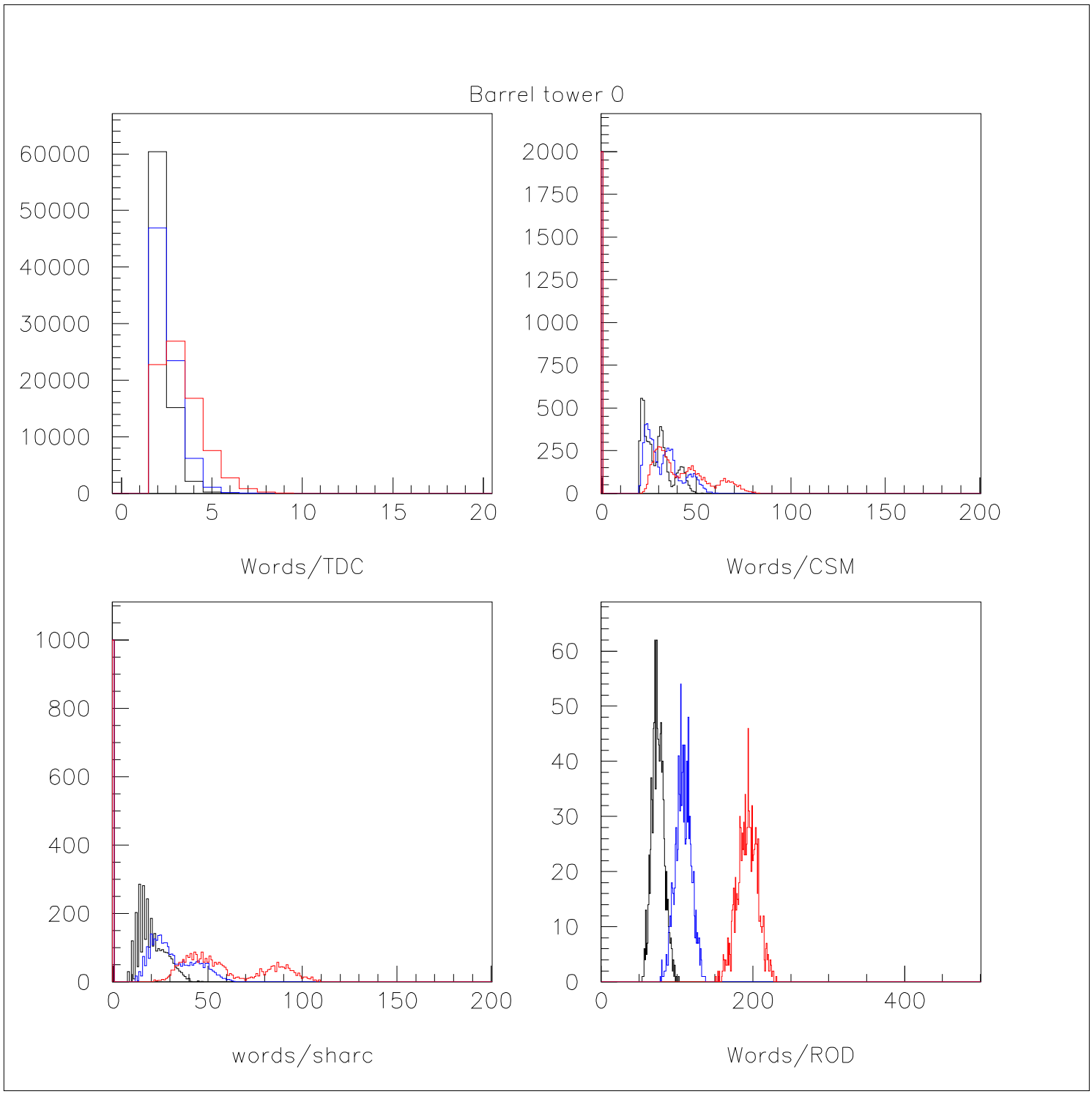
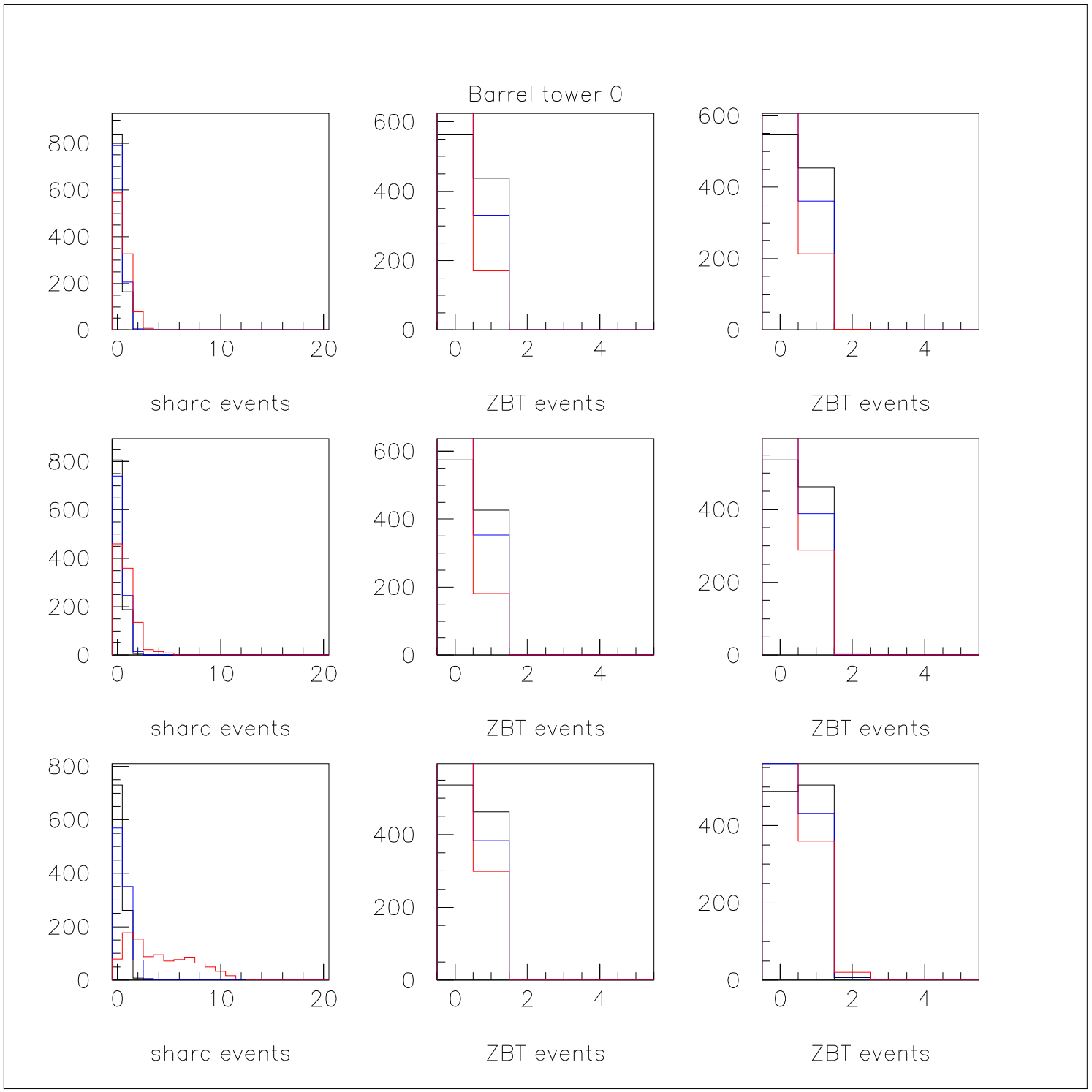
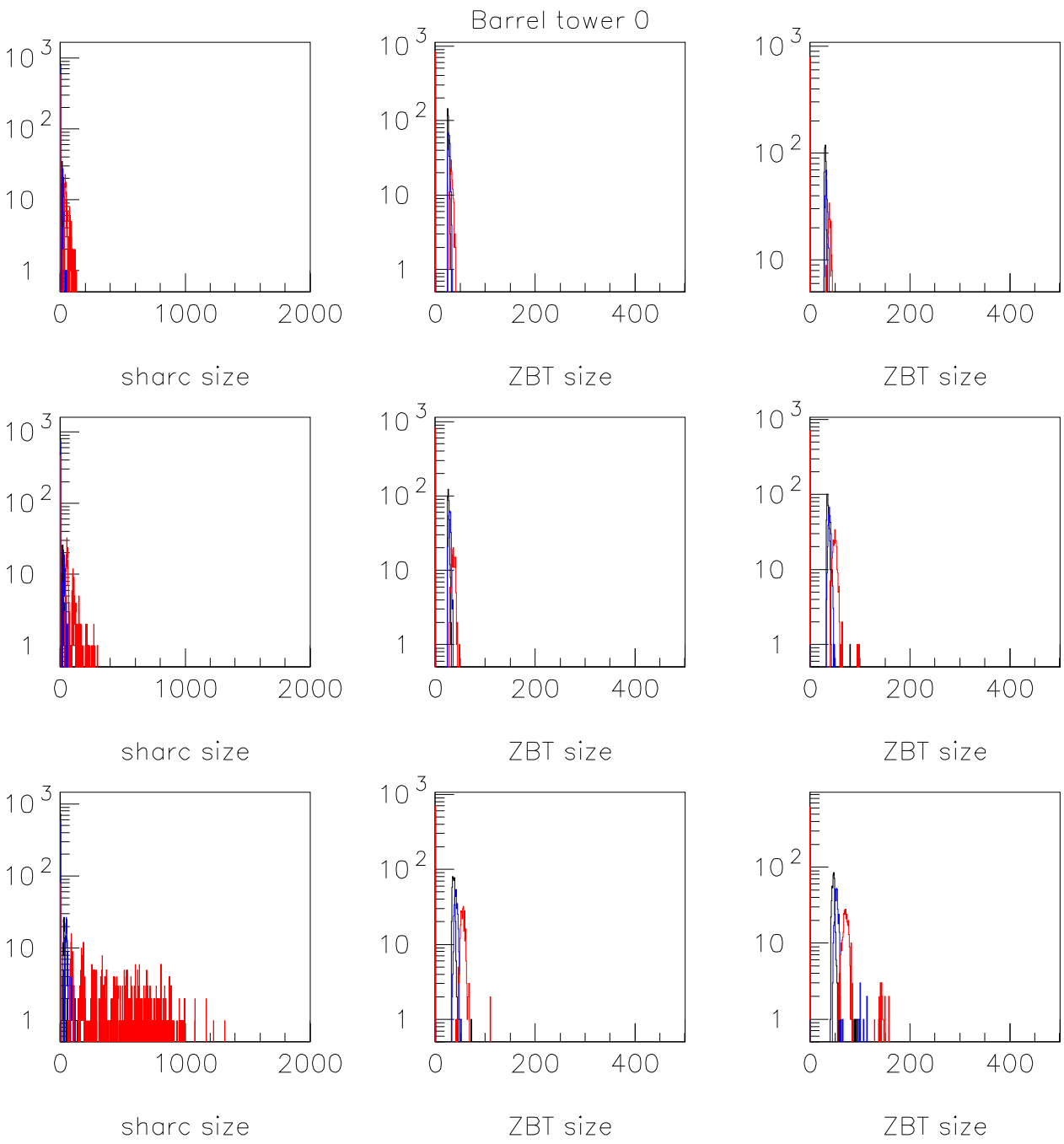
