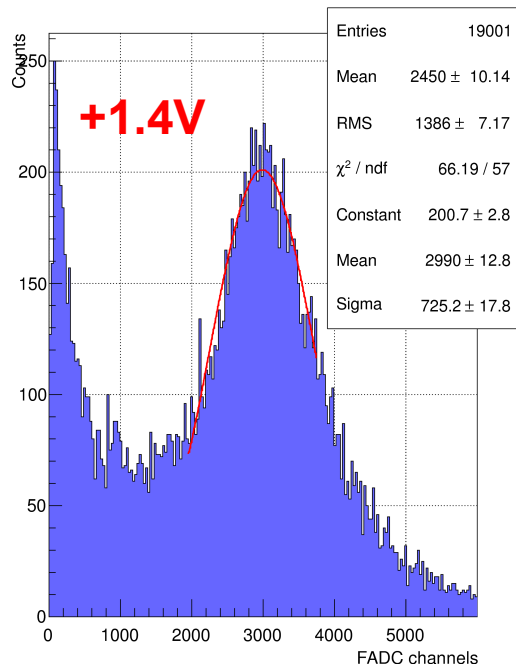
# Selection

- \* Correspondent Upstream/Downstream peaks in the range of 21-23 samples of FADC
- \* “Good” energy deposition summed in the inner (1,2) columns is non-zero and bigger than the energy deposition in the outer (0,3) columns
- \* Exactly one hit in the Trigger #30 TDC and exactly one hit in the Trigger #31 TDC

