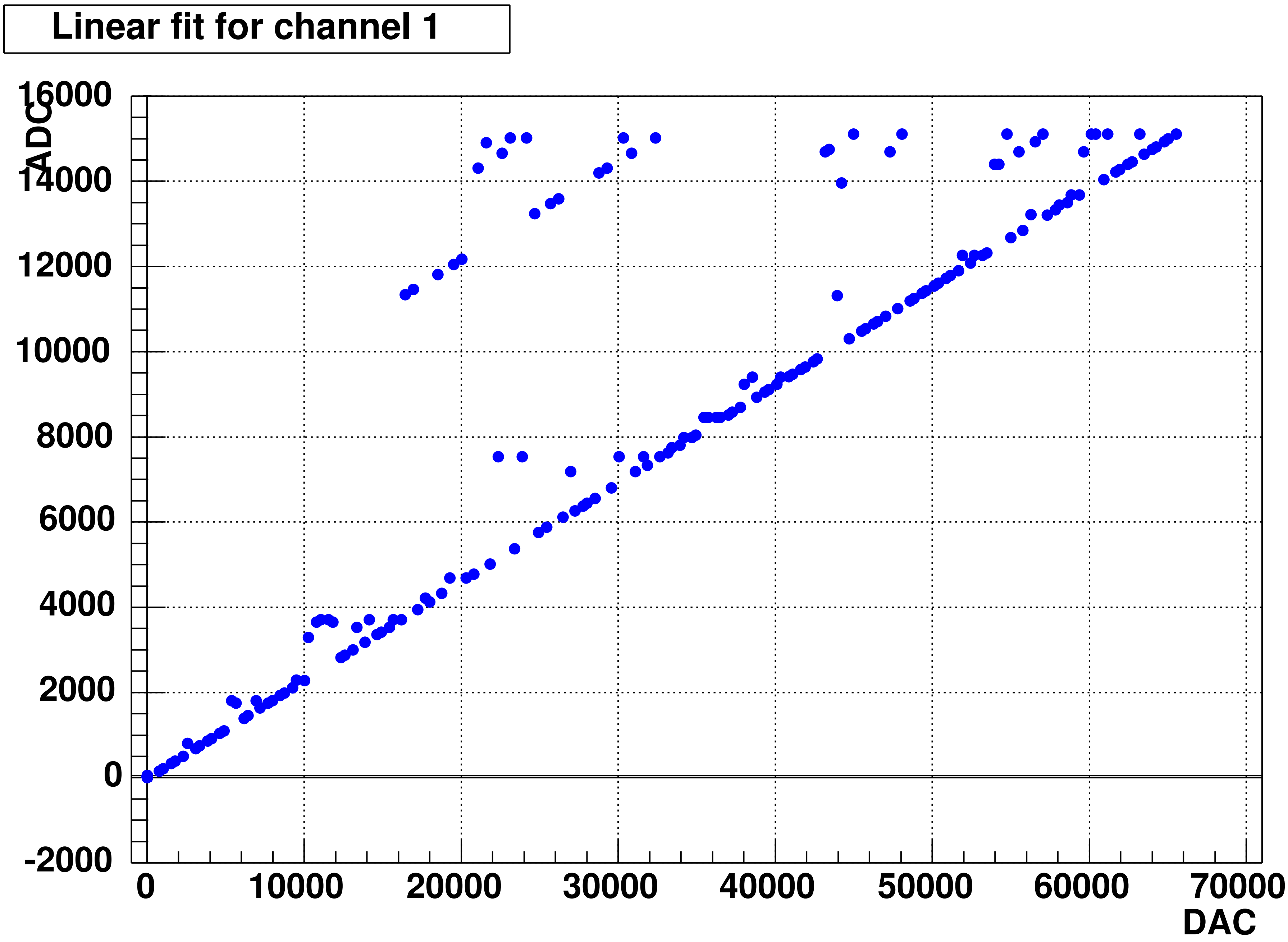
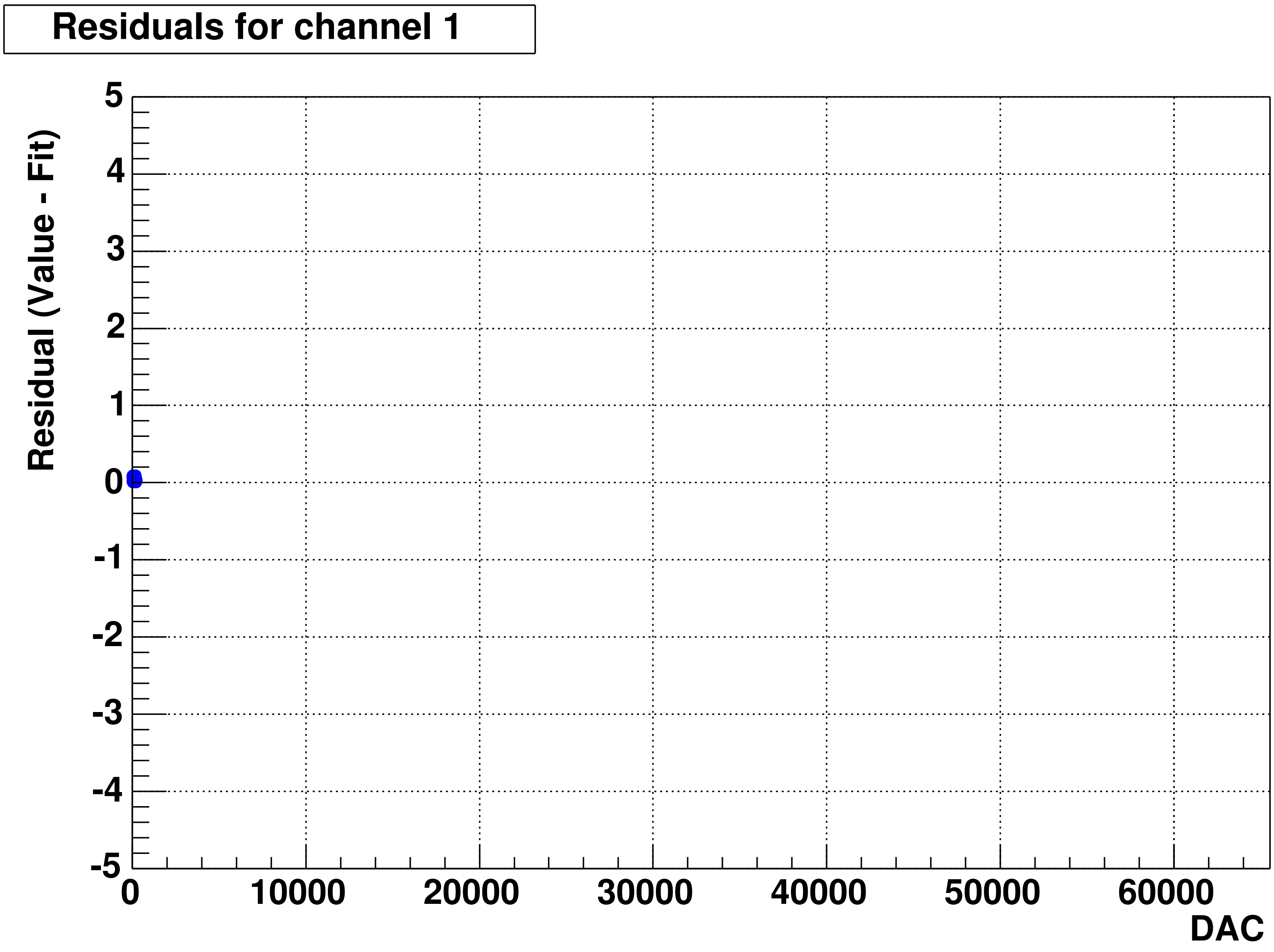
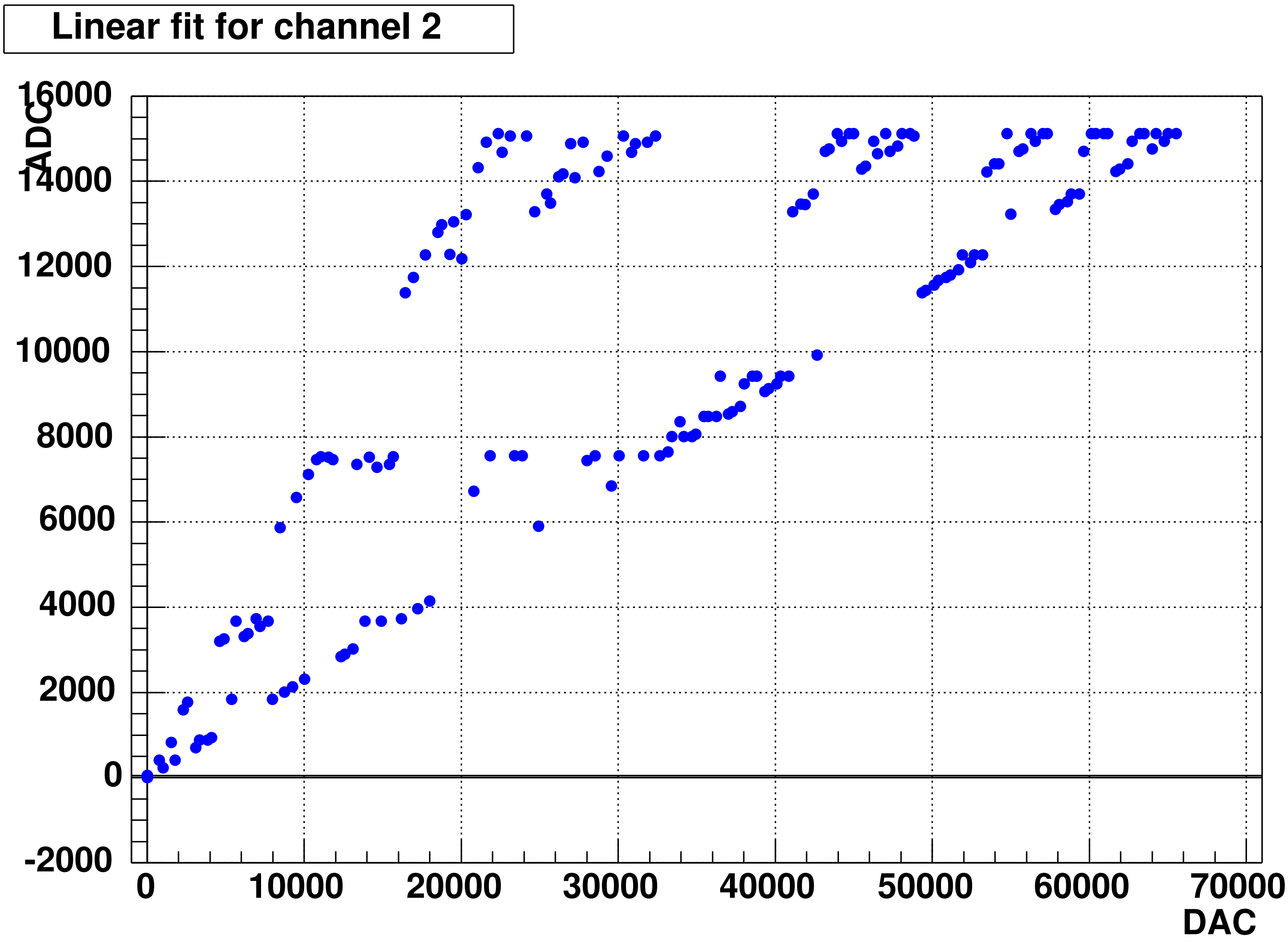
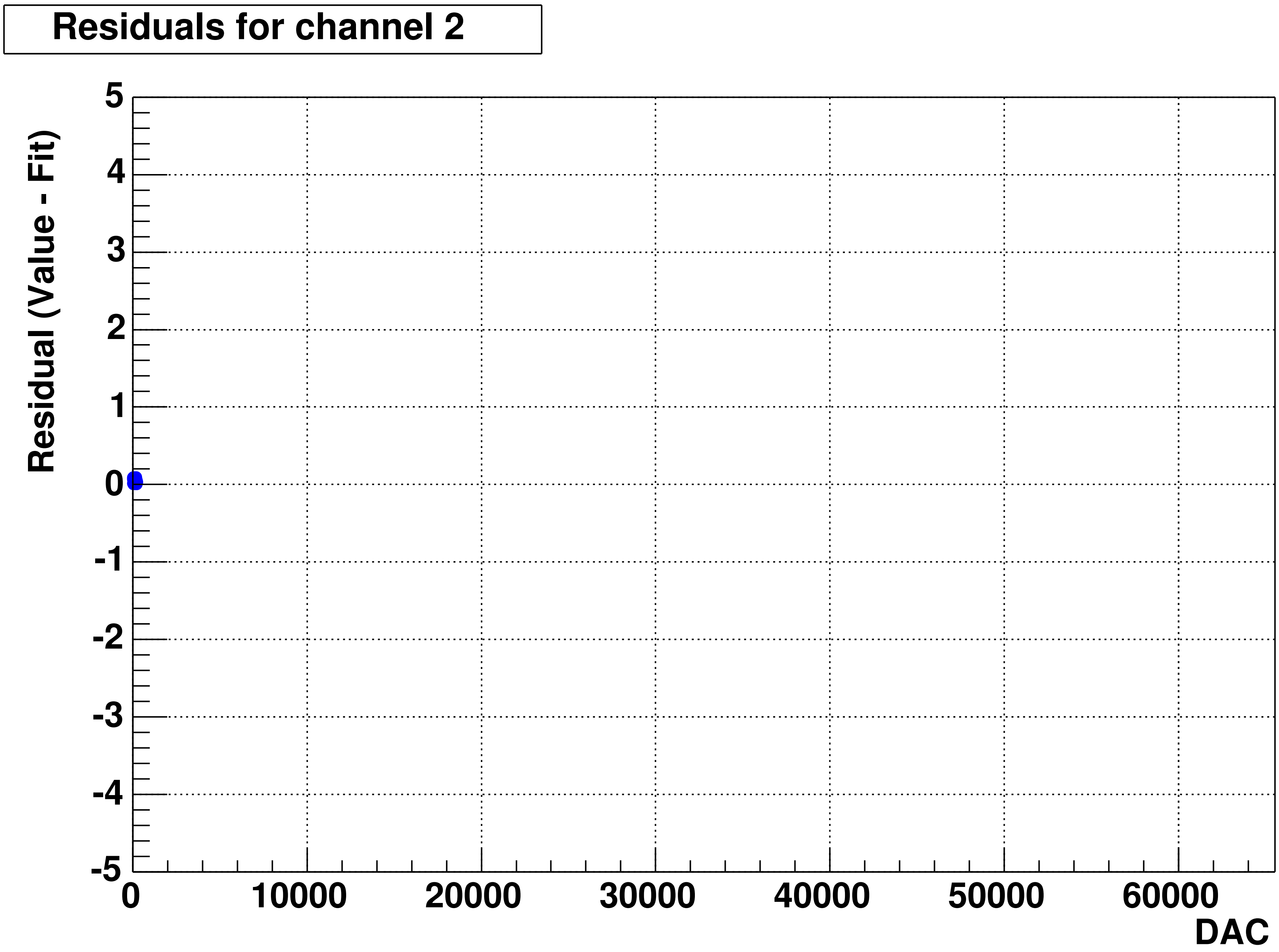
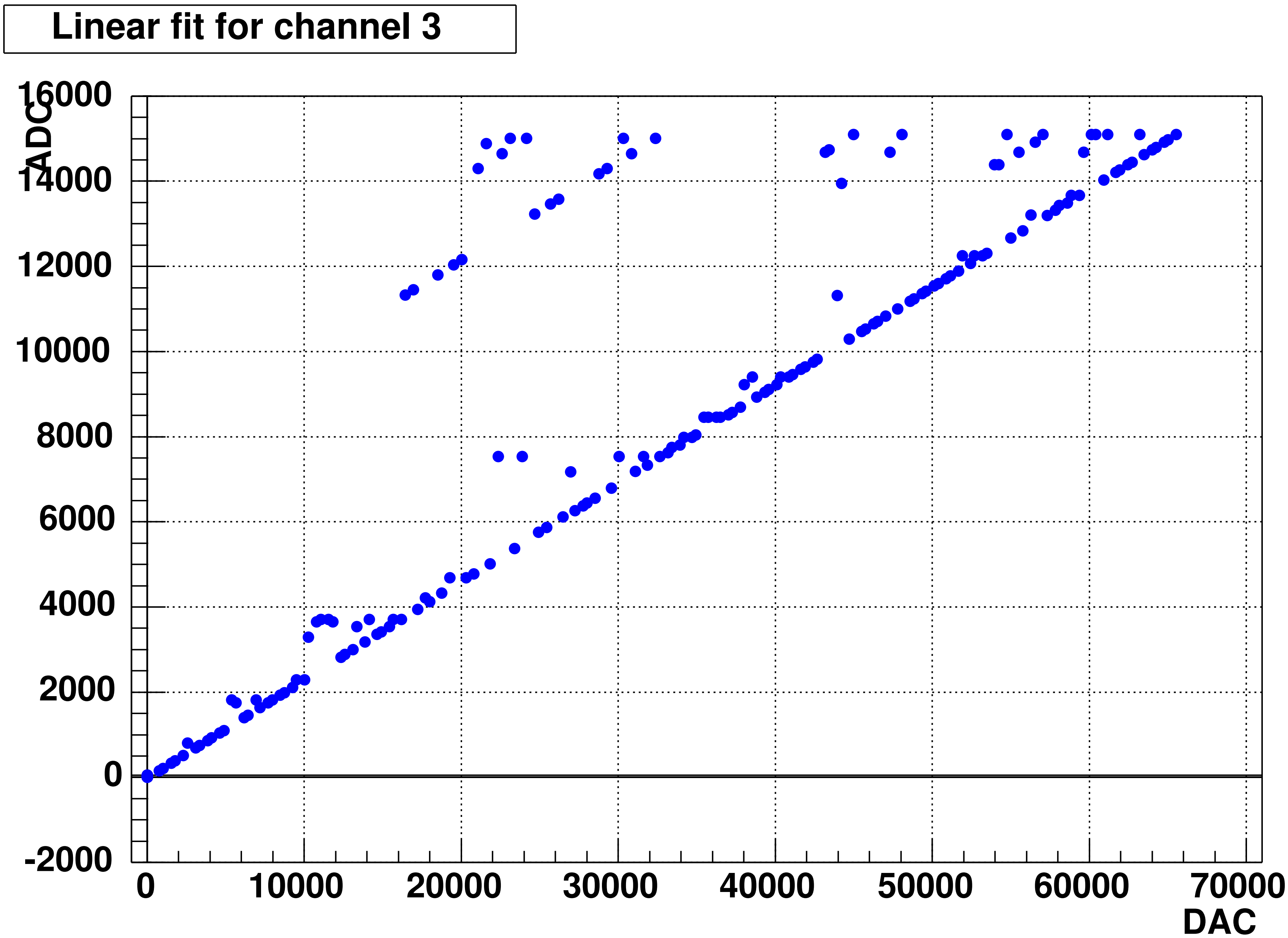

Linear fit for channel 1
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC


Residuals for channel 1
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

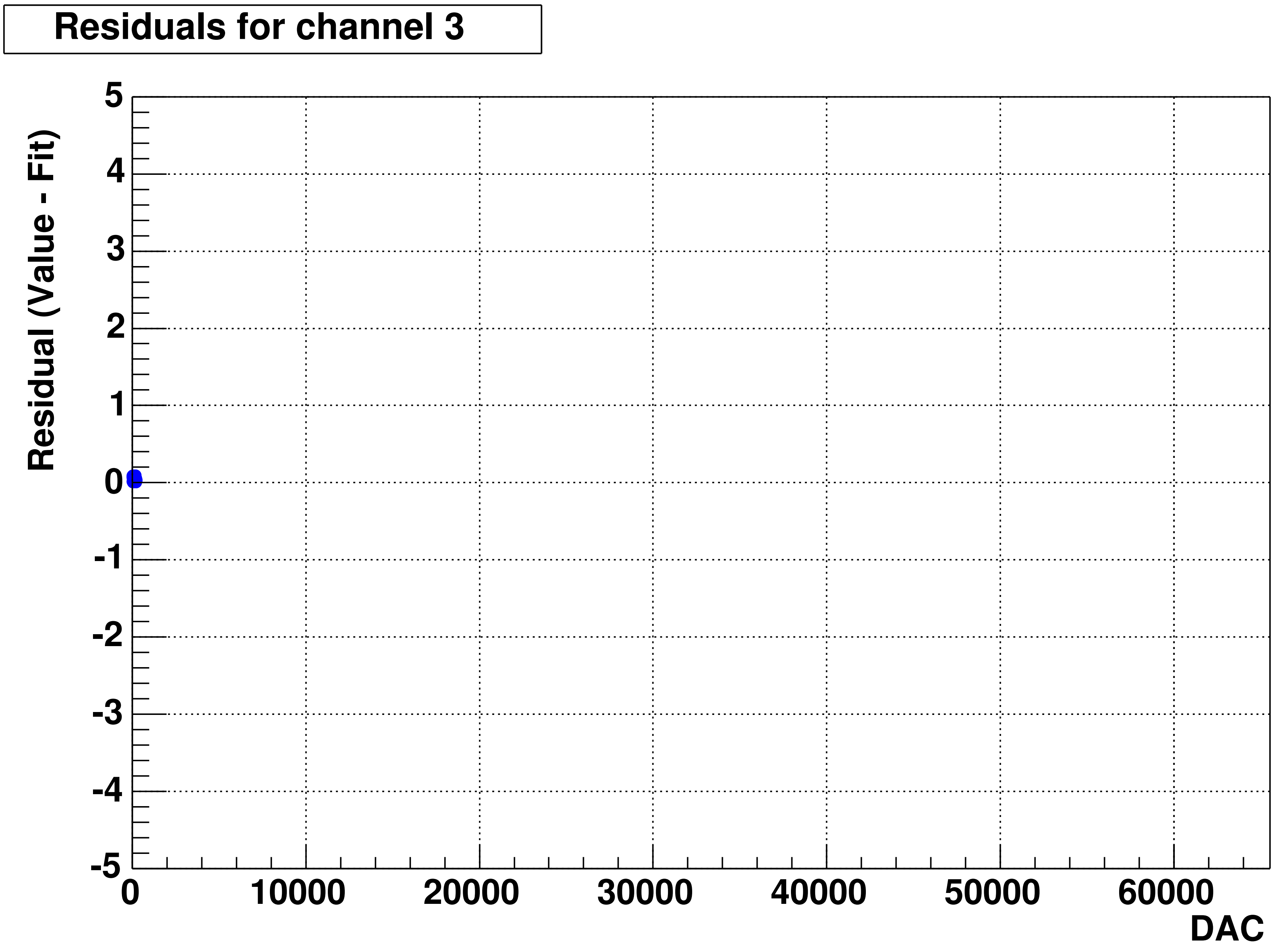


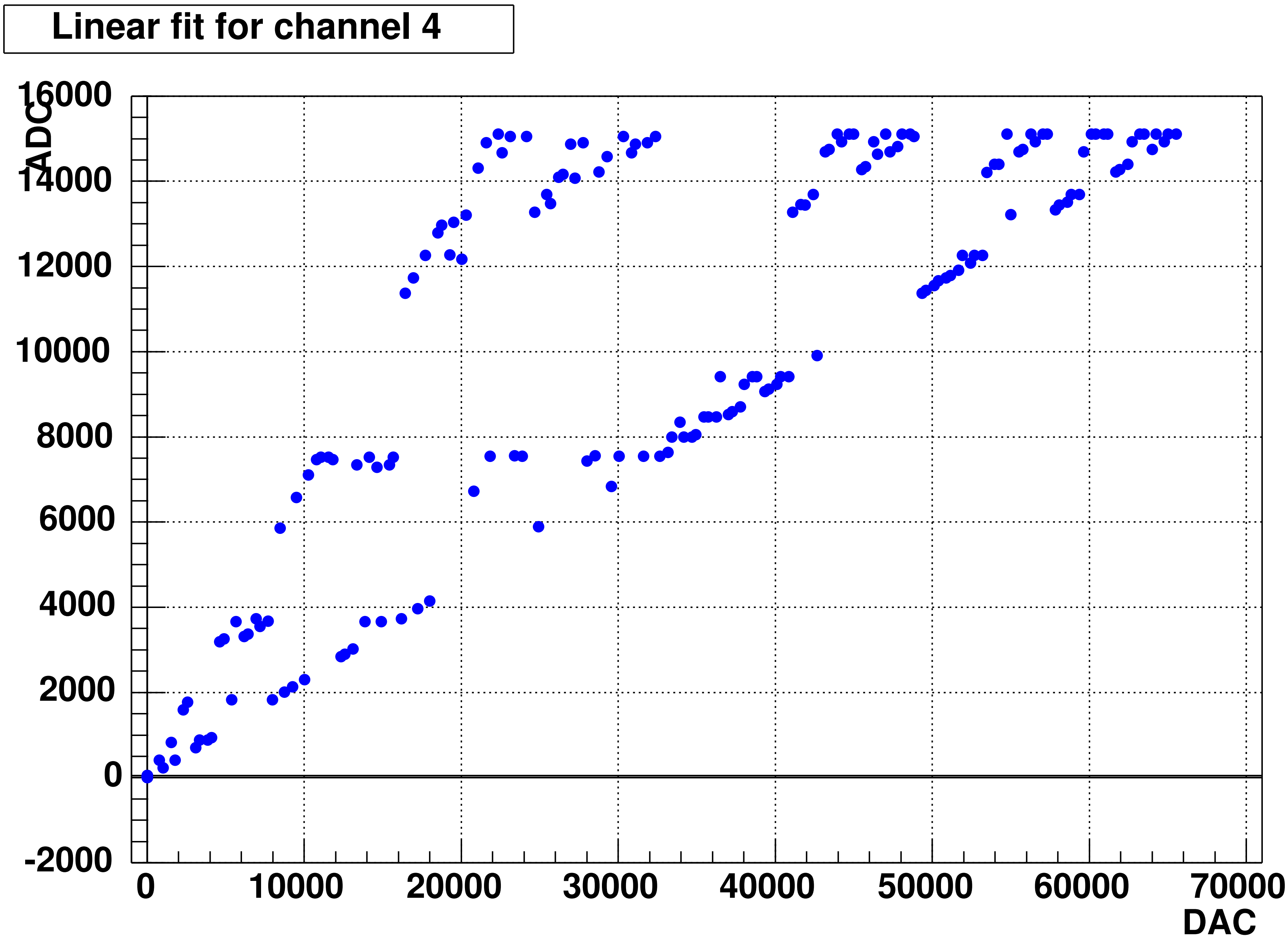
Linear fit for channel 2
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

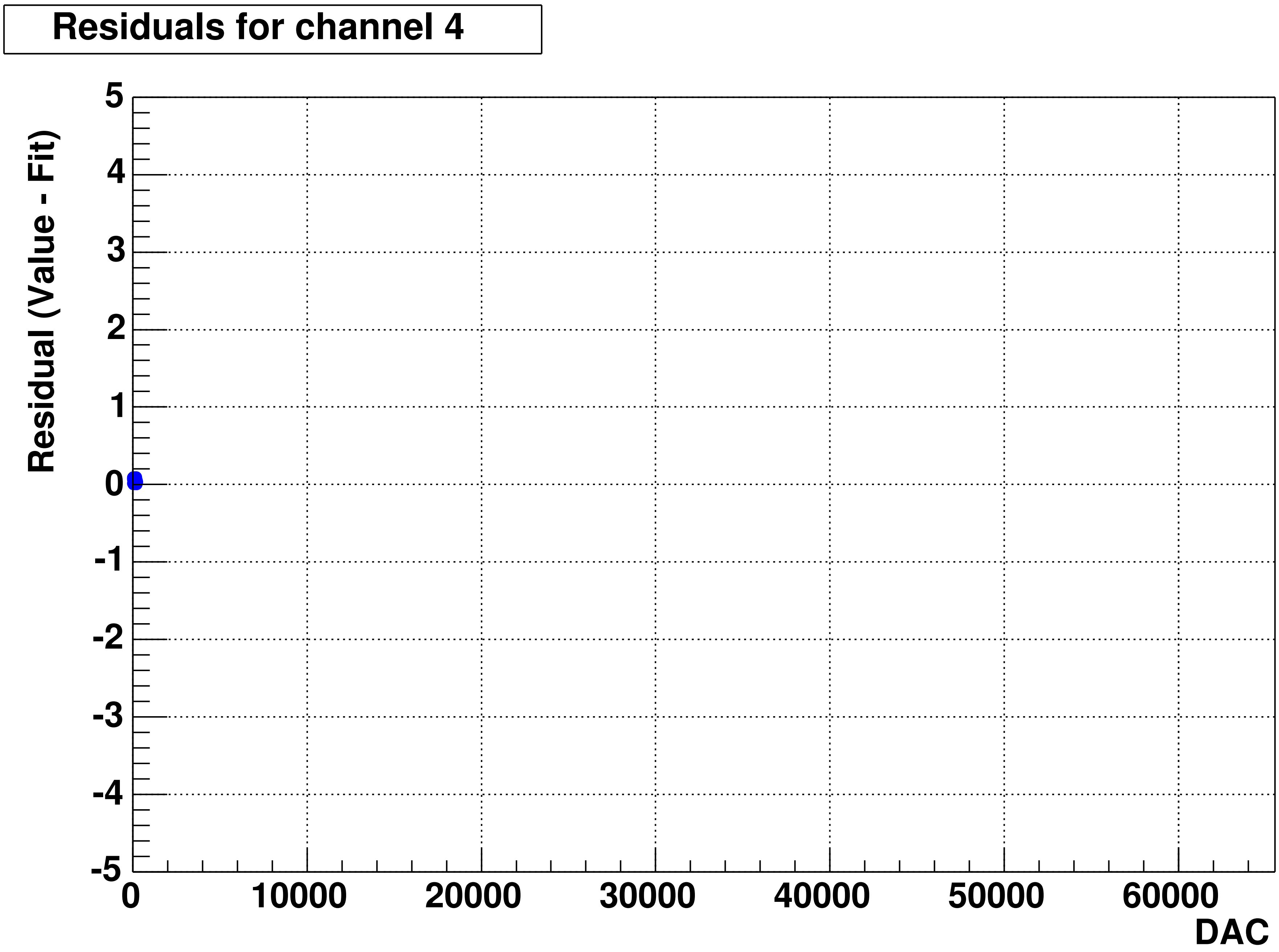

Residuals for channel 2
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

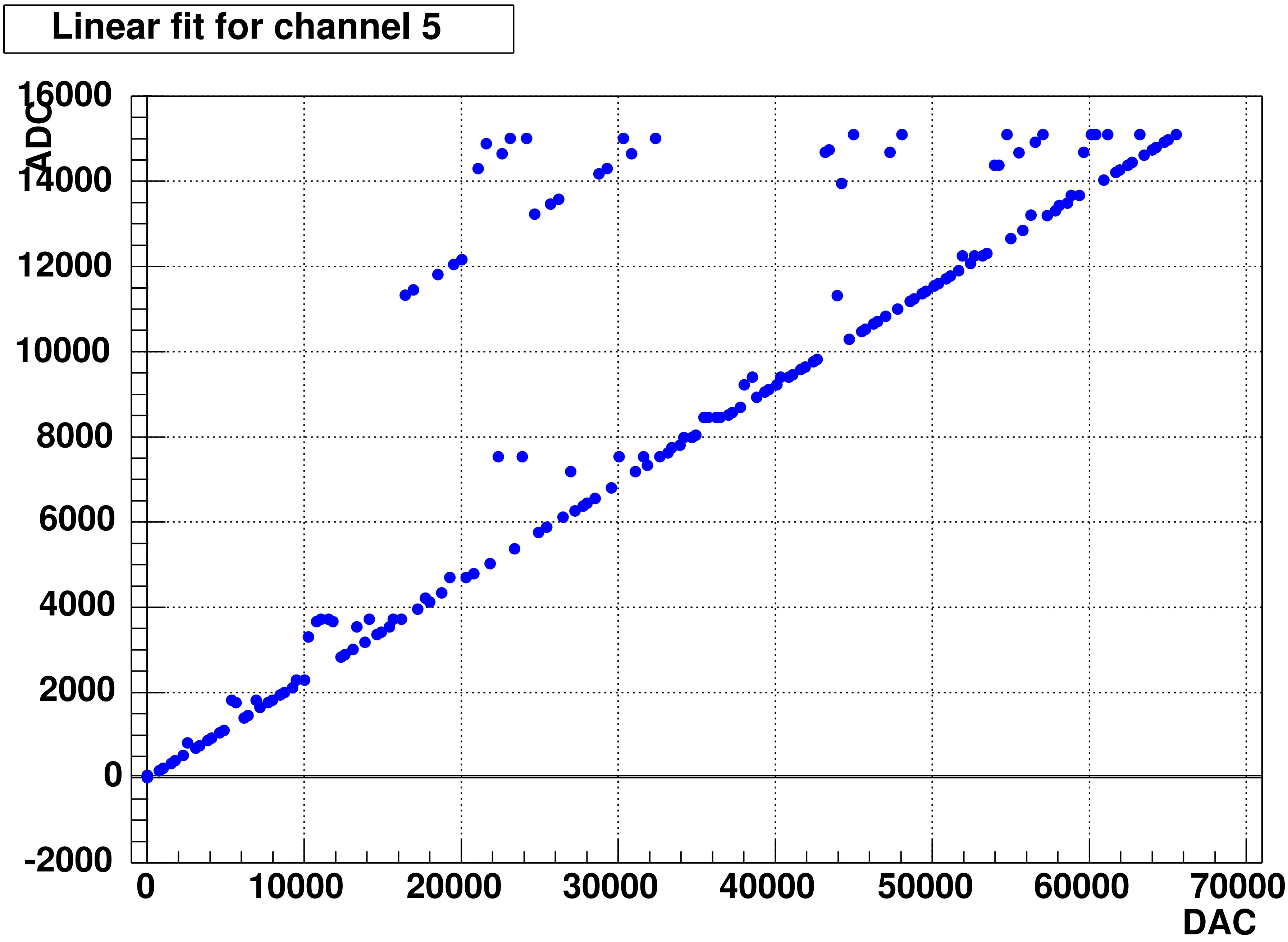


Linear fit for channel 3
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

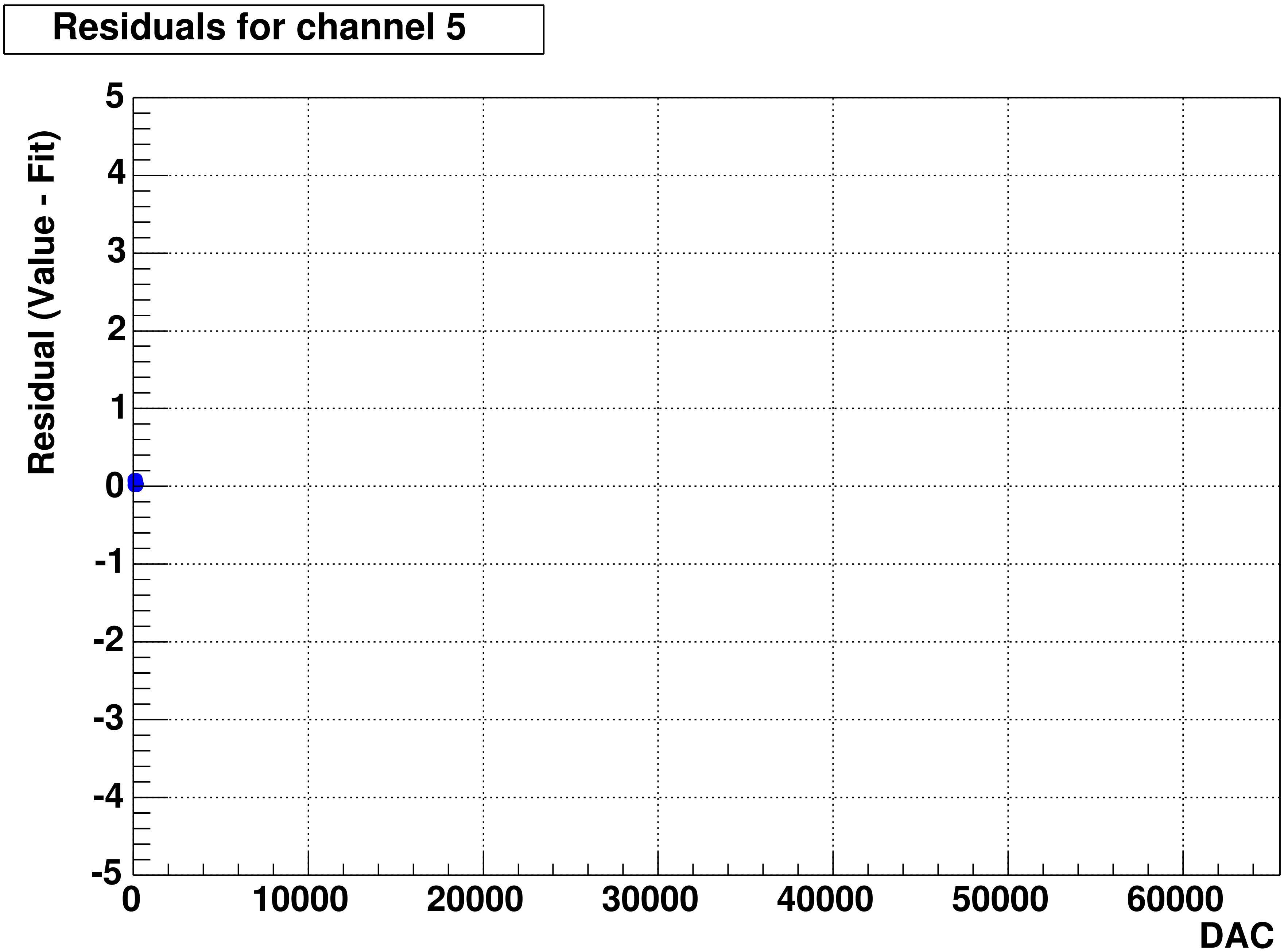

Residuals for channel 3
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC


Linear fit for channel 4
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

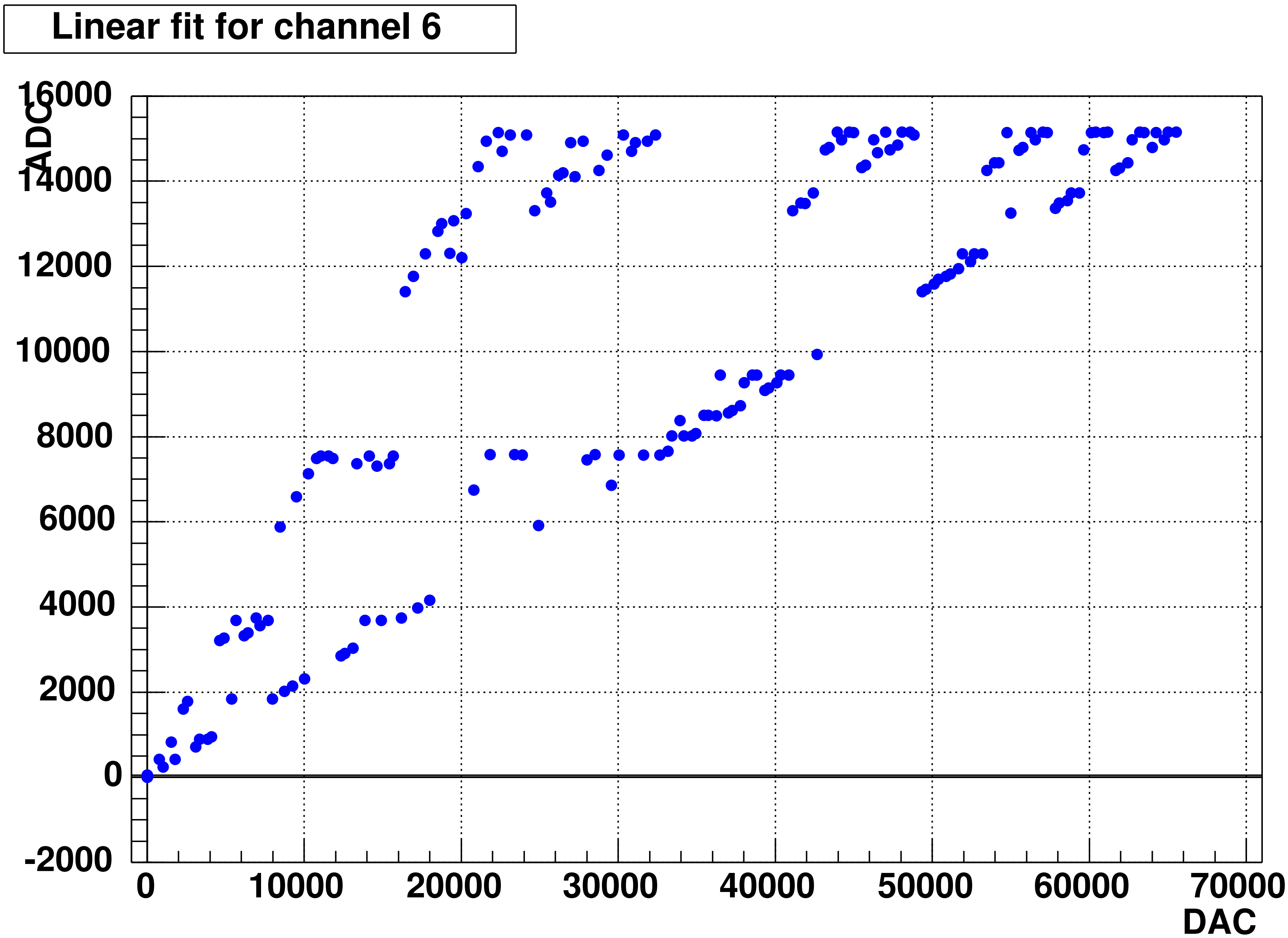

Residuals for channel 4
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



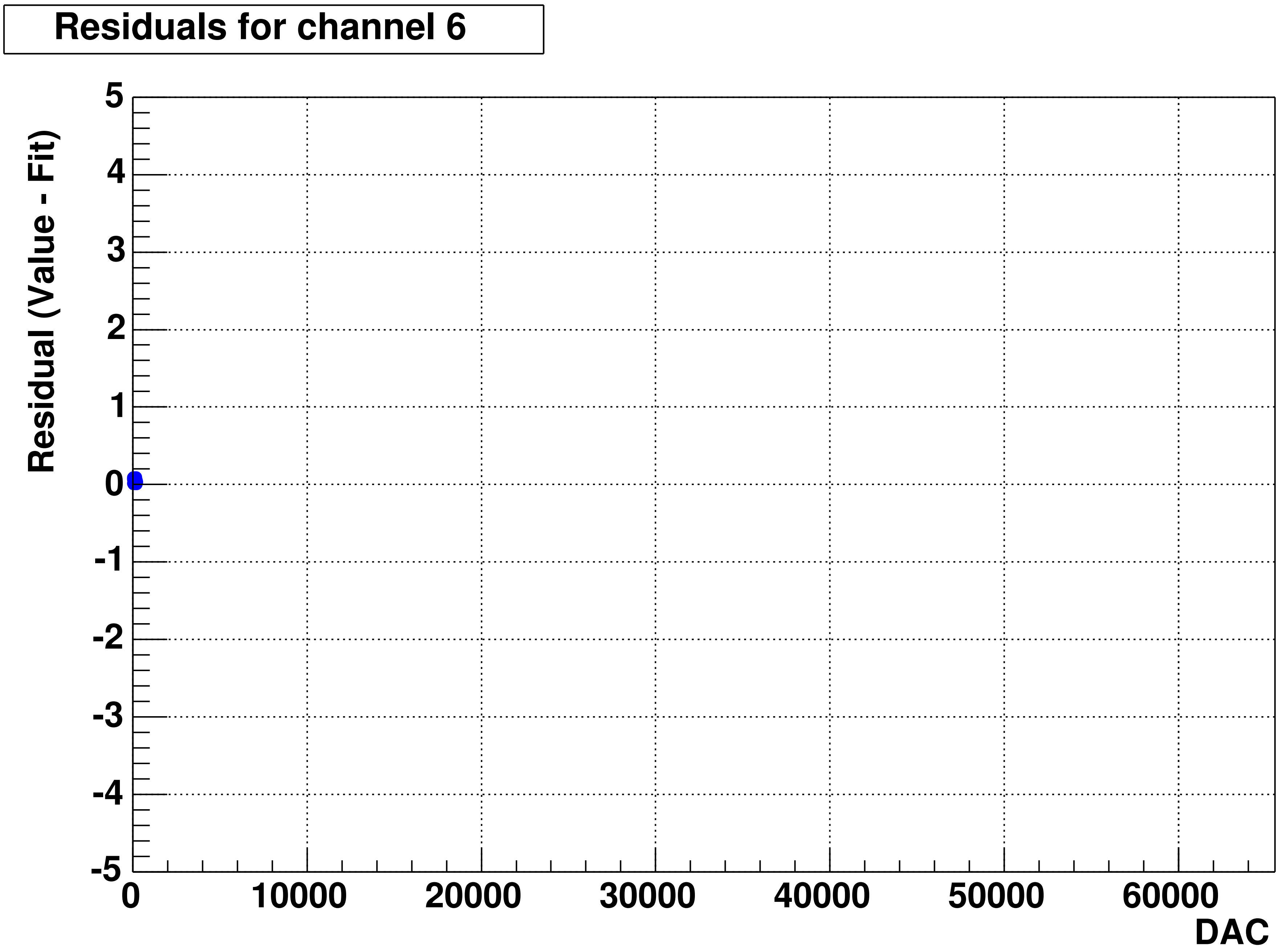
Linear fit for channel 5
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

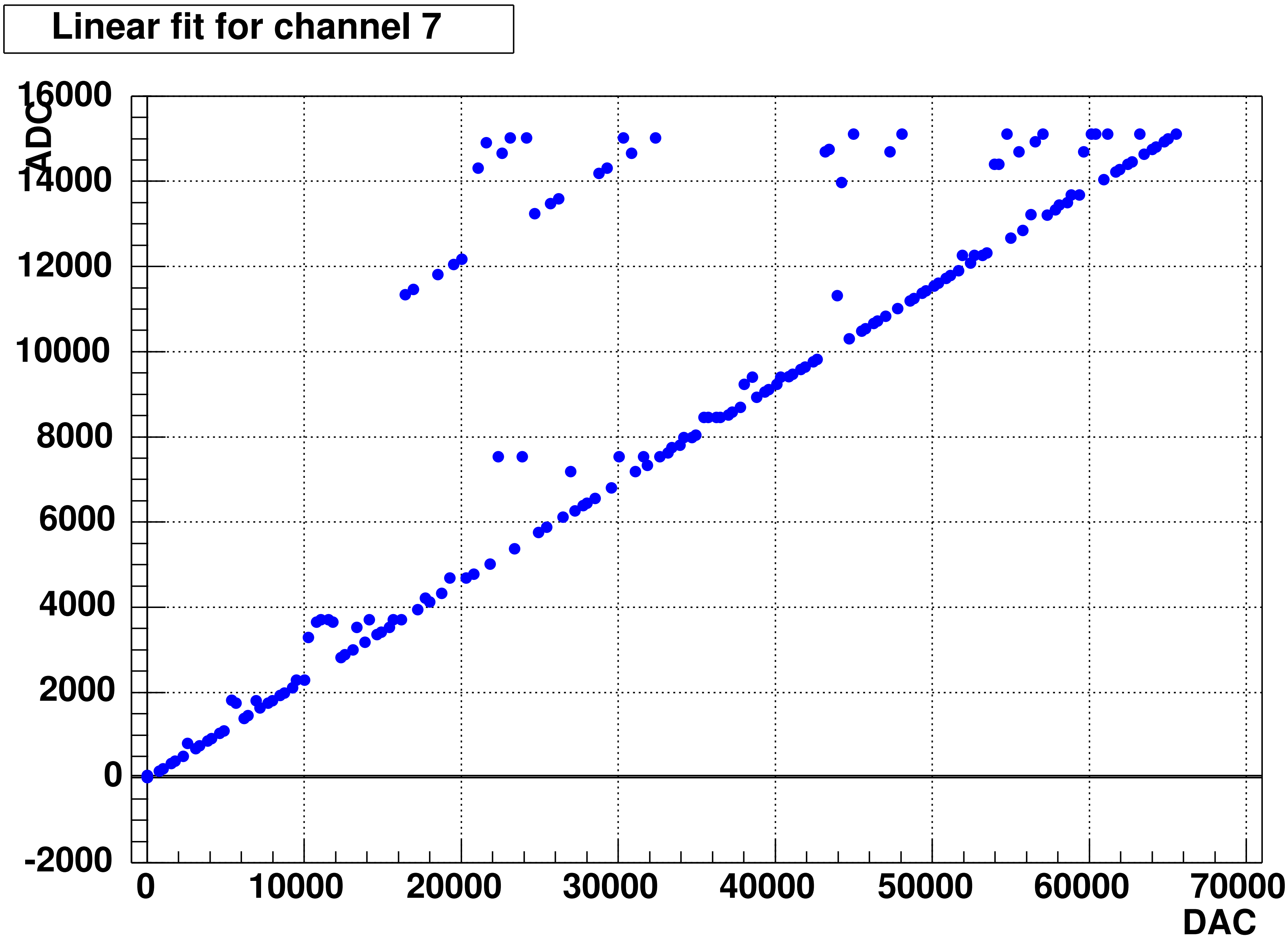


Residuals for channel 5
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

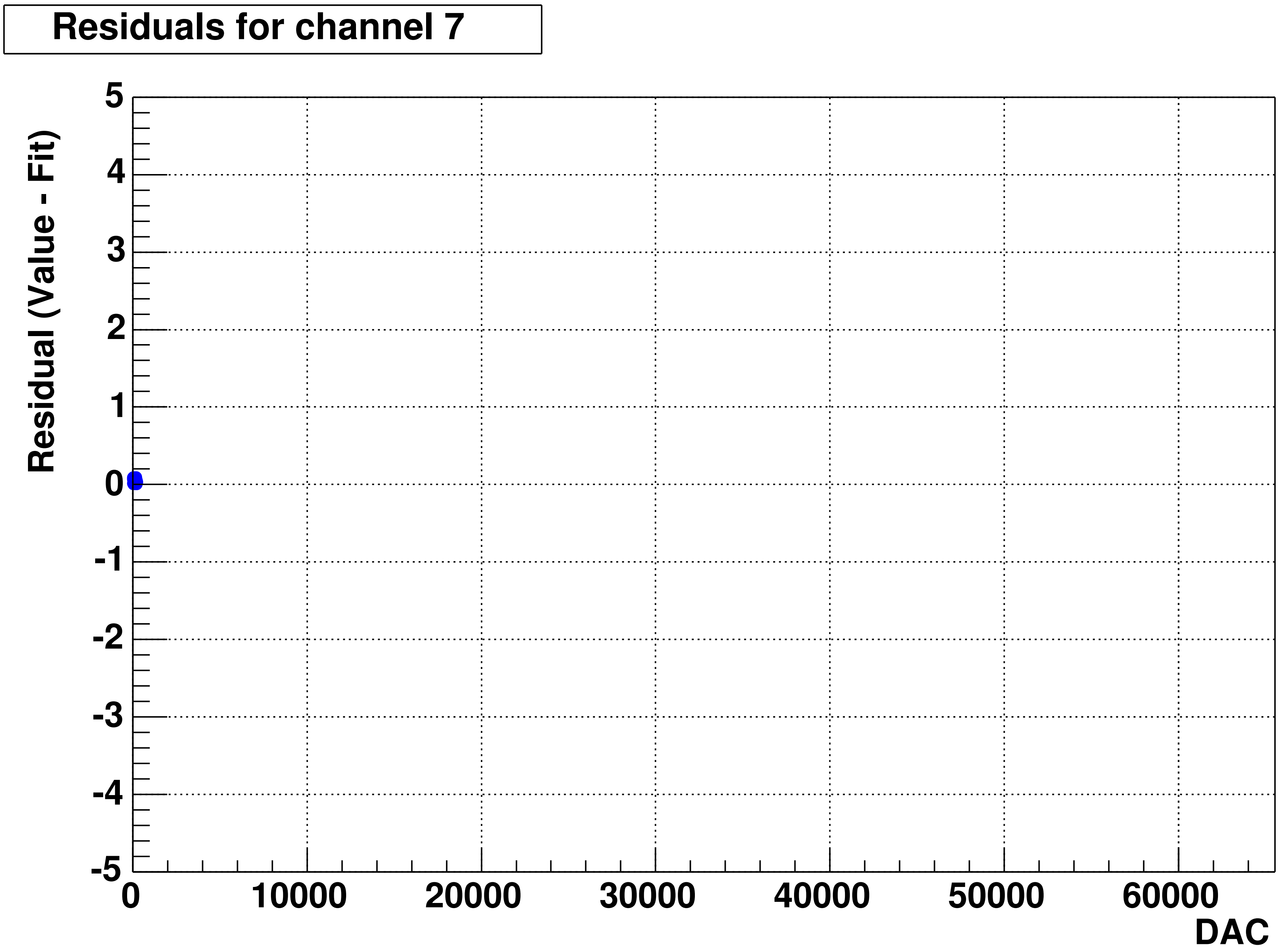


Linear fit for channel 6
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

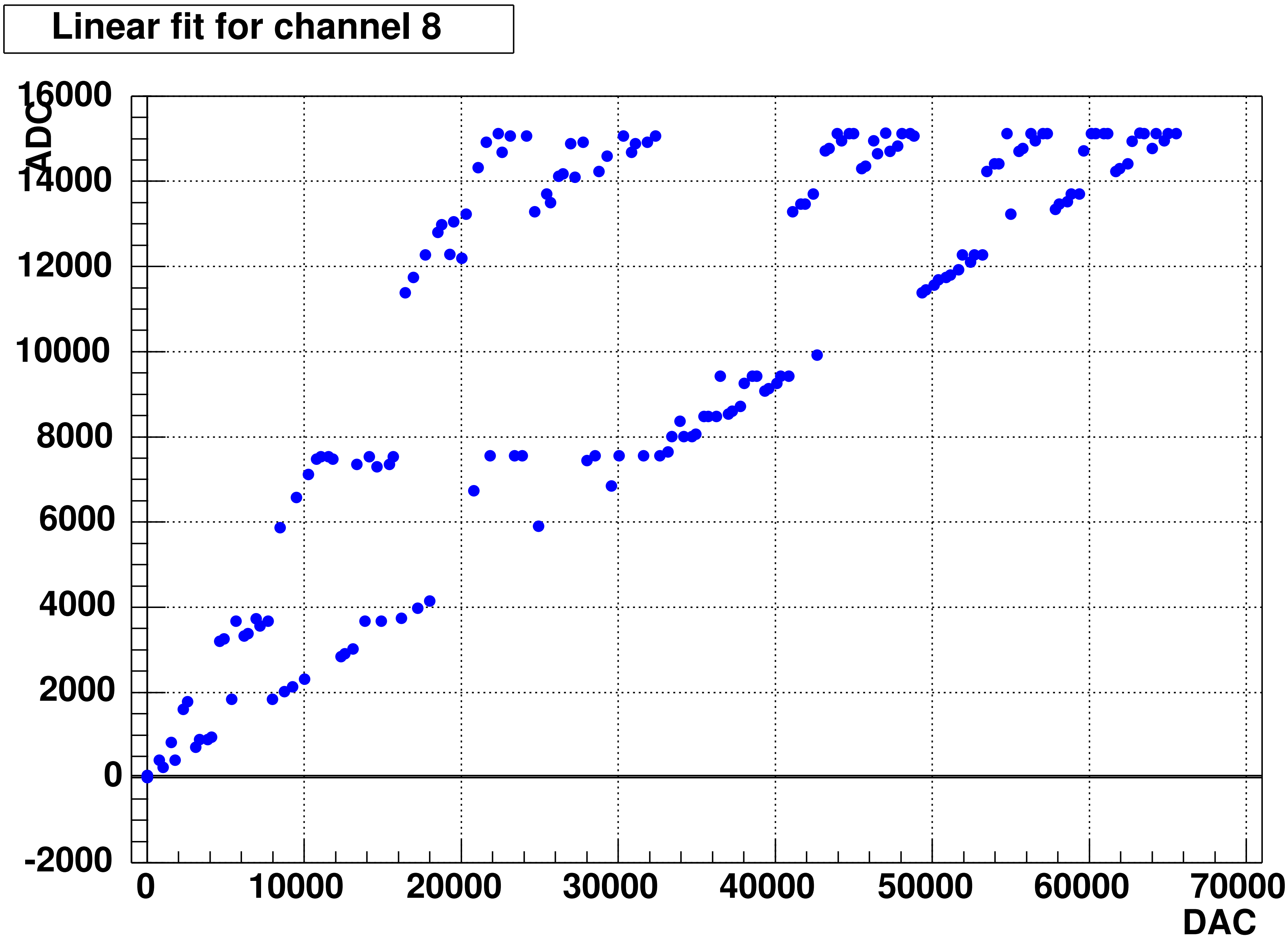

Residuals for channel 6
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



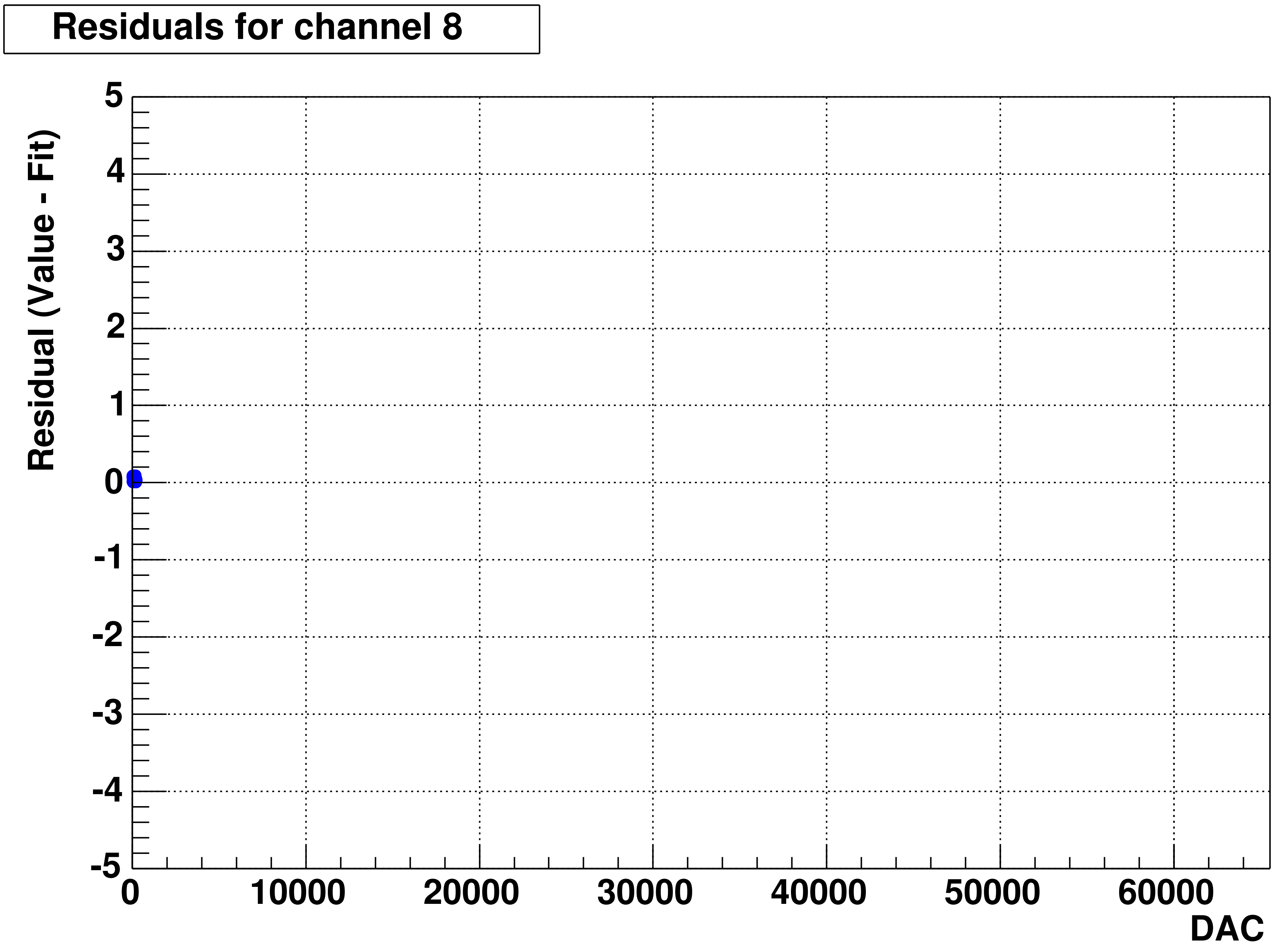
Linear fit for channel 7
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC



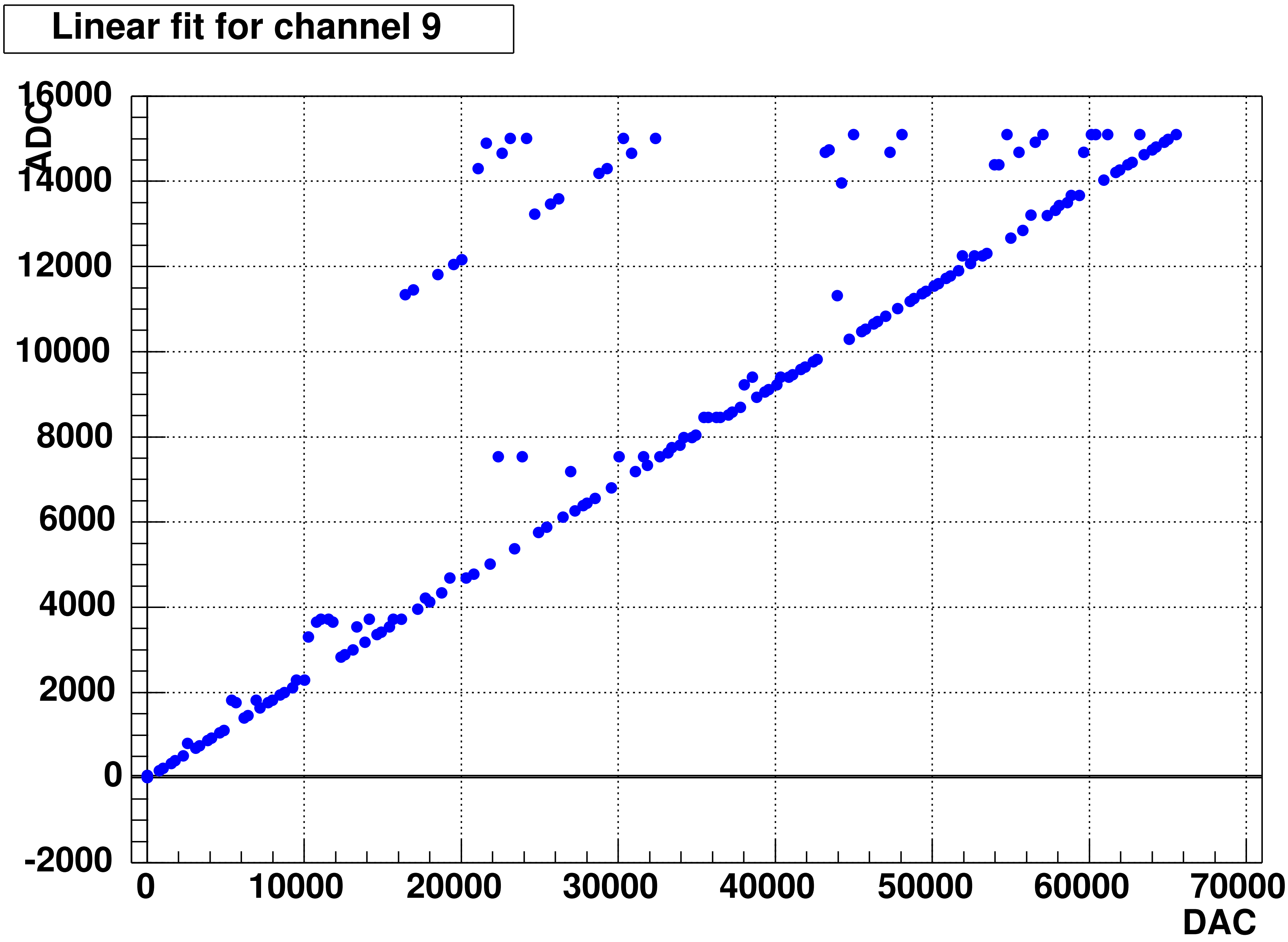
Residuals for channel 7
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



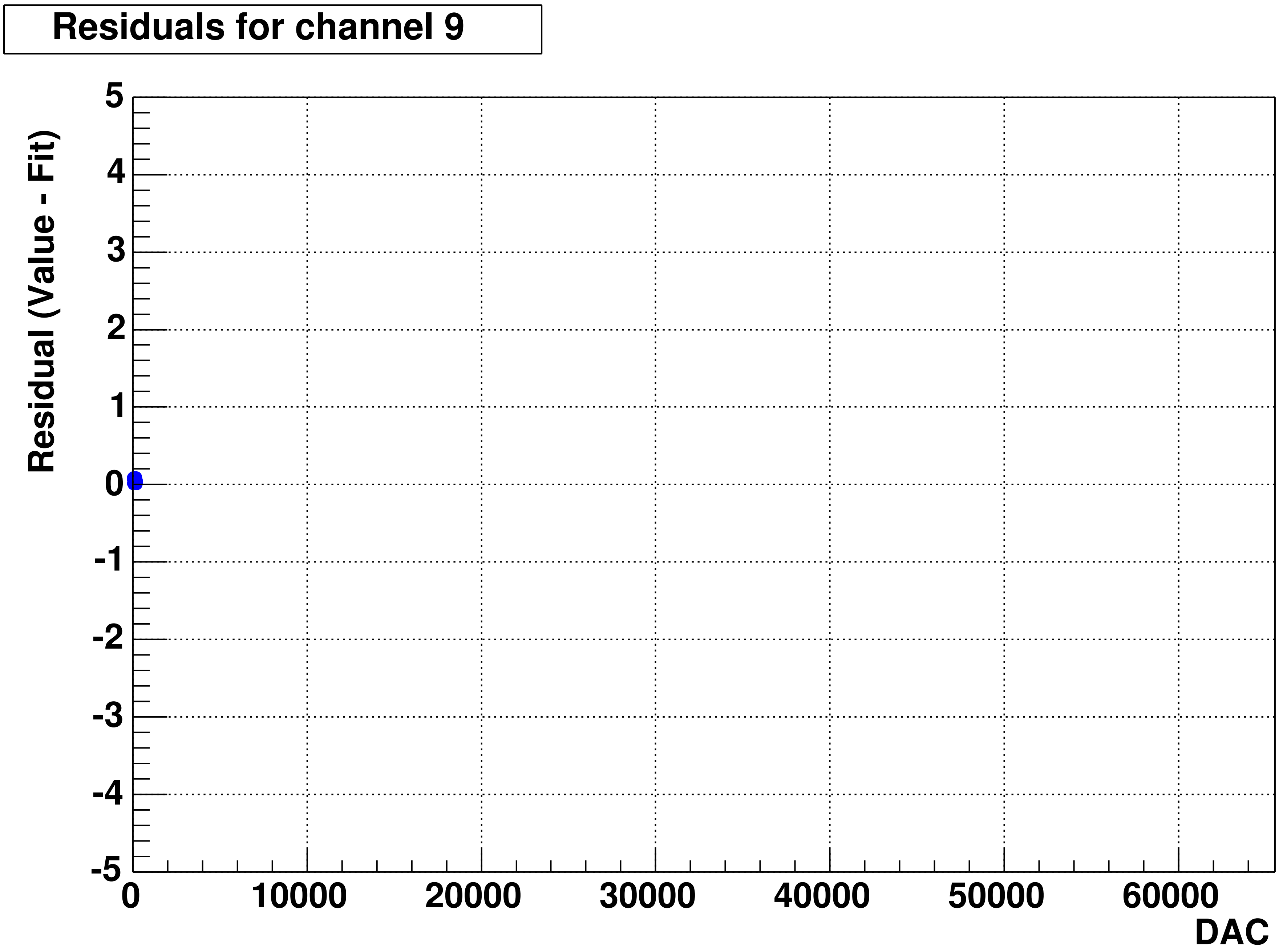
Linear fit for channel 8
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

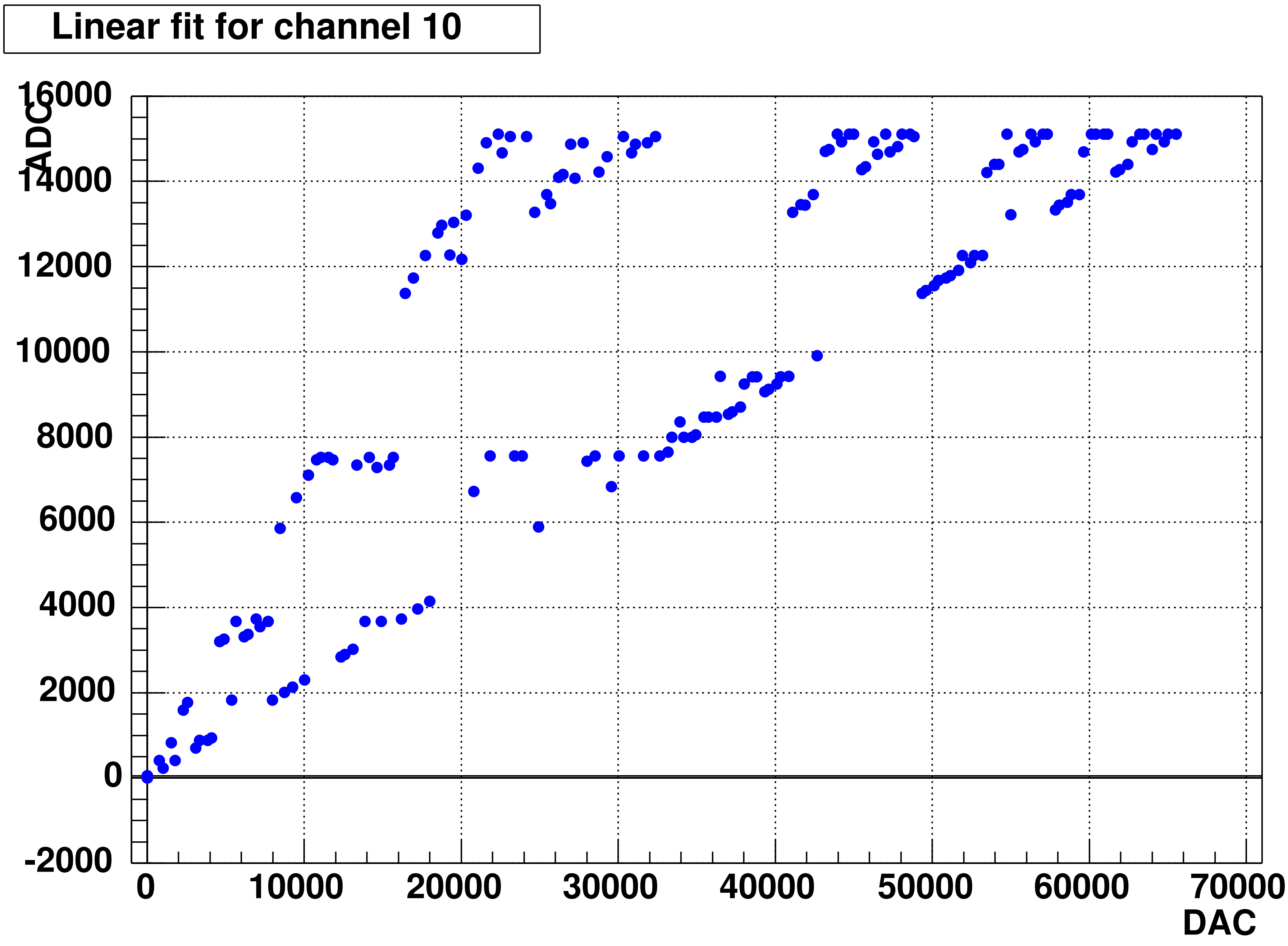


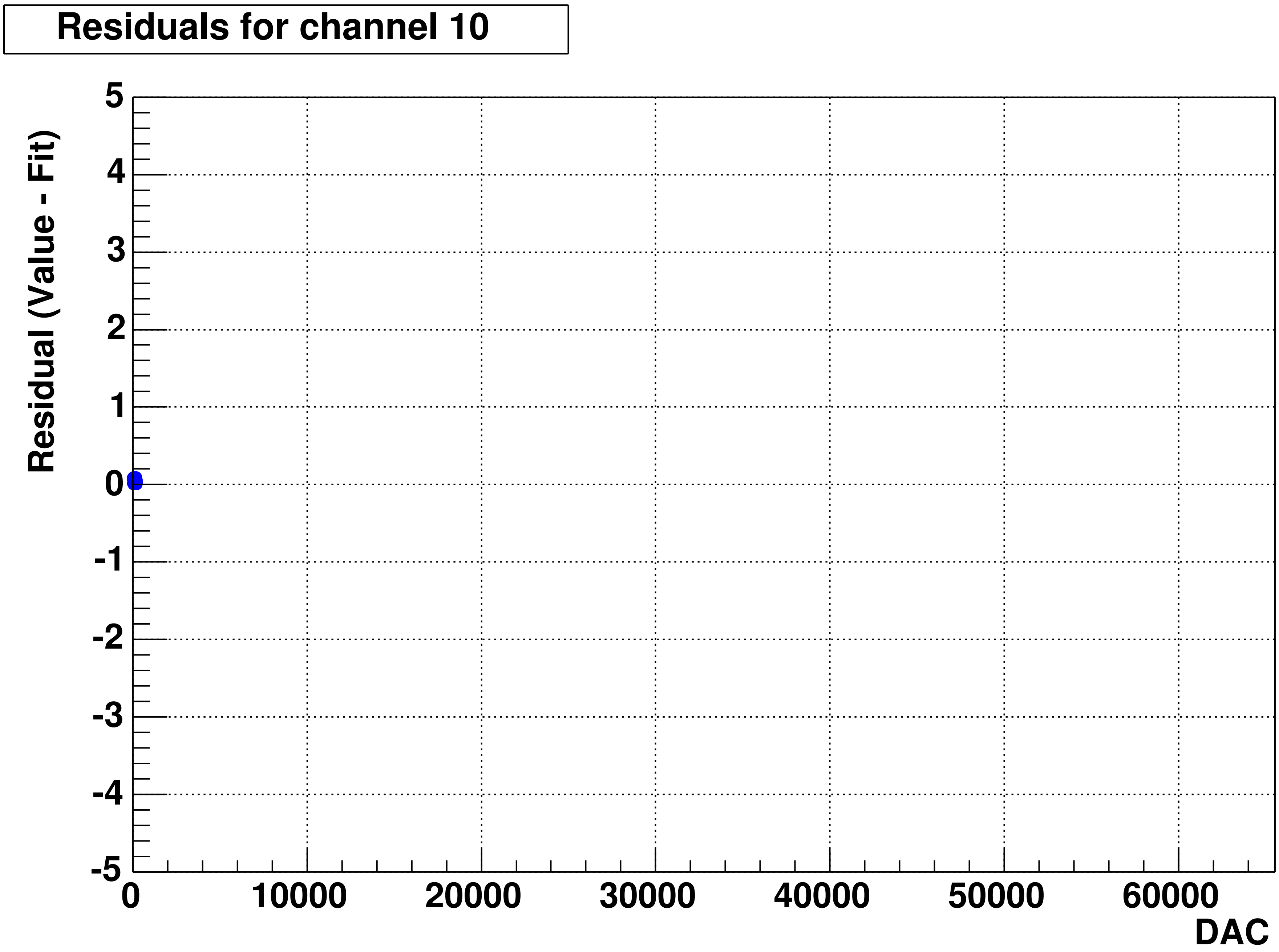
Residuals for channel 8
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

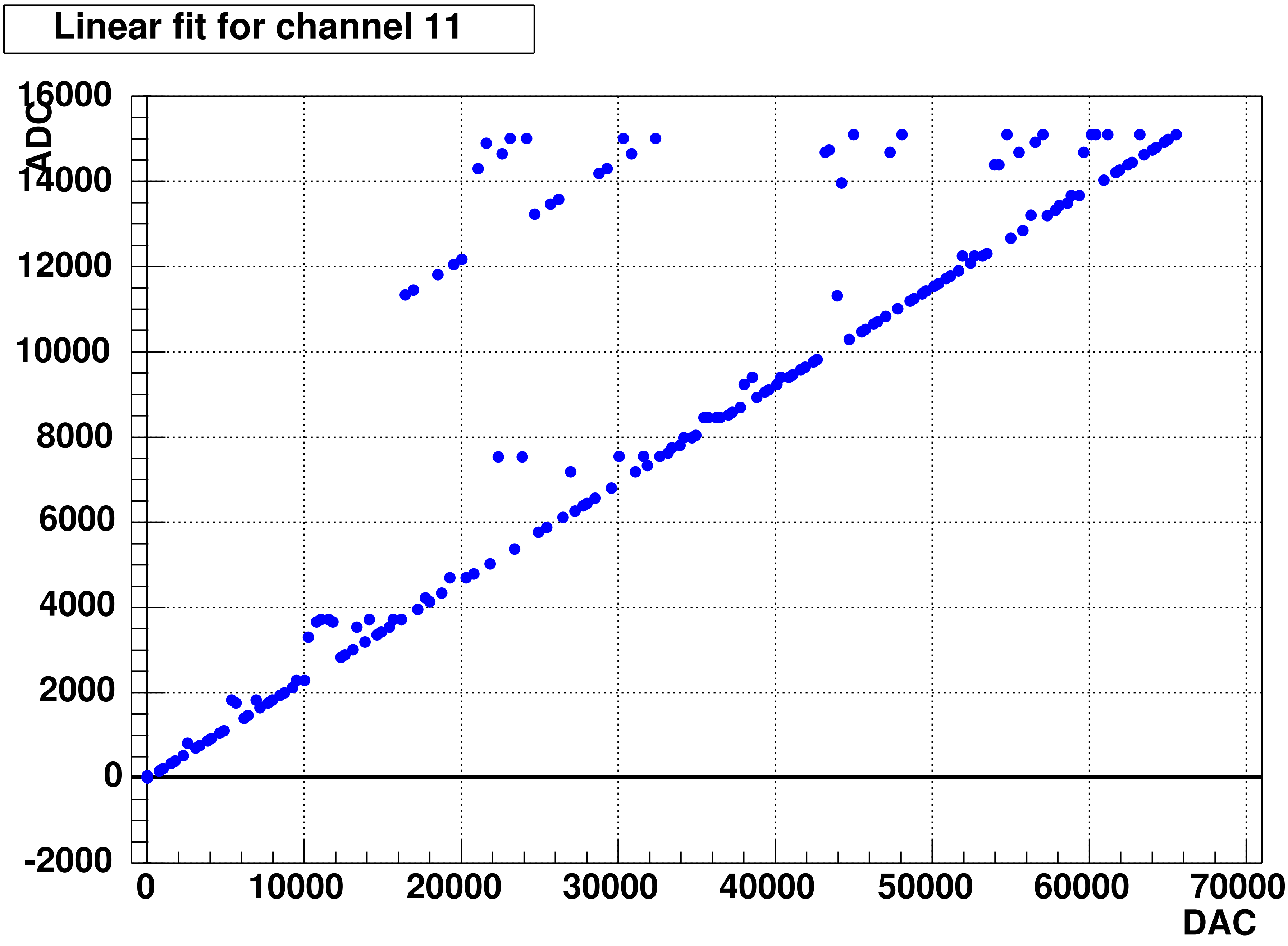


Linear fit for channel 9
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

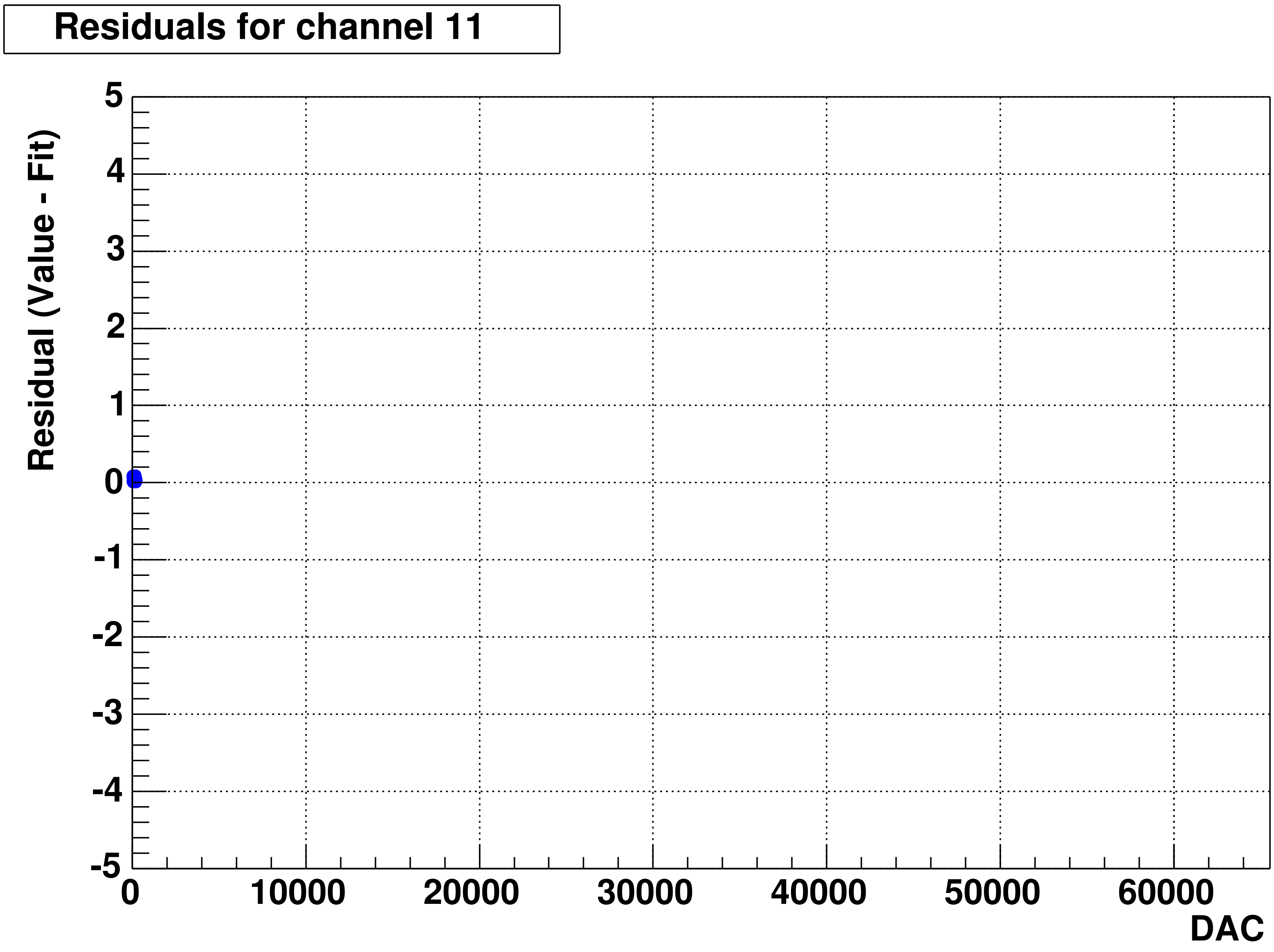

Residuals for channel 9
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC


Linear fit for channel 10
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

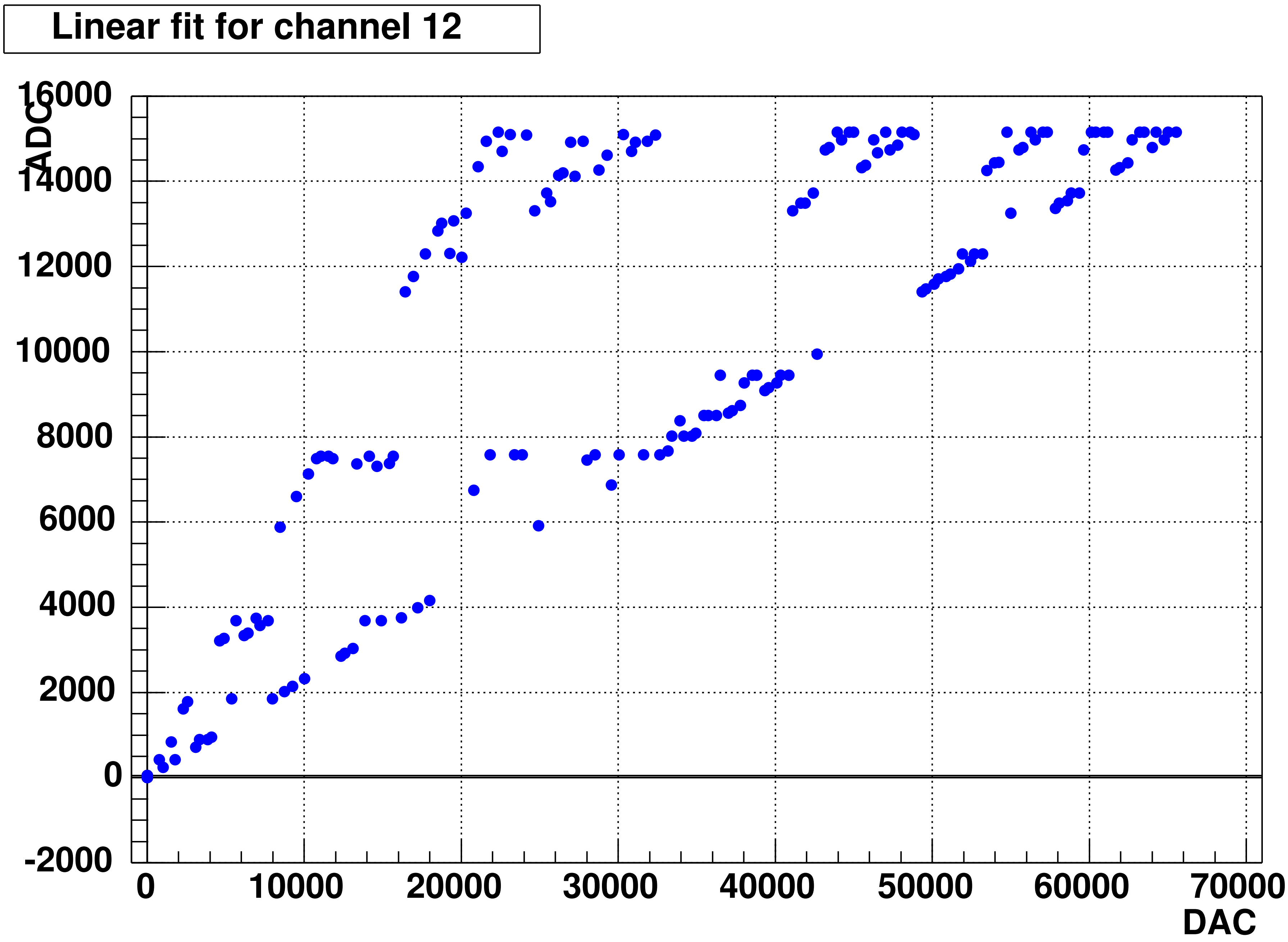

Residuals for channel 10
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



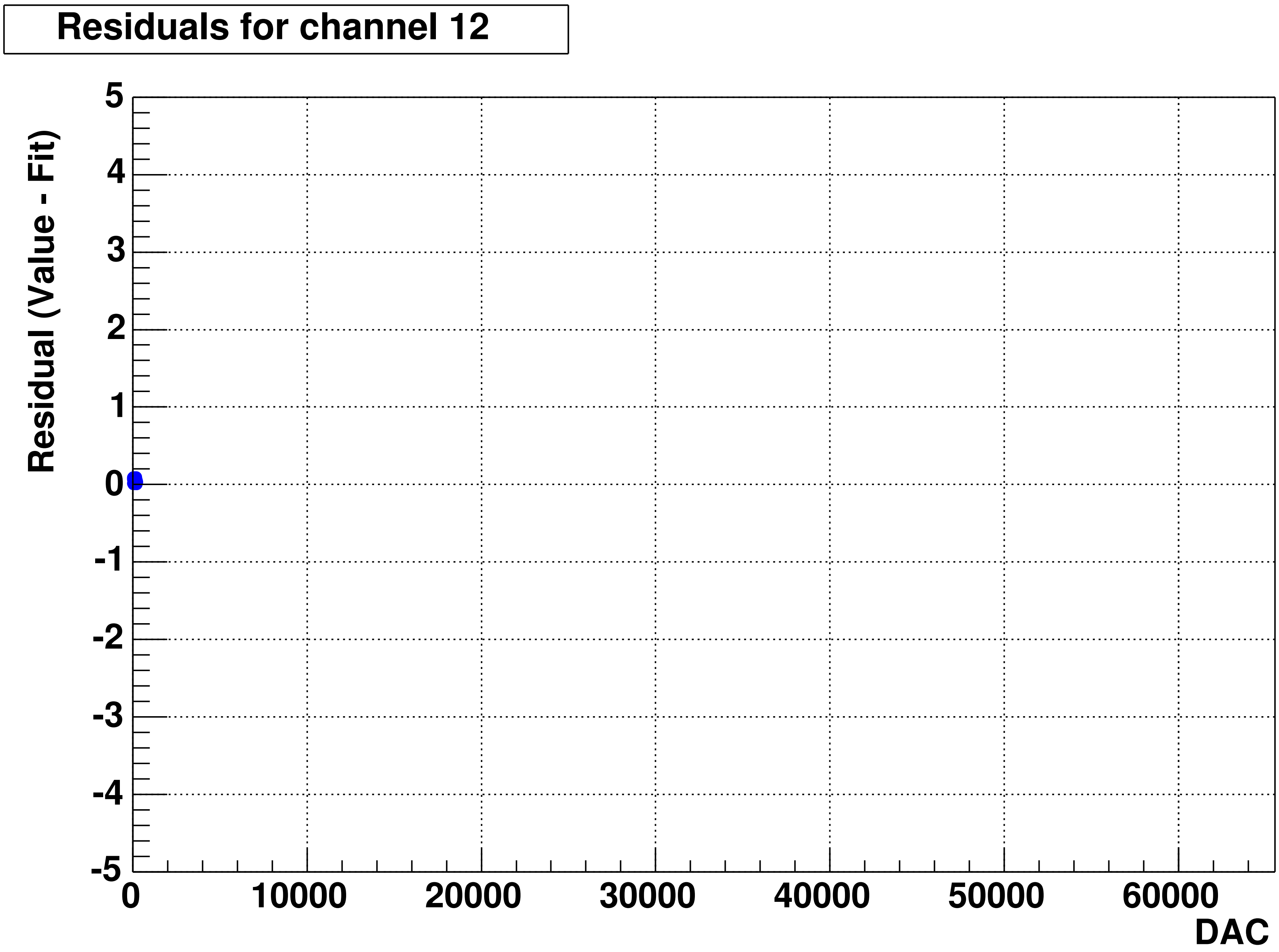
Linear fit for channel 11
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