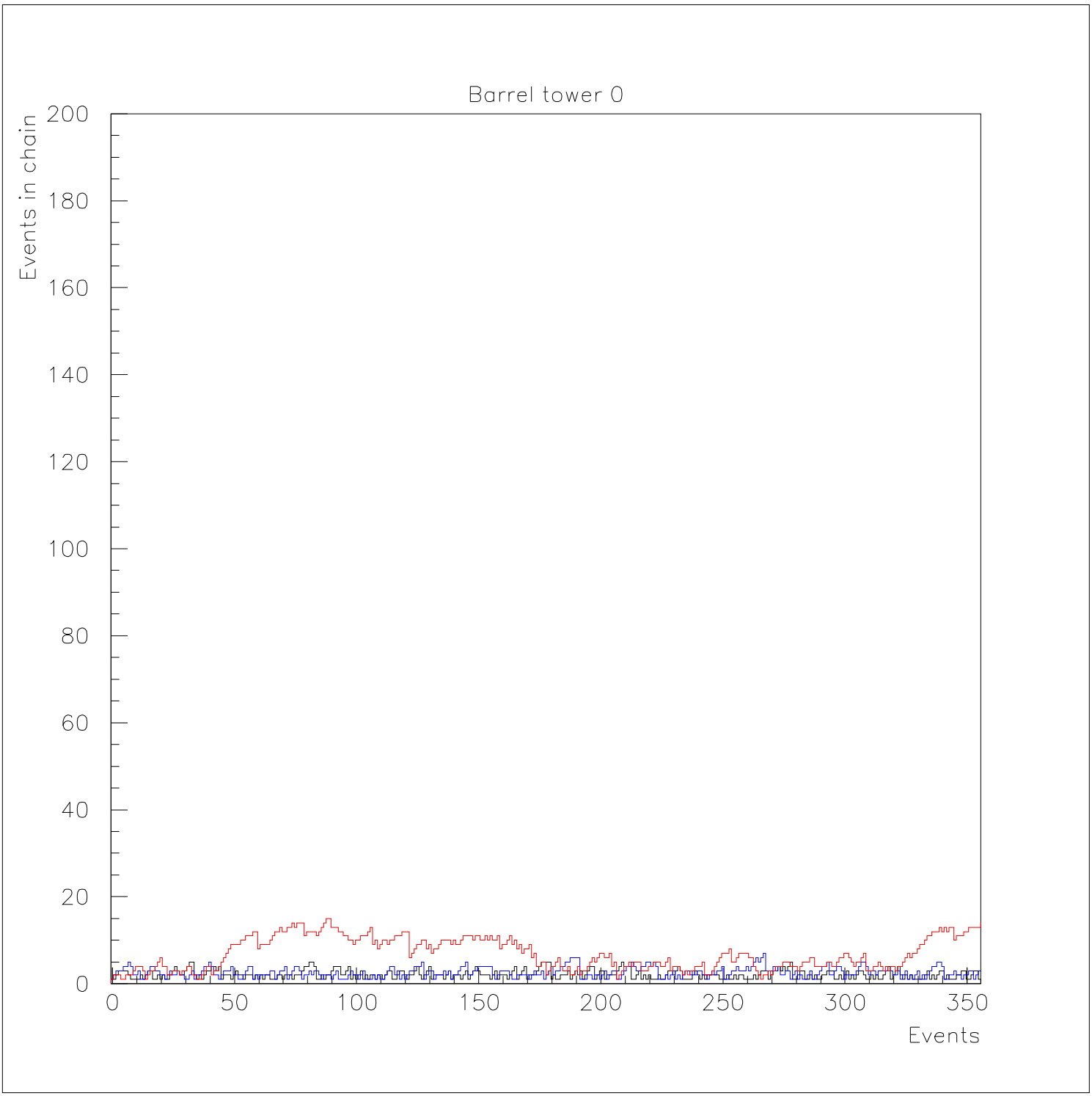
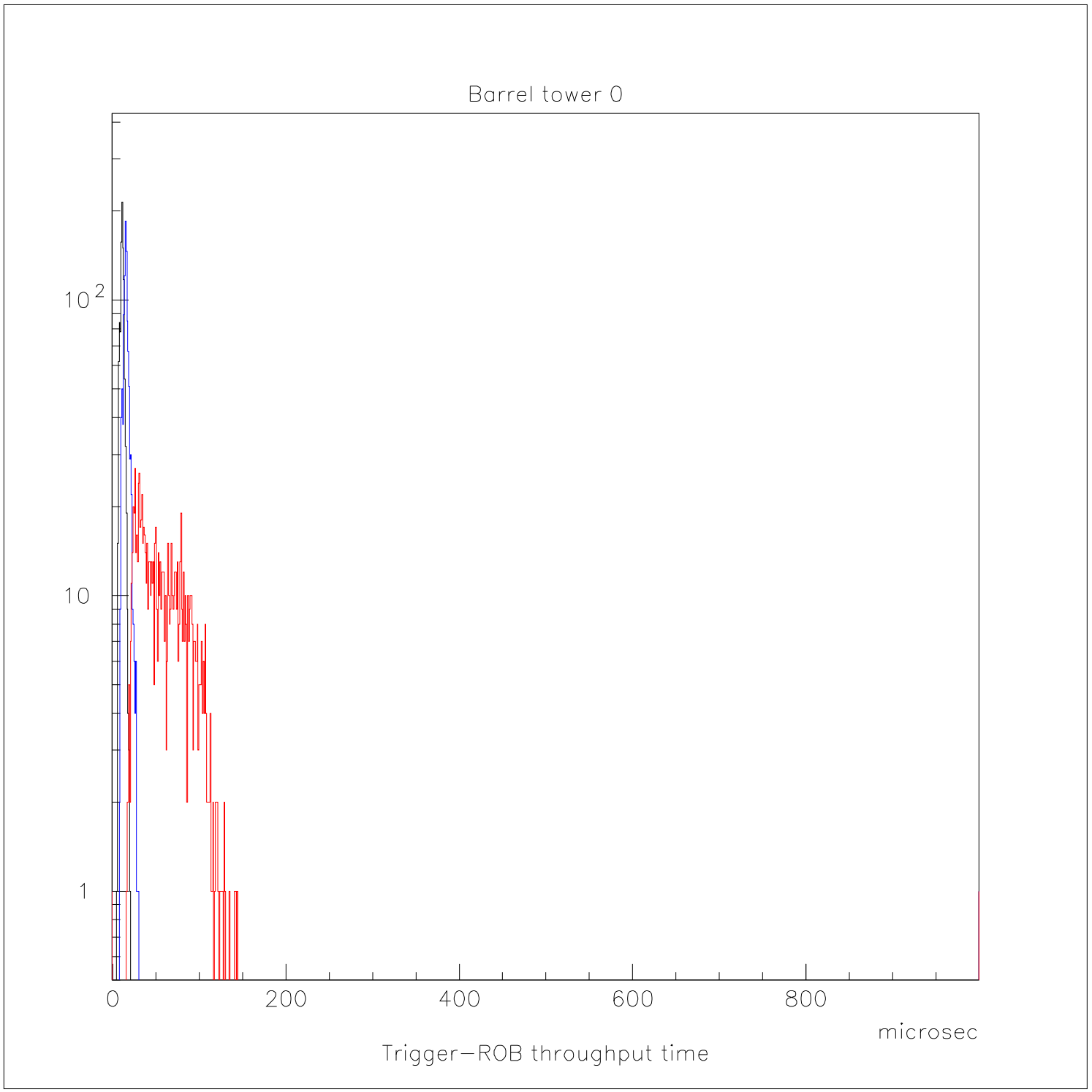
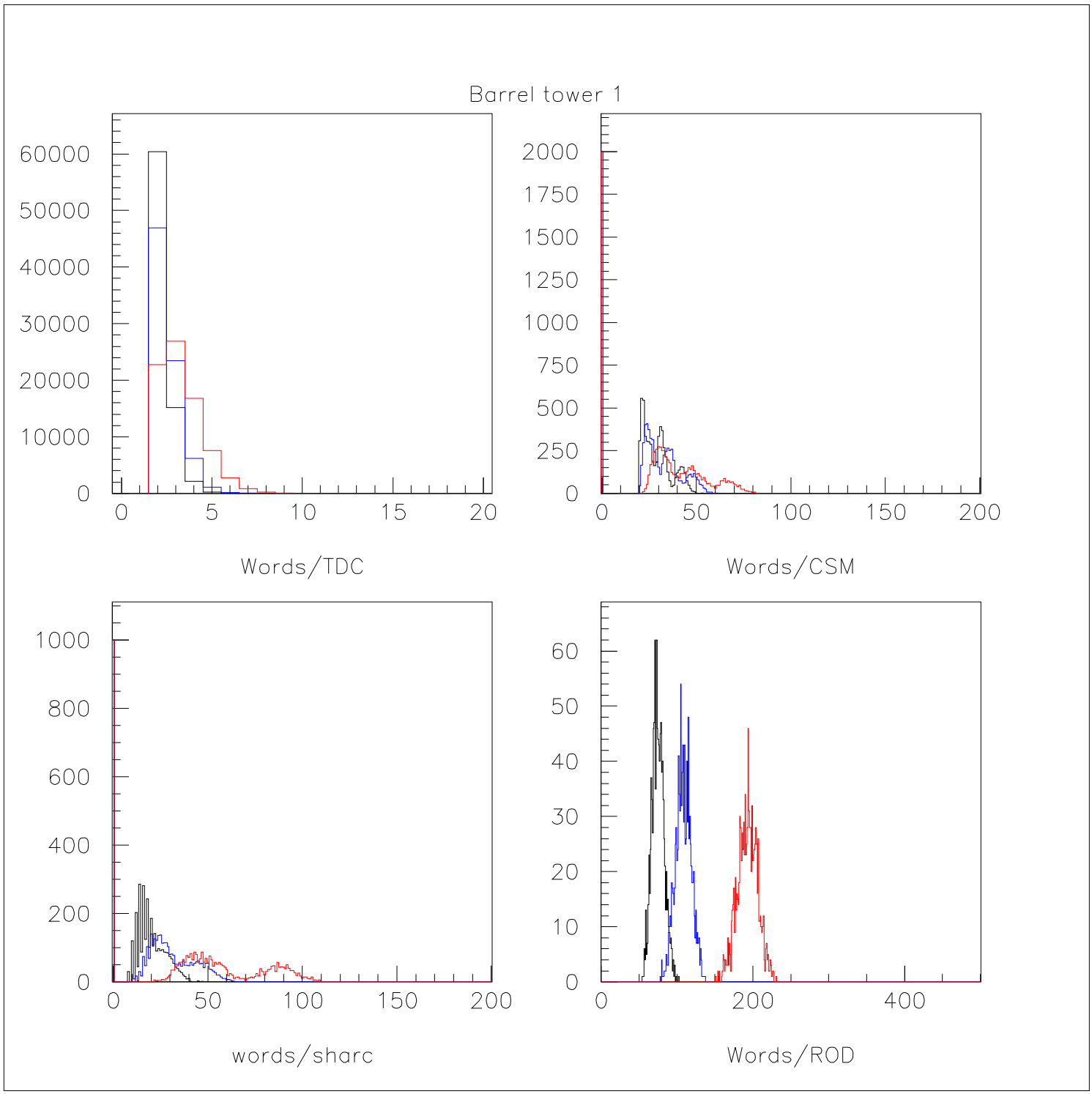

