CAEN V1742 Amplitude Calibration

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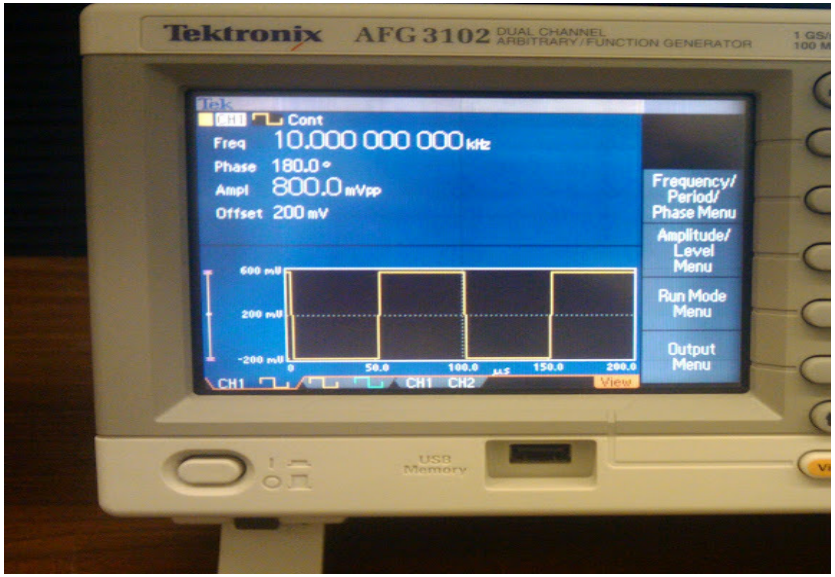
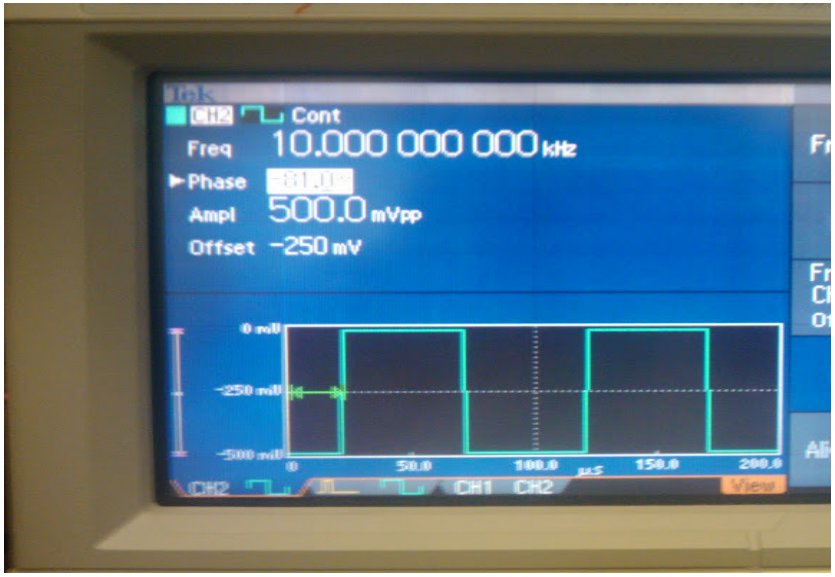
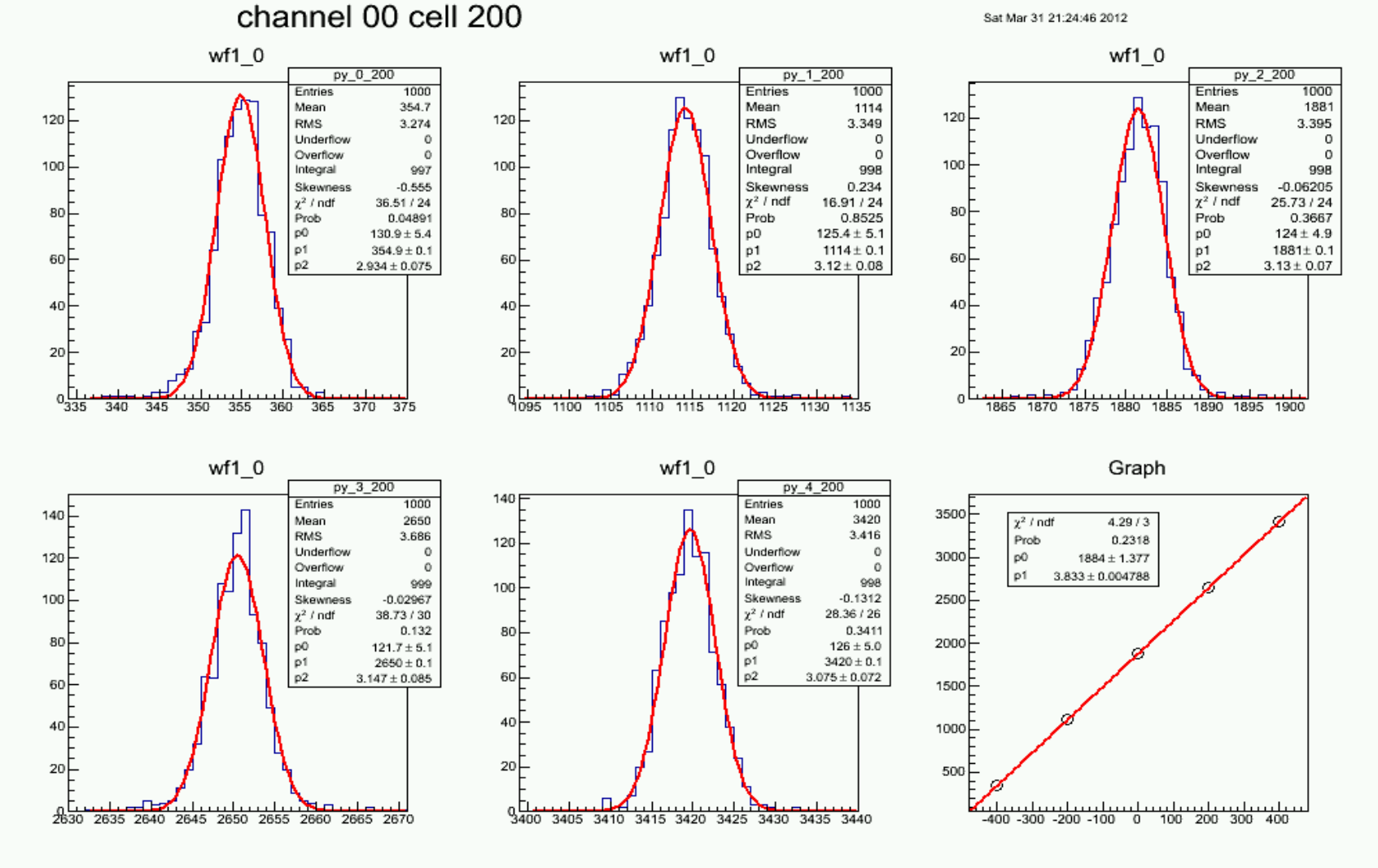
Introduction

- DRS4 : two different calibrations: amplitude and time
- here: amplitude calibration only
- DRS4 dynamic range: 1Vpp, symmetric case: +/- 0.5V
- use pulse generator and 5 different voltages: -0.4V, -0.2V, 0V, +0.2V, +0.4V