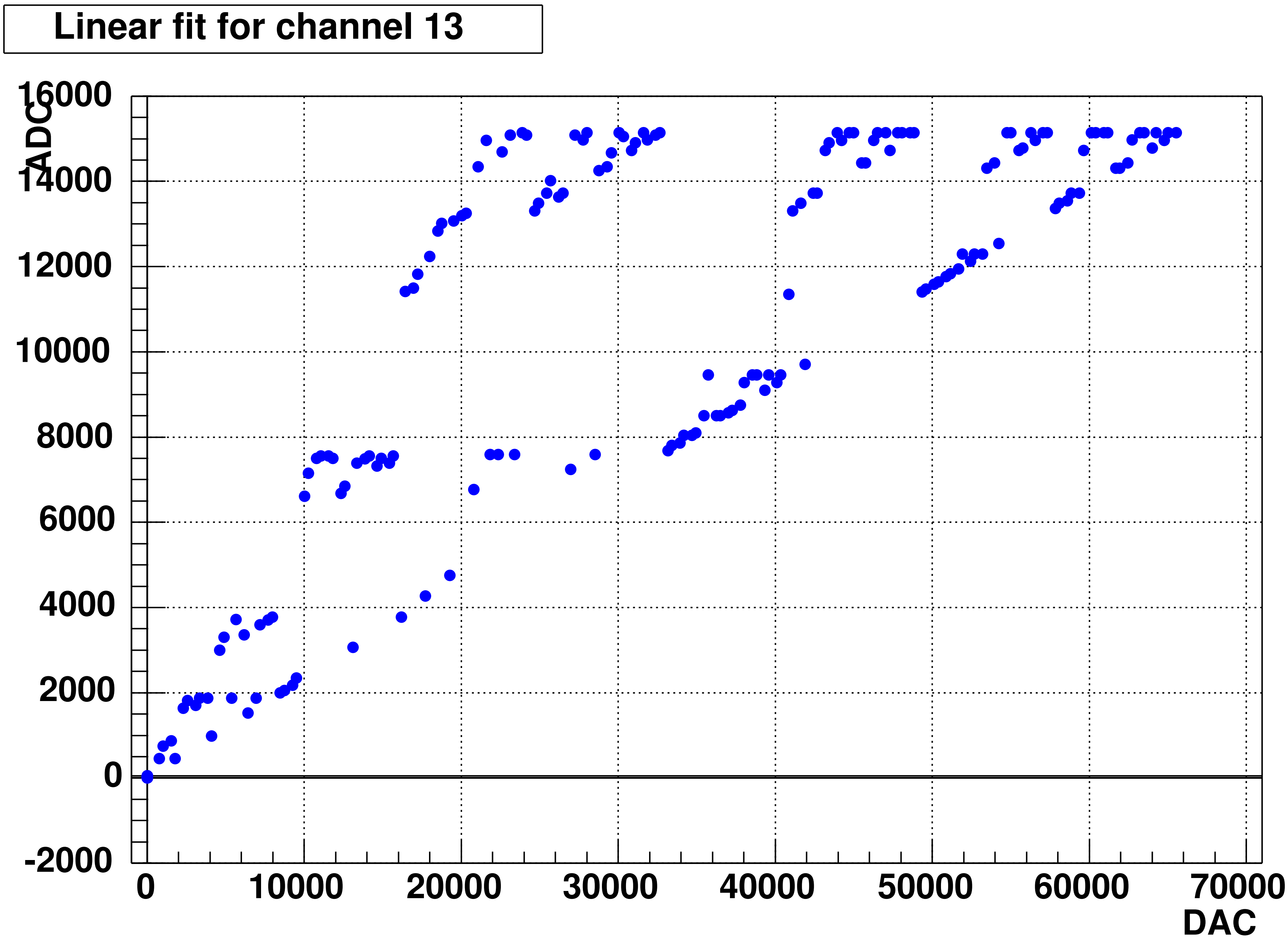


Residuals for channel 11
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

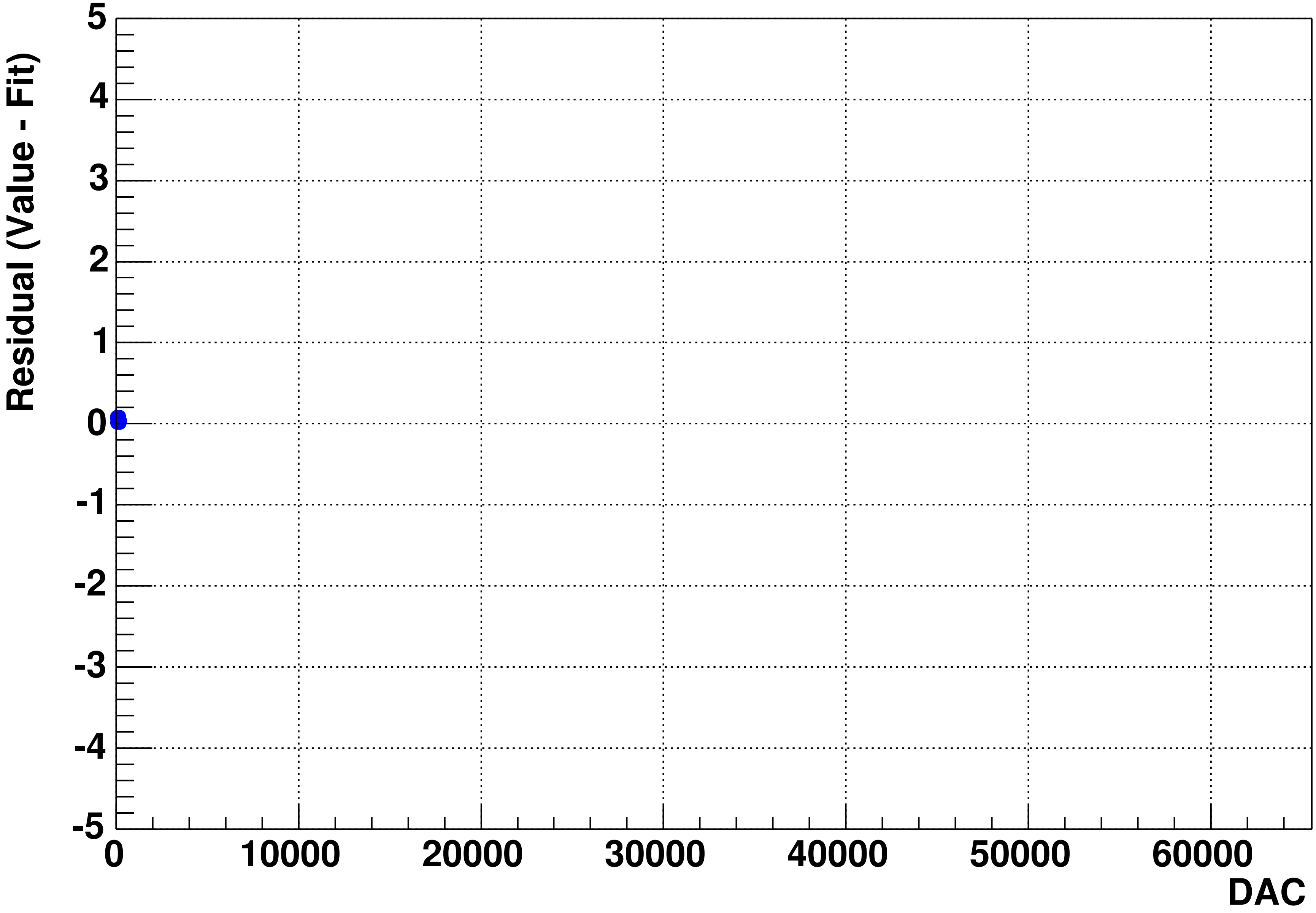


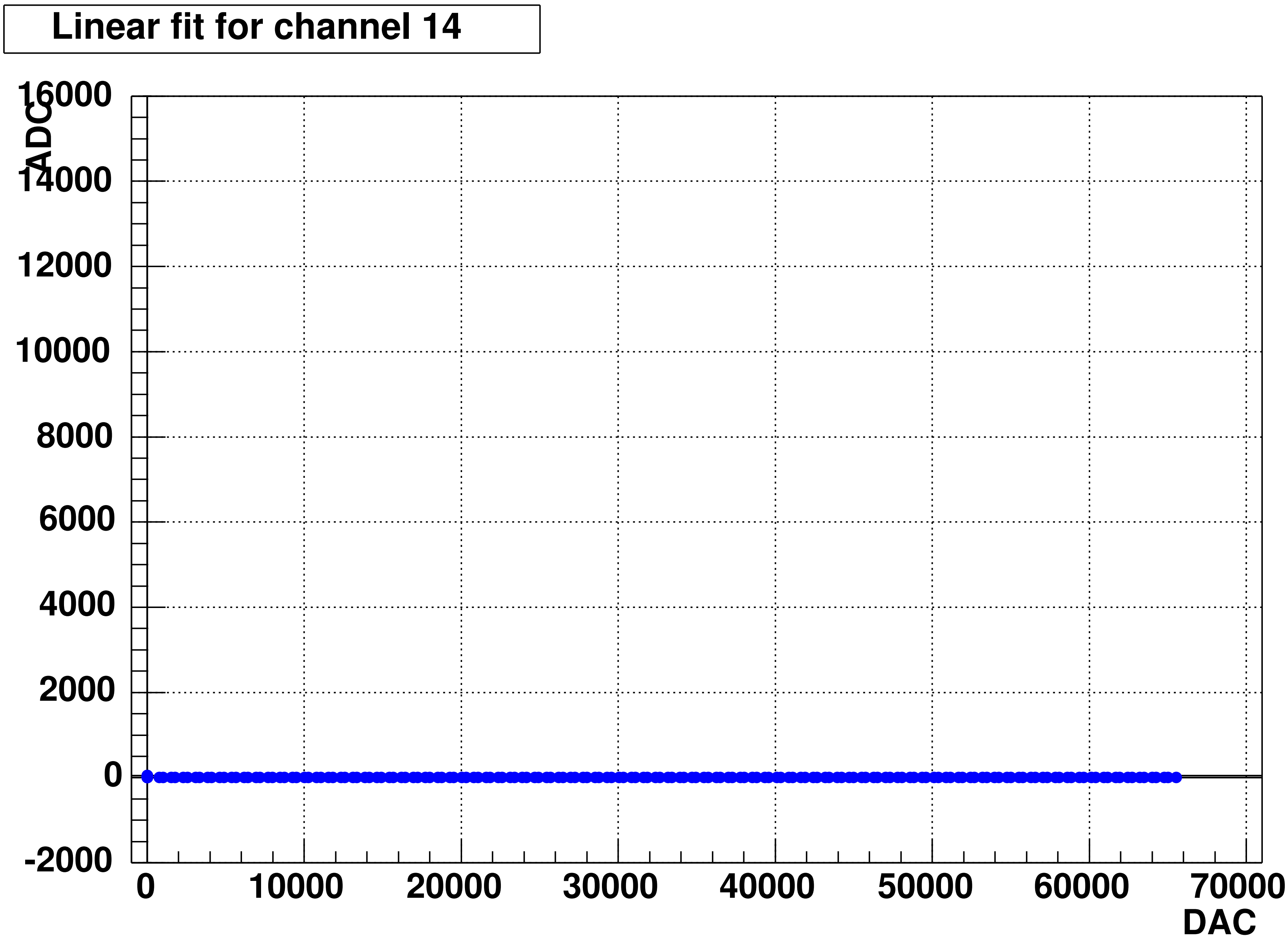
Linear fit for channel 12
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

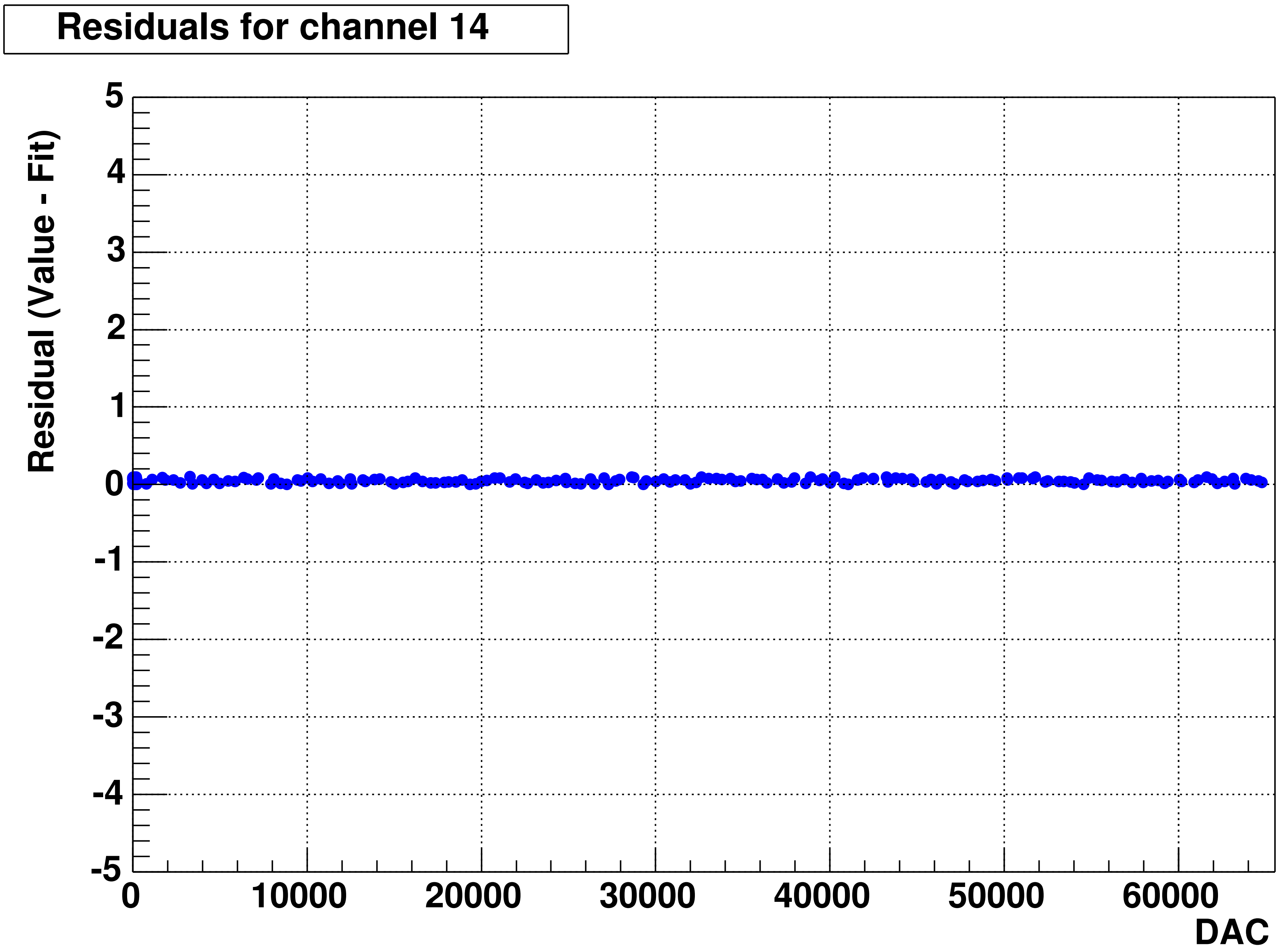

Residuals for channel 12
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC


Linear fit for channel 13
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

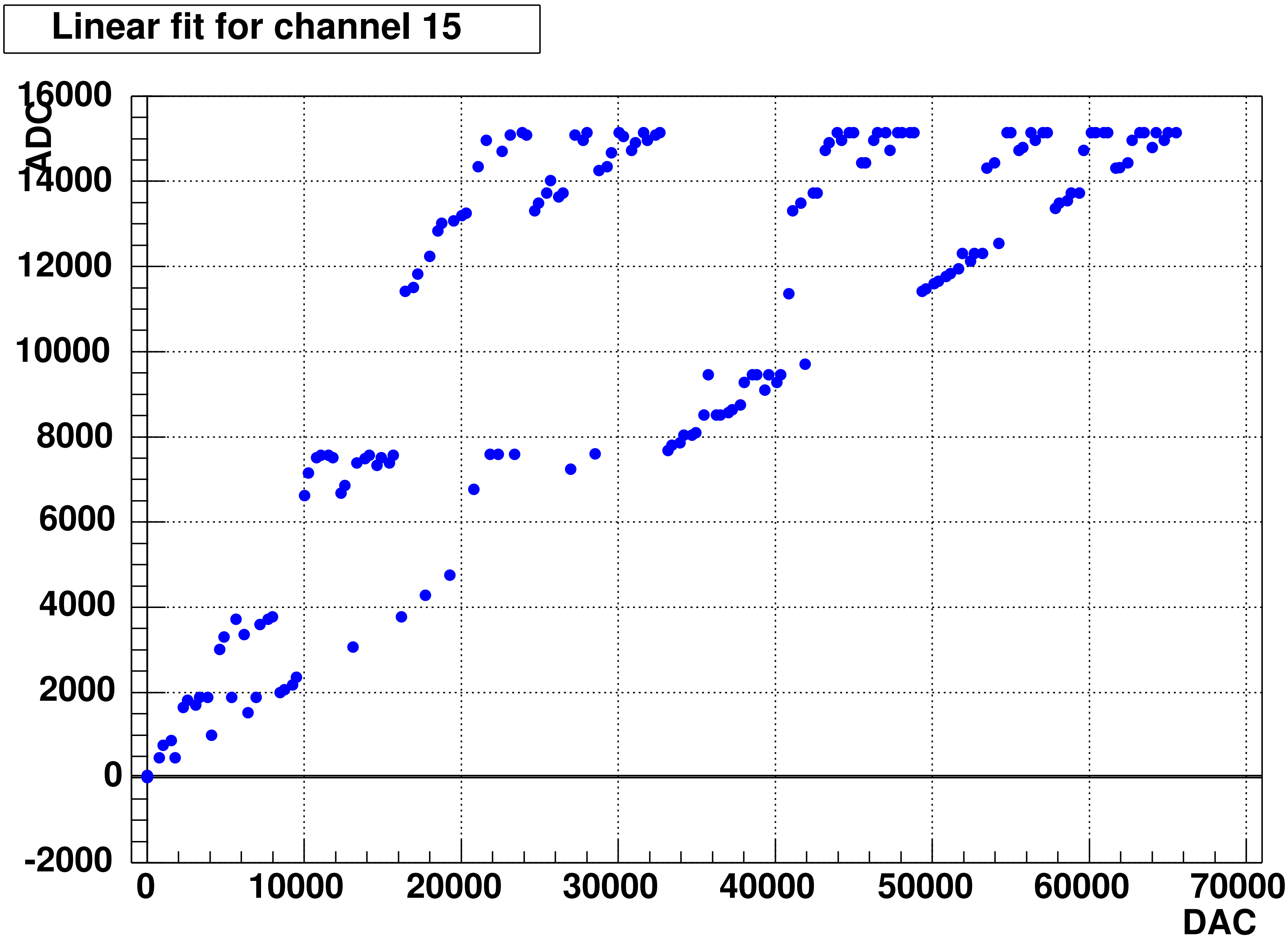
Residuals for channel 13

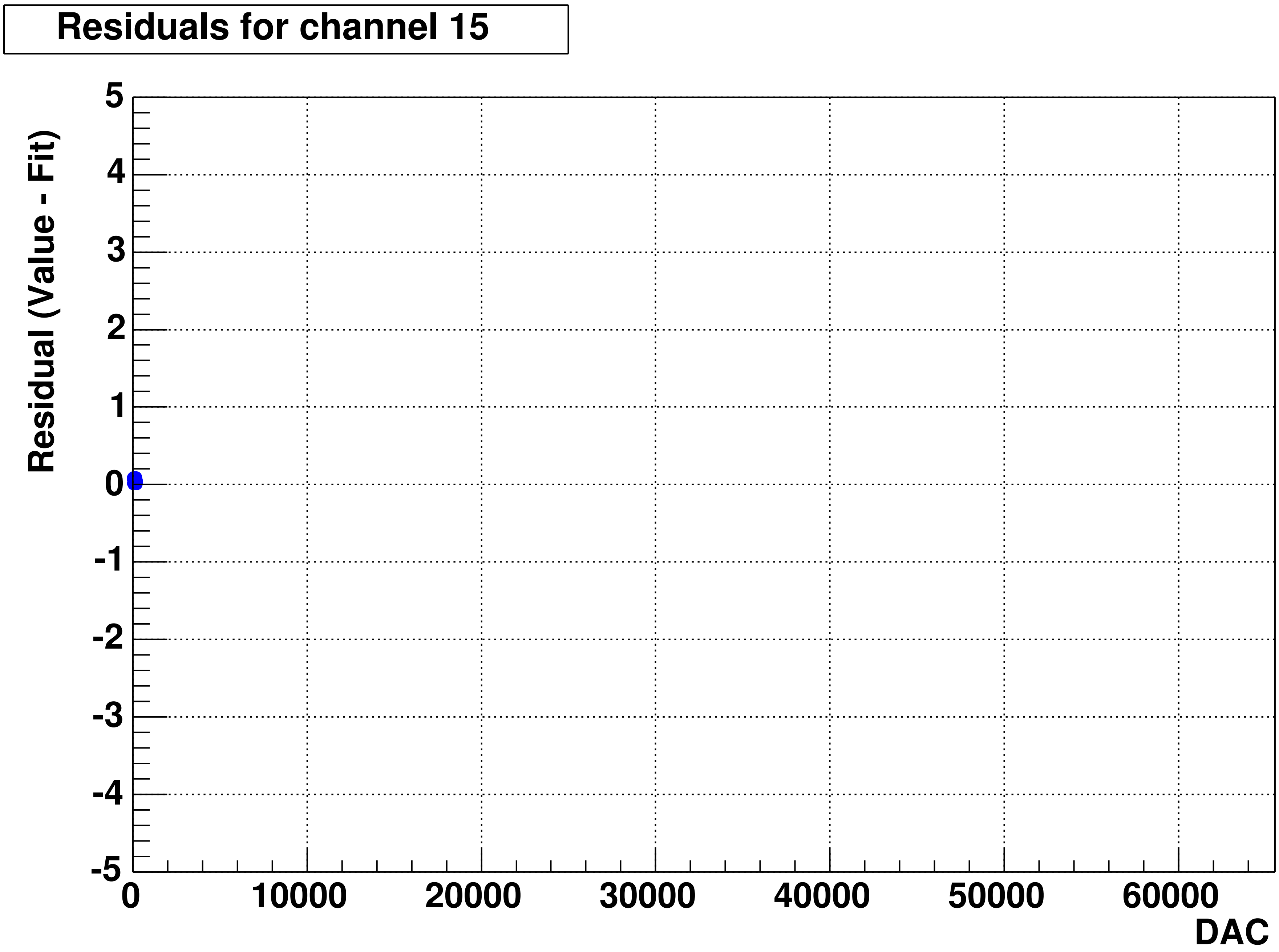


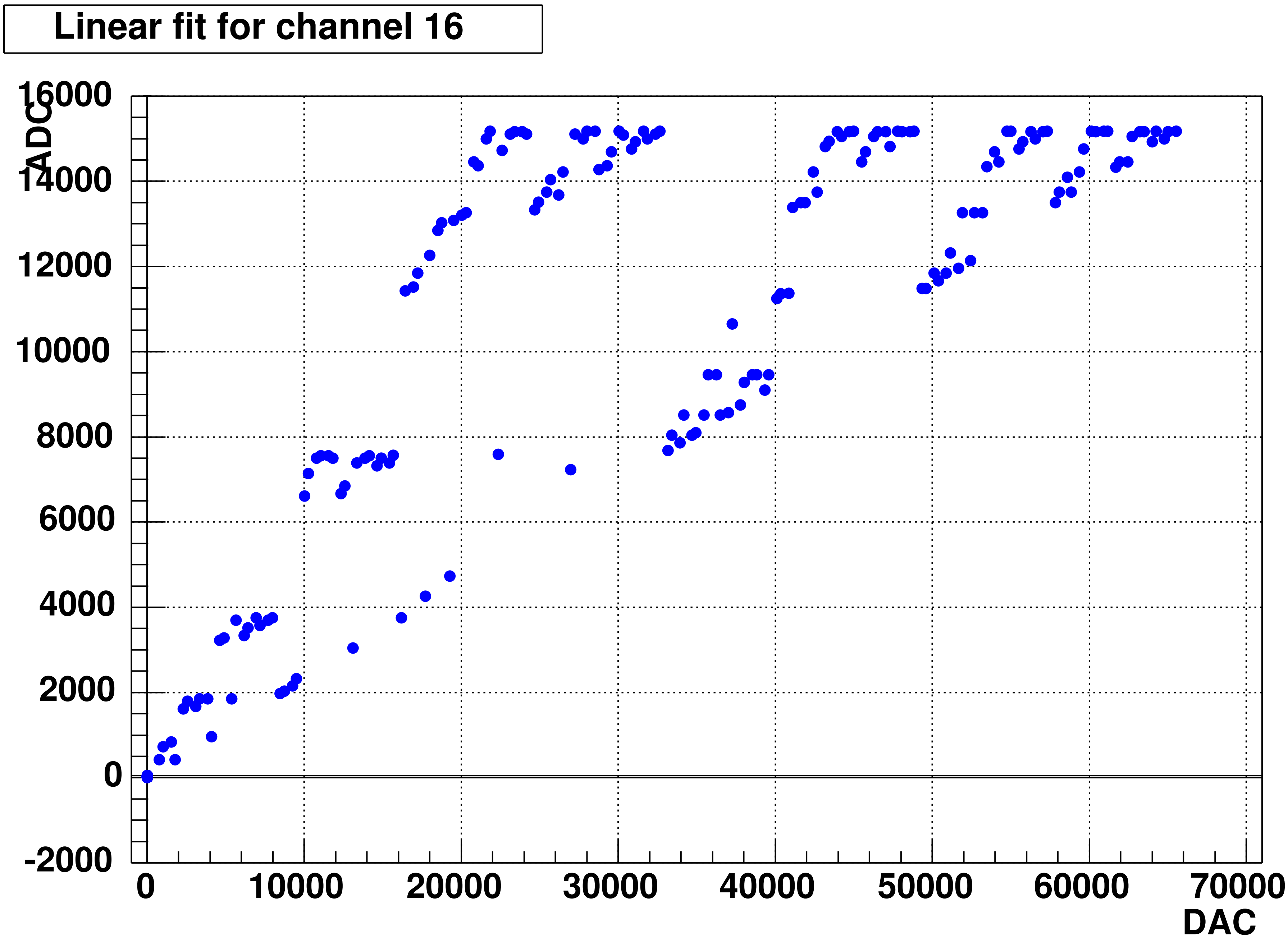

Linear fit for channel 14
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC



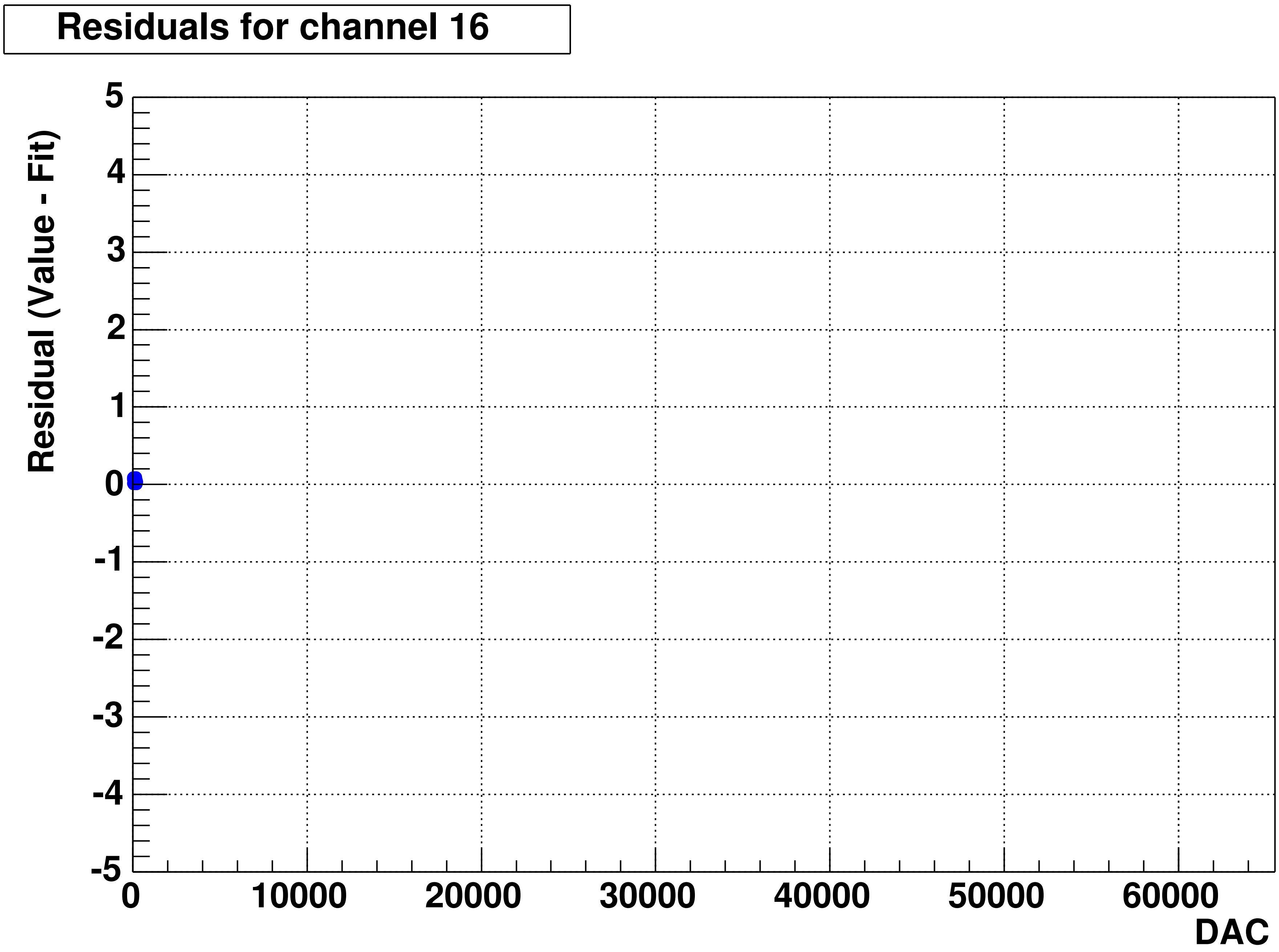
Residuals for channel 14
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

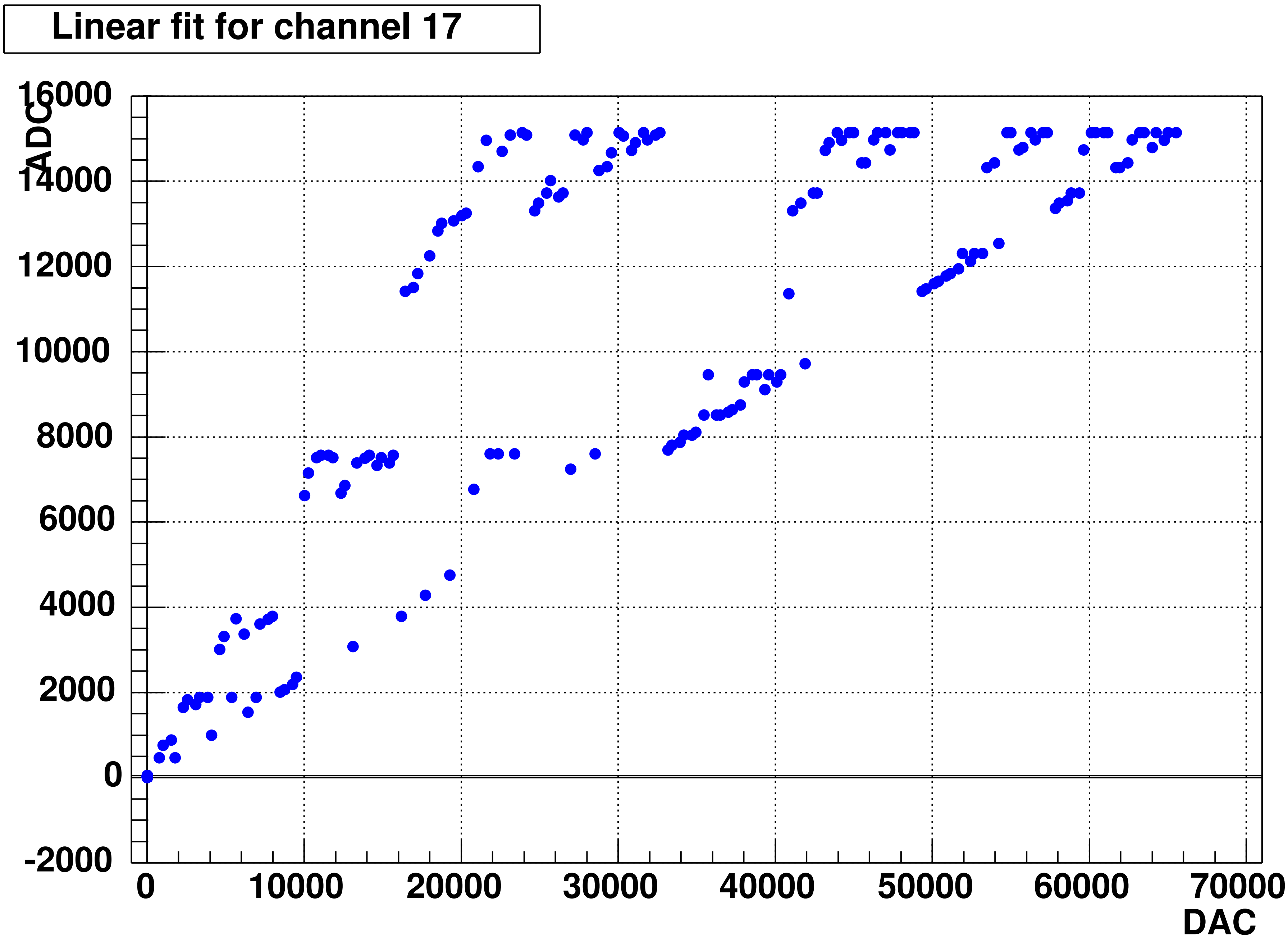

Linear fit for channel 15
ADC
DAC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000


Residuals for channel 15
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

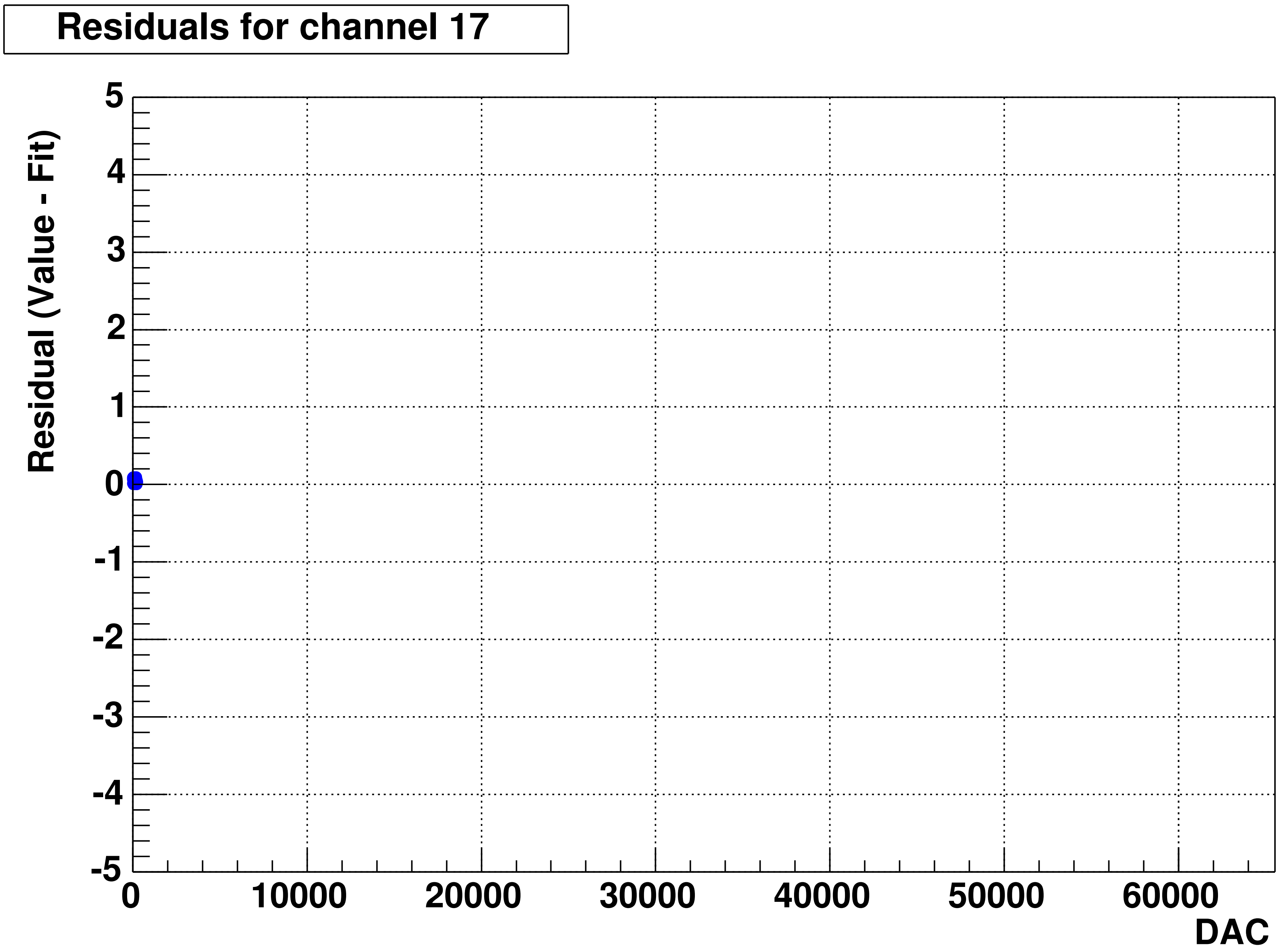


Linear fit for channel 16
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC


Residuals for channel 16
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

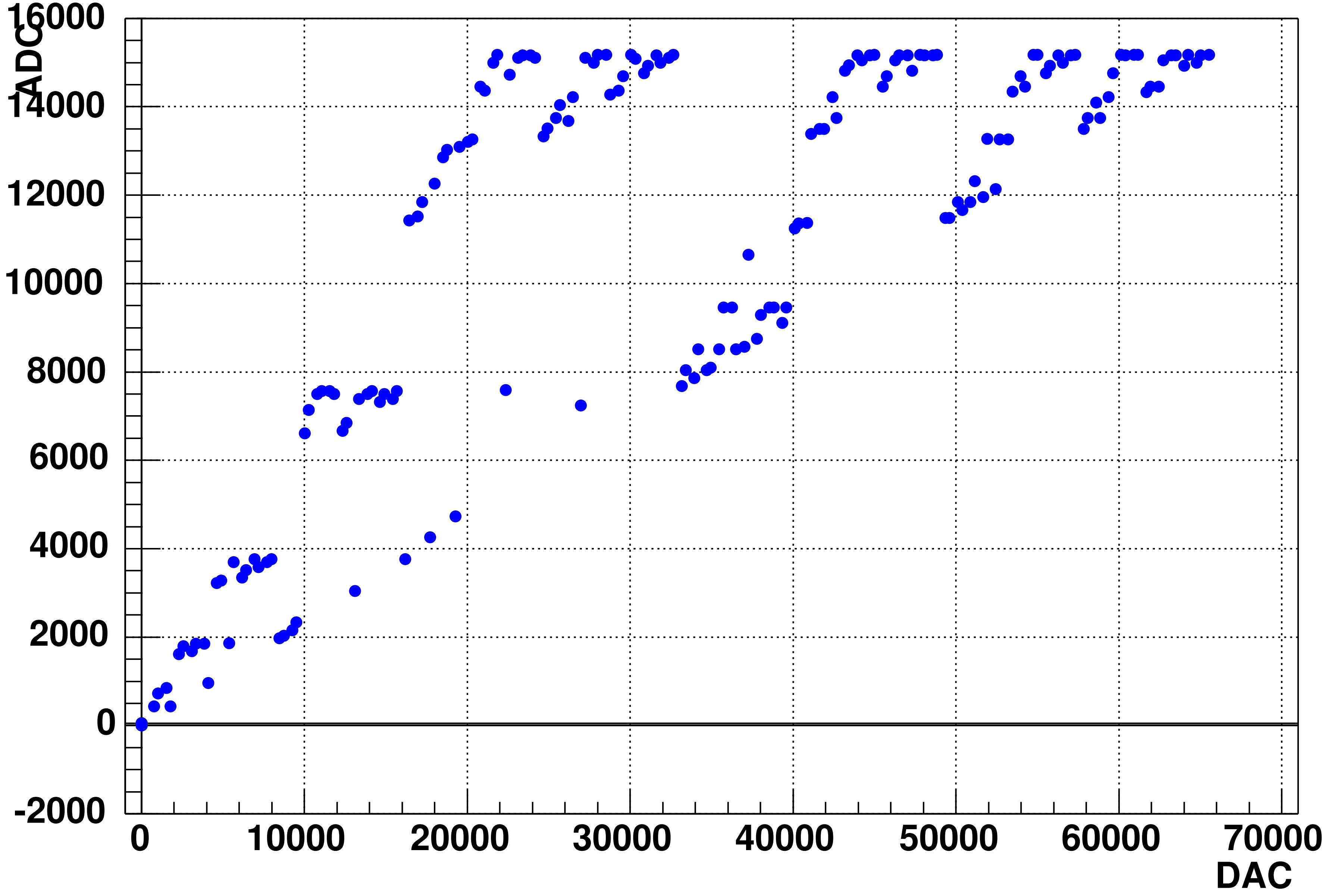


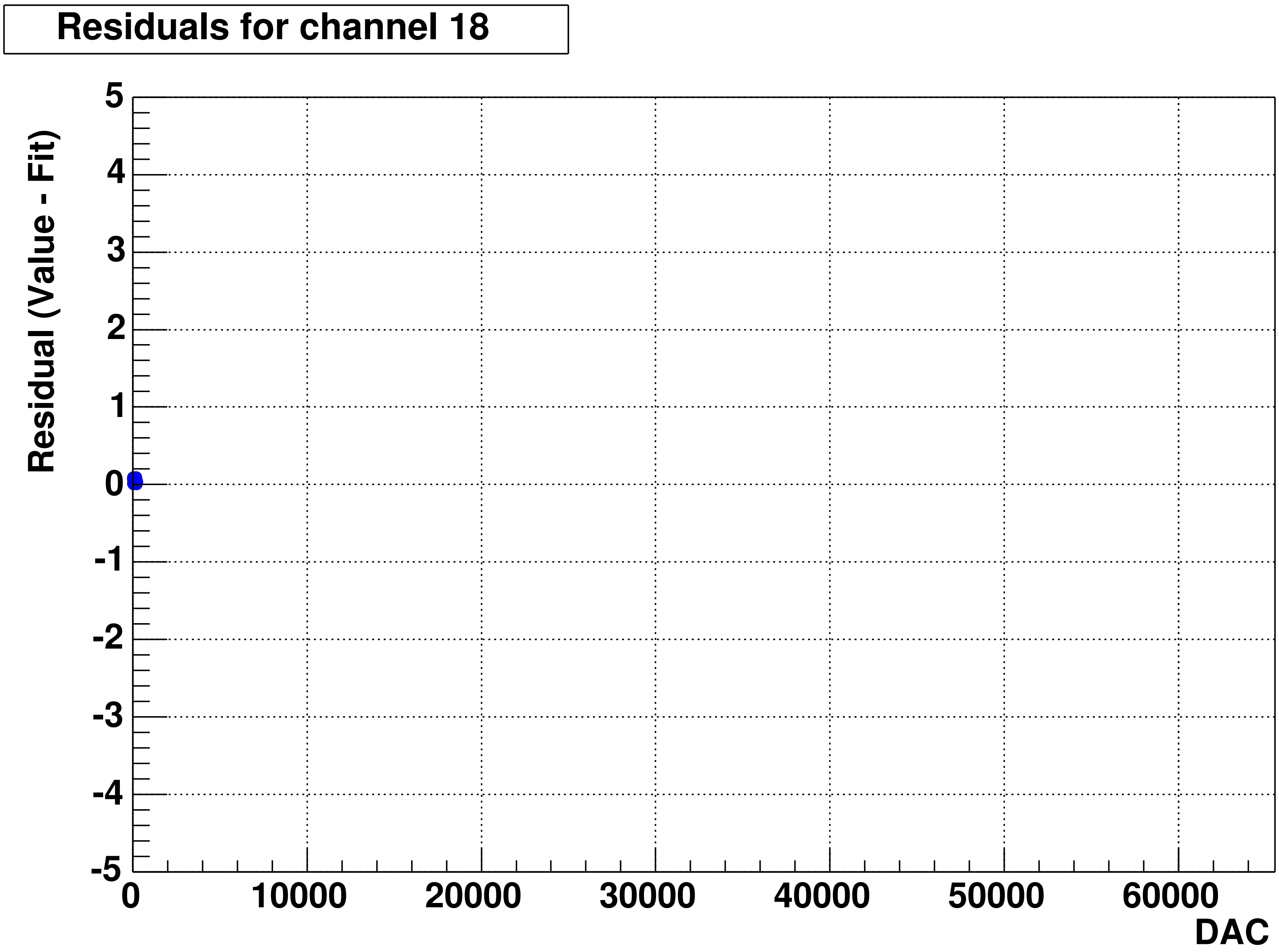
Linear fit for channel 17
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

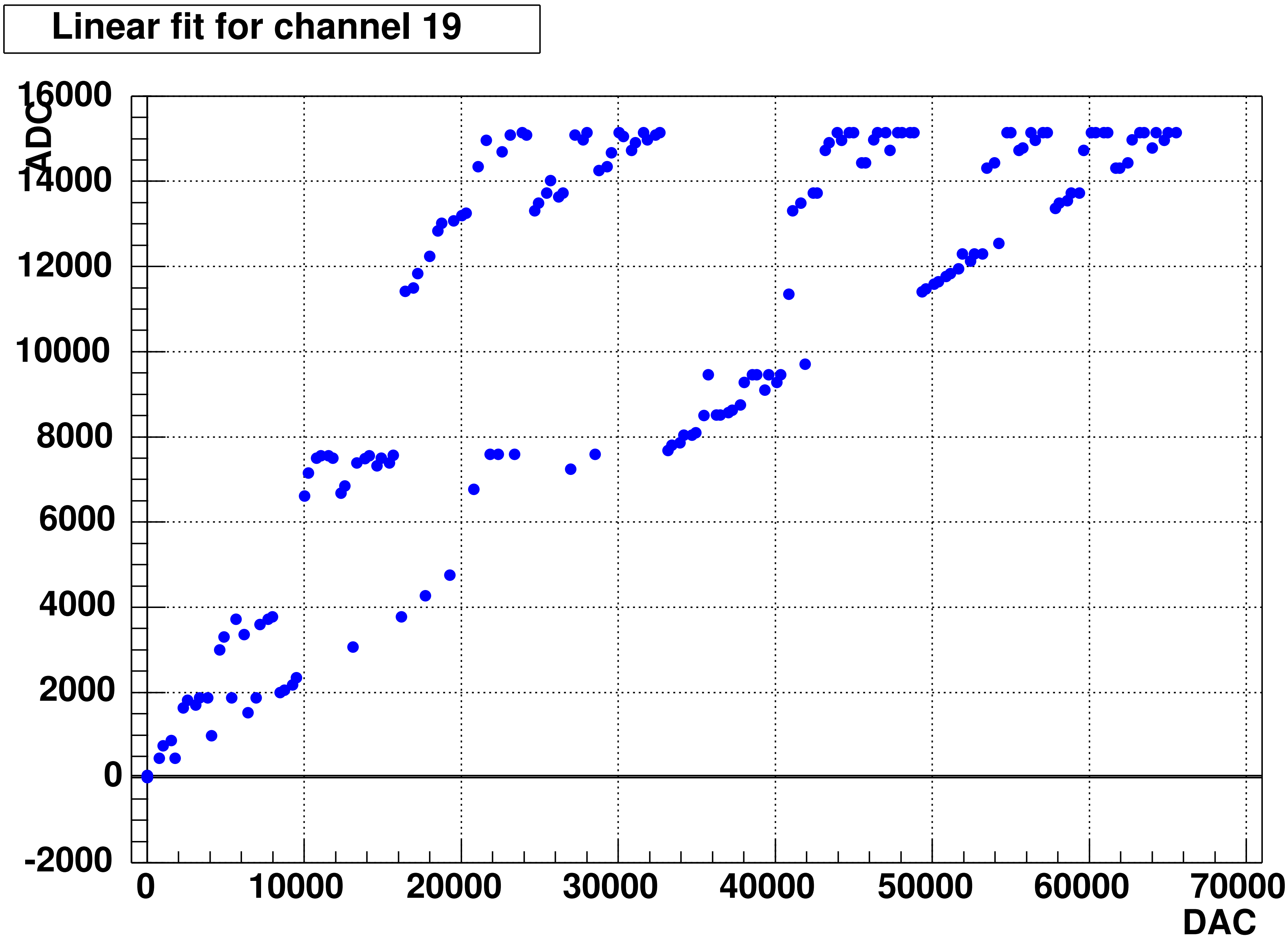


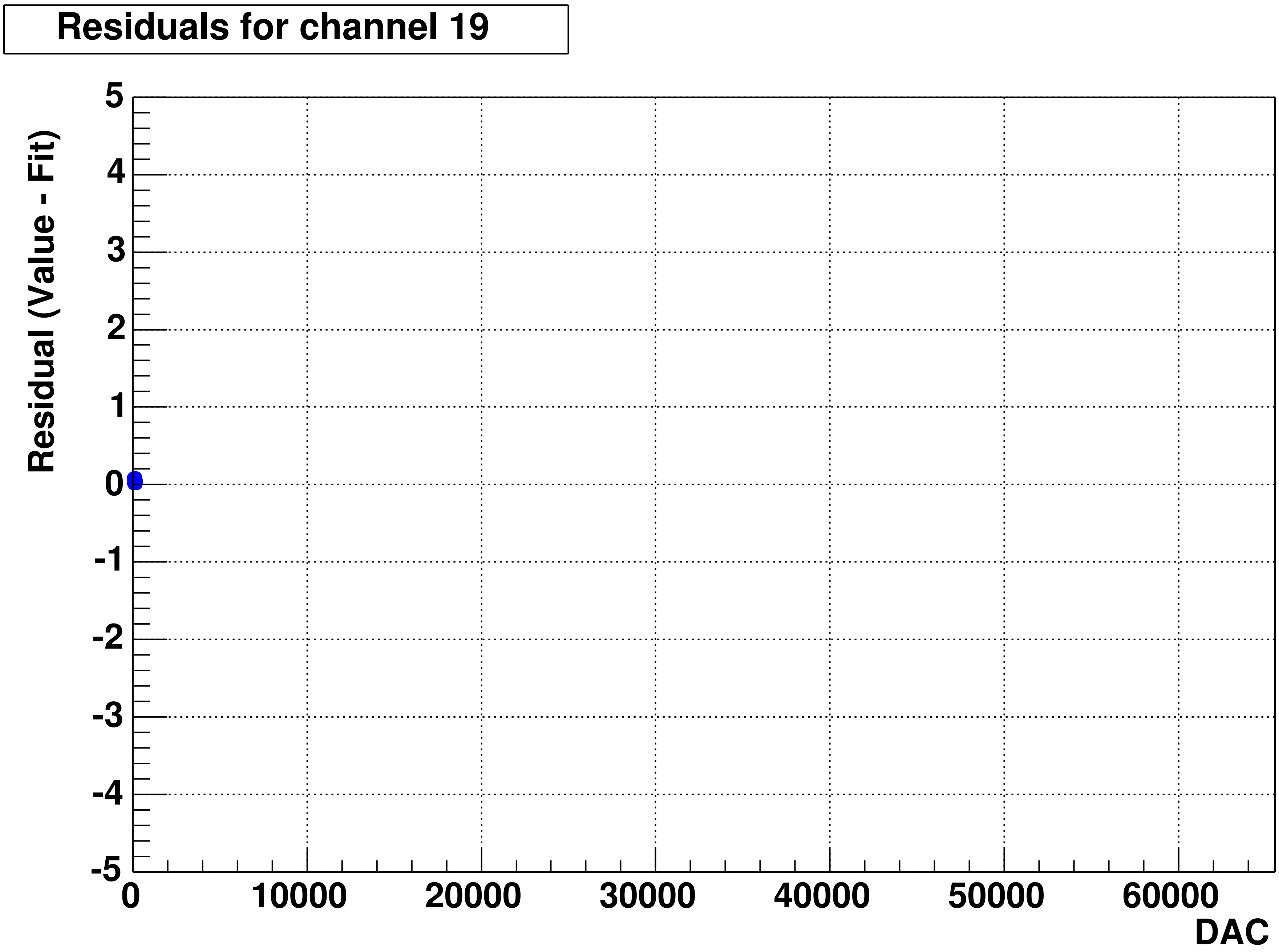
Residuals for channel 17
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

Linear fit for channel 18

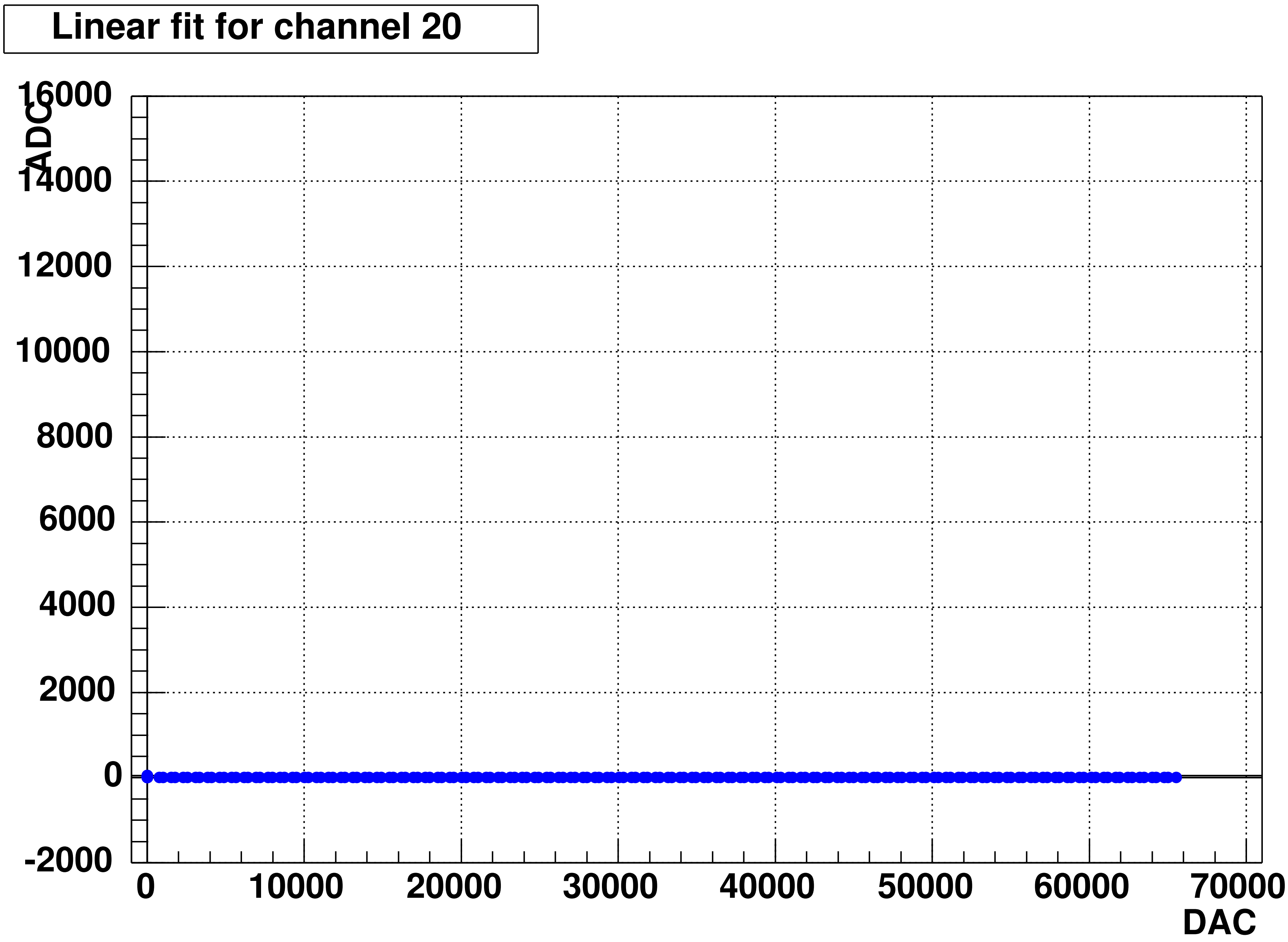


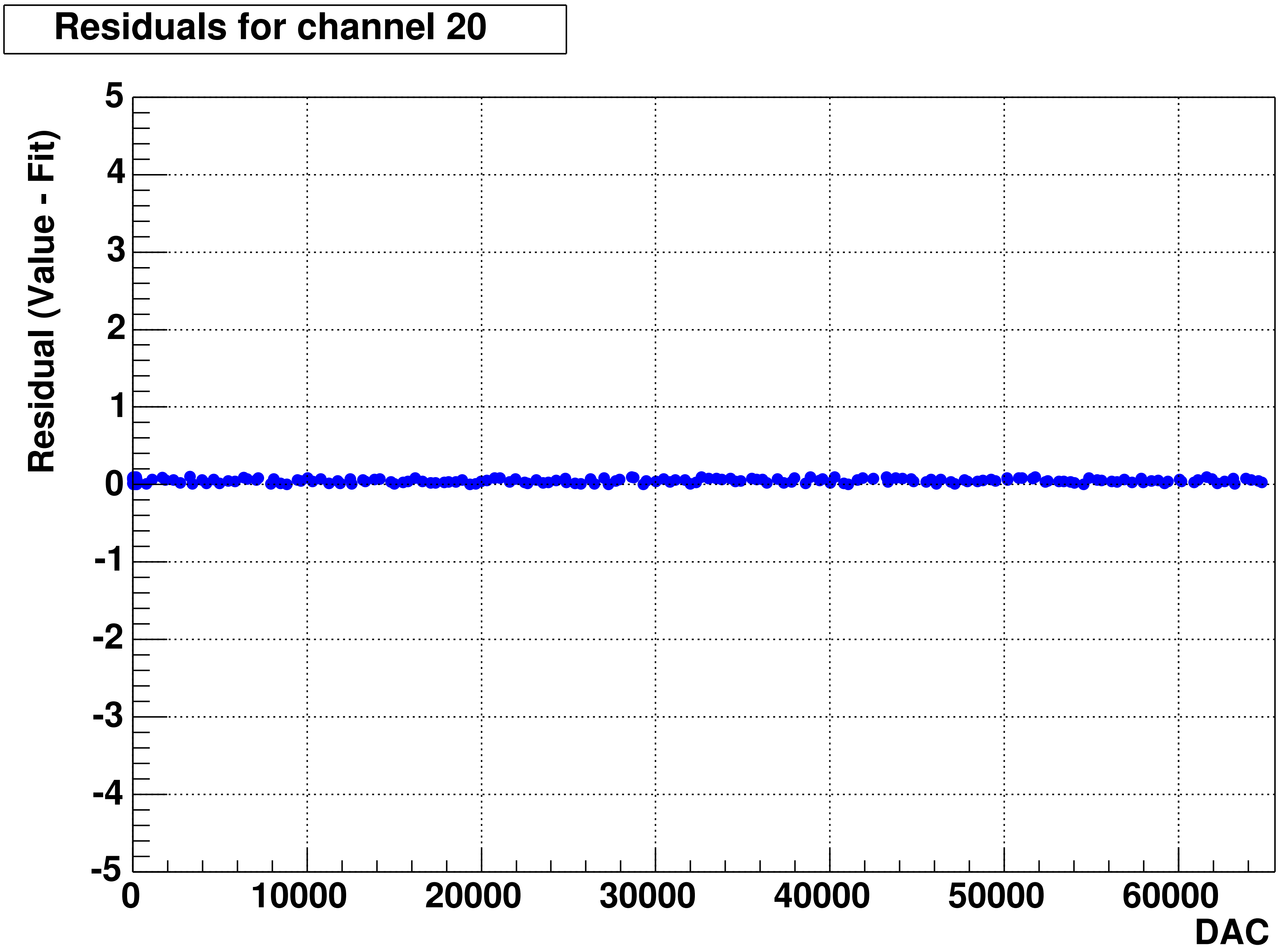

Residuals for channel 18
Residual (Value - Fit)
DAC
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000


Linear fit for channel 19
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

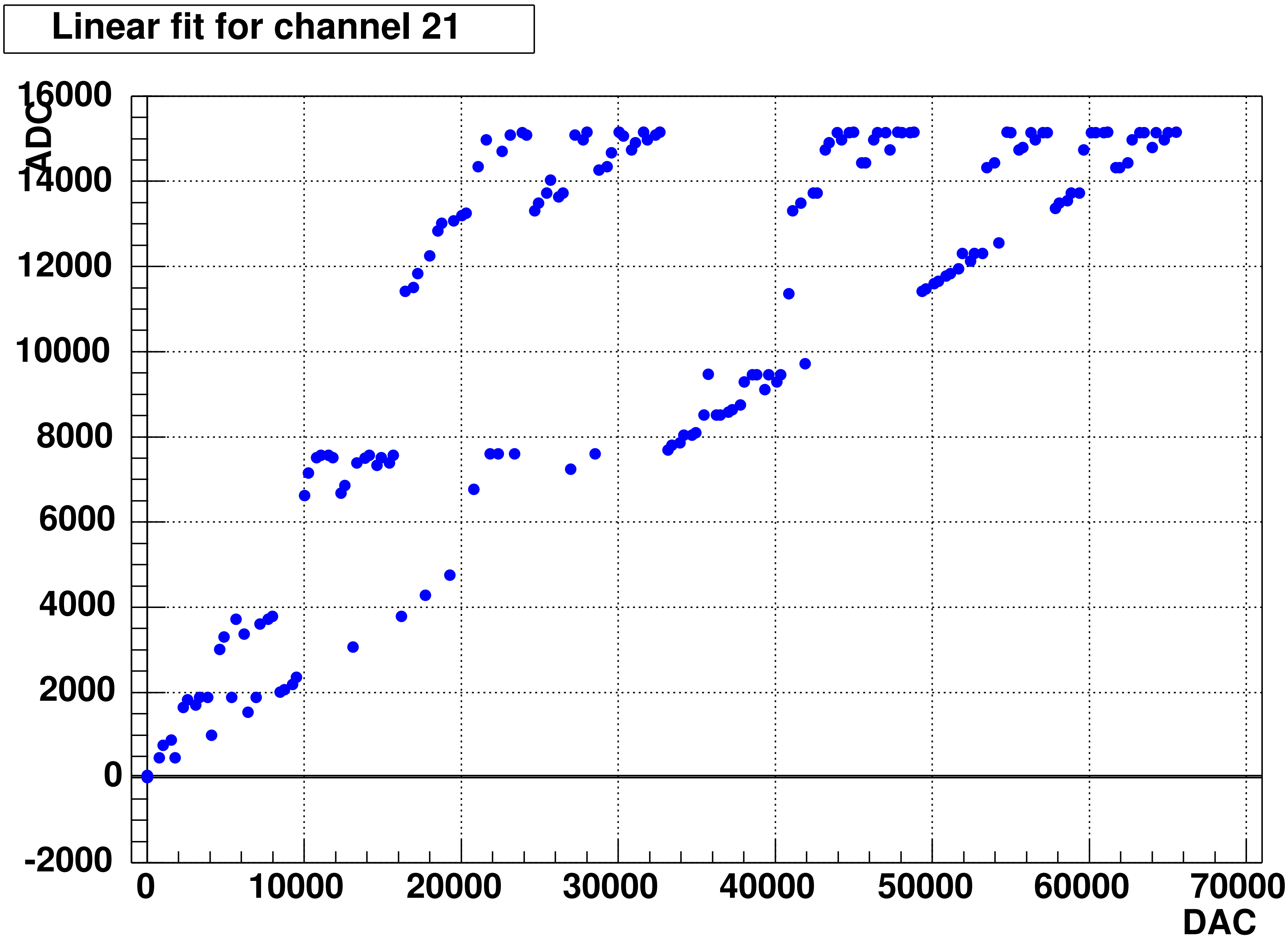


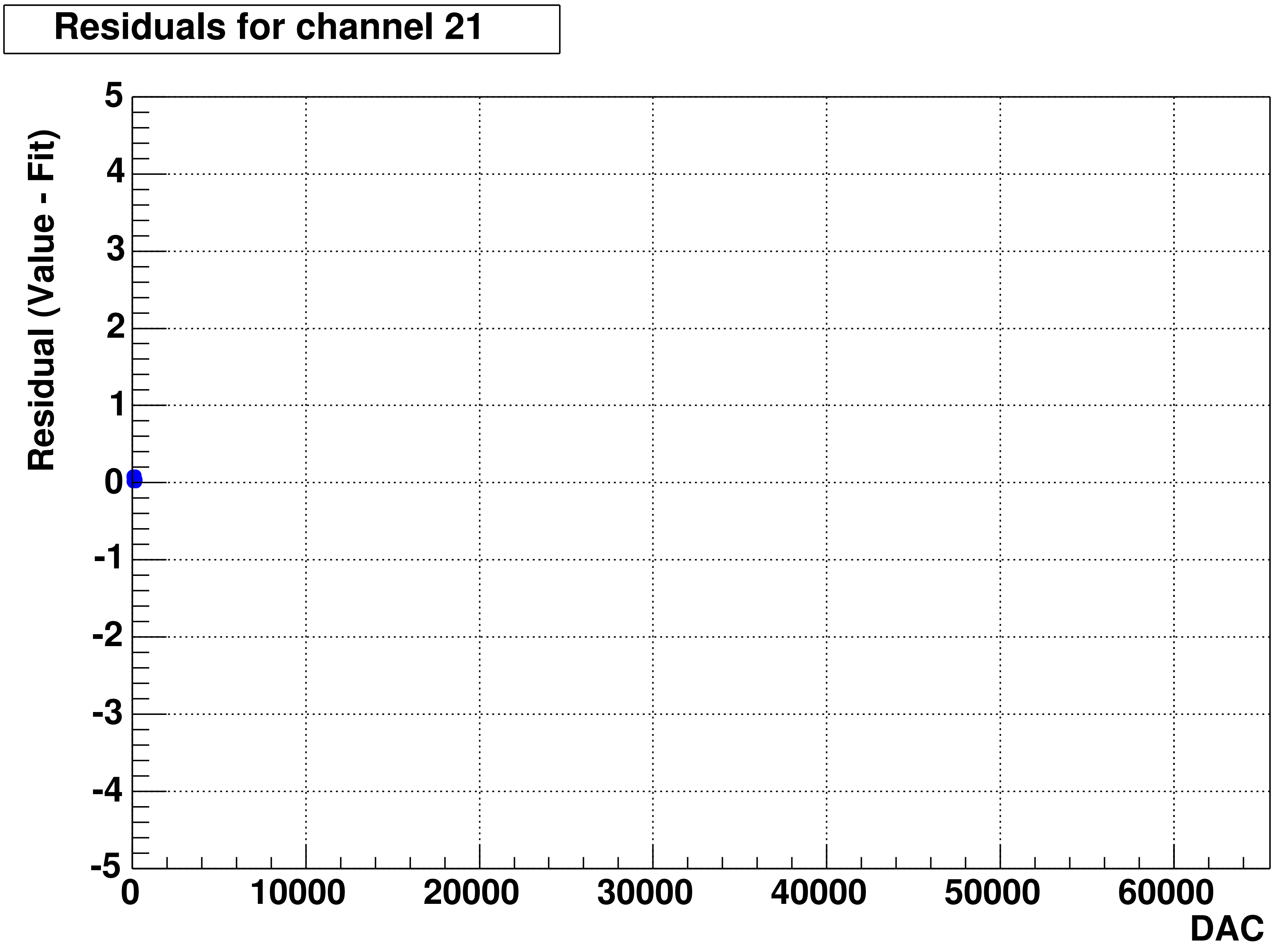
Residuals for channel 19
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

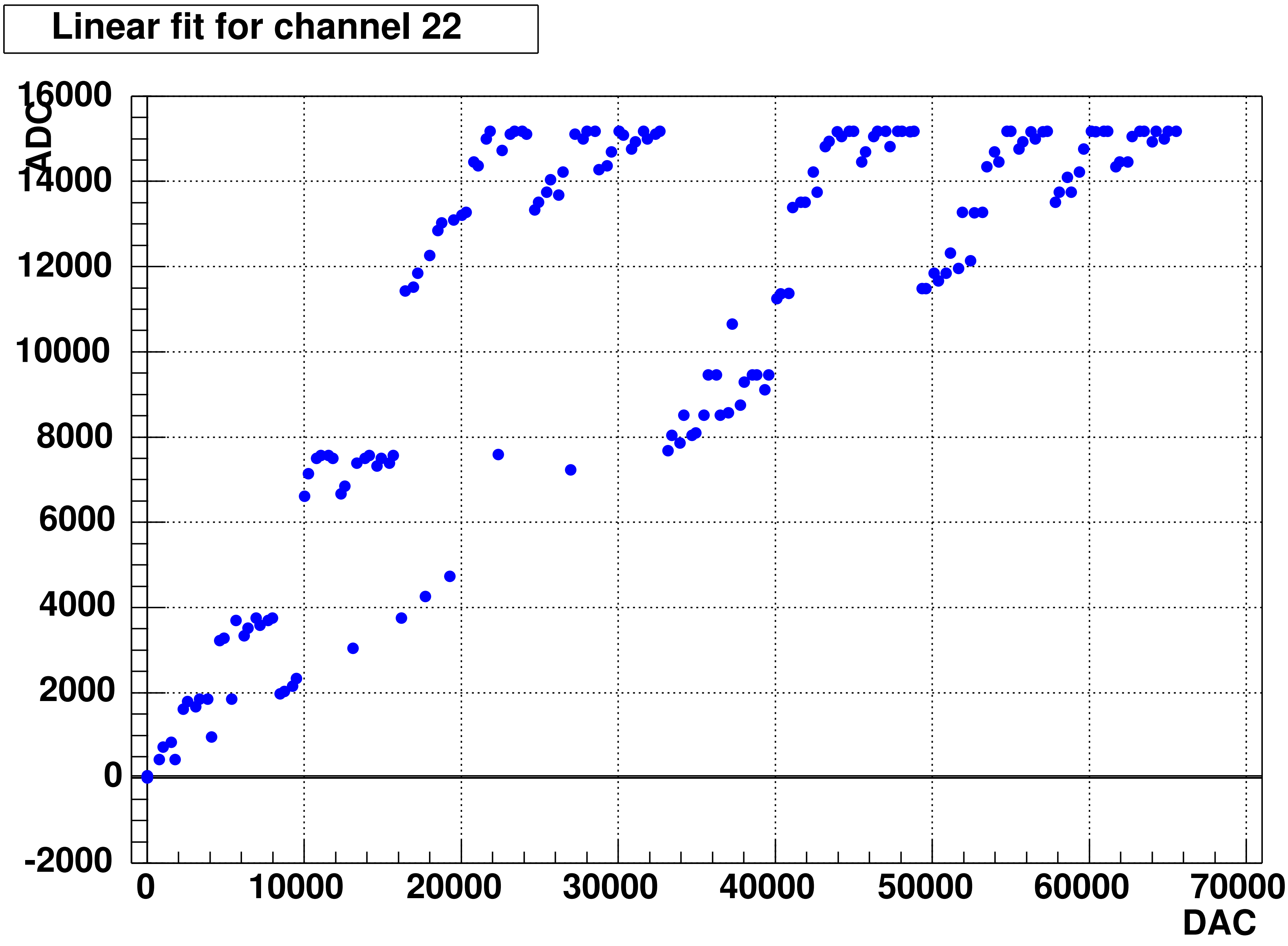

Linear fit for channel 20
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC



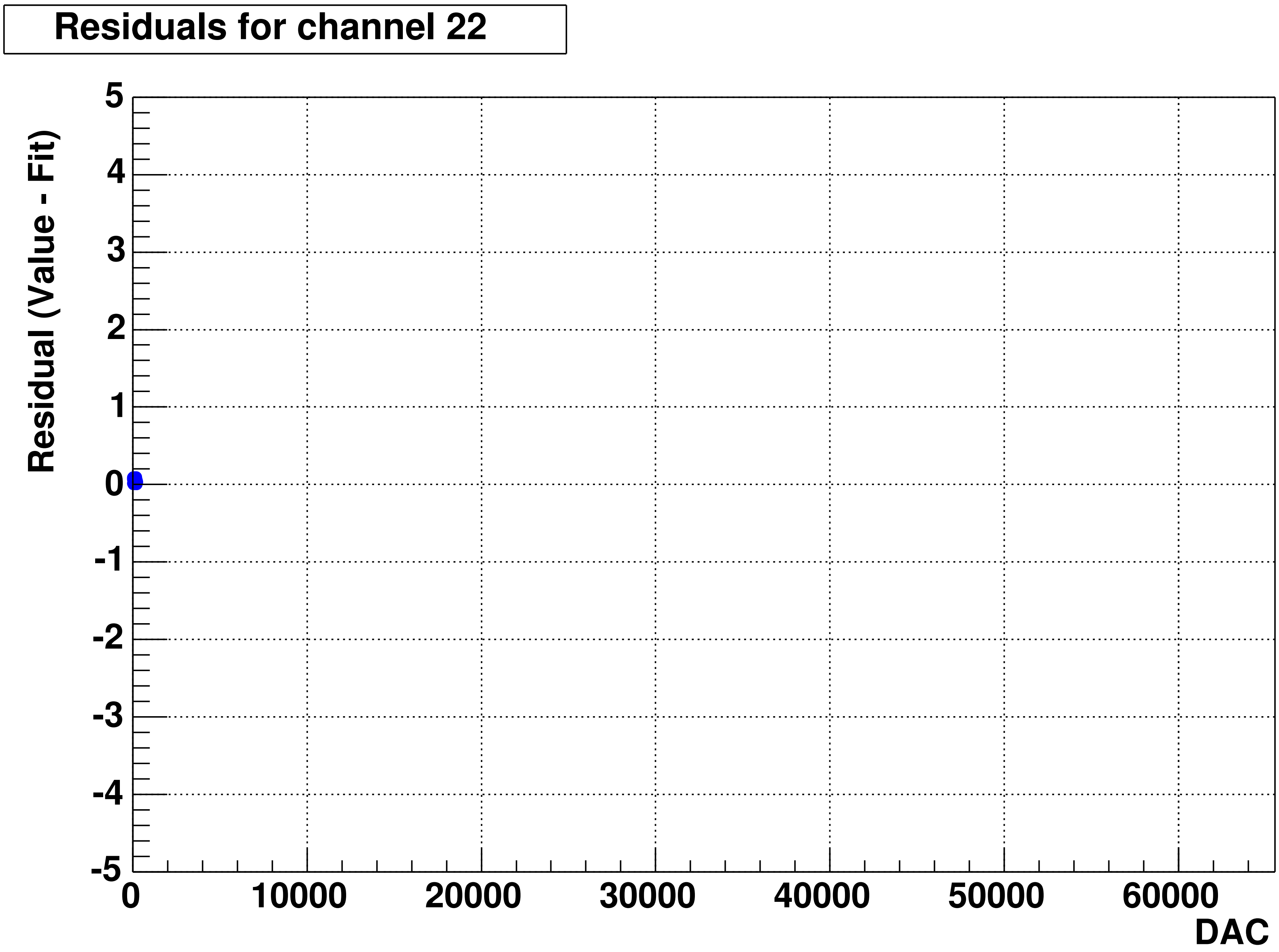
Residuals for channel 20
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC


Linear fit for channel 21
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

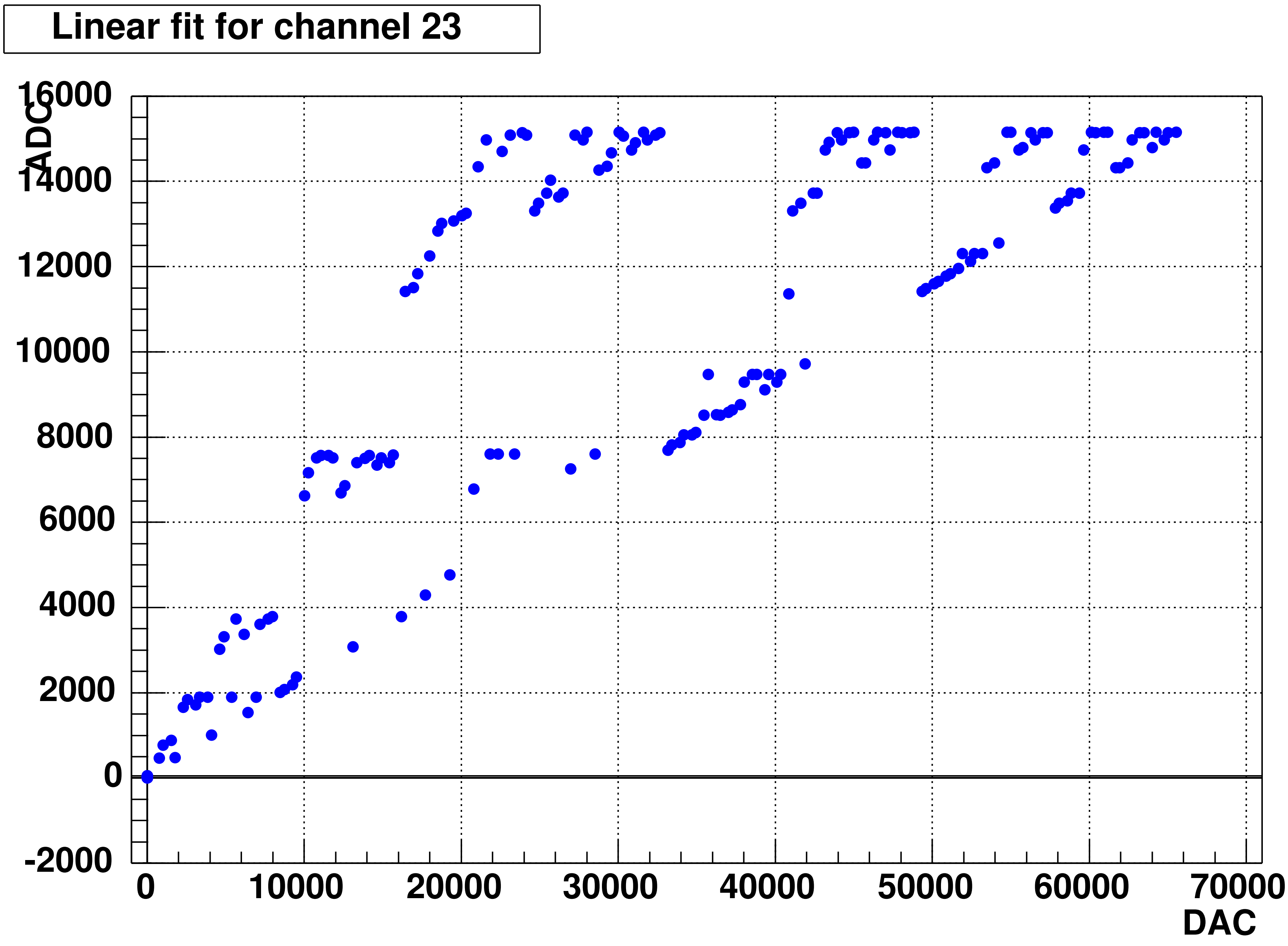

Residuals for channel 21
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



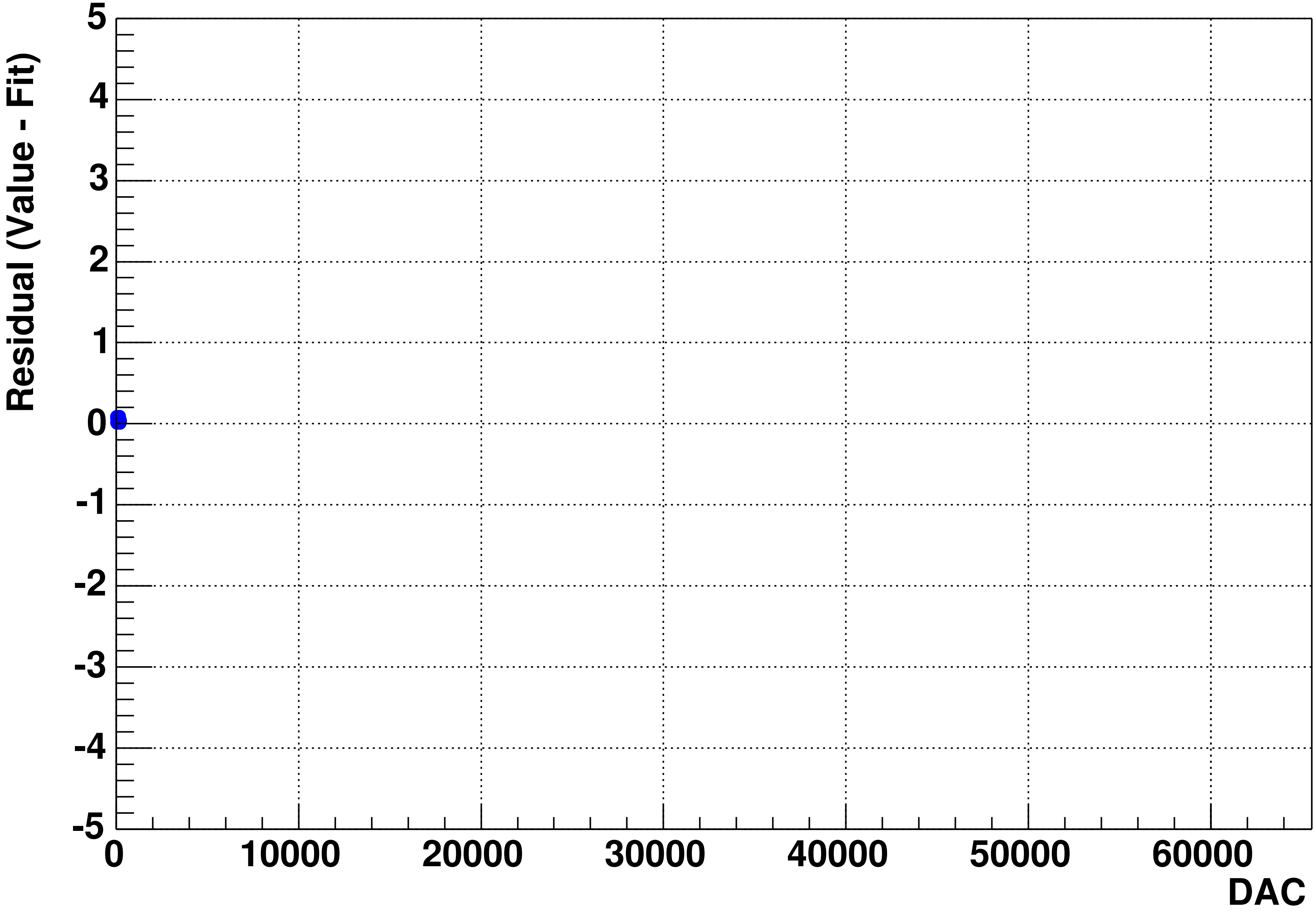
Linear fit for channel 22
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

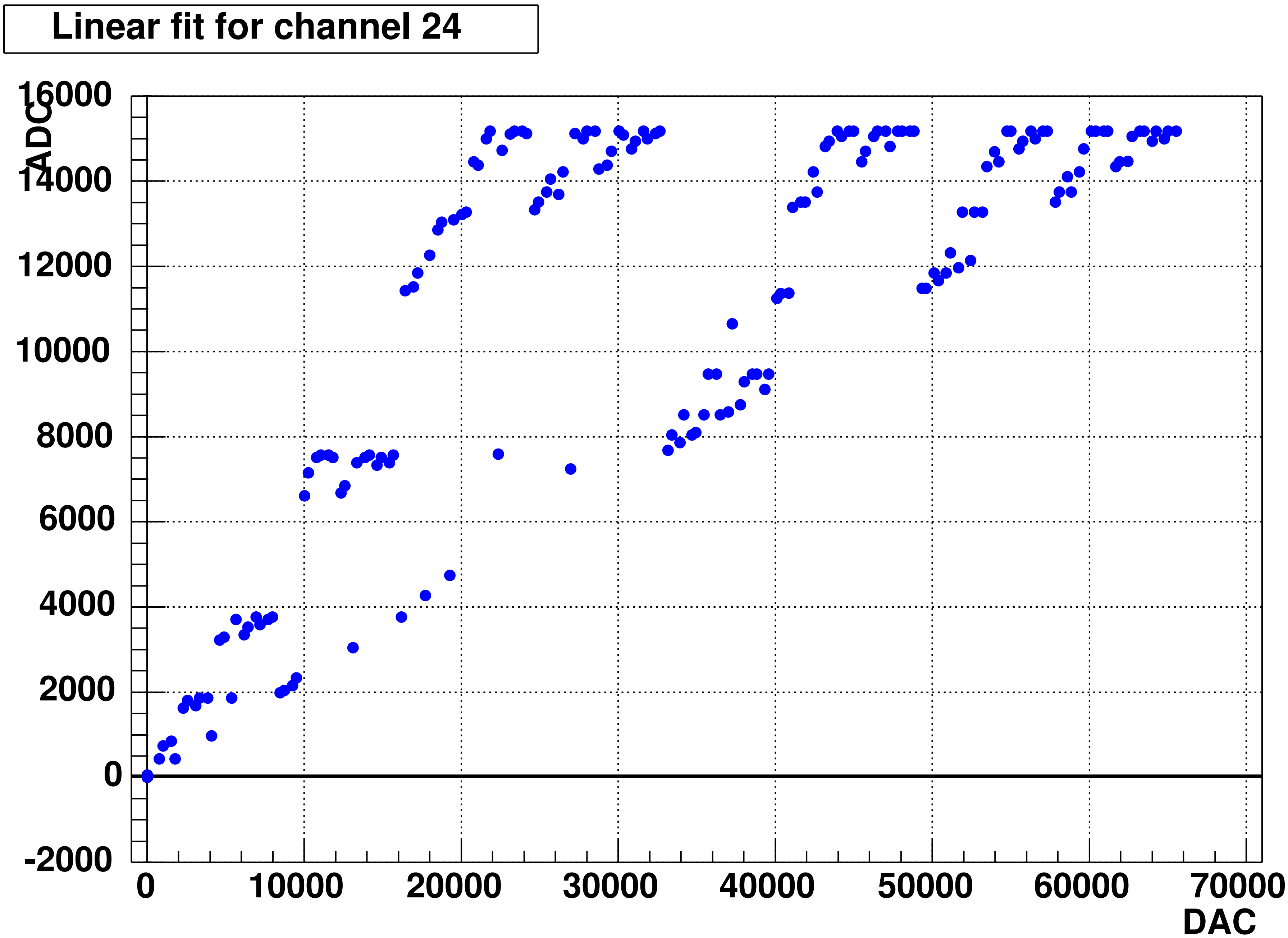


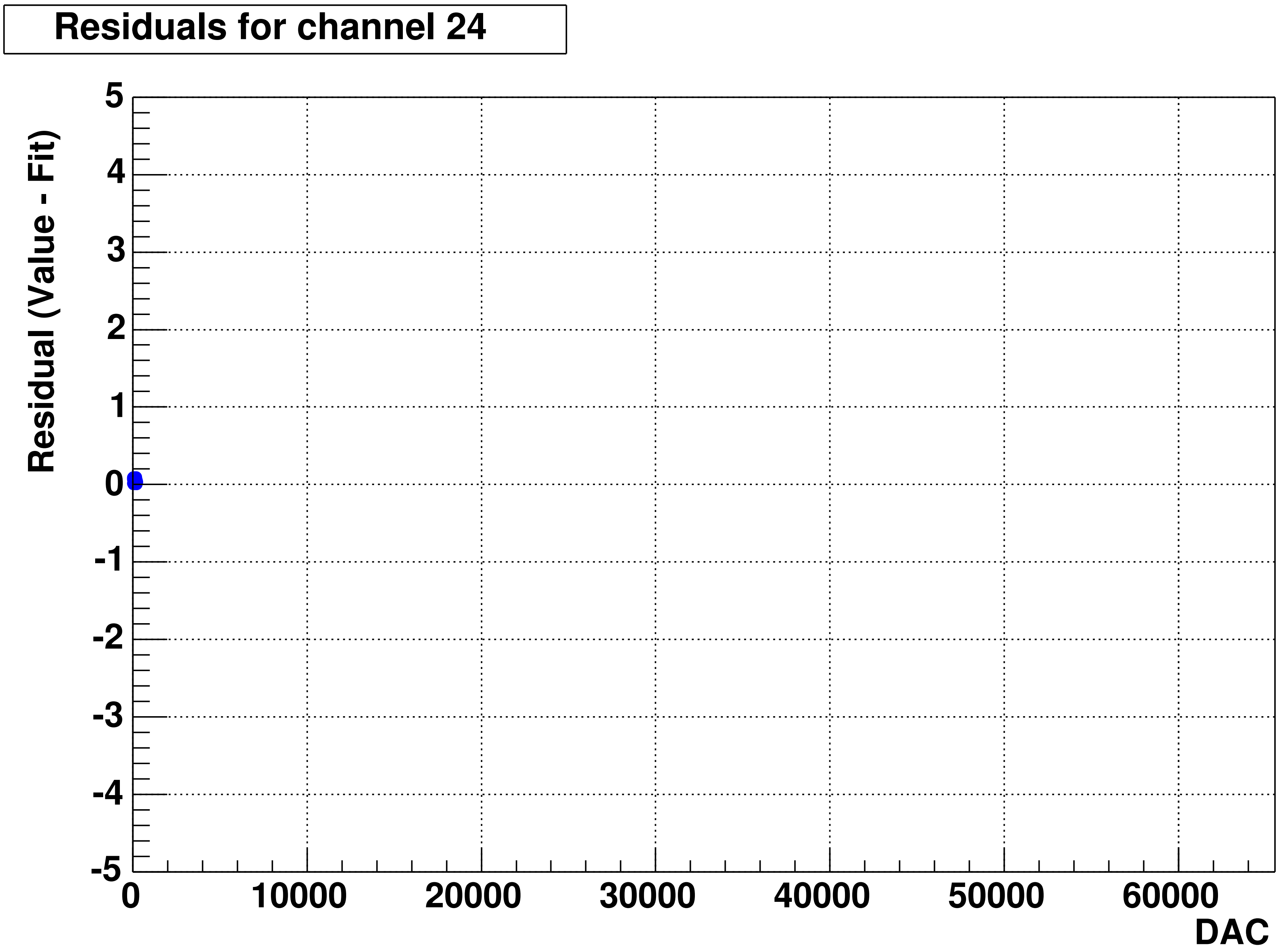
Residuals for channel 22
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC


Linear fit for channel 23
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

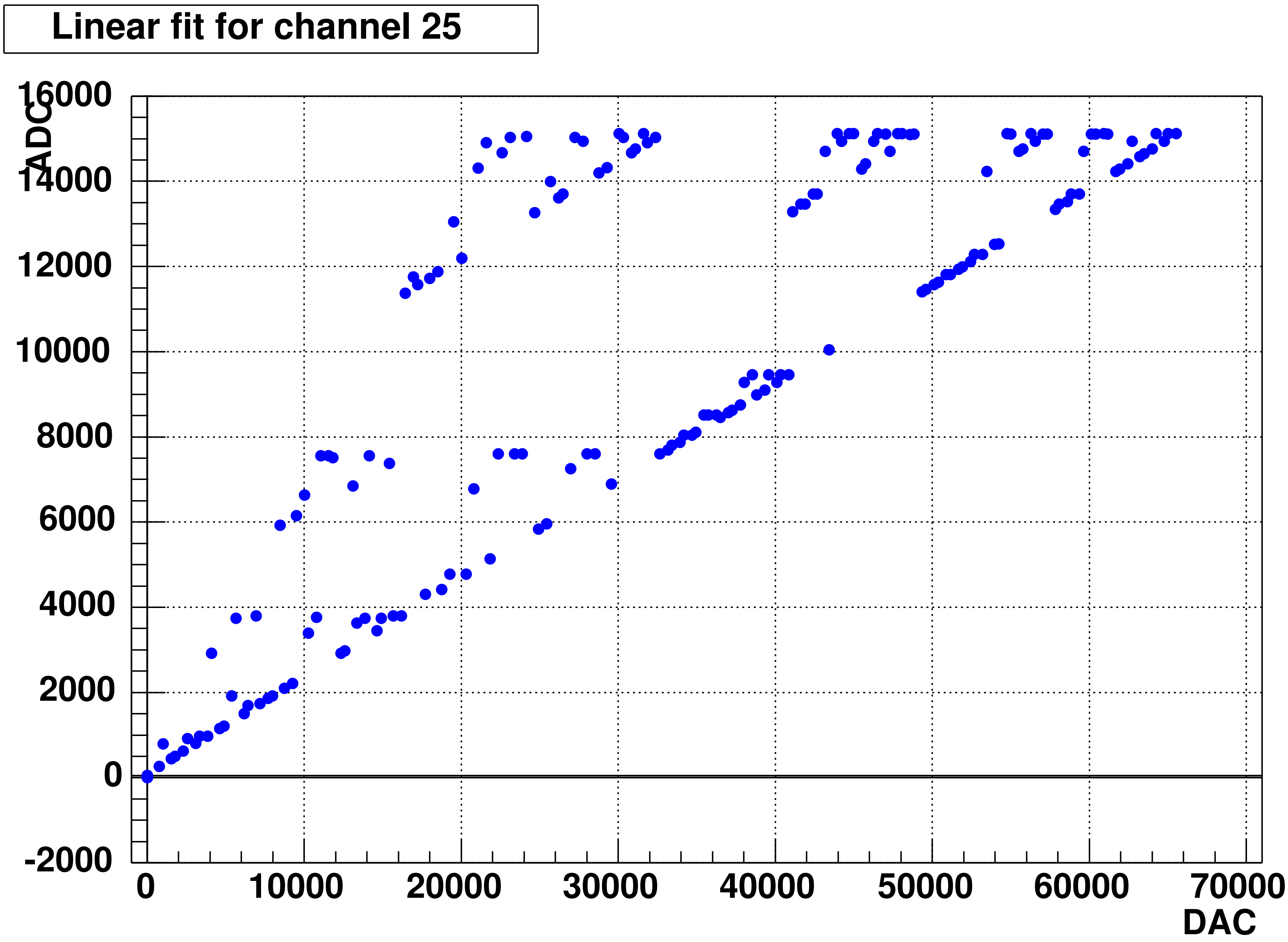
Residuals for channel 23



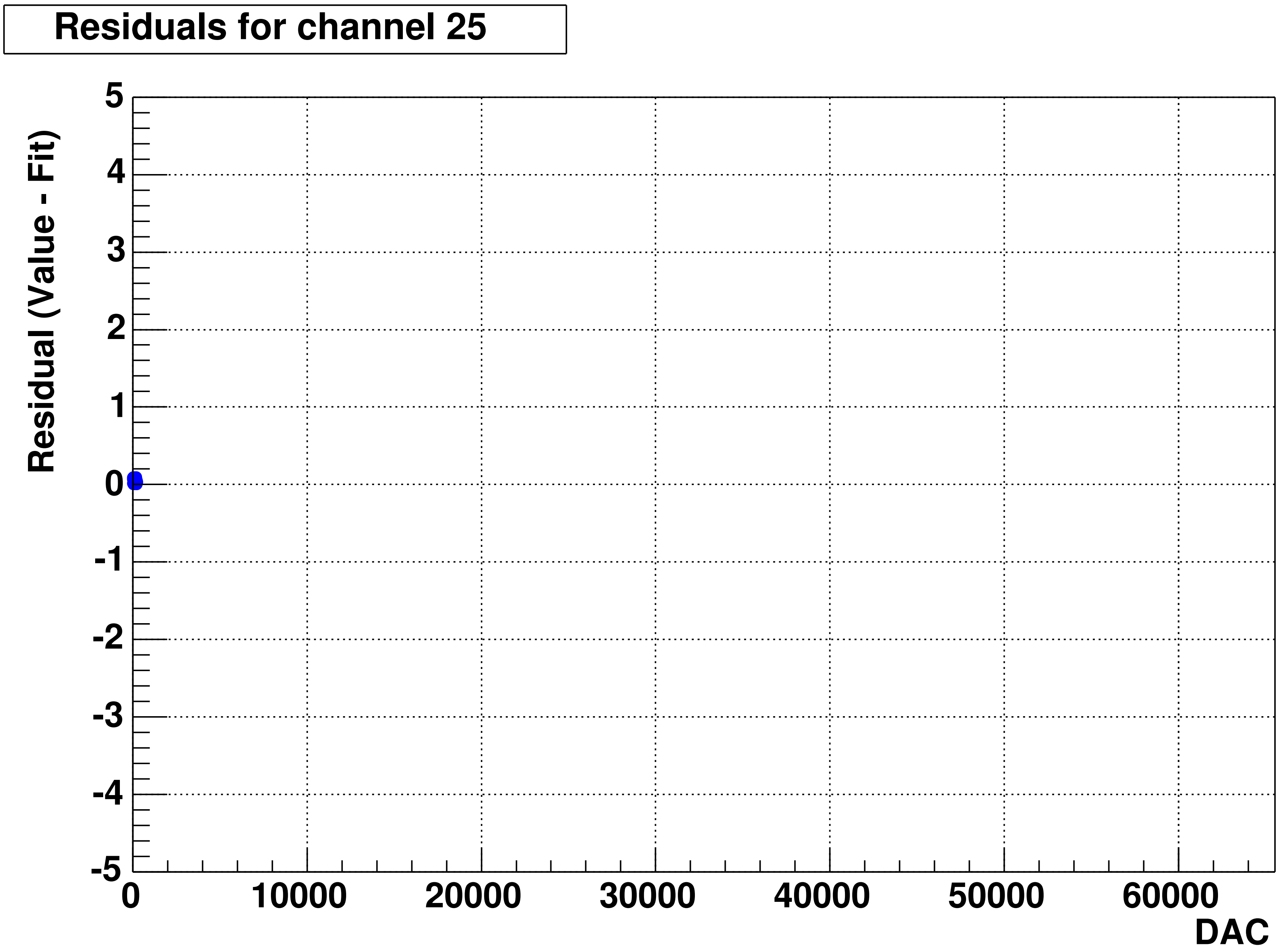

Linear fit for channel 24
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC



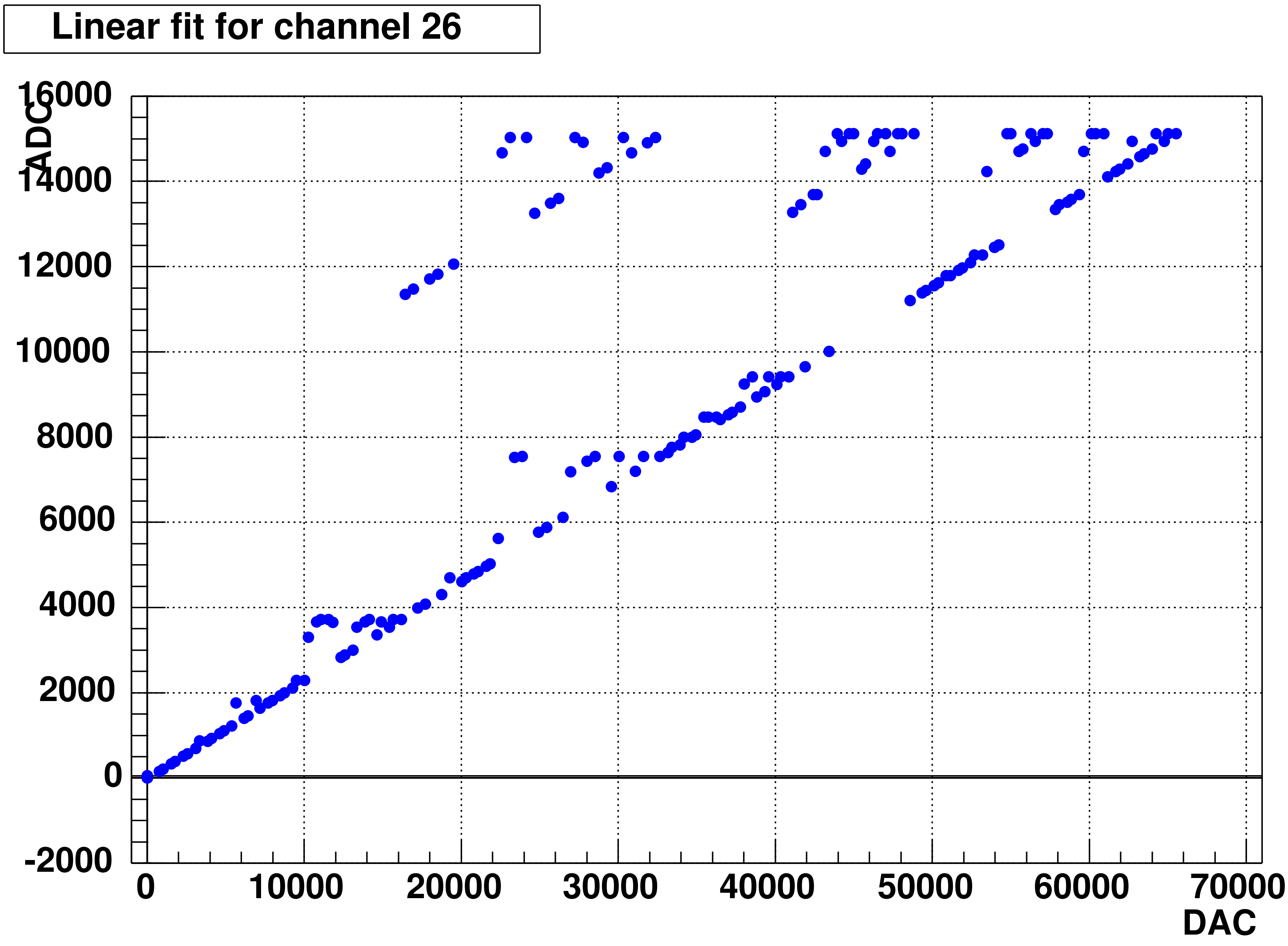
Residuals for channel 24
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