Barrel tower 0
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

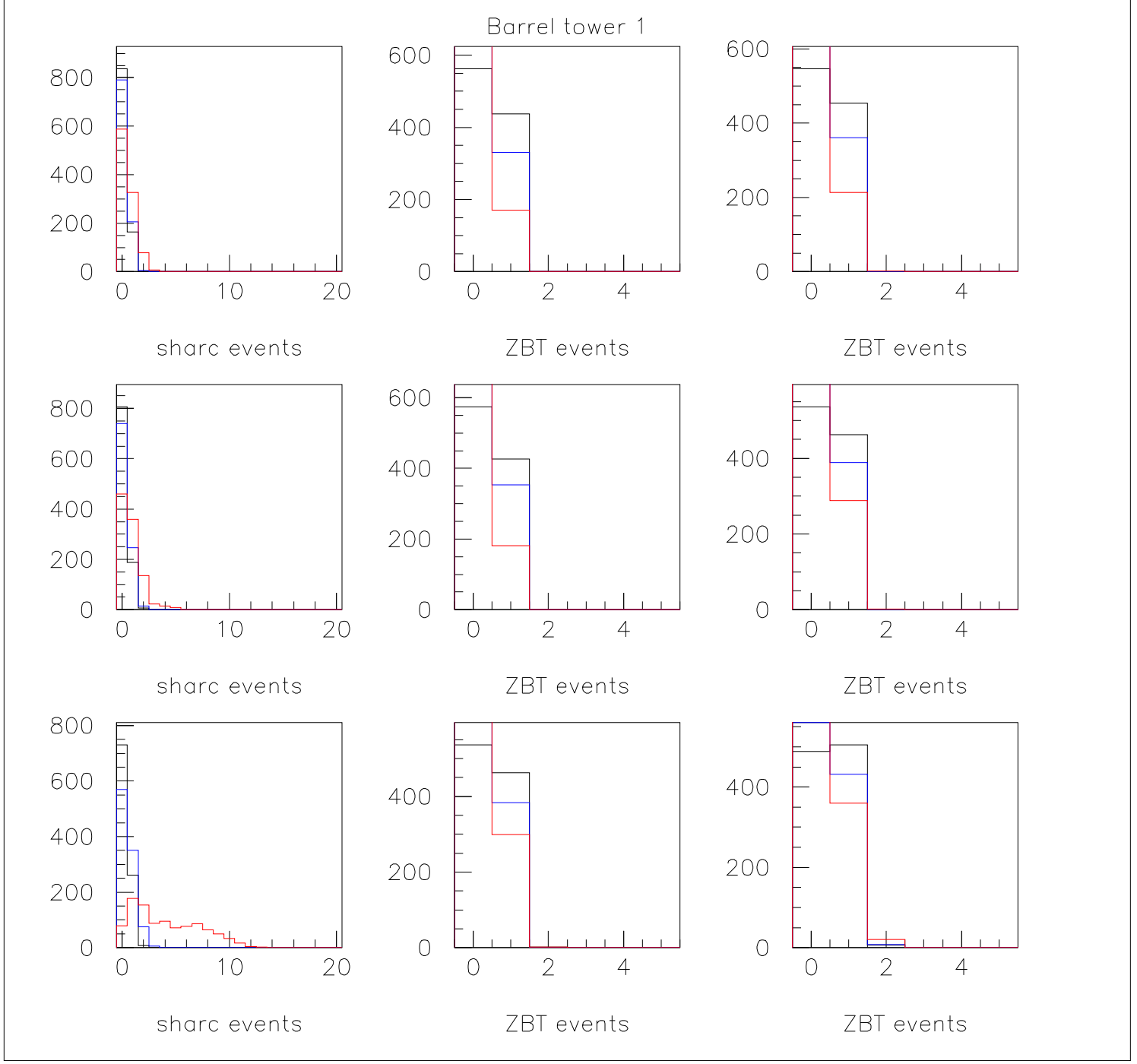

Barrel tower 0