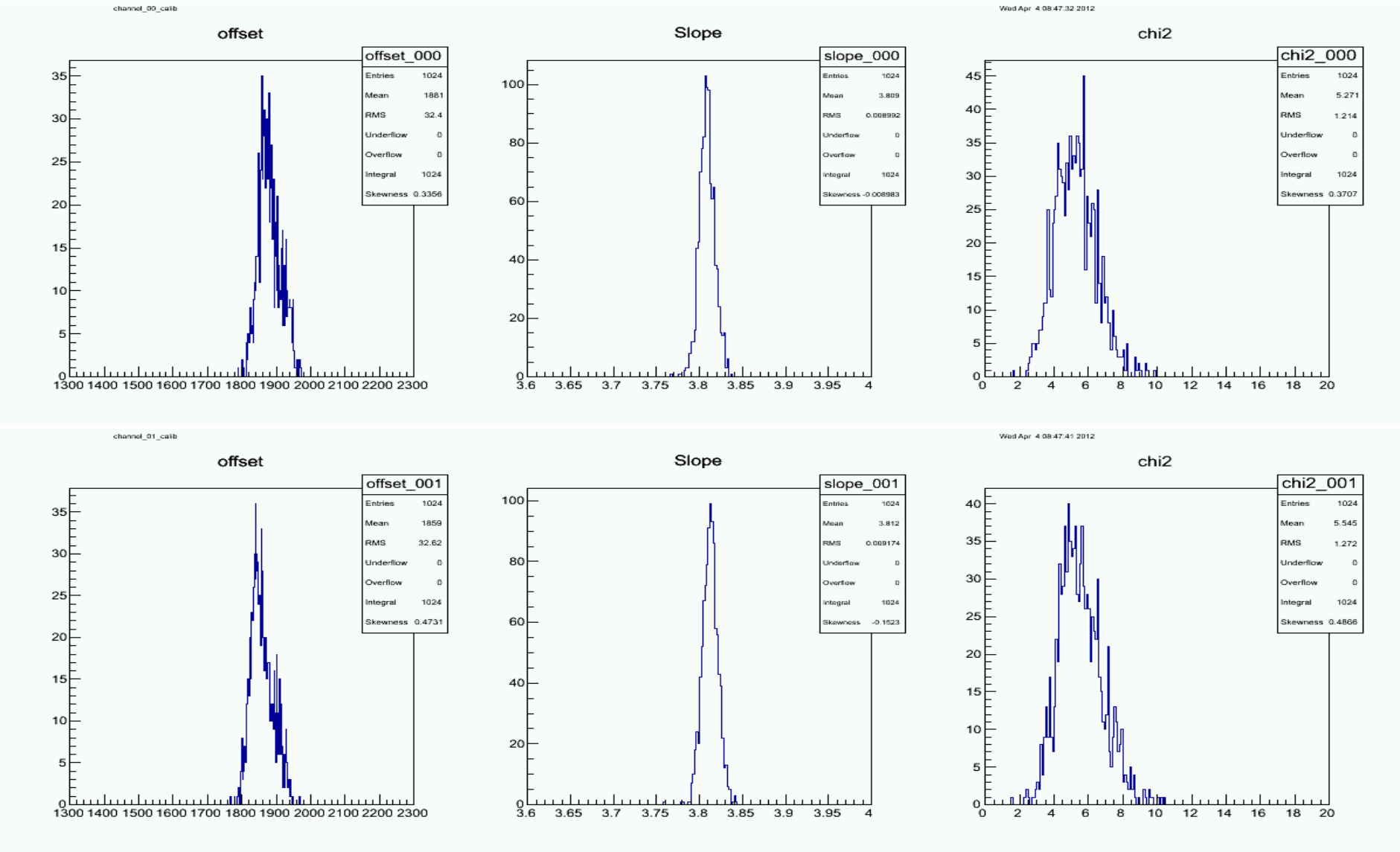


Calibrating single cell

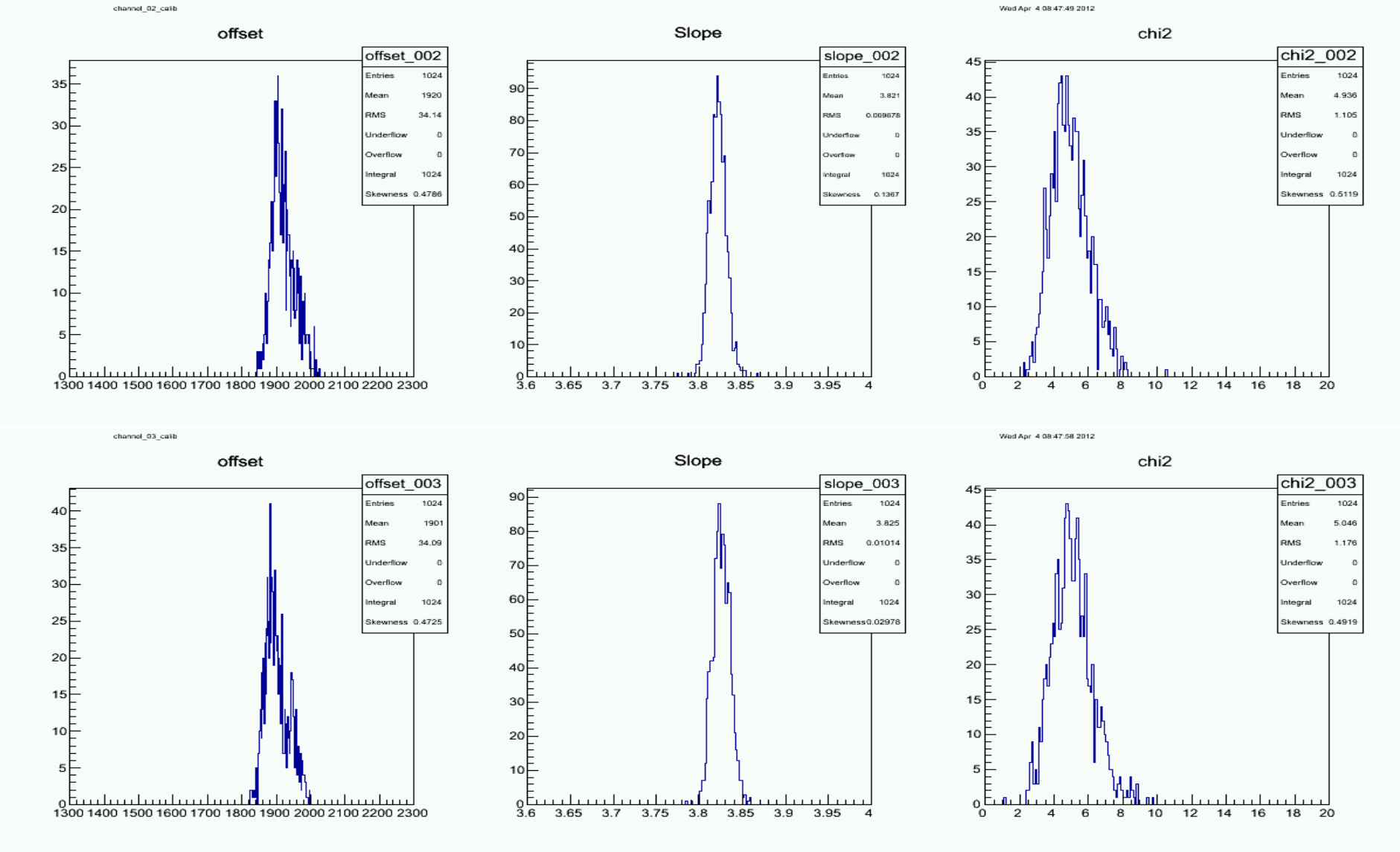


- width of the line: 3 channels, 1.6 channels w/o generator
- straight line fit through 5 points returns the cell parameters, $\chi 2/N_{DF} \sim 1$