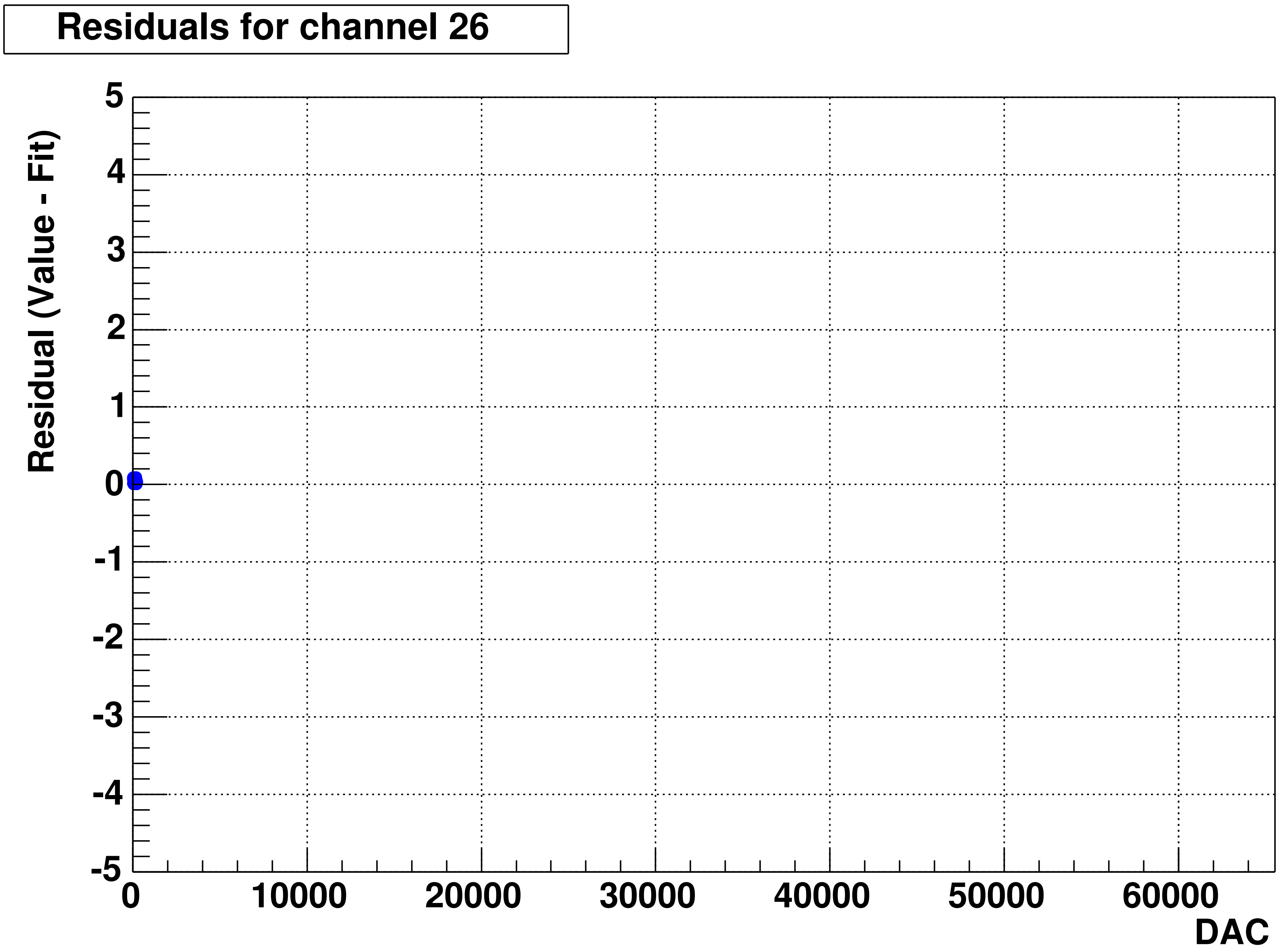


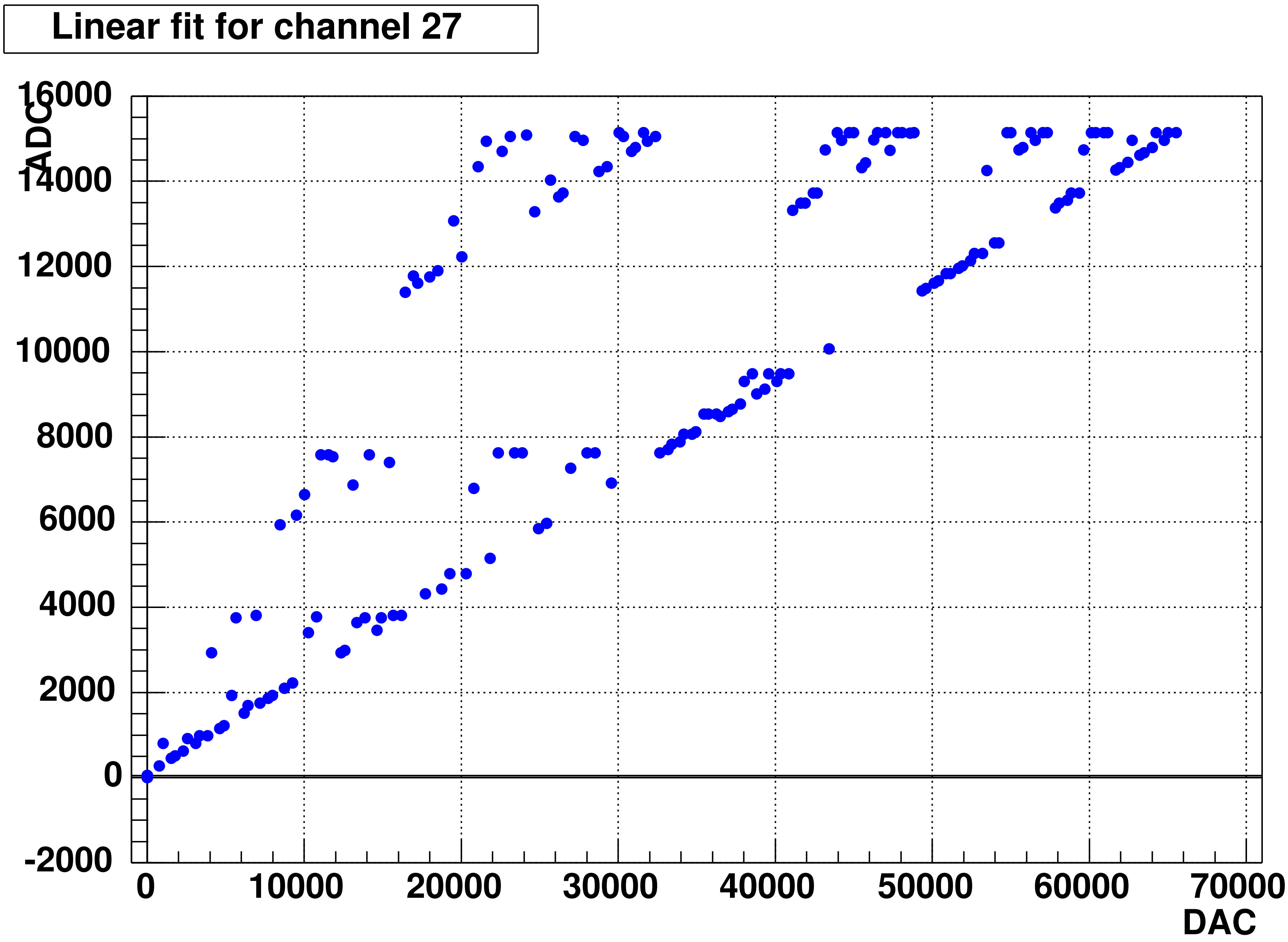
Linear fit for channel 25
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC



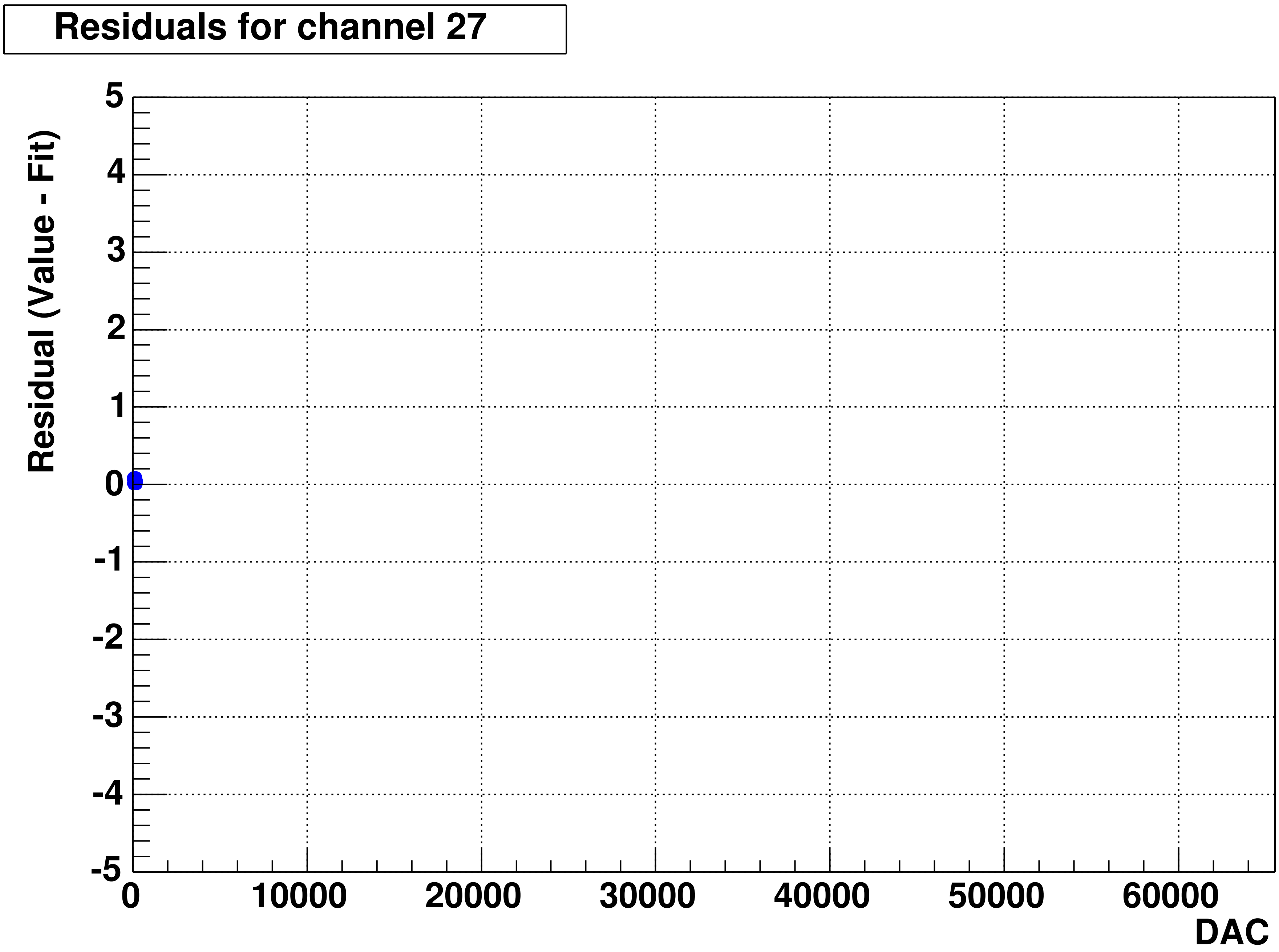
Residuals for channel 25
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

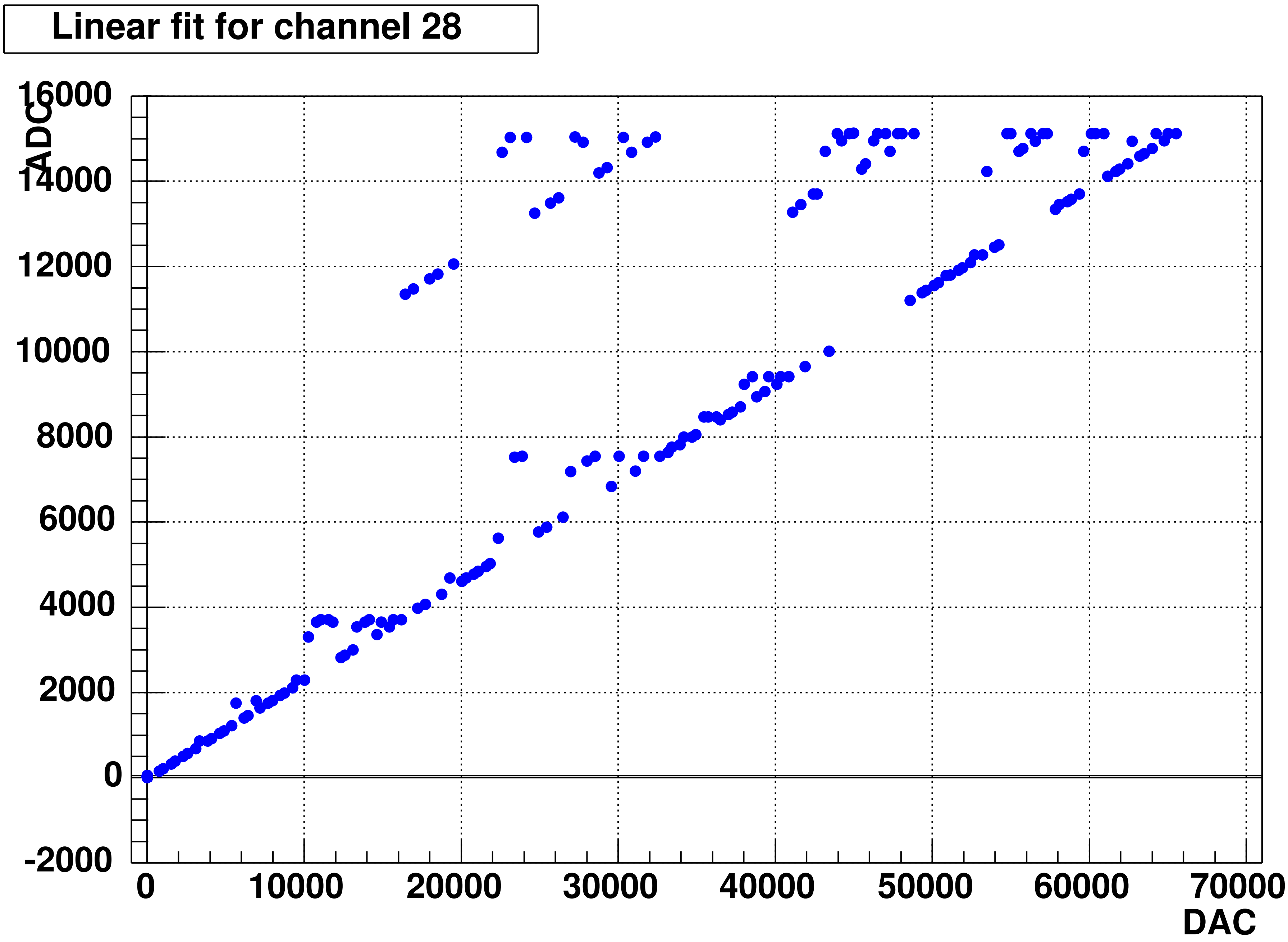

Linear fit for channel 26
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC


Residuals for channel 26
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

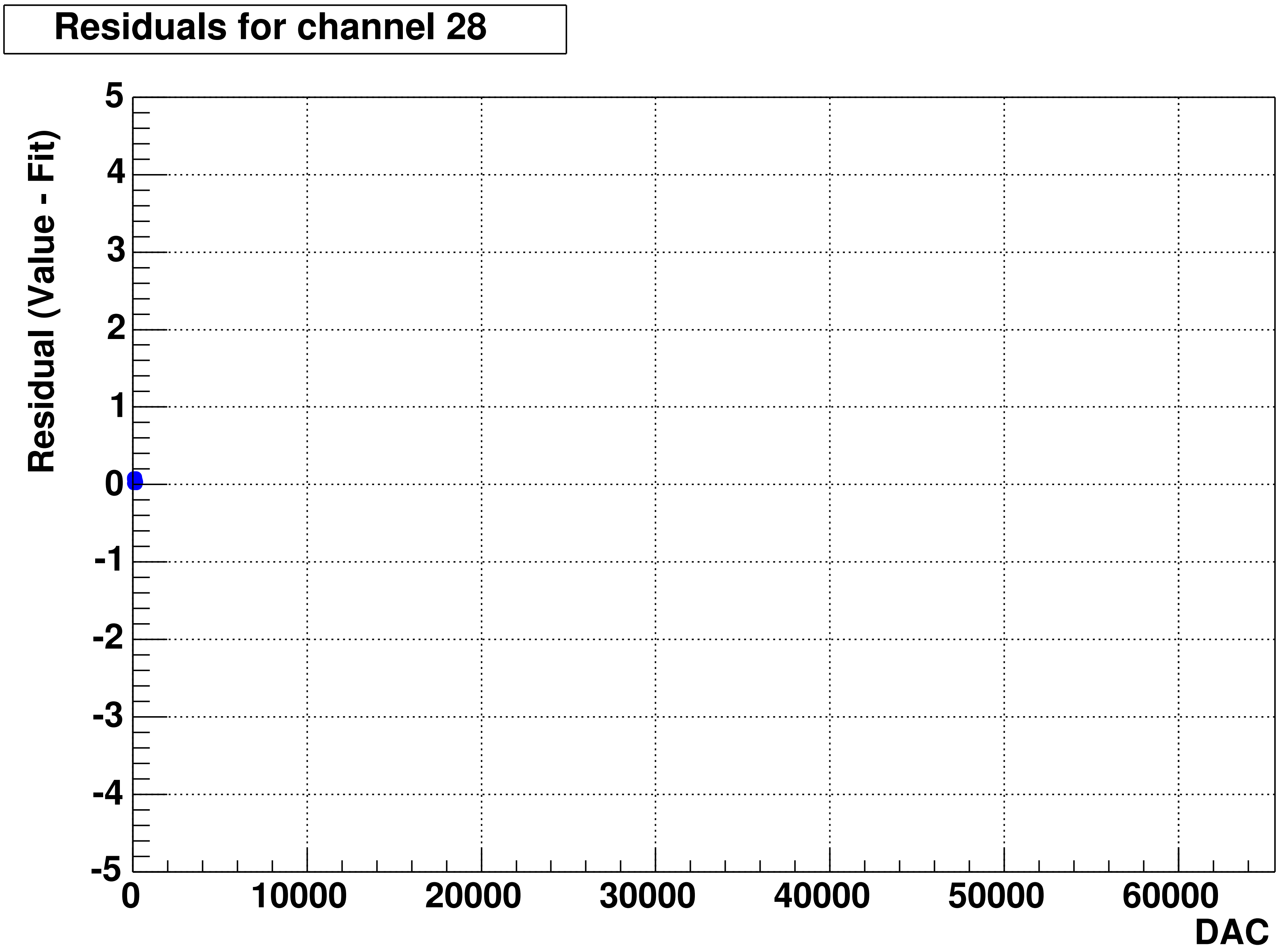


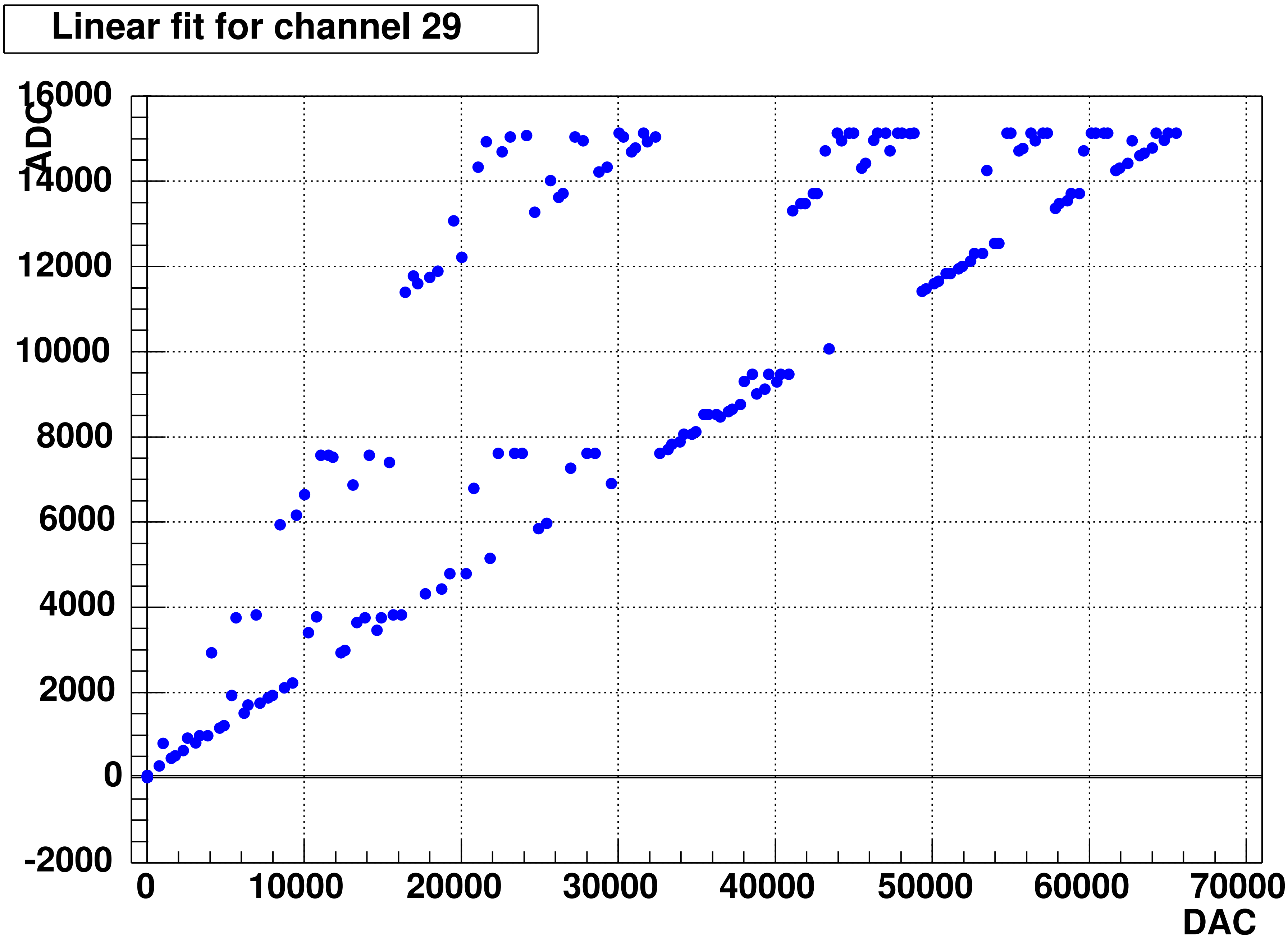
Linear fit for channel 27
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC


Residuals for channel 27
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

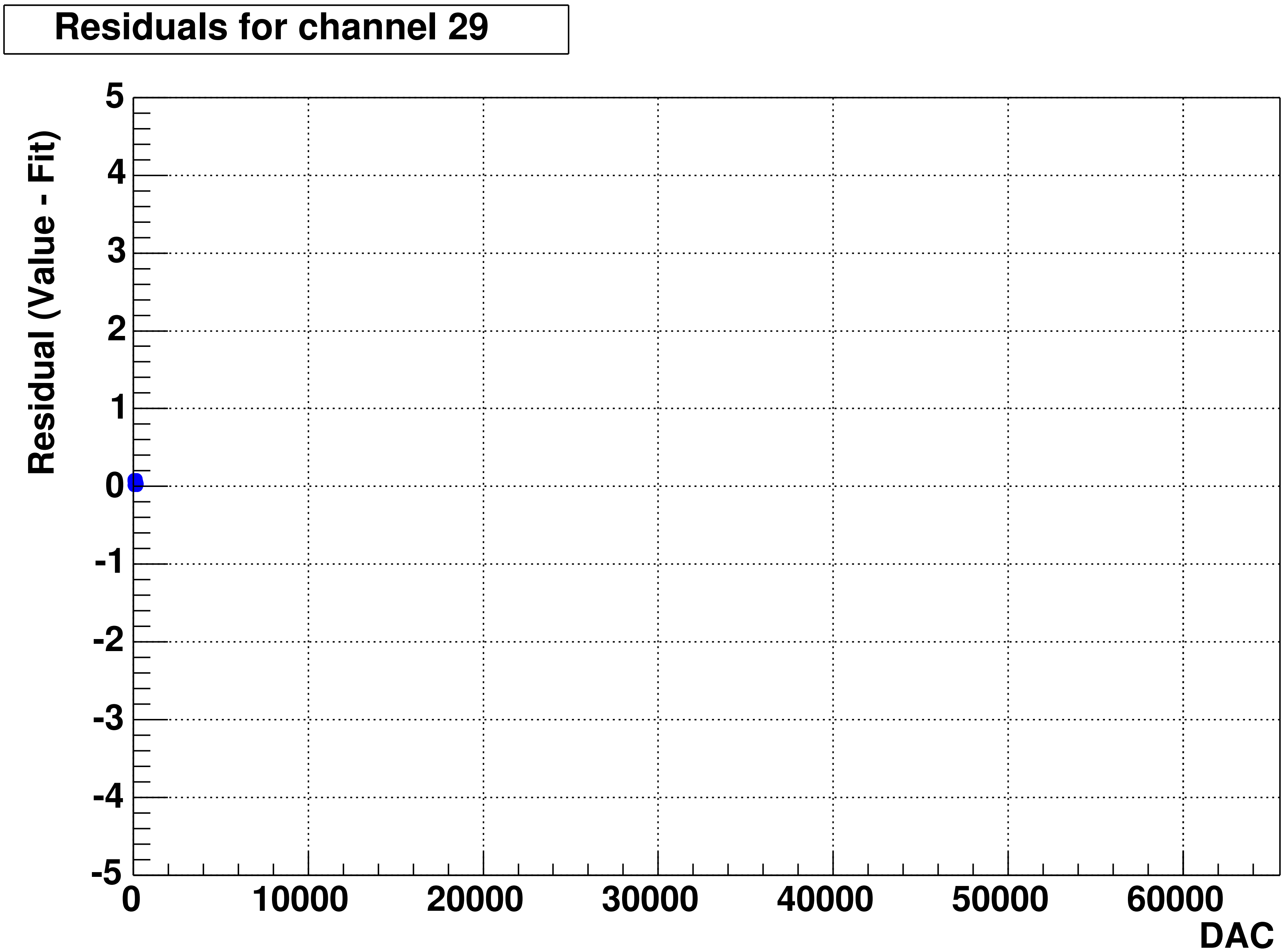


Linear fit for channel 28
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

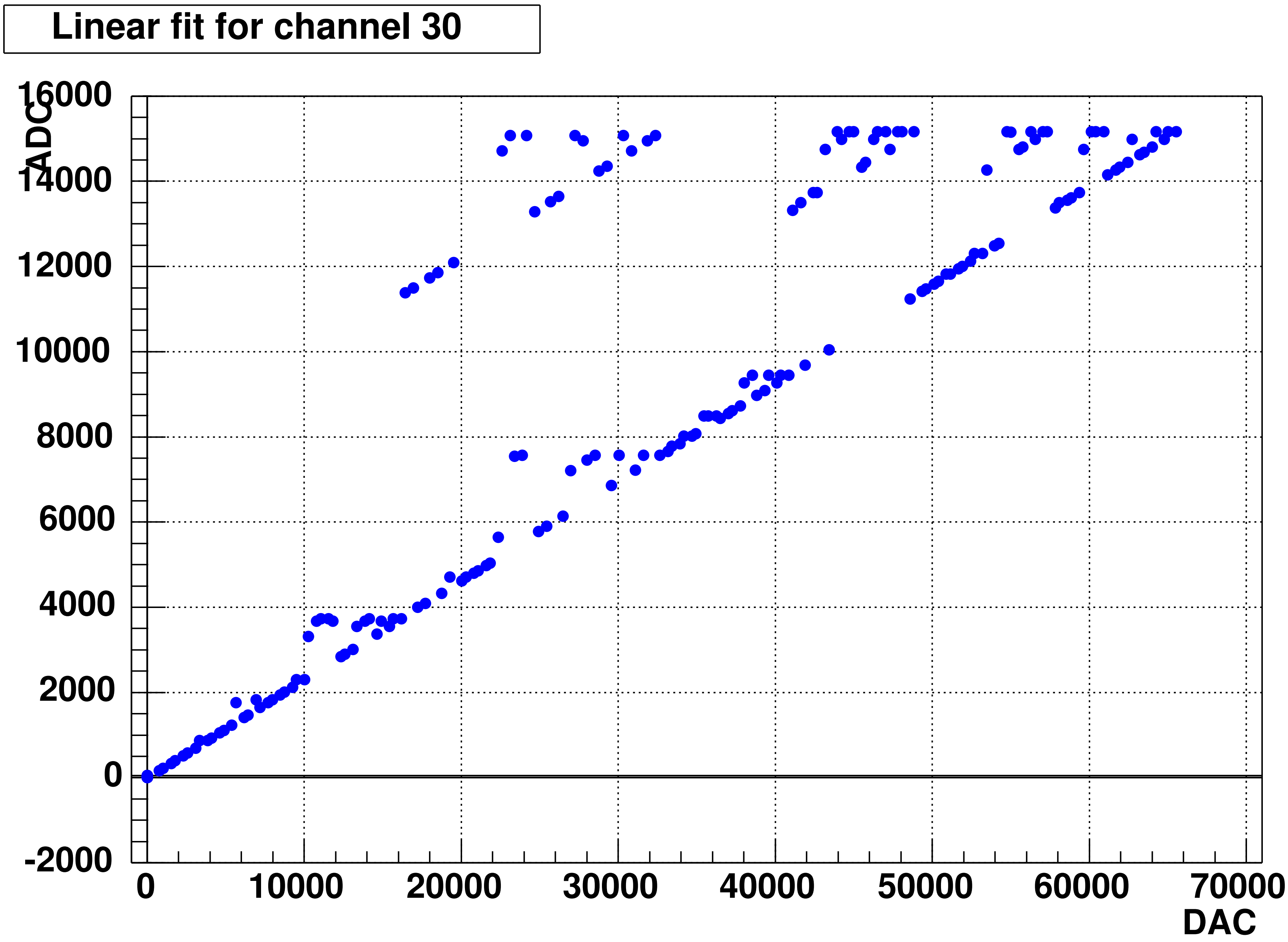

Residuals for channel 28
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



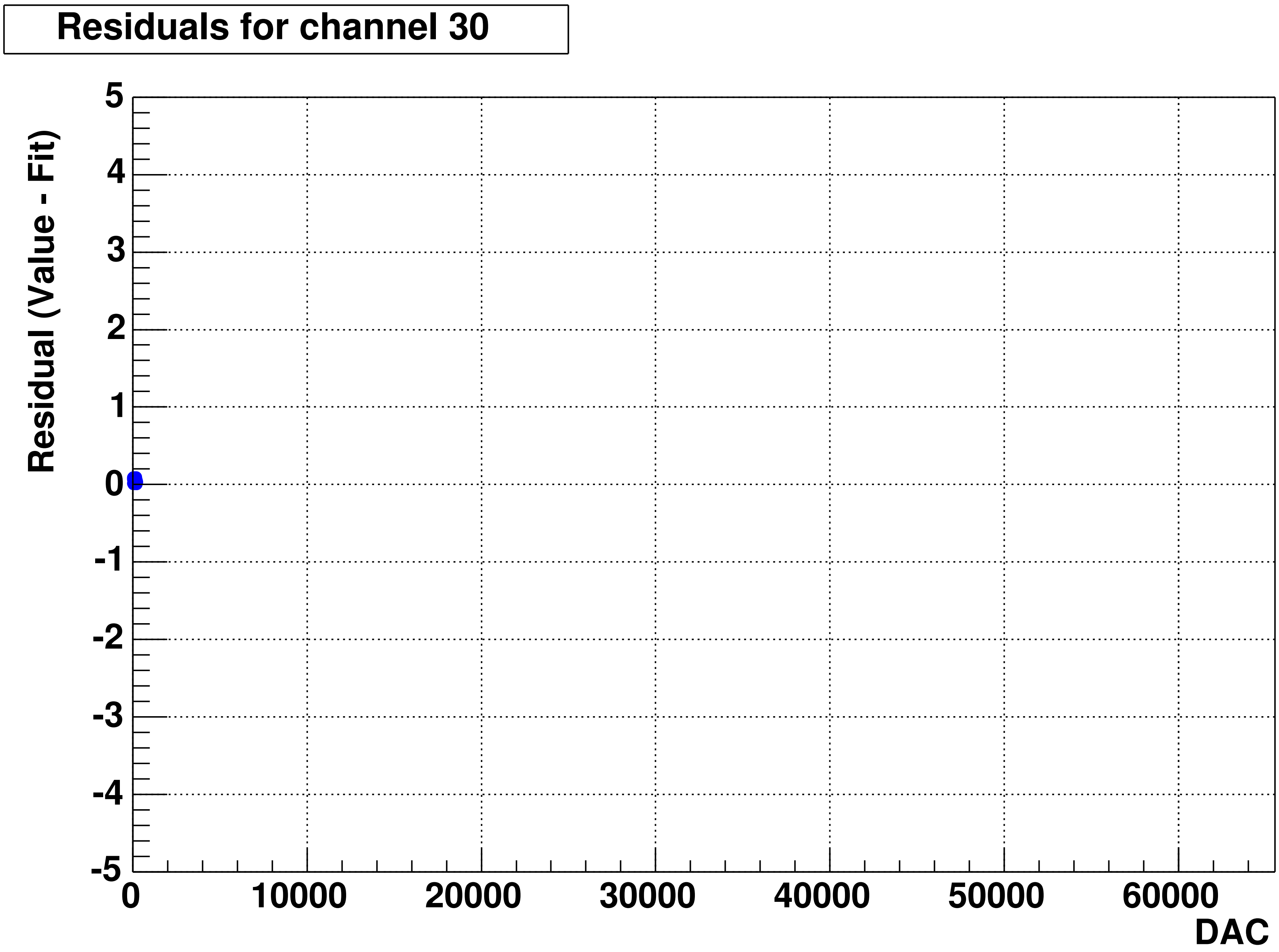
Linear fit for channel 29
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

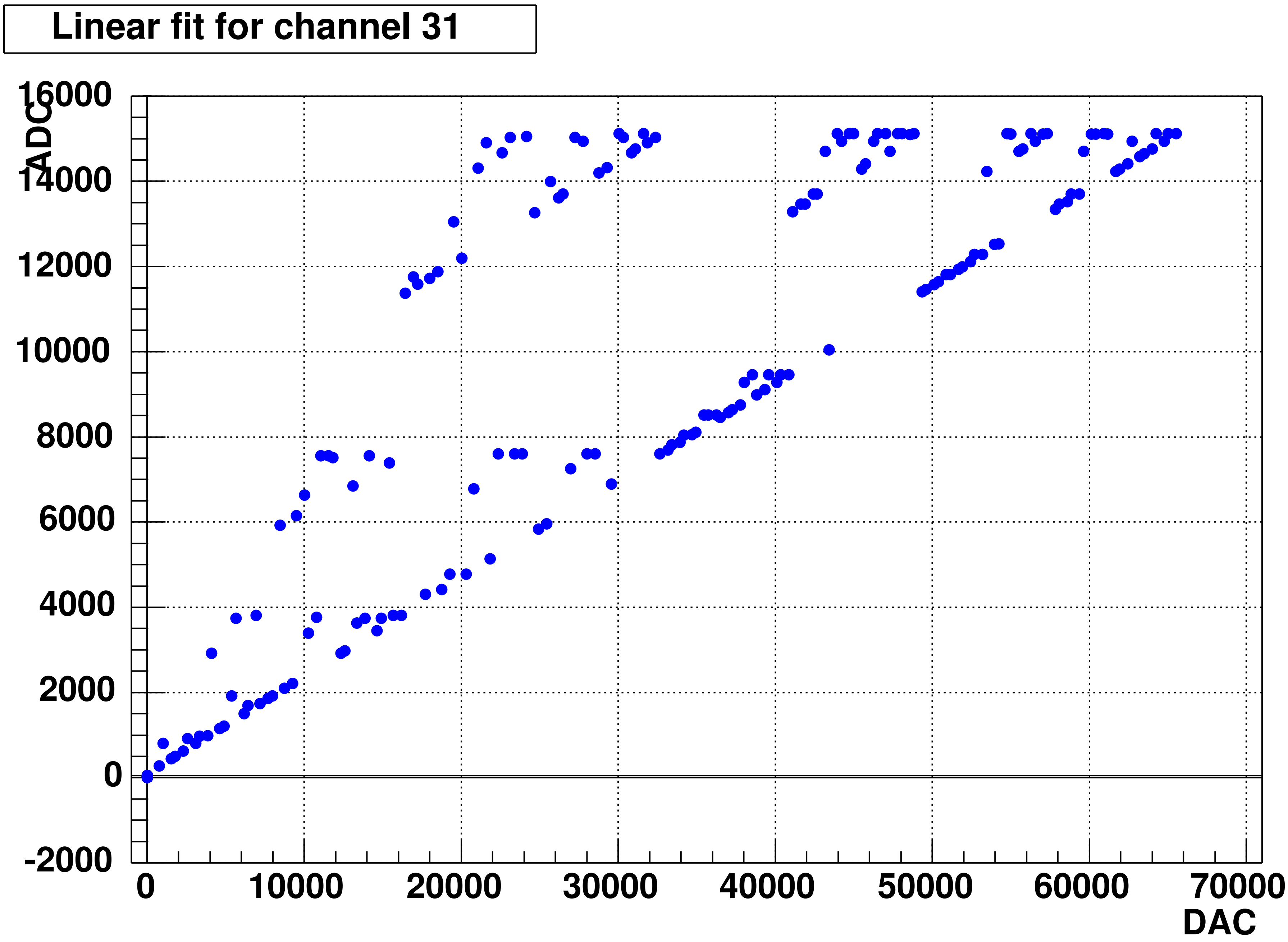


Residuals for channel 29
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

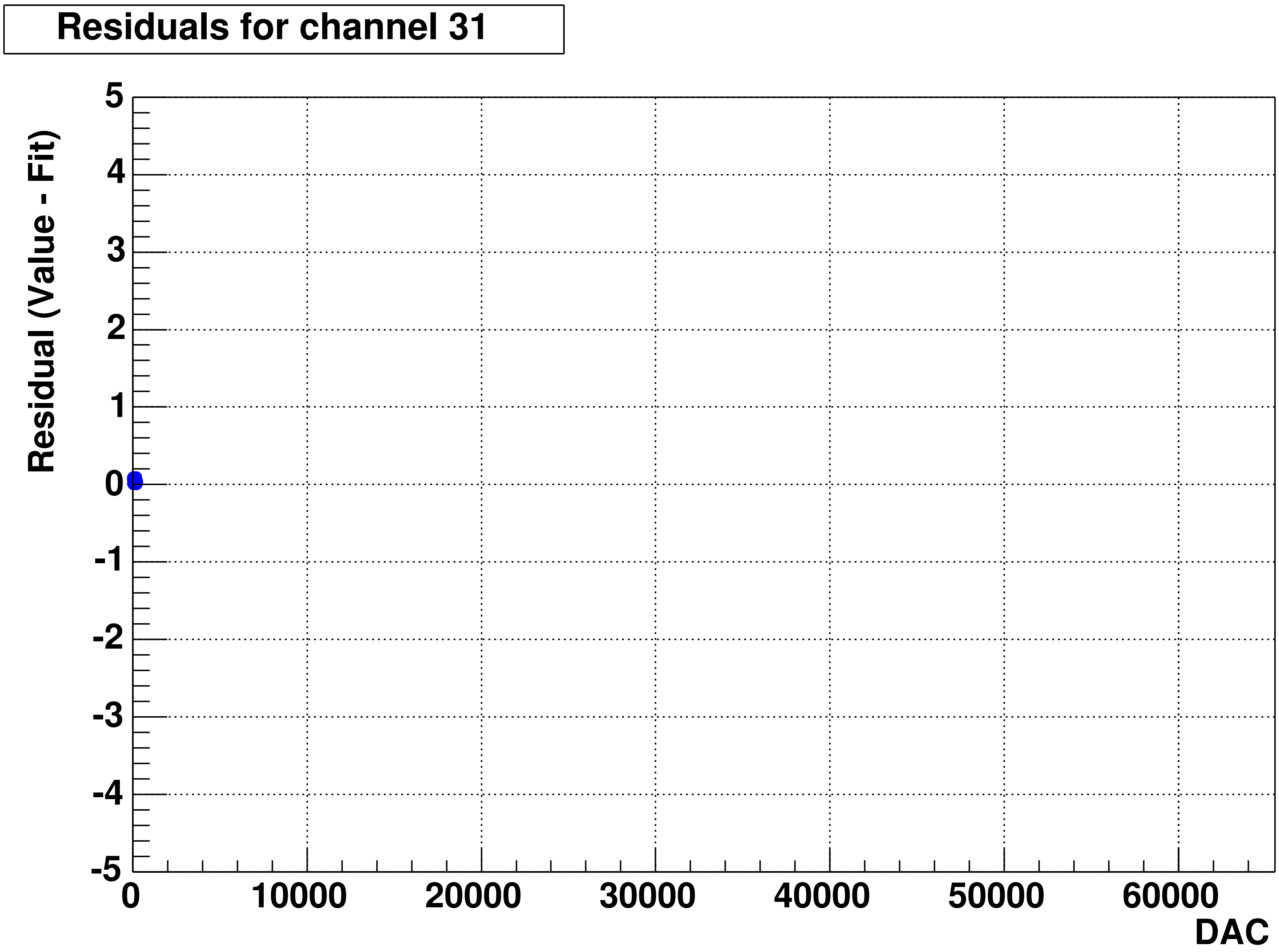


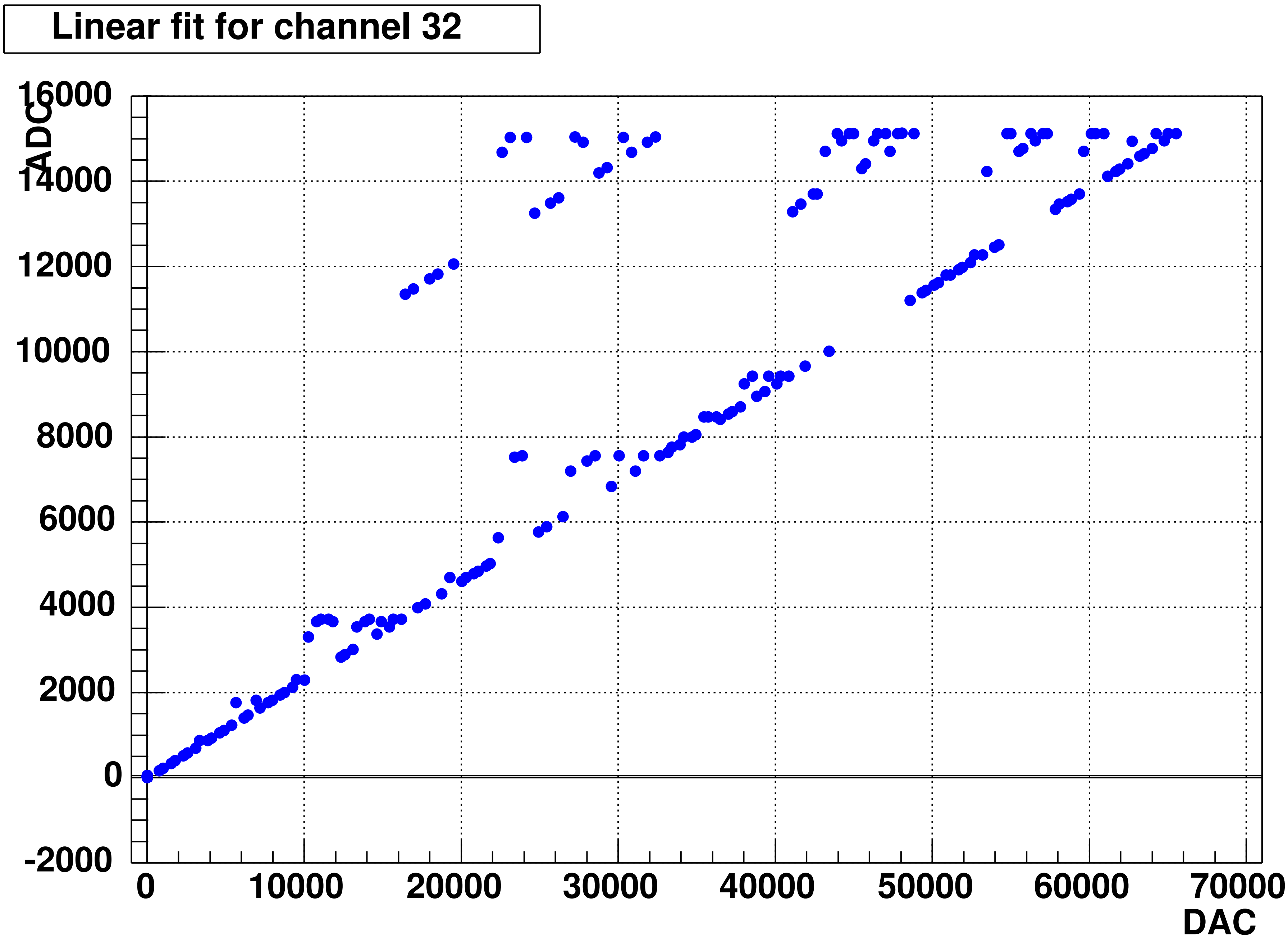
Linear fit for channel 30
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

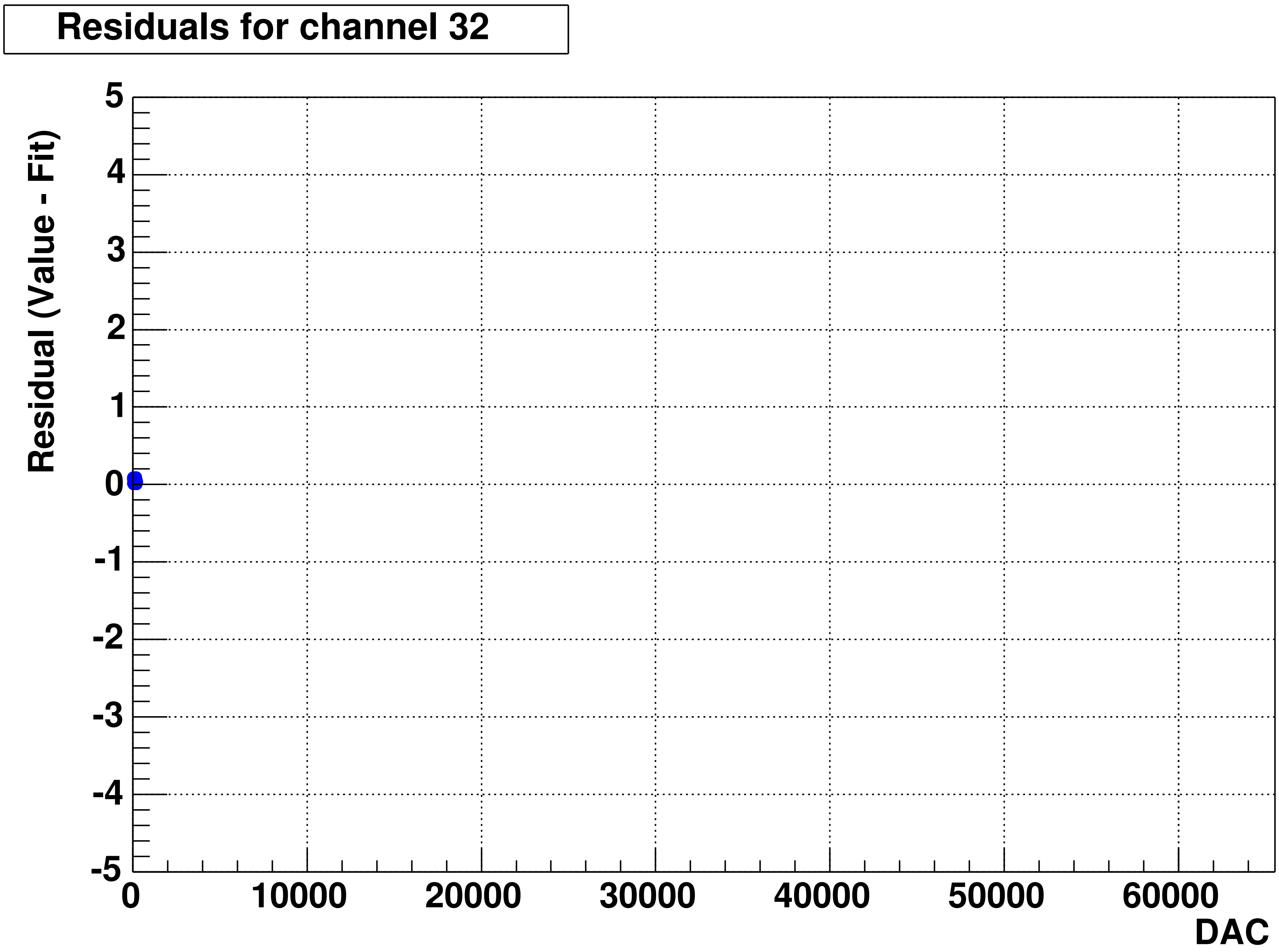

Residuals for channel 30
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

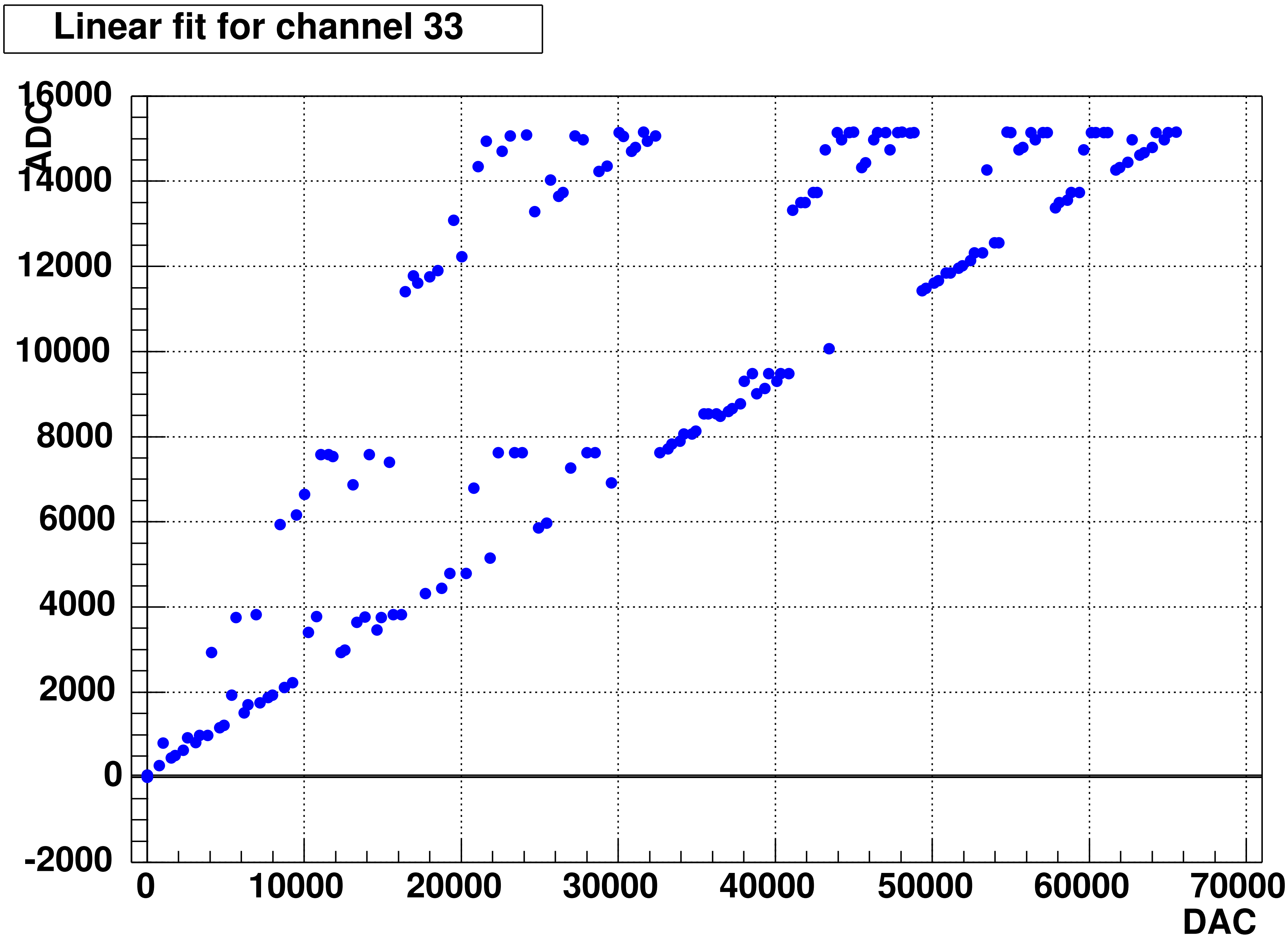


Linear fit for channel 31
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC


Residuals for channel 31
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

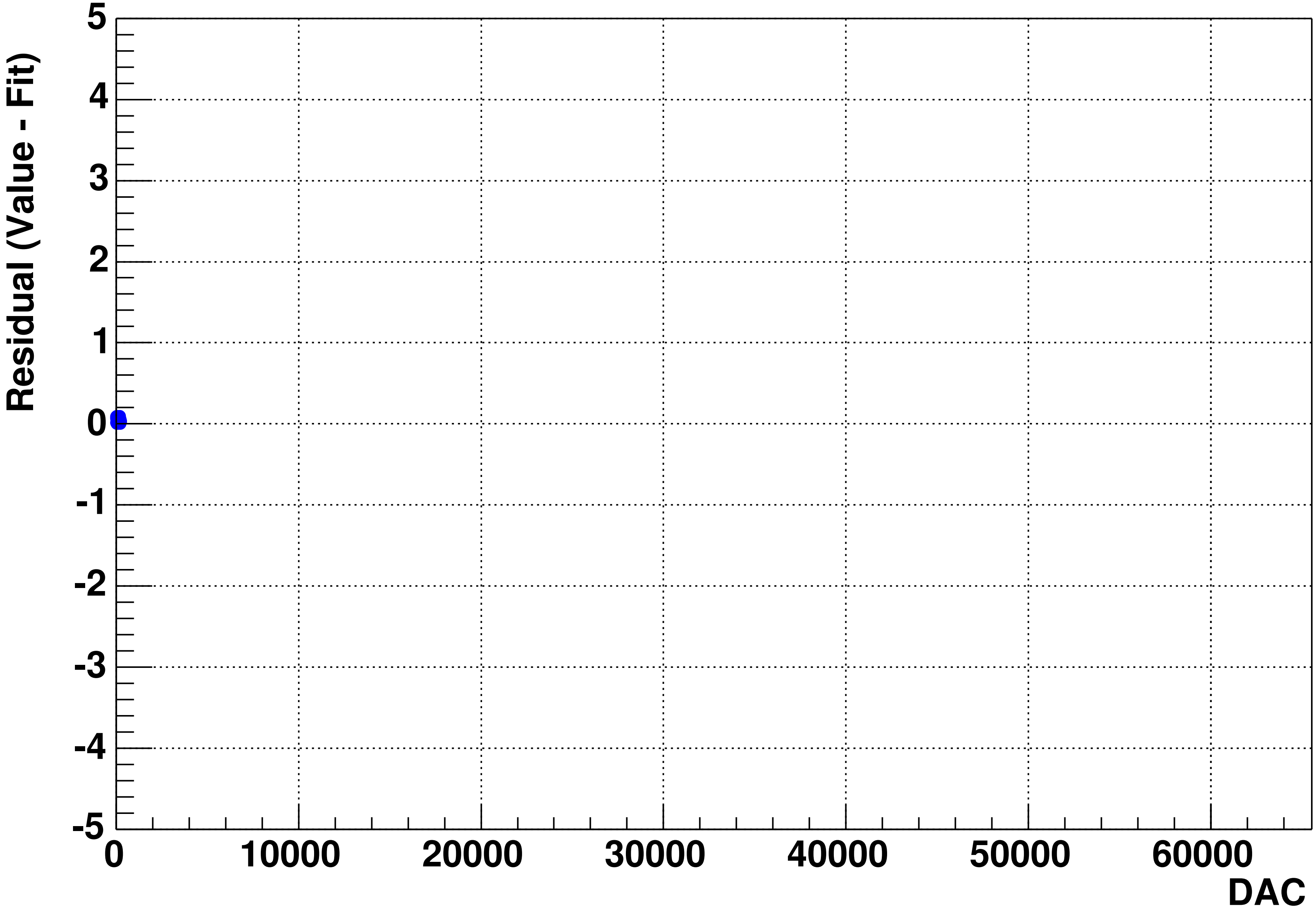

Linear fit for channel 32
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

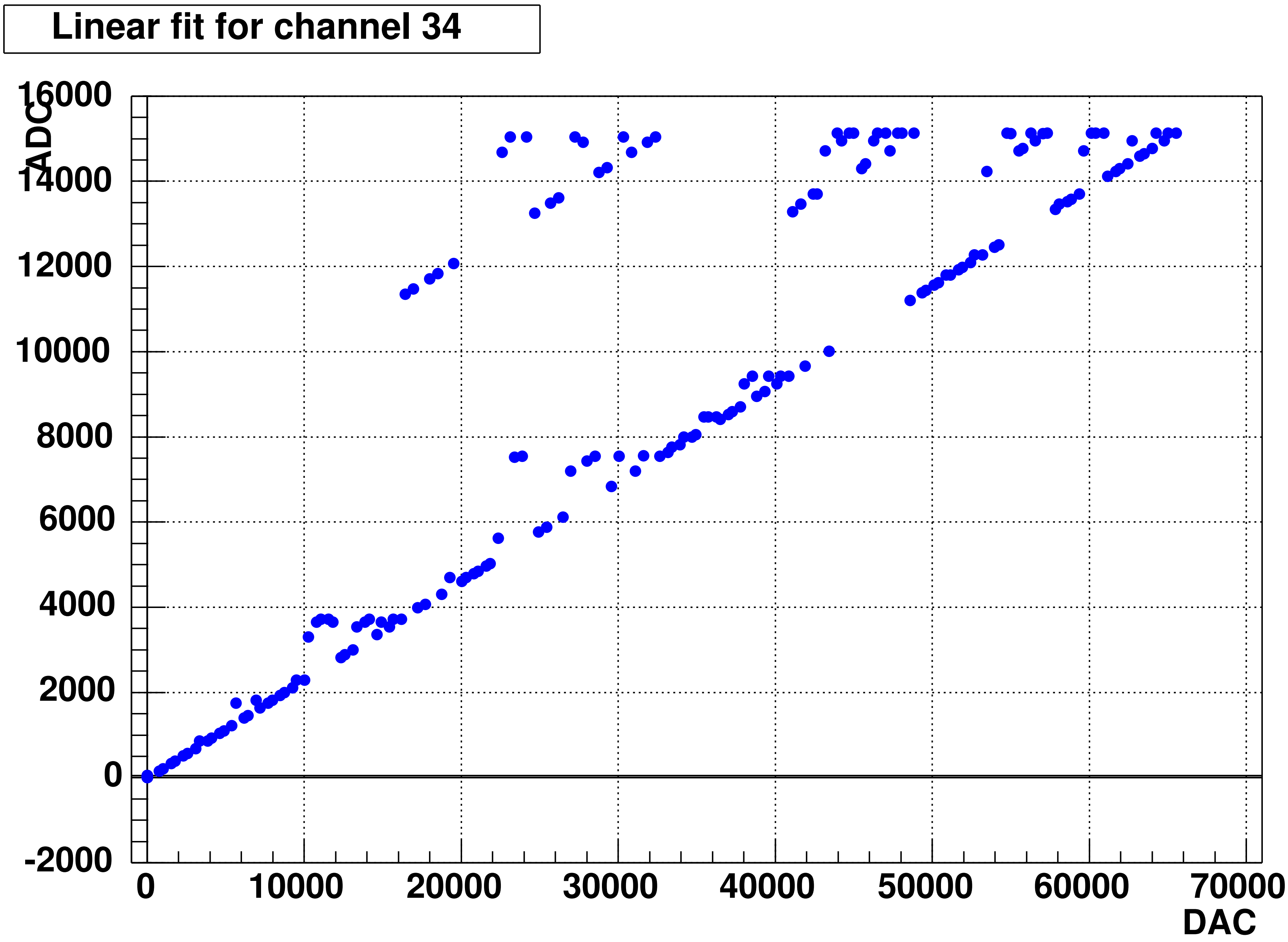

Residuals for channel 32
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



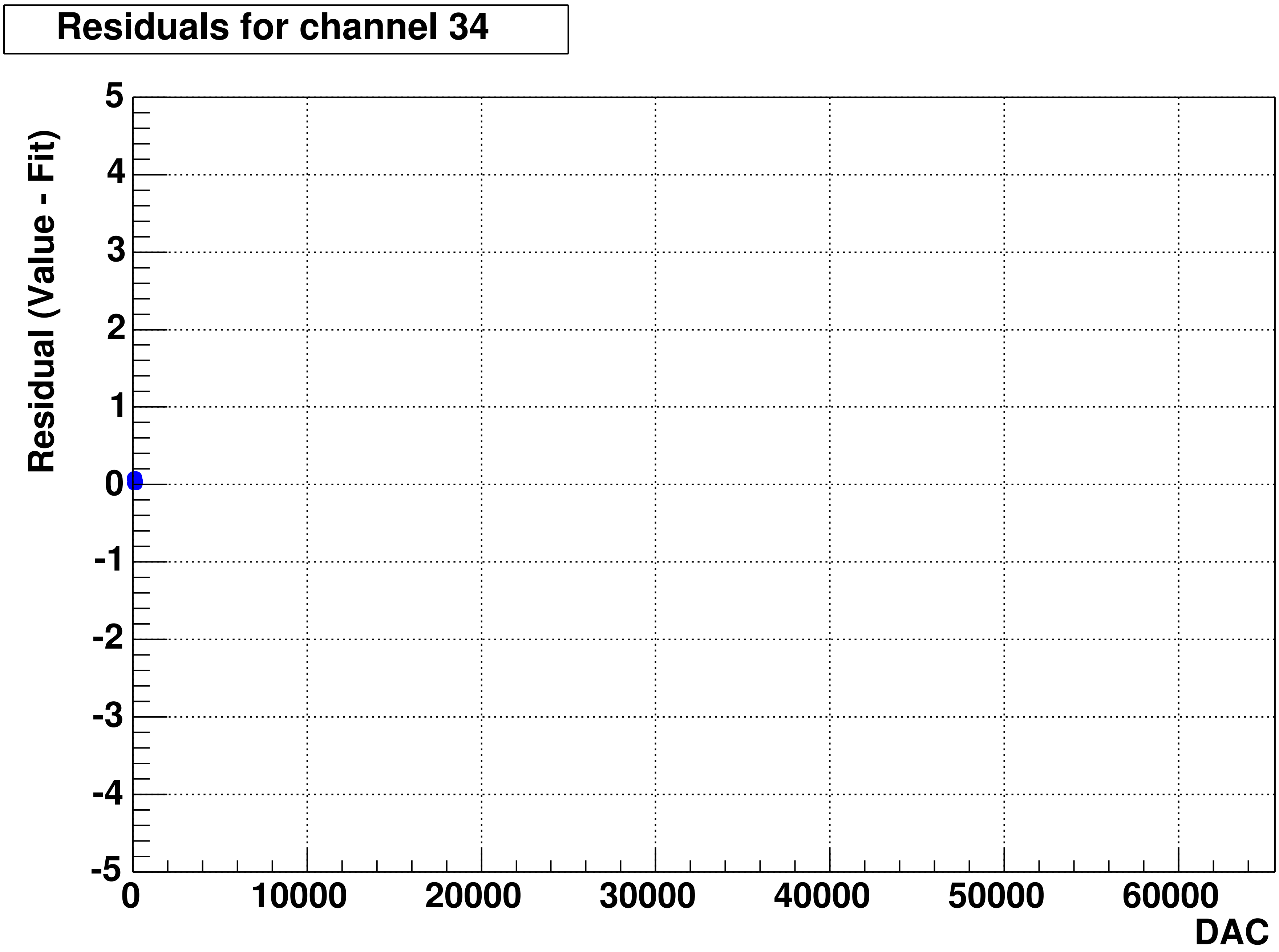
Linear fit for channel 33
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

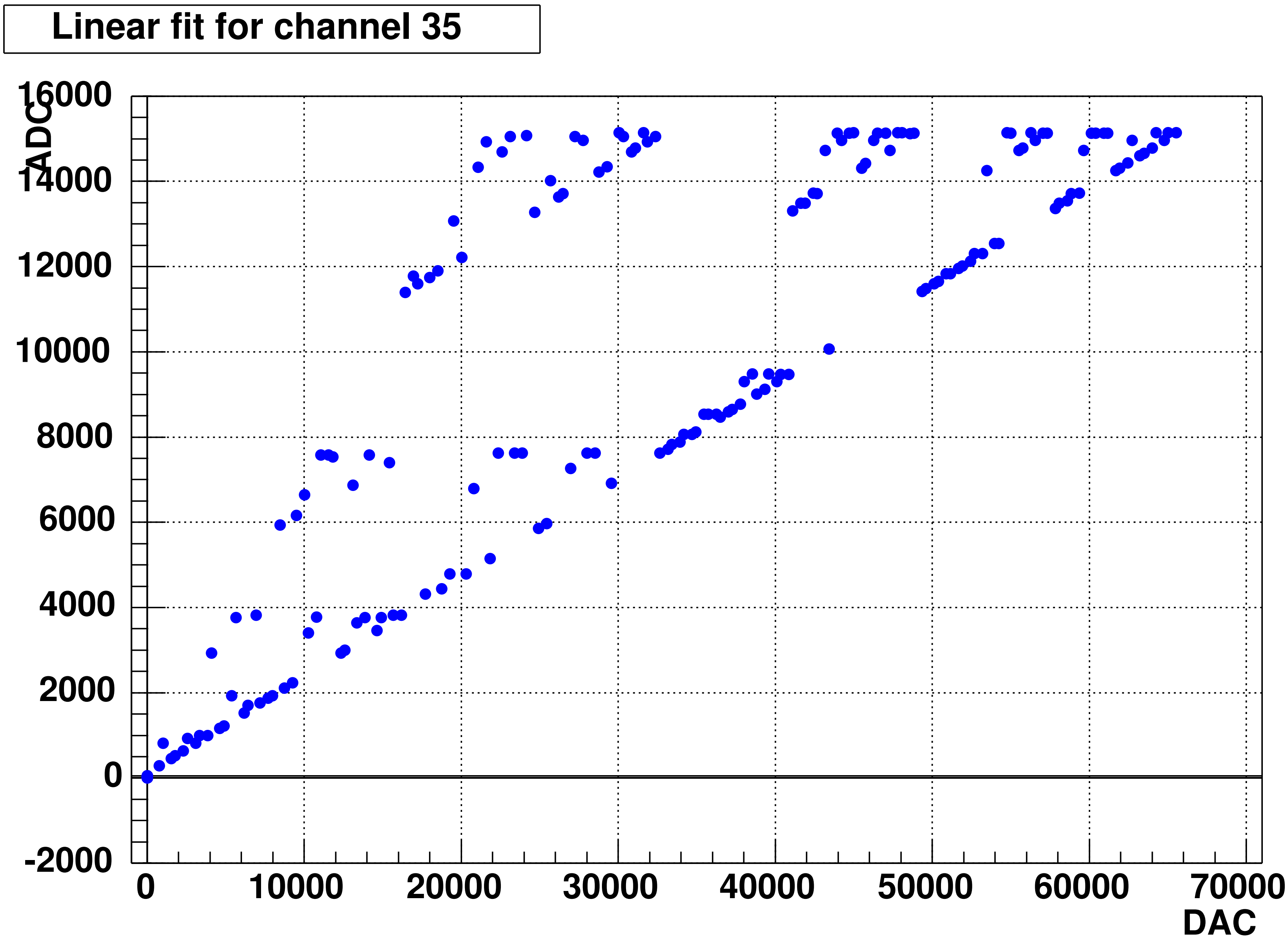
Residuals for channel 33



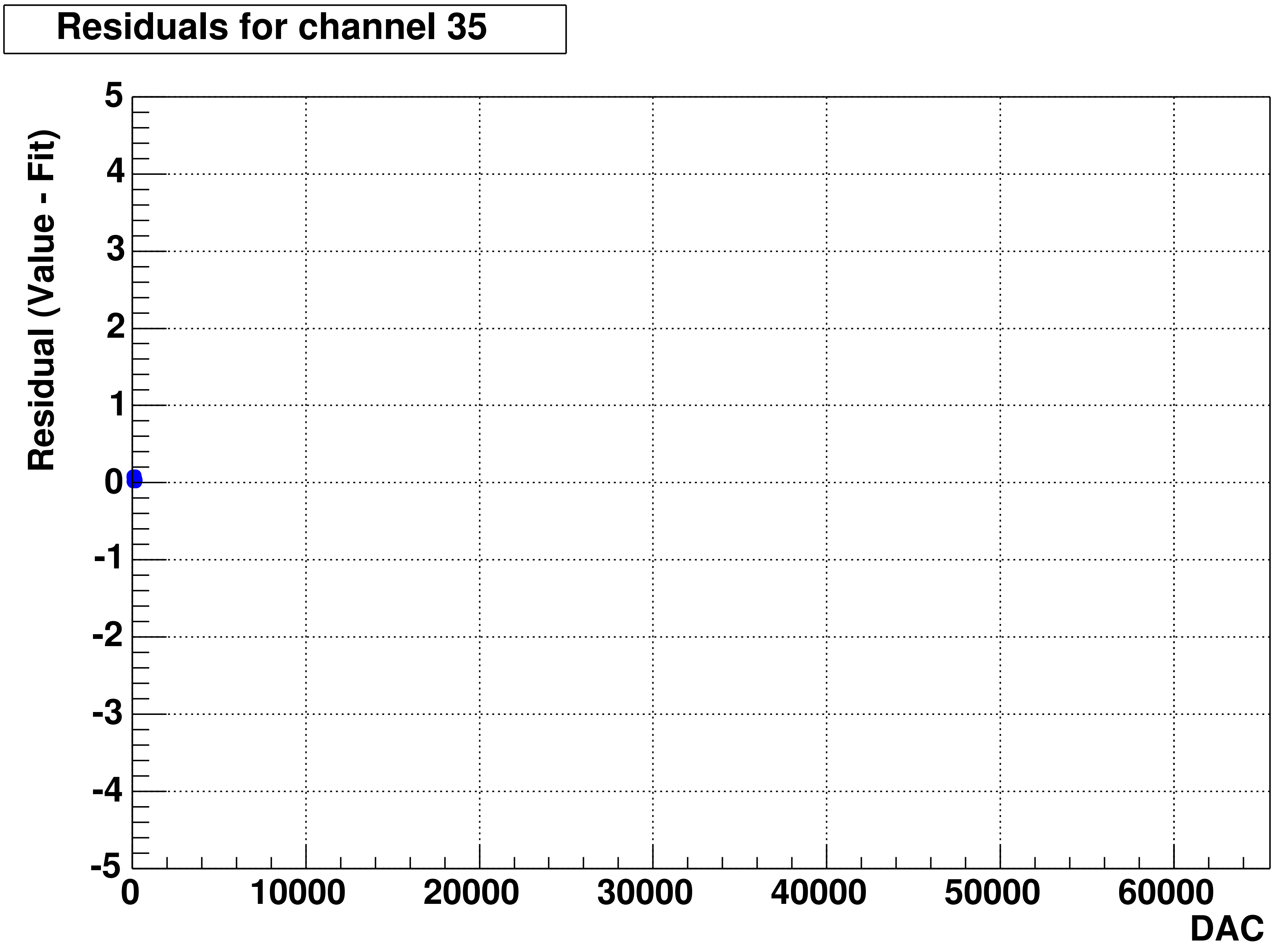


Linear fit for channel 34
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

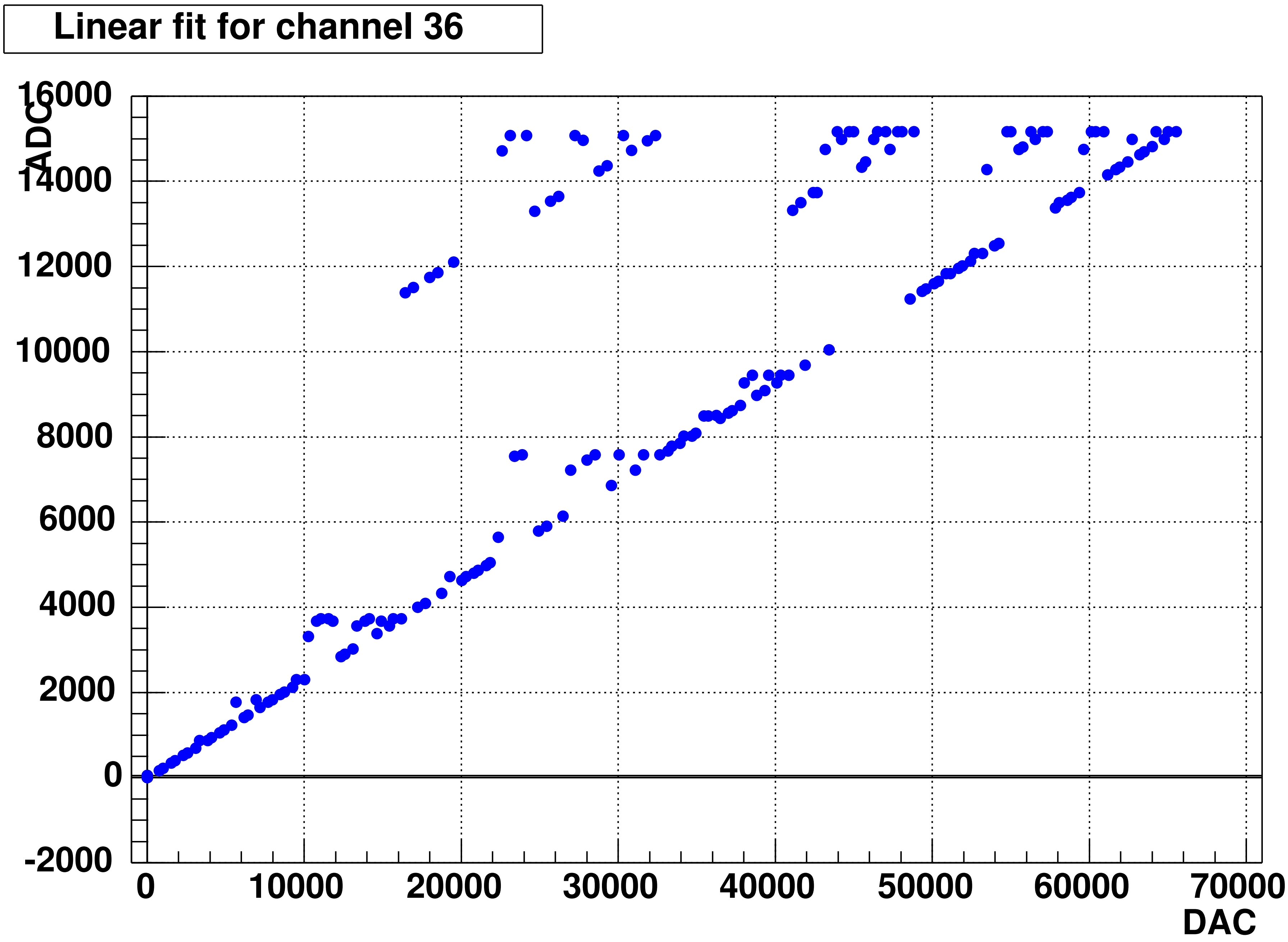

Residuals for channel 34
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



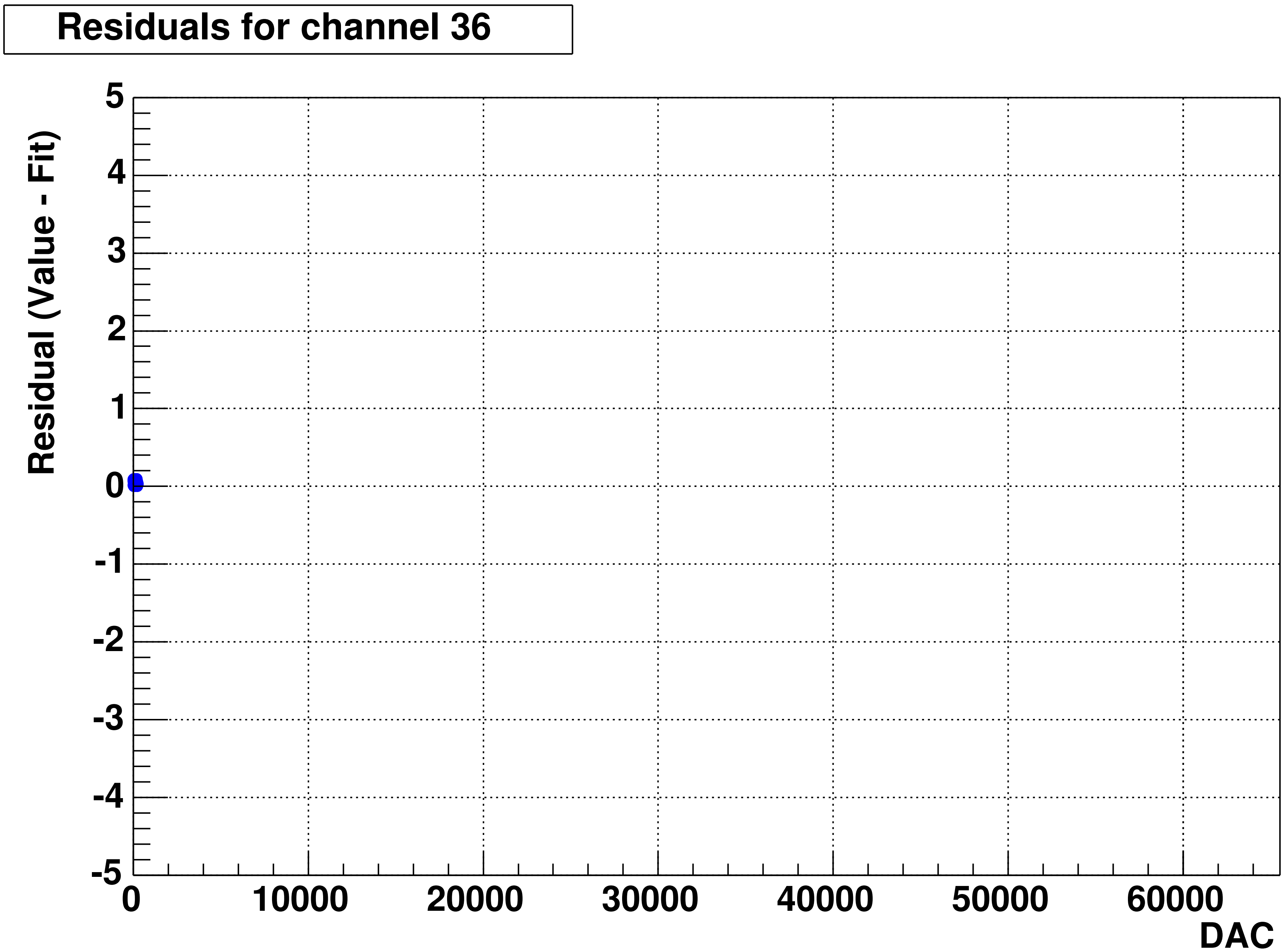
Linear fit for channel 35
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

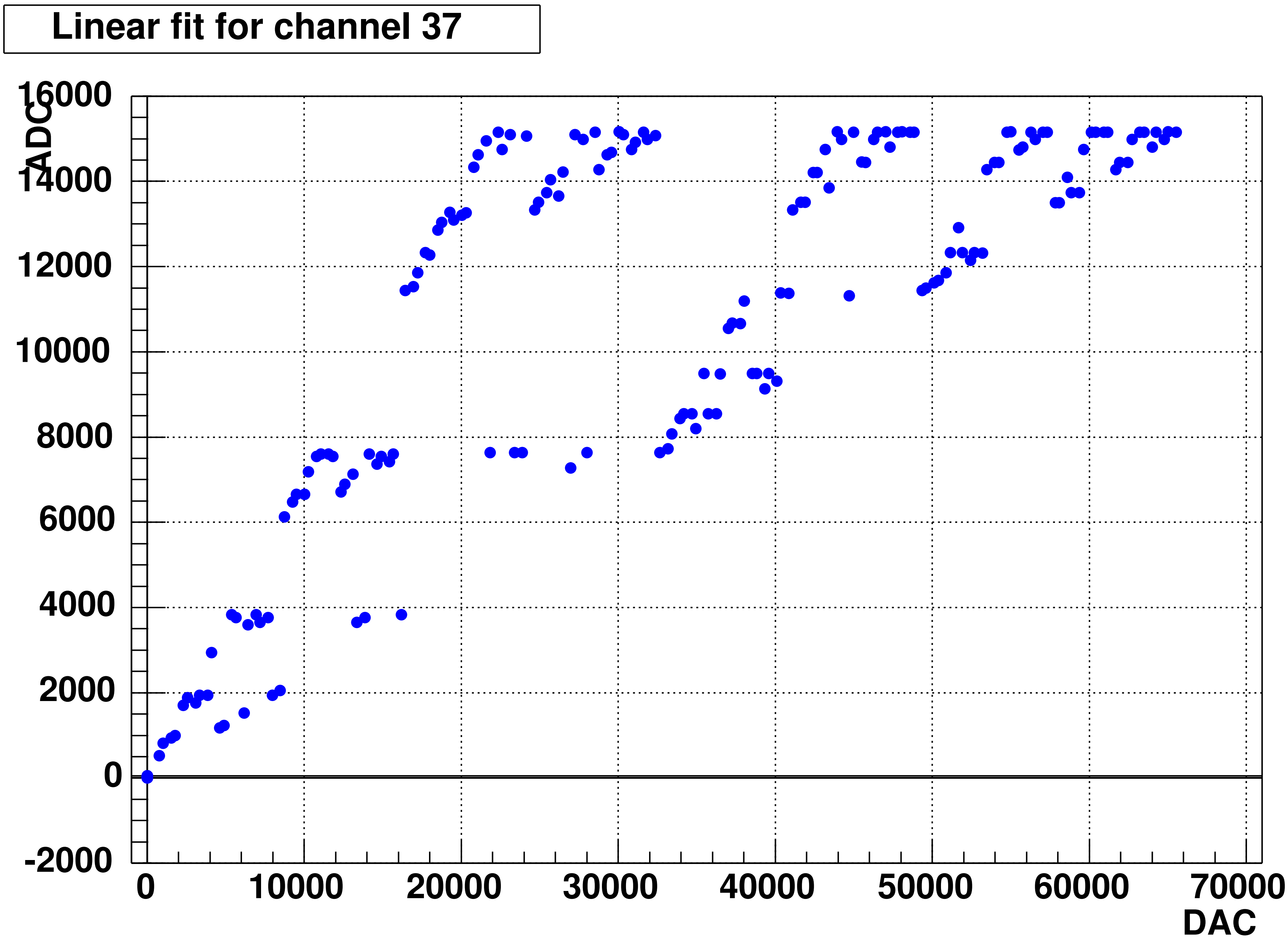


Residuals for channel 35
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

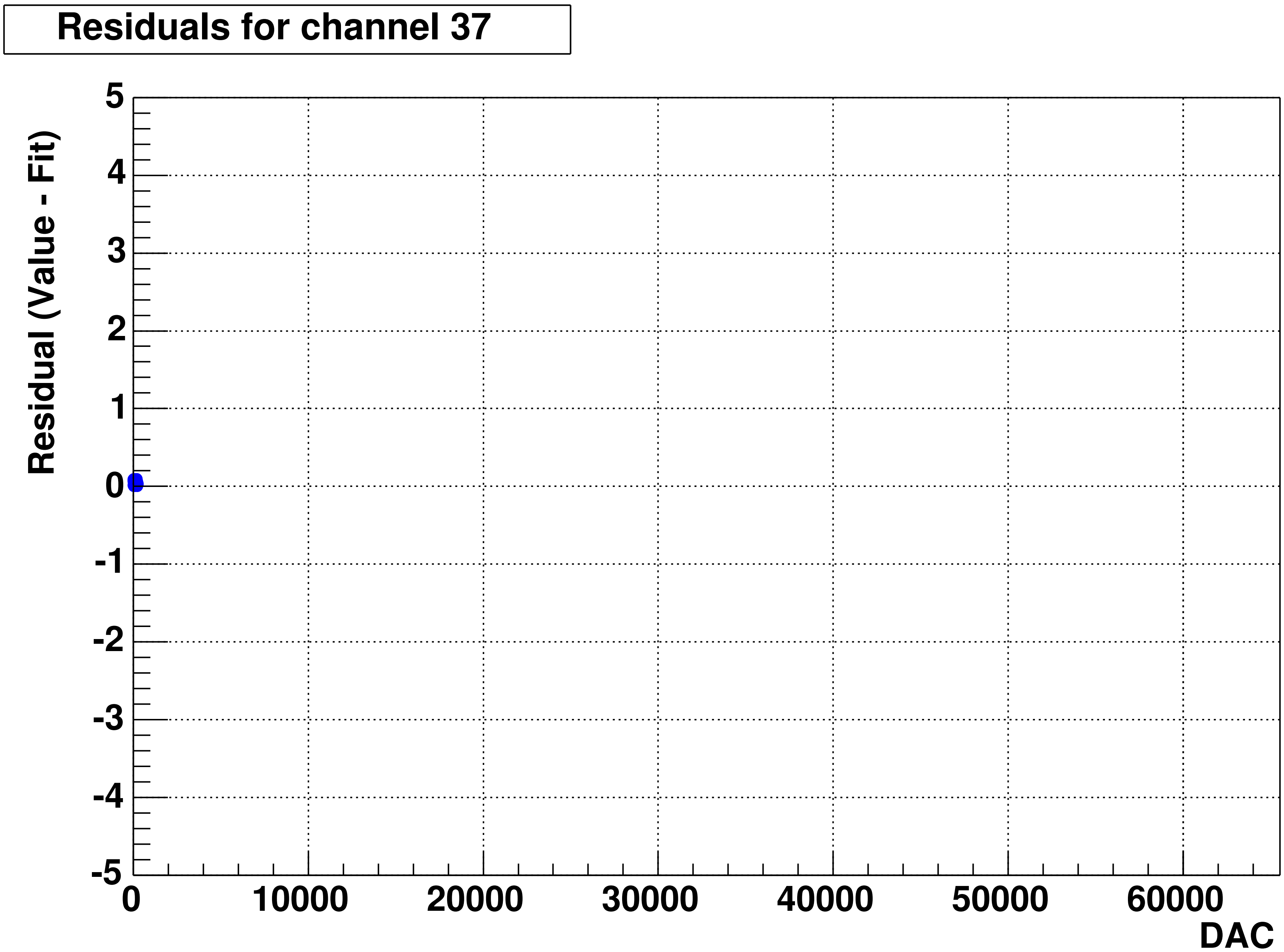


Linear fit for channel 36
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

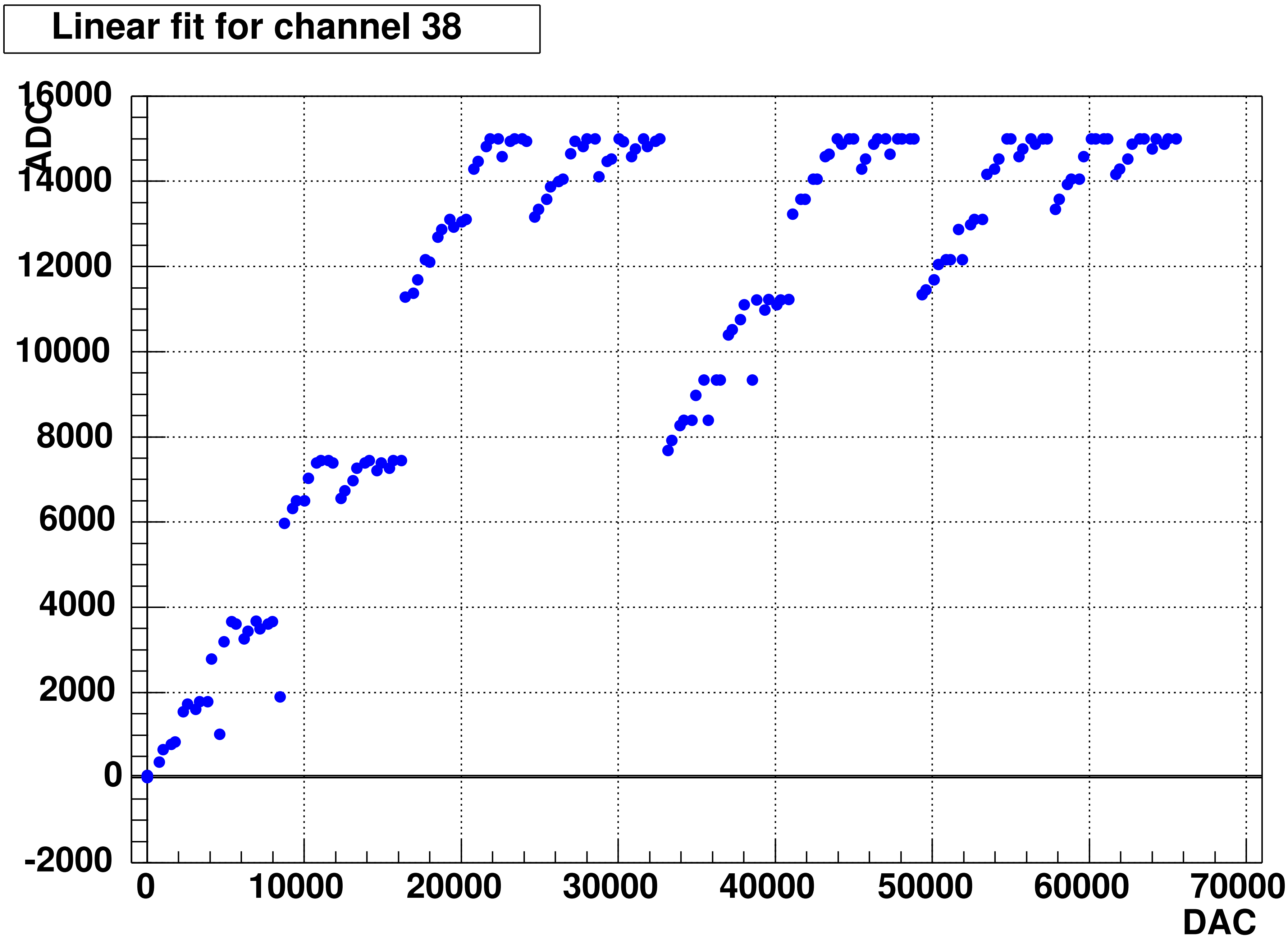

Residuals for channel 36
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



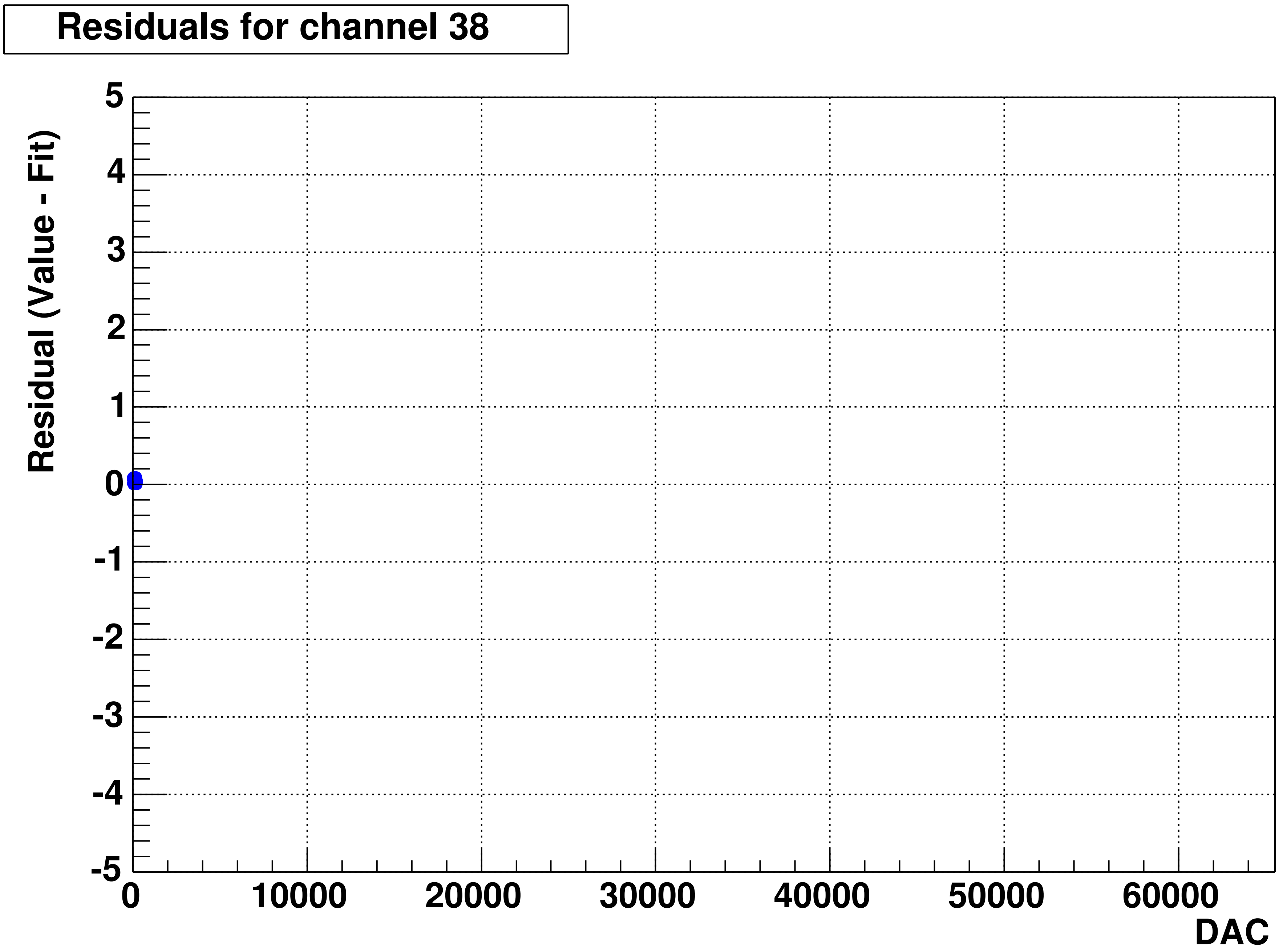
Linear fit for channel 37
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