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events

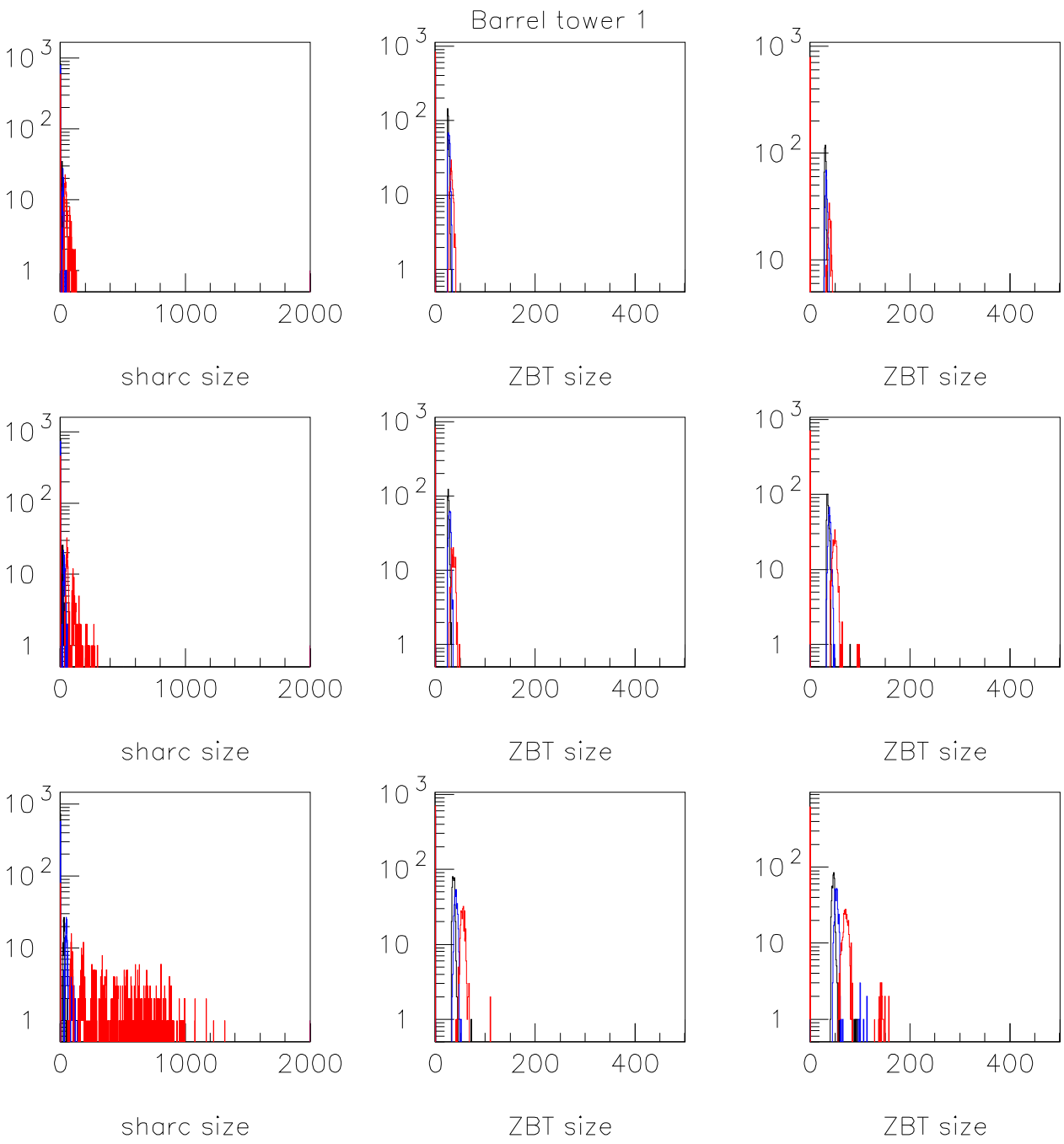

Barrel tower 0