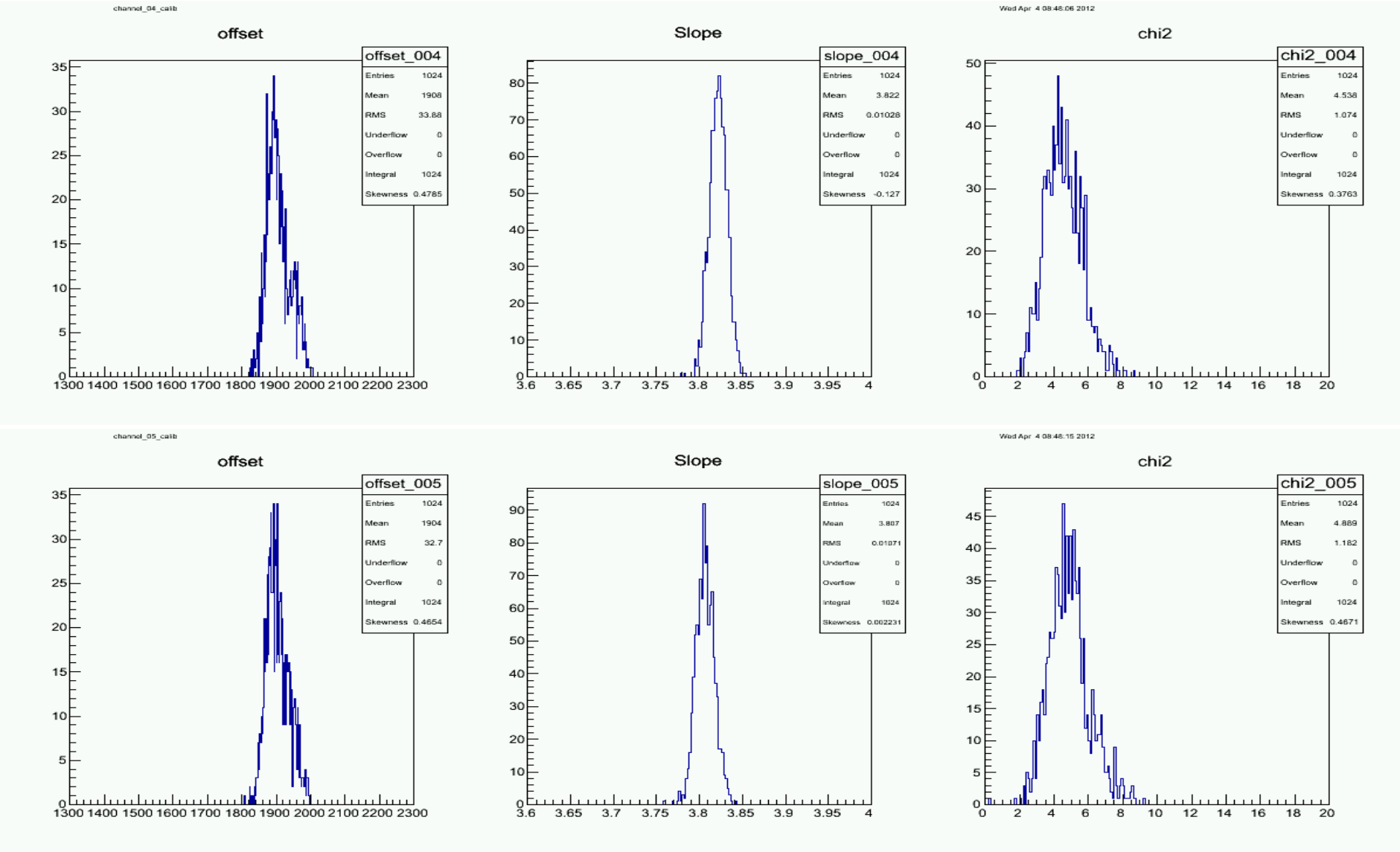
Channels 00-01



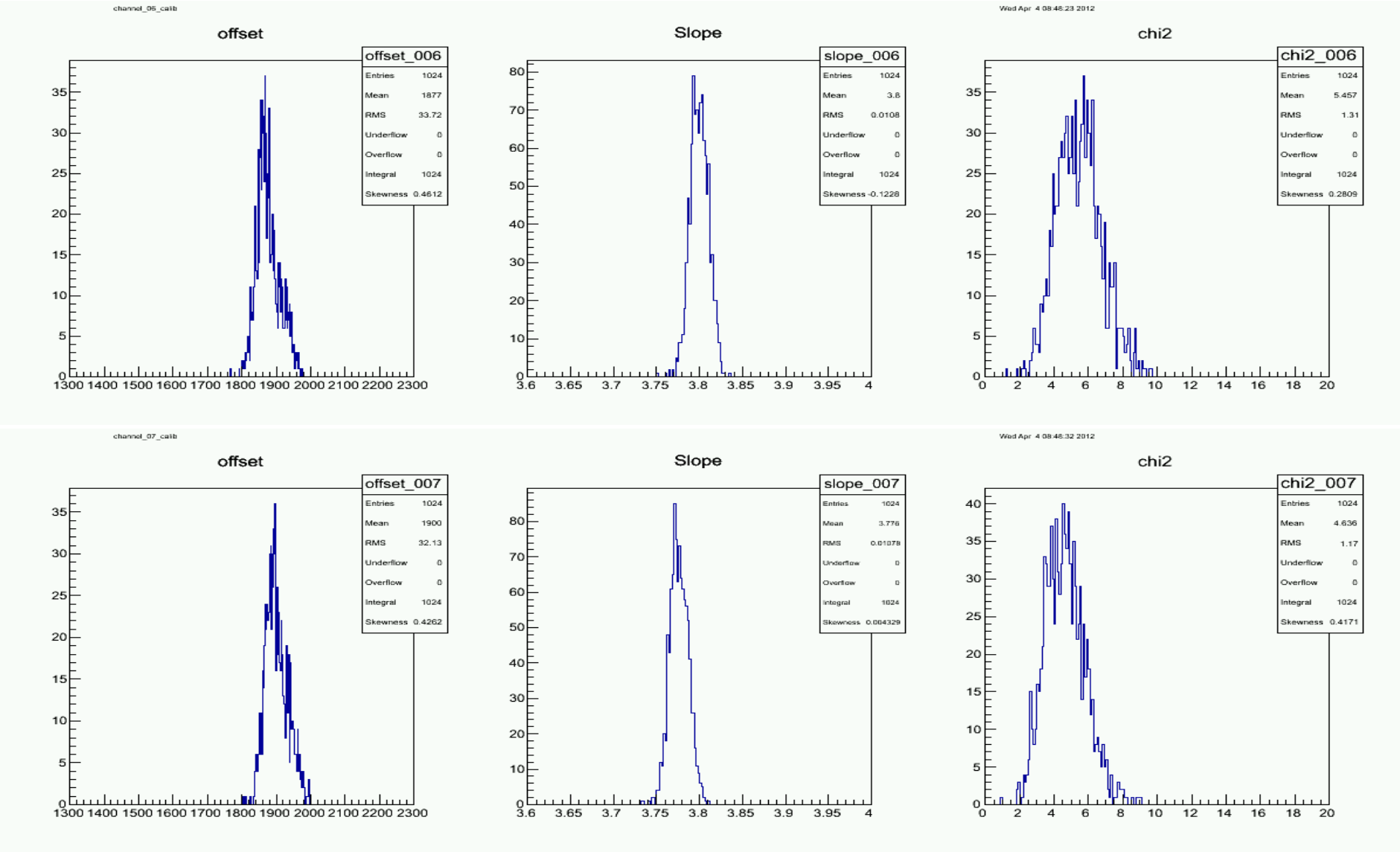
Channels 02-03



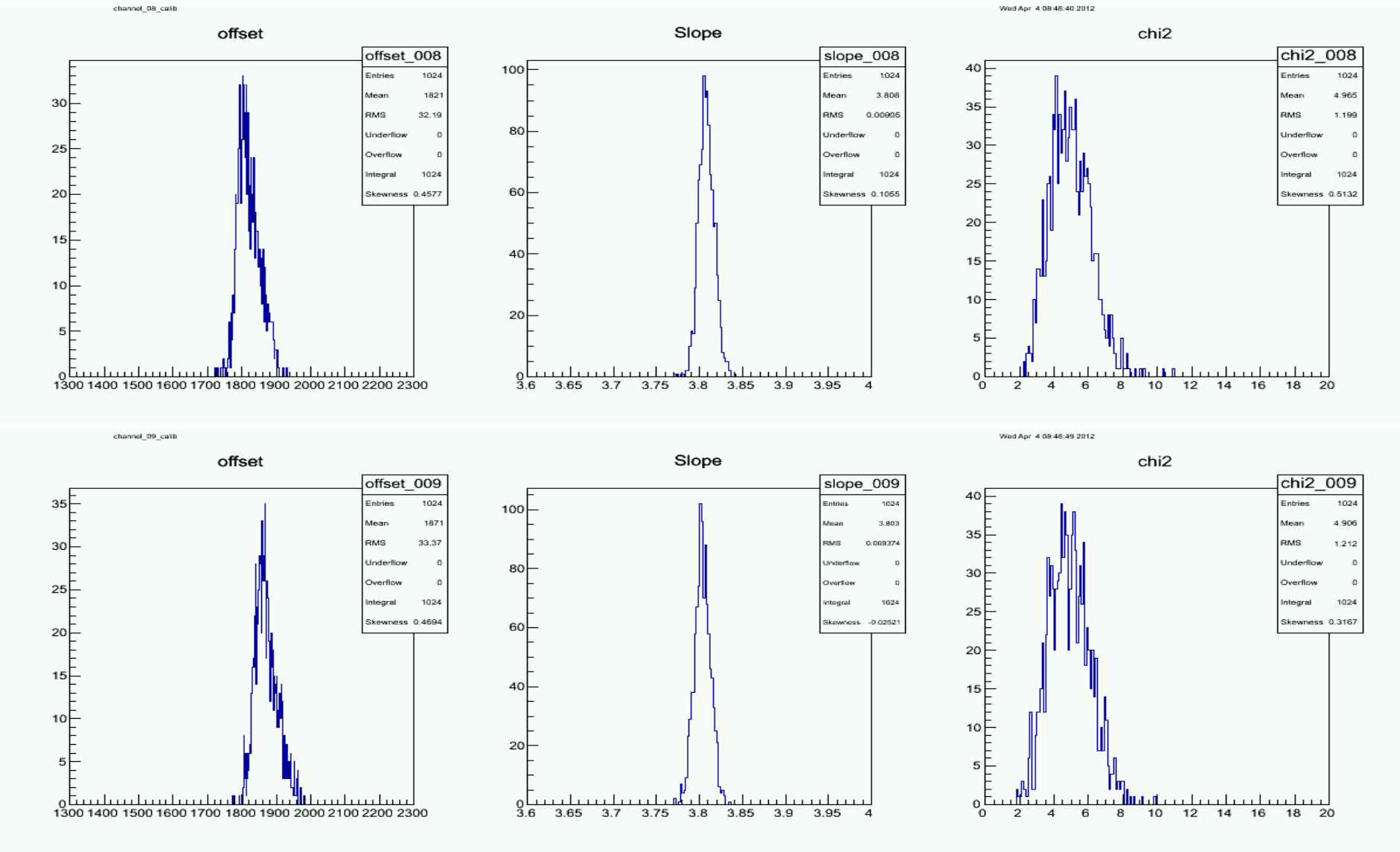
Channels 04-05



