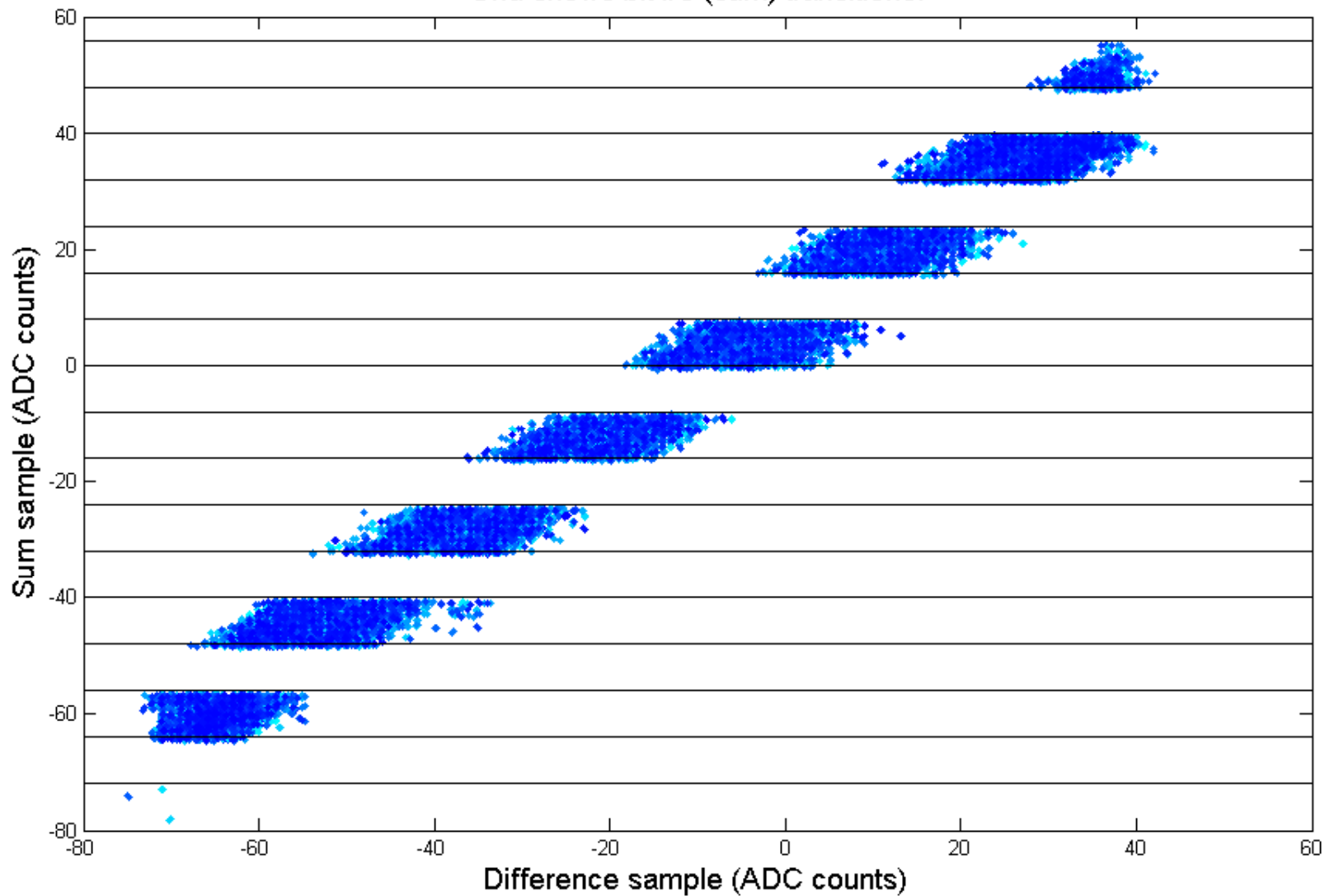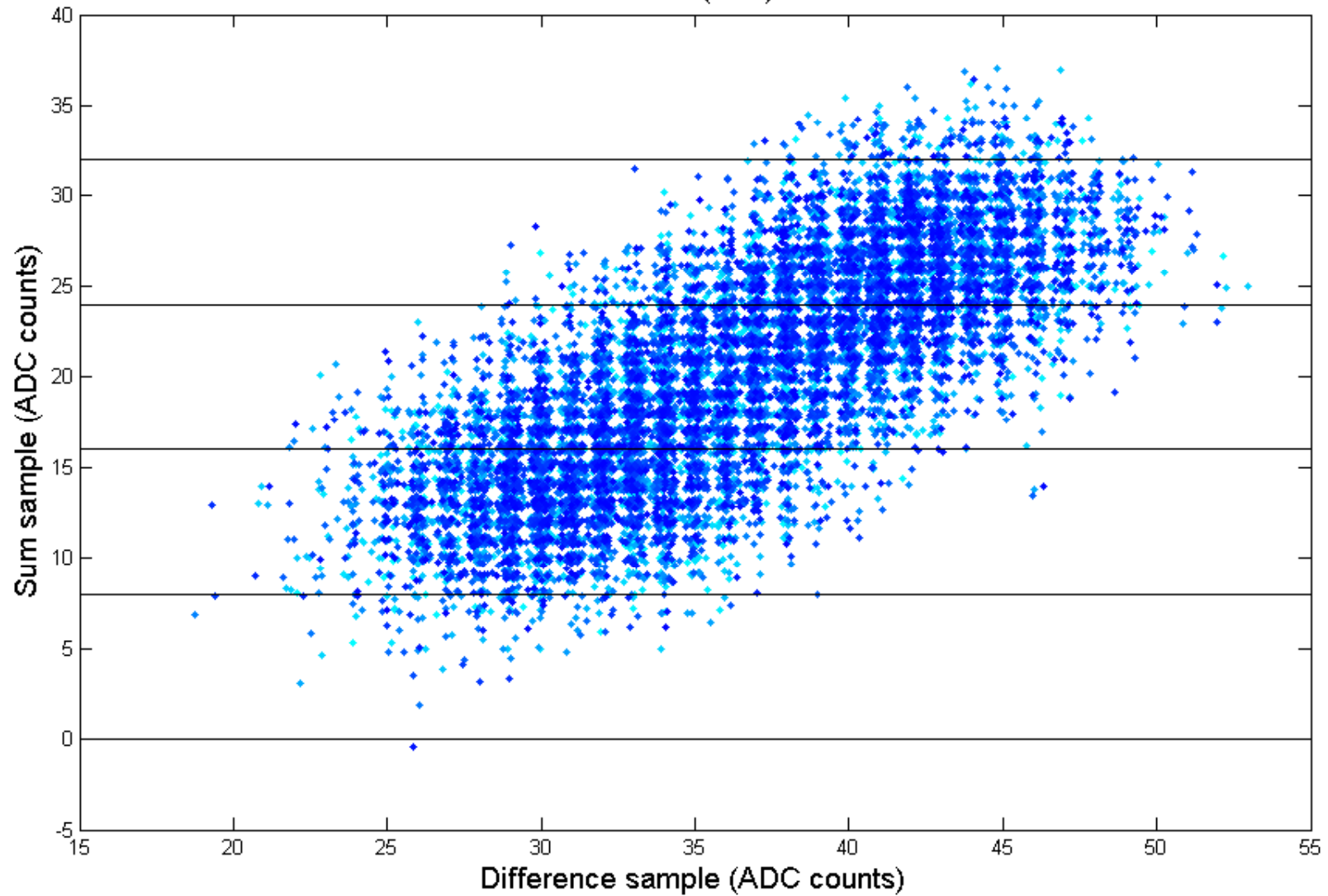# Digital board bench tests

- Sinusoidal signal is split and fed to sum and difference channel ADCs

- 357 MHz and 10 Hz TTL trigger generated (2.16 MHz not used)

- RS232 used to log data sets of 1000 triggers using current firmware

- Boards 1,3 and 4 used

- Problem with board 2:

    - JTAG not detected

    - USB programmer status LED amber with slight blinking (should be green)

    - No lit LEDs on digital board (though there aren't any on board 1 either)

- So far, stuck bit 3 observed on board 1 only

Difference sample vs. sum sample. Data from testbench with Board 1
15000 data points, smeared to allow distinction. Lighter shades indicate earlier pulses.
Grid shows bit #3 (sum) transitions.

Difference sample vs. sum sample. Data from testbench with Board 3
15000 data points, smeared to allow distinction. Lighter shades indicate earlier pulses.
Grid shows bit #3 (sum) transitions.

Ben Constance   FONT Meeting 1st September 2008   3

Difference sample vs. sum sample. Data from testbench with Board 4
15000 data points, smeared to allow distinction. Lighter shades indicate earlier pulses.
Grid shows bit #3 (sum) transitions.