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

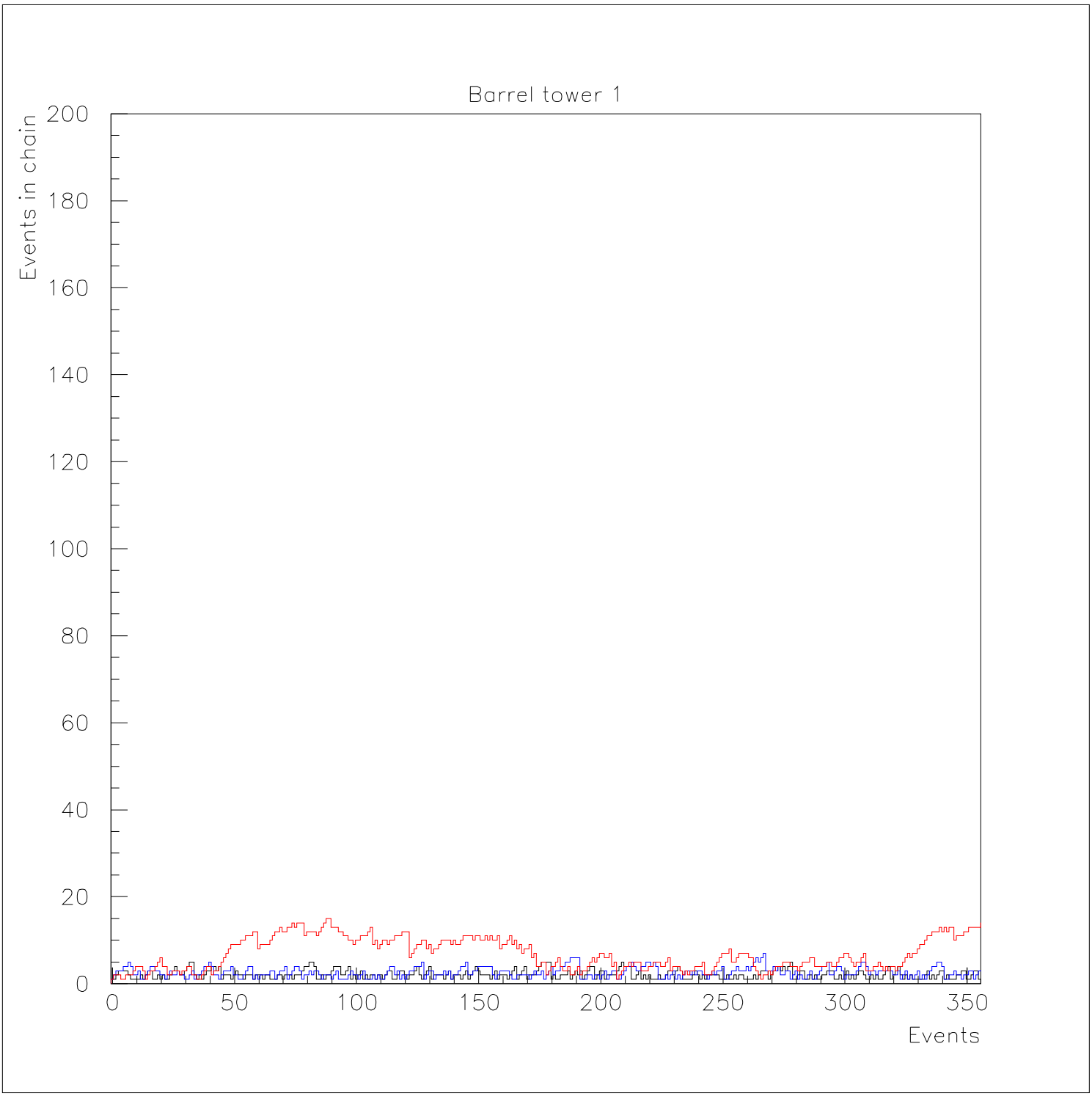

Barrel tower 0