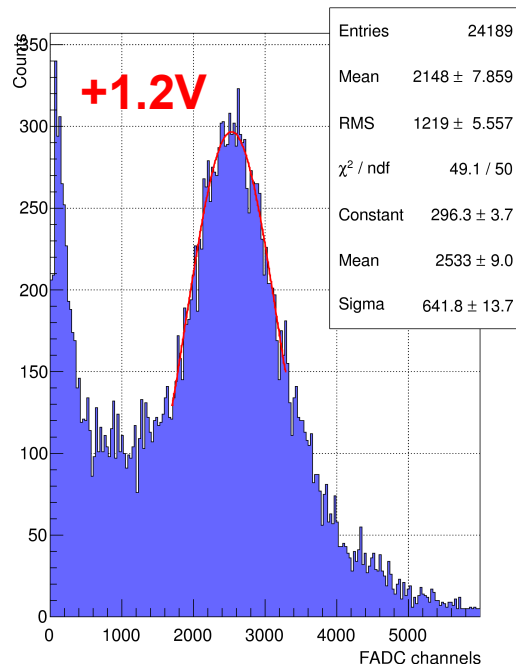


# Energy Spectra

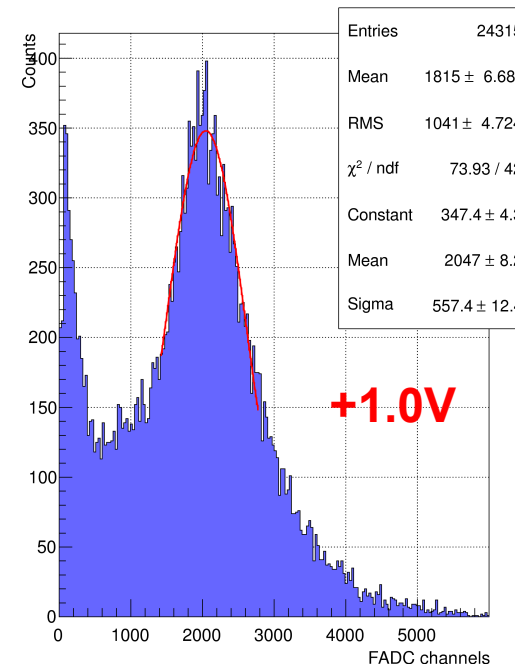
Esum: fcal\_435



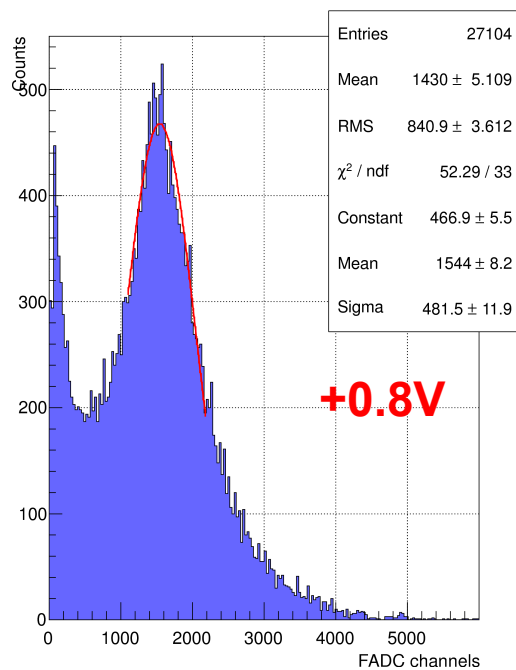
Esum: fcal\_423



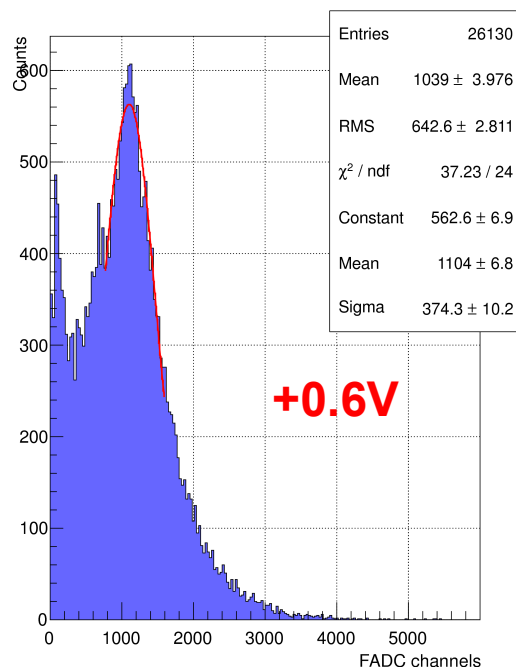
Esum: fcal\_425



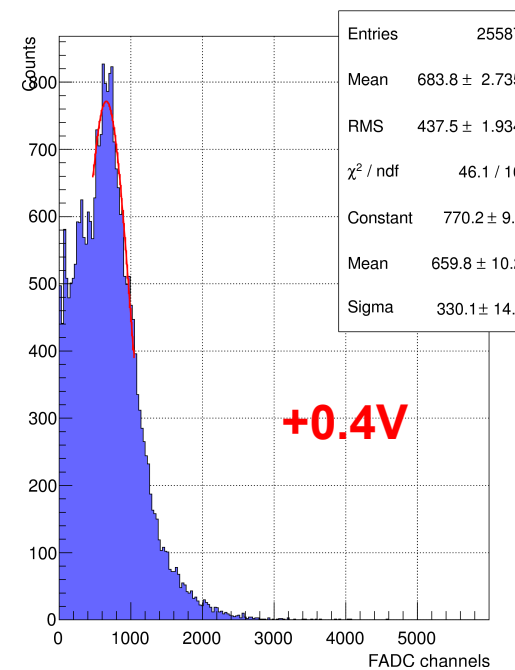
Esum: fcal\_427



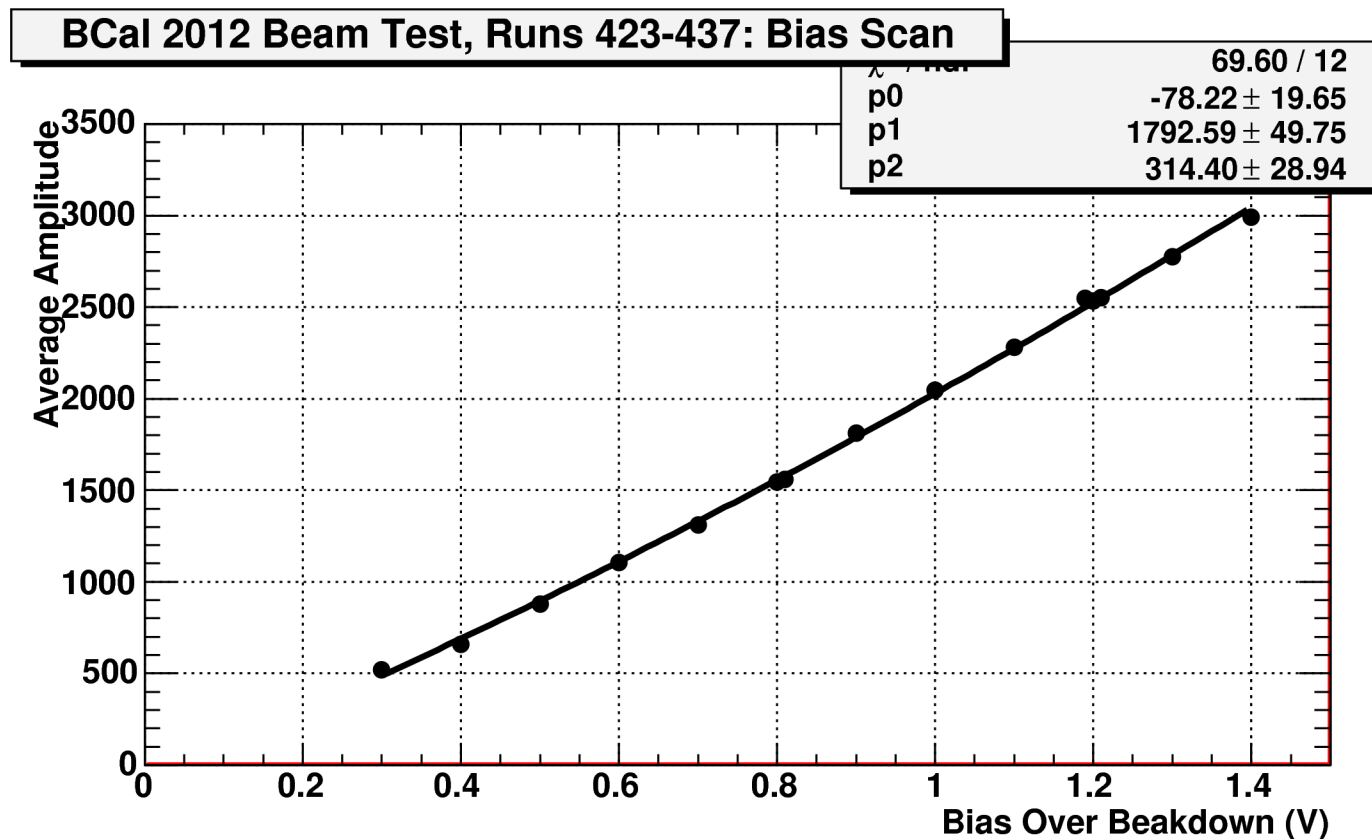
Esum: fcal\_429



Esum: fcal\_431



# Amplitude vs Bias Voltage



# Conclusions

- \* We can see the electrons from the target**
- \* Background/ ringing problems do not allow to extract energy resolution. Better quality data are needed**
- \* “Amplitude-vs-Bias” curve goes almost through (0,0) point => Breakdown voltages were defined correctly**