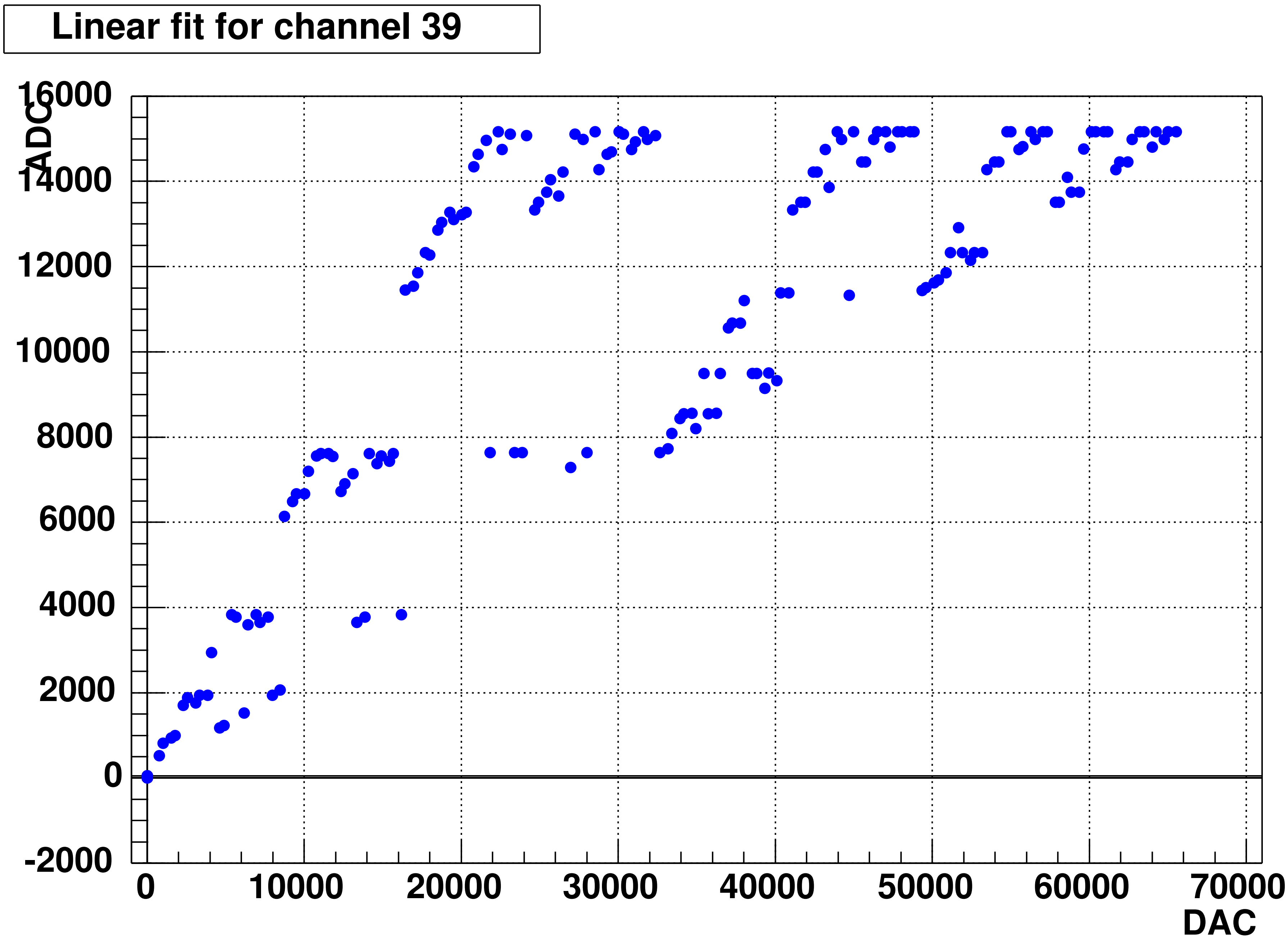


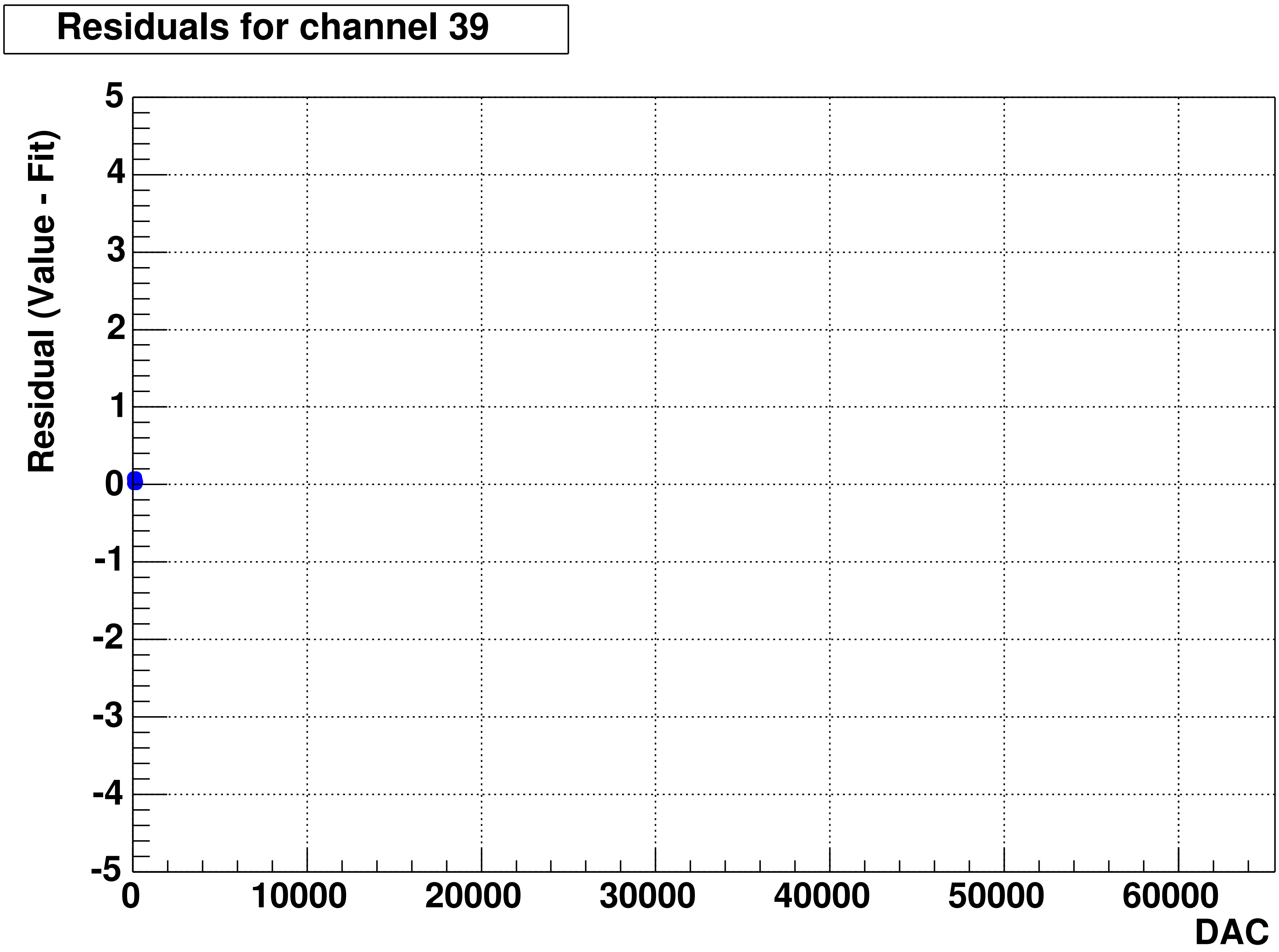
Residuals for channel 37
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

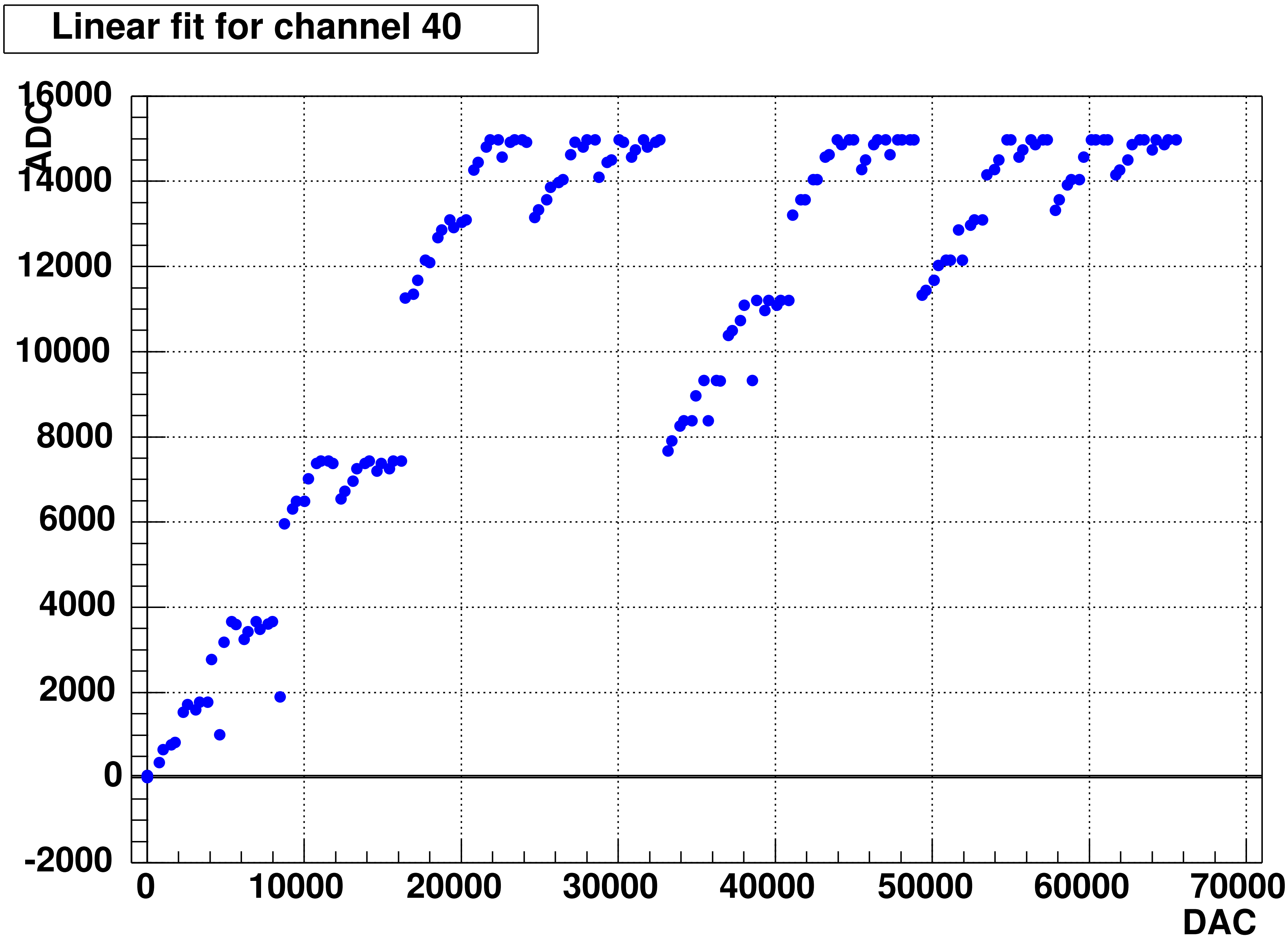


Linear fit for channel 38
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

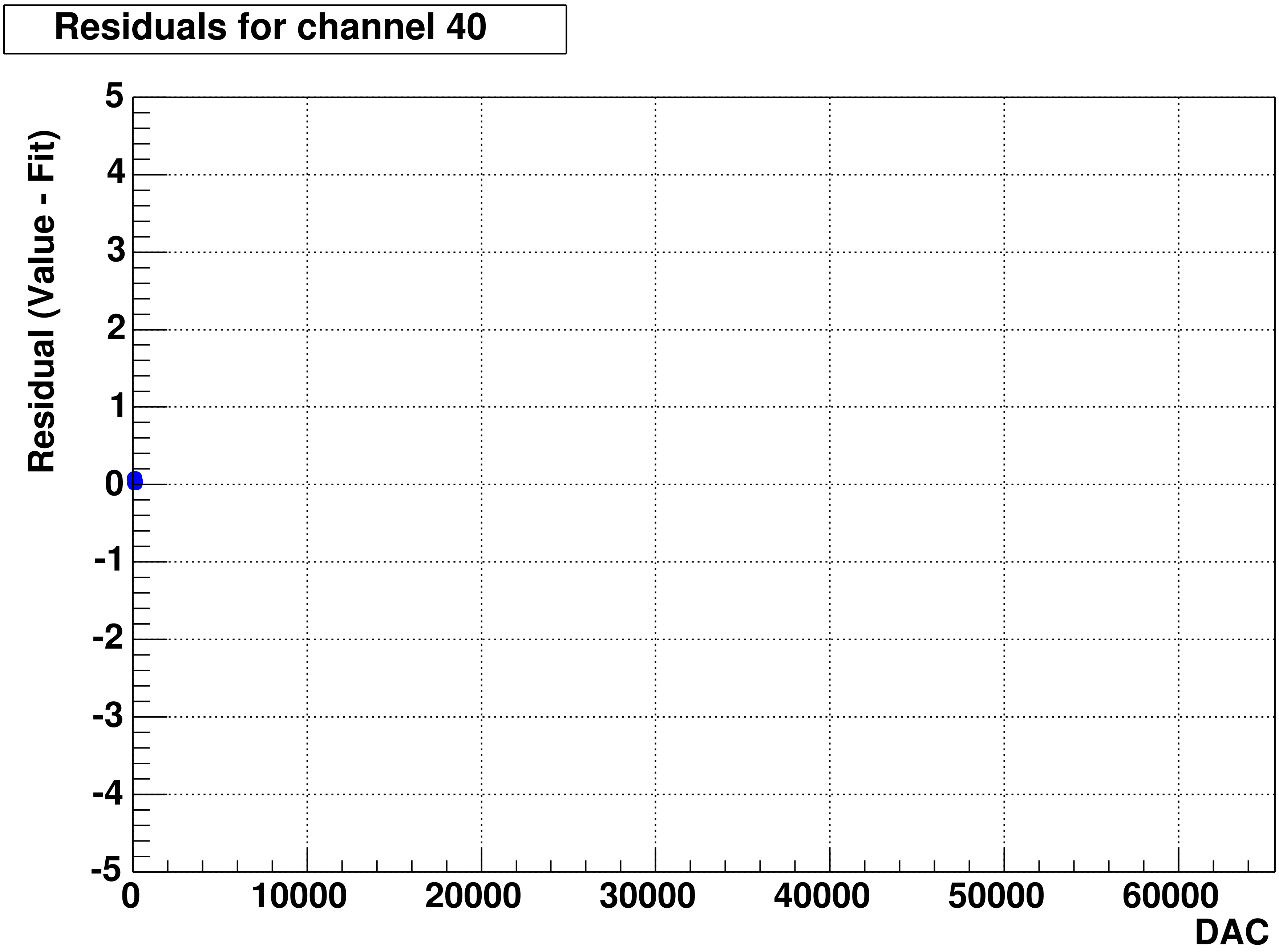

Residuals for channel 38
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC


Linear fit for channel 39
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

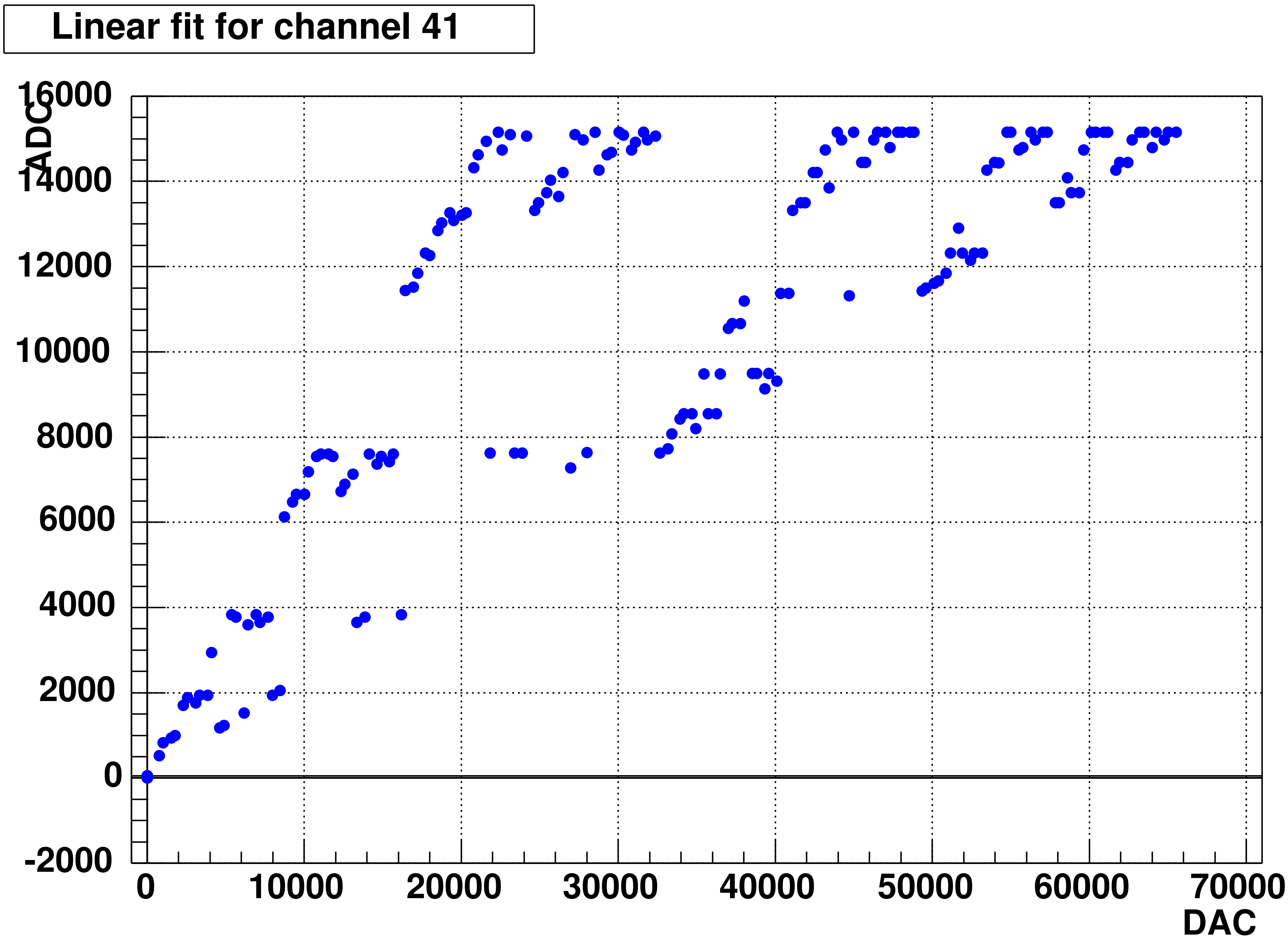

Residuals for channel 39
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



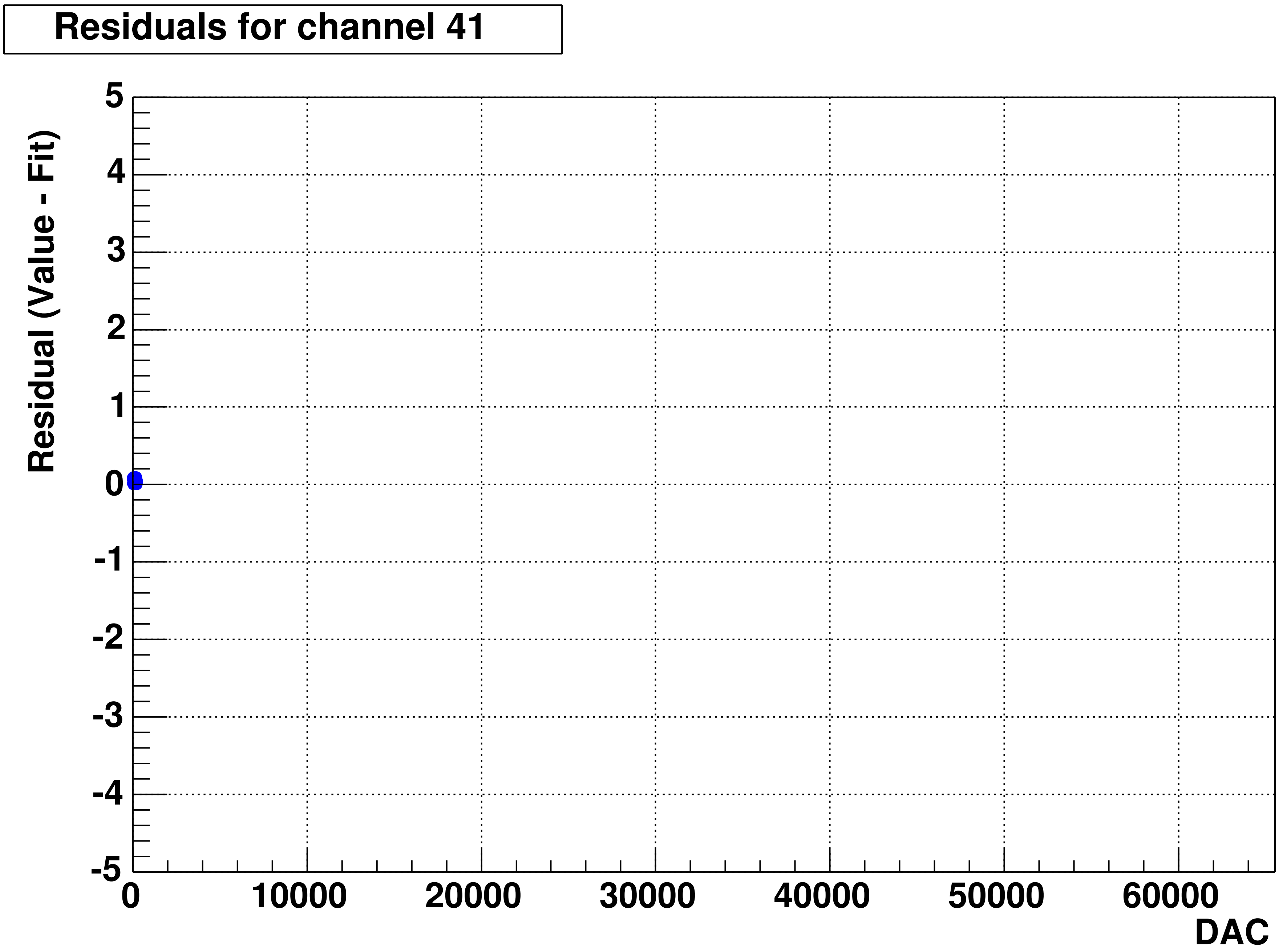
Linear fit for channel 40
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC



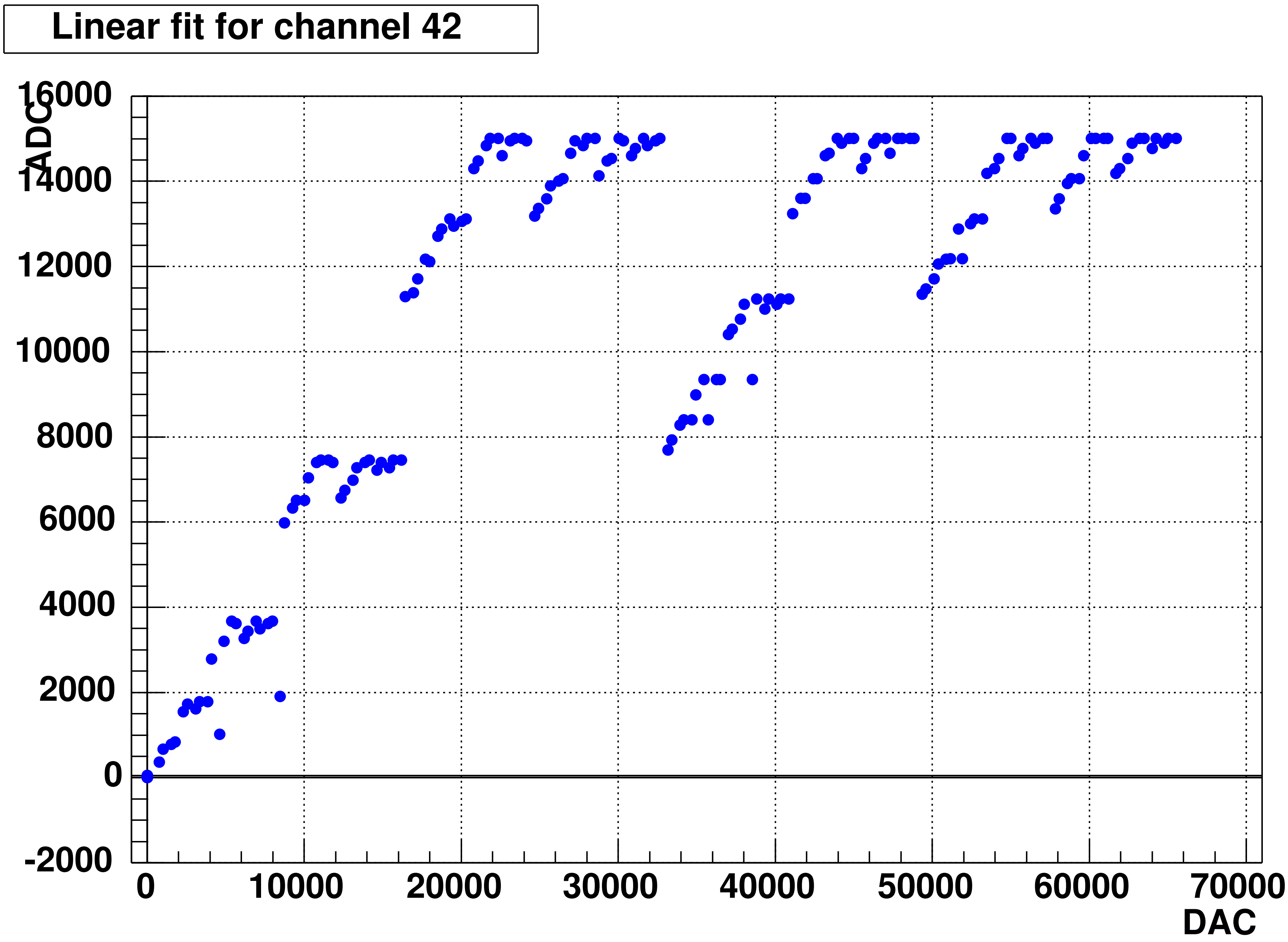
Residuals for channel 40
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



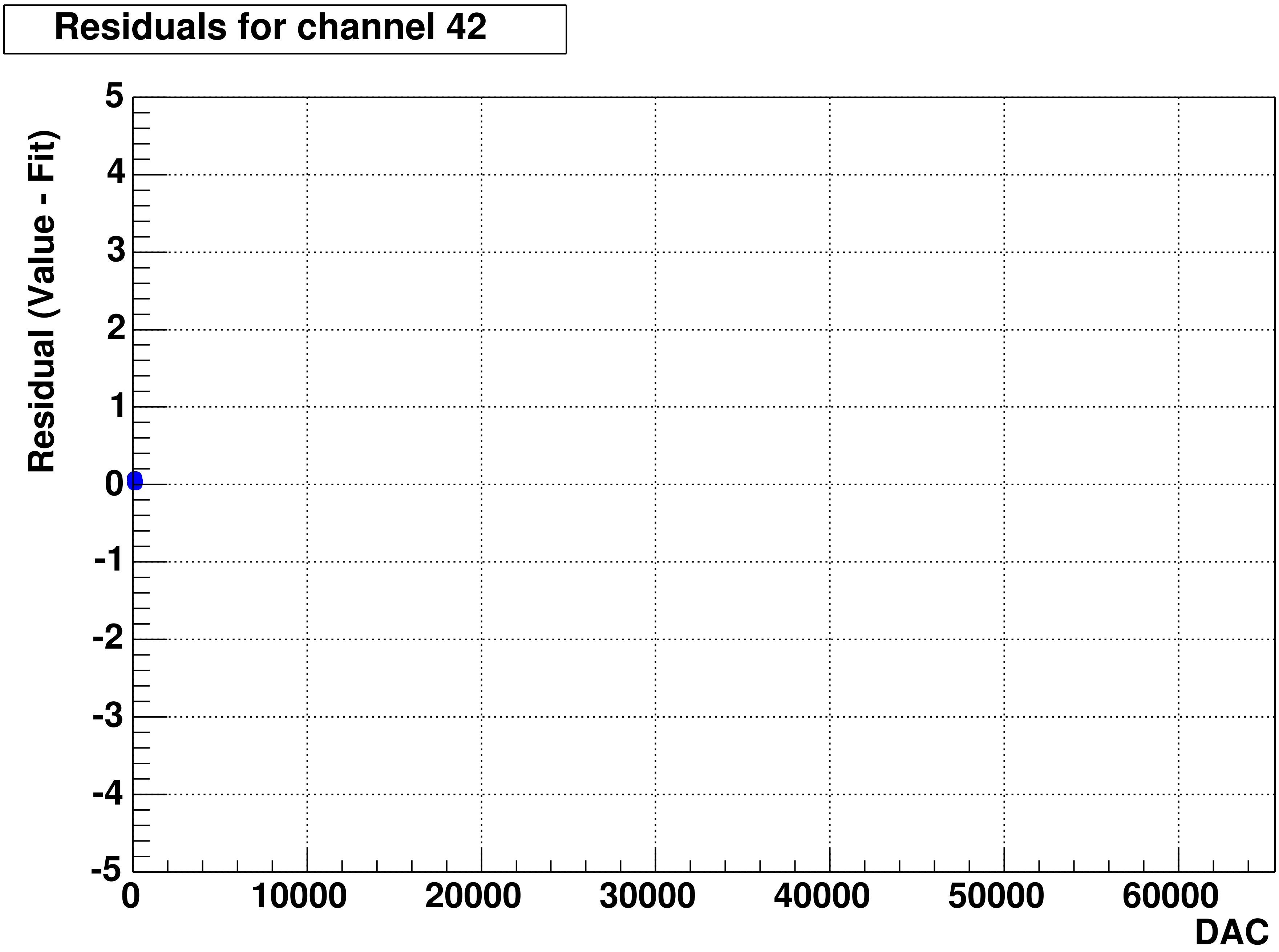
Linear fit for channel 41
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC



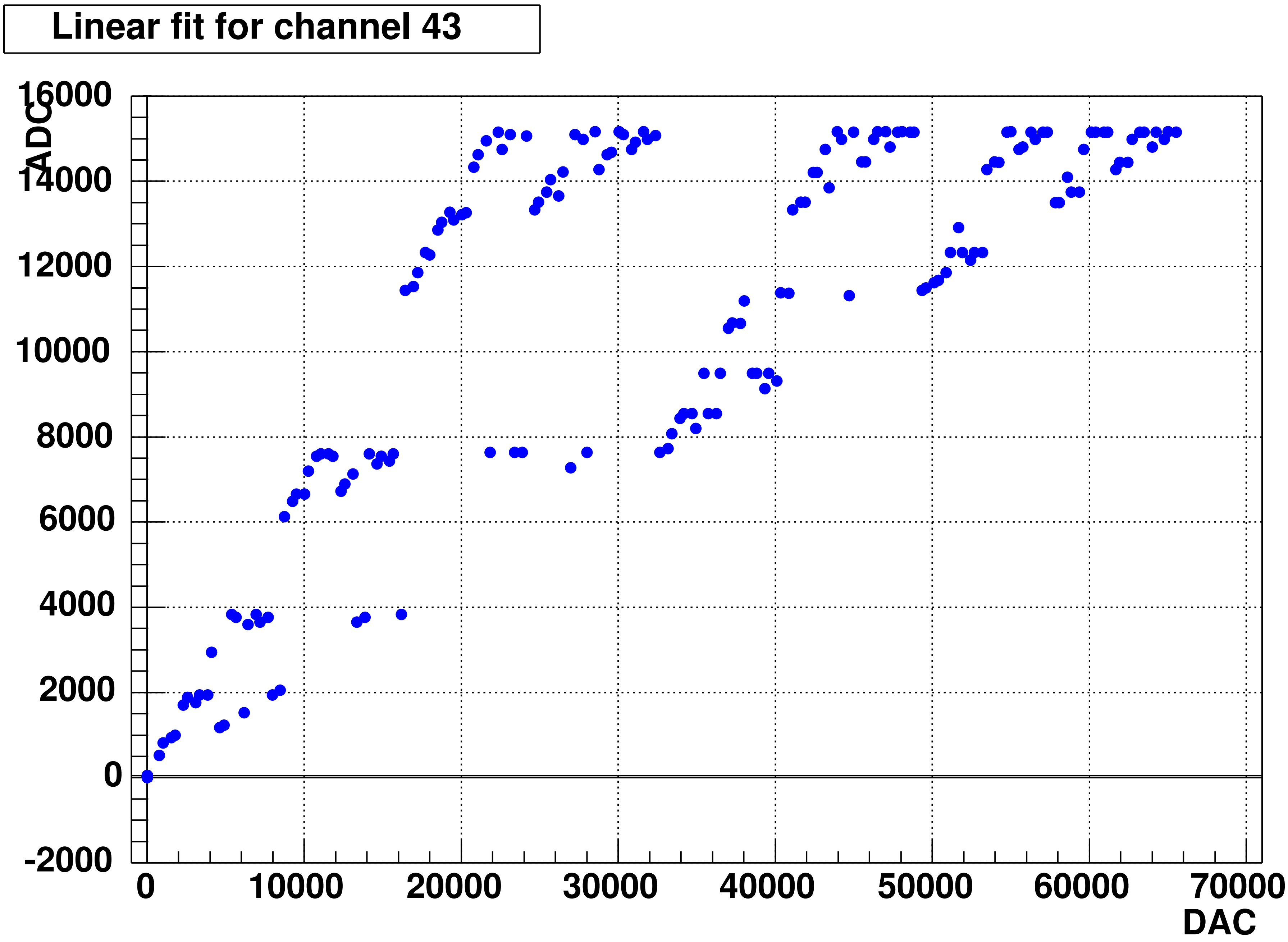
Residuals for channel 41
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

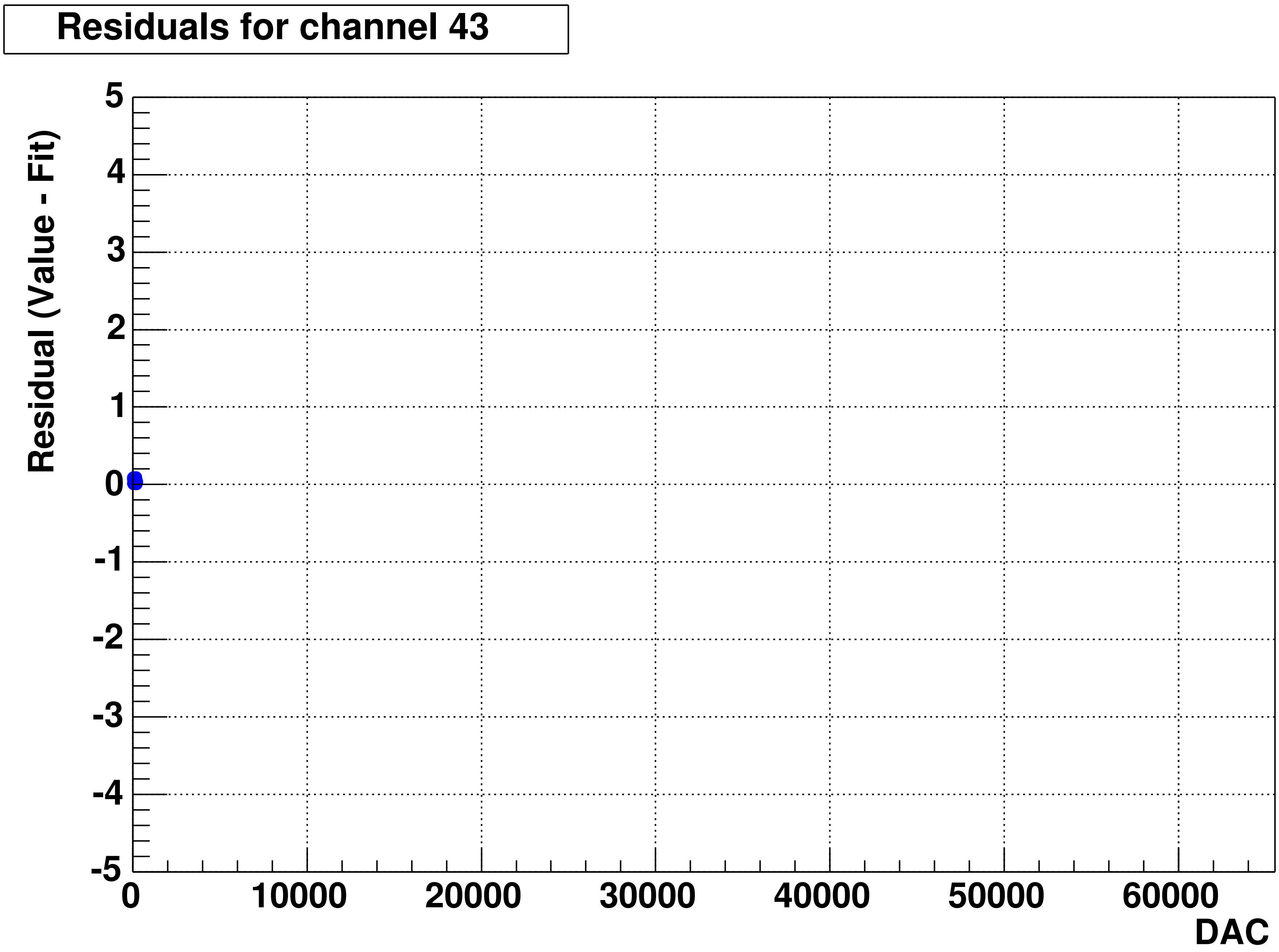


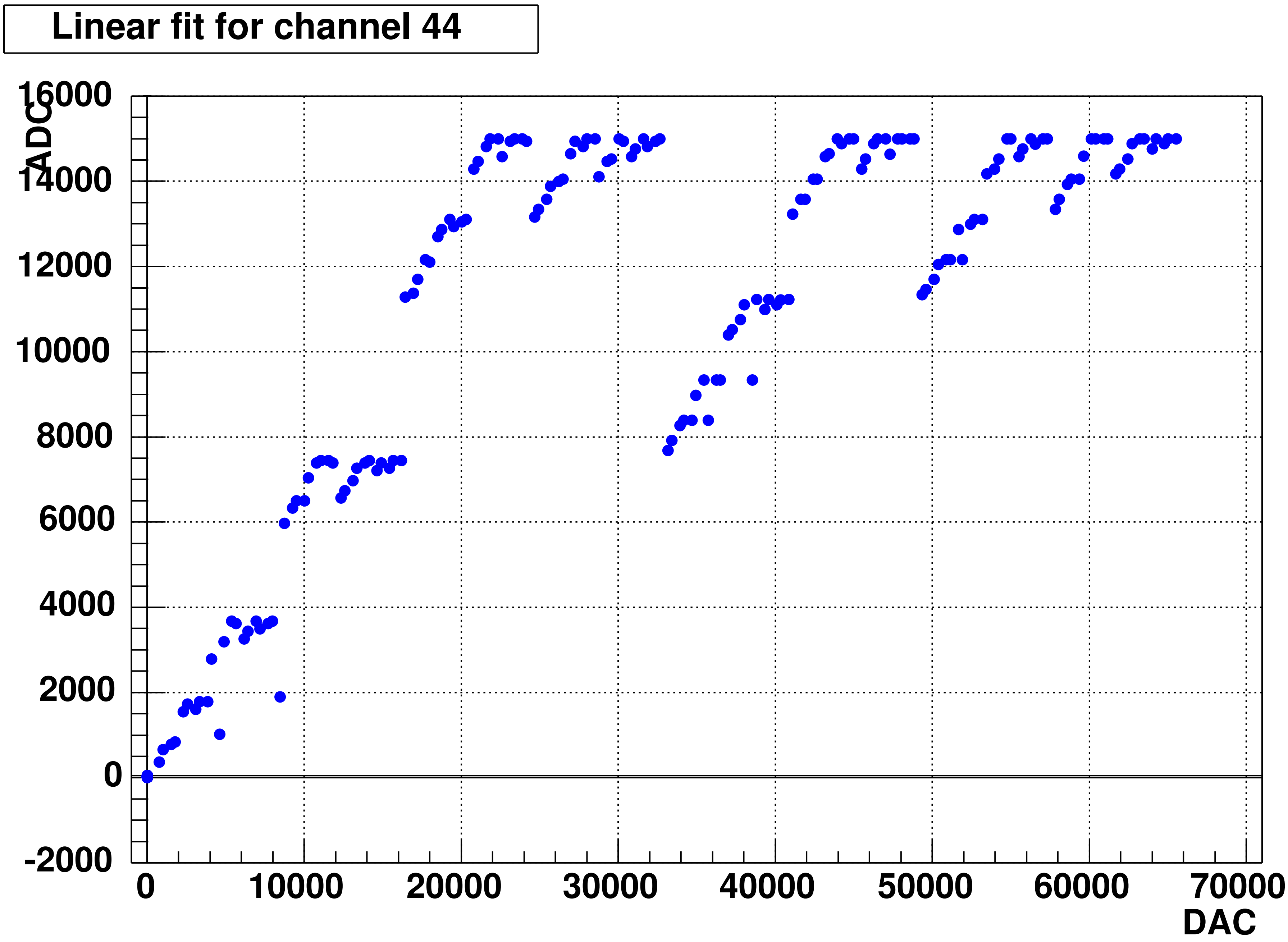
Linear fit for channel 42
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC



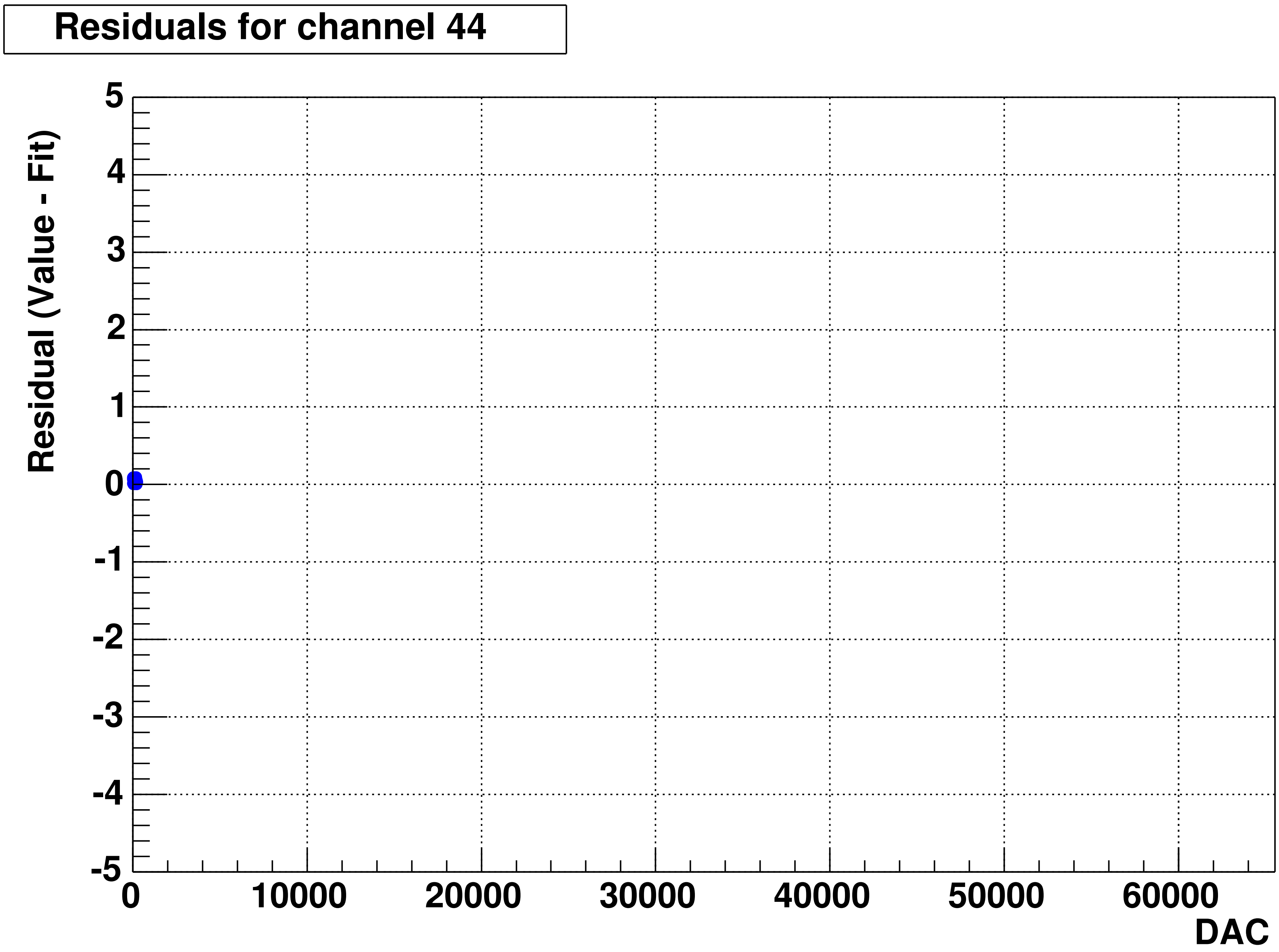
Residuals for channel 42
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC


Linear fit for channel 43
ADC
DAC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000

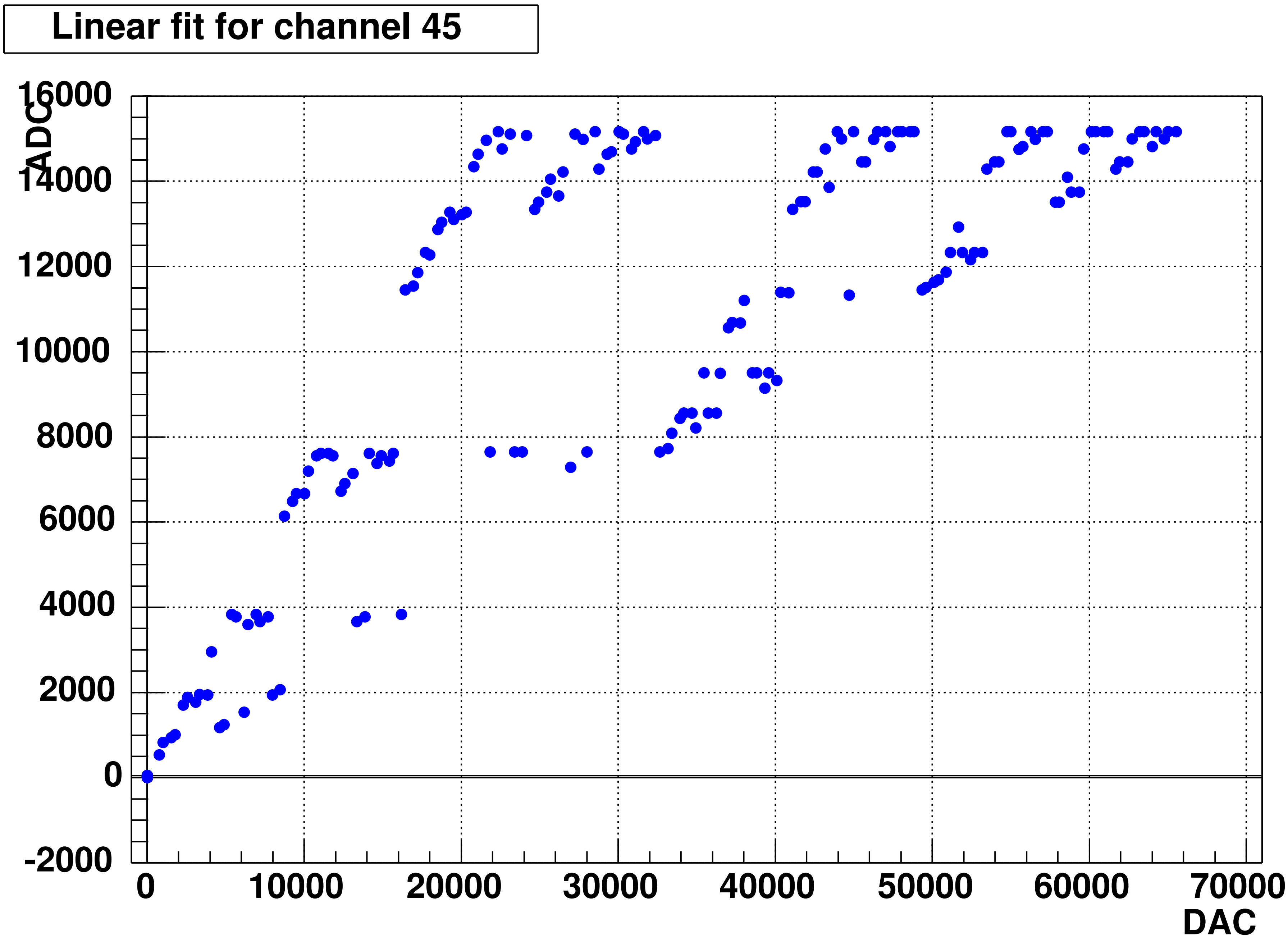

Residuals for channel 43
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



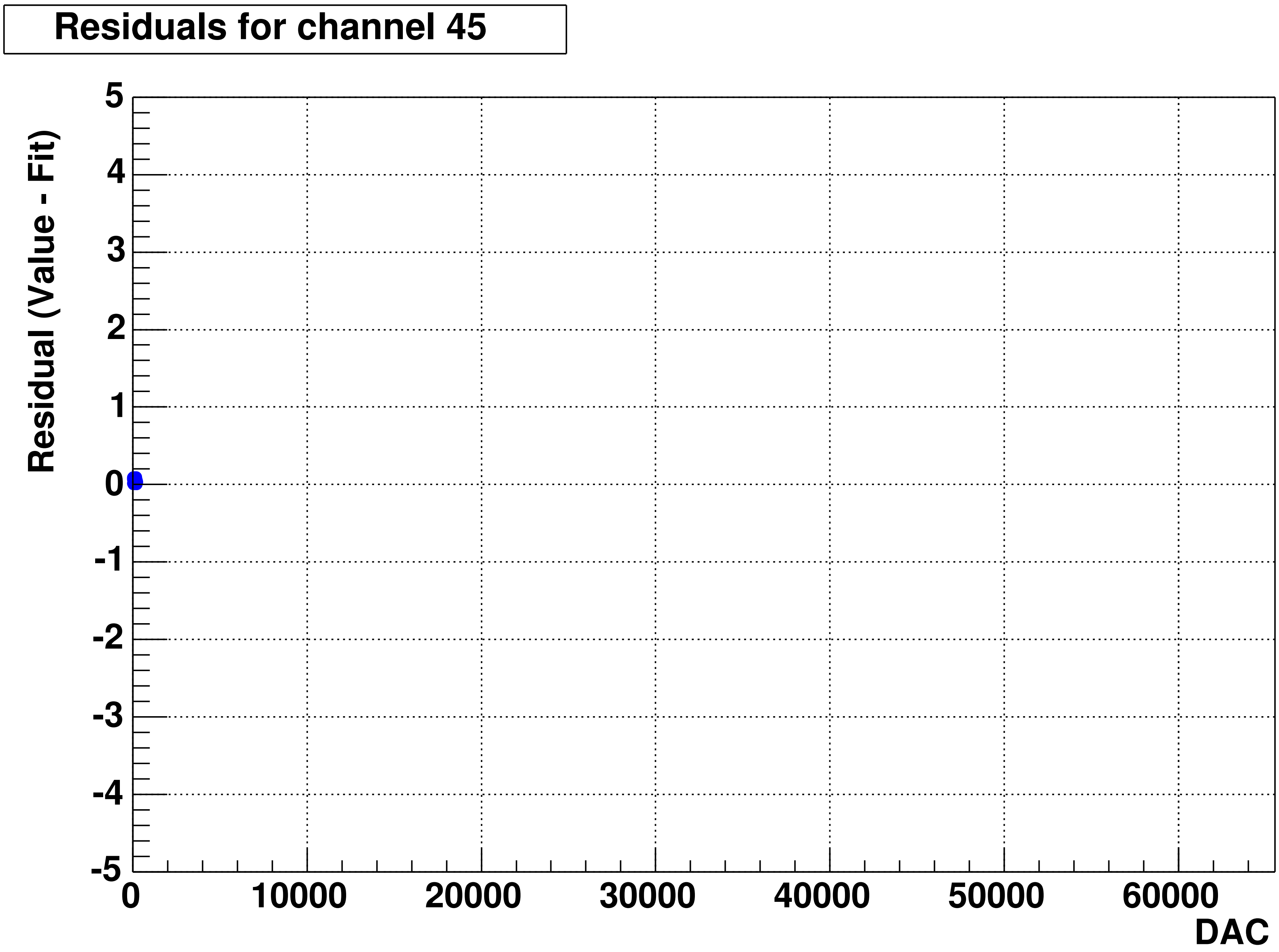
Linear fit for channel 44
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

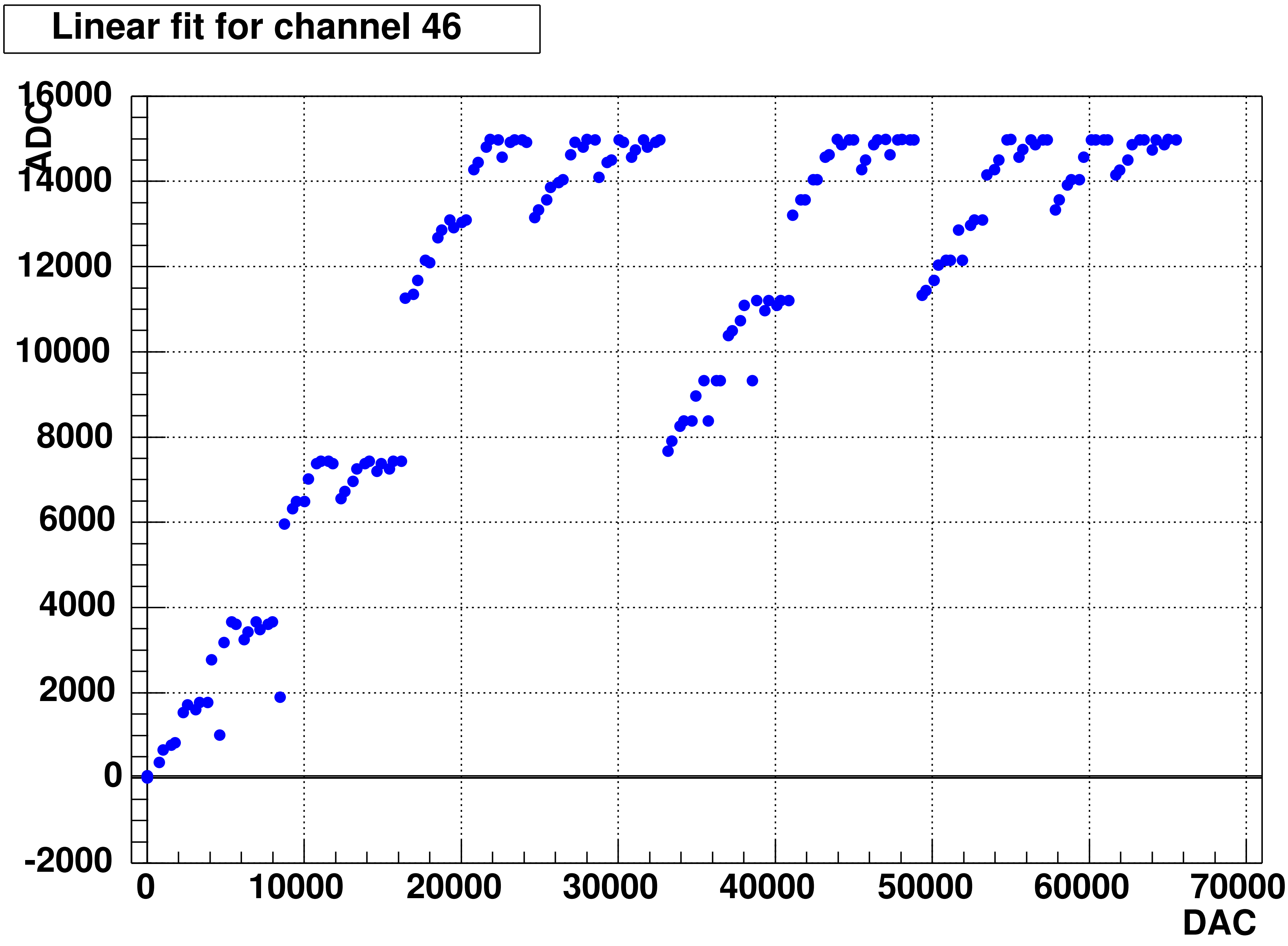


Residuals for channel 44
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

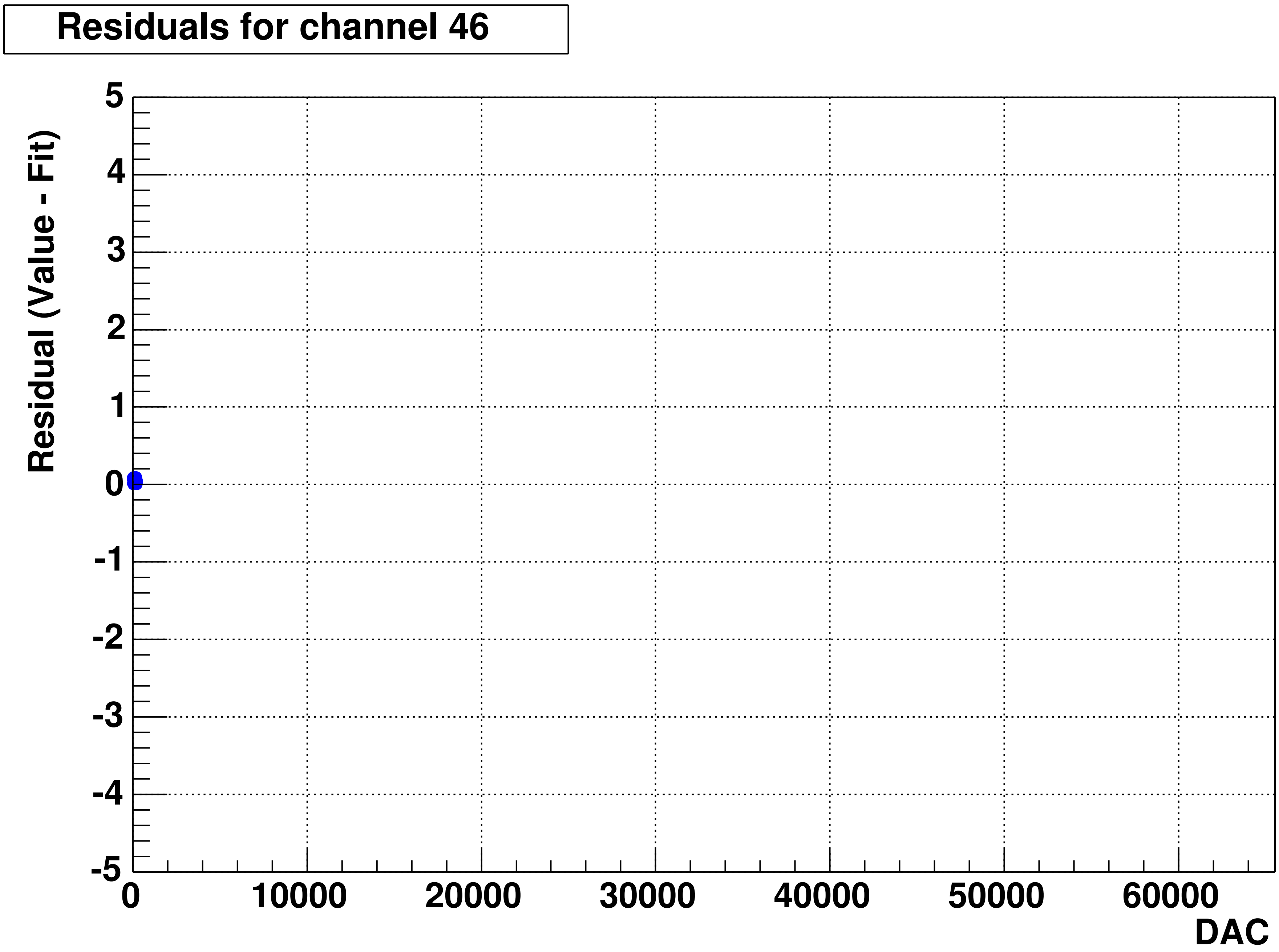


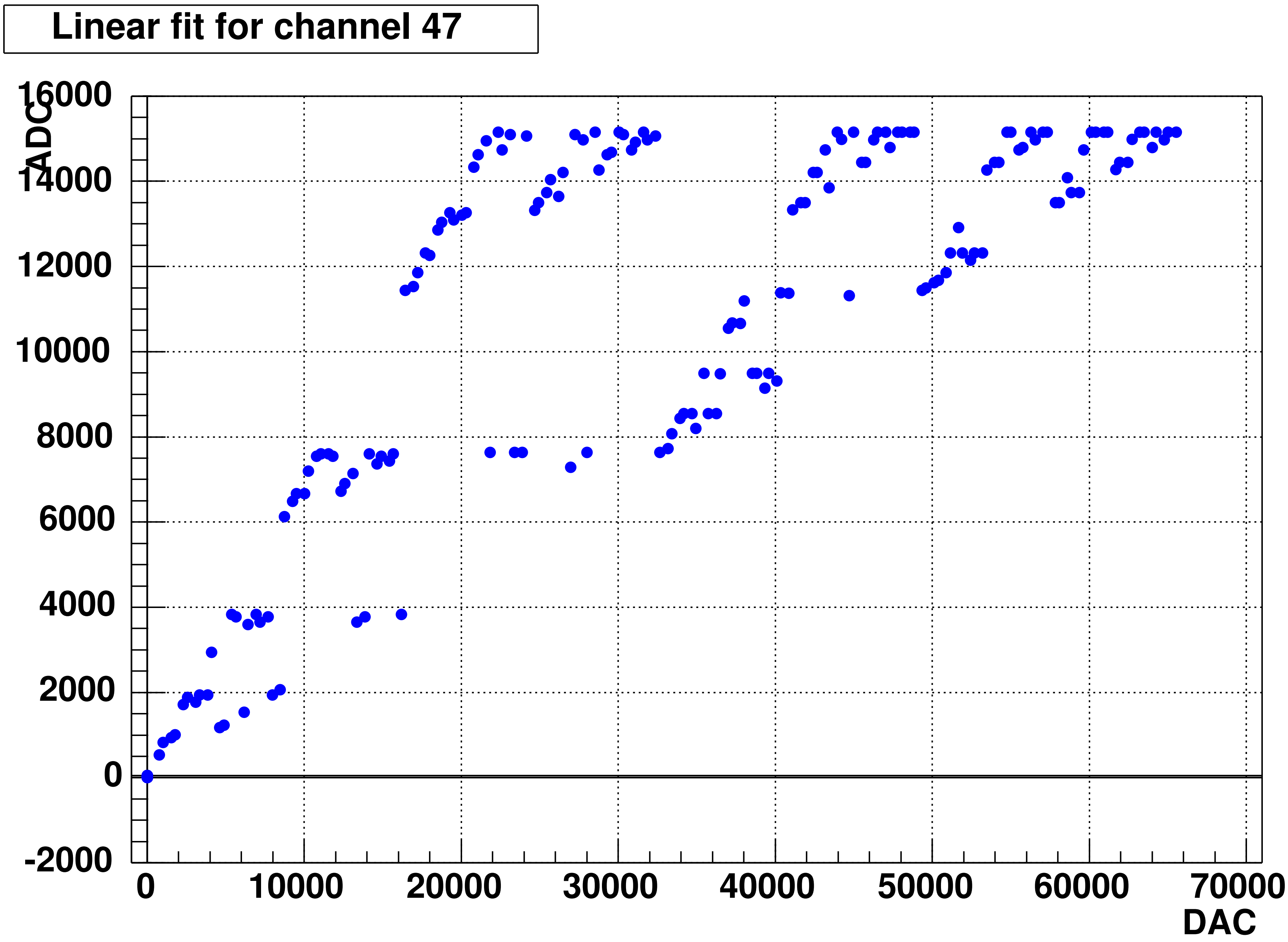
Linear fit for channel 45
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

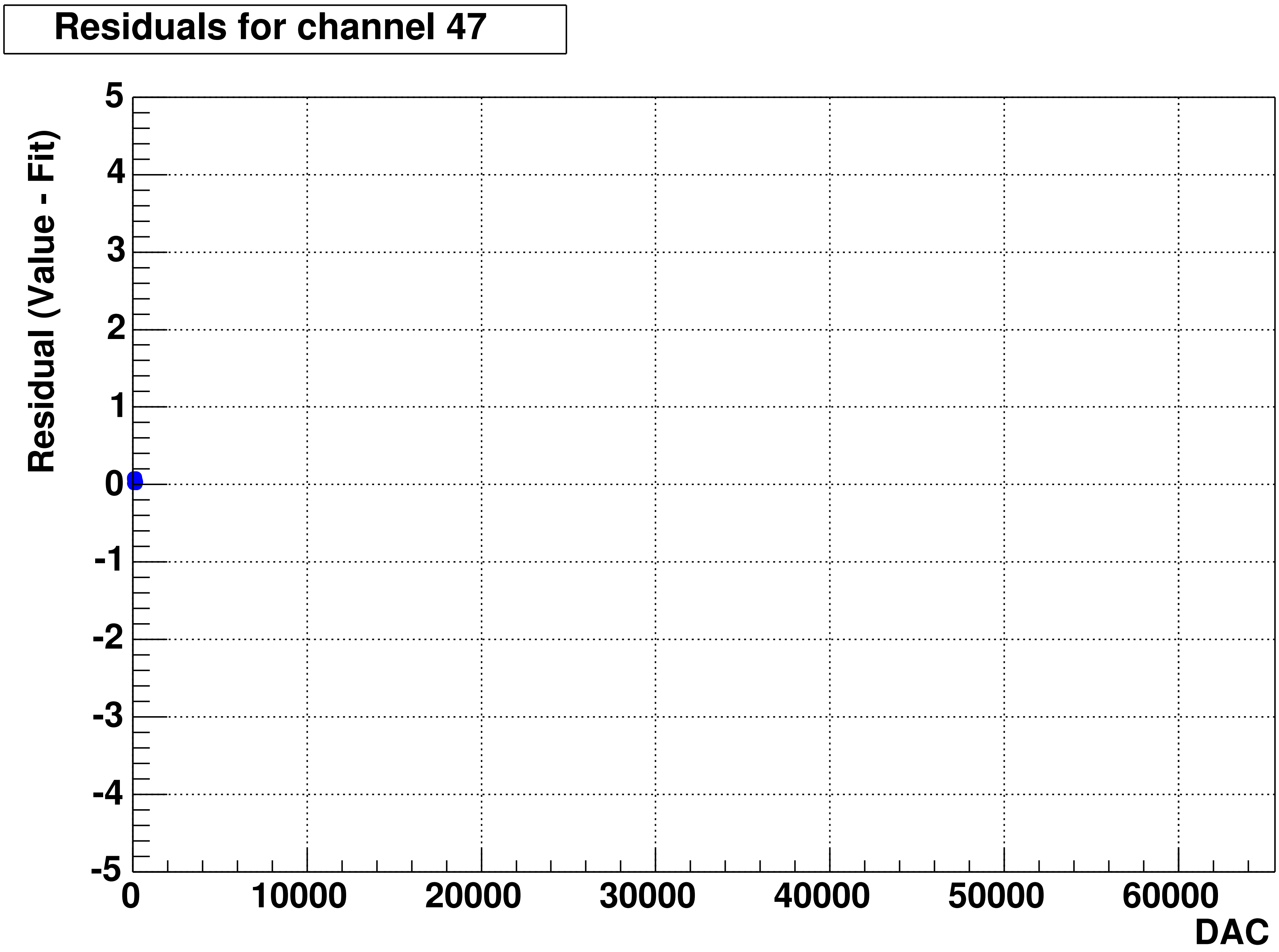

Residuals for channel 45
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



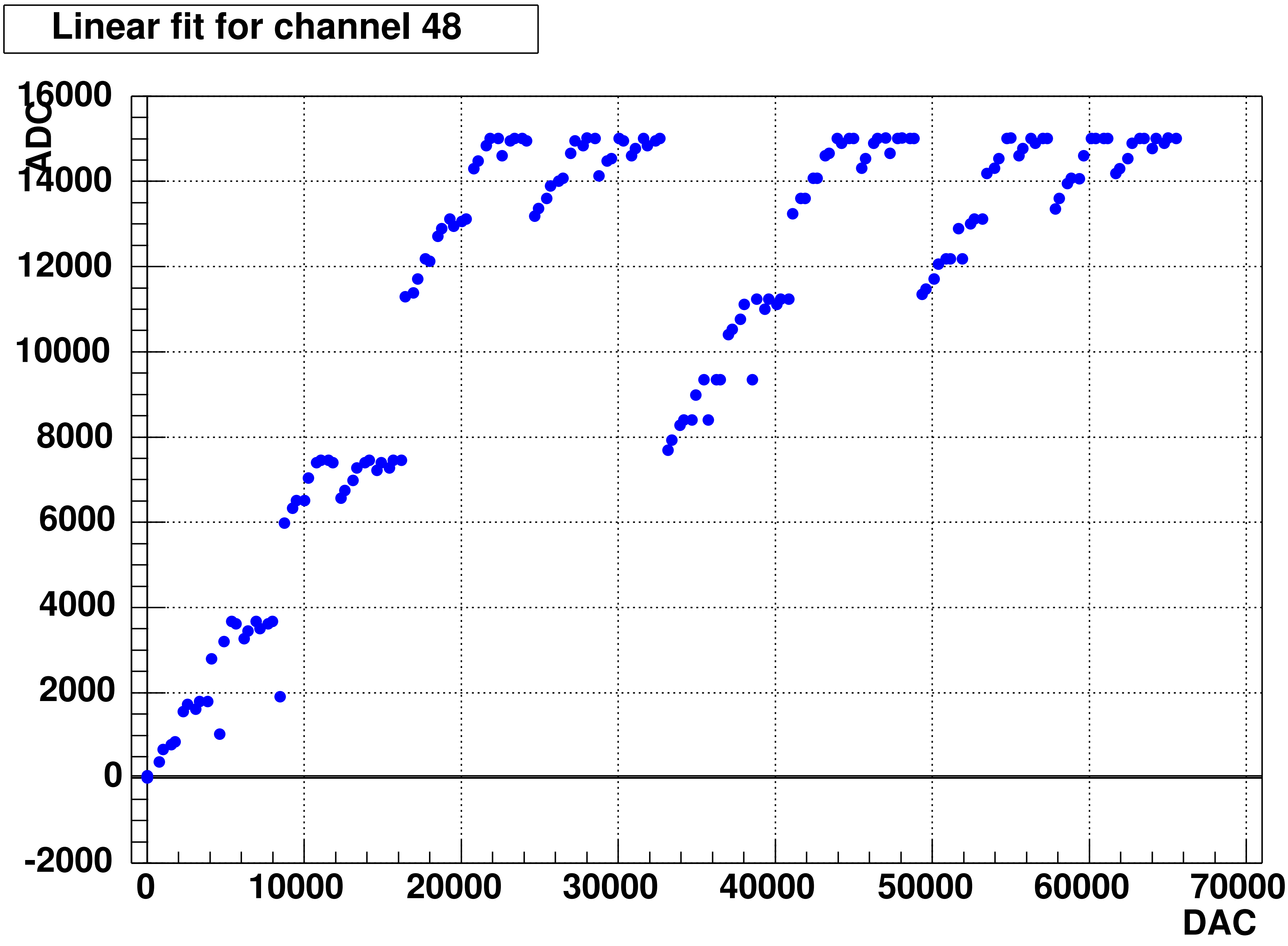
Linear fit for channel 46
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC


Residuals for channel 46
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

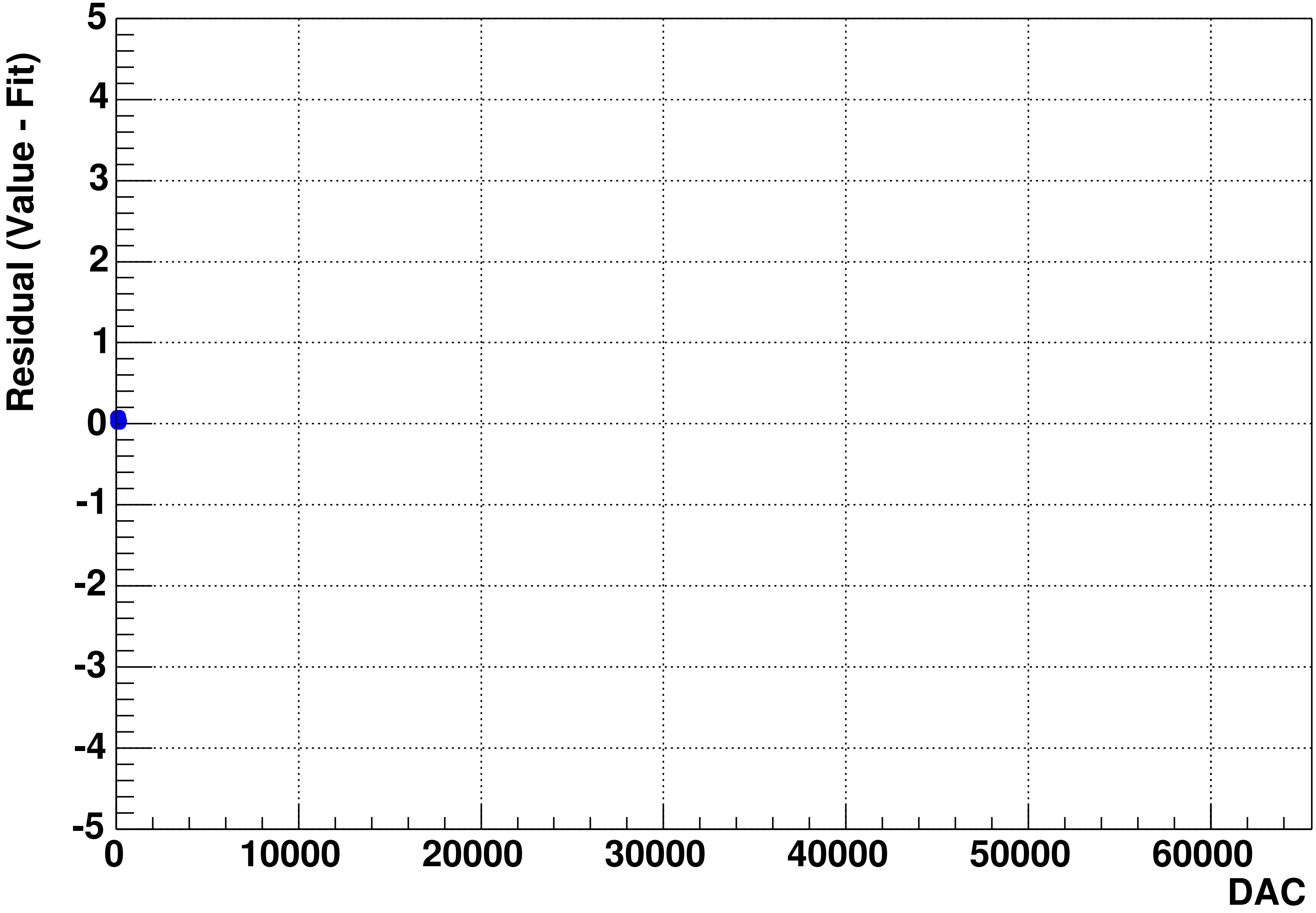

Linear fit for channel 47
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

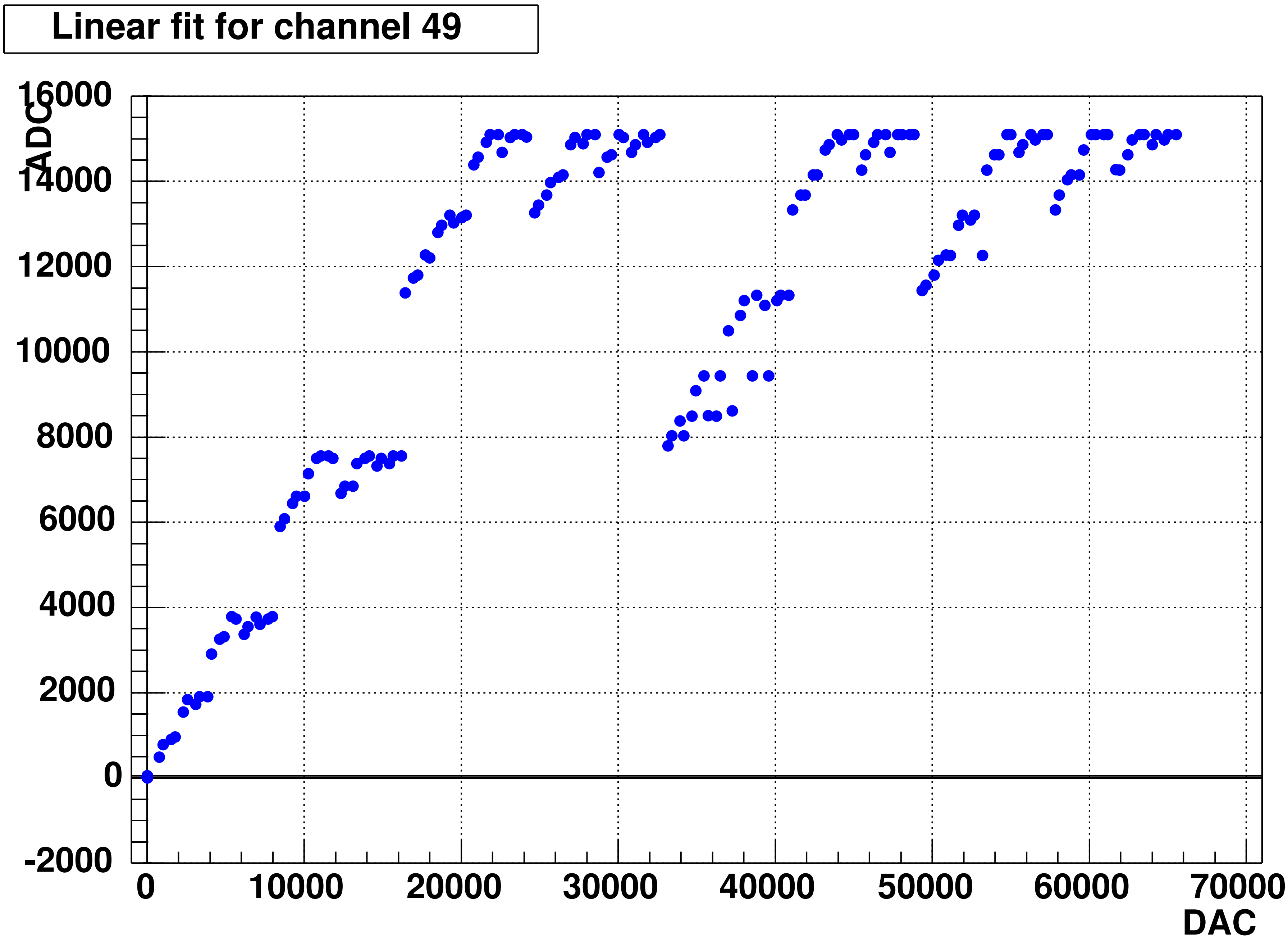


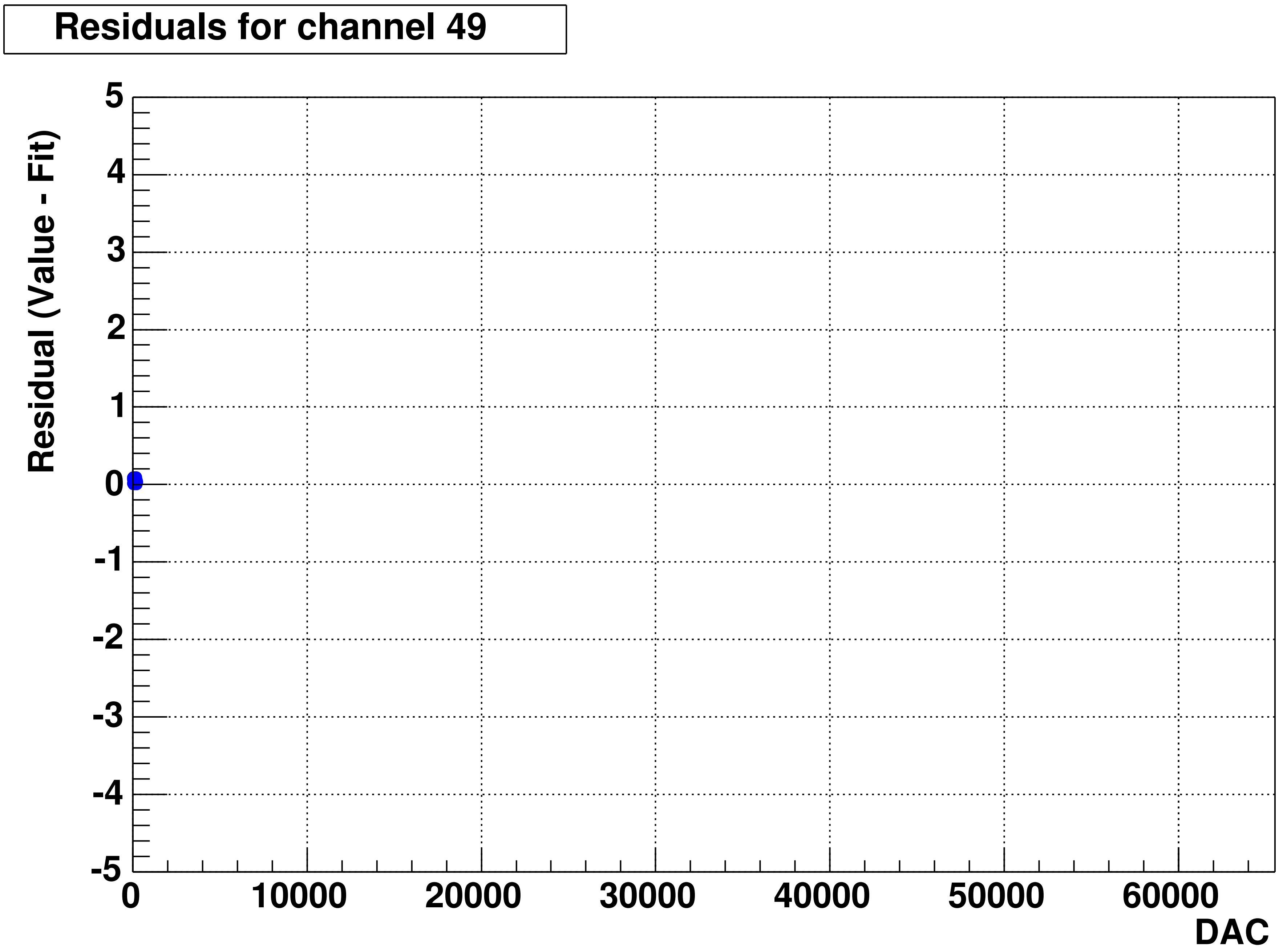
Residuals for channel 47
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