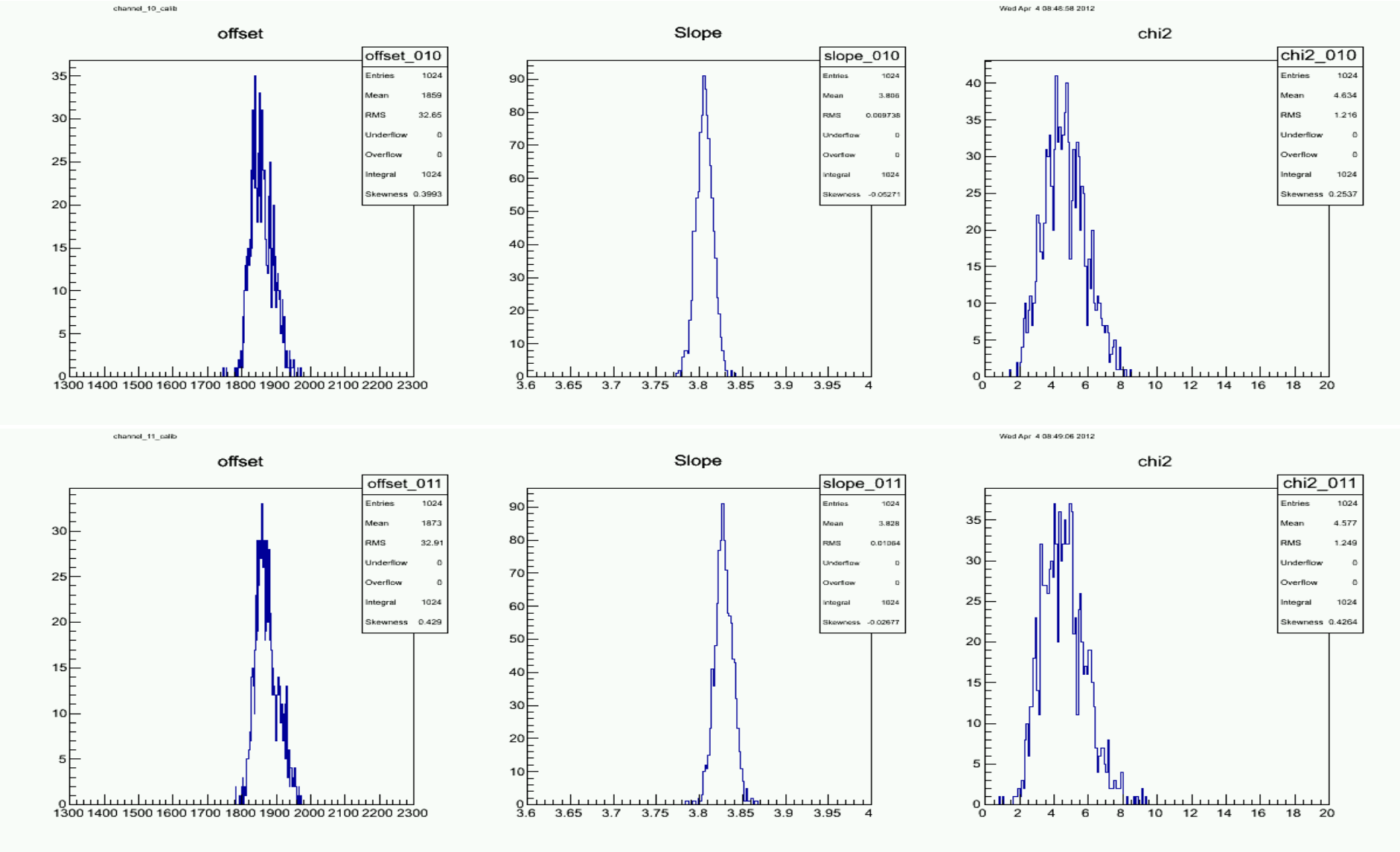
Channels 06-07



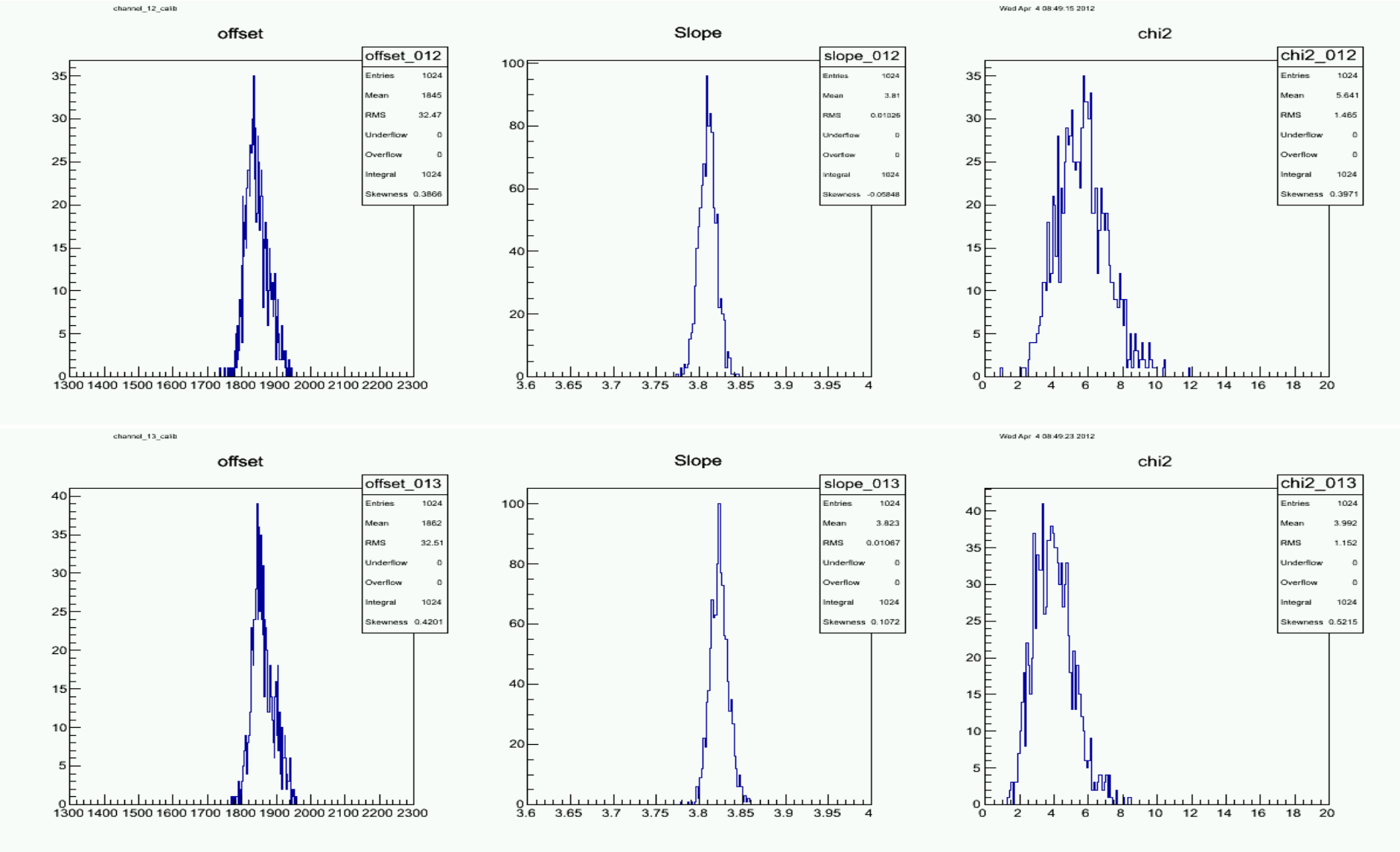
Channels 08-09



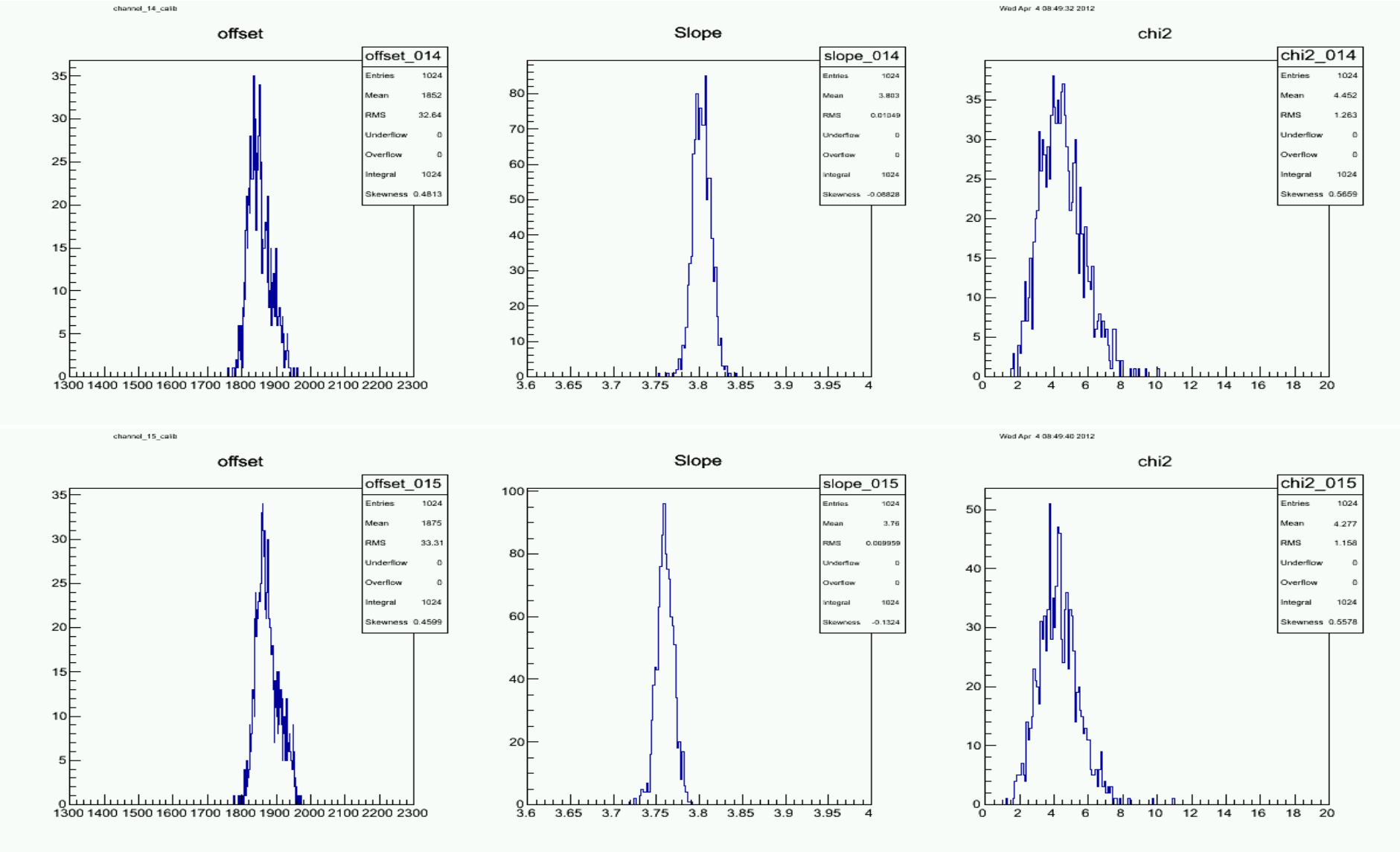
Channels 10-11