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

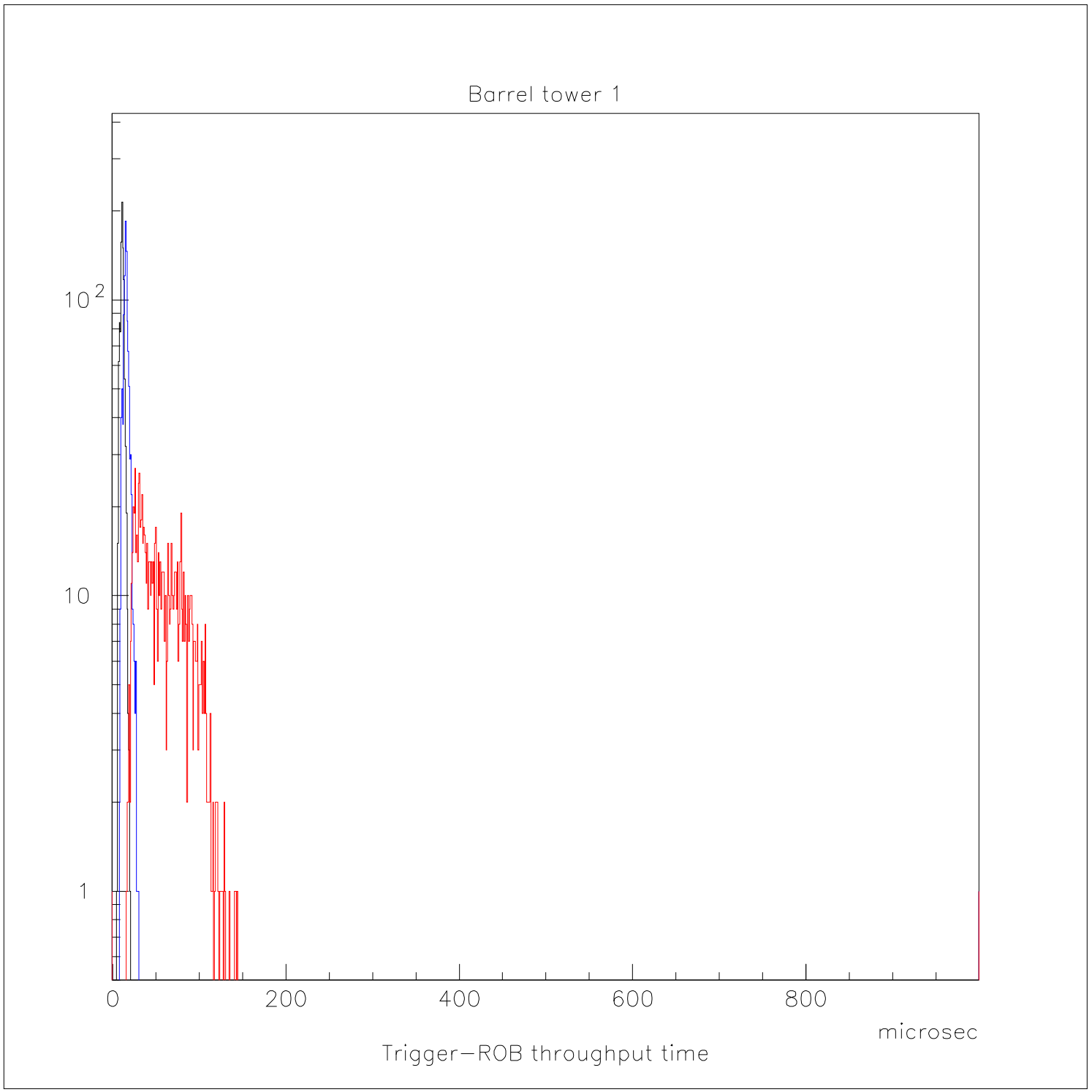

Barrel tower 0
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