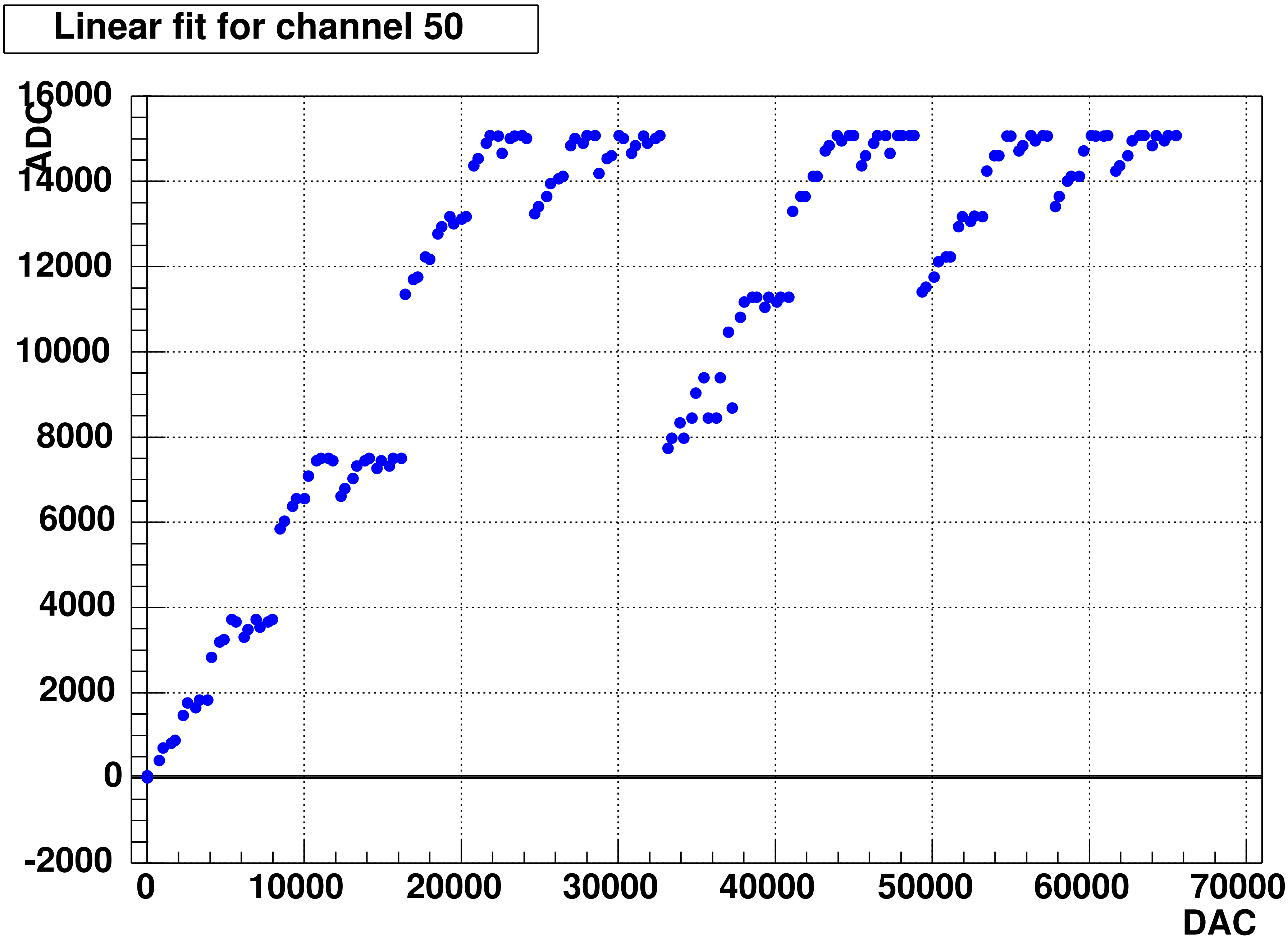

Linear fit for channel 48
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

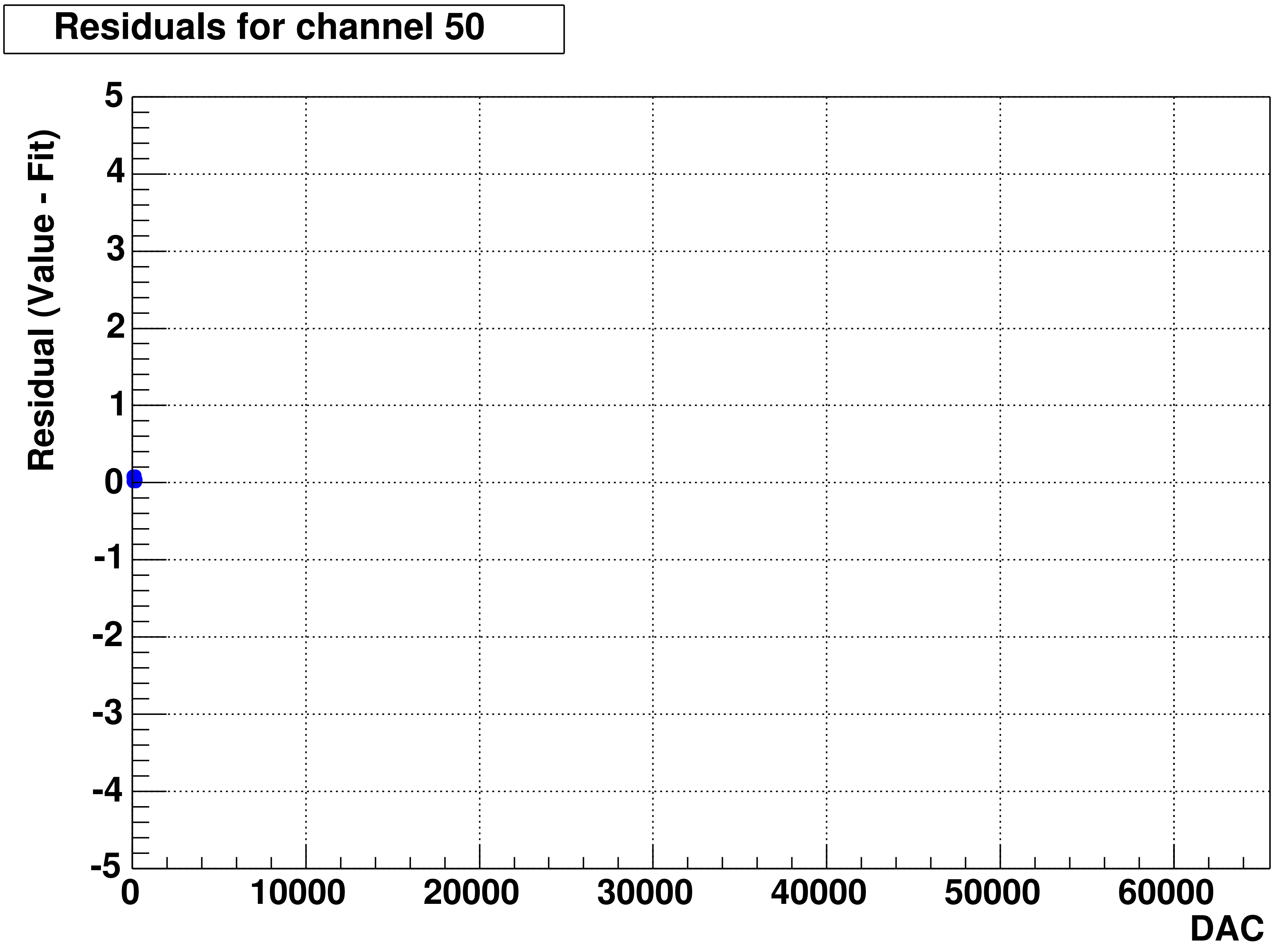
Residuals for channel 48

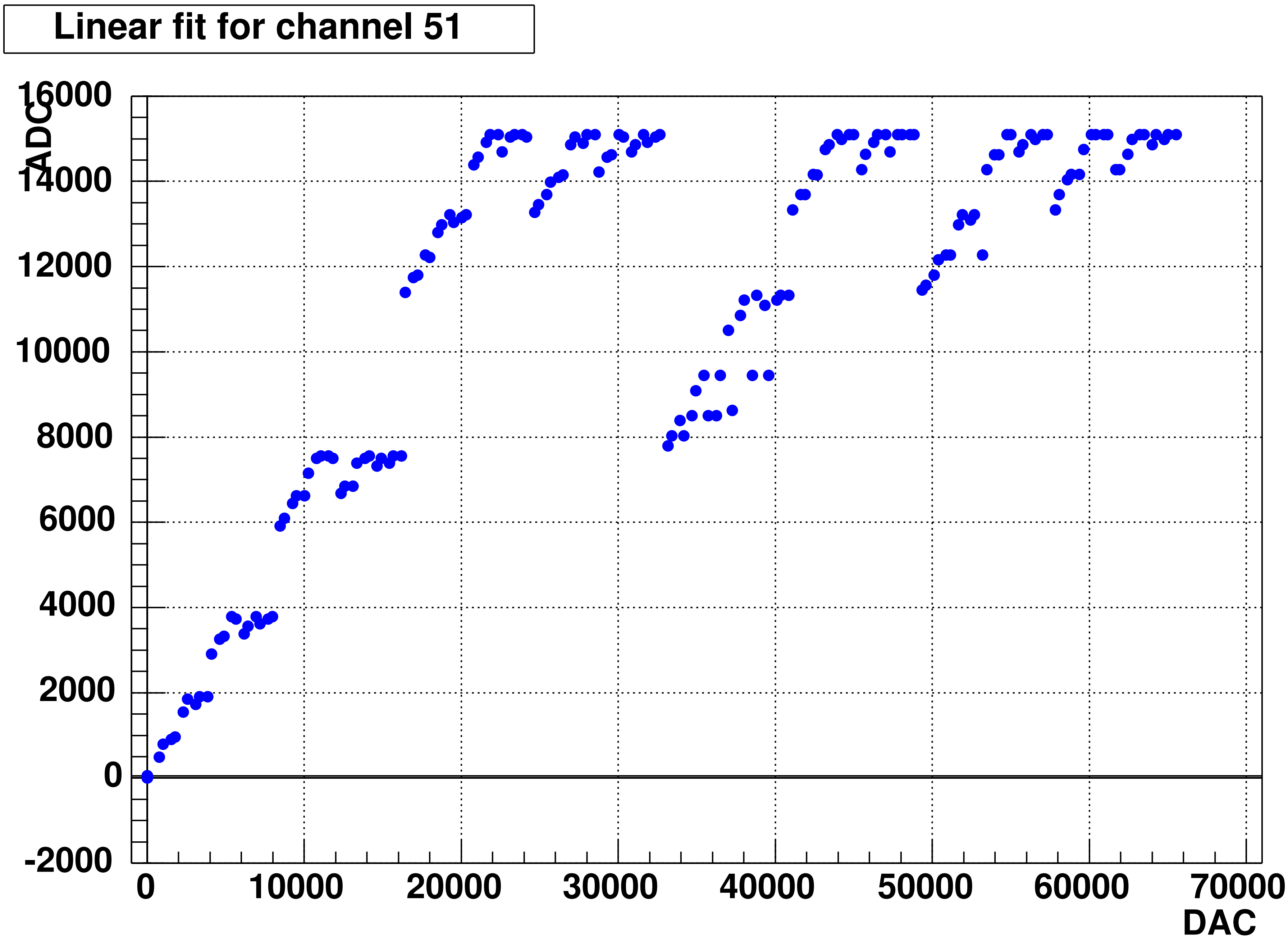



Linear fit for channel 49
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

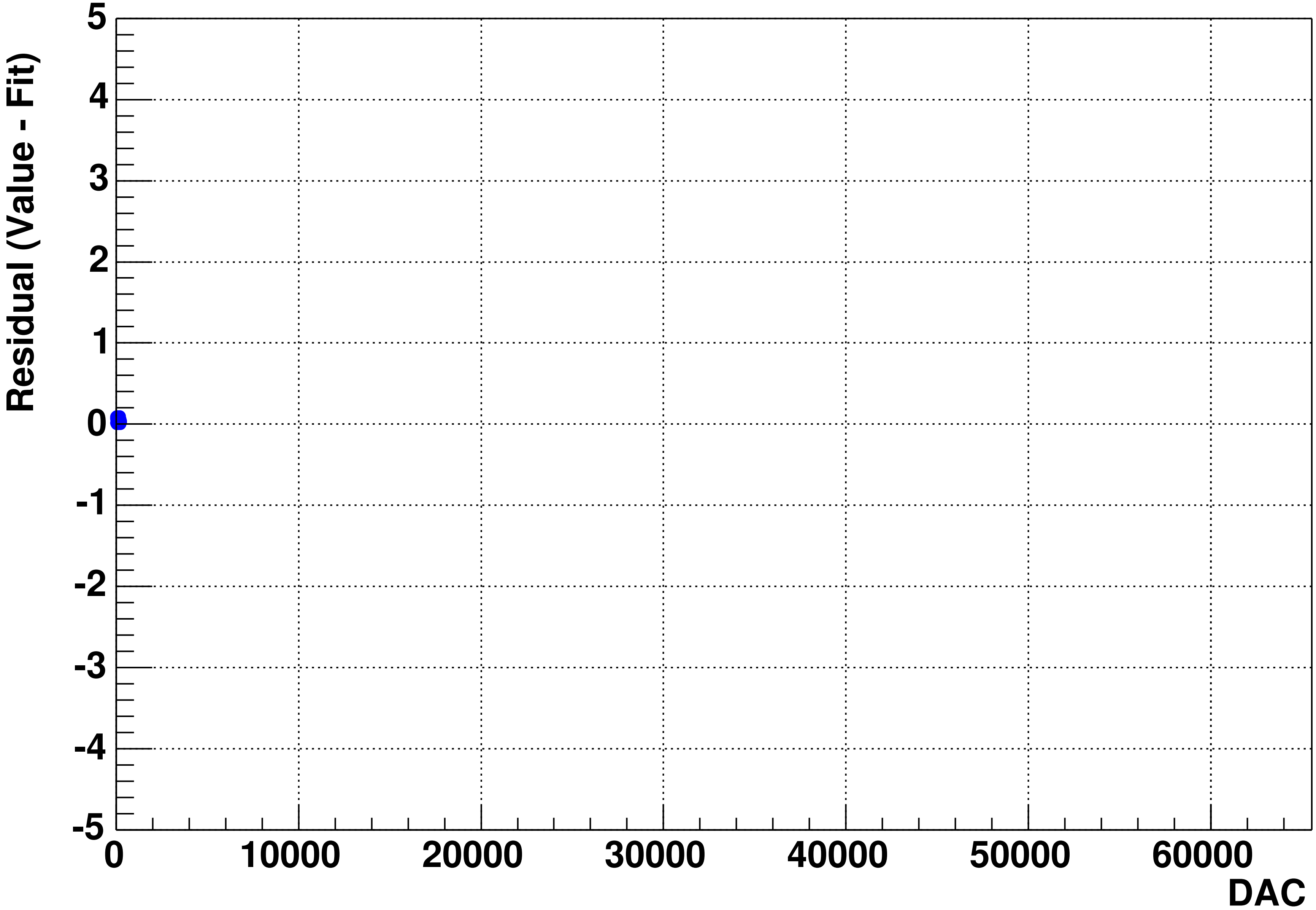

Residuals for channel 49
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

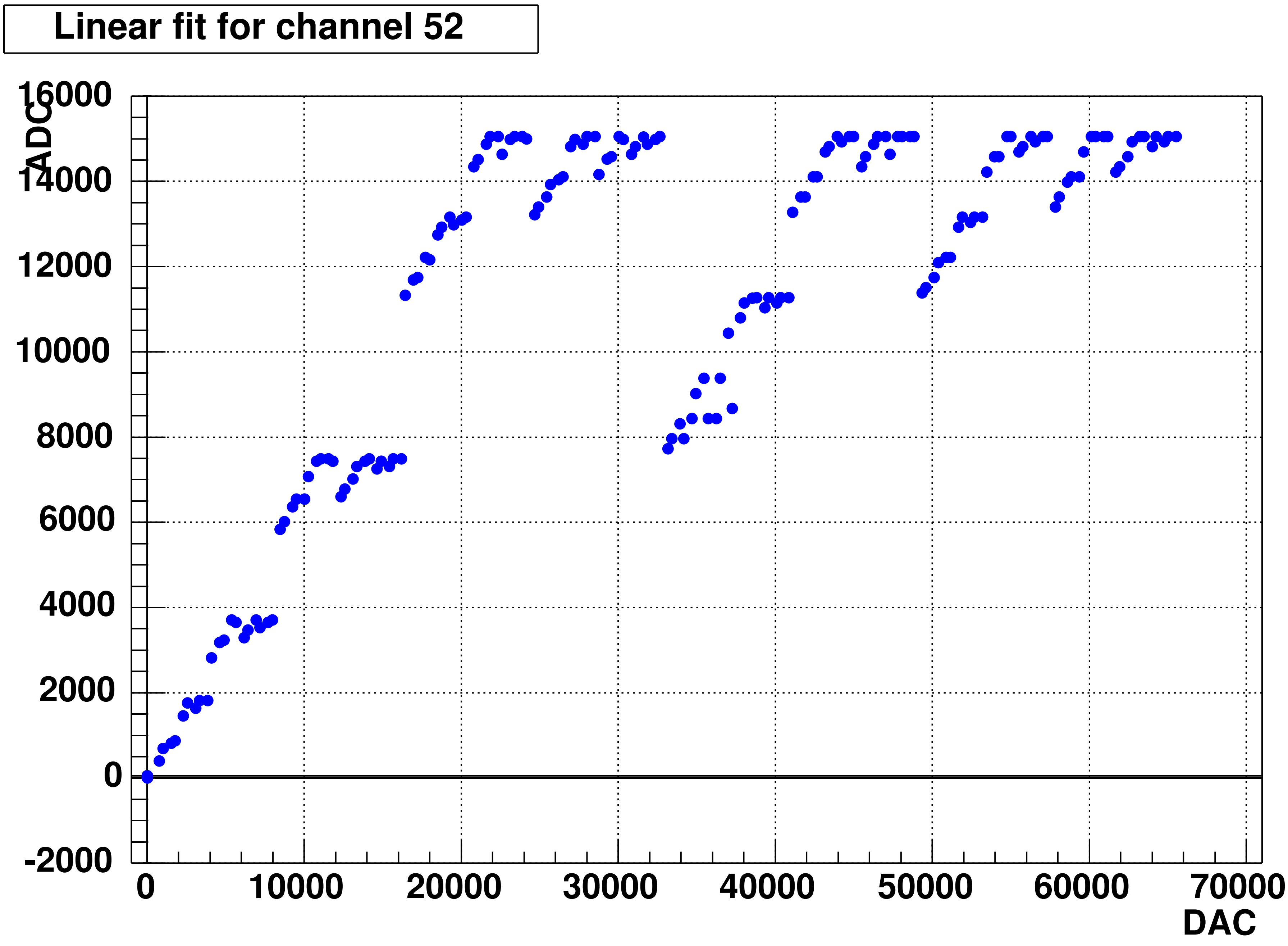

Linear fit for channel 50
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC


Residuals for channel 50
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

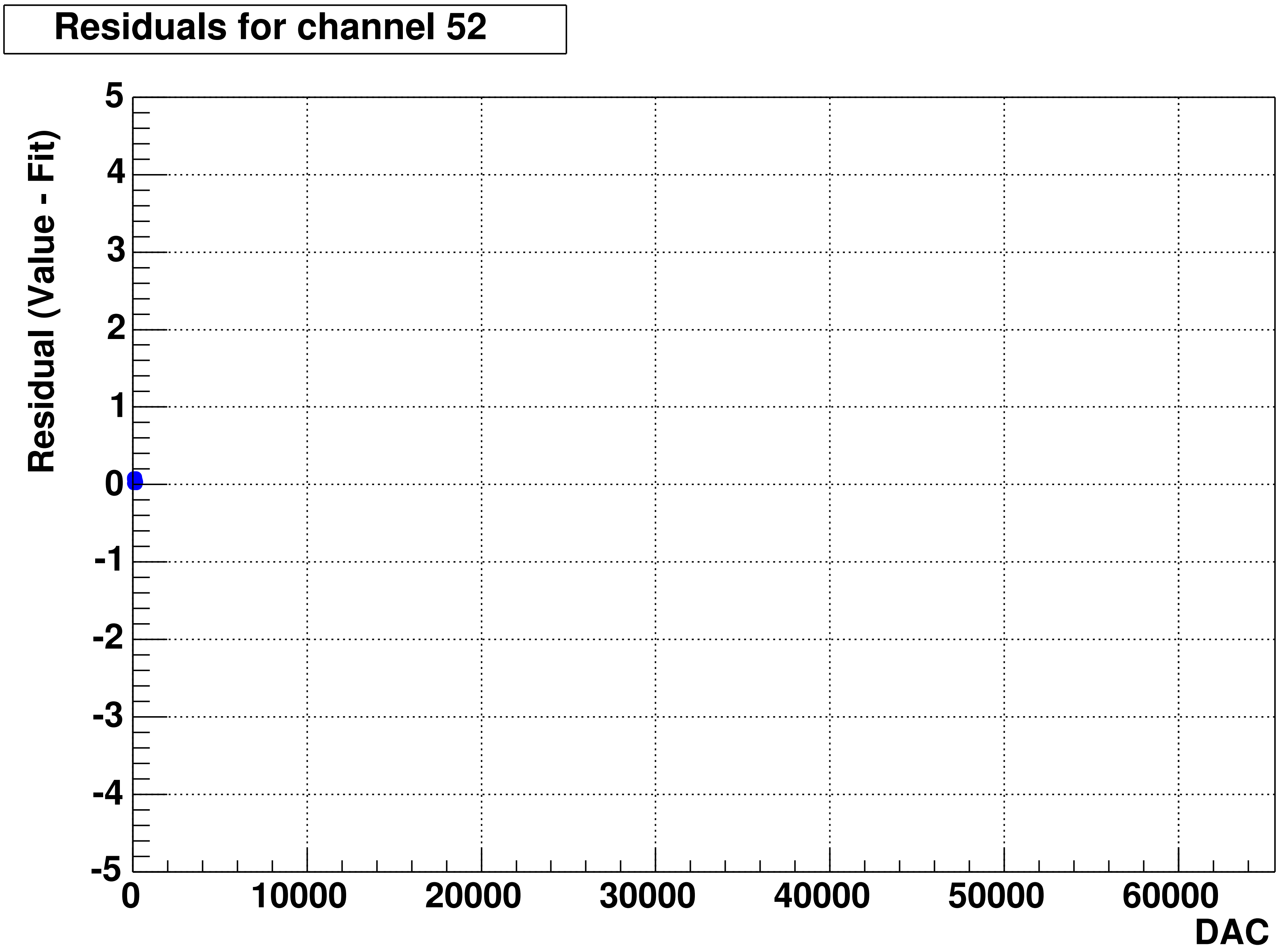

Linear fit for channel 51
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

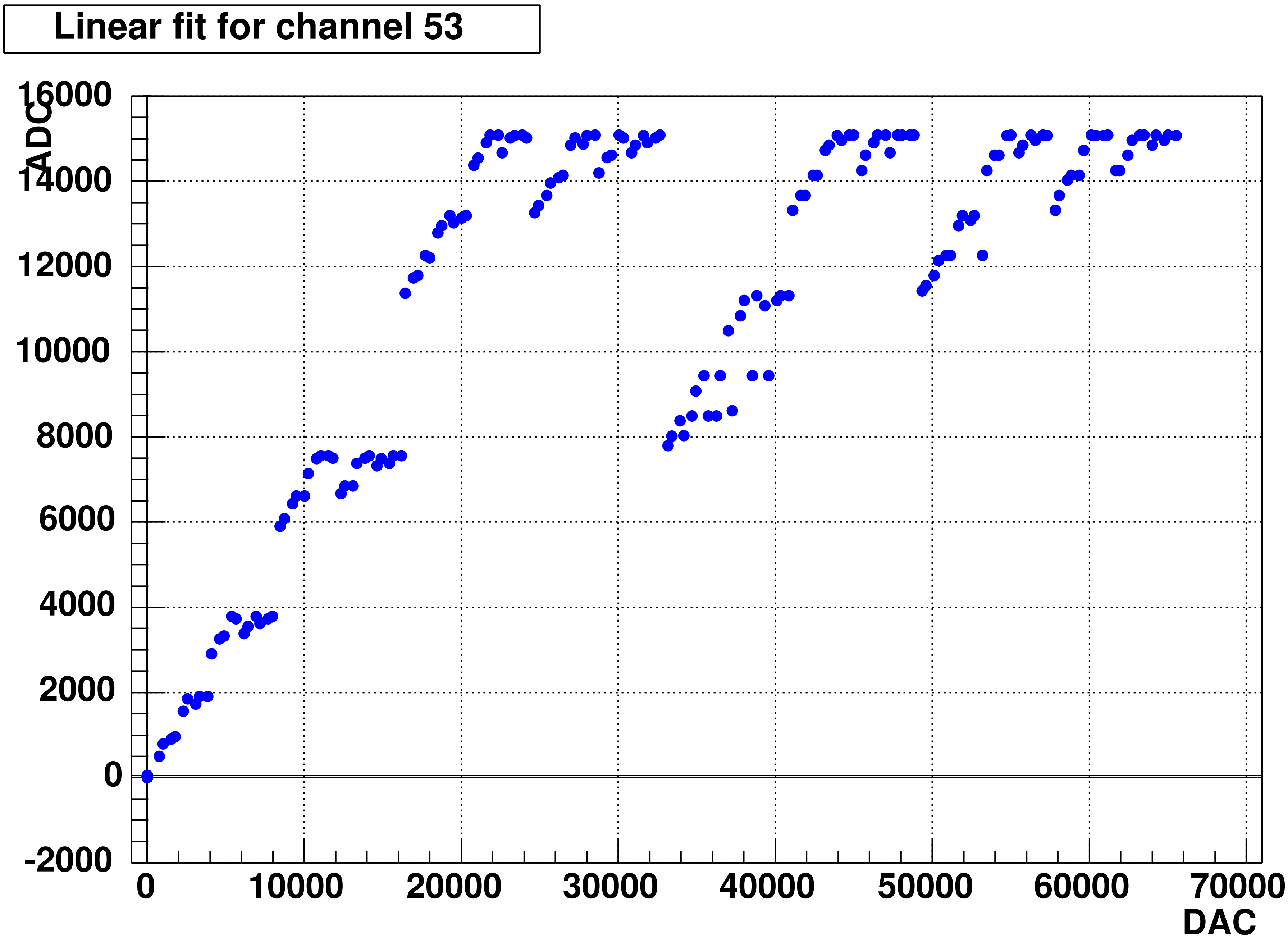
Residuals for channel 51





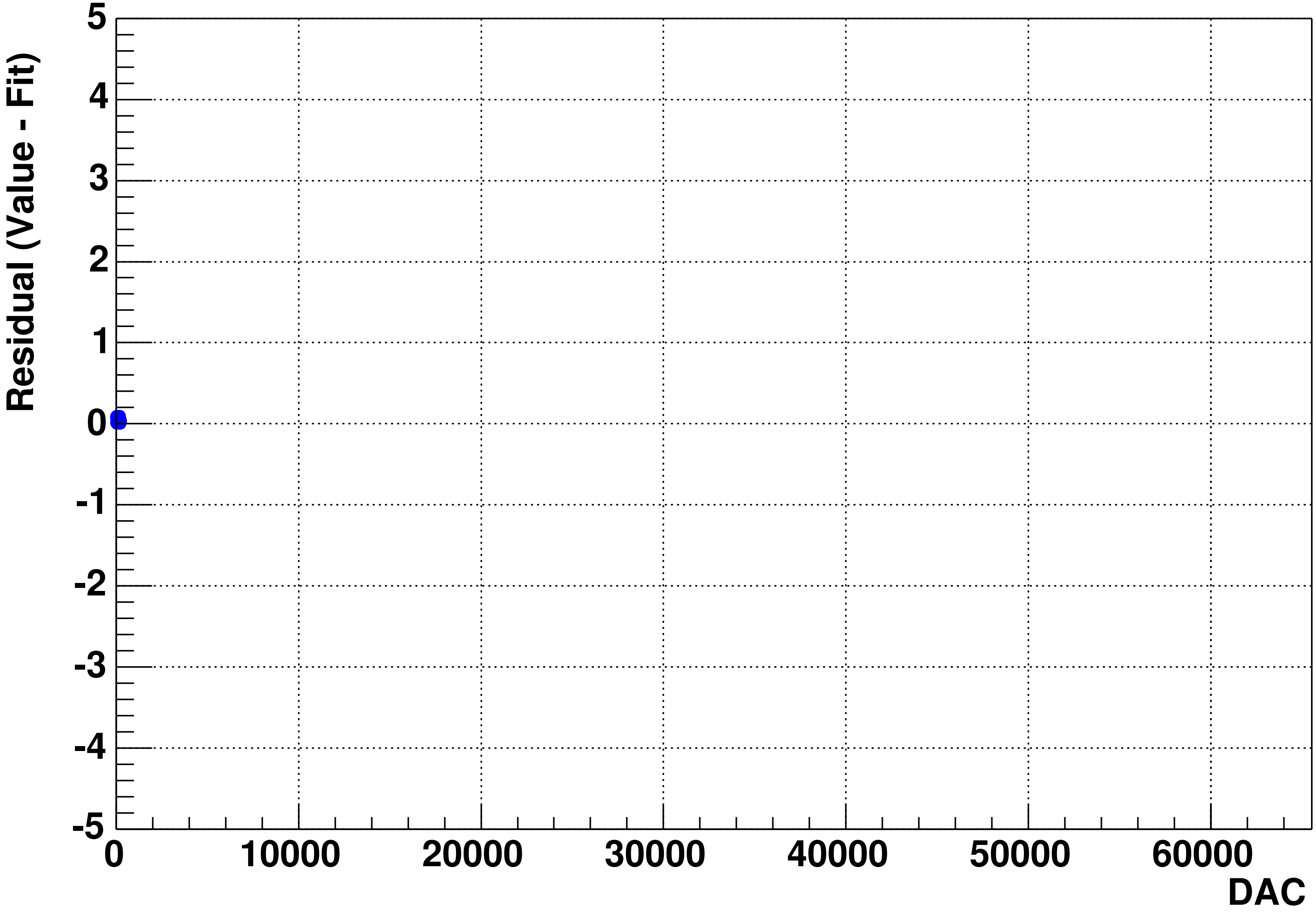
Linear fit for channel 52
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

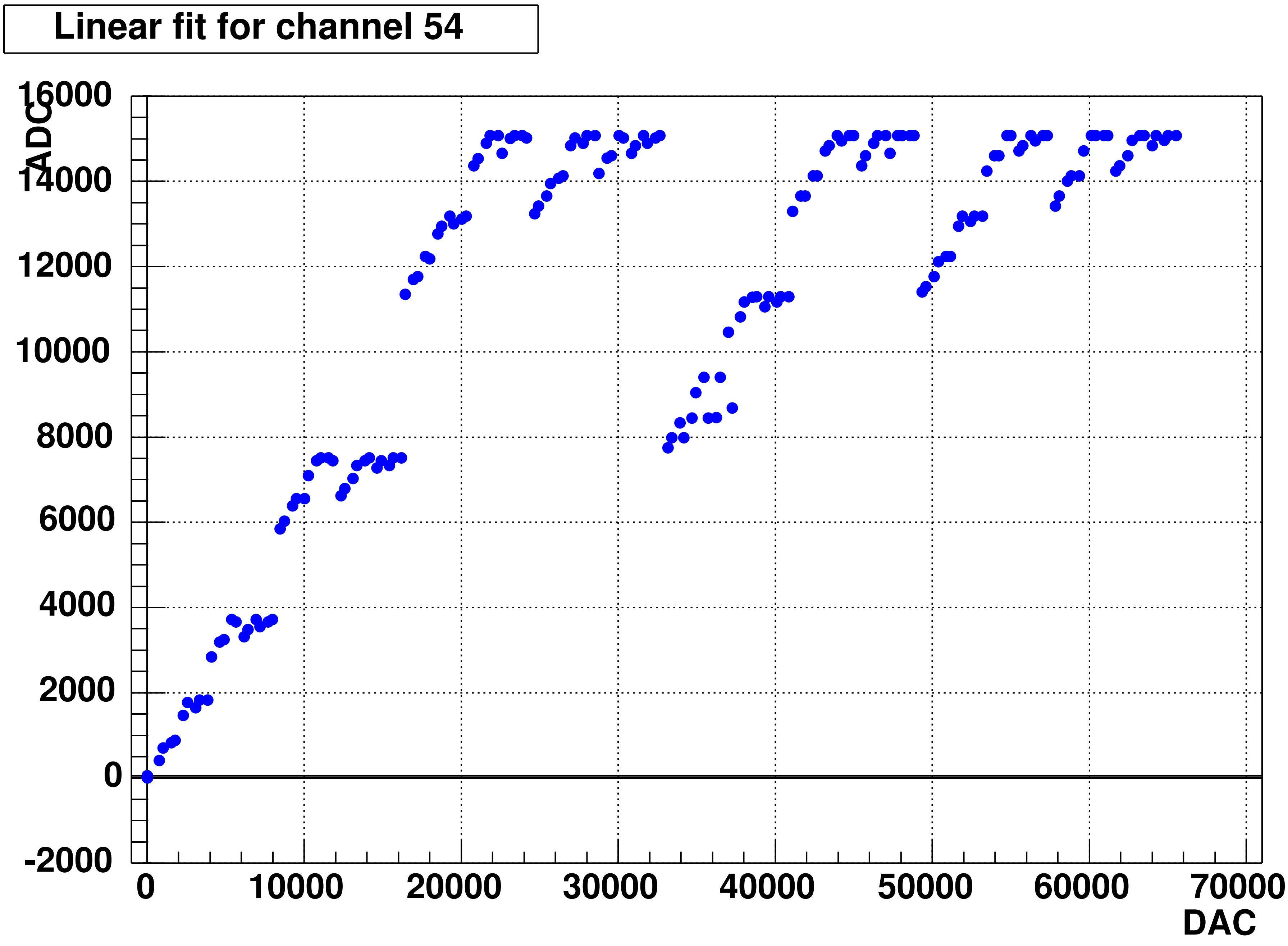

Residuals for channel 52
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



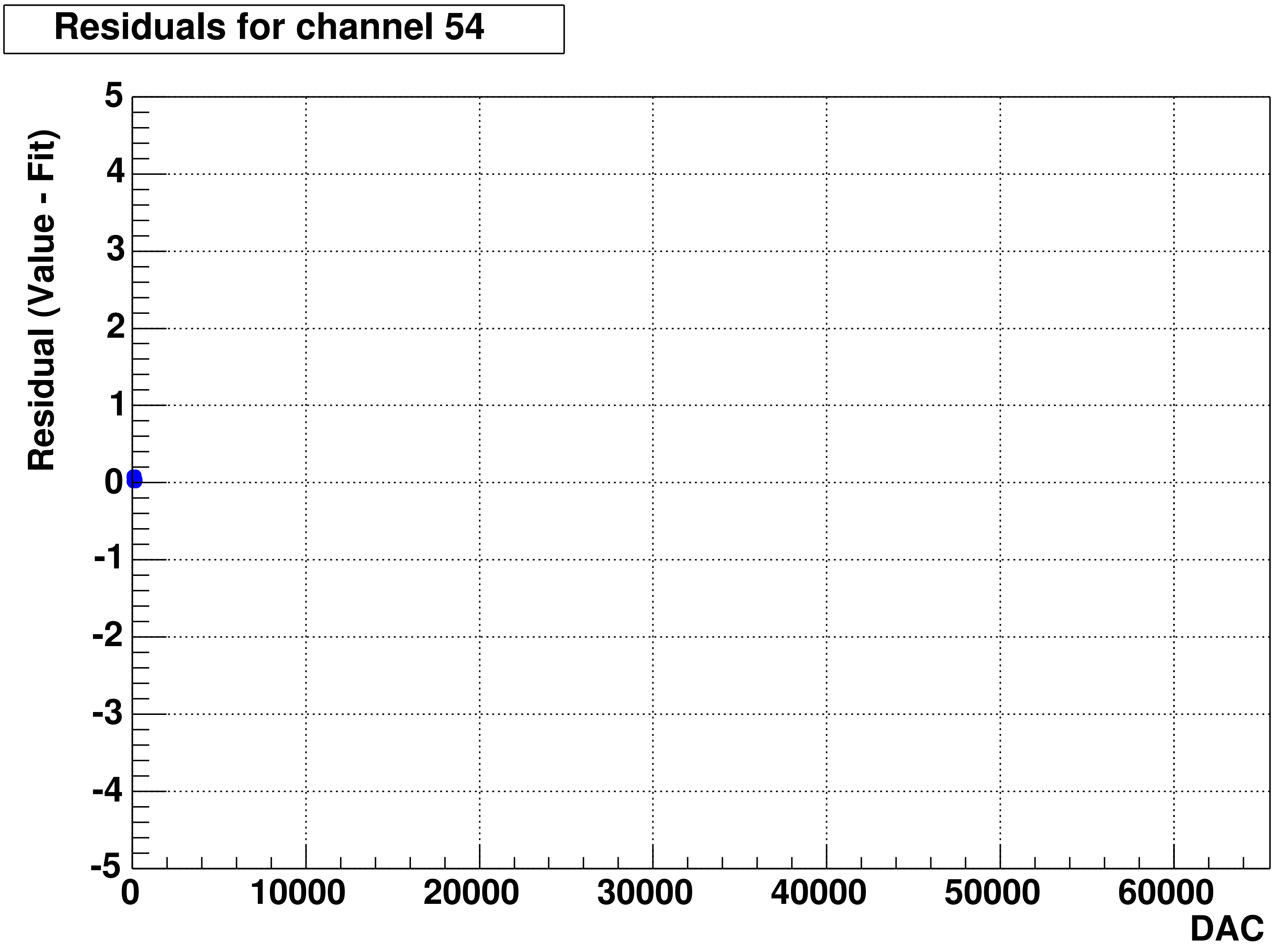
Linear fit for channel 53
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

Residuals for channel 53



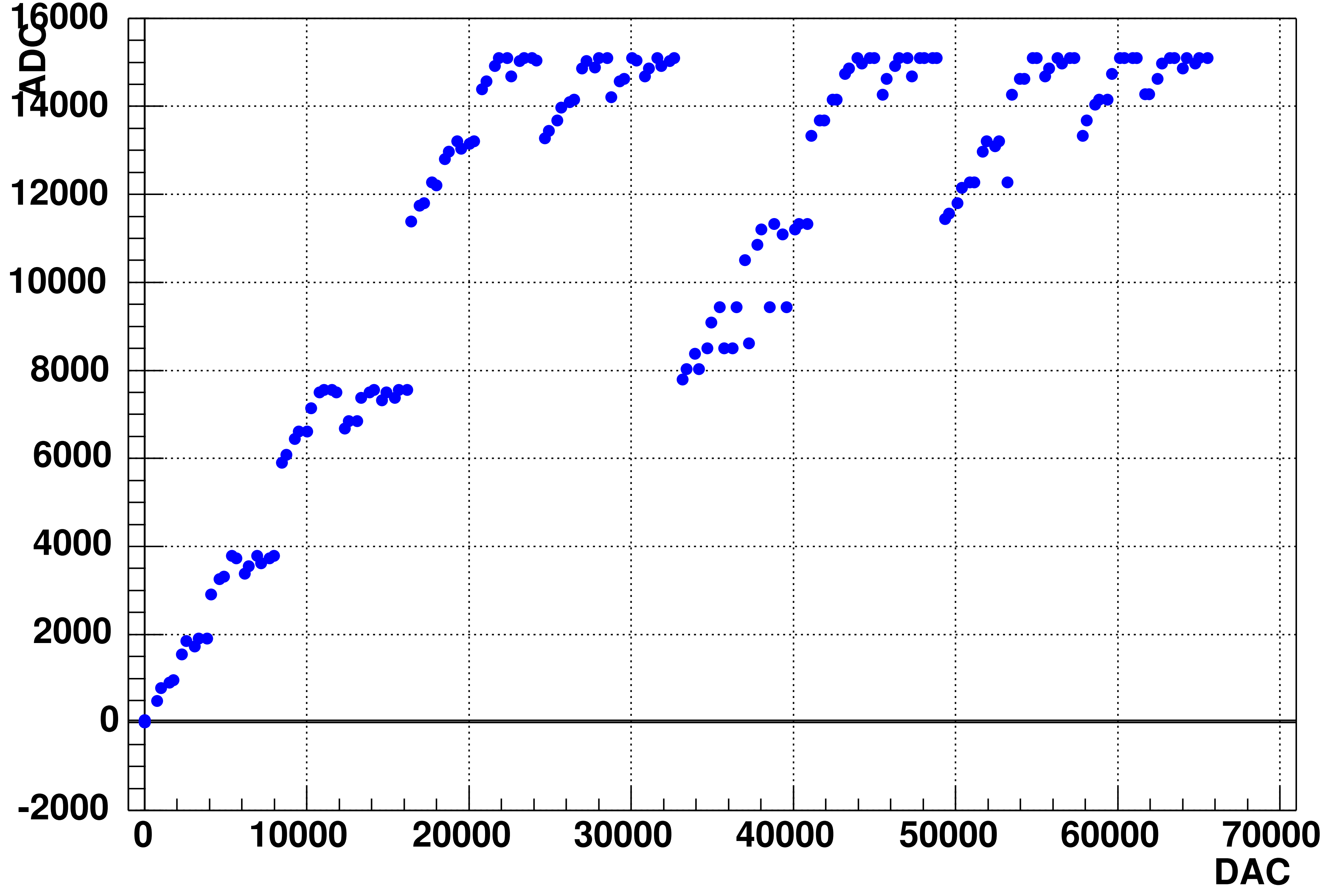


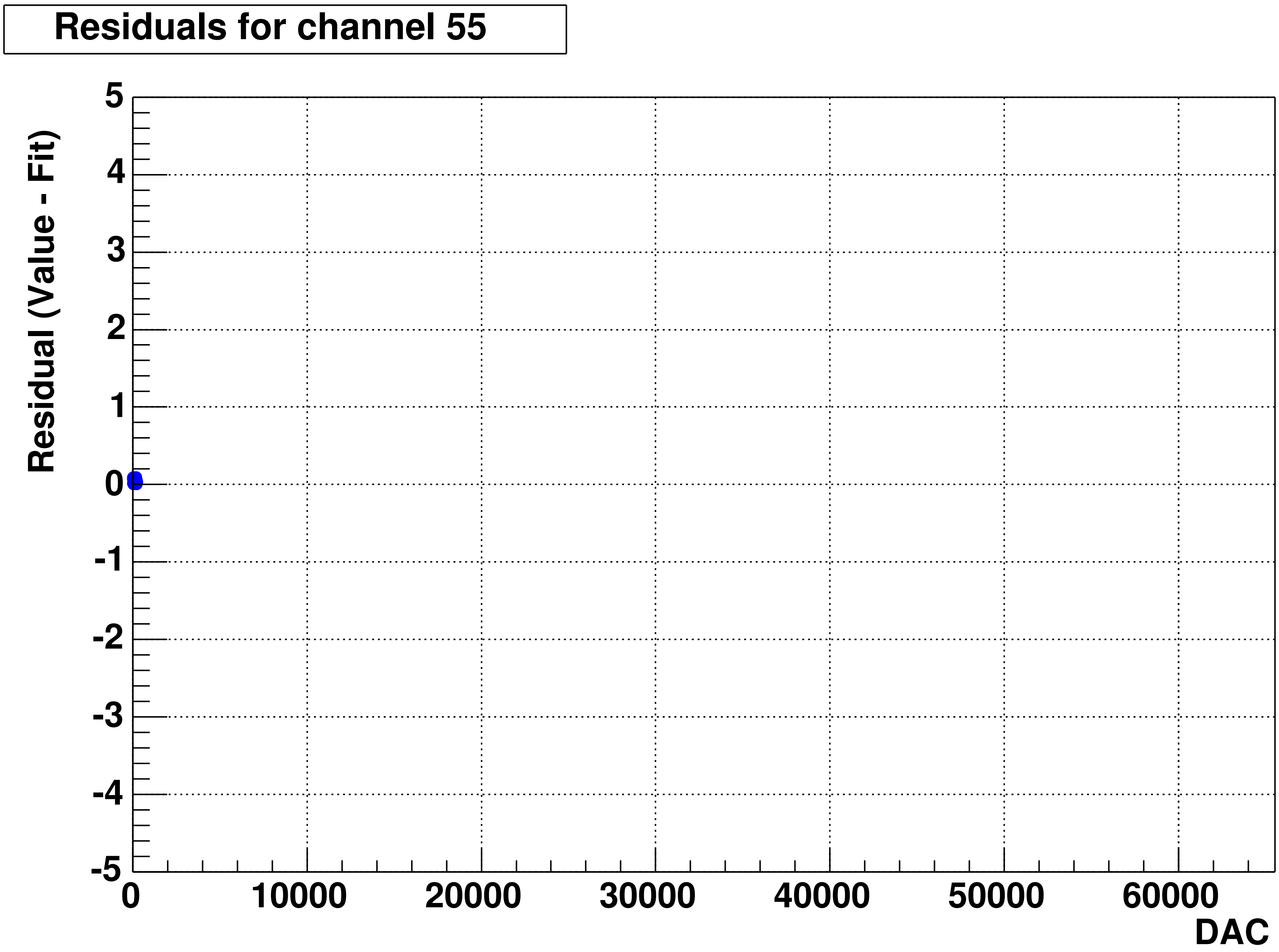
Linear fit for channel 54
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC



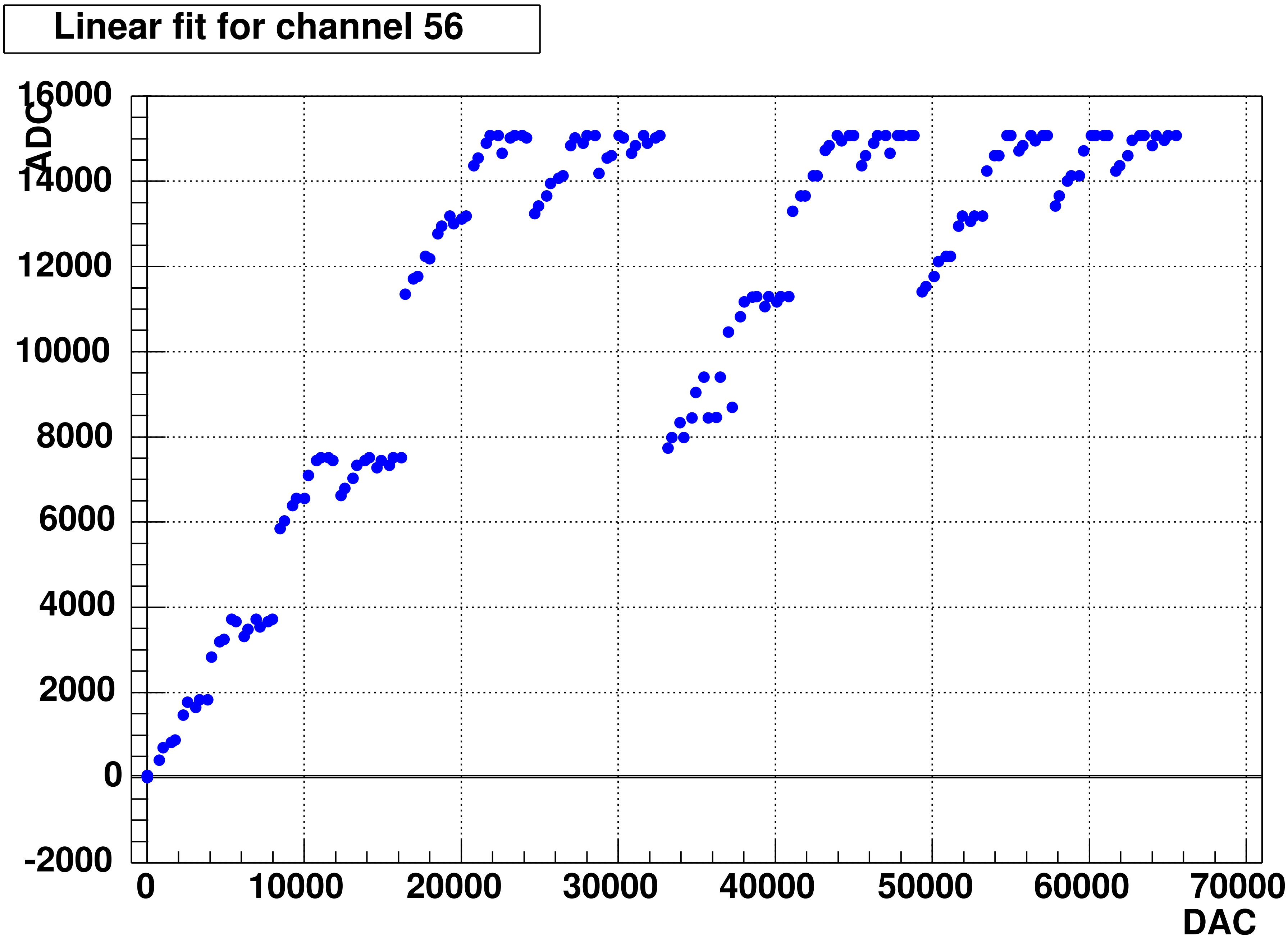
Residuals for channel 54
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

Linear fit for channel 55



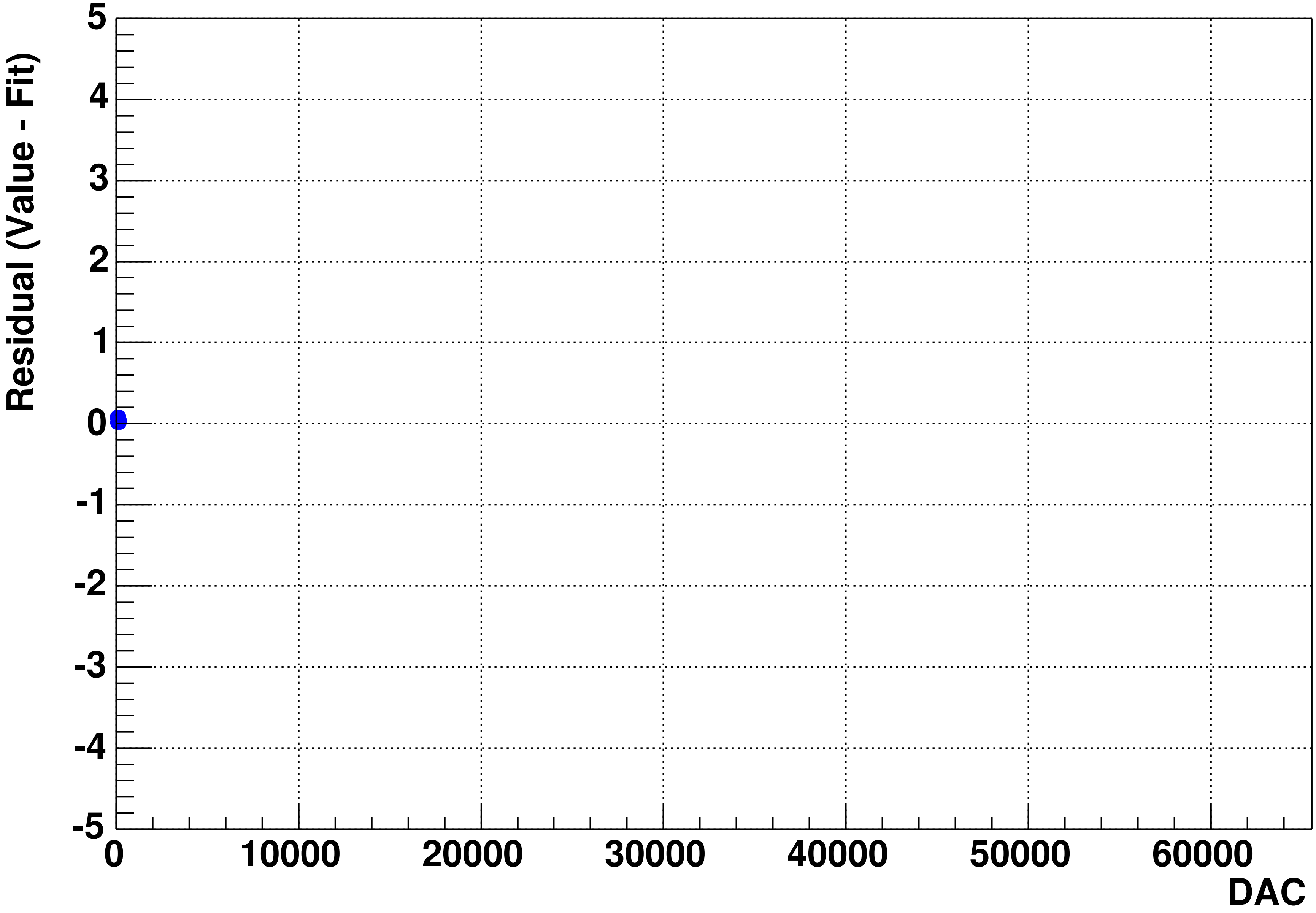


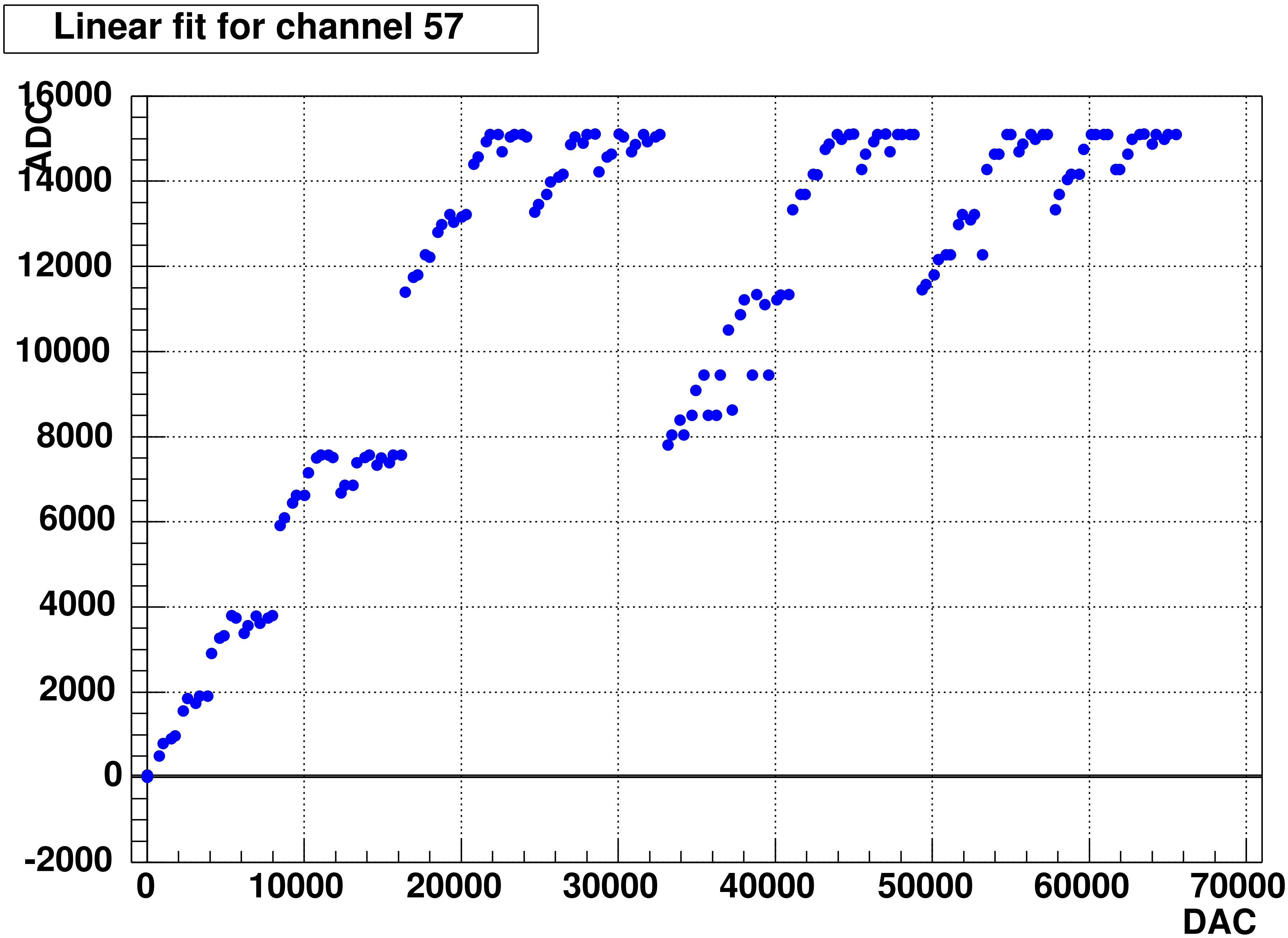
Residuals for channel 55
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



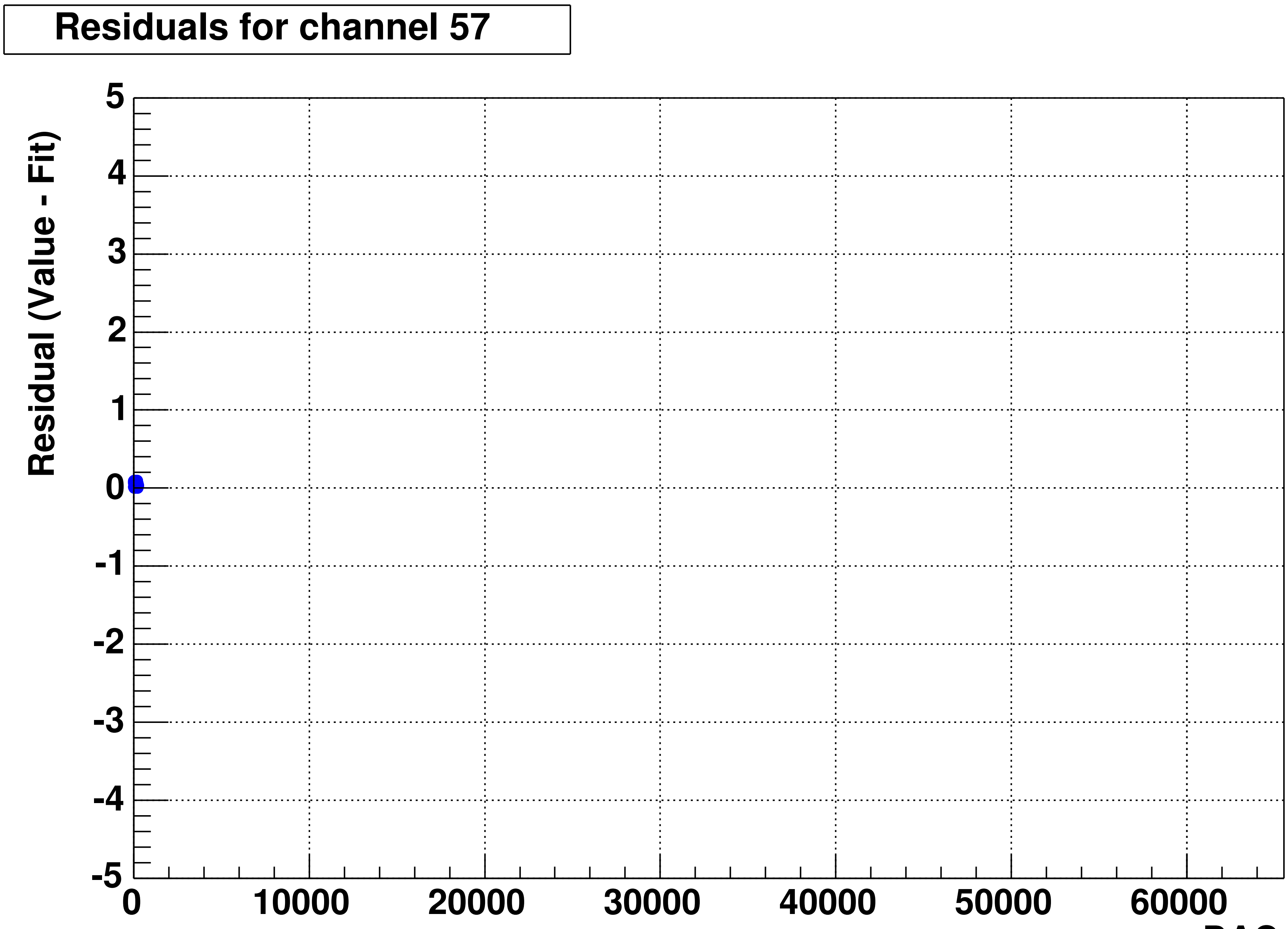
Linear fit for channel 56
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

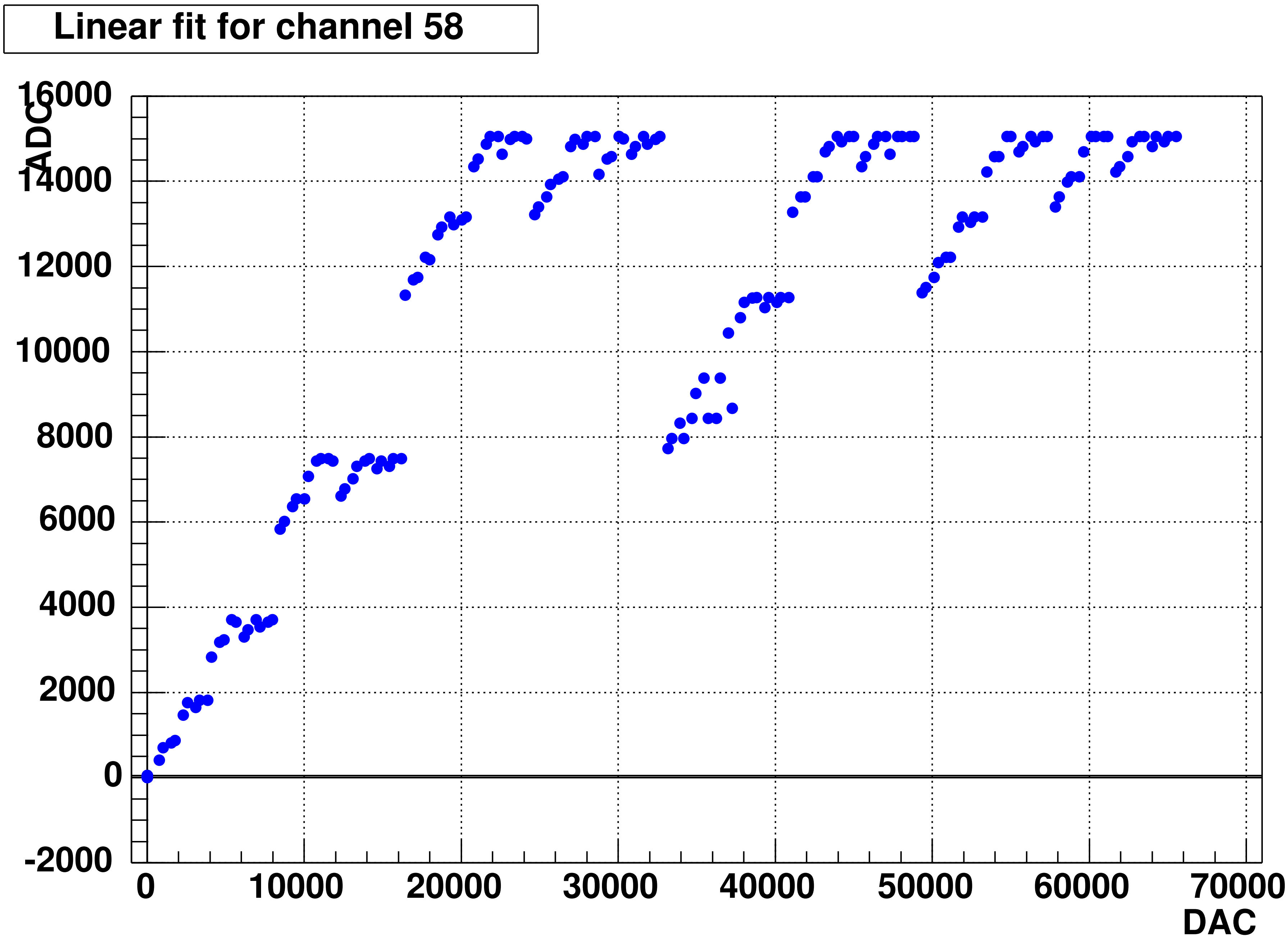
Residuals for channel 56



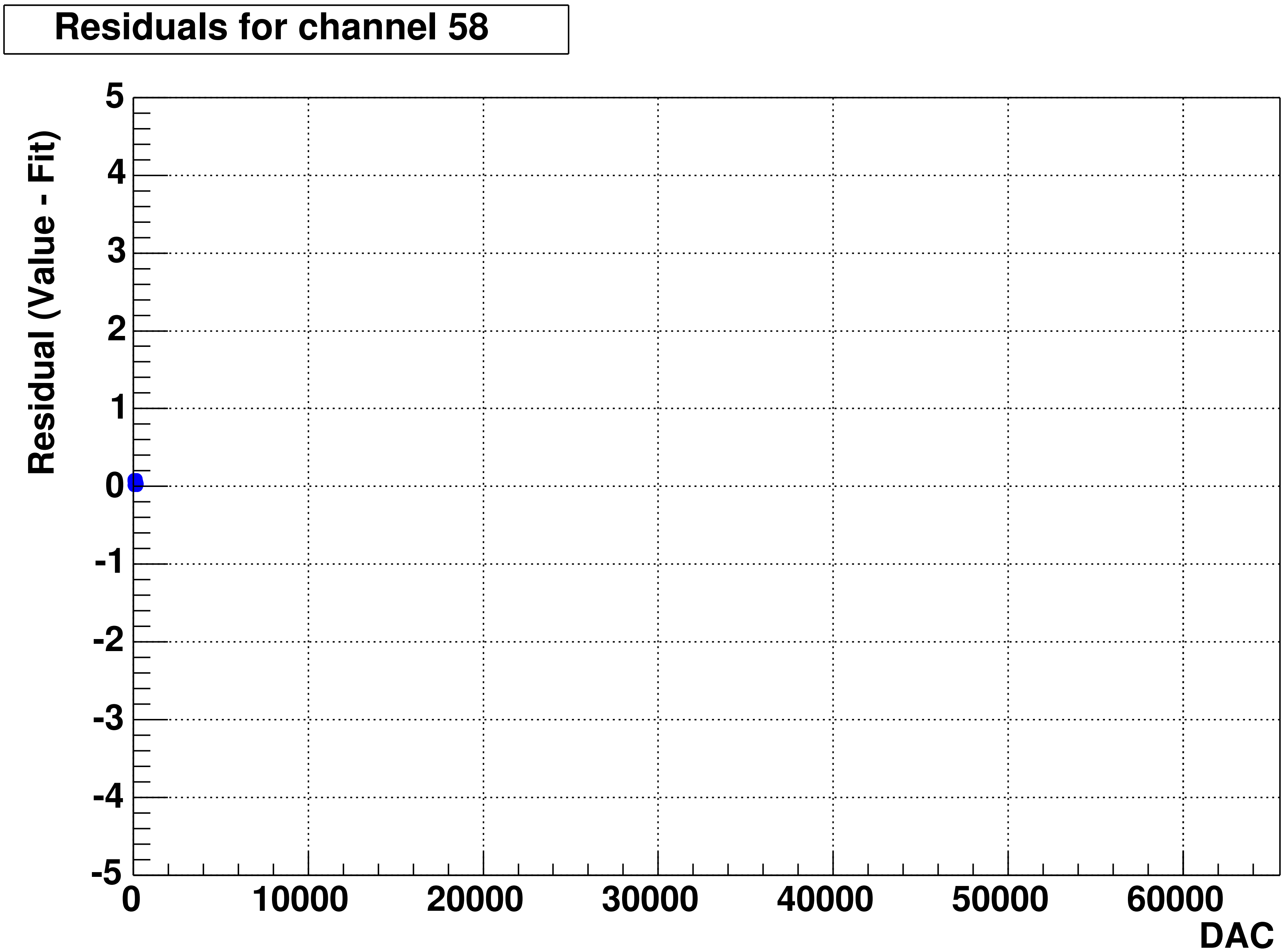


Linear fit for channel 57
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

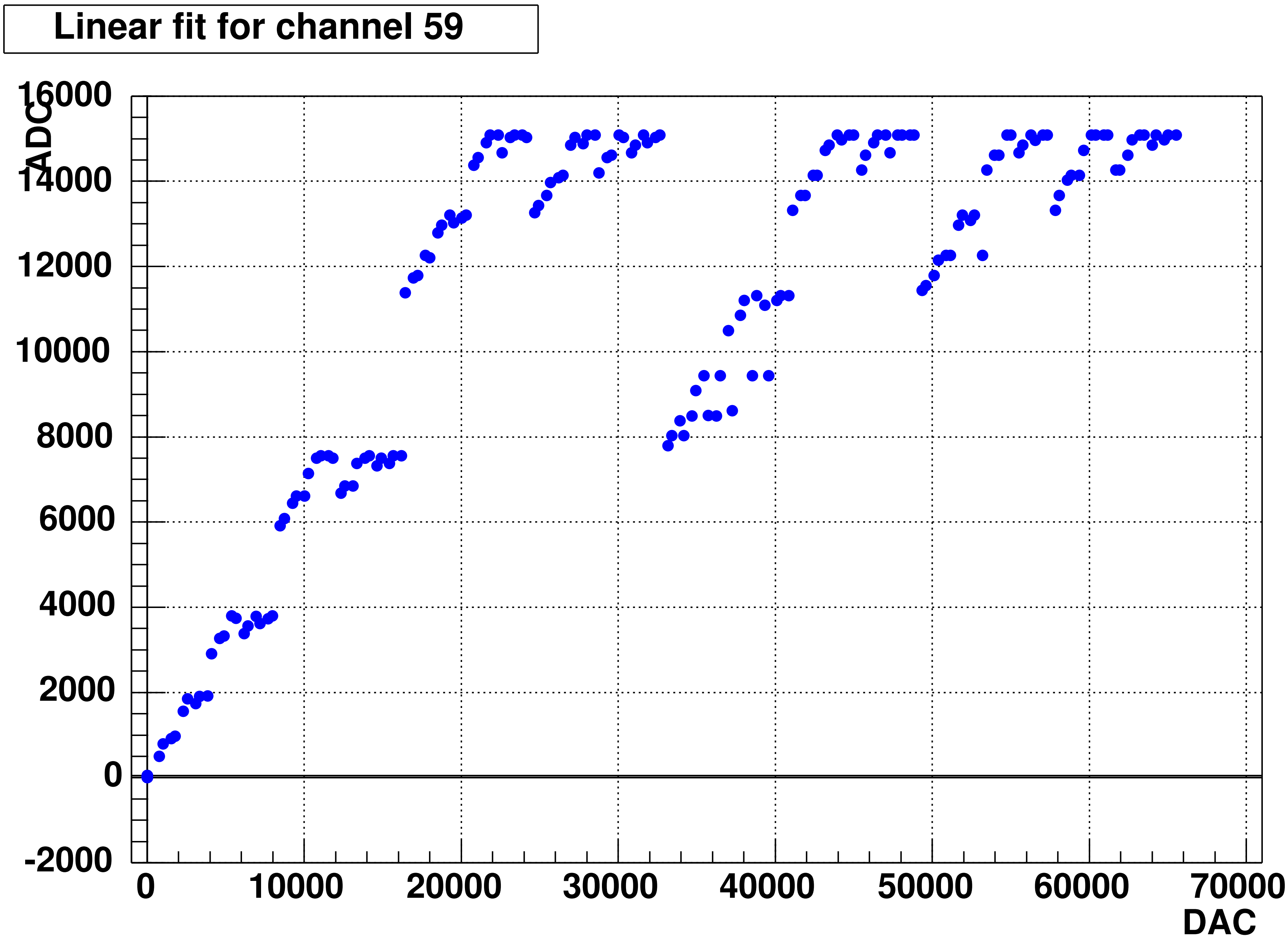

Residuals for channel 57
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



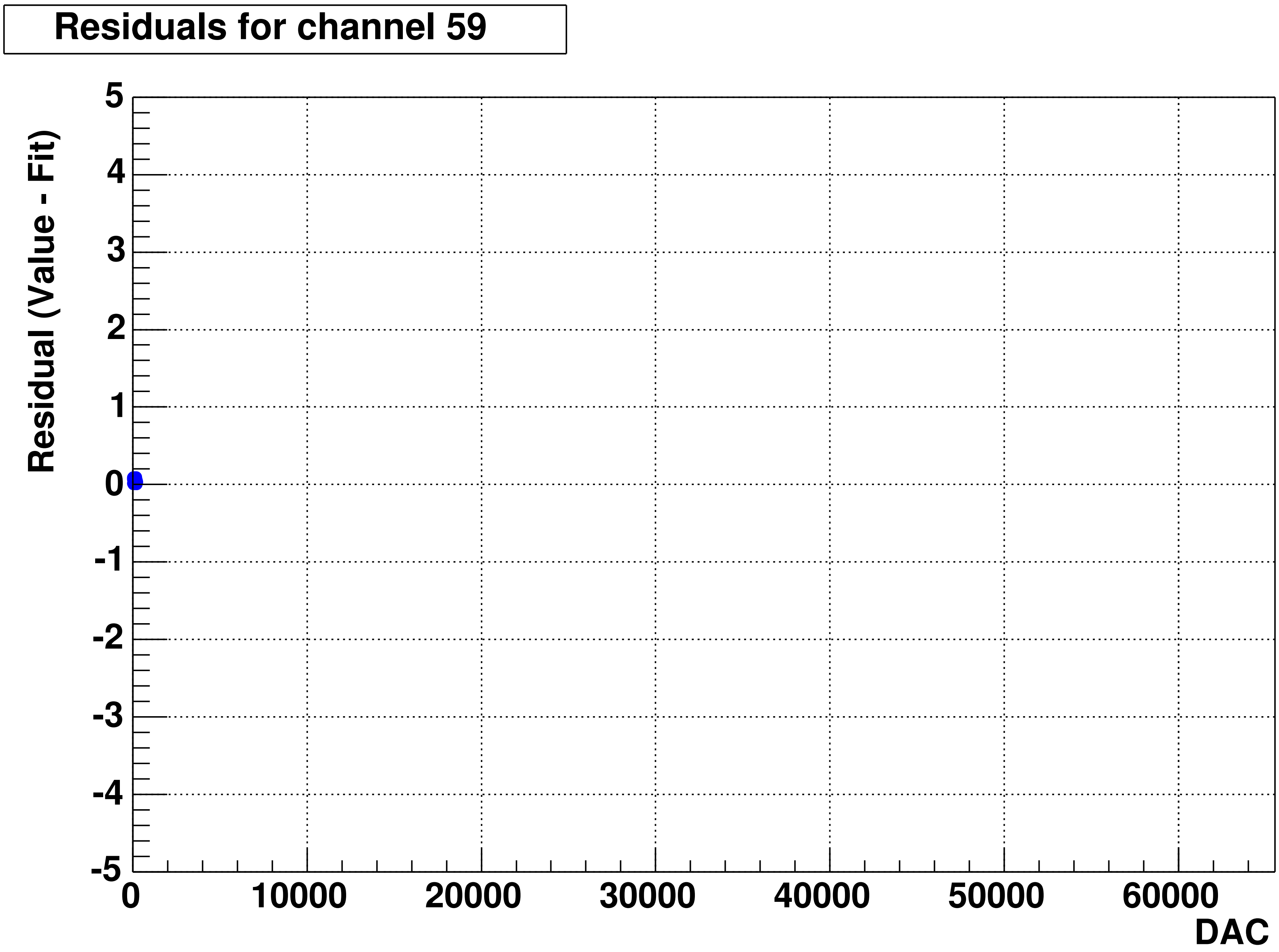
Linear fit for channel 58
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

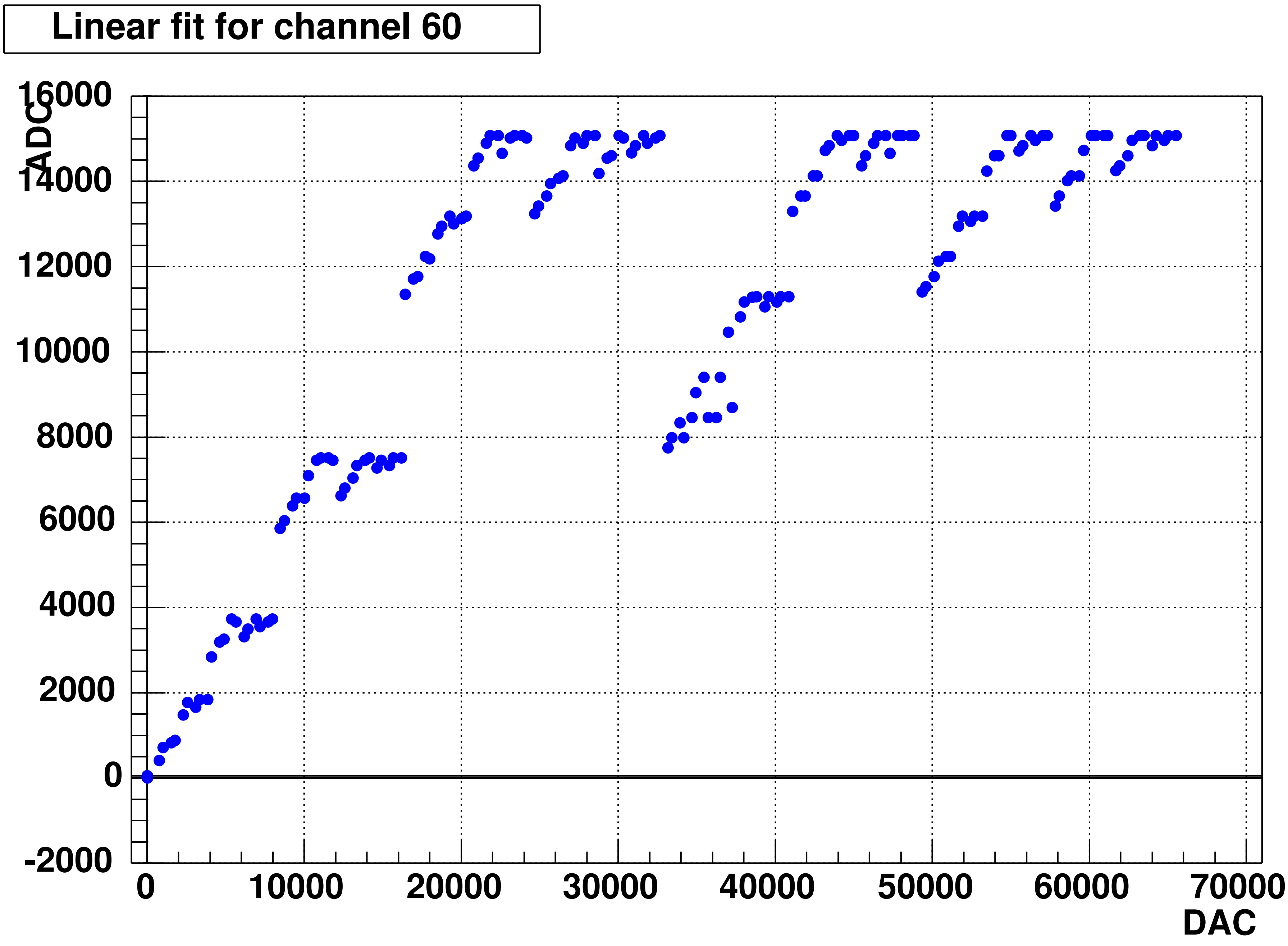


Residuals for channel 58
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

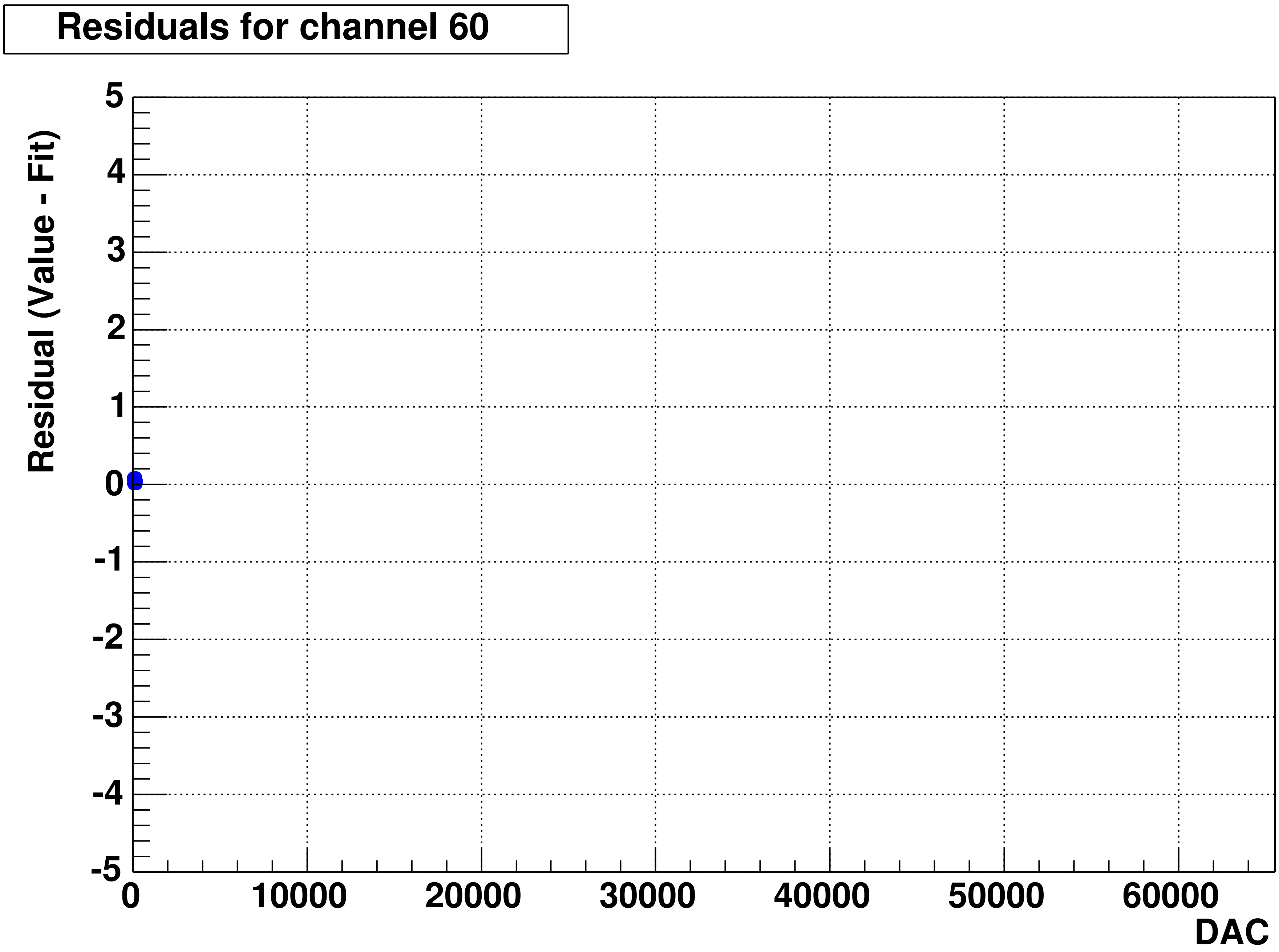


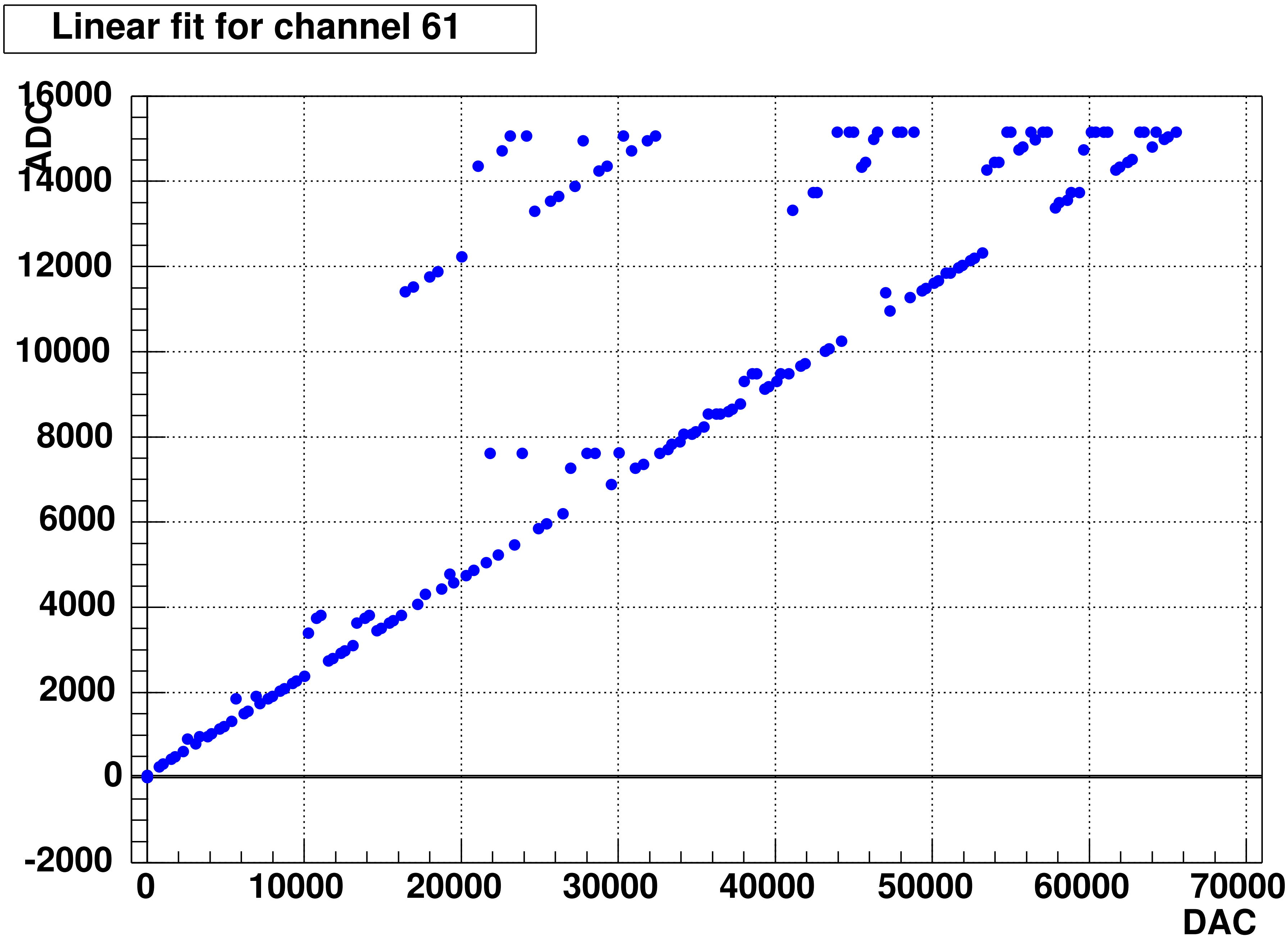
Linear fit for channel 59
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC


Residuals for channel 59
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

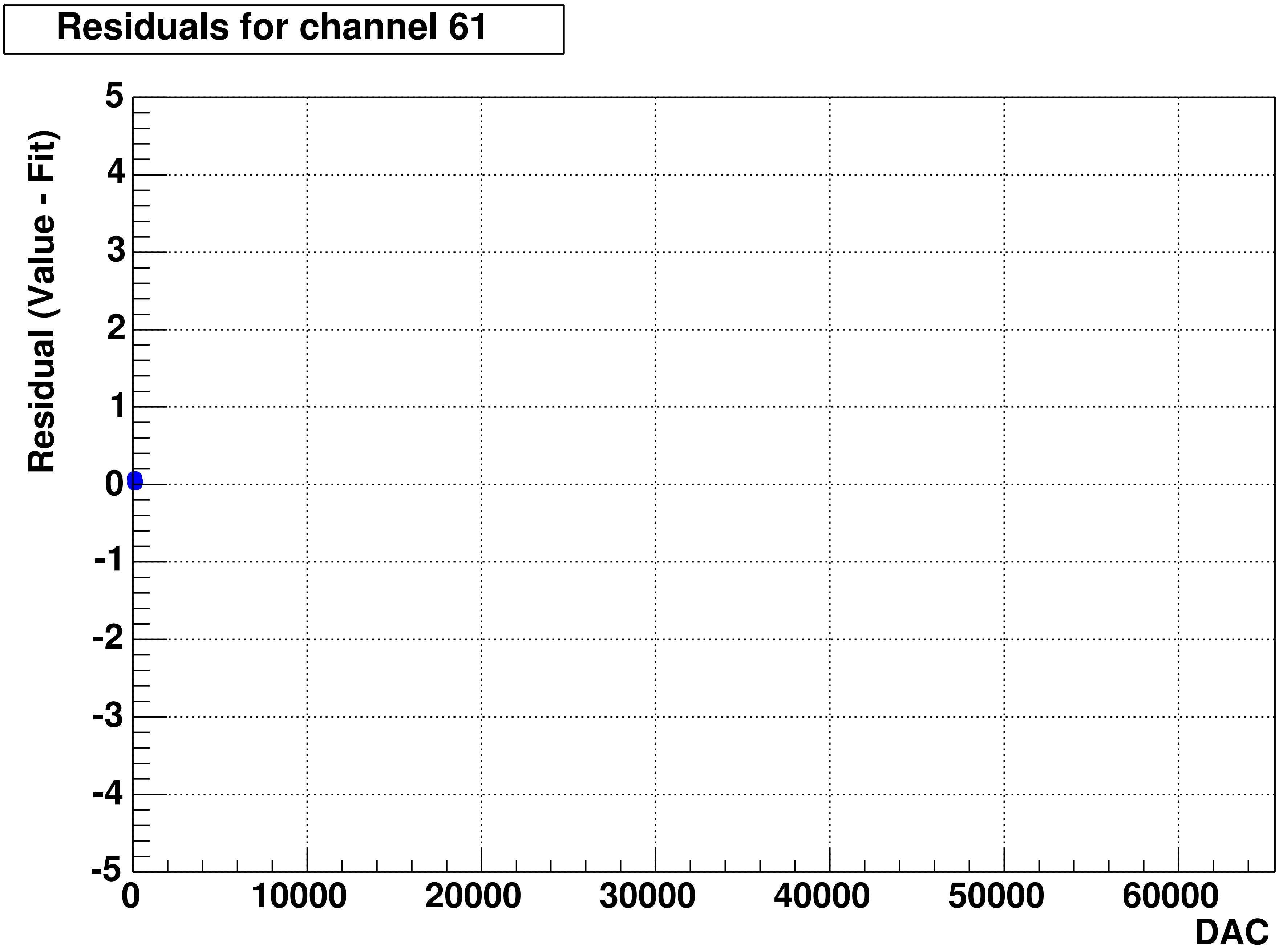


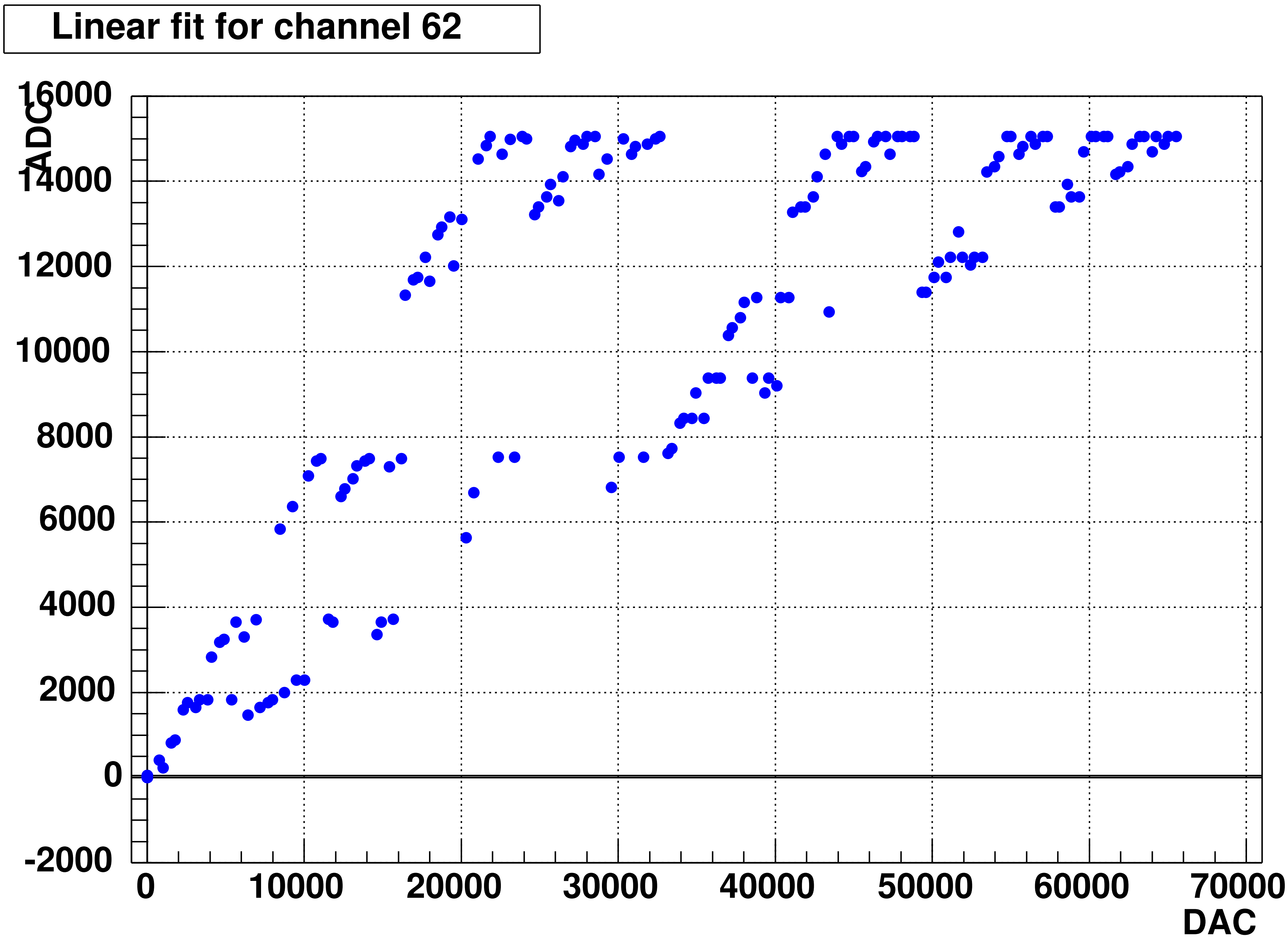
Linear fit for channel 60
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC


Residuals for channel 60
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

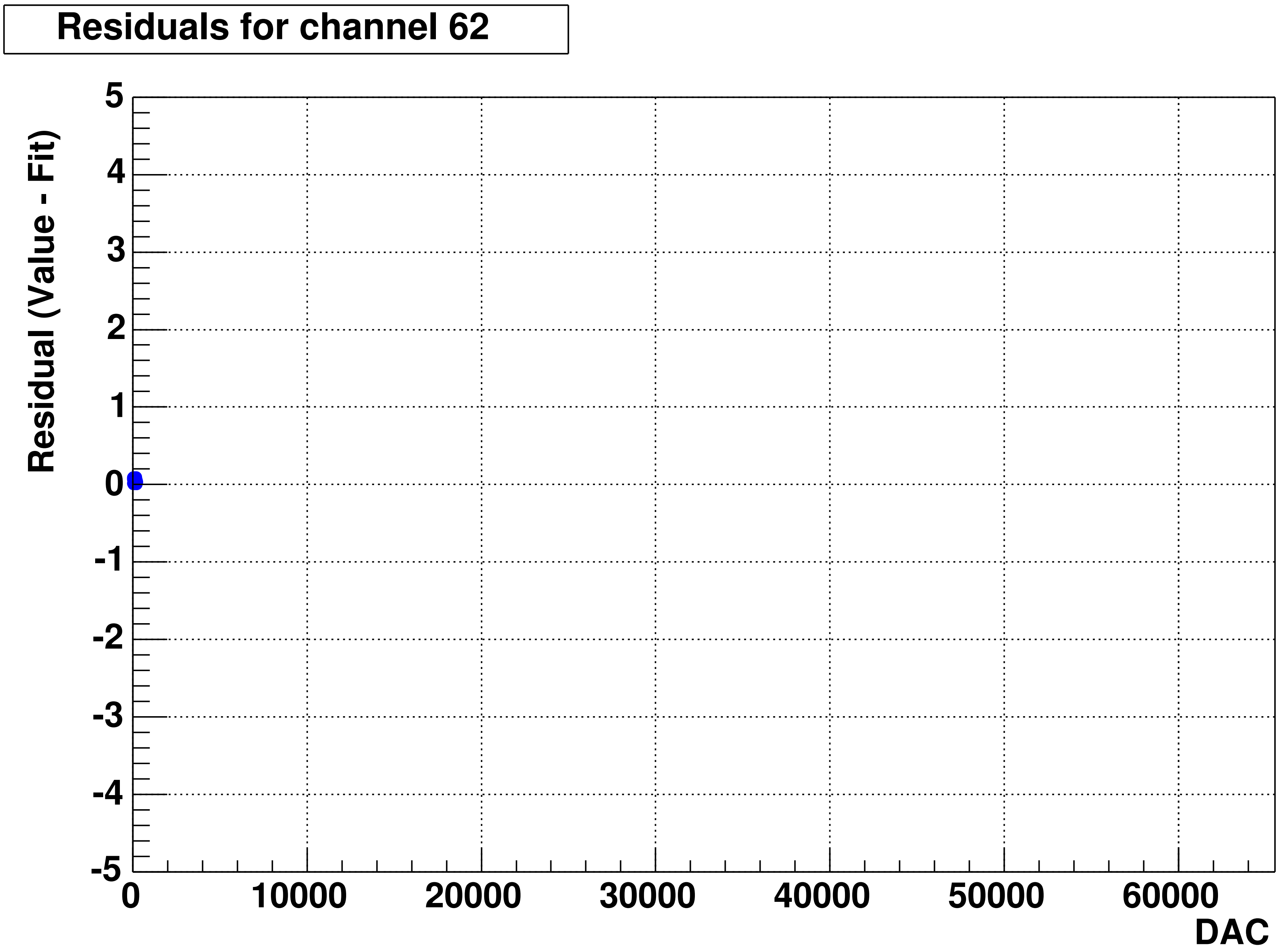


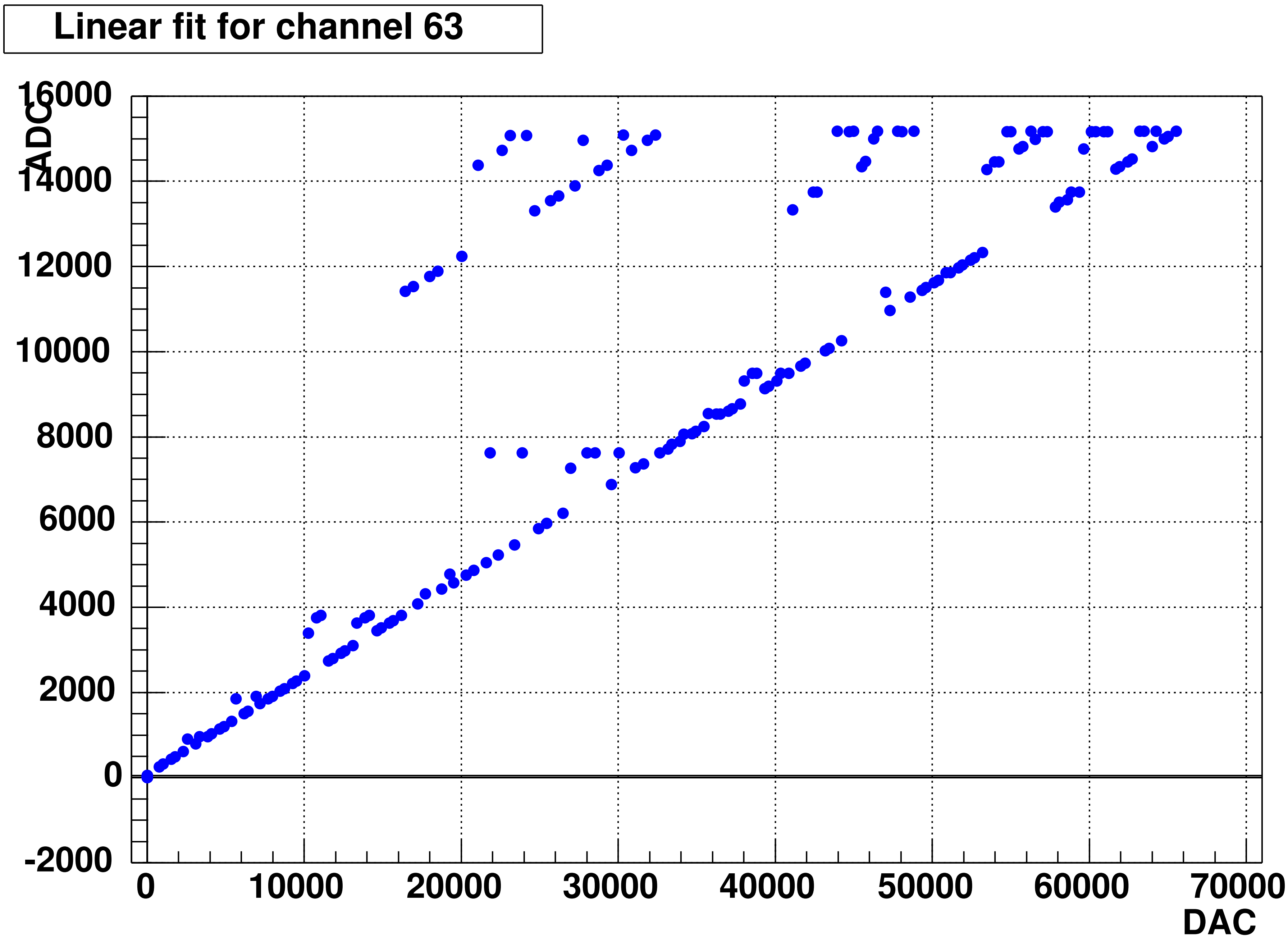
Linear fit for channel 61
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC


Residuals for channel 61
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

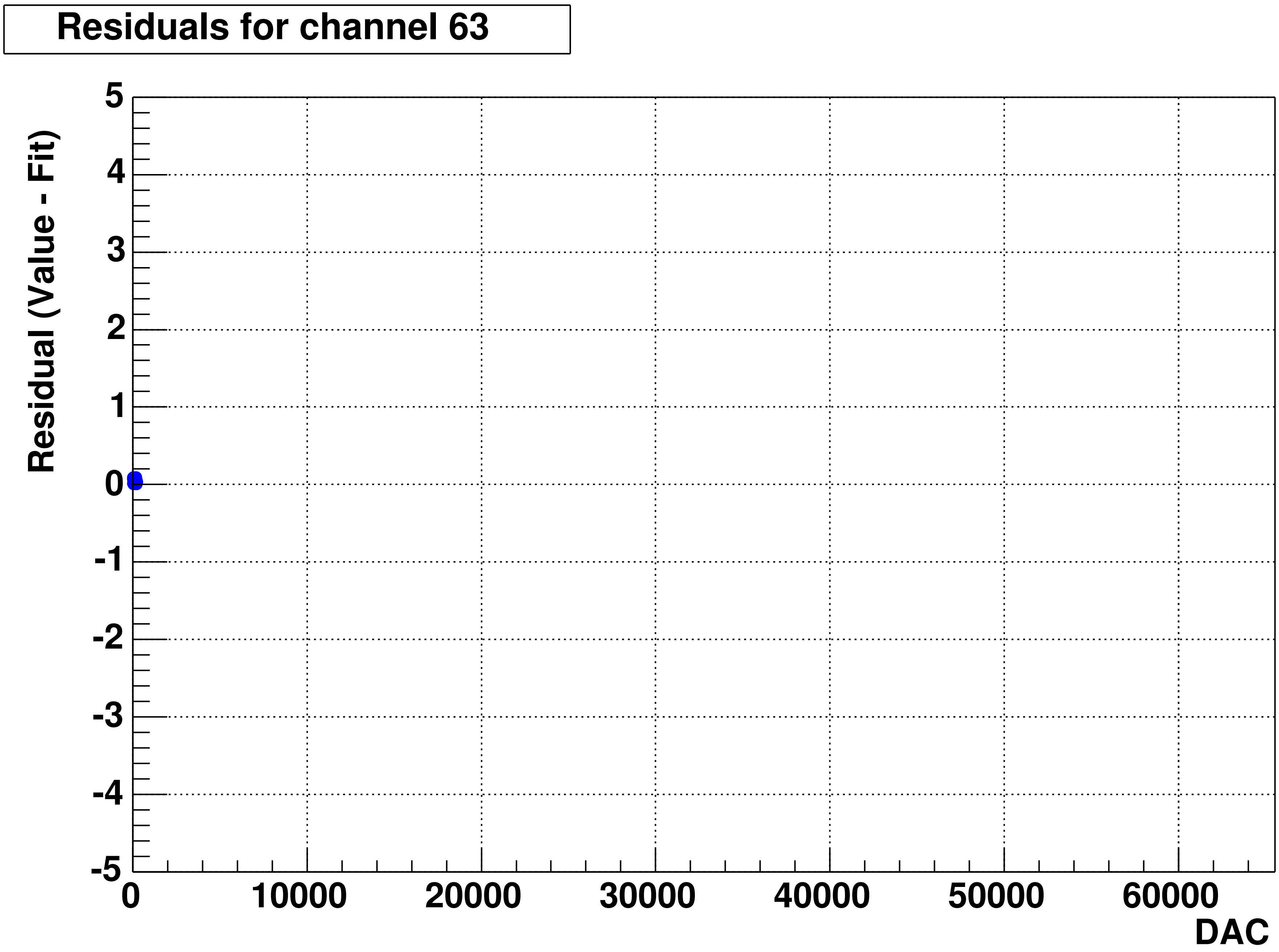


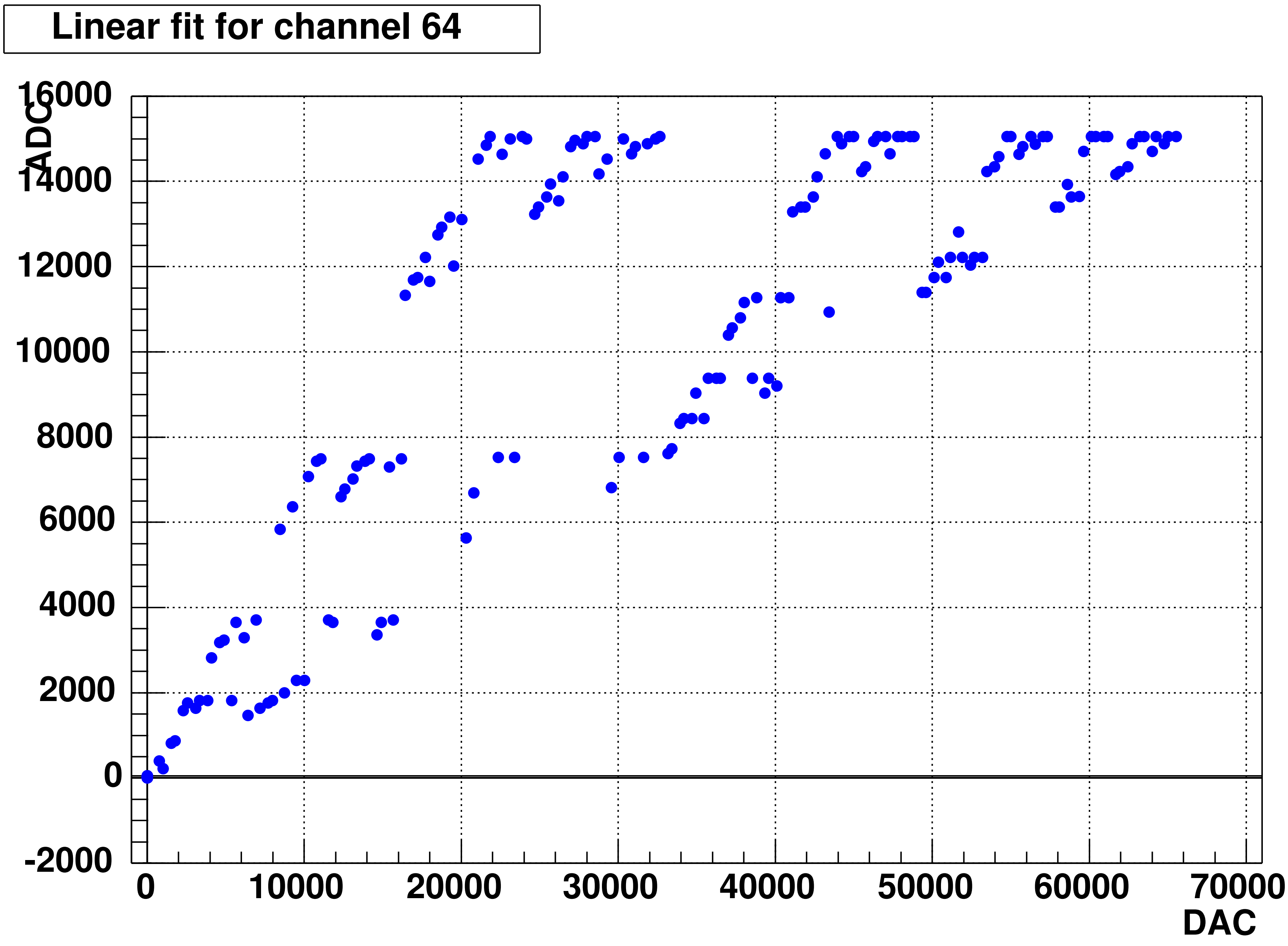
Linear fit for channel 62
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC