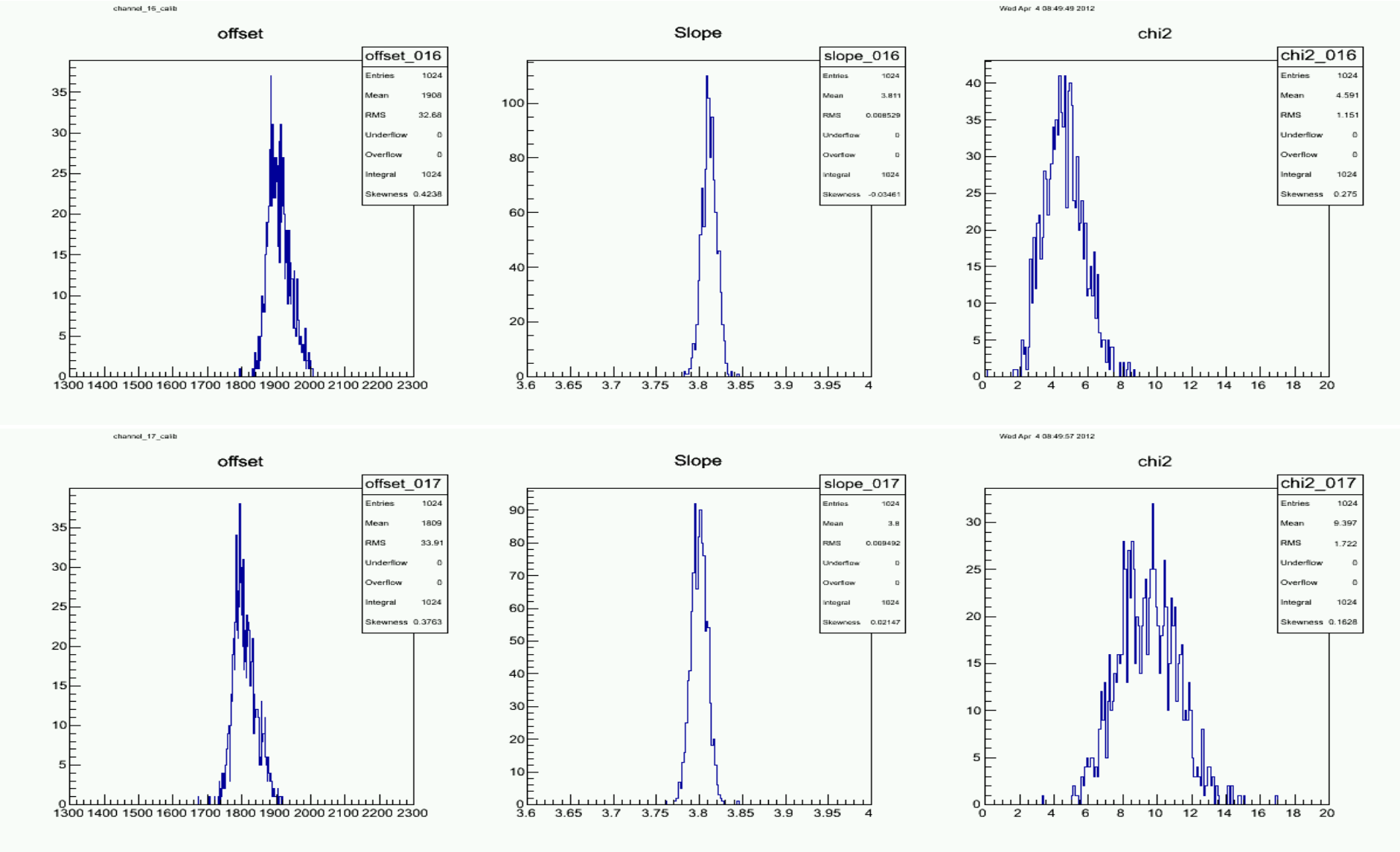
Channels 12-13



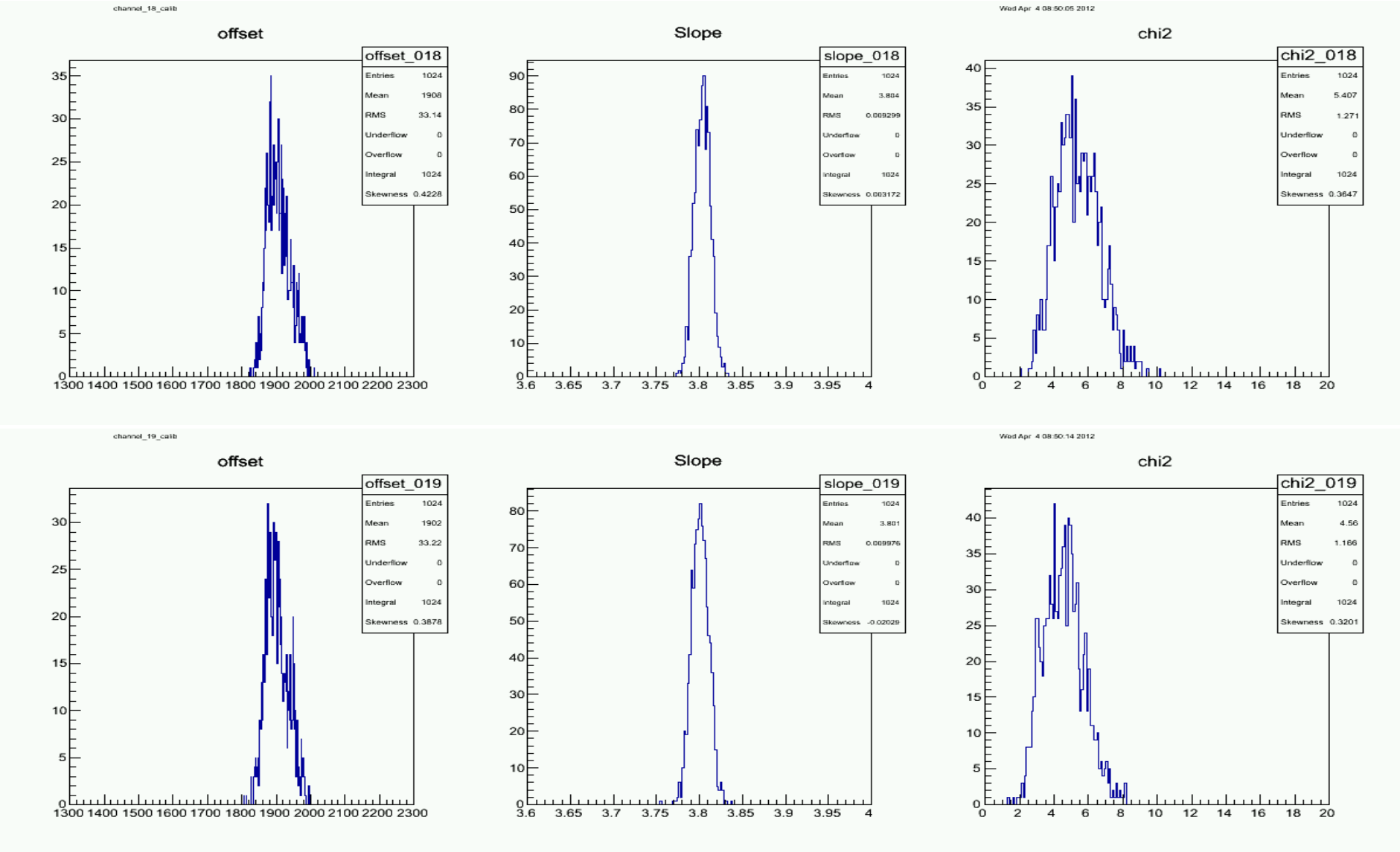
Channels 14-15



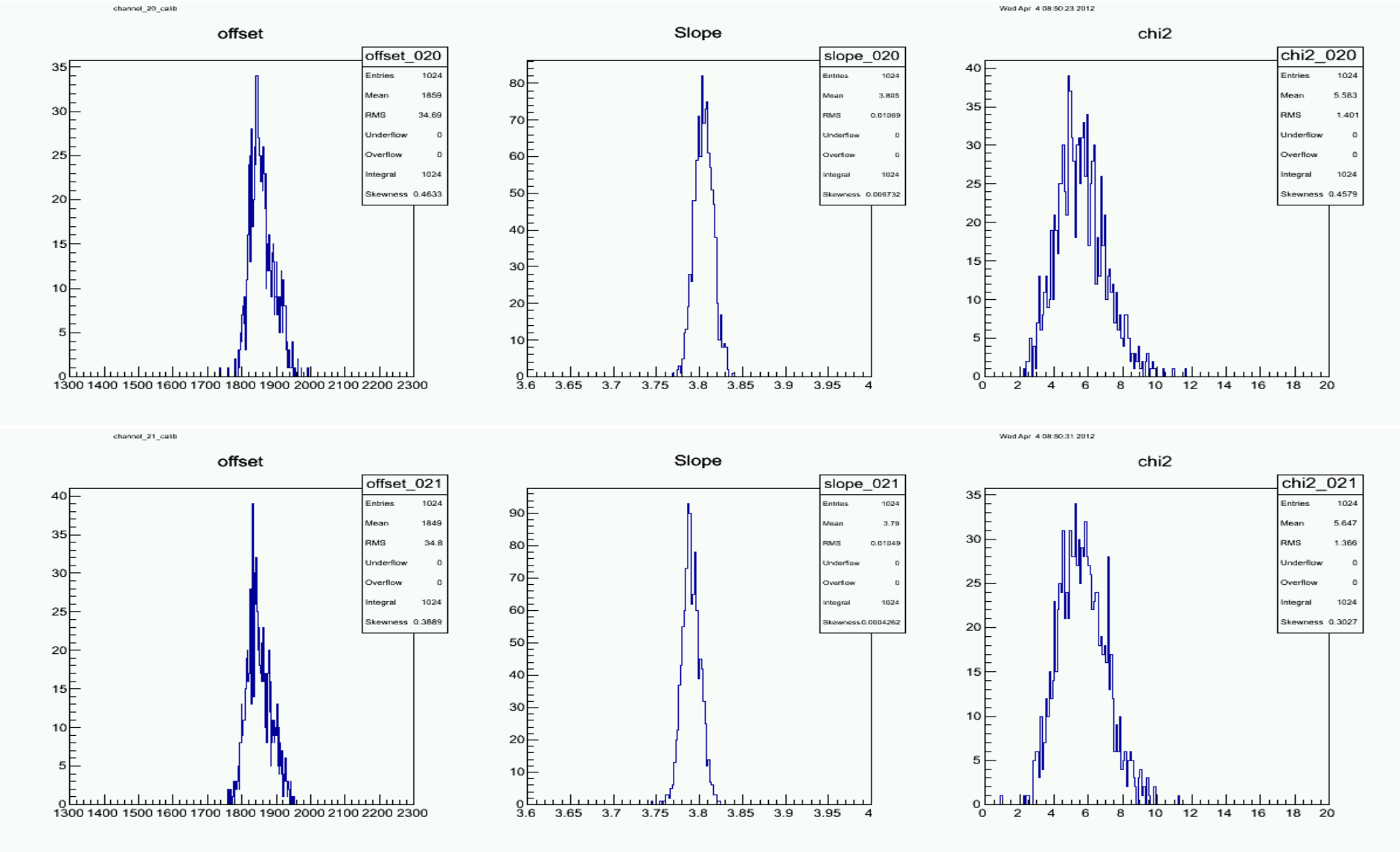
Channels 16-17