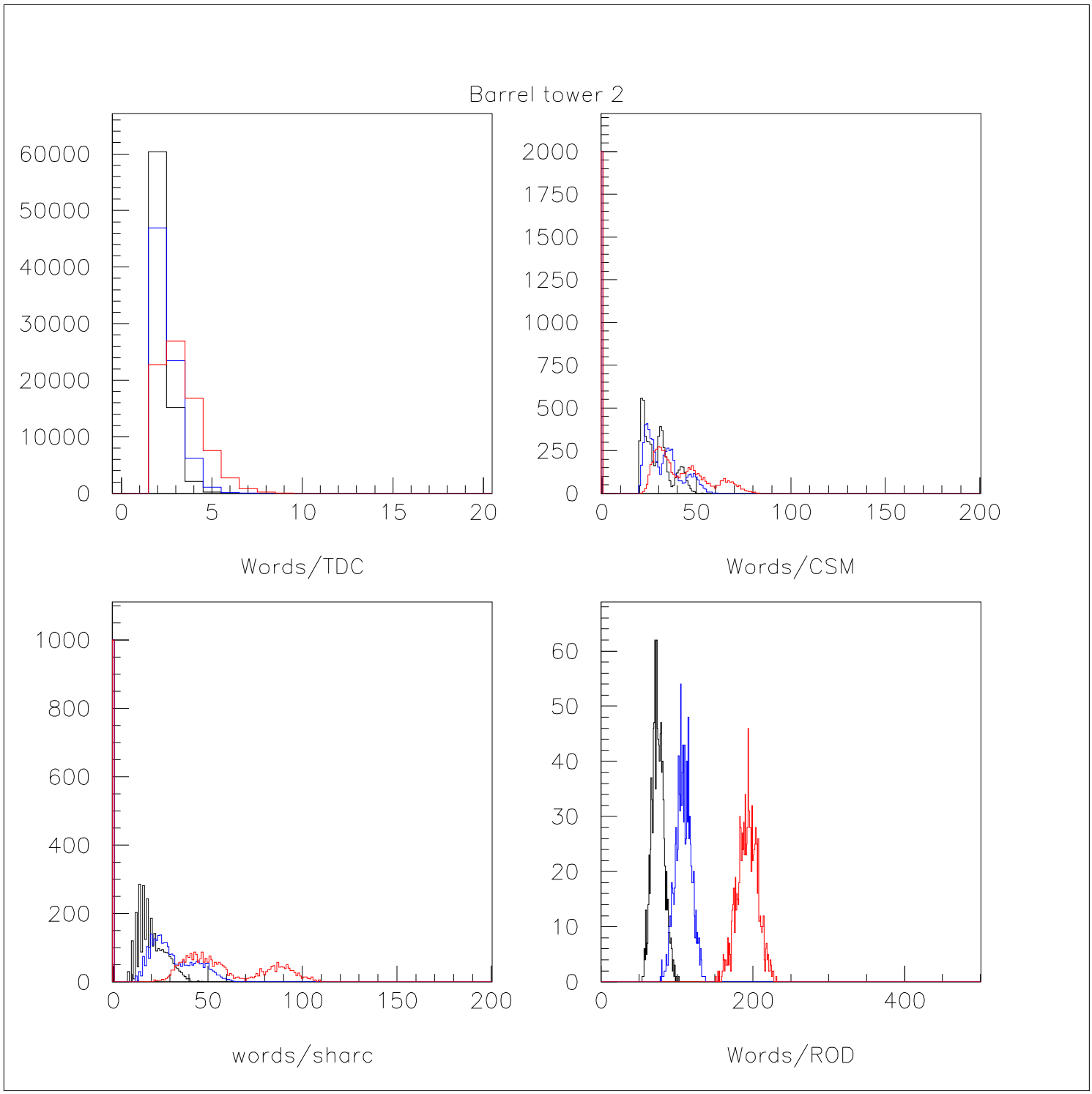

Barrel tower 1
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