Residuals for channel 62
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



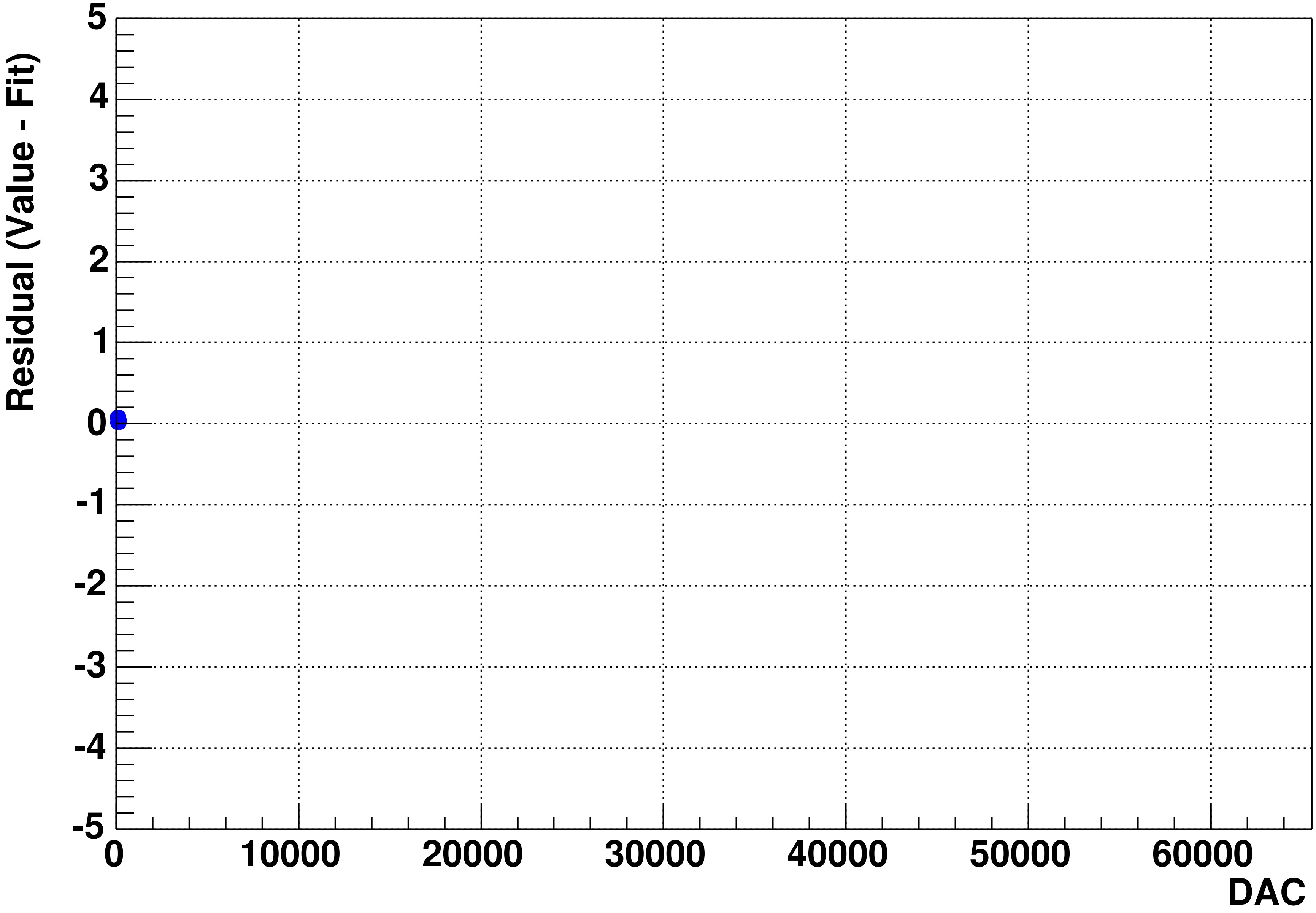
Linear fit for channel 63
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

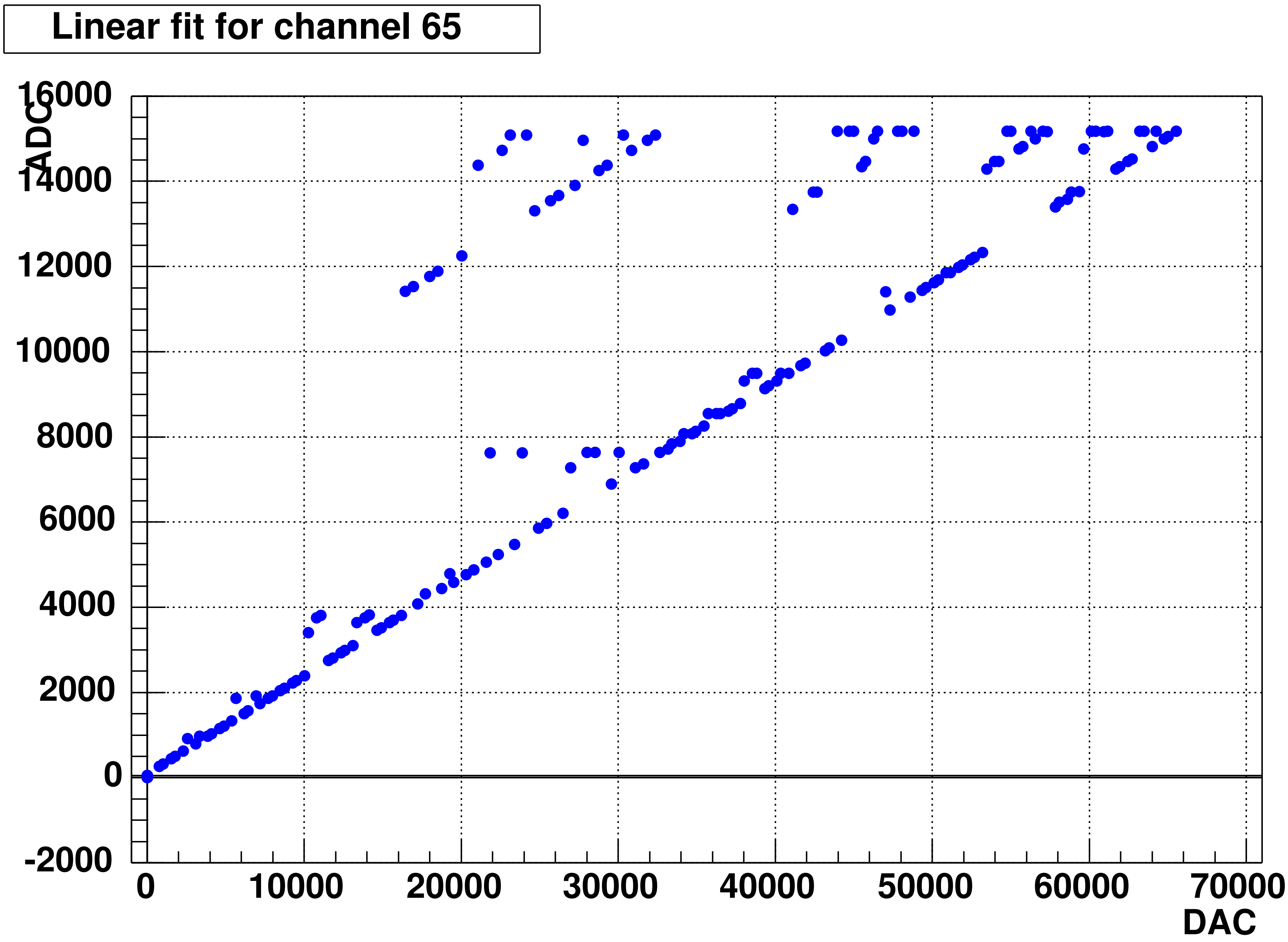

Residuals for channel 63
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



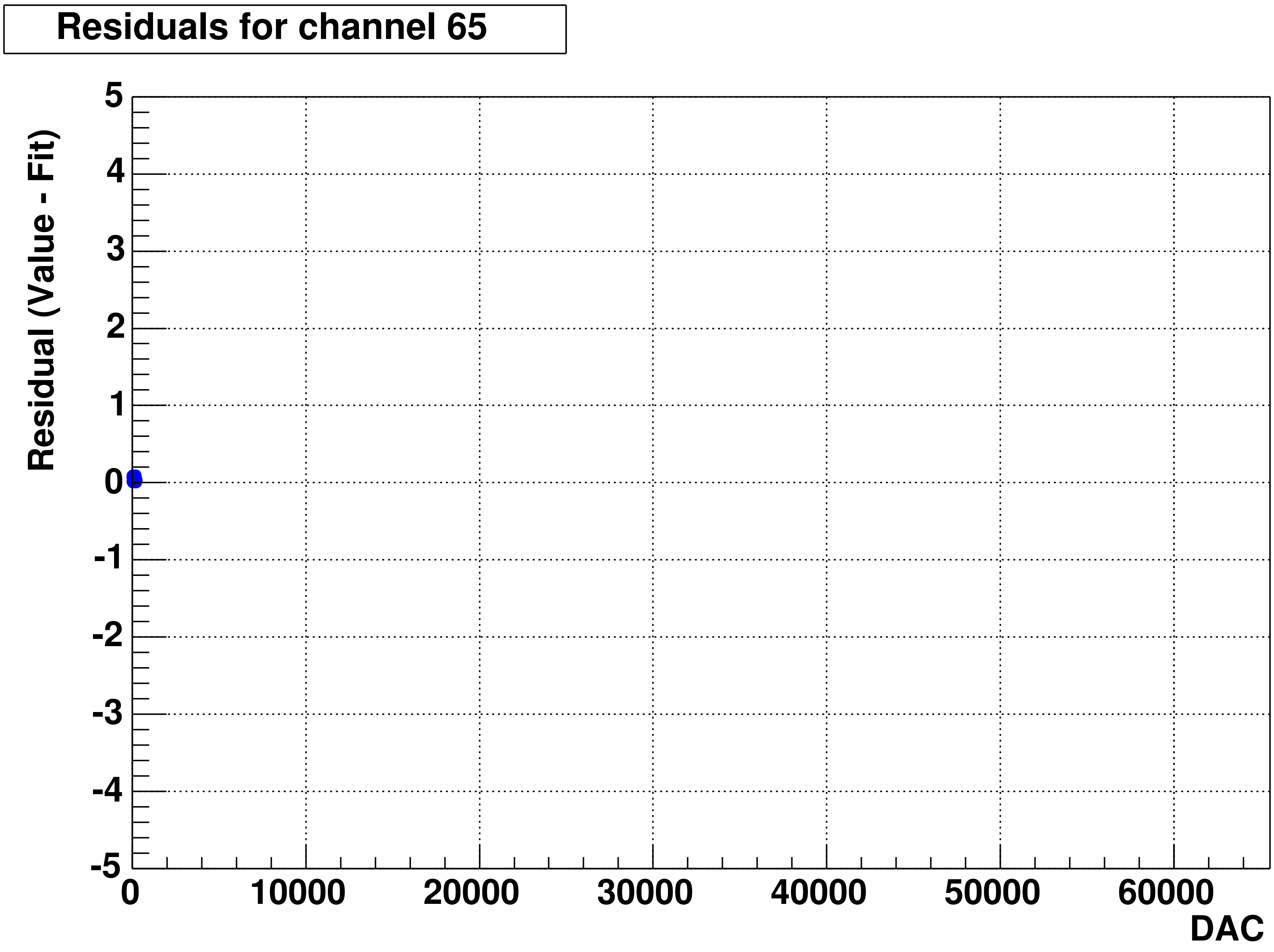
Linear fit for channel 64
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

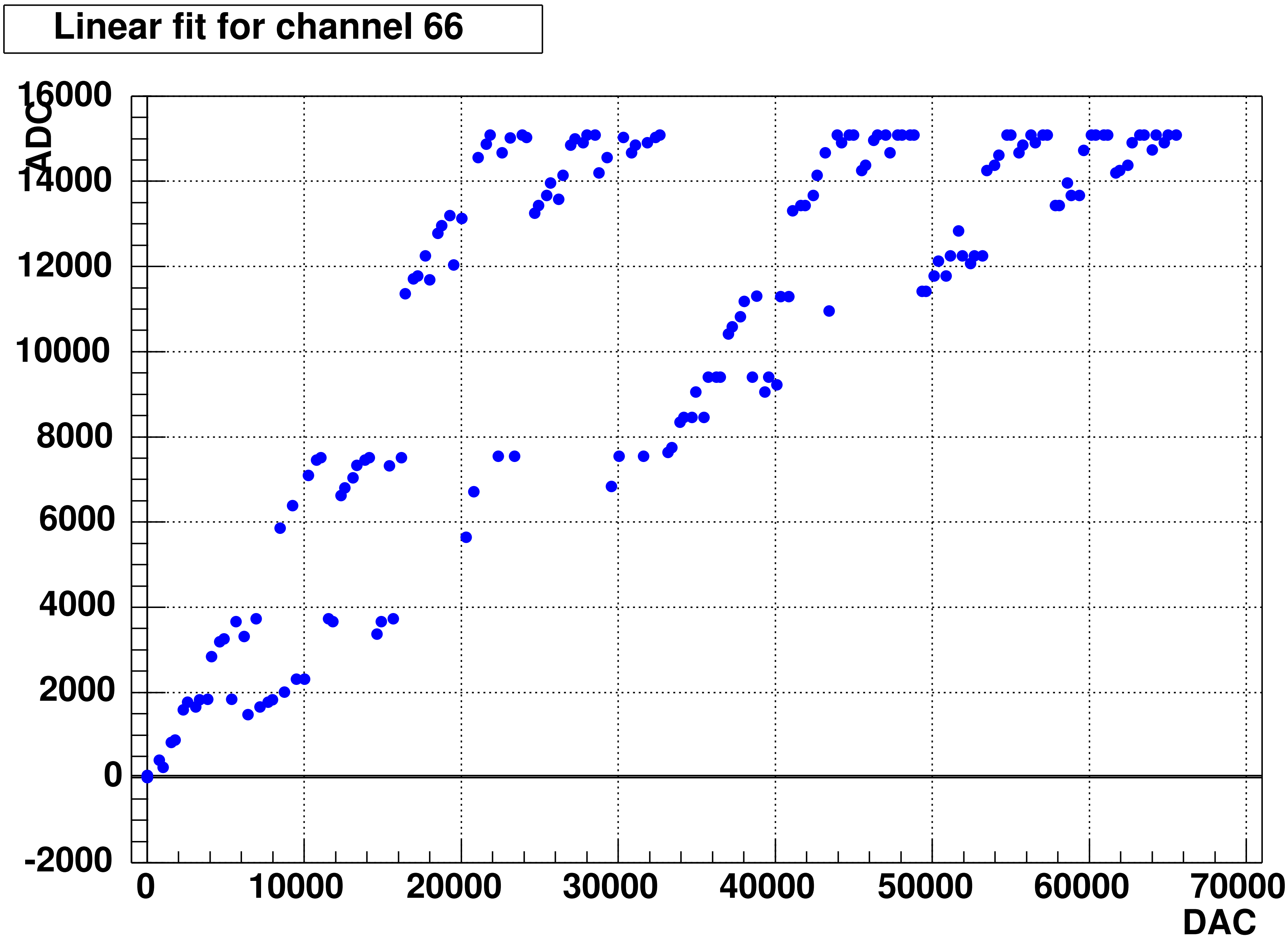
Residuals for channel 64

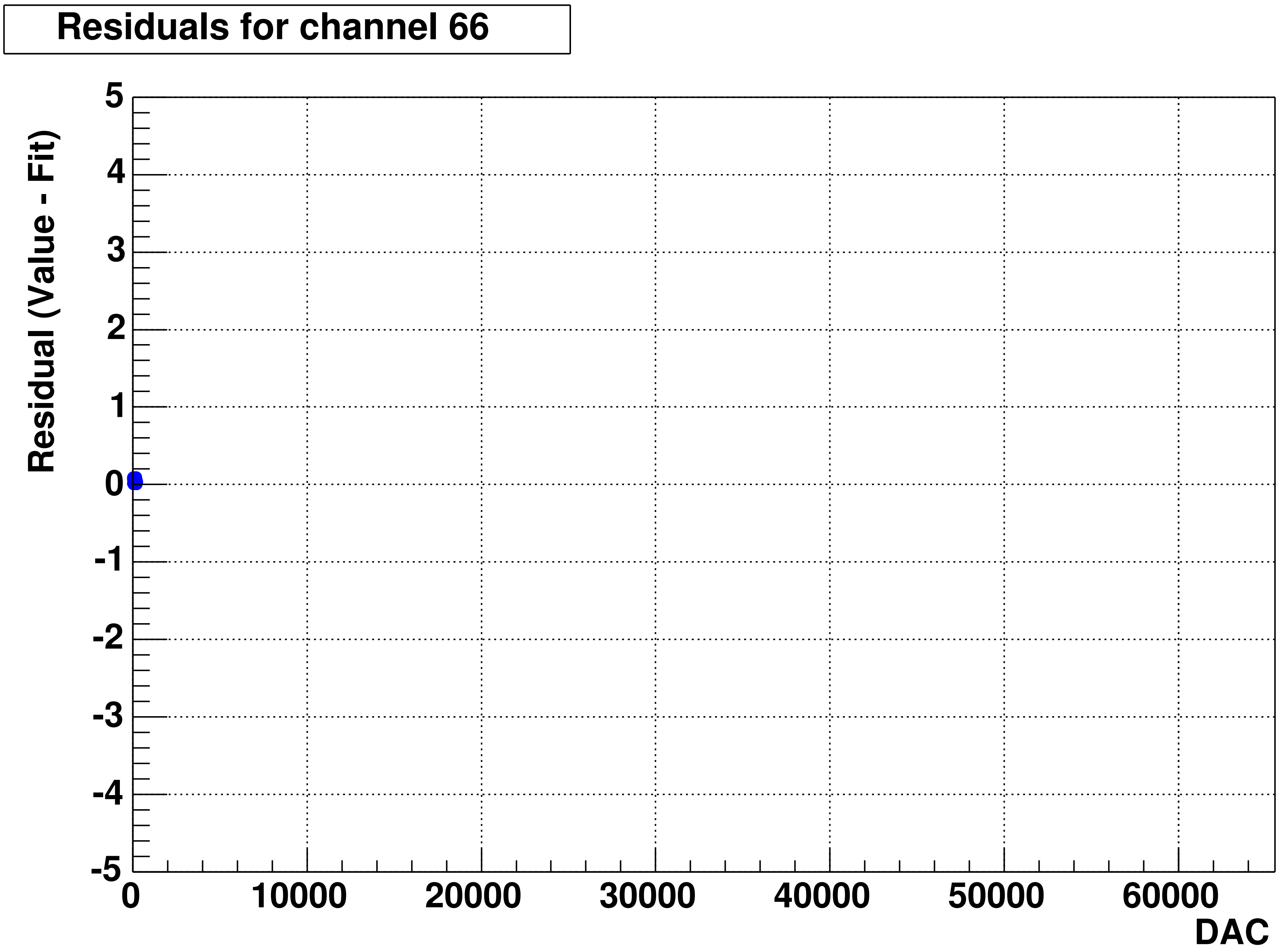


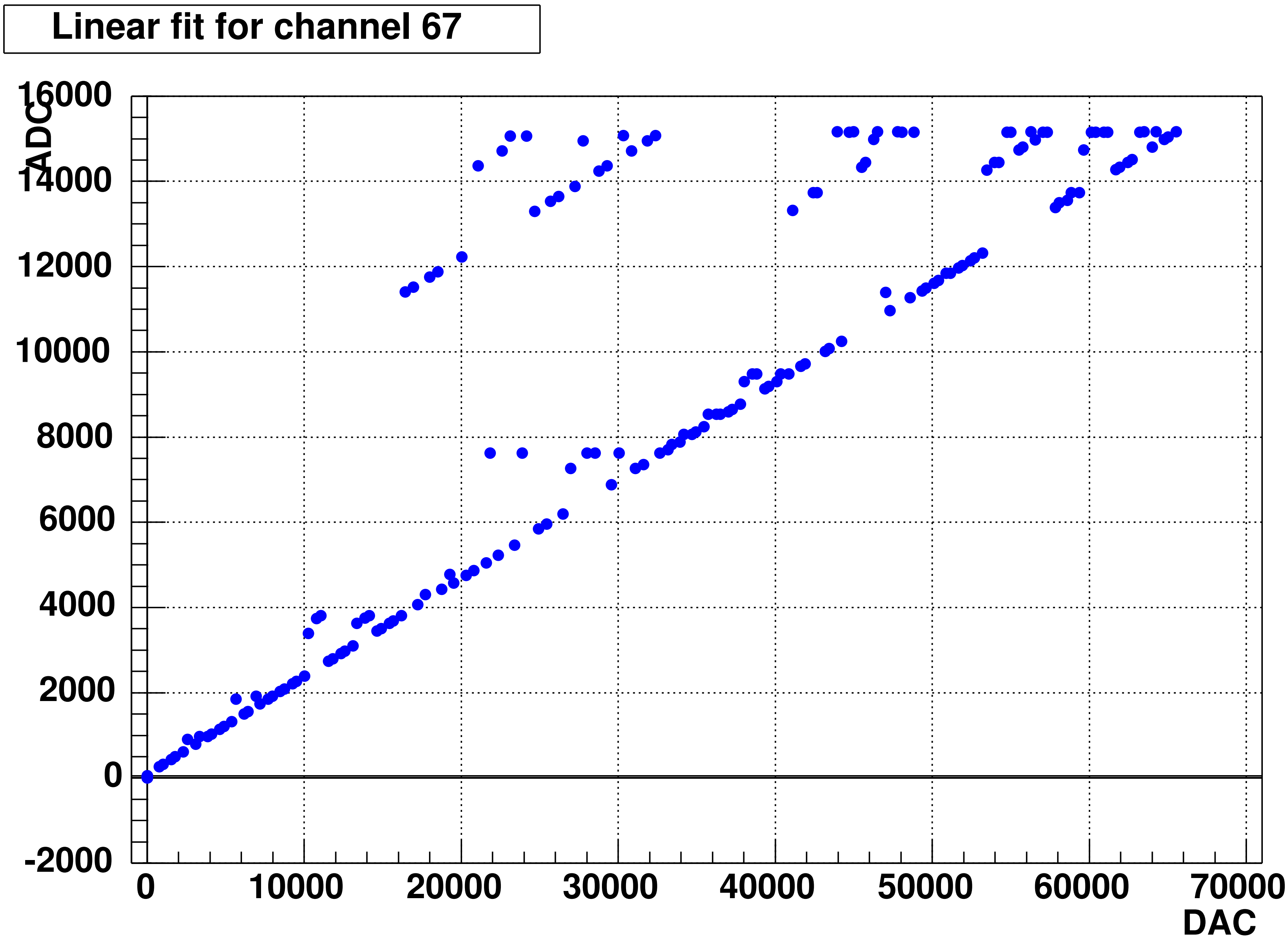


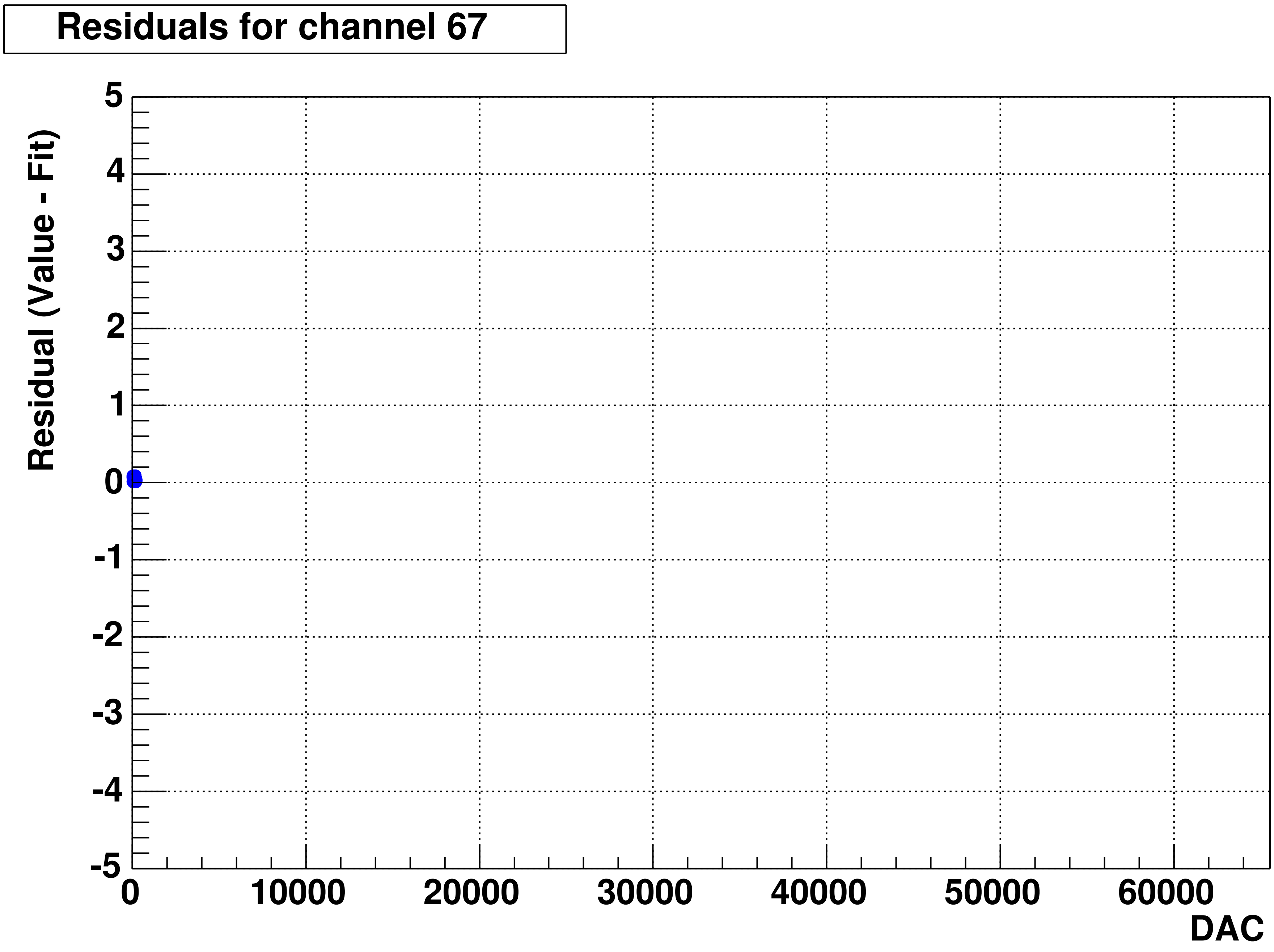
Linear fit for channel 65
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC


Residuals for channel 65
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

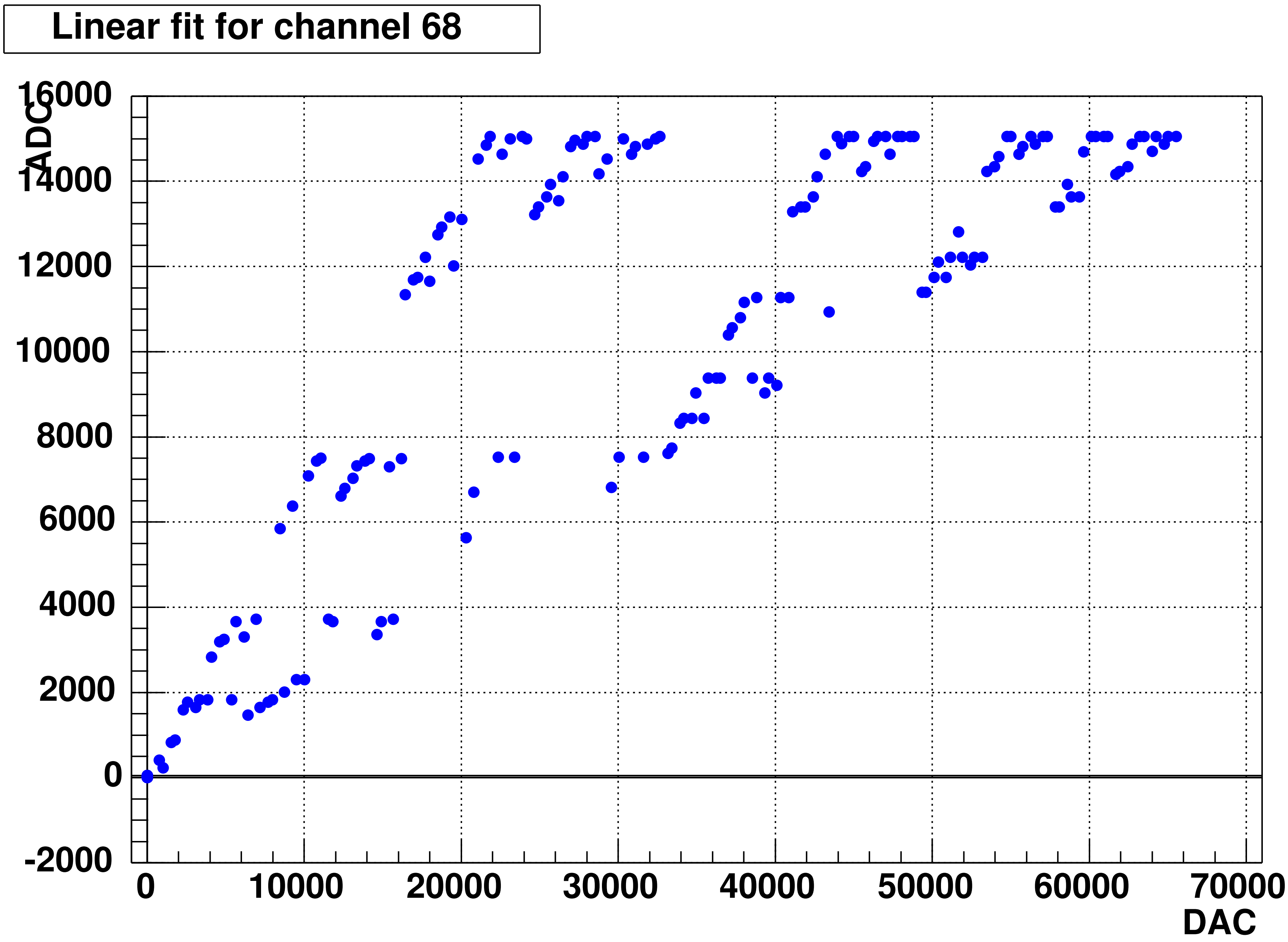

Linear fit for channel 66
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC


Residuals for channel 66
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

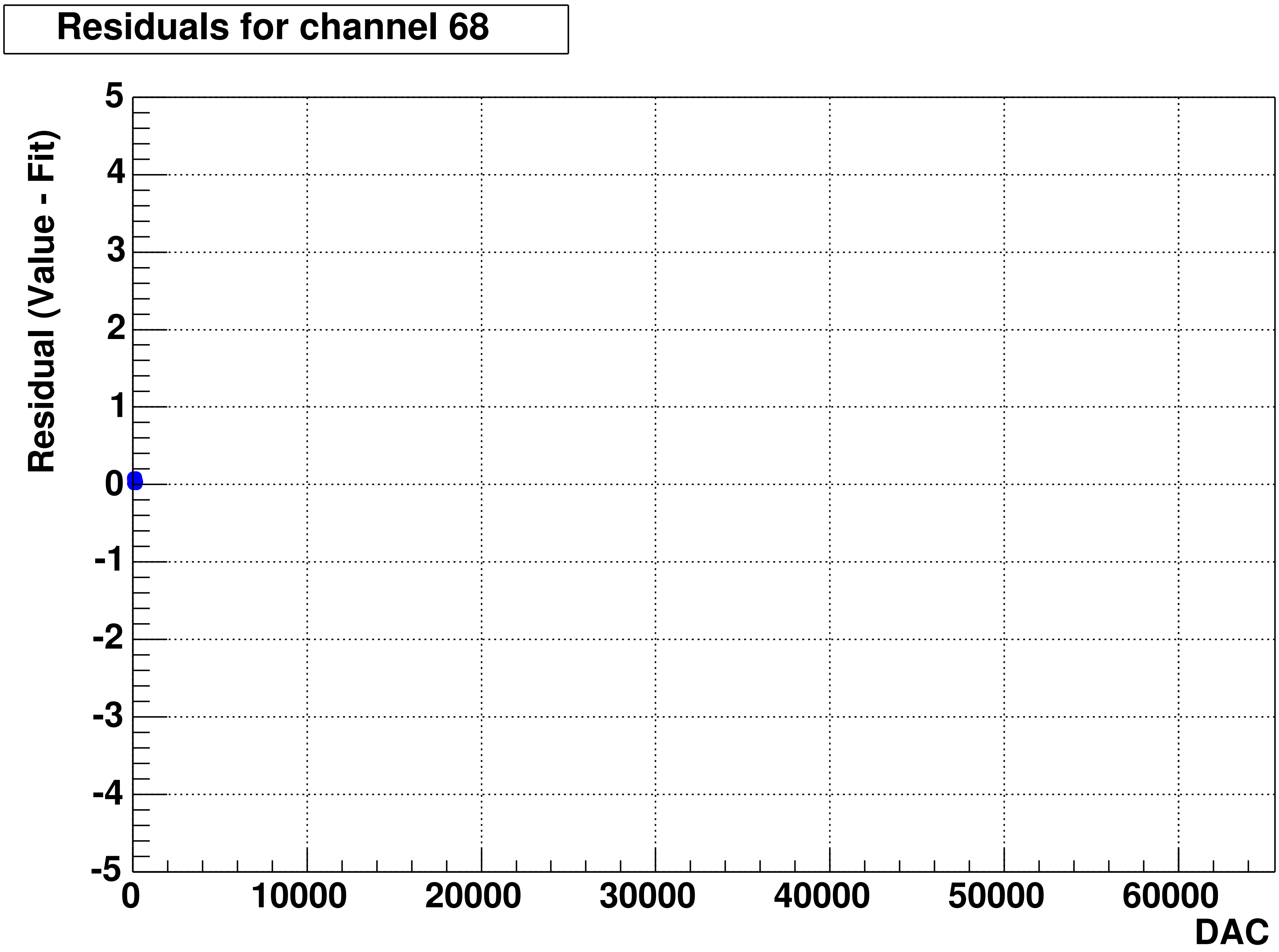

Linear fit for channel 67
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC



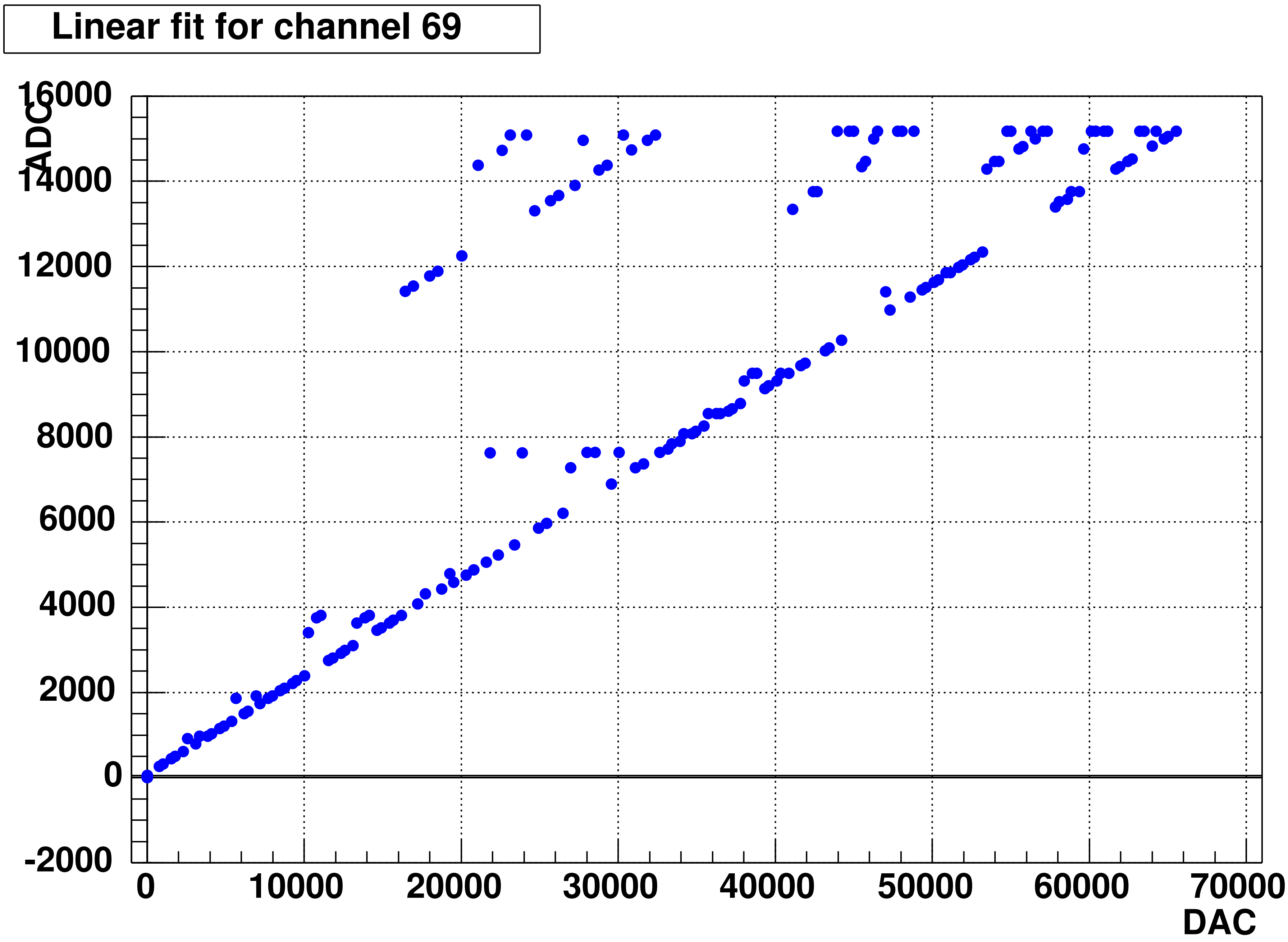
Residuals for channel 67
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



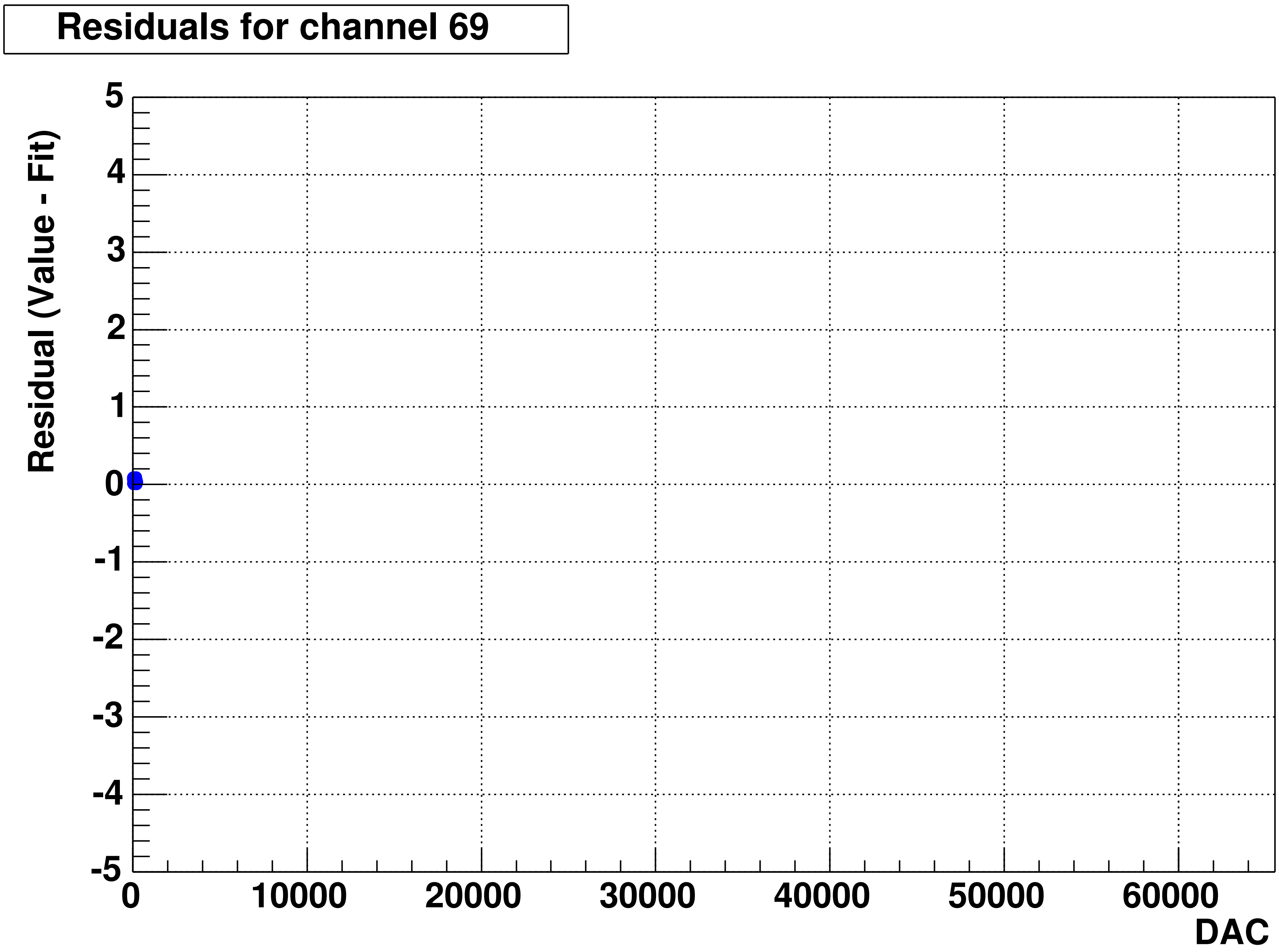
Linear fit for channel 68
ADC
DAC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000

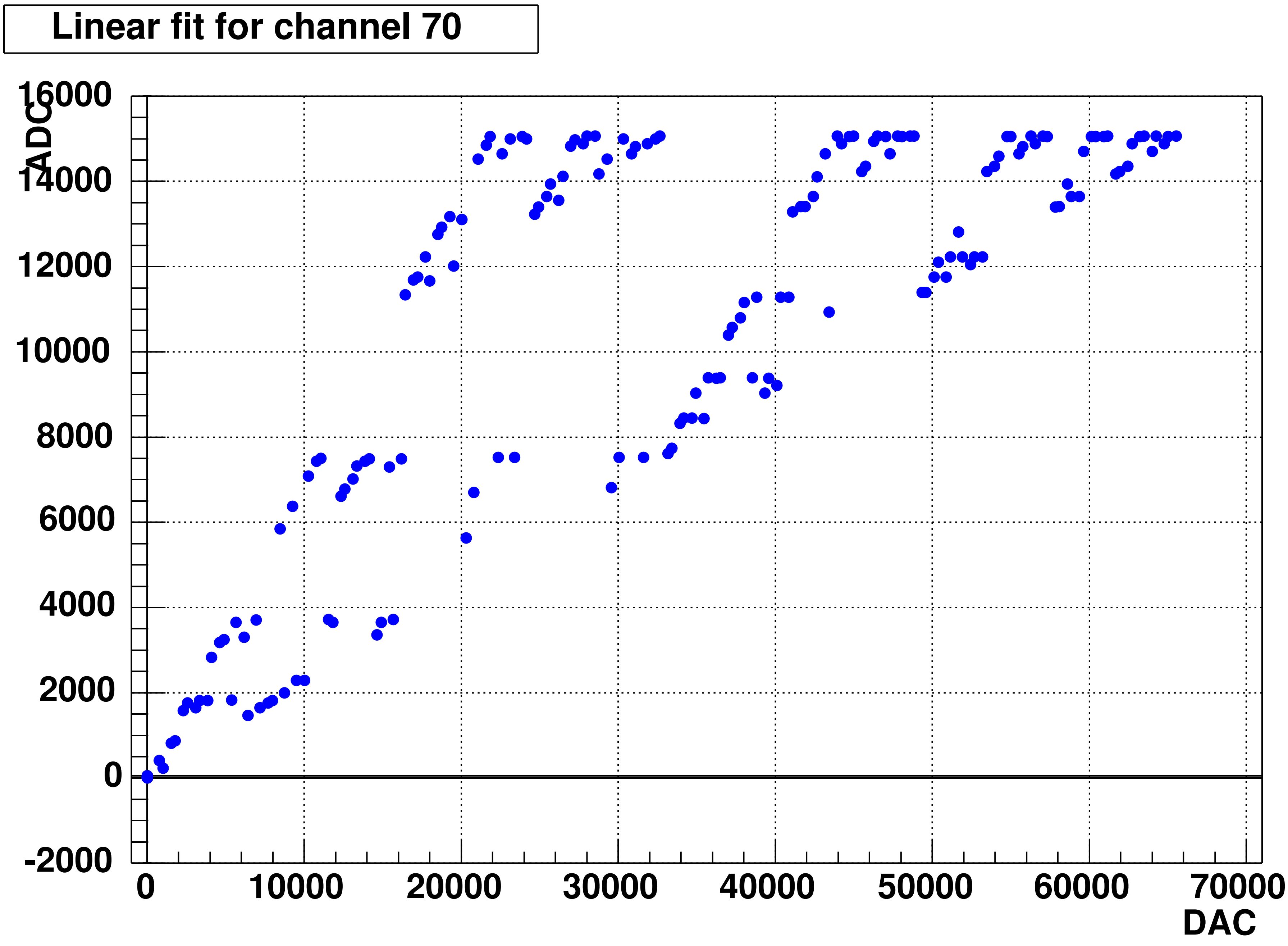


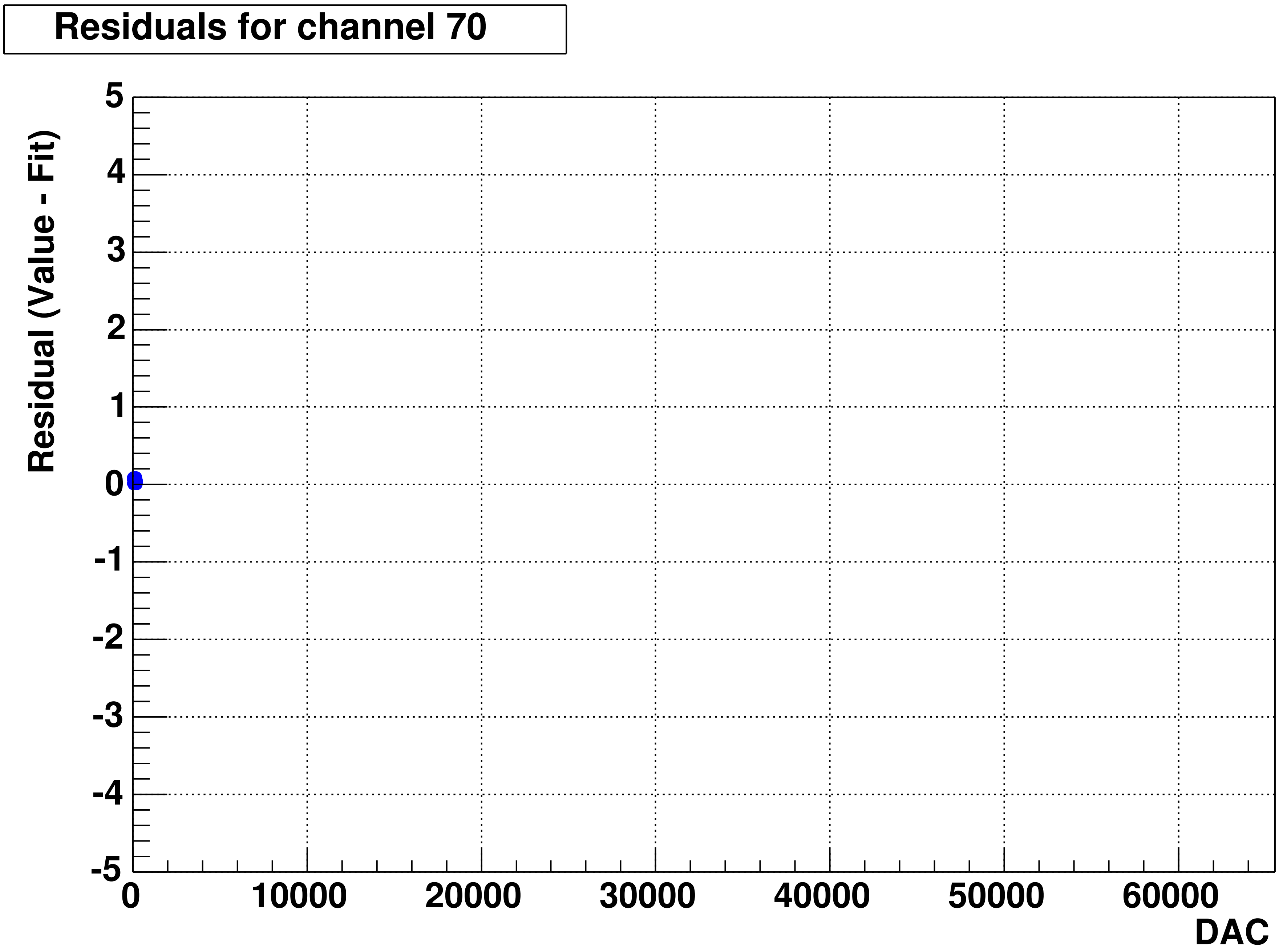
Residuals for channel 68
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



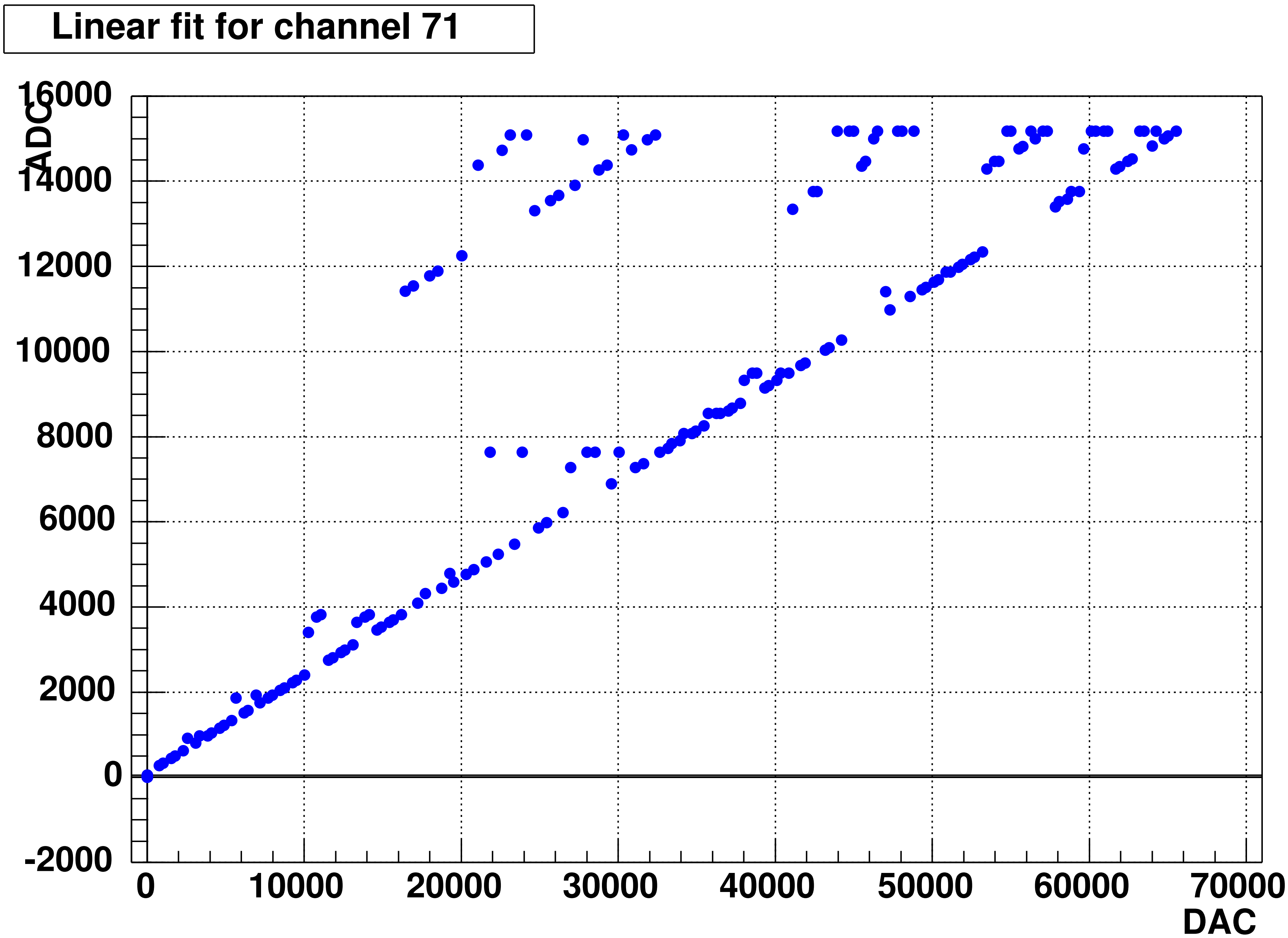
Linear fit for channel 69
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC


Residuals for channel 69
Residual (Value - Fit)
DAC
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000

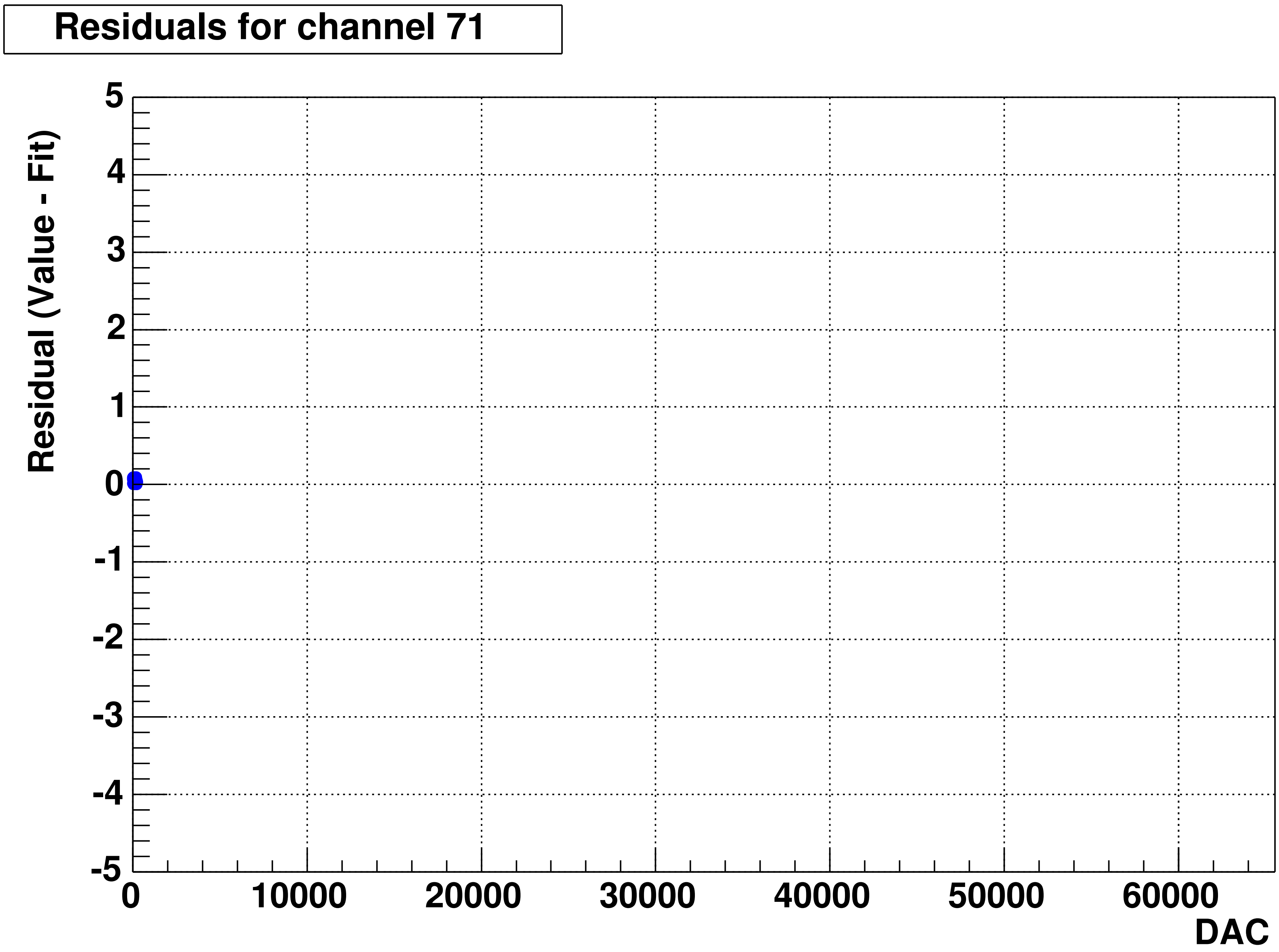

Linear fit for channel 70
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC



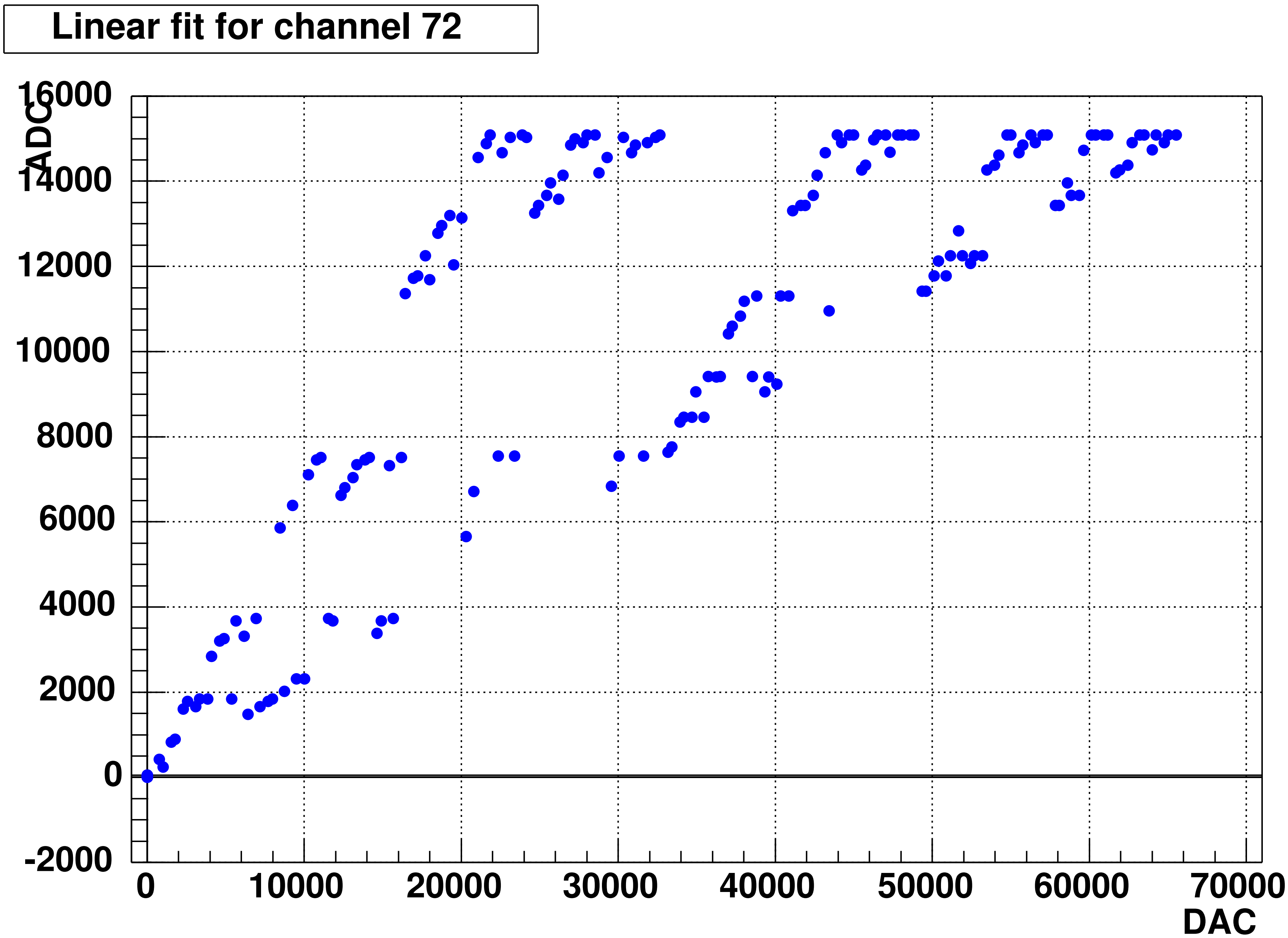
Residuals for channel 70
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



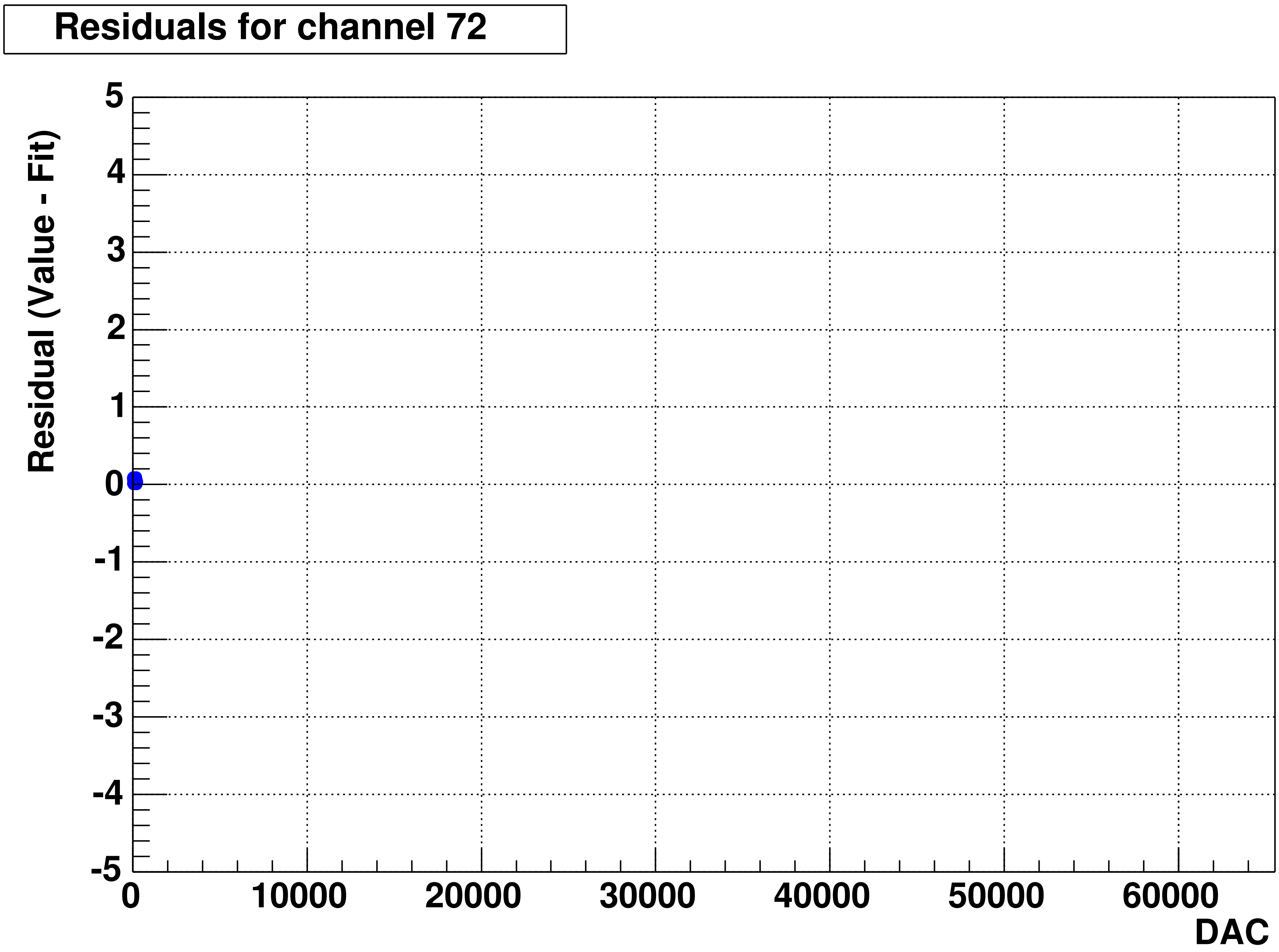
Linear fit for channel 71
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC



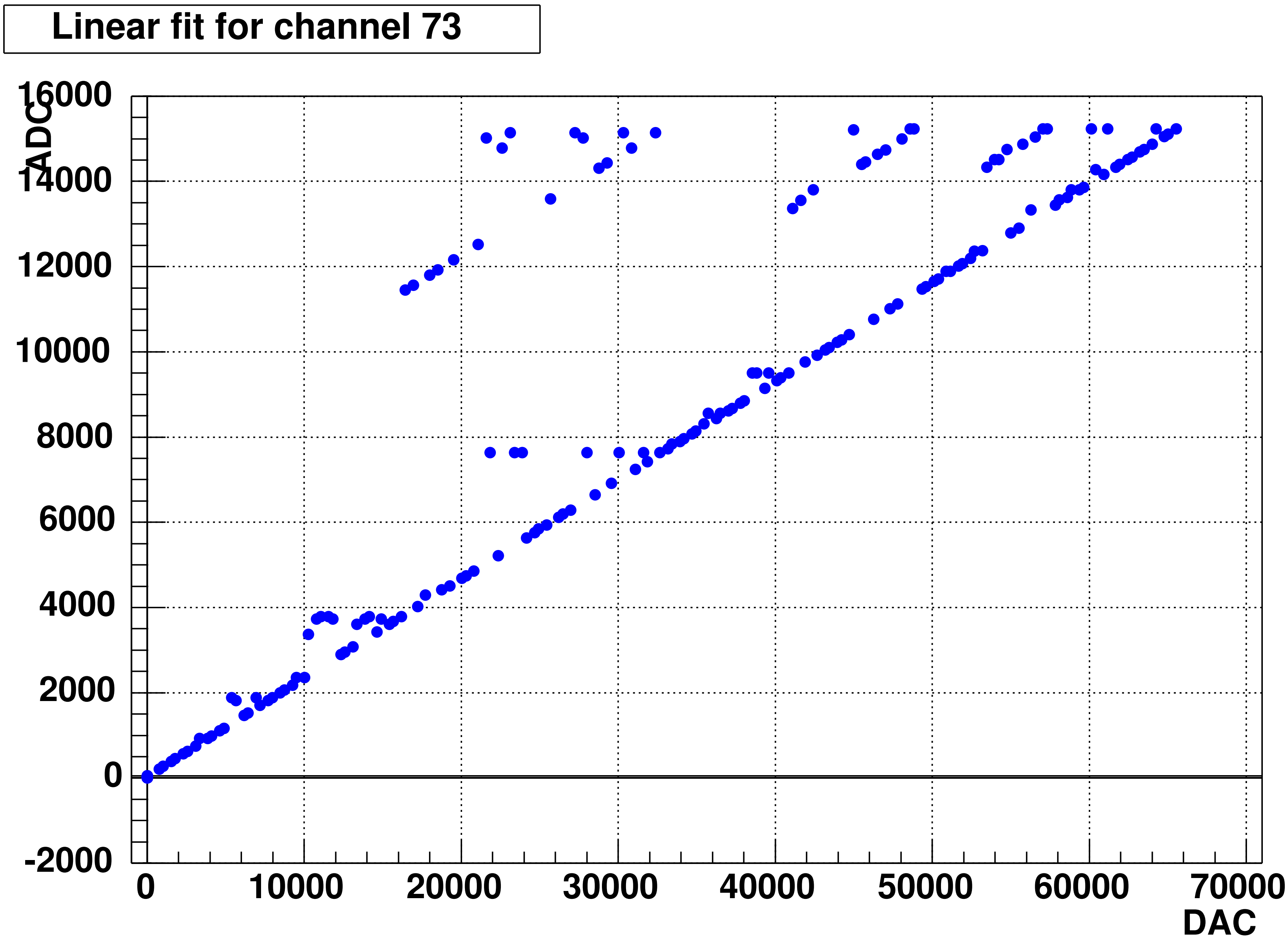
Residuals for channel 71
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



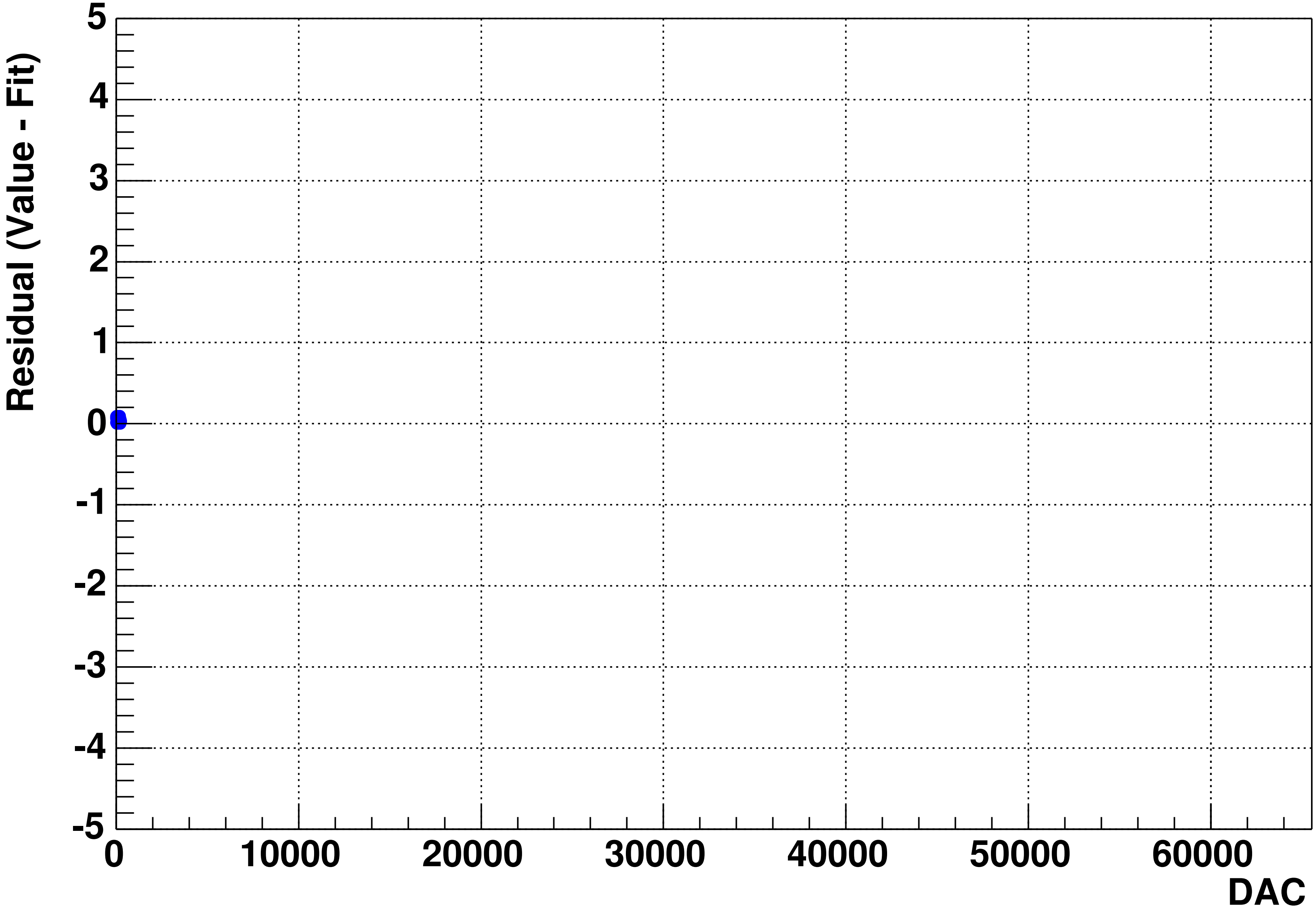
Linear fit for channel 72
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

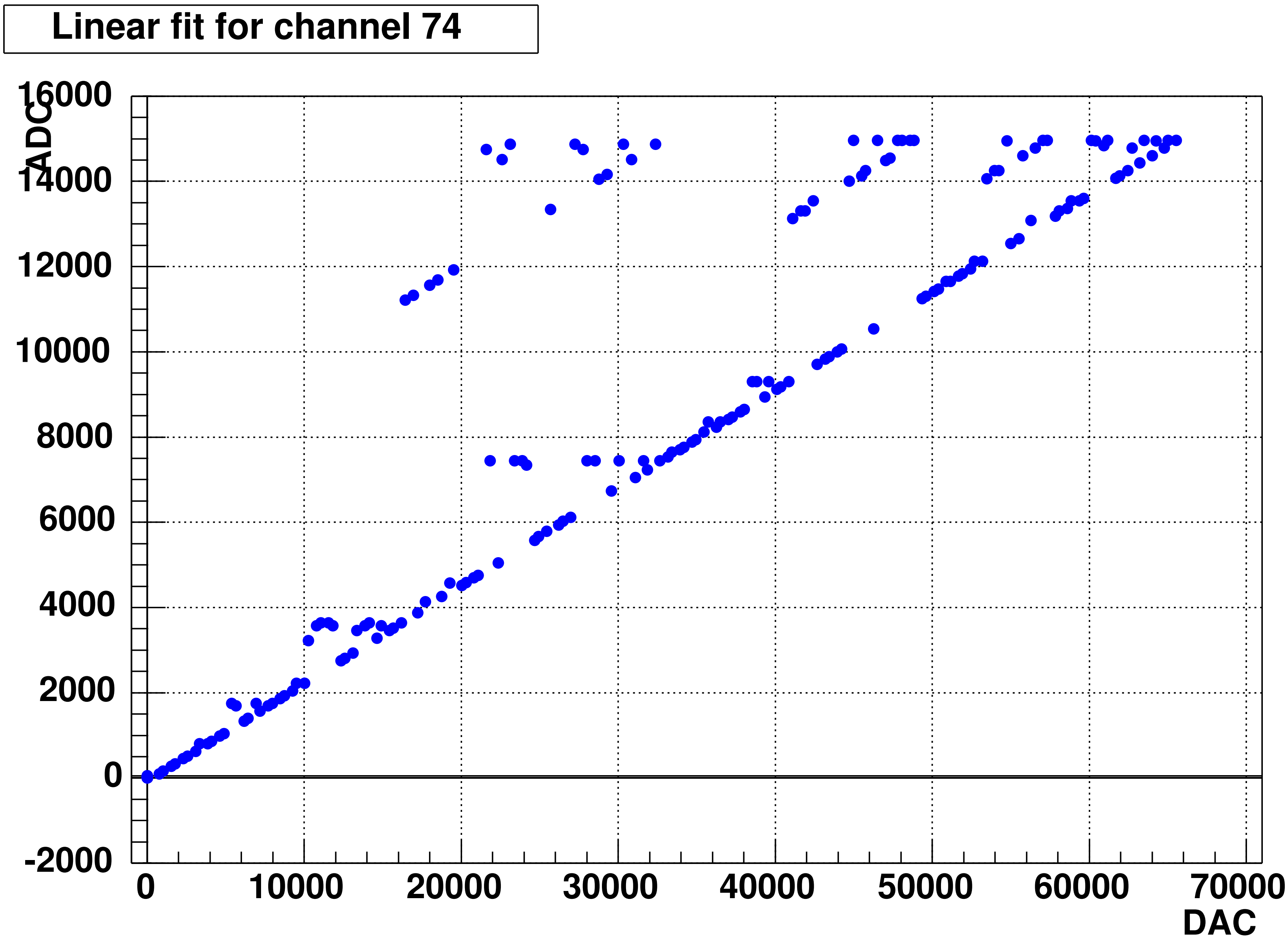


Residuals for channel 72
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

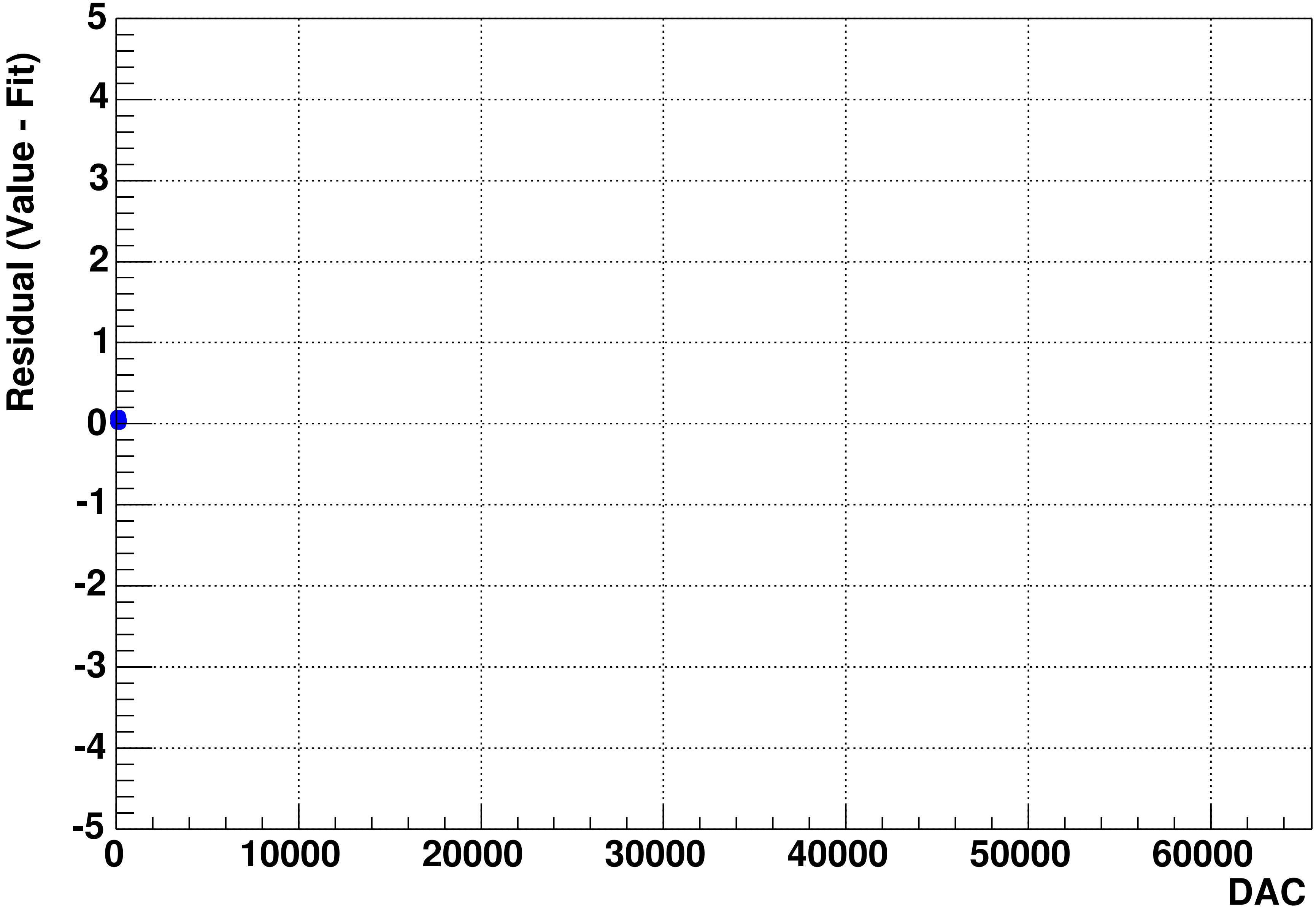

Linear fit for channel 73
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

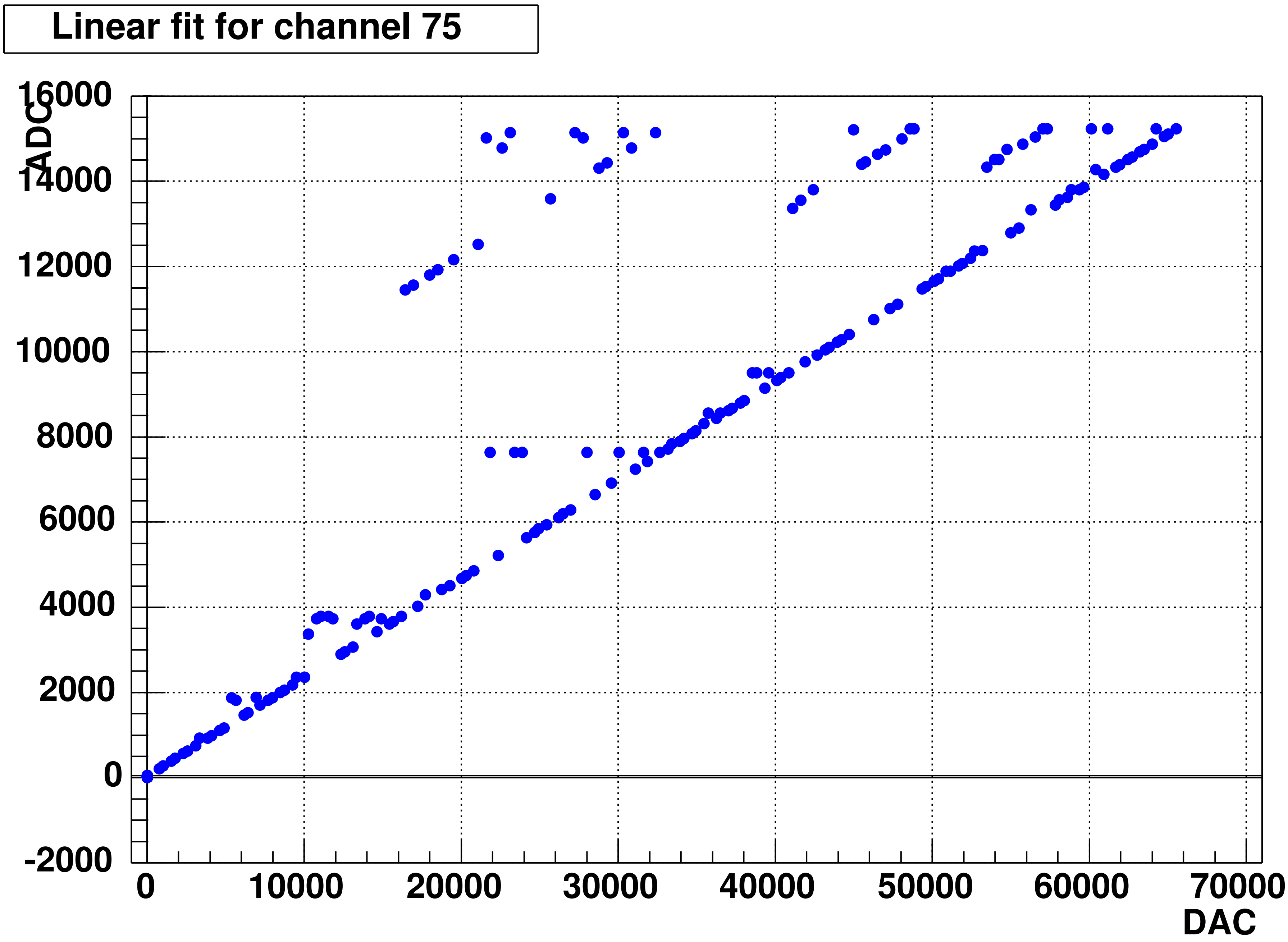
Residuals for channel 73

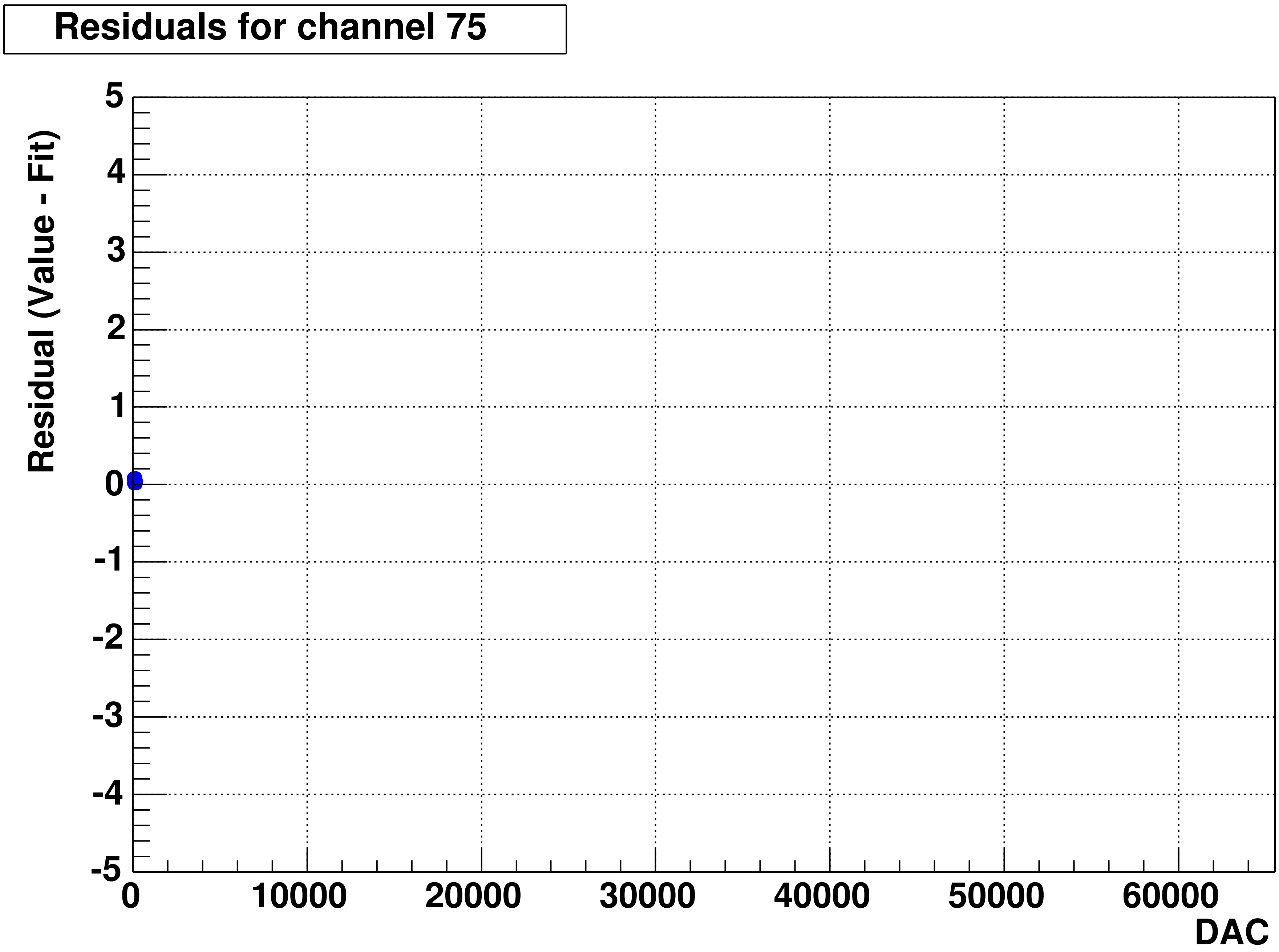



Linear fit for channel 74
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

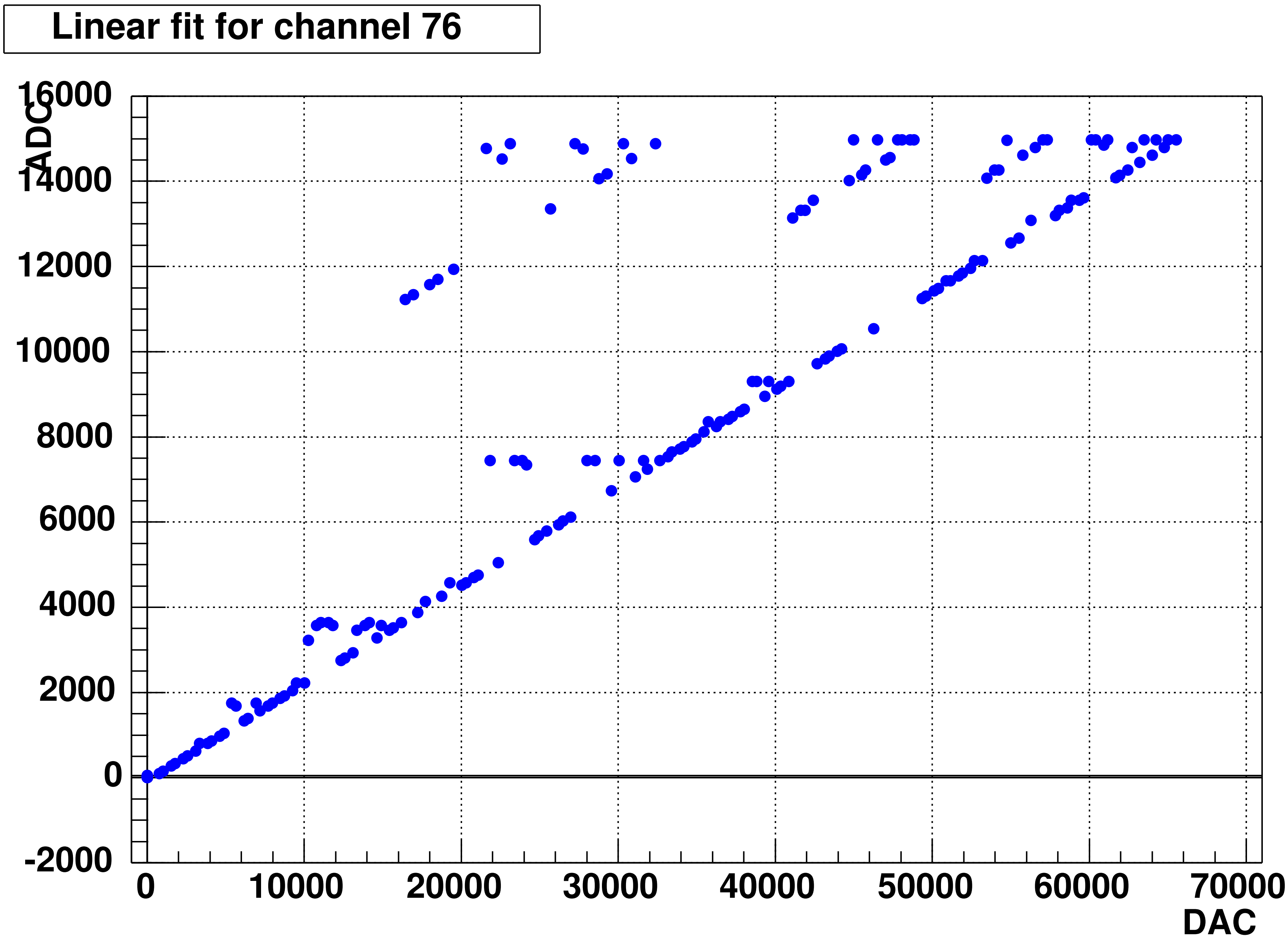
Residuals for channel 74



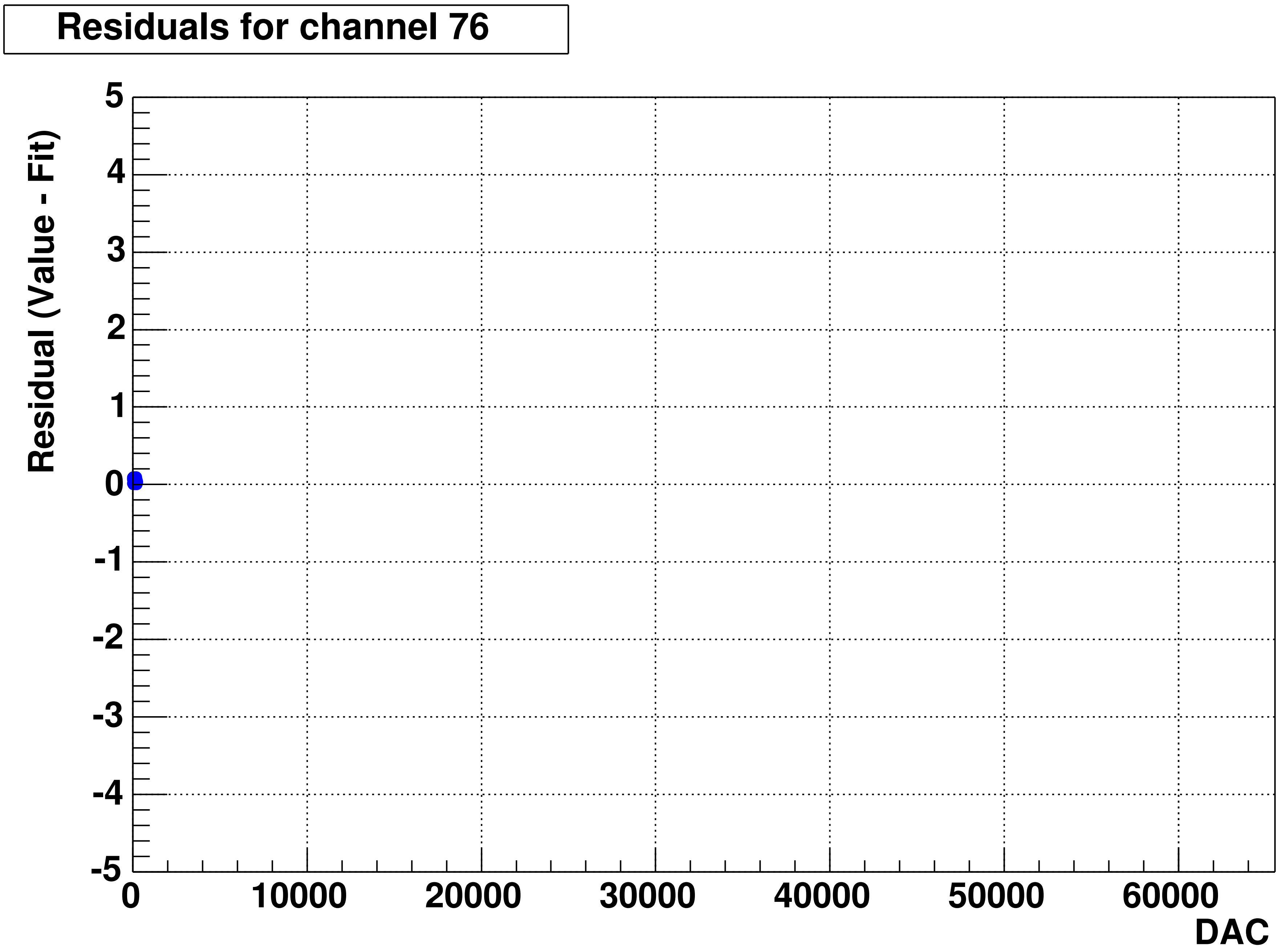

Linear fit for channel 75
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC



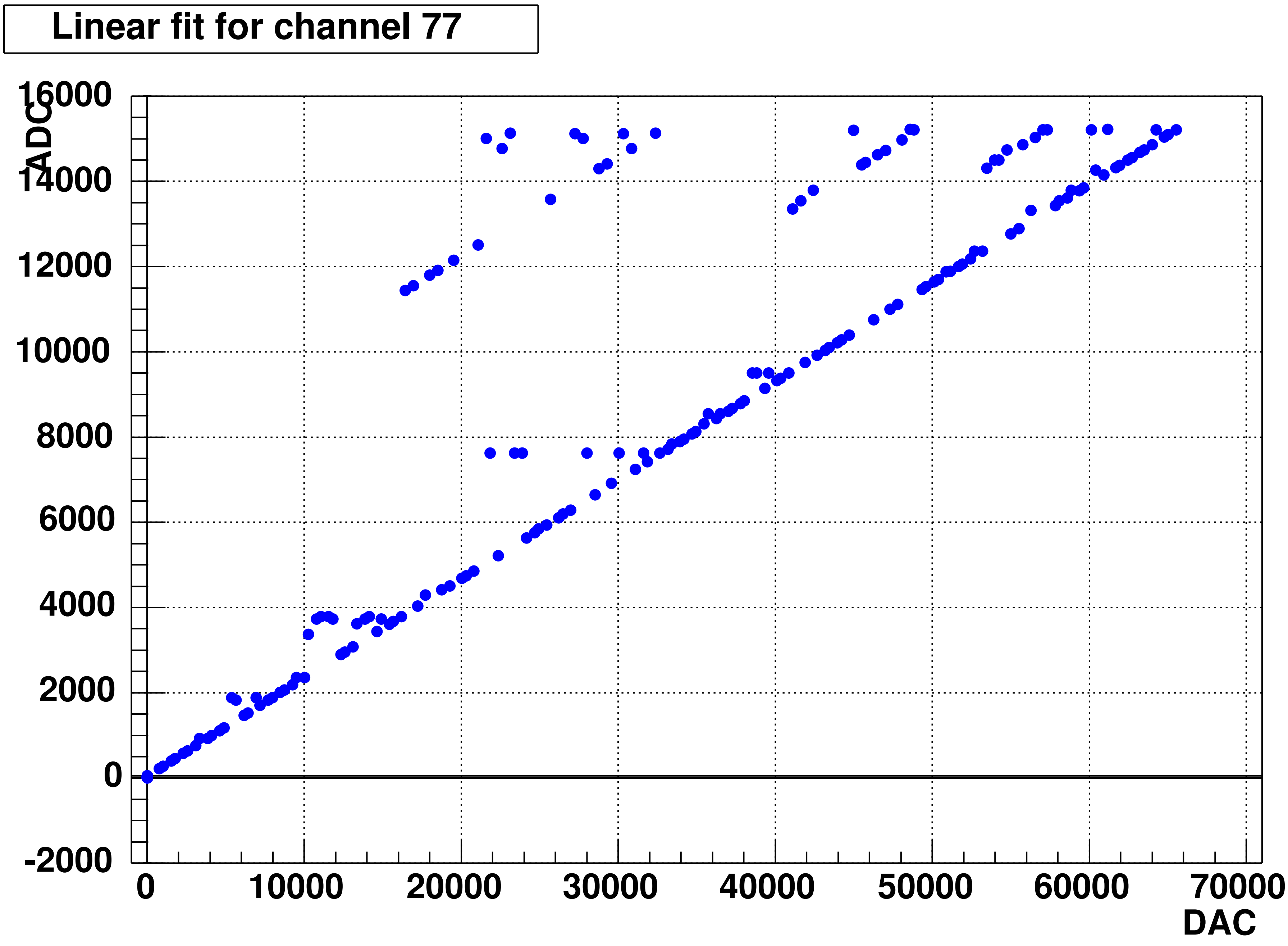
Residuals for channel 75
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