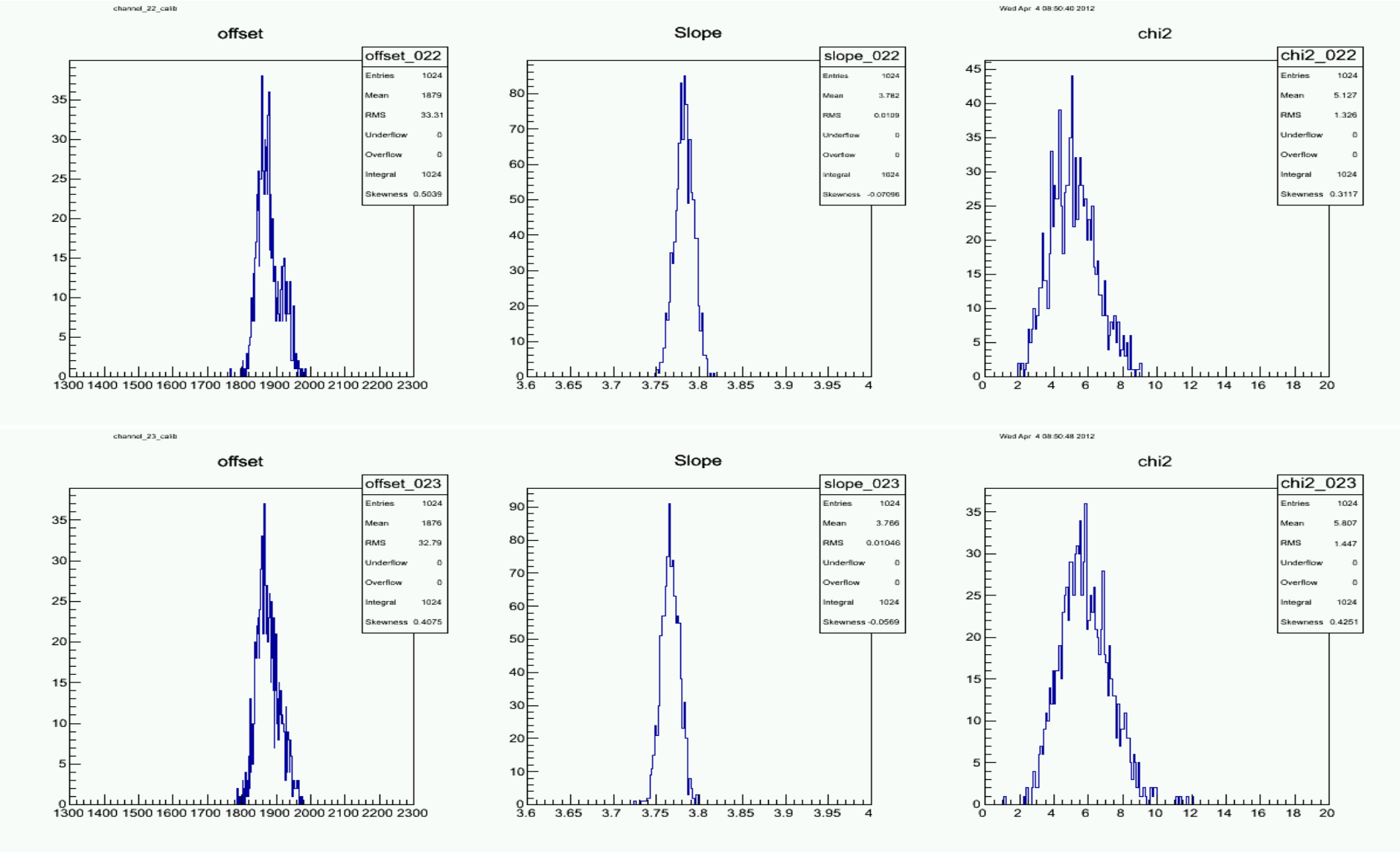
Channels 18-19



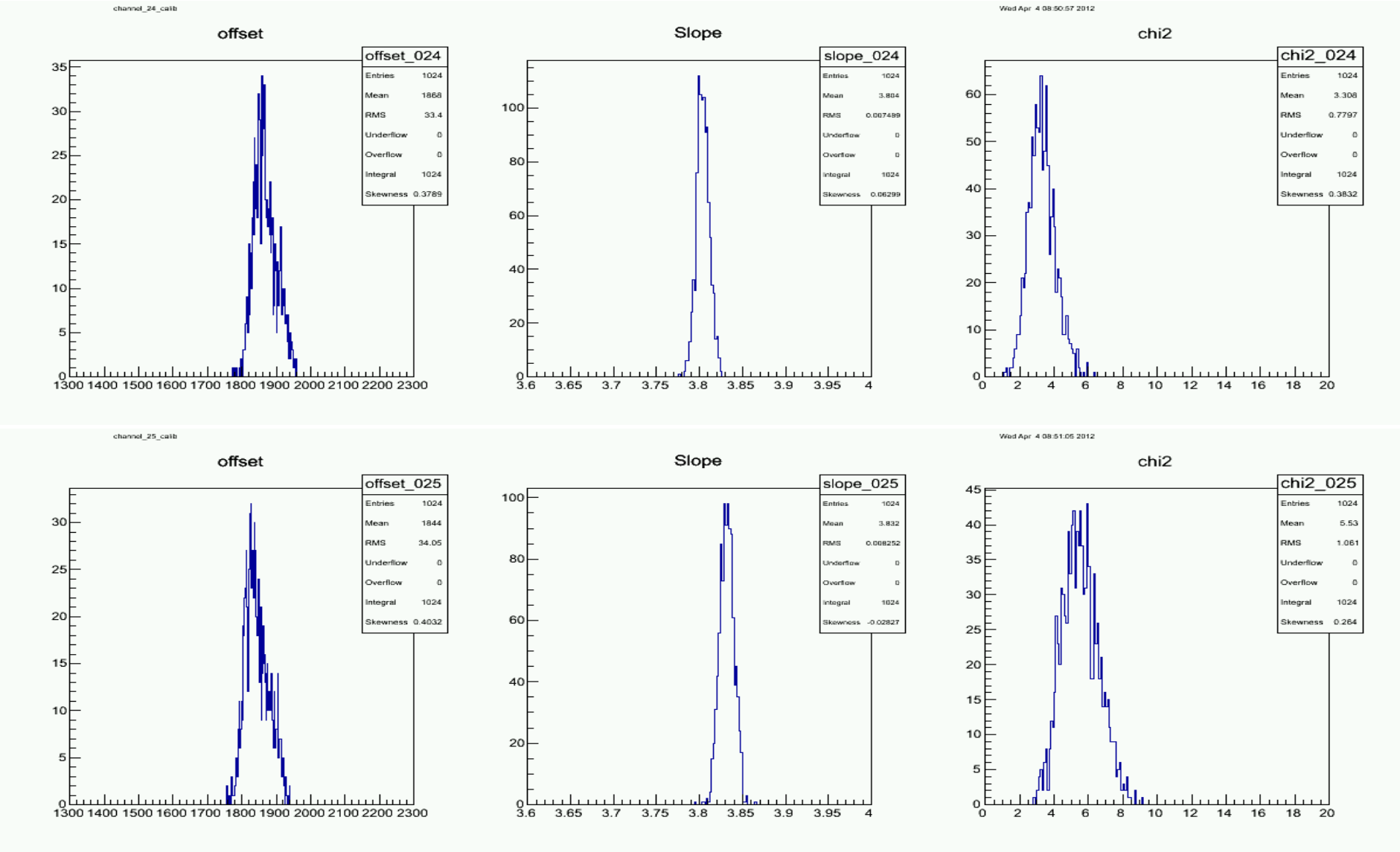
Channels 20-21



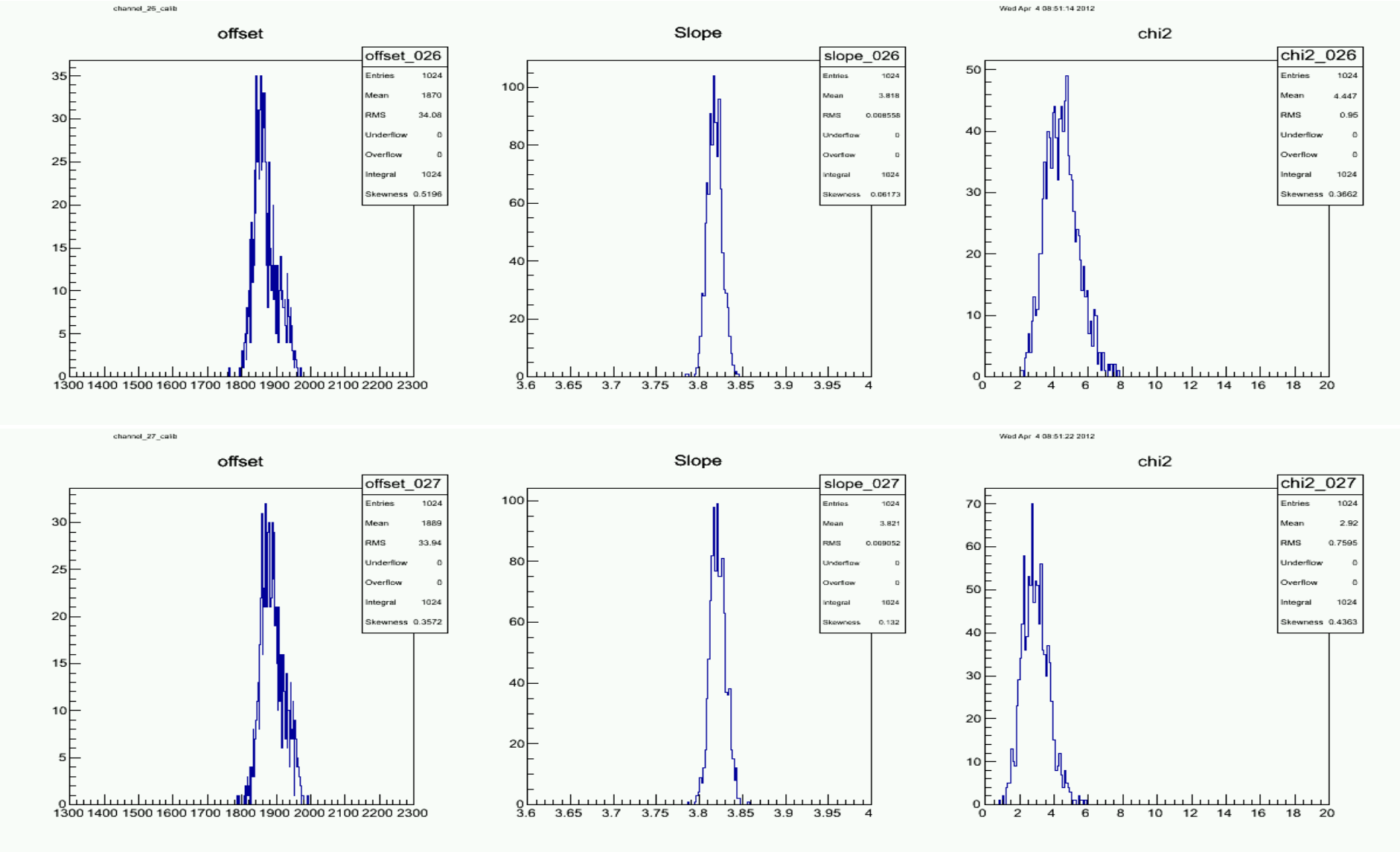
Channels 22-23