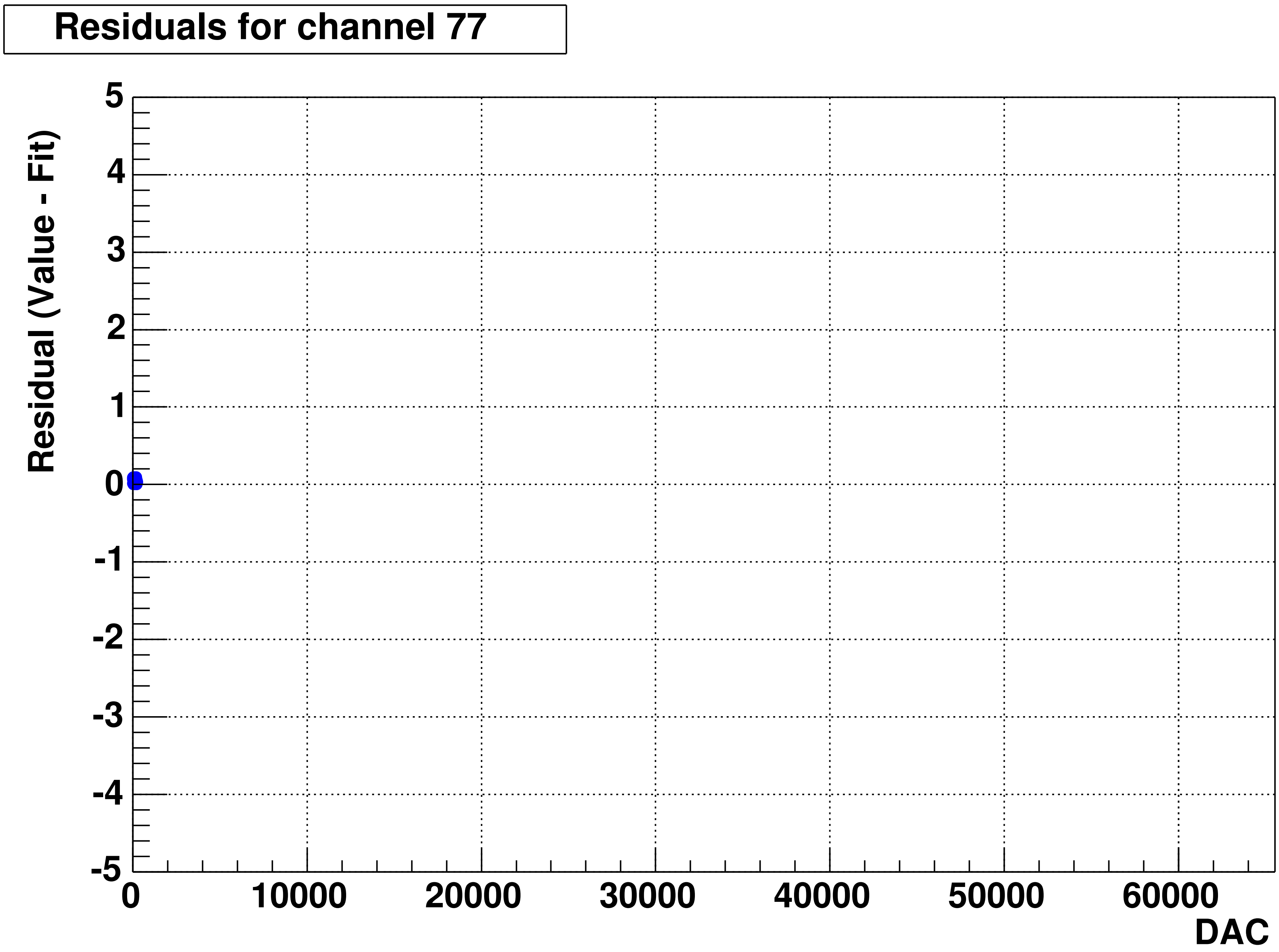


Linear fit for channel 76
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

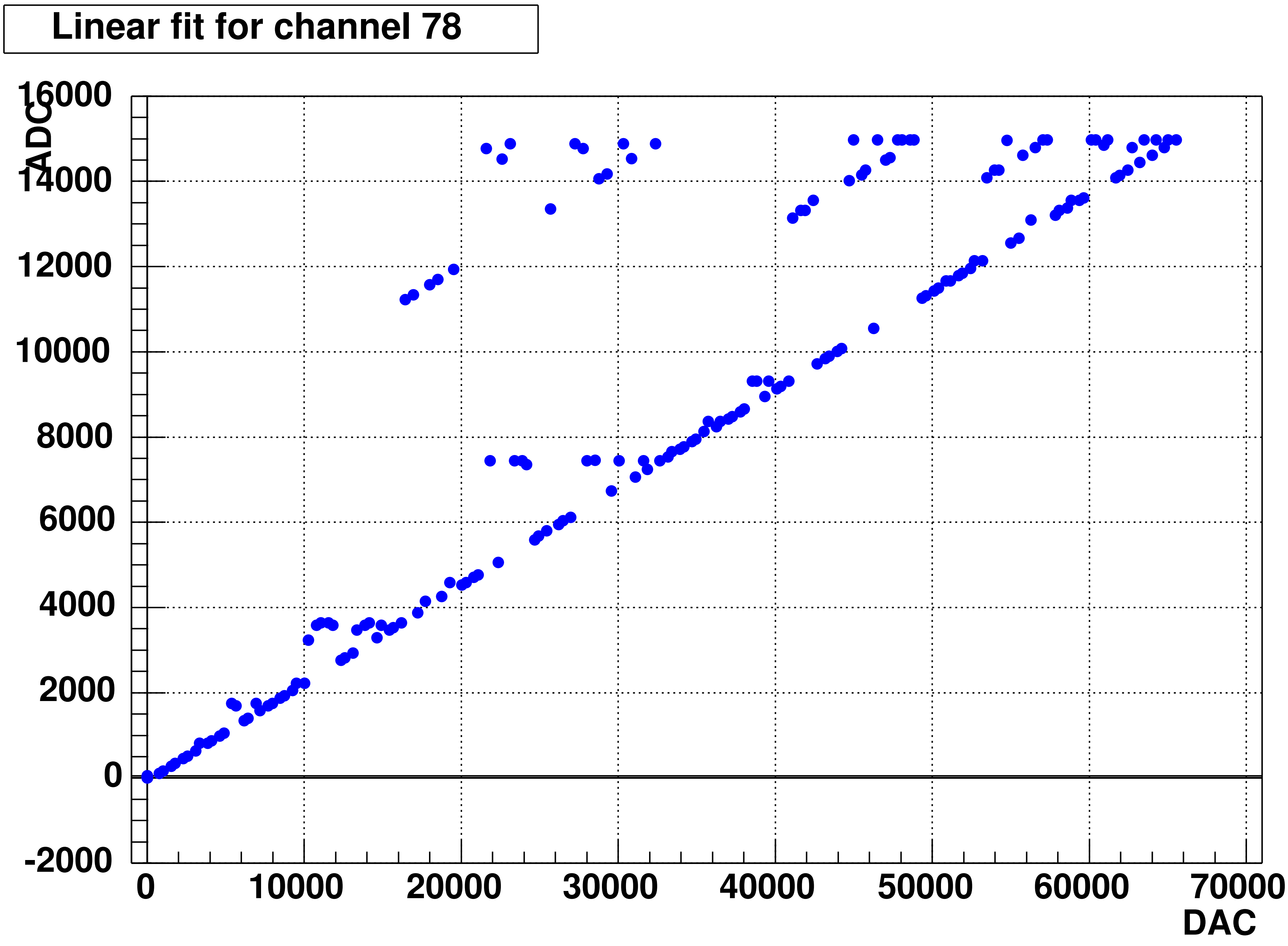


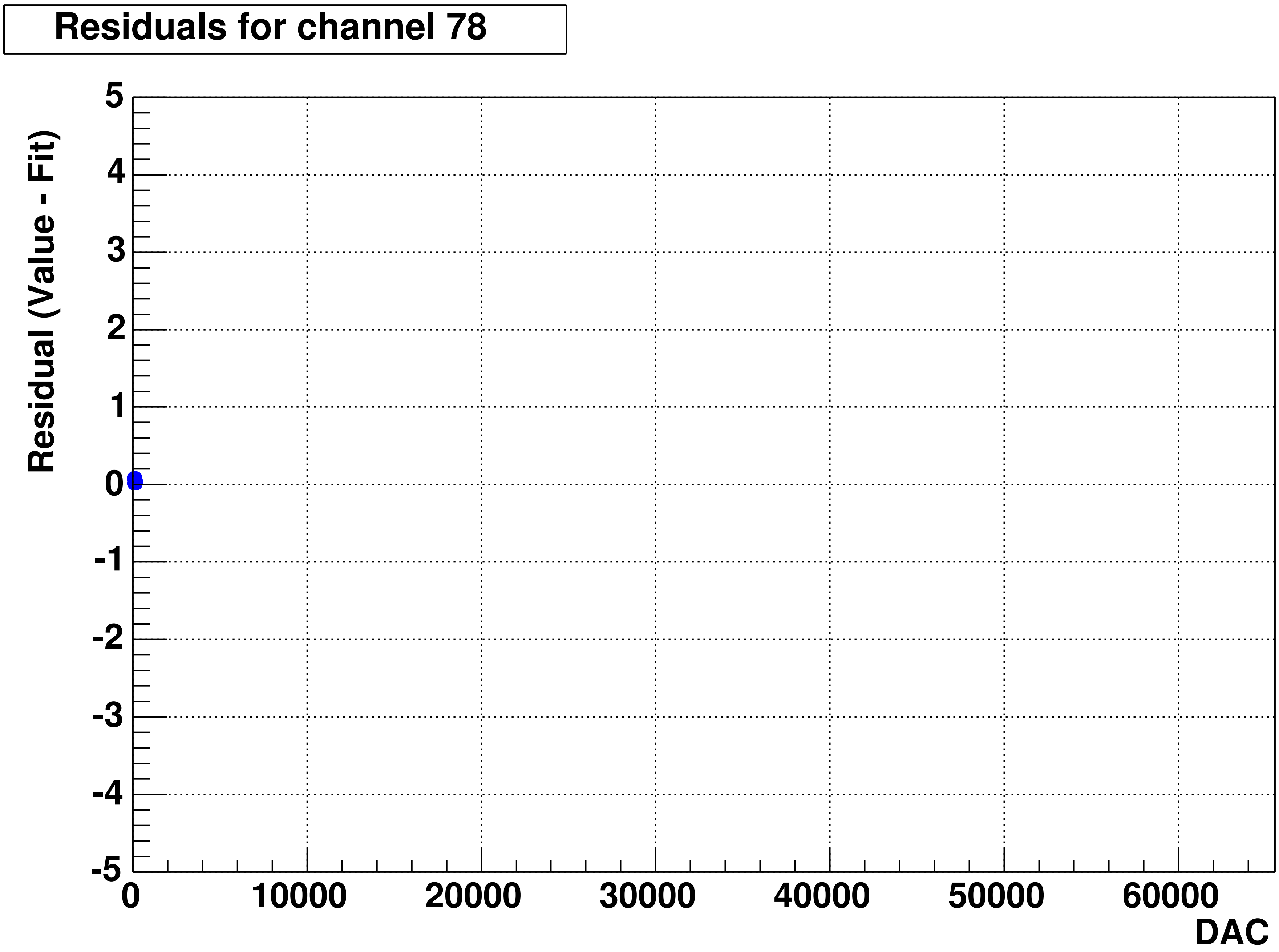
Residuals for channel 76
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

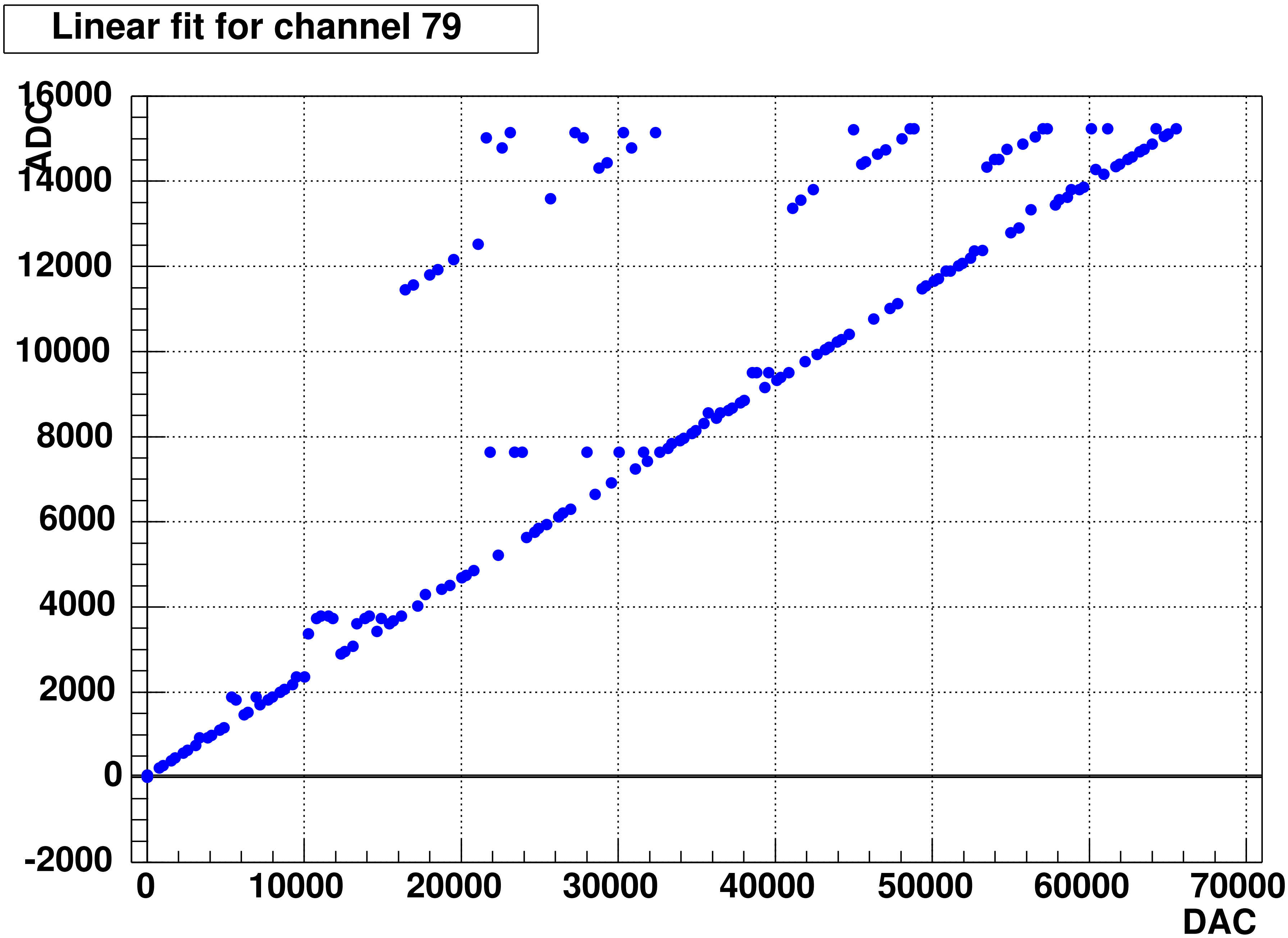

Linear fit for channel 77
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC



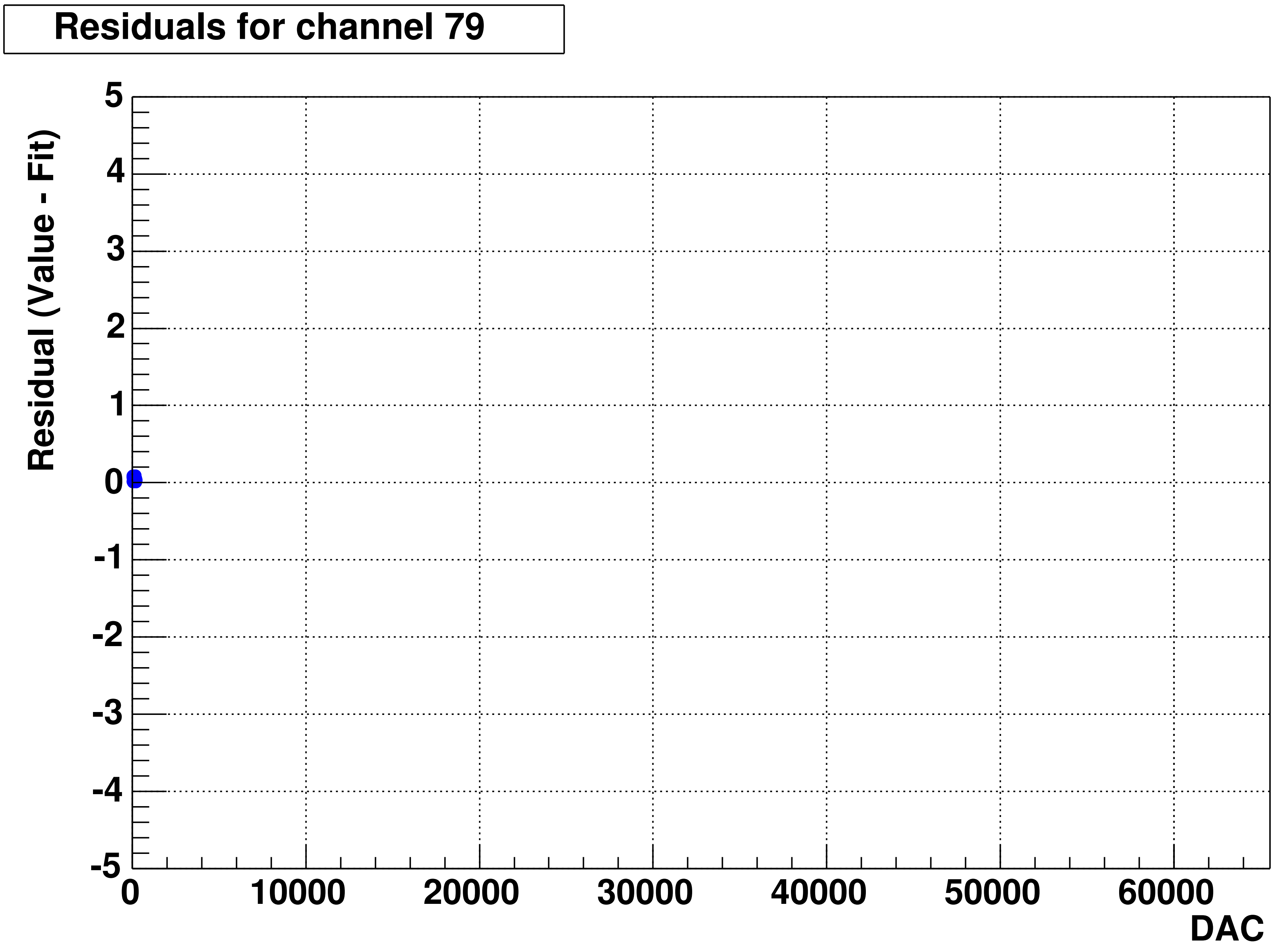
Residuals for channel 77
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC


Linear fit for channel 78
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

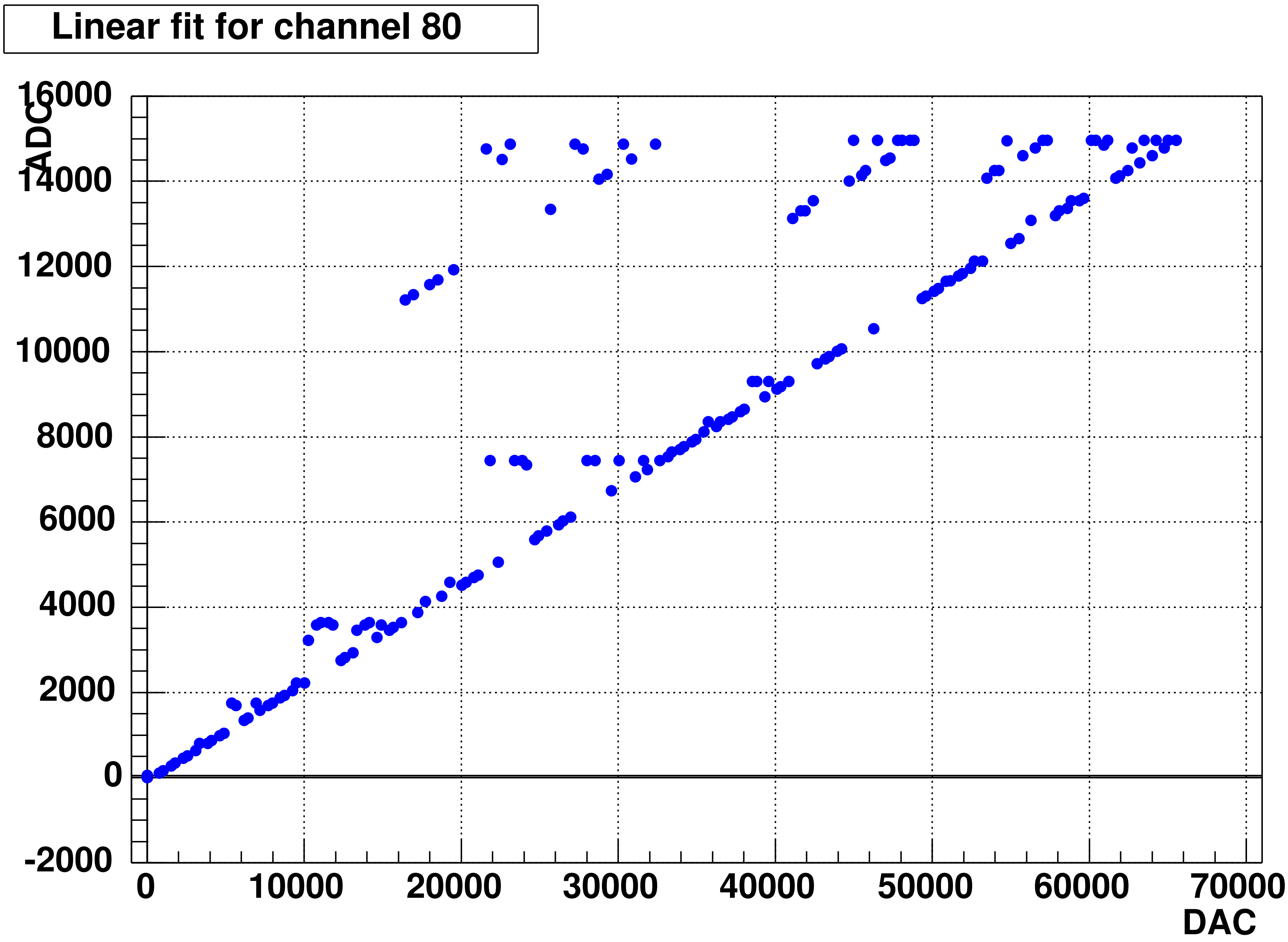

Residuals for channel 78
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



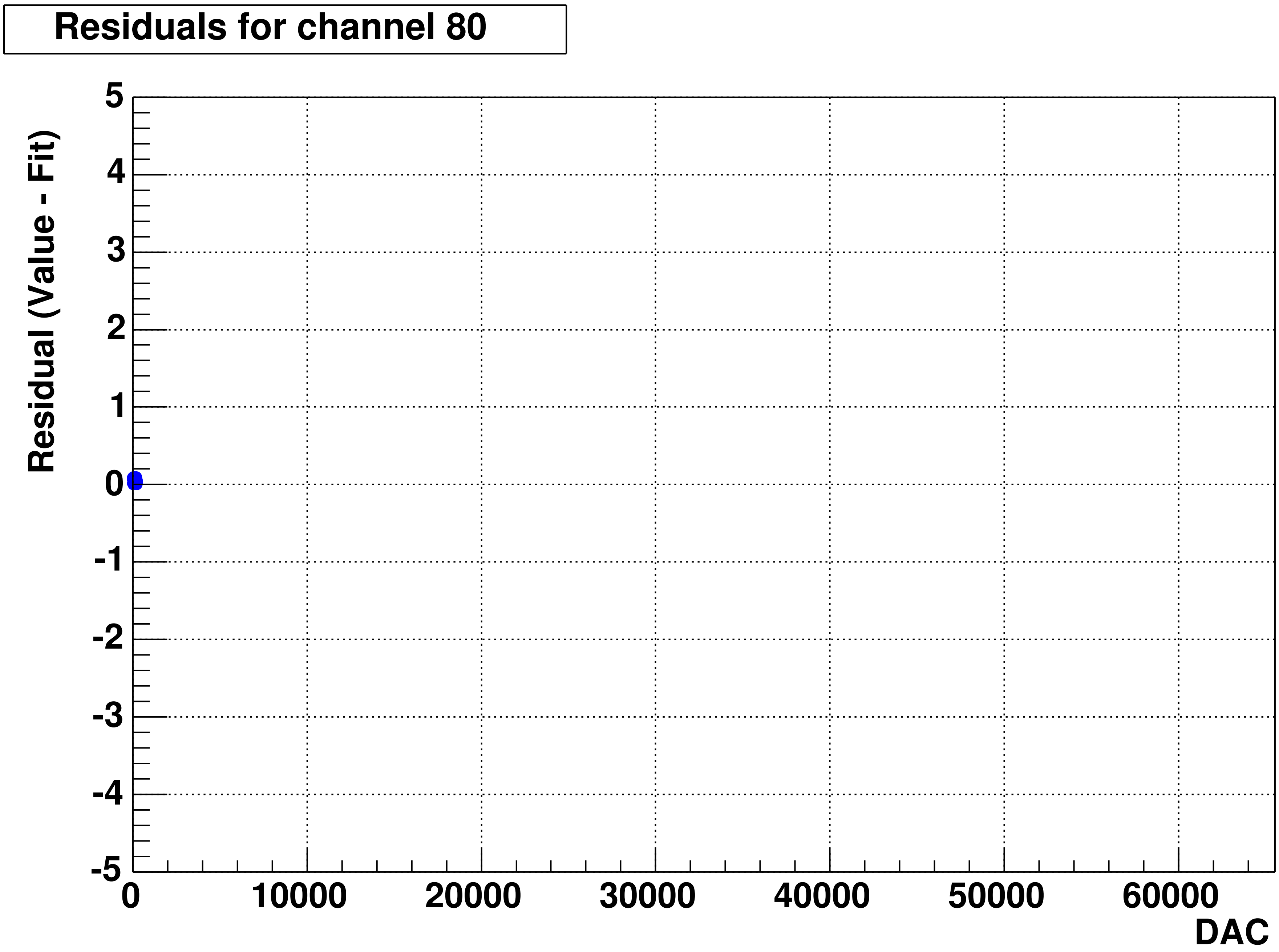
Linear fit for channel 79
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC



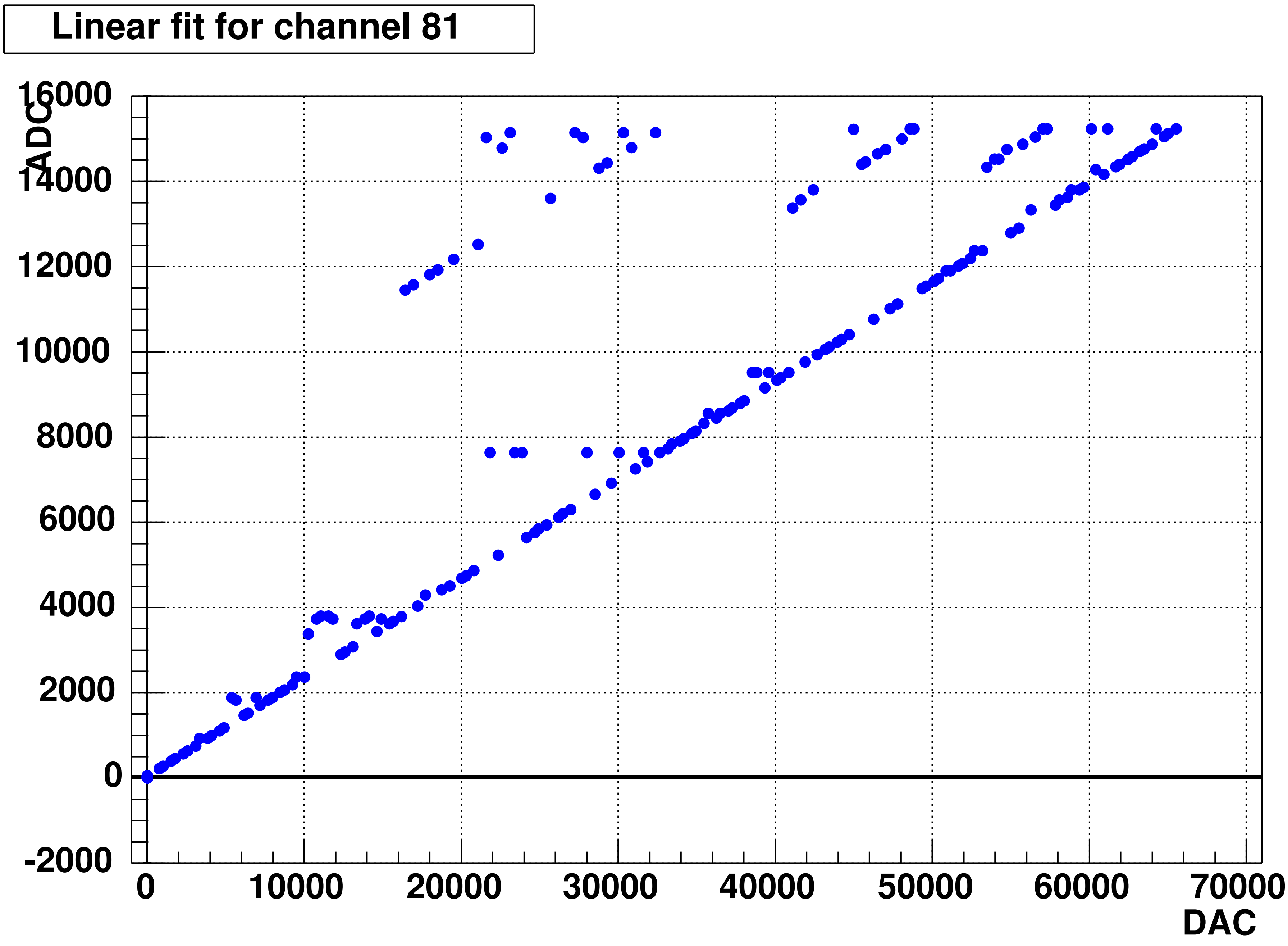
Residuals for channel 79
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



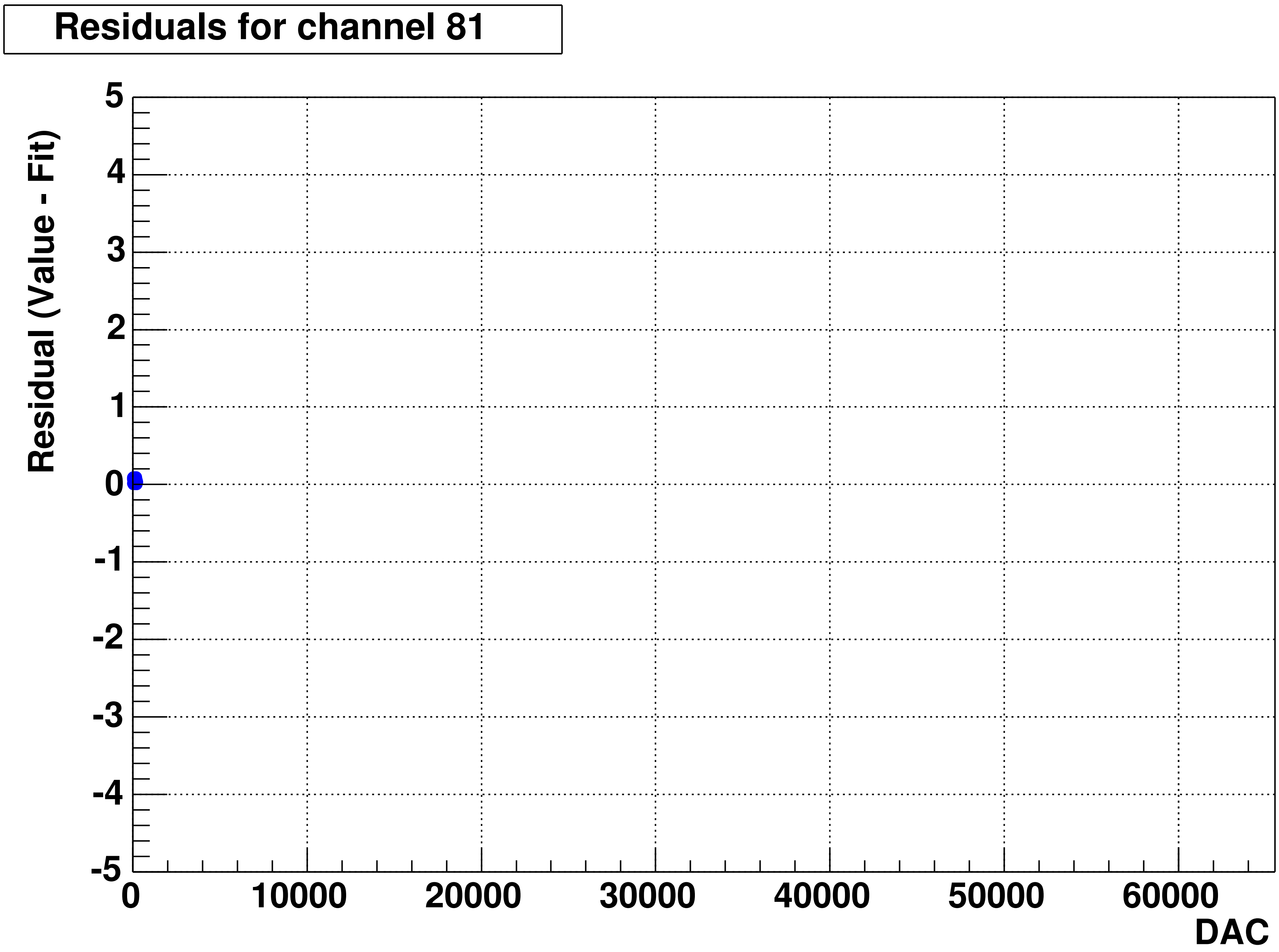
Linear fit for channel 80
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

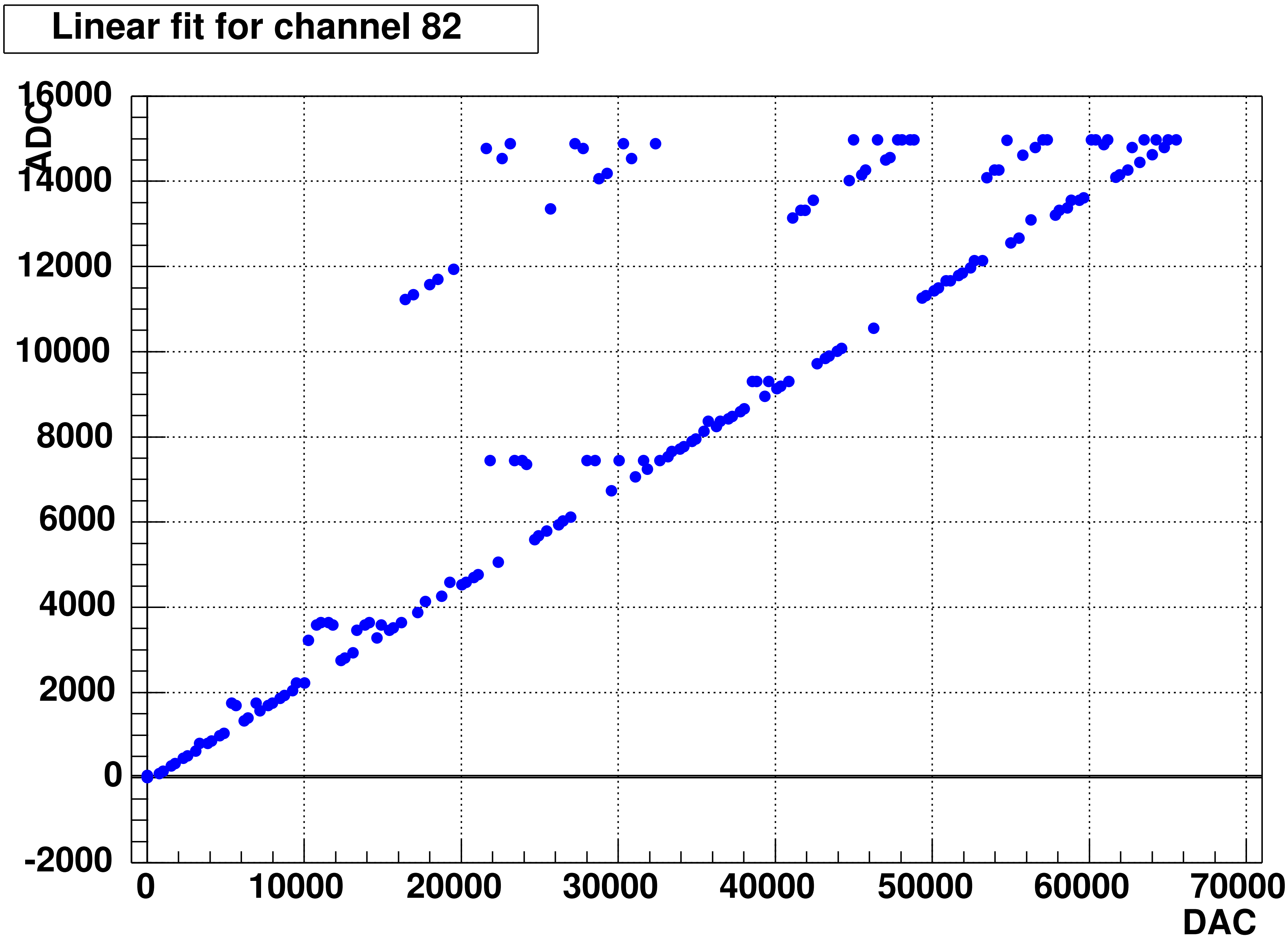


Residuals for channel 80
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

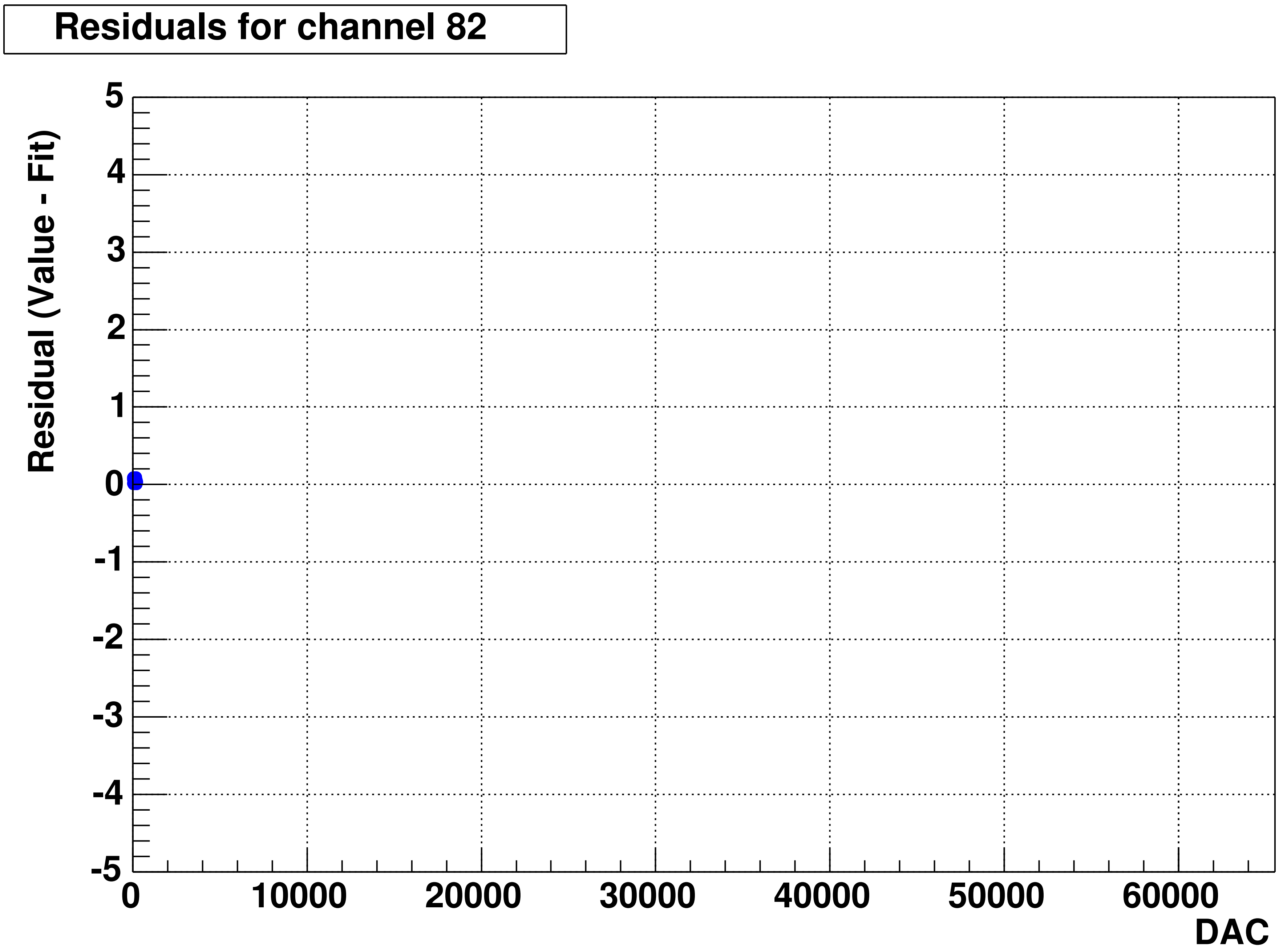


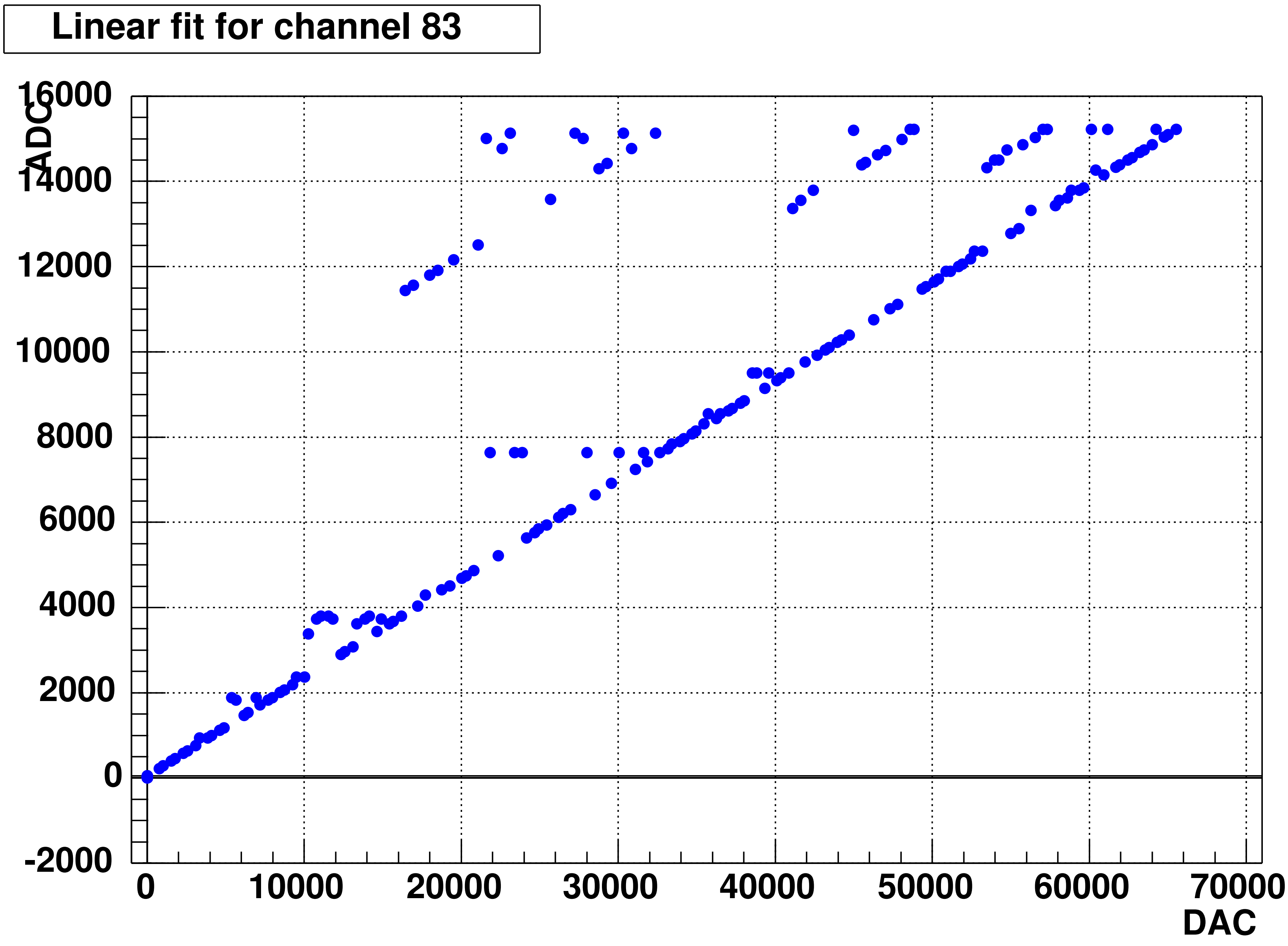
Linear fit for channel 81
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

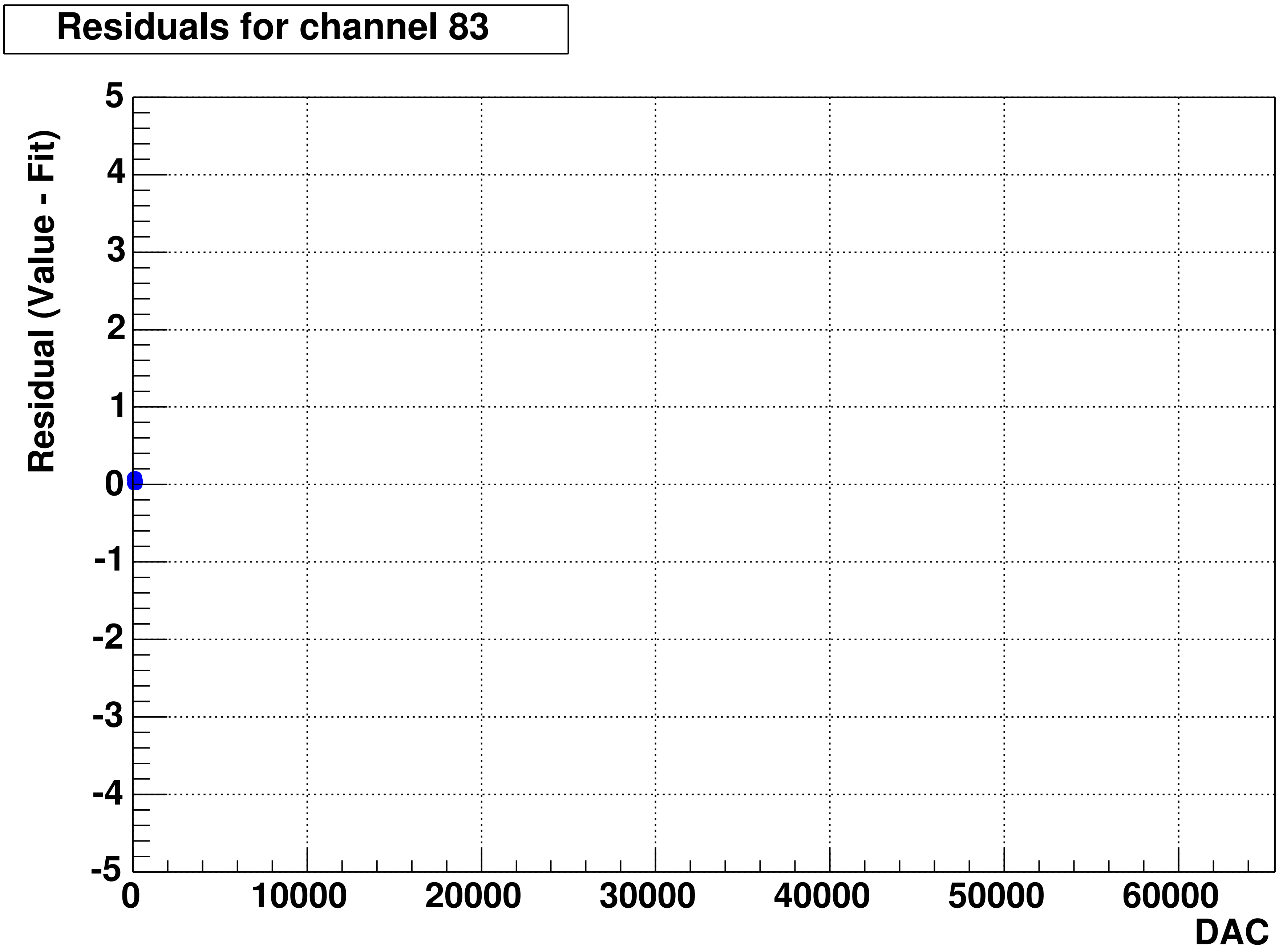

Residuals for channel 81
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



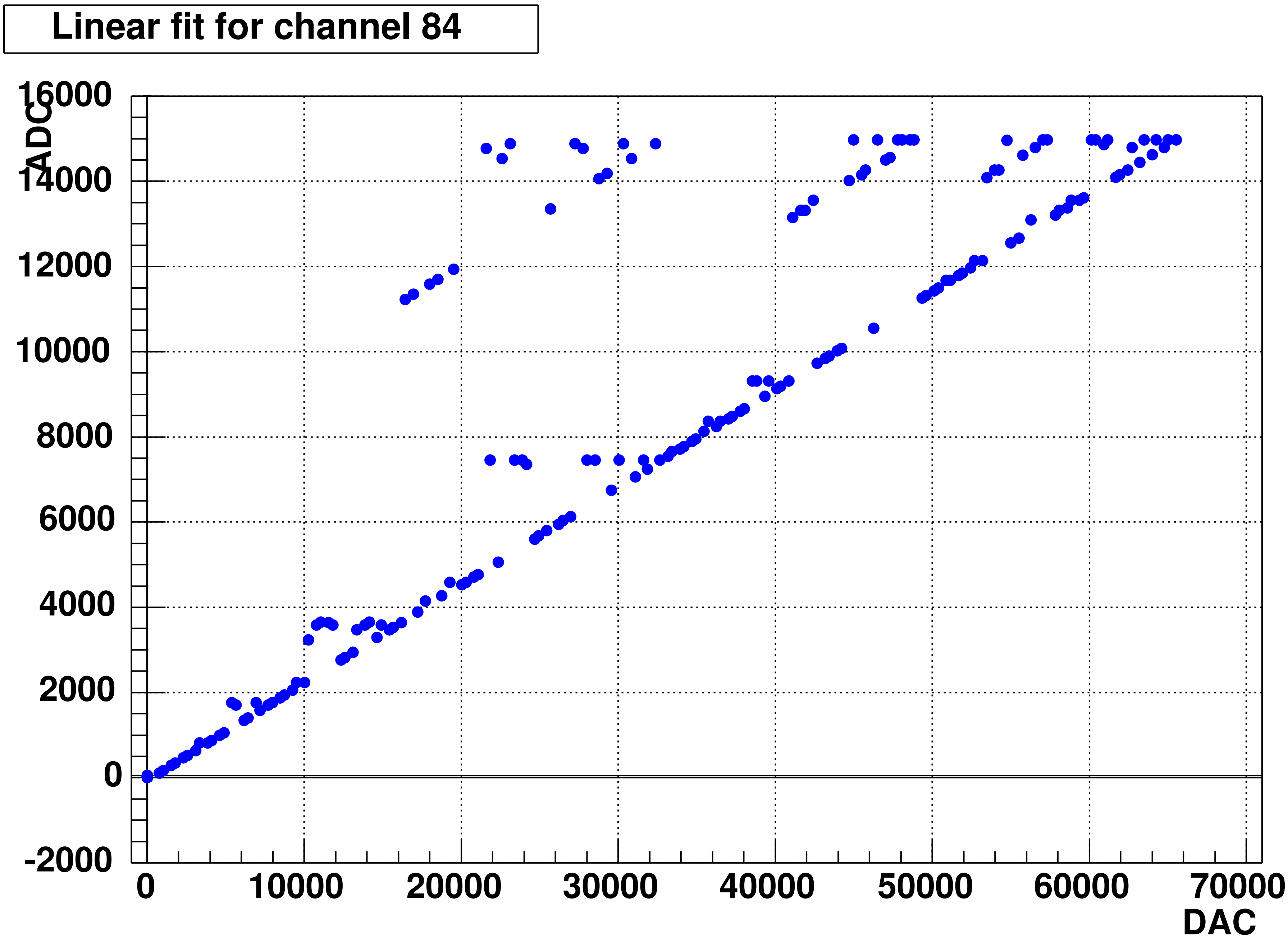
Linear fit for channel 82
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

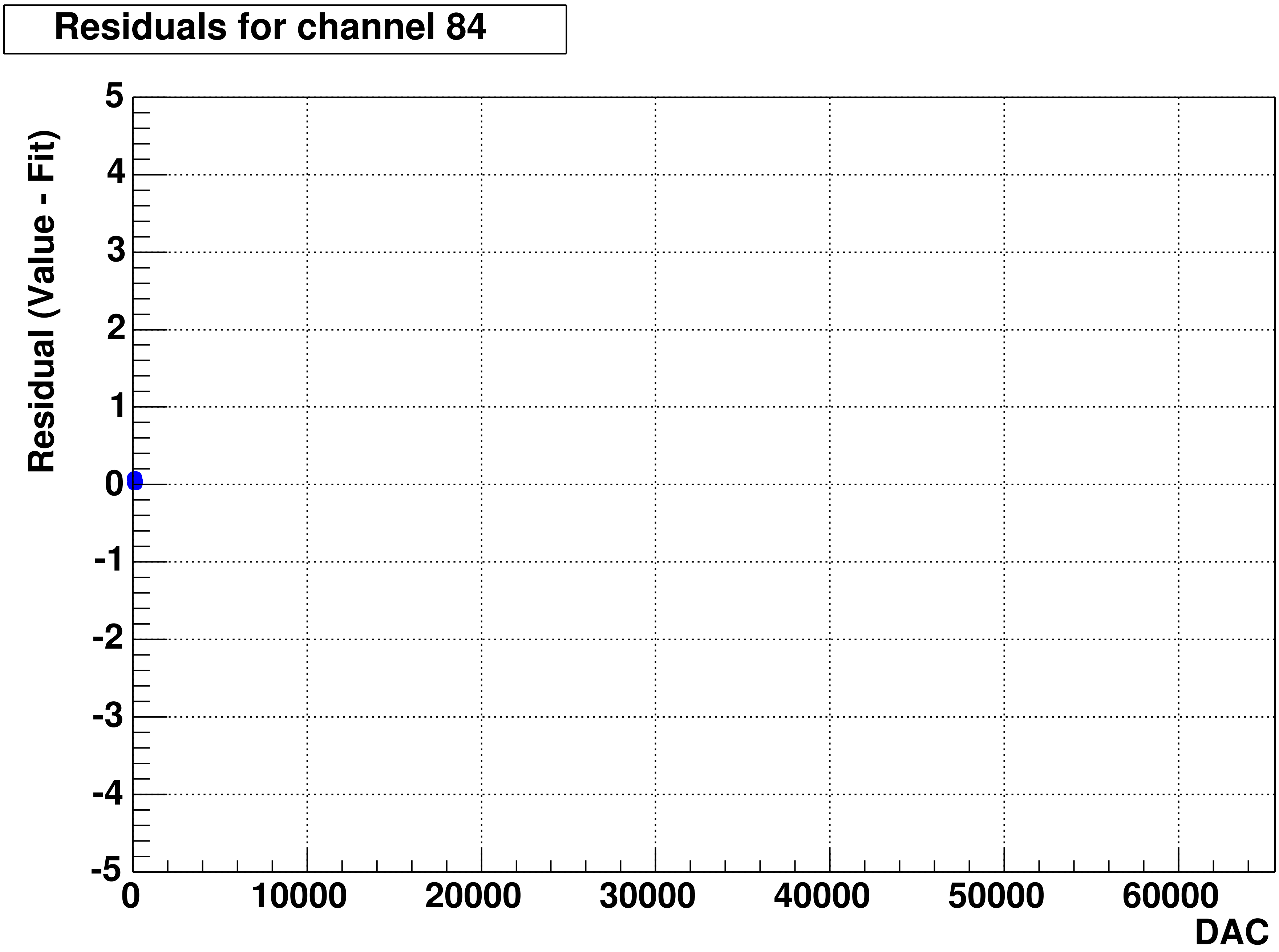

Residuals for channel 82
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

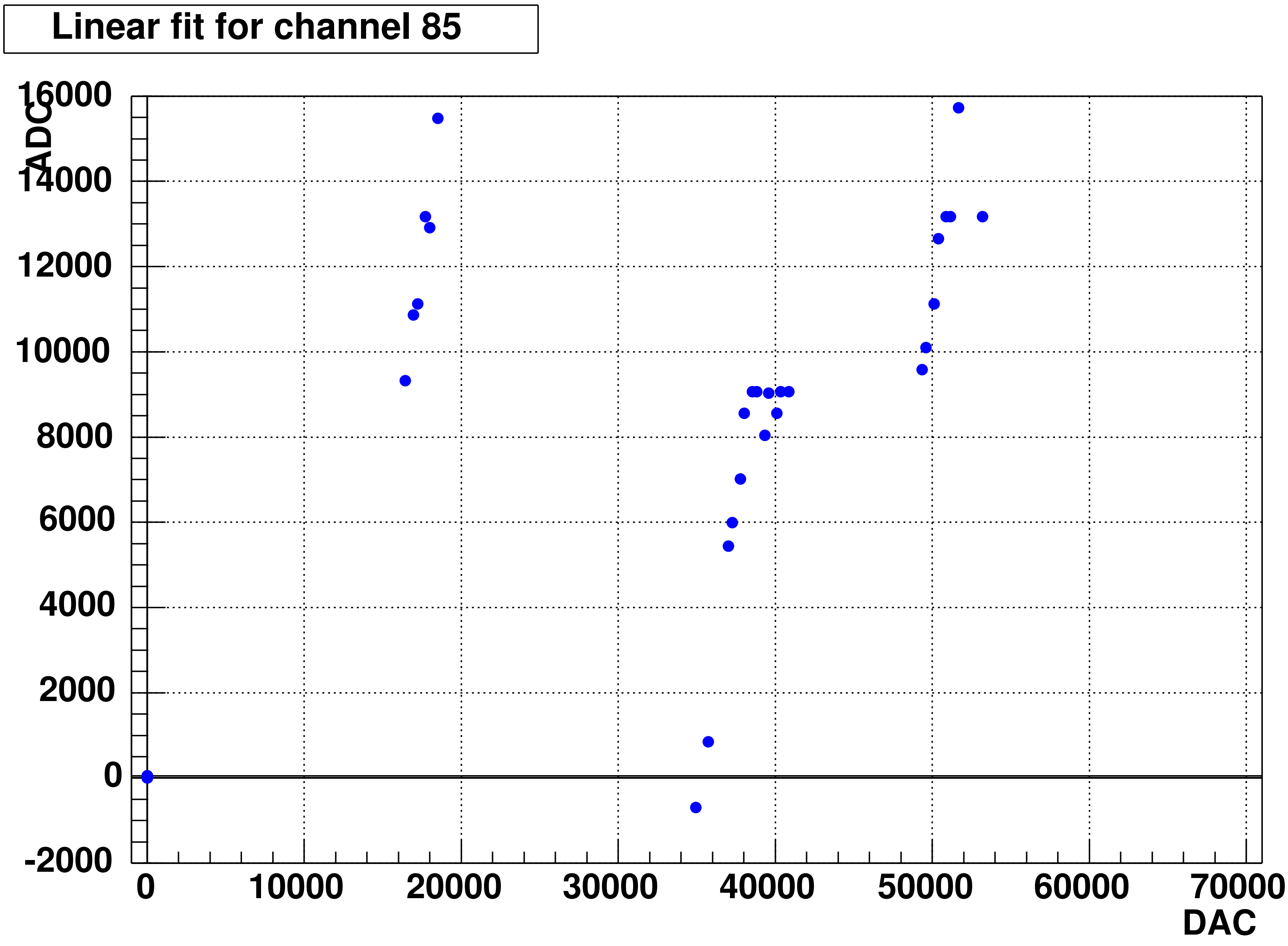

Linear fit for channel 83
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

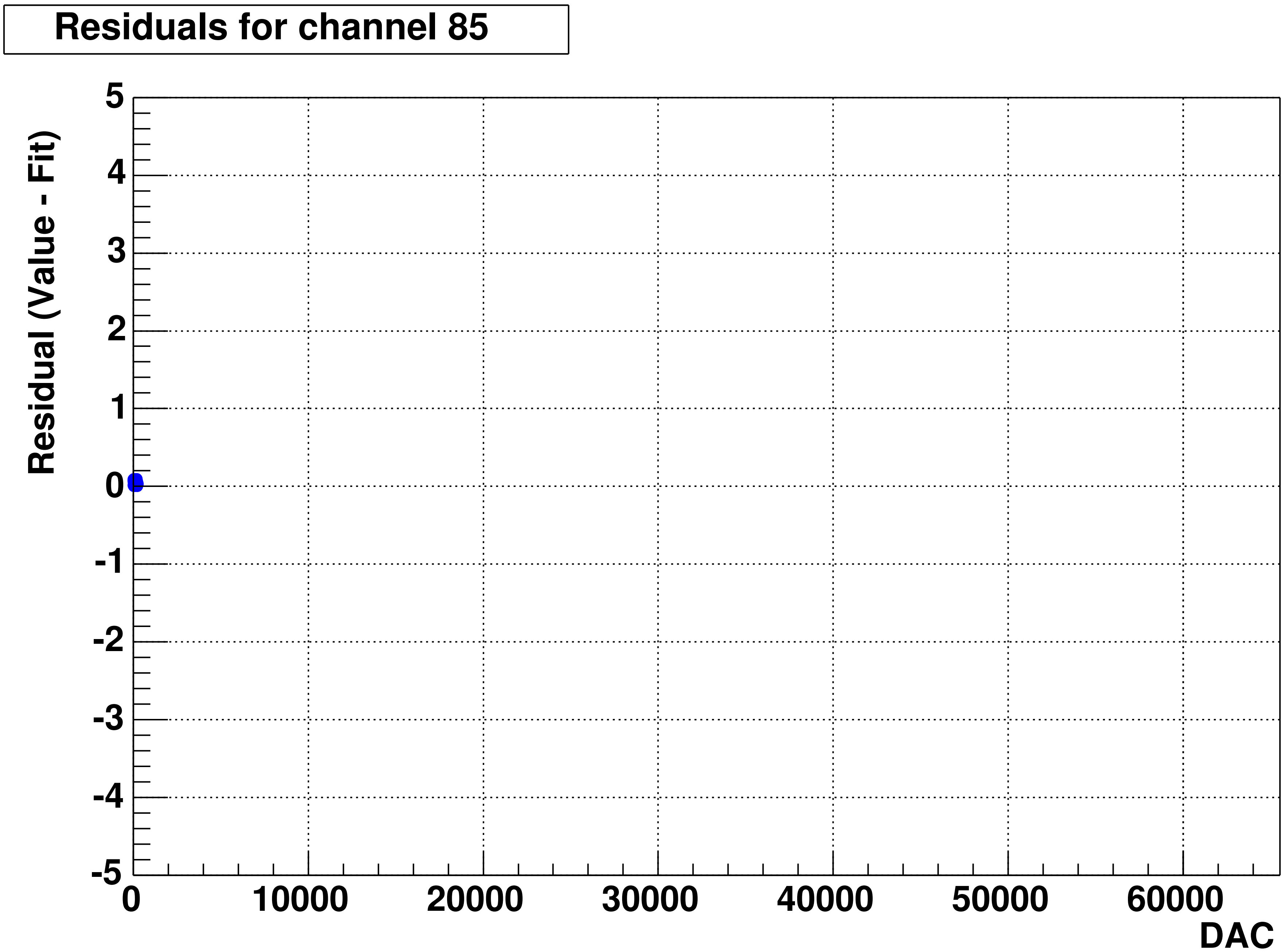


Residuals for channel 83
Residual (Value - Fit)
DAC
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000

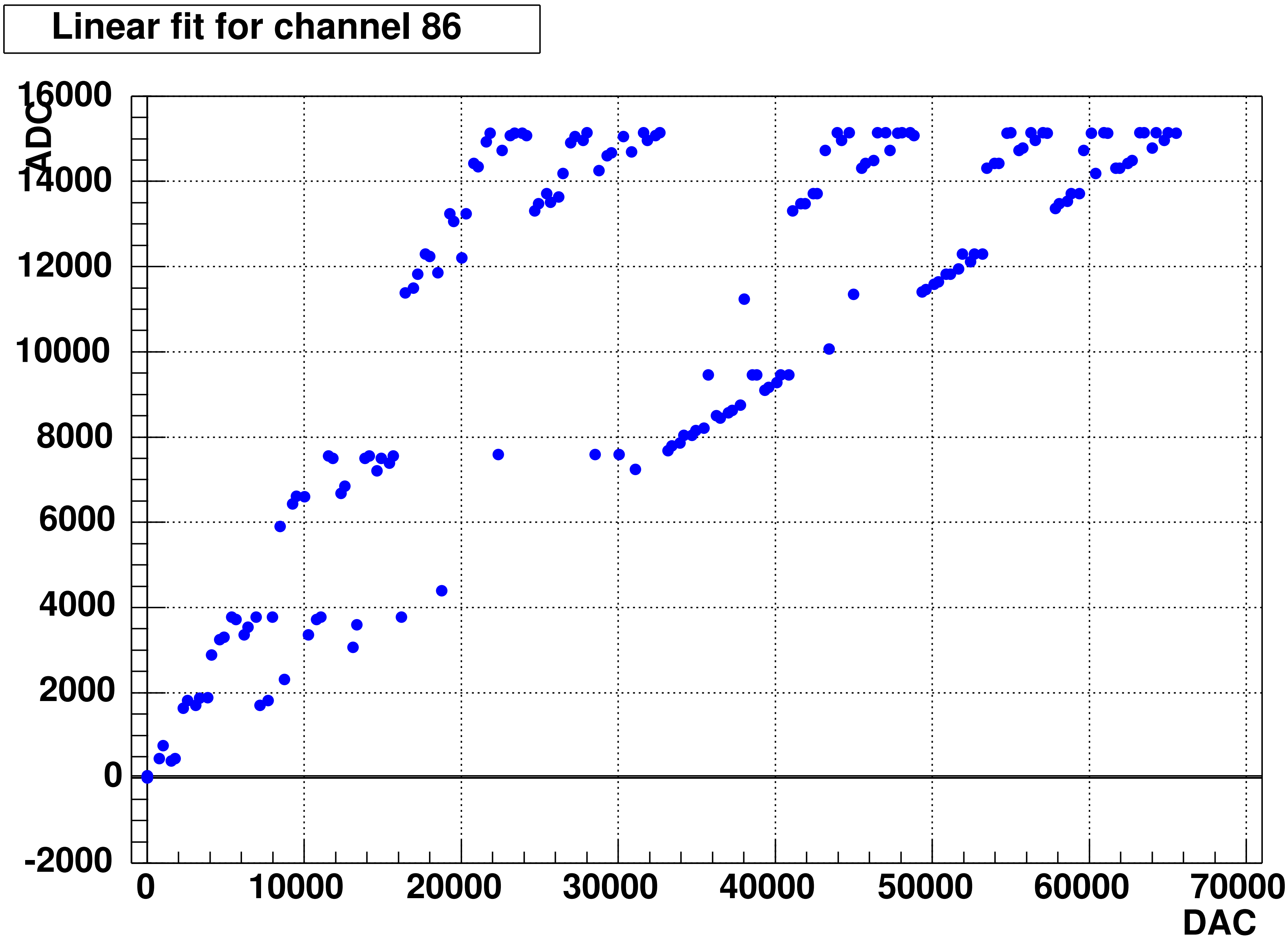

Linear fit for channel 84
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

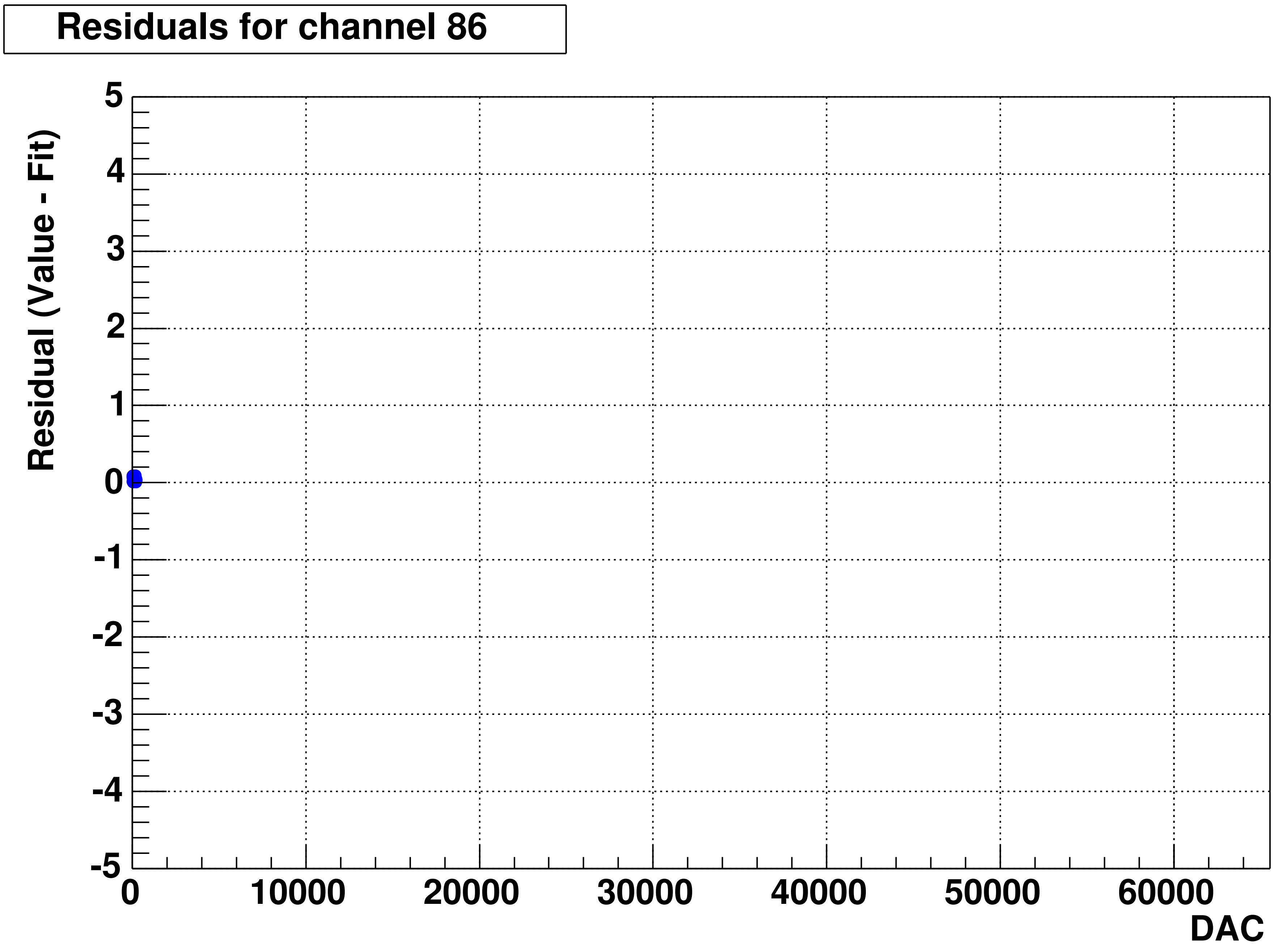

Residuals for channel 84
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

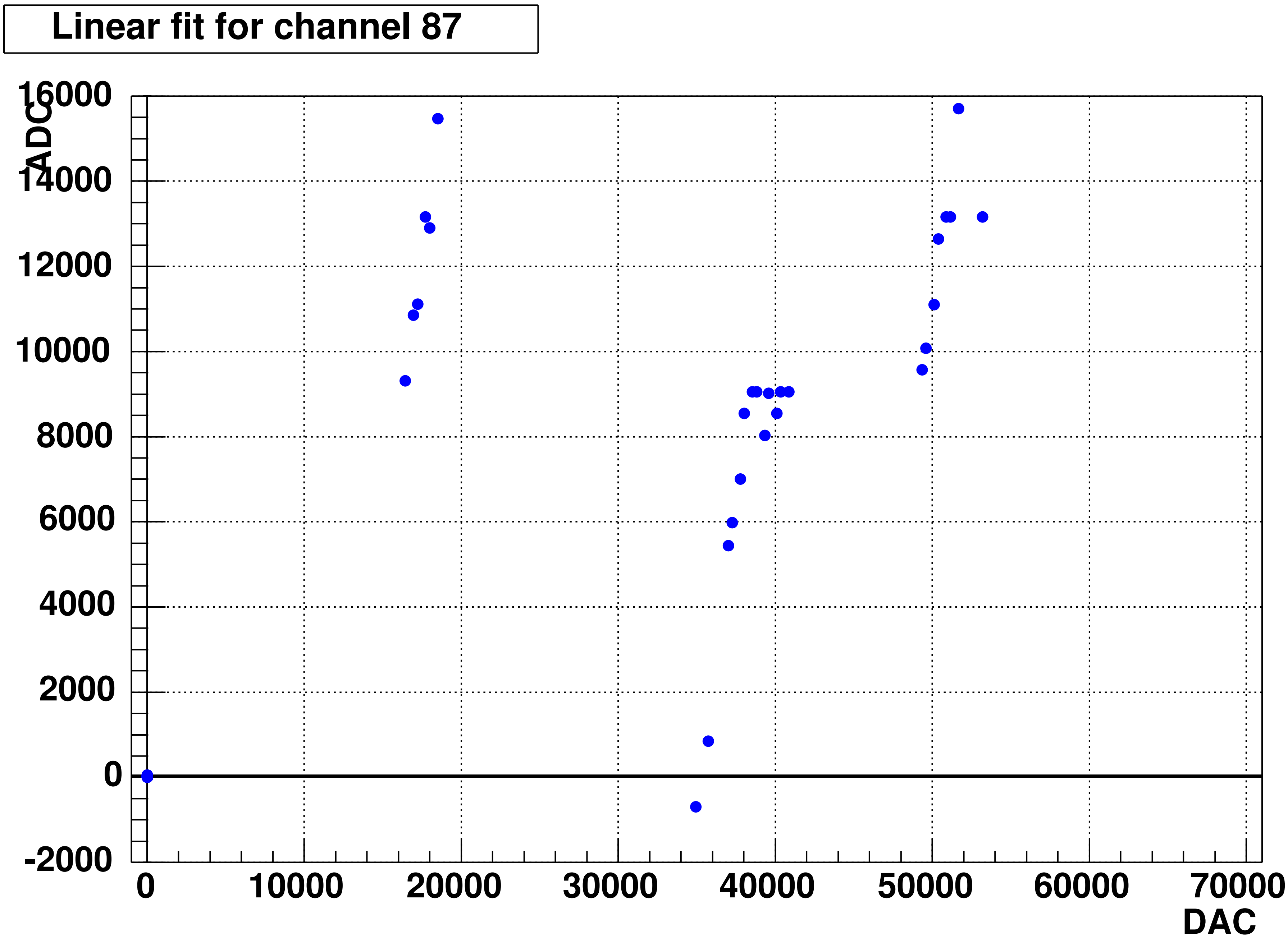

Linear fit for channel 85
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

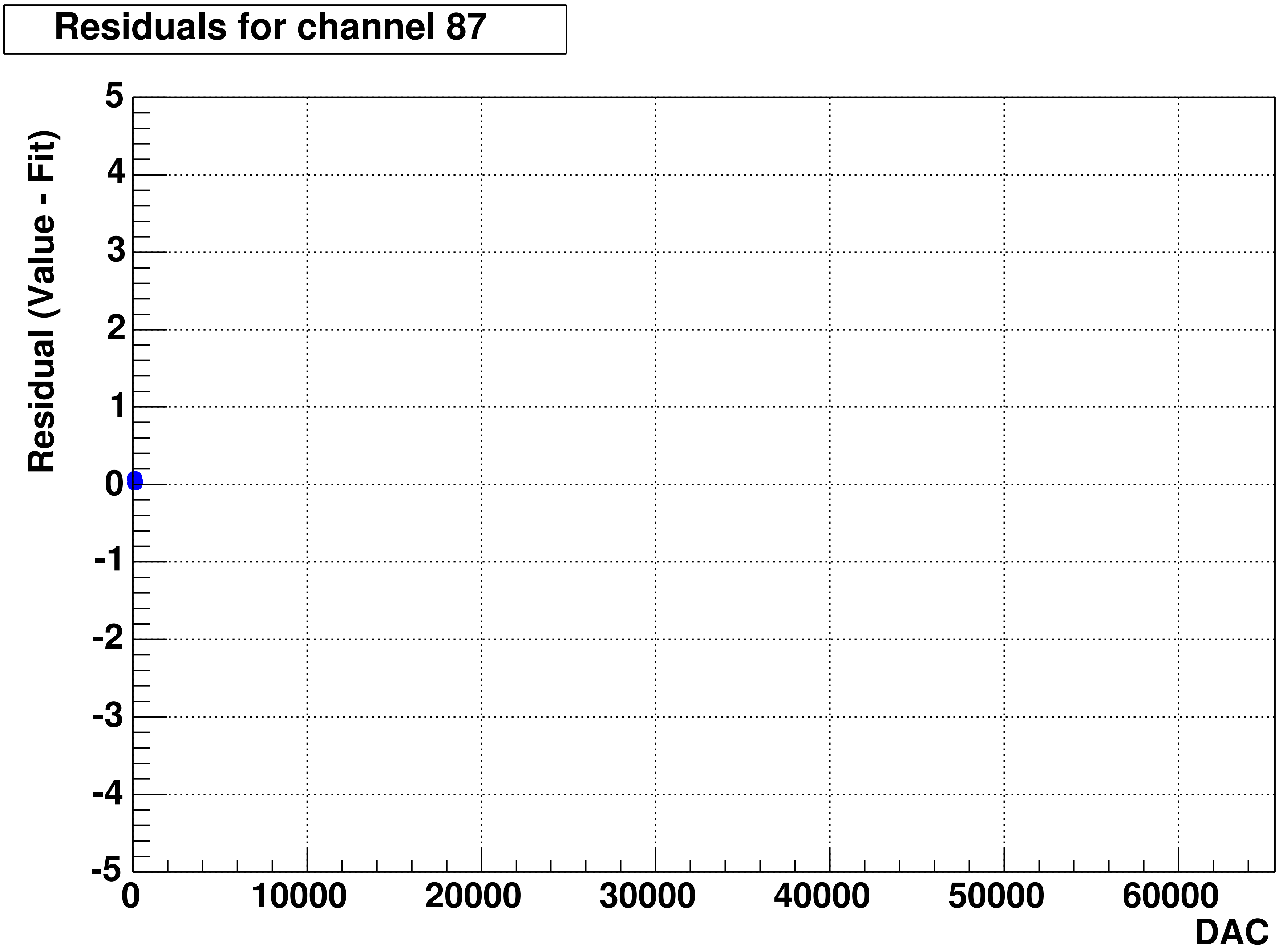


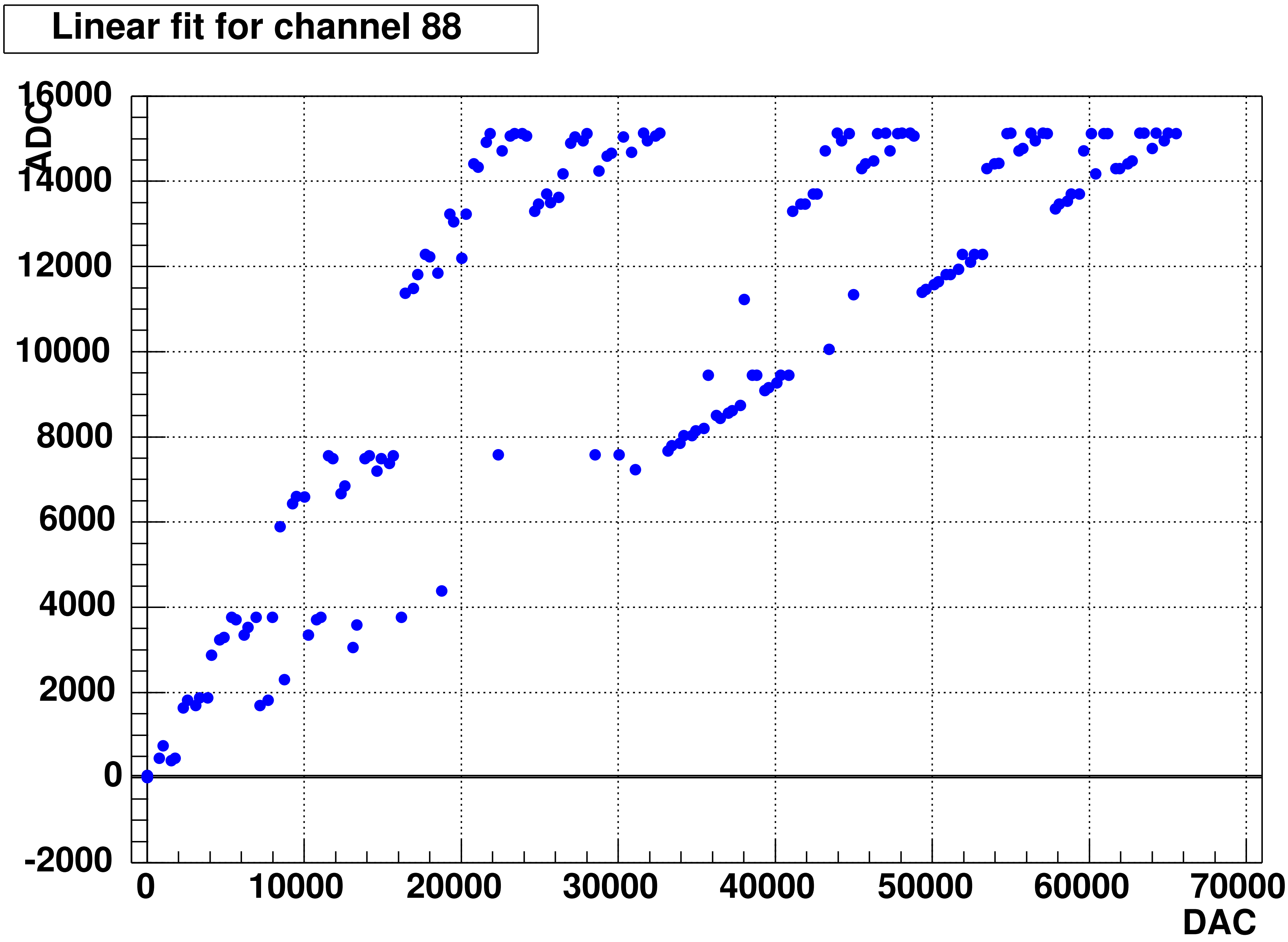
Residuals for channel 85
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

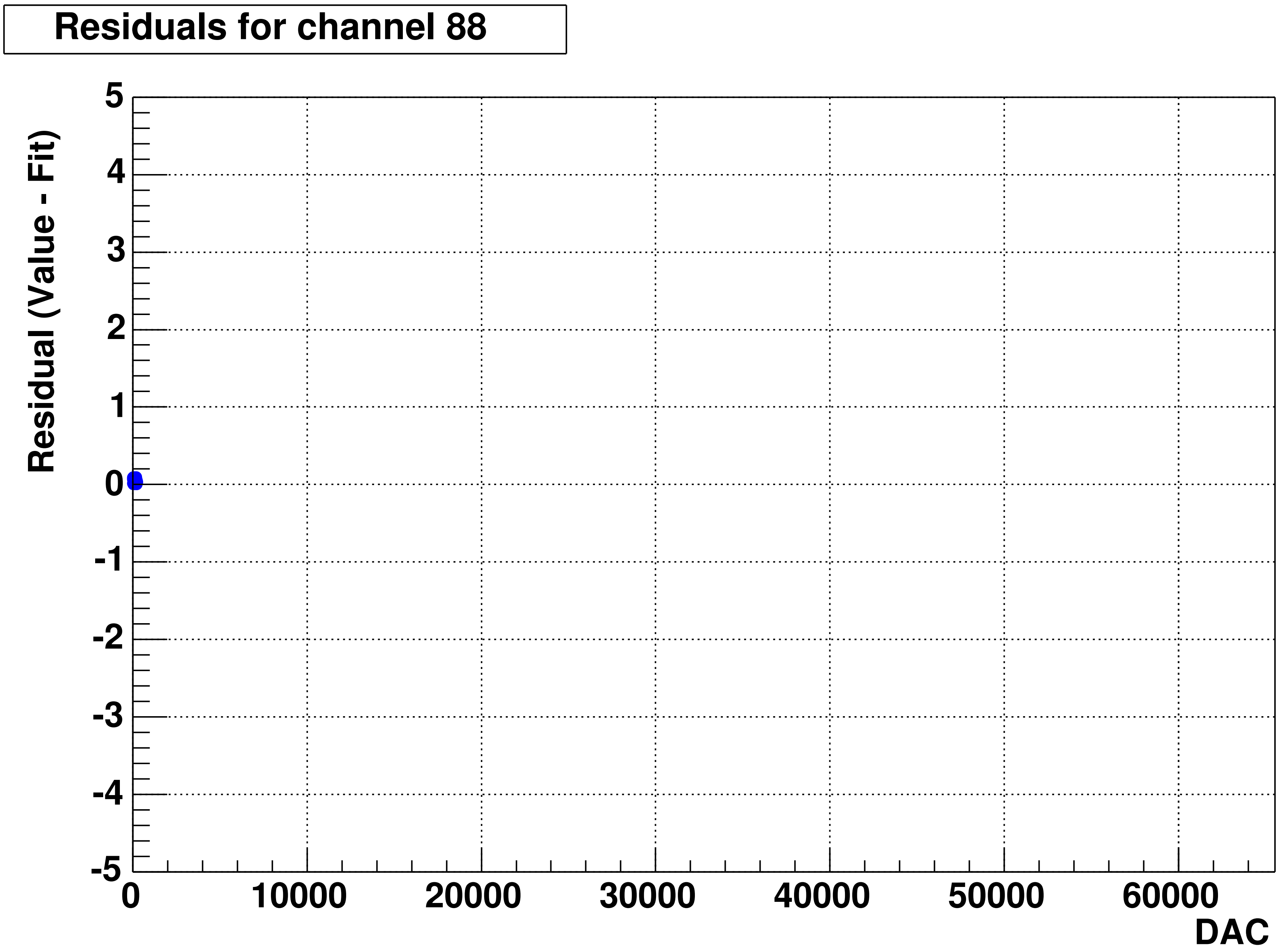

Linear fit for channel 86
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC


Residuals for channel 86
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

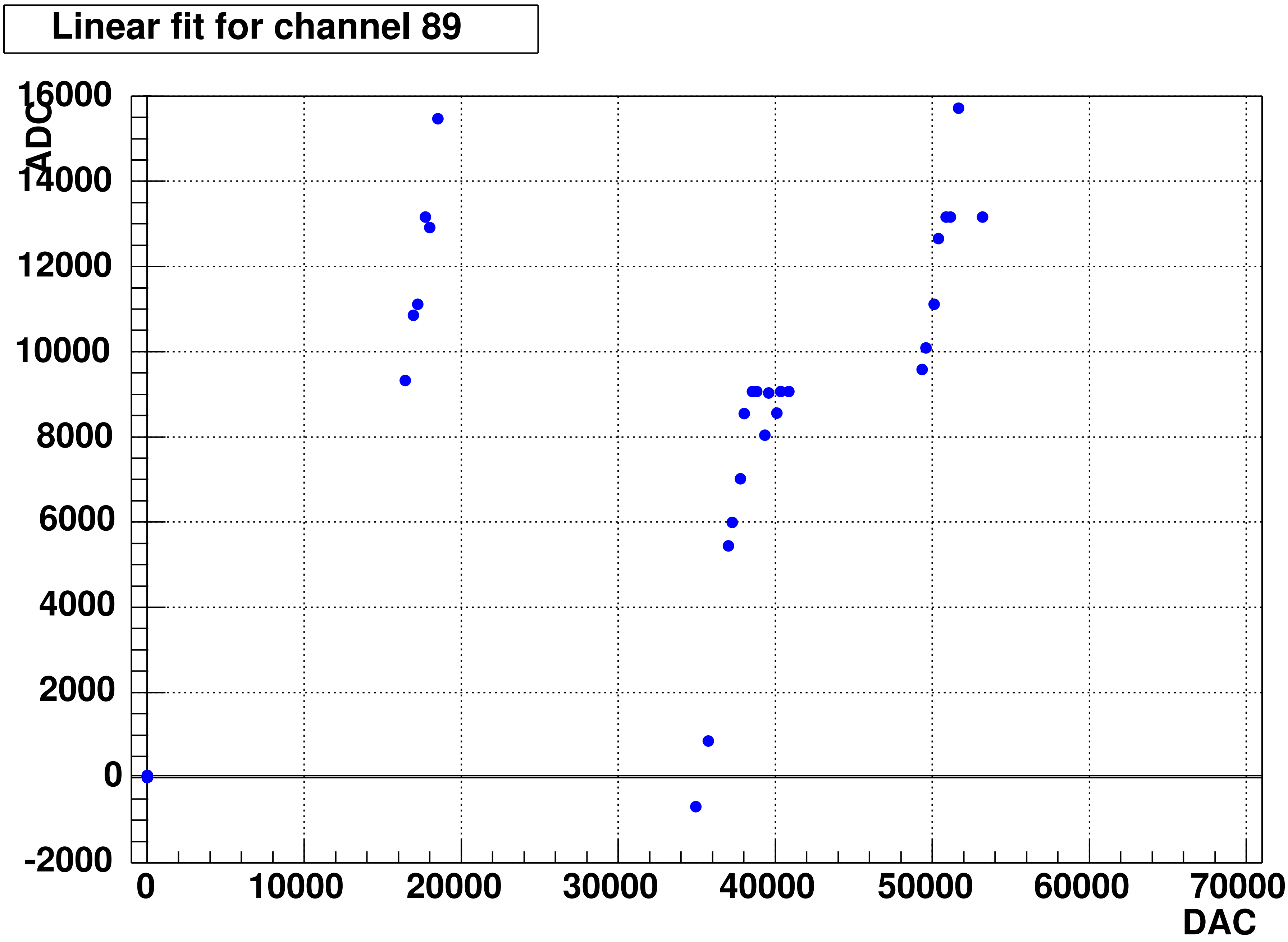

Linear fit for channel 87
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC


Residuals for channel 87
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

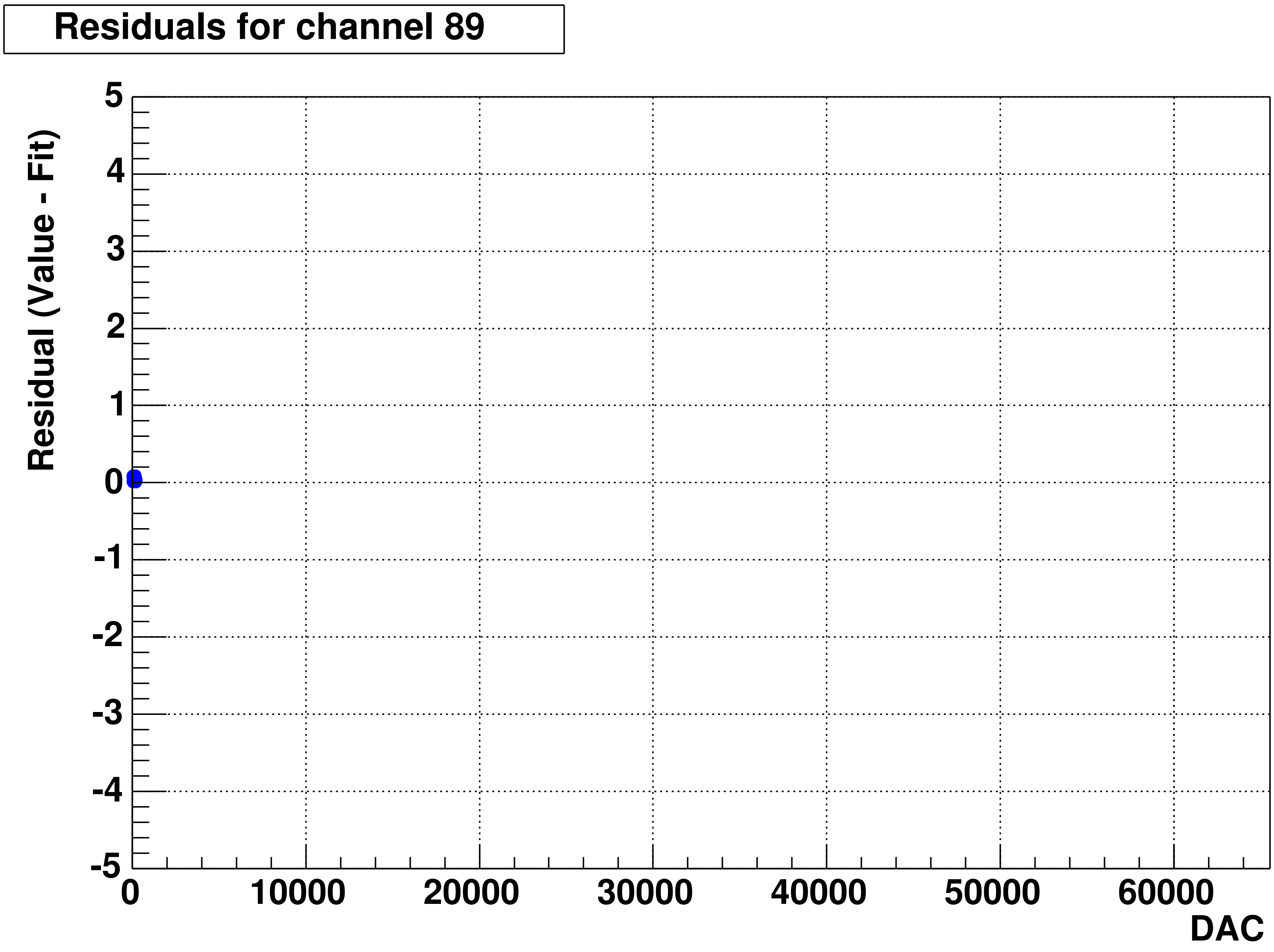

Linear fit for channel 88
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC



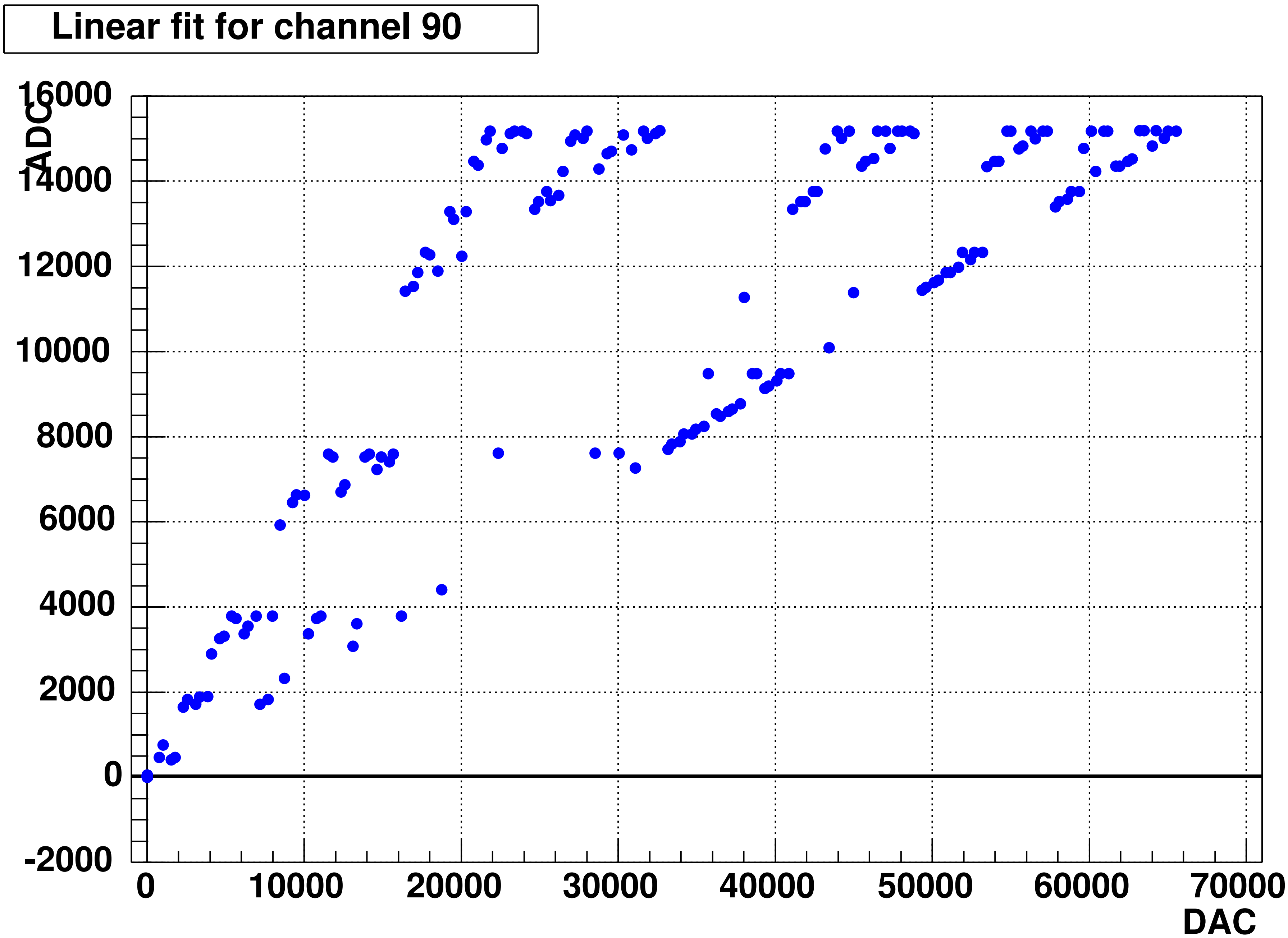
Residuals for channel 88
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC



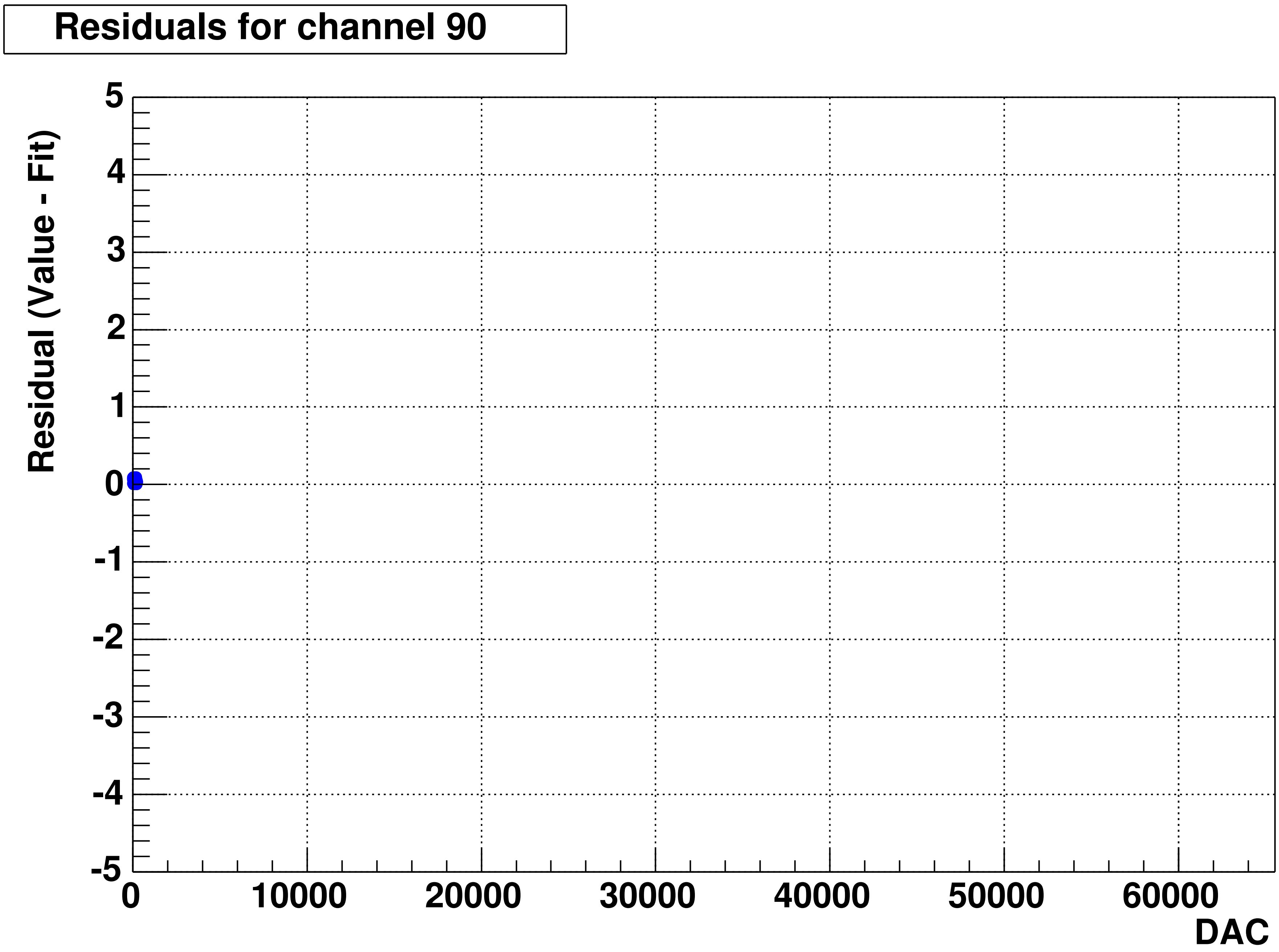
Linear fit for channel 89
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

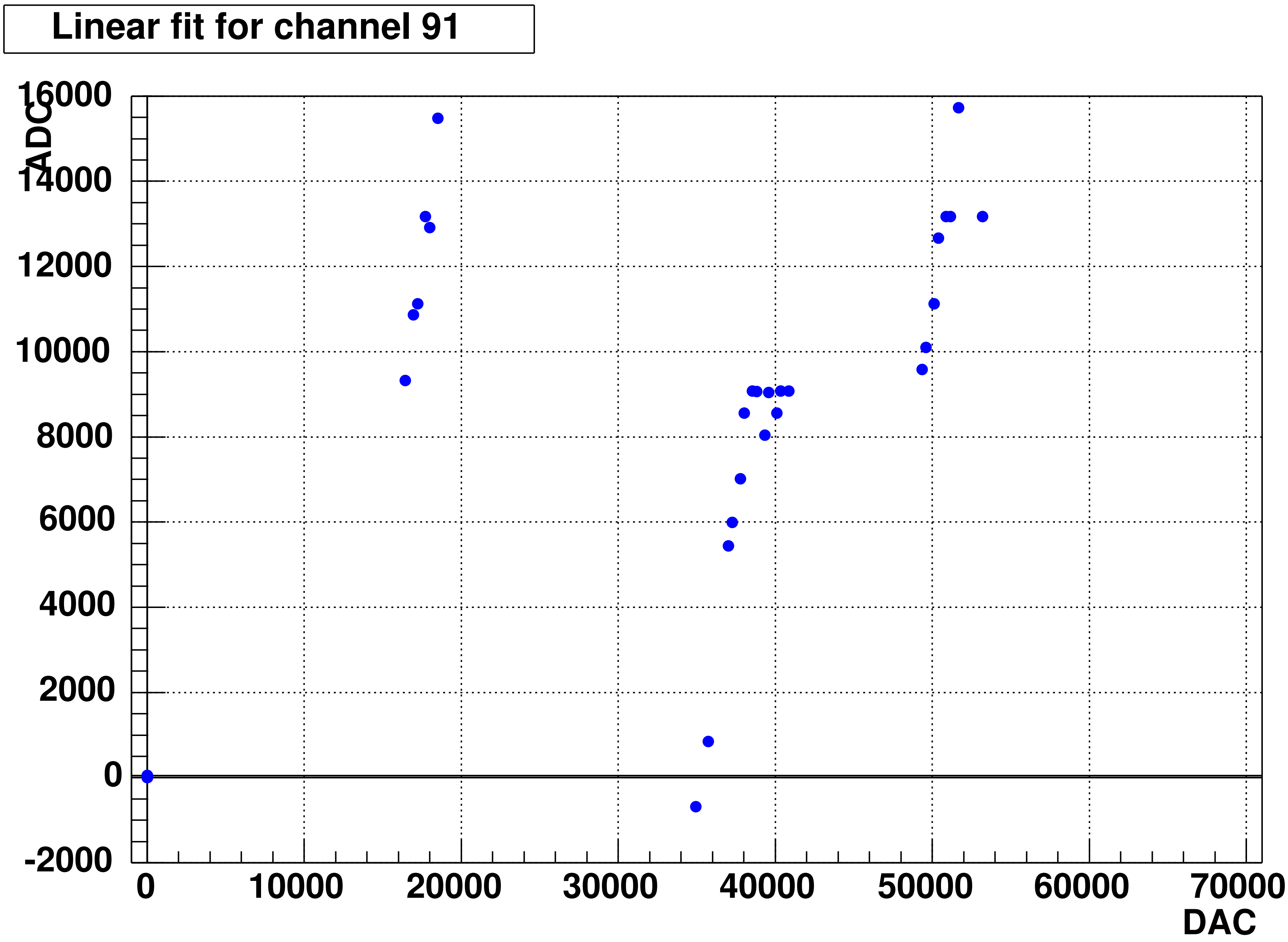


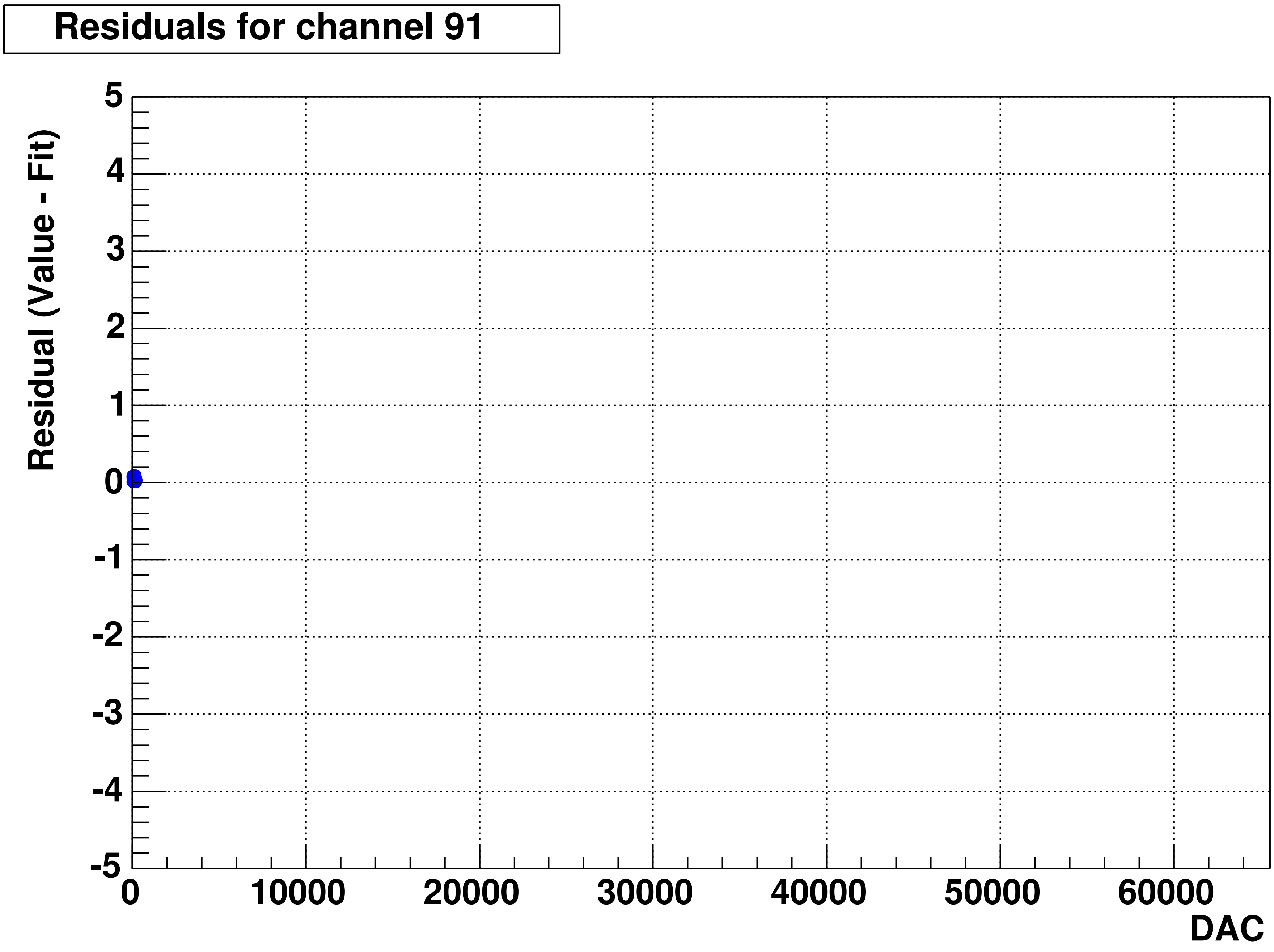
Residuals for channel 89
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

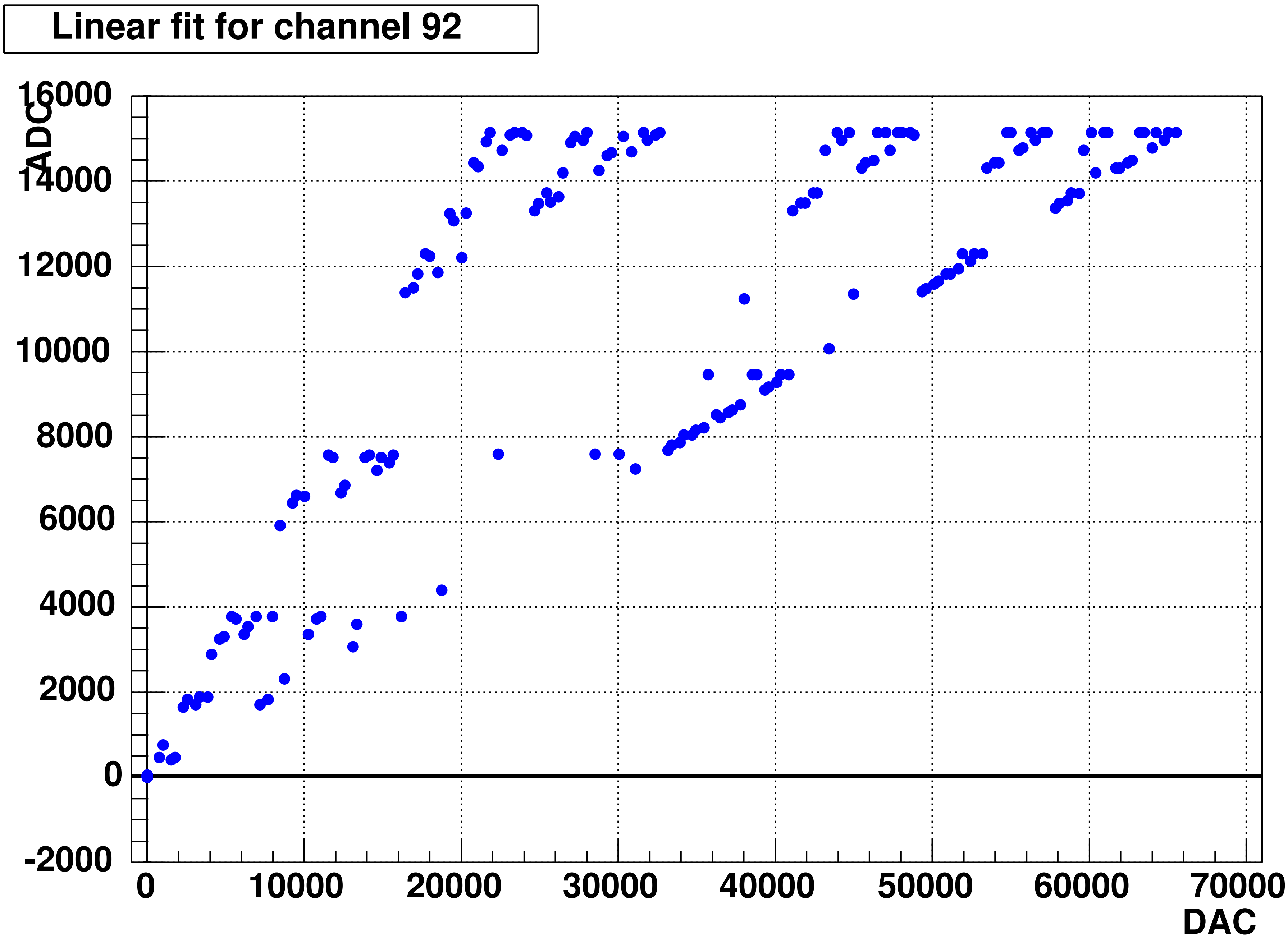


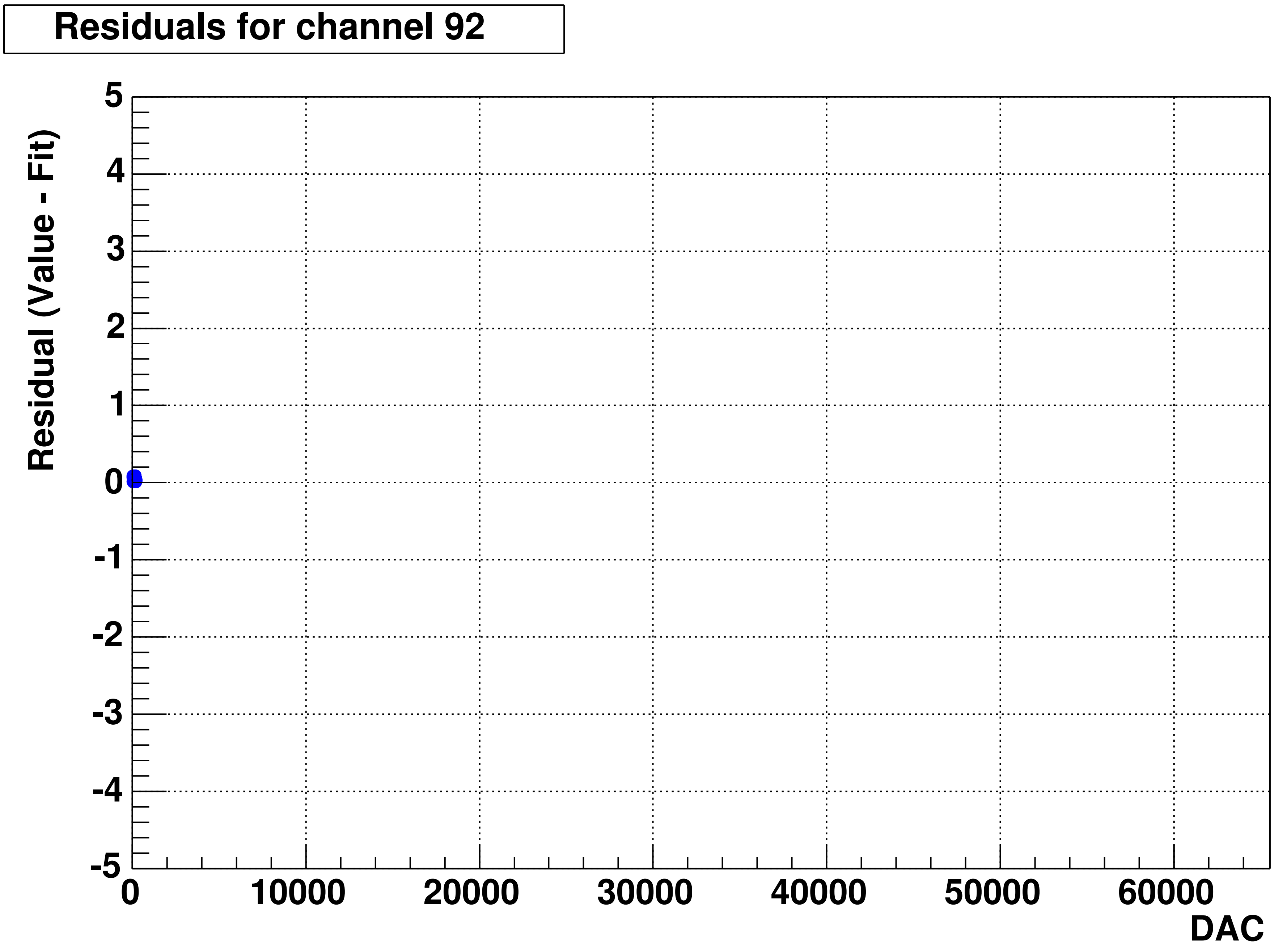
Linear fit for channel 90
ADC
DAC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000

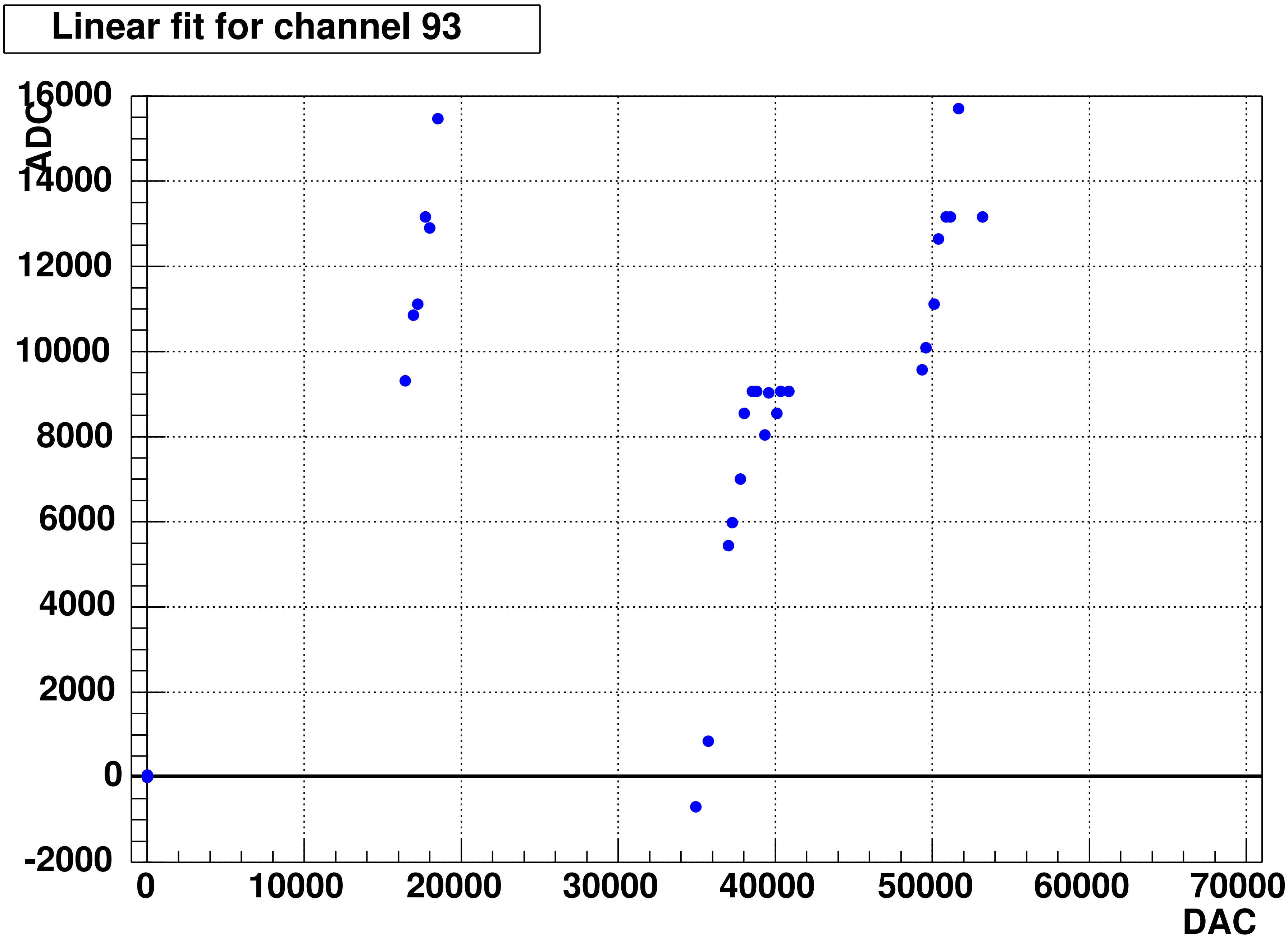

Residuals for channel 90
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

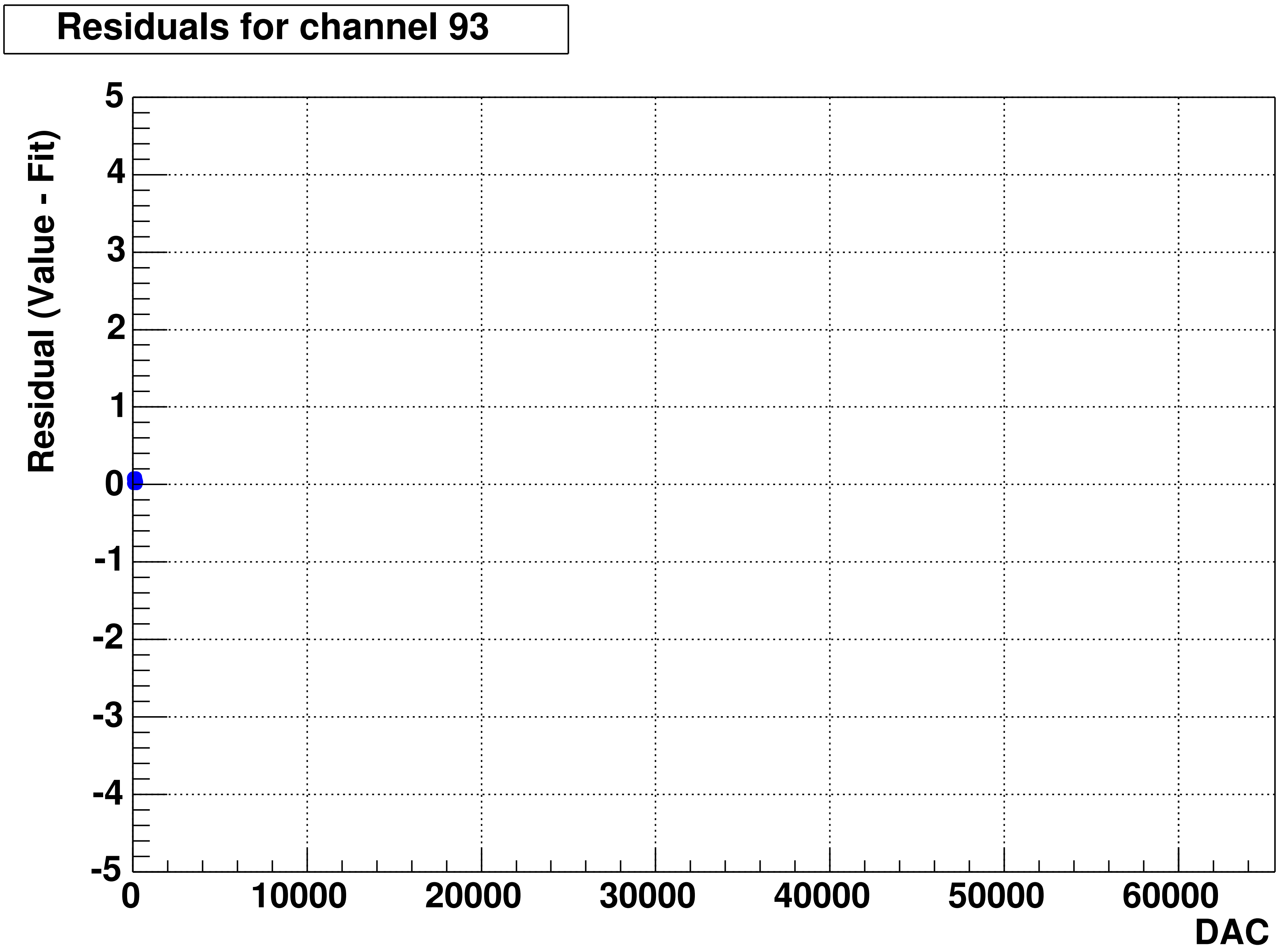

Linear fit for channel 91
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

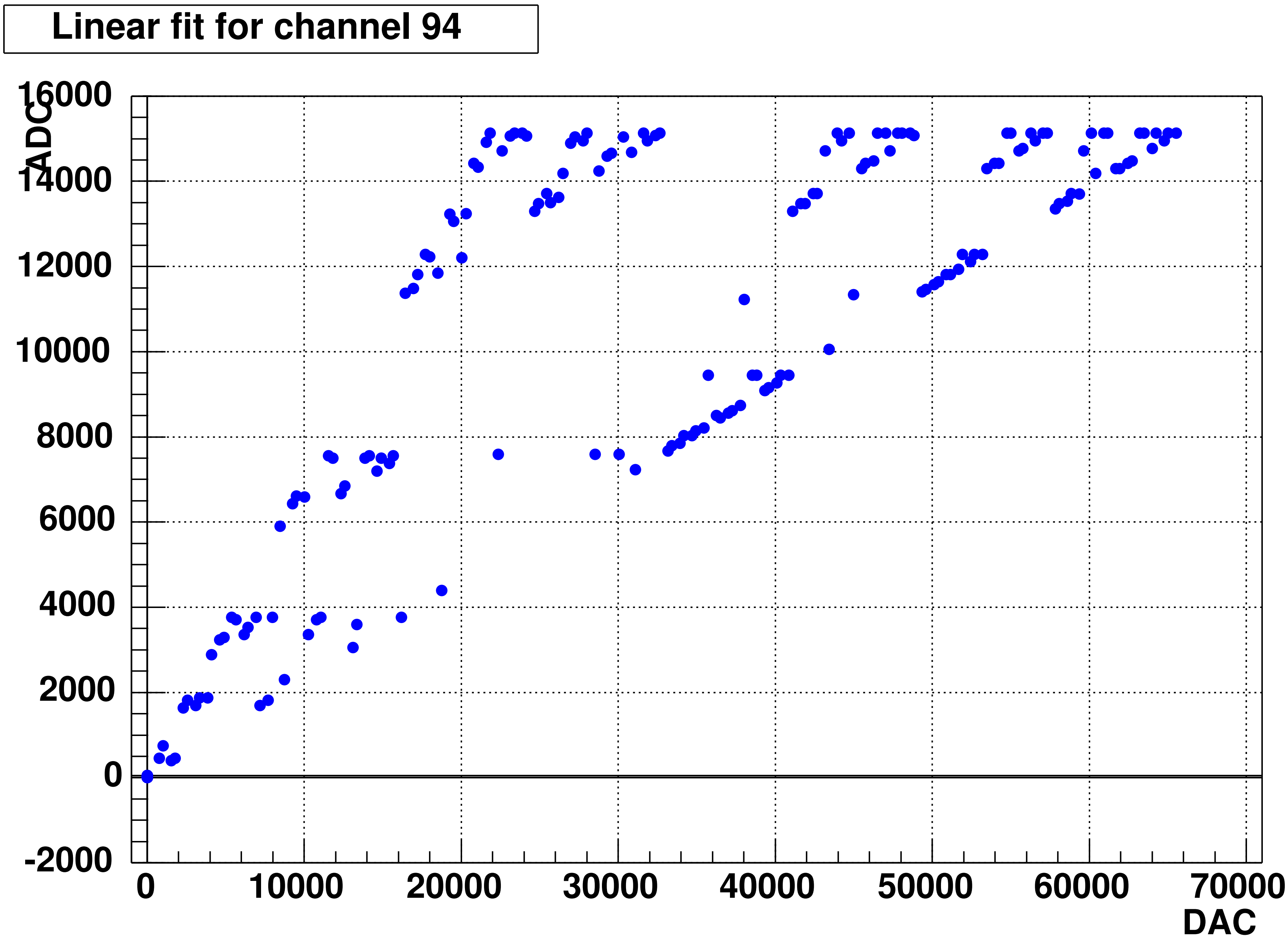

Residuals for channel 91
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC


Linear fit for channel 92
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

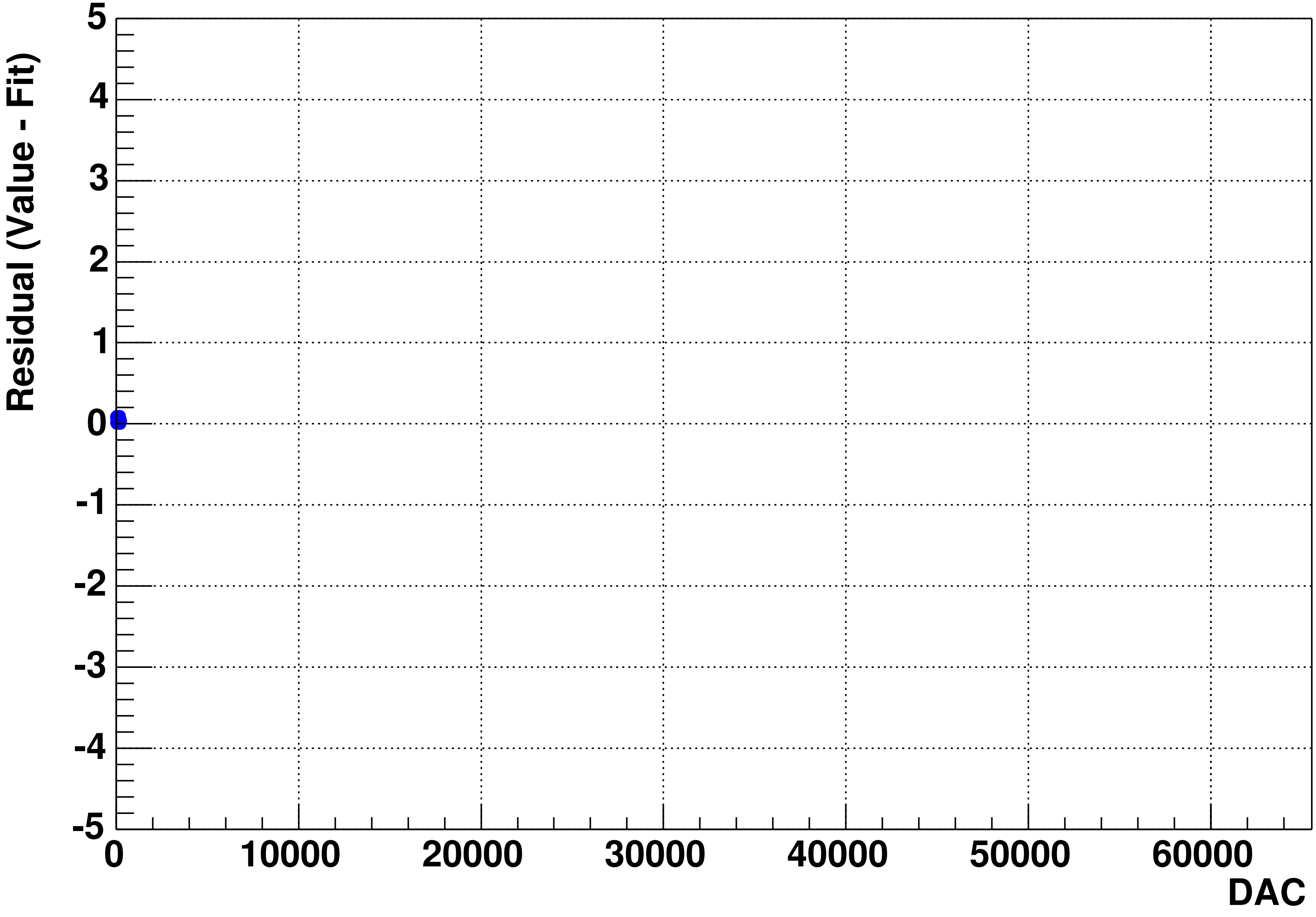

Residuals for channel 92
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

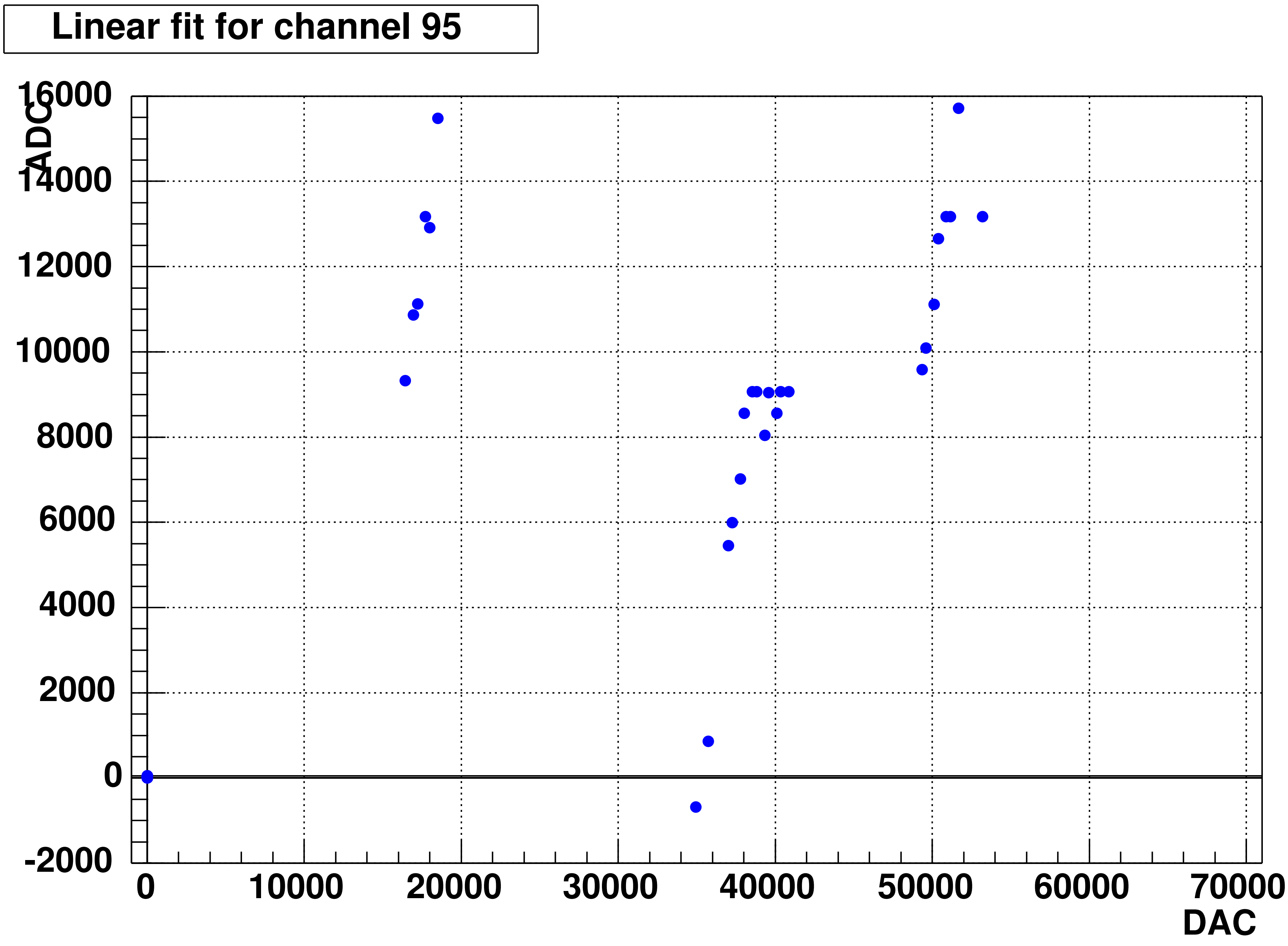

Linear fit for channel 93
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

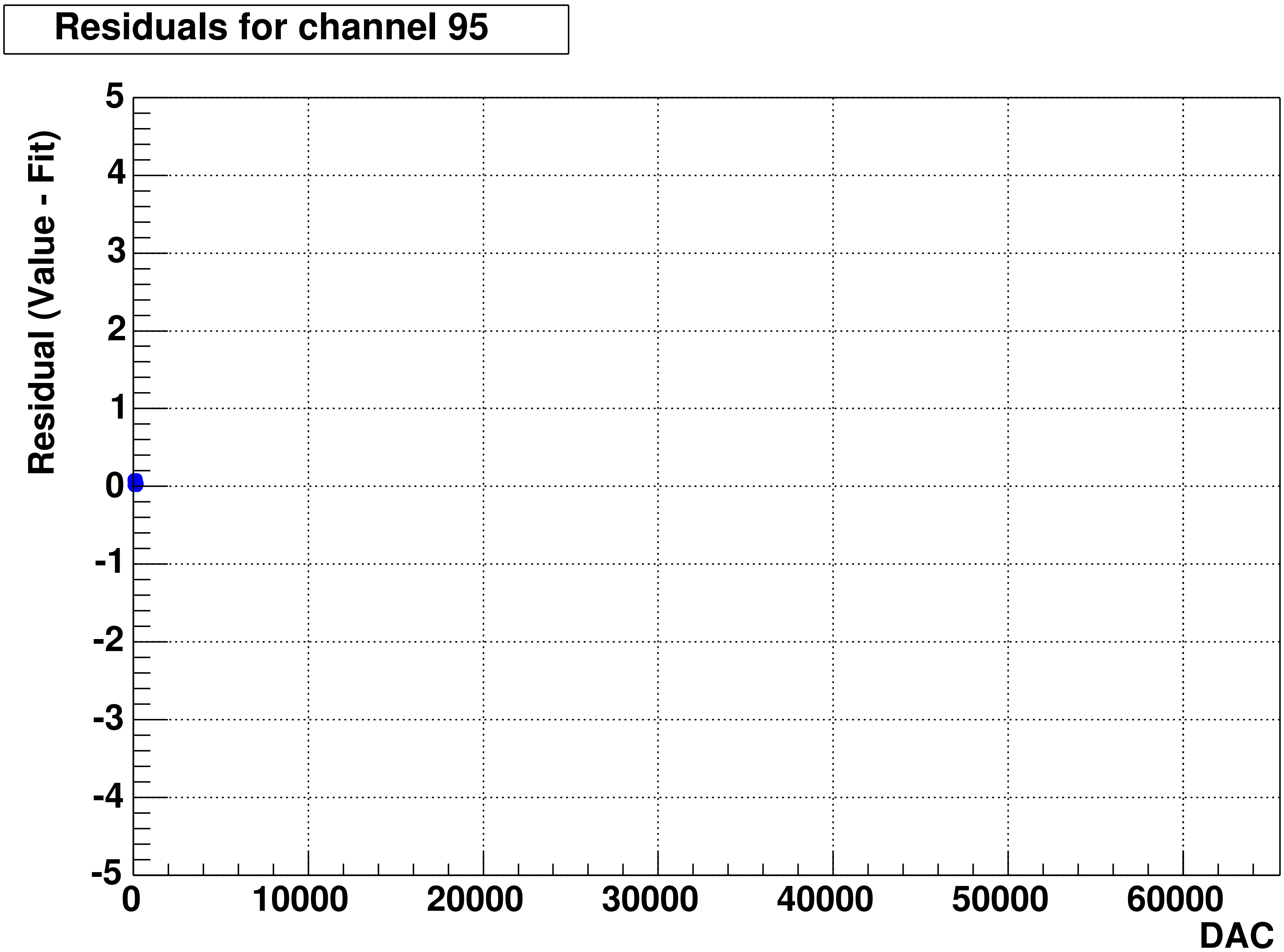

Residuals for channel 93
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC

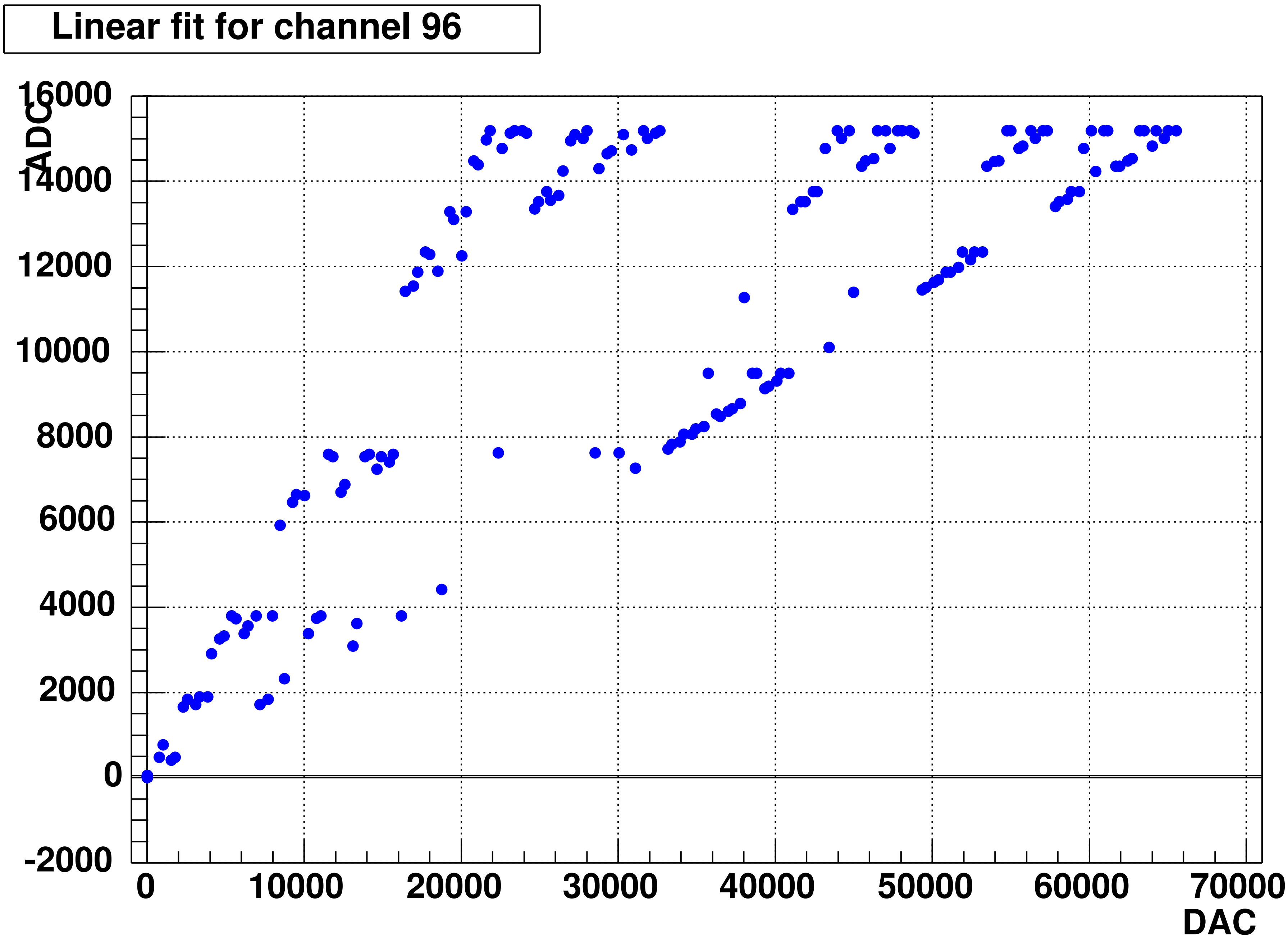

Linear fit for channel 94
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

Residuals for channel 94

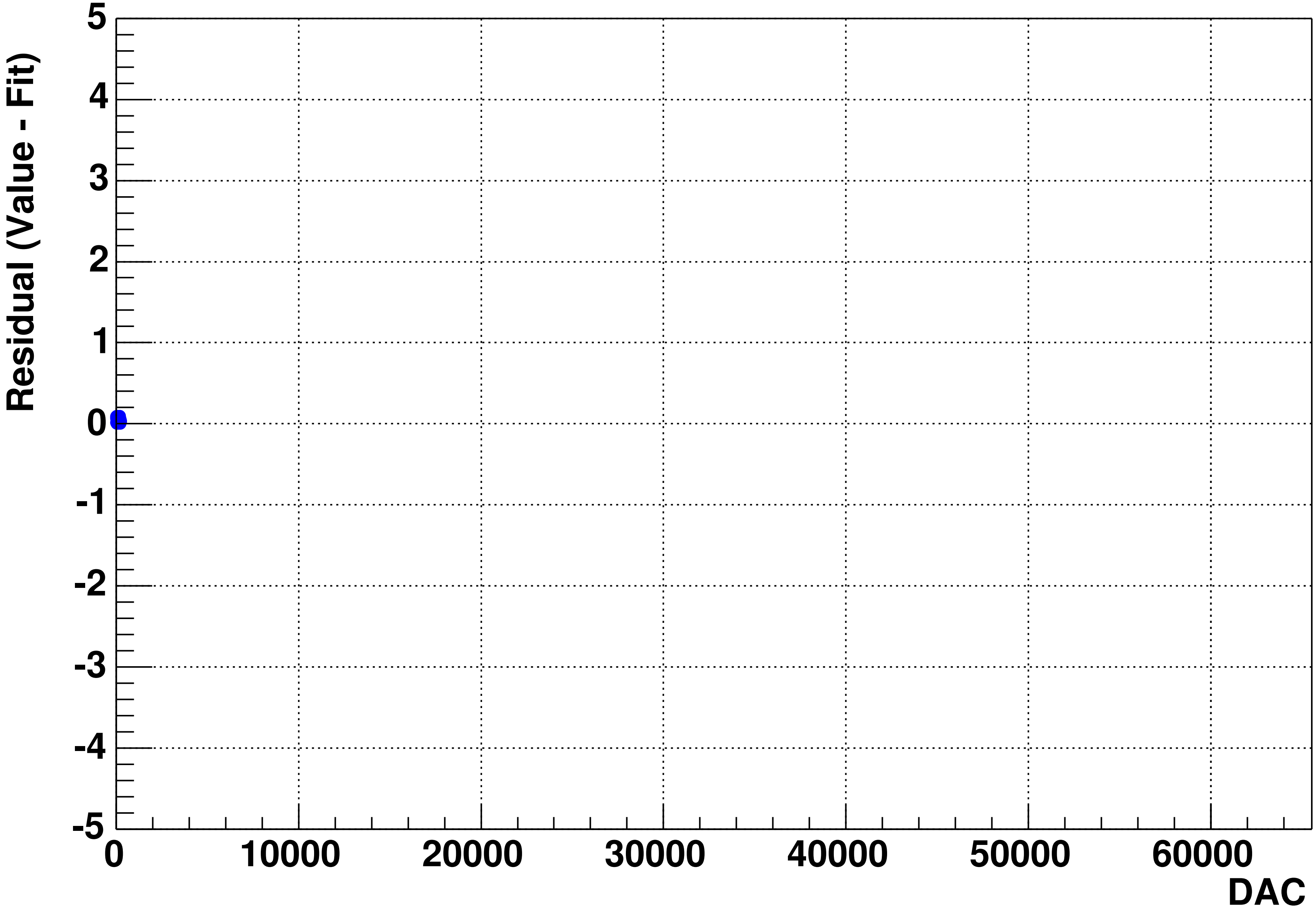


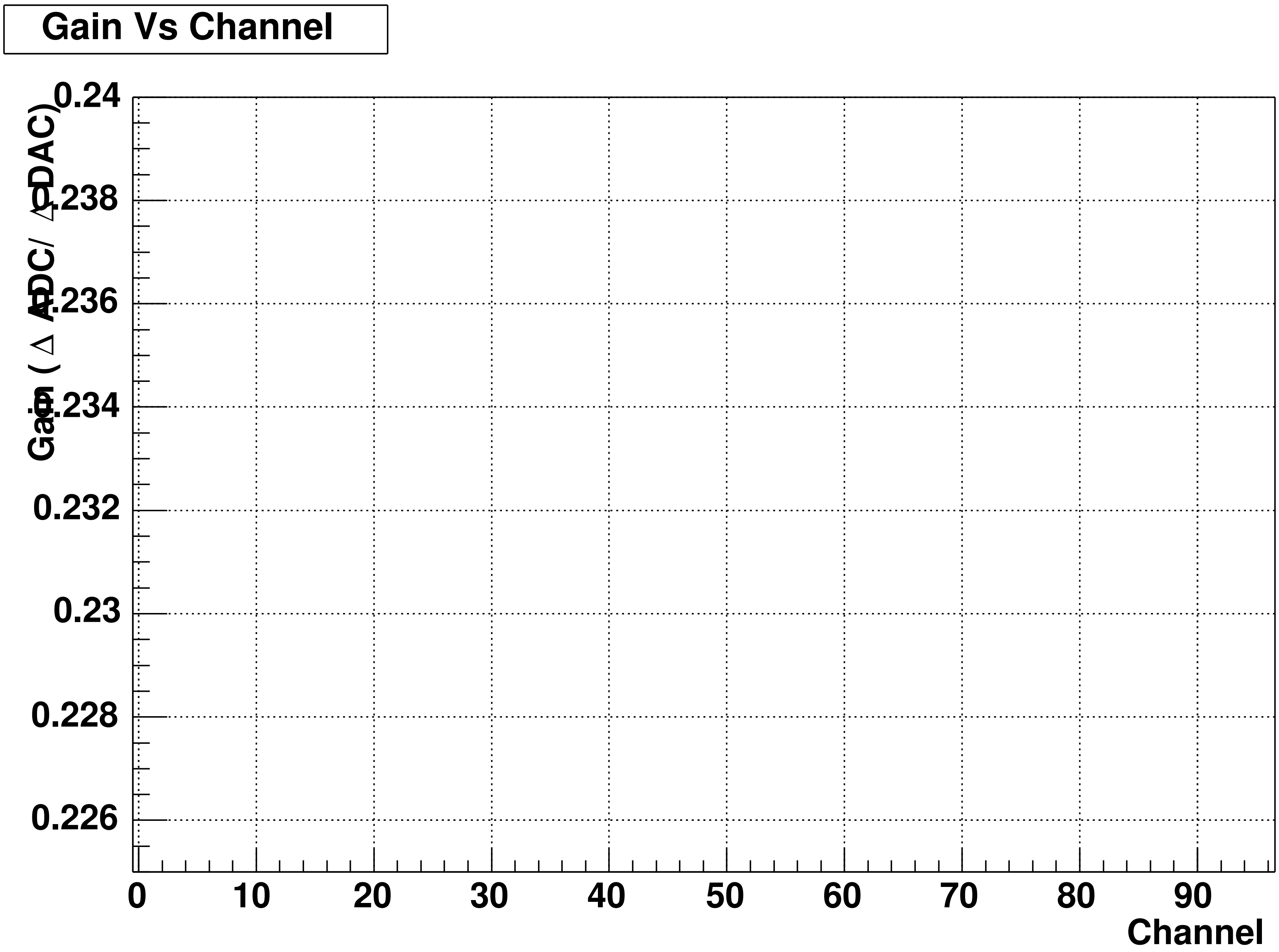

Linear fit for channel 95
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

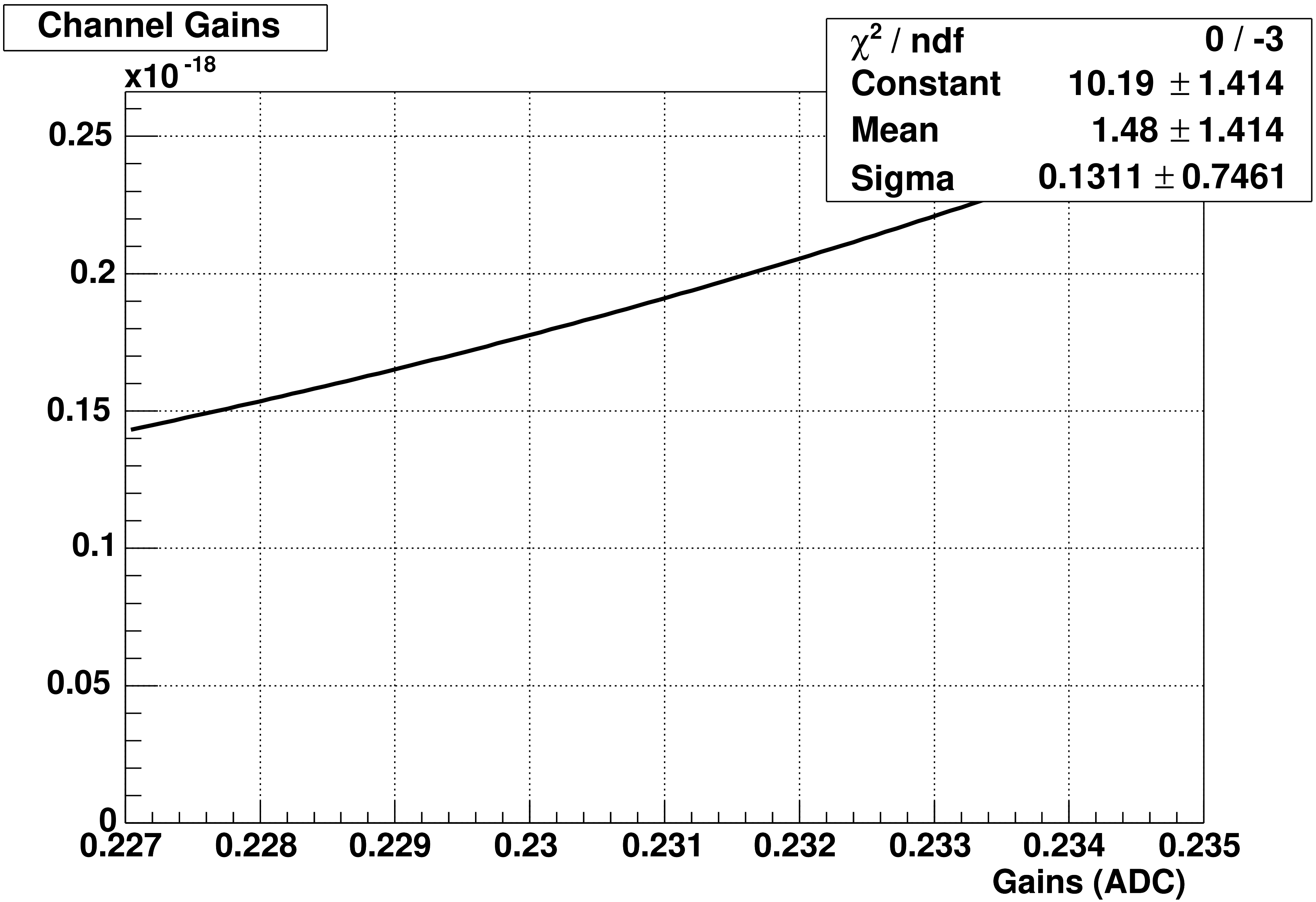

Residuals for channel 95
Residual (Value - Fit)
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
10000
20000
30000
40000
50000
60000
DAC


Linear fit for channel 96
ADC
16000
14000
12000
10000
8000
6000
4000
2000
0
-2000
0
10000
20000
30000
40000
50000
60000
70000
DAC

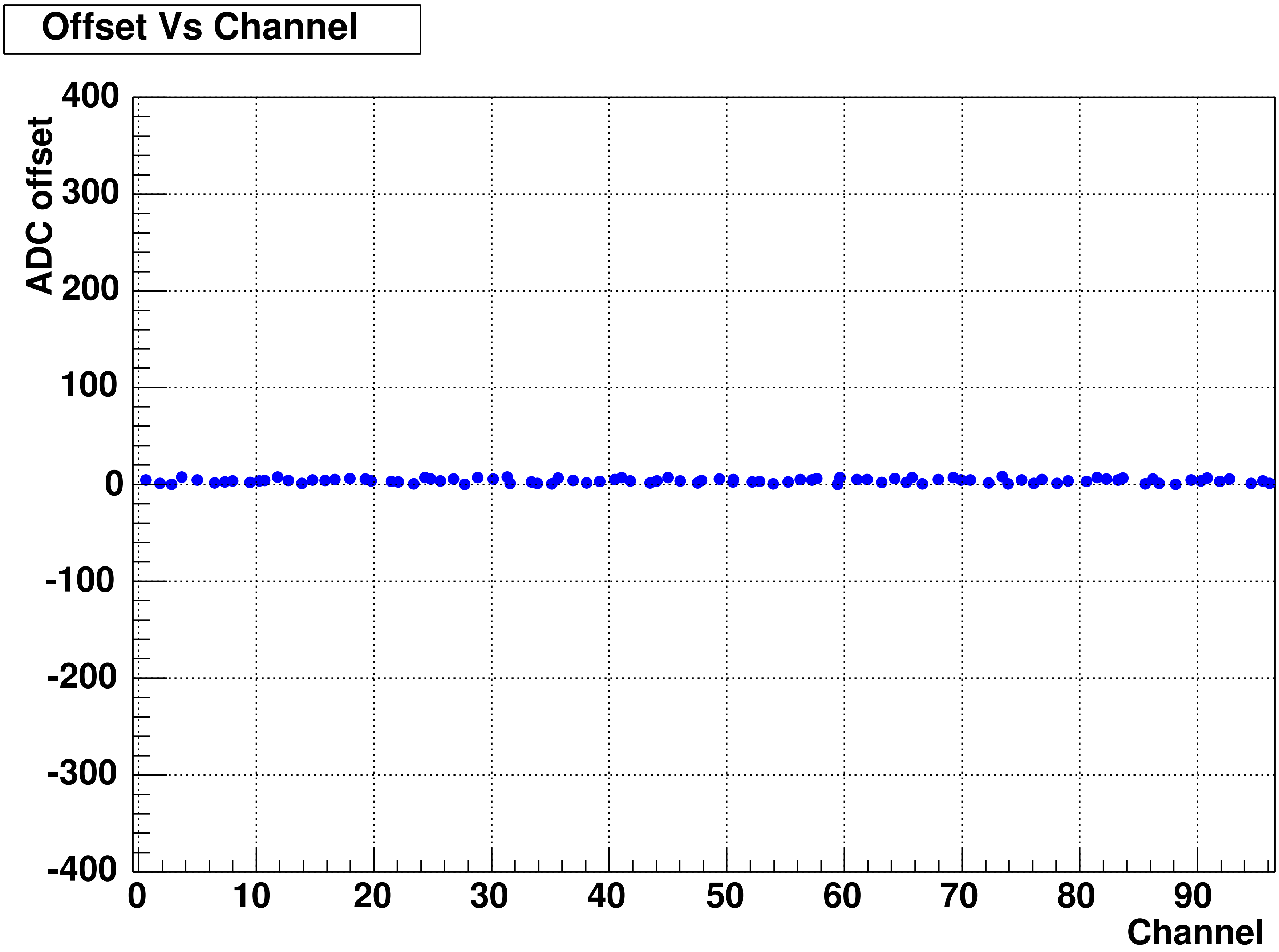
Residuals for channel 96



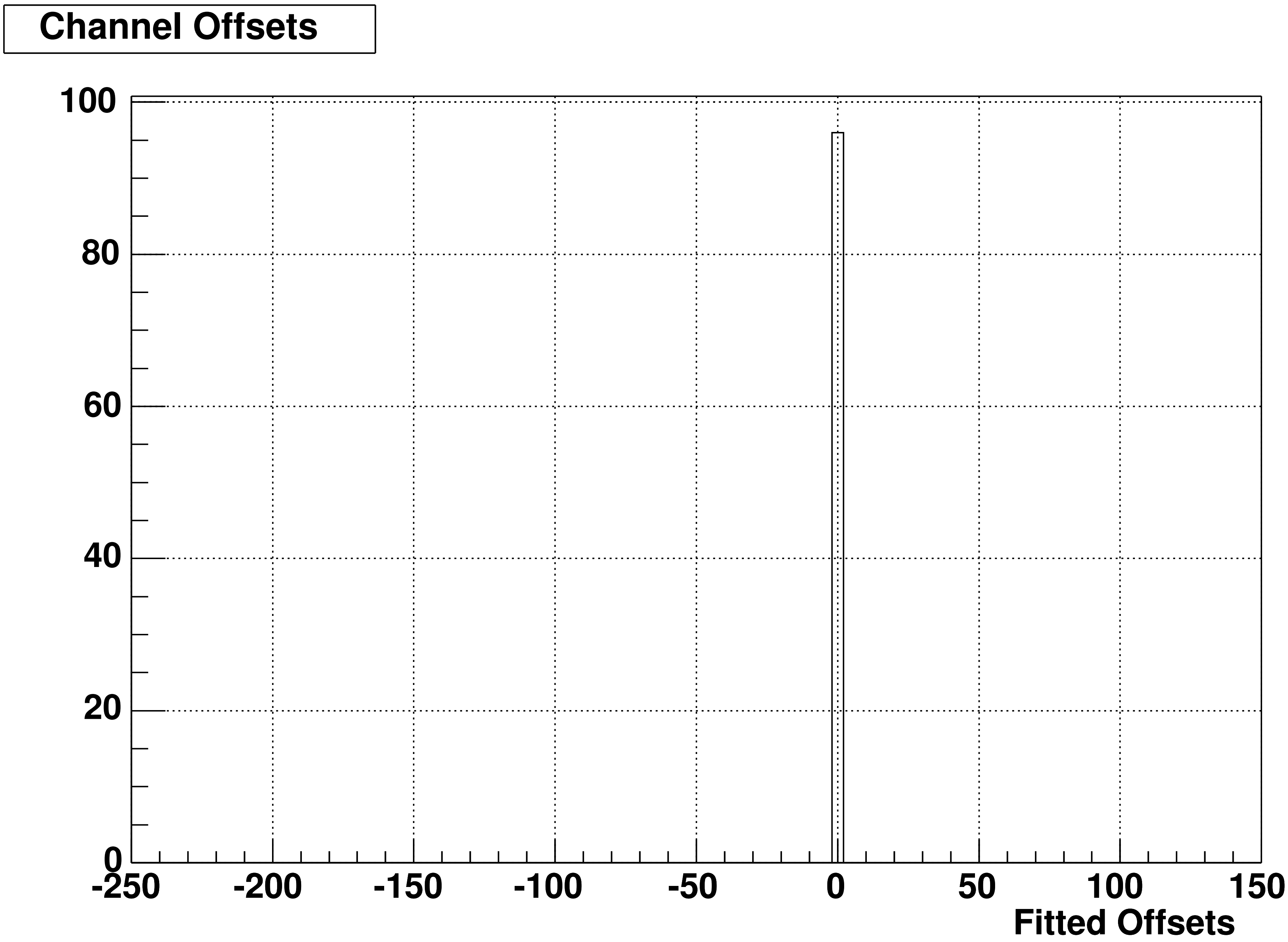

Gain Vs Channel
Gain (Δ ADC/ Δ DAC)
0.24
0.238
0.236
0.234
0.232
0.23
0.228
0.226
0
10
20
30
40
50
60
70
80
90
Channel



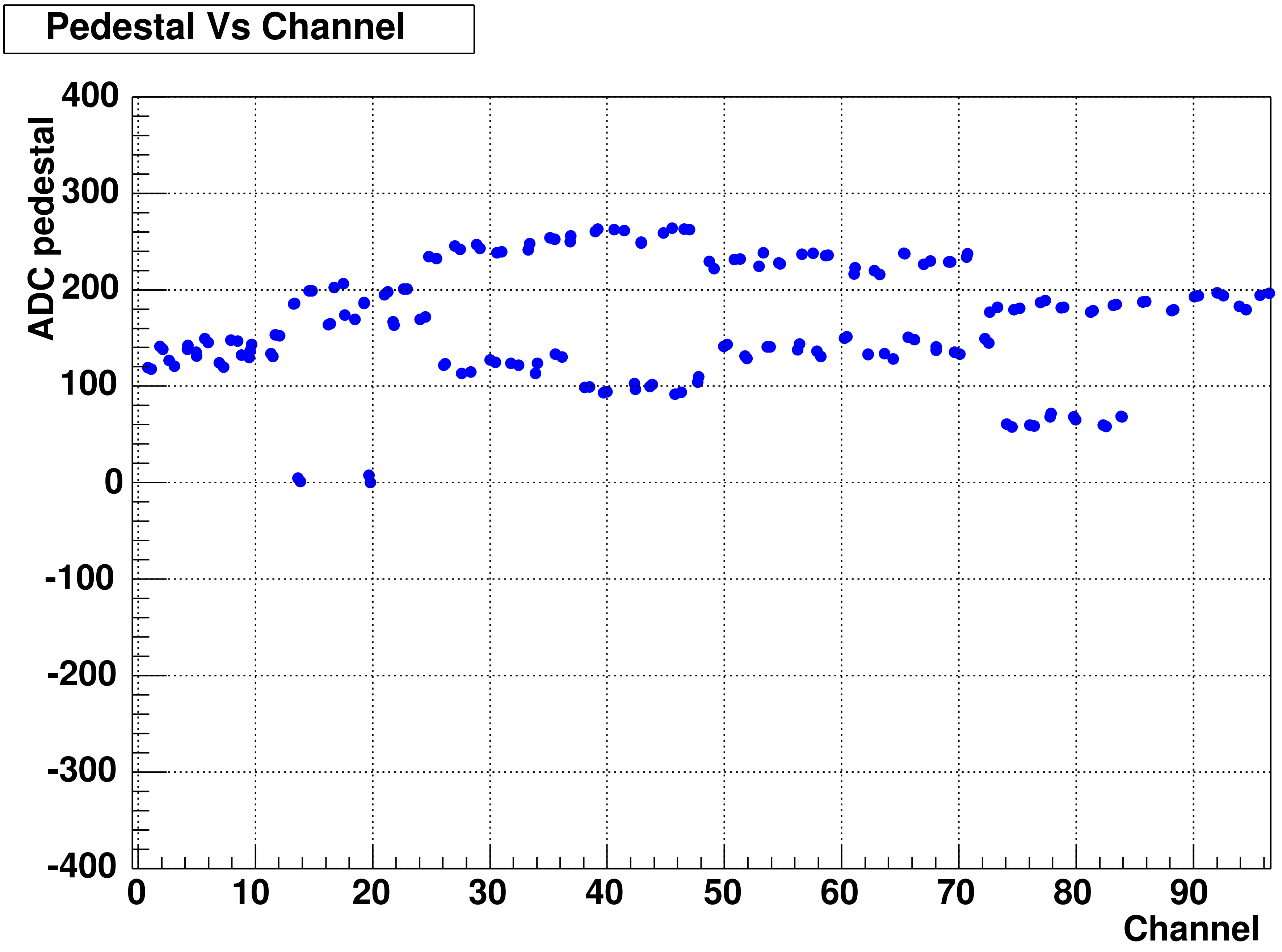
Channel Gains
x10^-18
χ² / ndf 0 / -3
Constant 10.19 ± 1.414
Mean 1.48 ± 1.414
Sigma 0.1311 ± 0.7461
0.25
0.2
0.15
0.1
0.05
0
0.227
0.228
0.229
0.23
0.231
0.232
0.233
0.234
0.235
Gains (ADC)



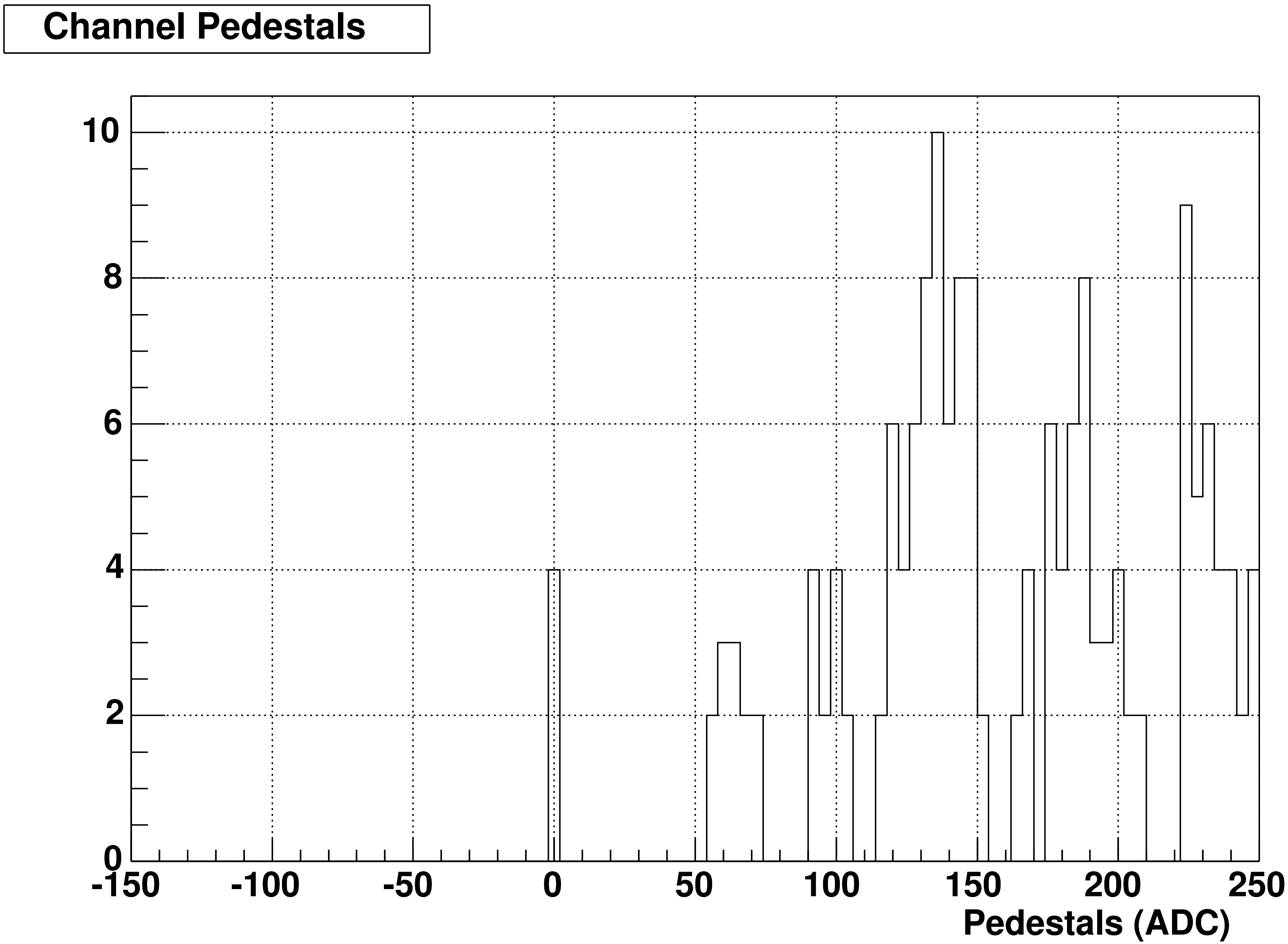
Offset Vs Channel
ADC offset
400
300
200
100
0
-100
-200
-300
-400
0
10
20
30
40
50
60
70
80
90
Channel

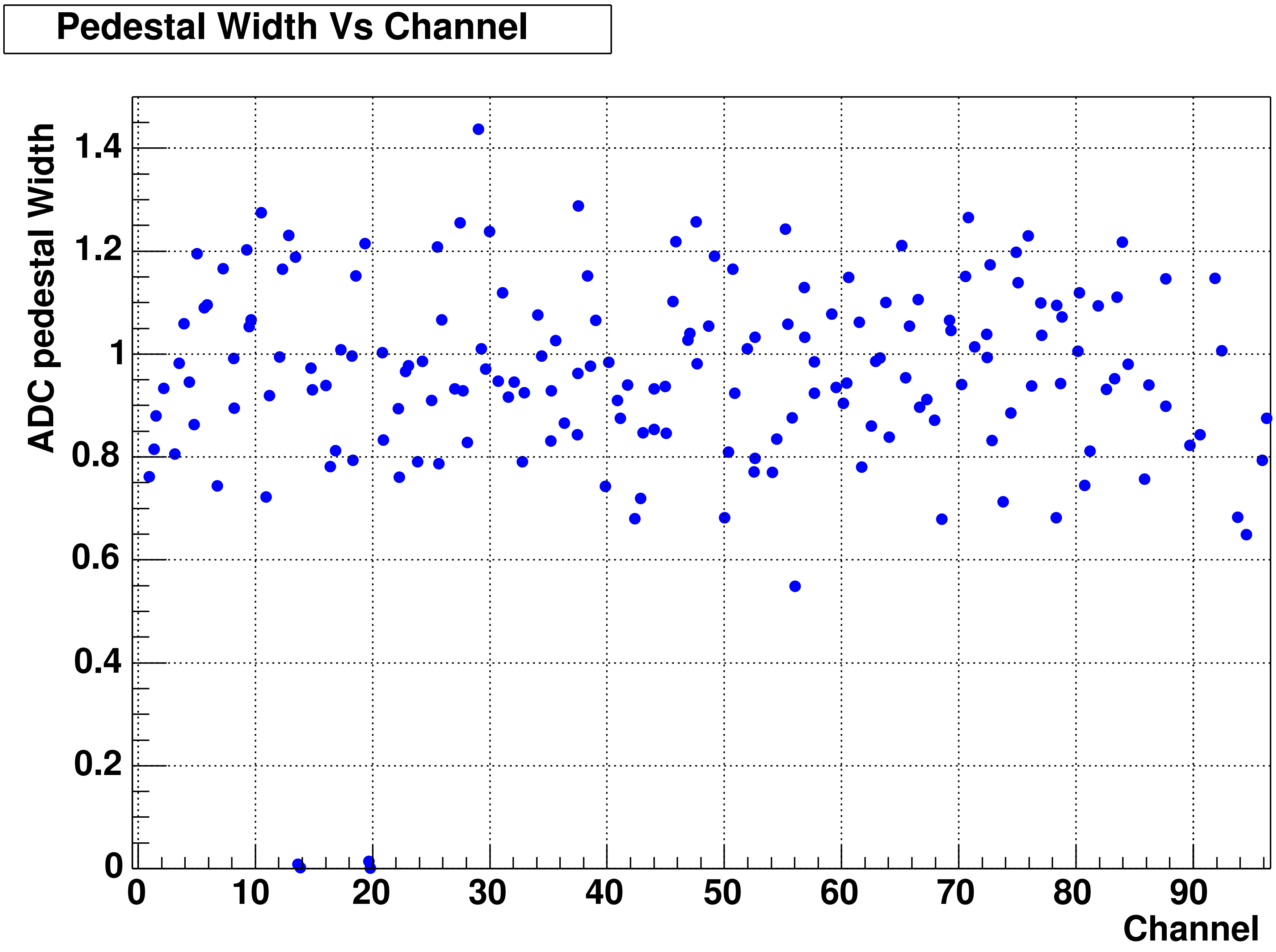


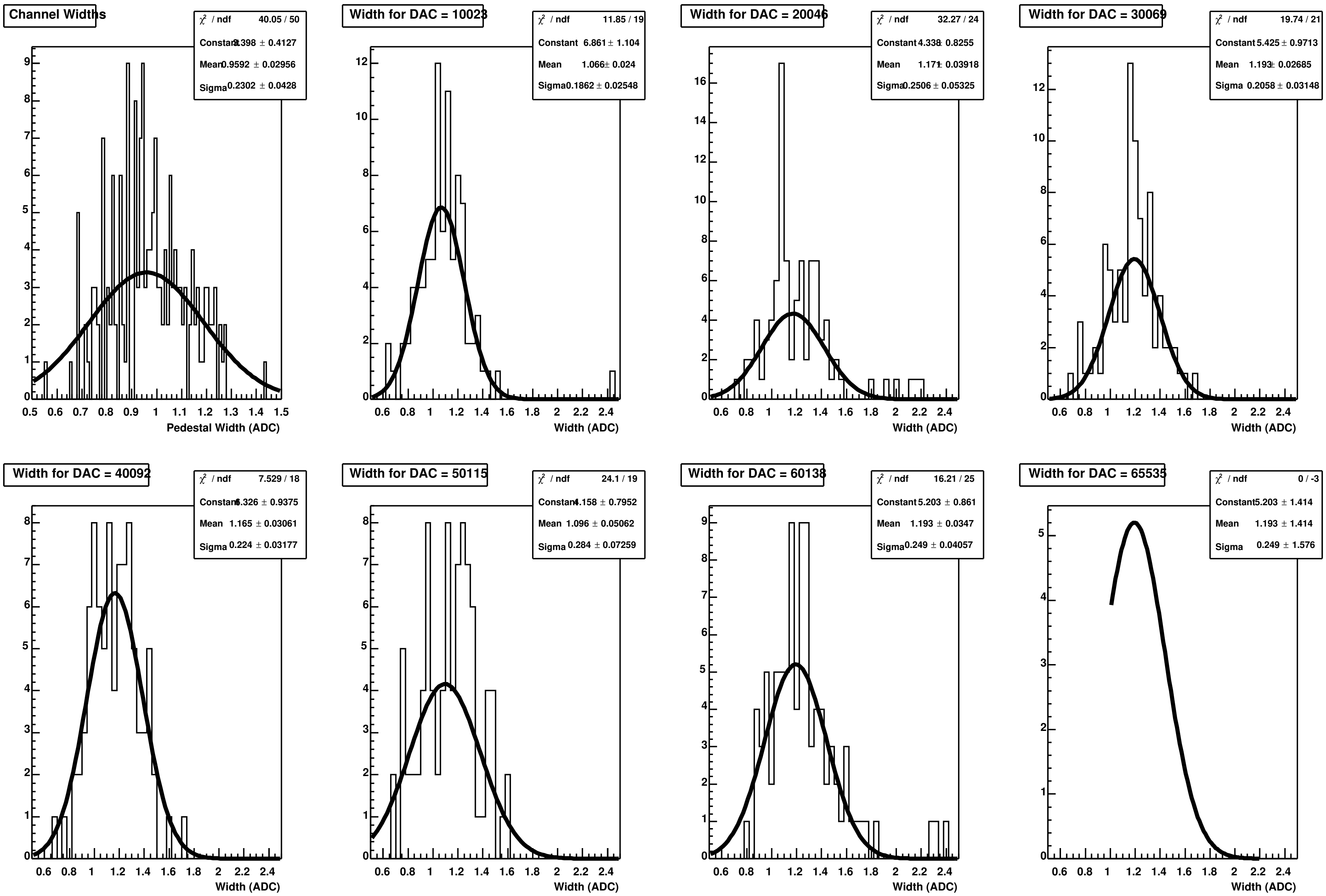
Channel Offsets
100
80
60
40
20
0
-250
-200
-150
-100
-50
0
50
100
150
Fitted Offsets

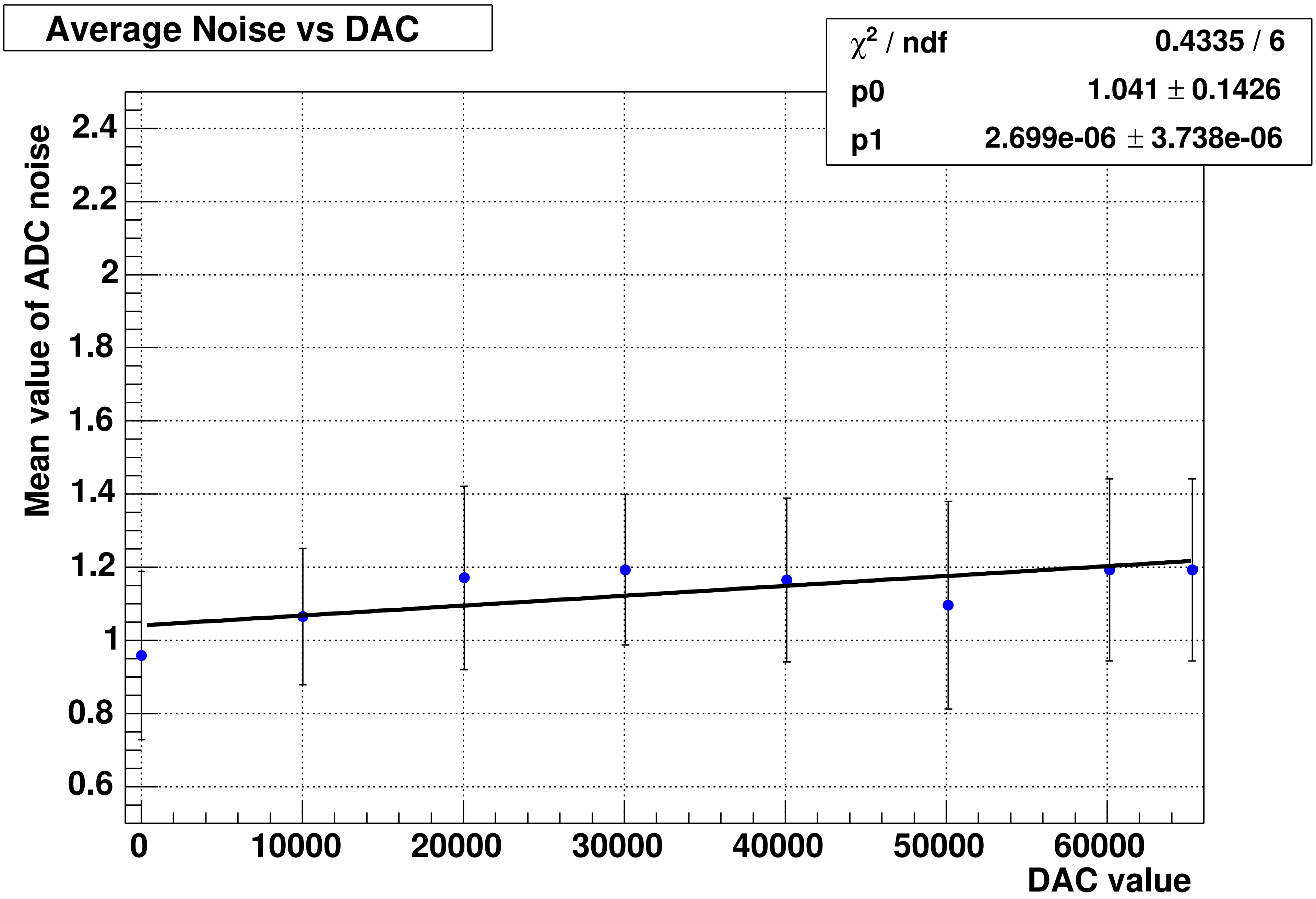


Pedestal Vs Channel
ADC pedestal
400
300
200
100
0
-100
-200
-300
-400
0
10
20
30
40
50
60
70
80
90
Channel


Channel Pedestals
10
8
6
4
2
0
-150
-100
-50
0
50
100
150
200
250
Pedestals (ADC)


Pedestal Width Vs Channel
ADC pedestal Width
0
0.2
0.4
0.6
0.8
1
1.2
1.4
0
10
20
30
40
50
60
70
80
90
Channel


Channel Widths
χ^2 / ndf 40.05 / 50
Constant 3.398 ± 0.4127
Mean 0.9592 ± 0.02956
Sigma 0.2302 ± 0.0428
Pedestal Width (ADC)
Width for DAC = 10023
χ^2 / ndf 11.85 / 19
Constant 6.861 ± 1.104
Mean 1.066 ± 0.024
Sigma 0.1862 ± 0.02548
Width (ADC)
Width for DAC = 20046
χ^2 / ndf 32.27 / 24
Constant 4.338 ± 0.8255
Mean 1.171 ± 0.03918
Sigma 0.2506 ± 0.05325
Width (ADC)
Width for DAC = 30069
χ^2 / ndf 19.74 / 21
Constant 5.425 ± 0.9713
Mean 1.193 ± 0.02685
Sigma 0.2058 ± 0.03148
Width (ADC)
Width for DAC = 40092
χ^2 / ndf 7.529 / 18
Constant 6.326 ± 0.9375
Mean 1.165 ± 0.03061
Sigma 0.224 ± 0.03177
Width (ADC)
Width for DAC = 50115
χ^2 / ndf 24.1 / 19
Constant 4.158 ± 0.7952
Mean 1.096 ± 0.05062
Sigma 0.284 ± 0.07259
Width (ADC)
Width for DAC = 60138
χ^2 / ndf 16.21 / 25
Constant 5.203 ± 0.861
Mean 1.193 ± 0.0347
Sigma 0.249 ± 0.04057
Width (ADC)
Width for DAC = 65535
χ^2 / ndf 0 / -3
Constant 5.203 ± 1.414
Mean 1.193 ± 1.414
Sigma 0.249 ± 1.576
Width (ADC)


Average Noise vs DAC
χ^2 / ndf 0.4335 / 6
p0 1.041 ± 0.1426
p1 2.699e-06 ± 3.738e-06
Mean value of ADC noise
0.6
0.8
1
1.2
1.4
1.6
1.8
2
2.2
2.4
0
10000
20000
30000
40000
50000
60000
DAC value