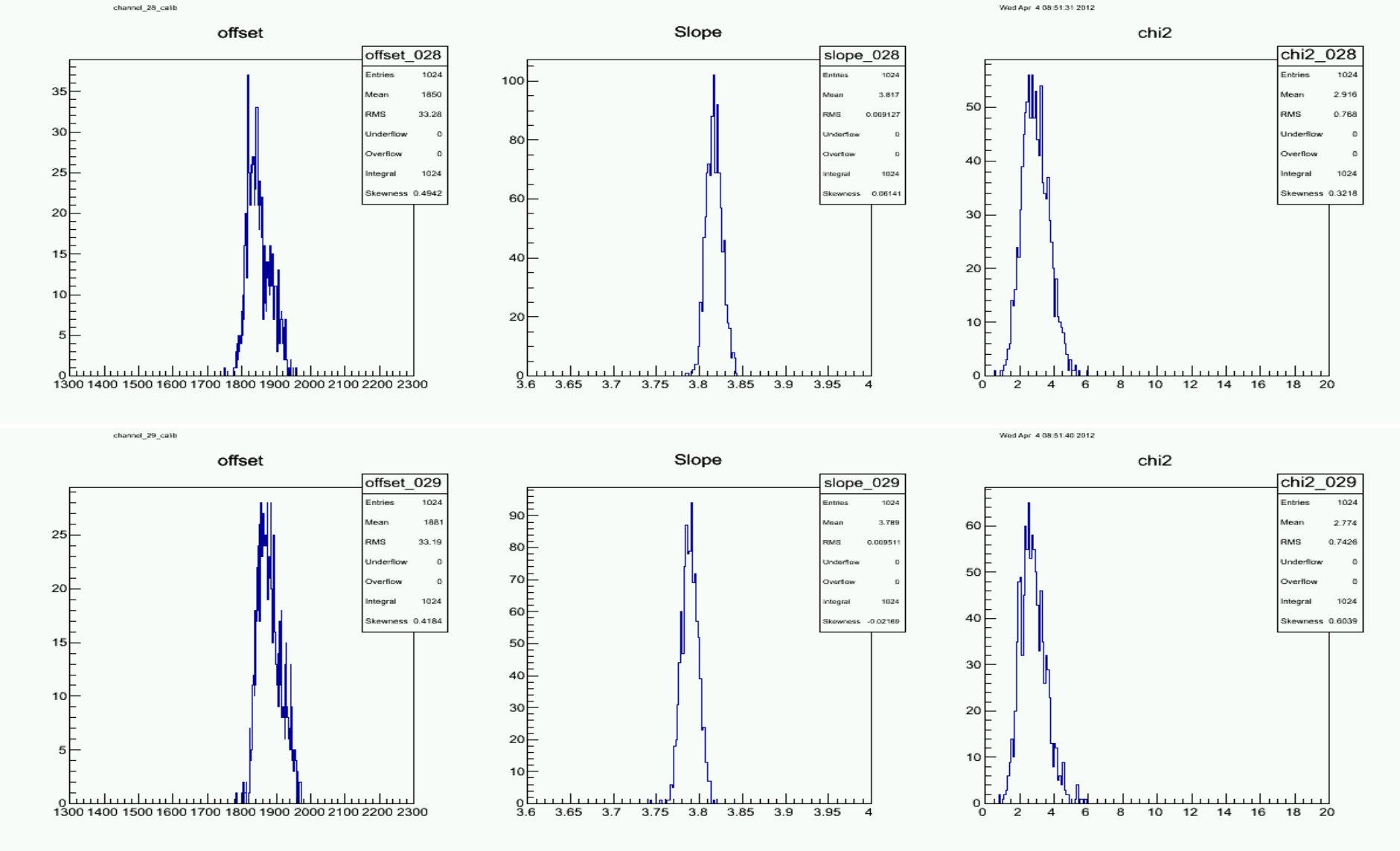
Channels 24-25



Channels 26-27

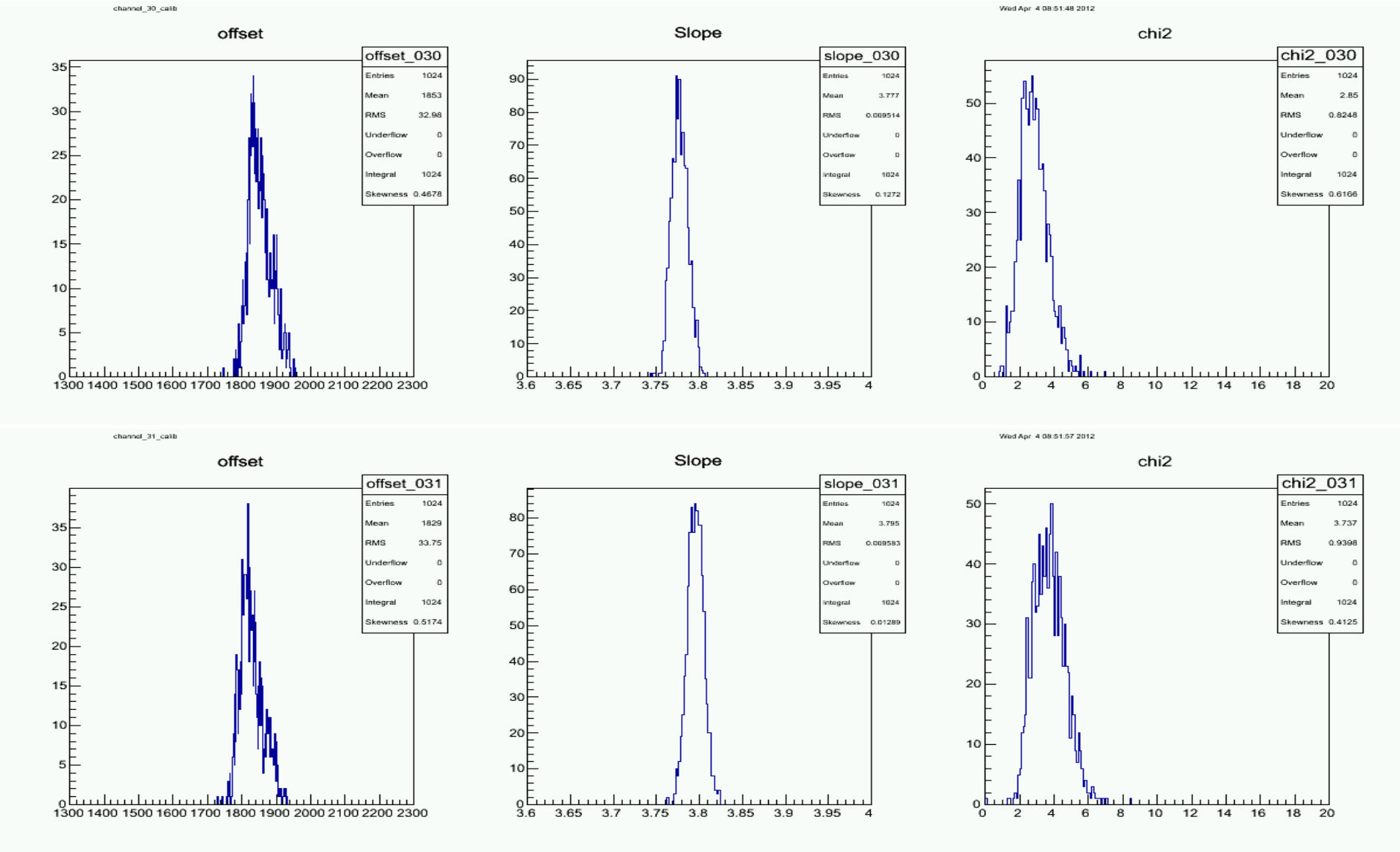


Channels 28-29

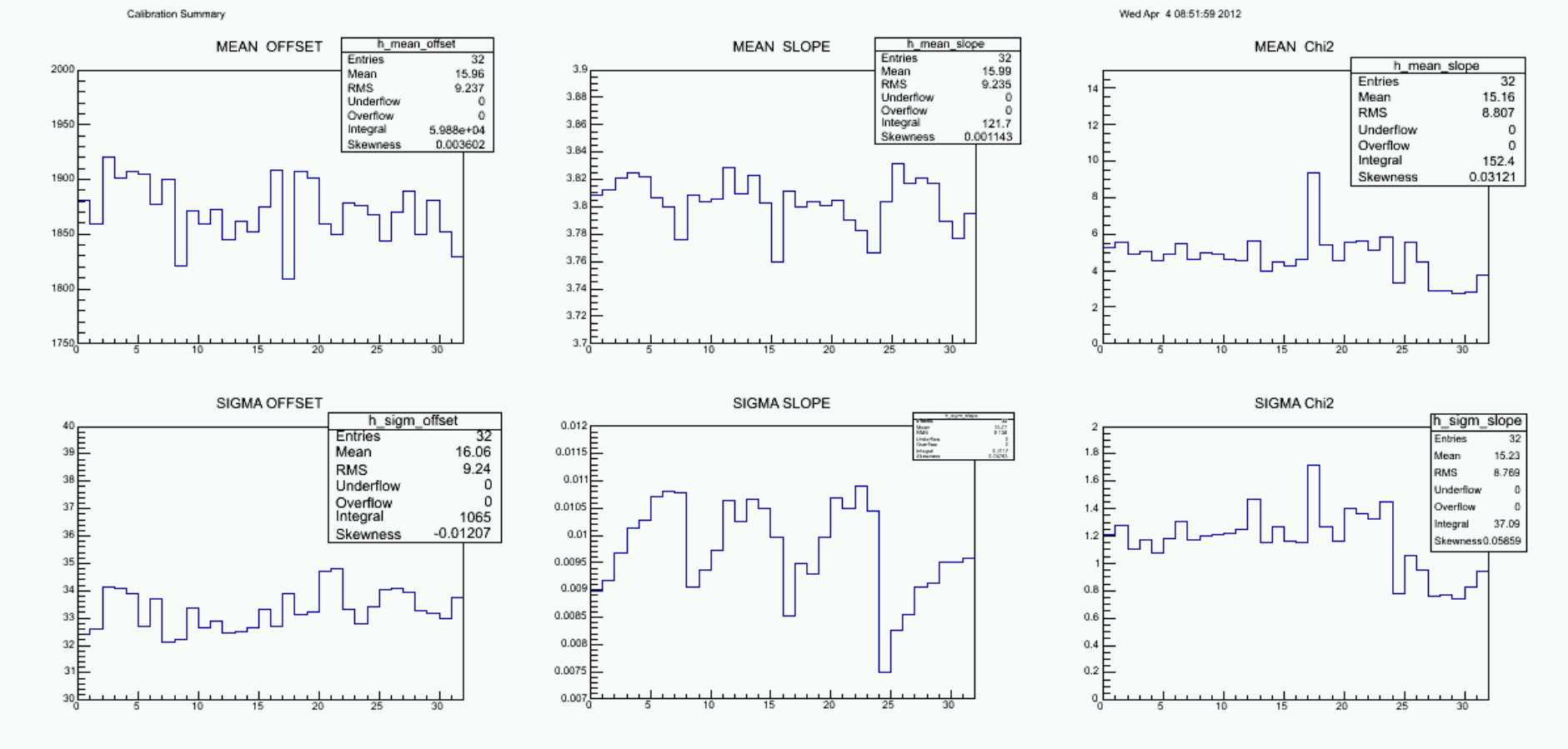


- channels 28-29

Channels 30-31



Summary



- no bad channels!
- start using these constants offline
- in parallel: upload the constants into the board - Steve has information from CAEN.