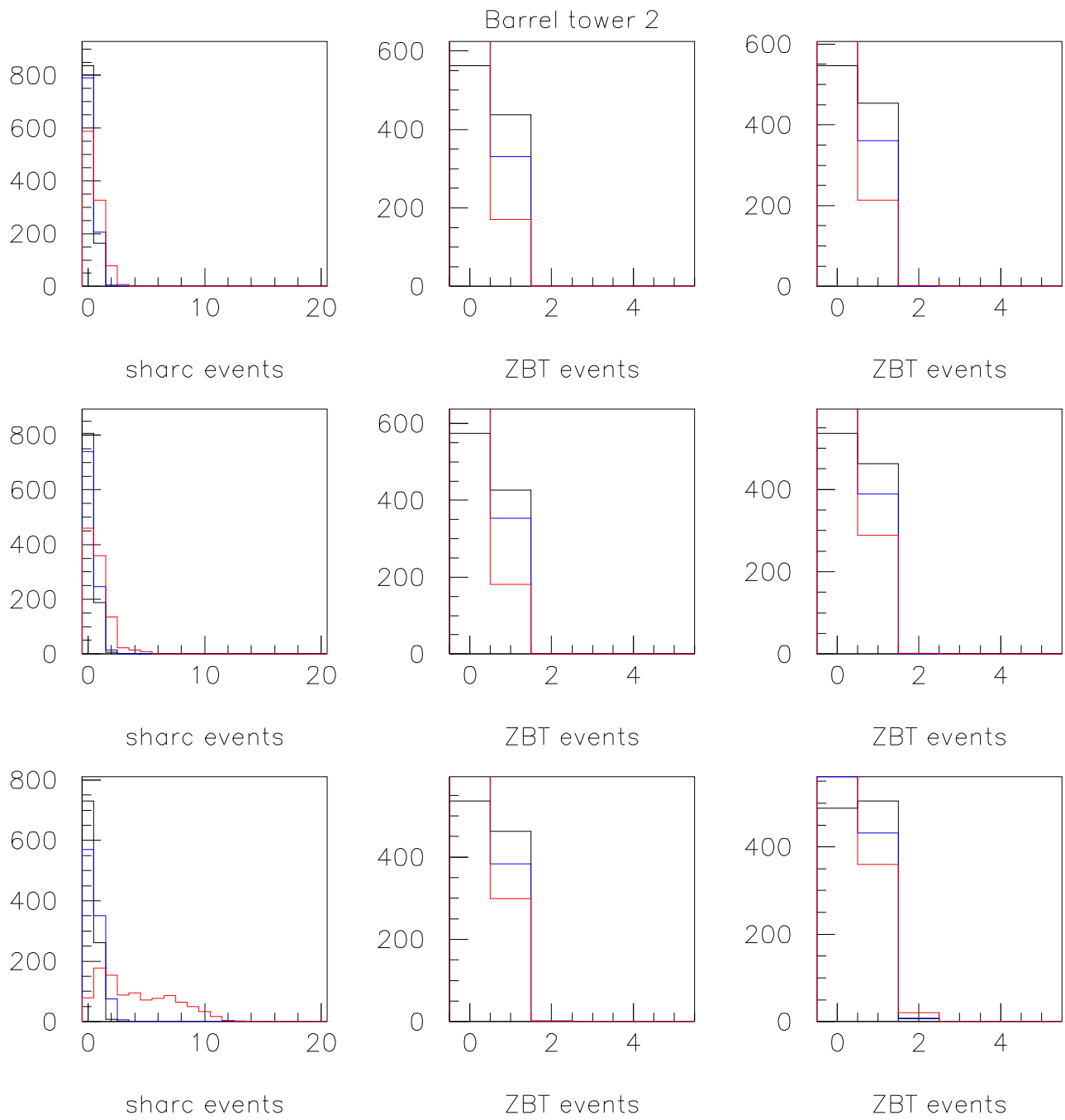

Barrel tower 1
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events

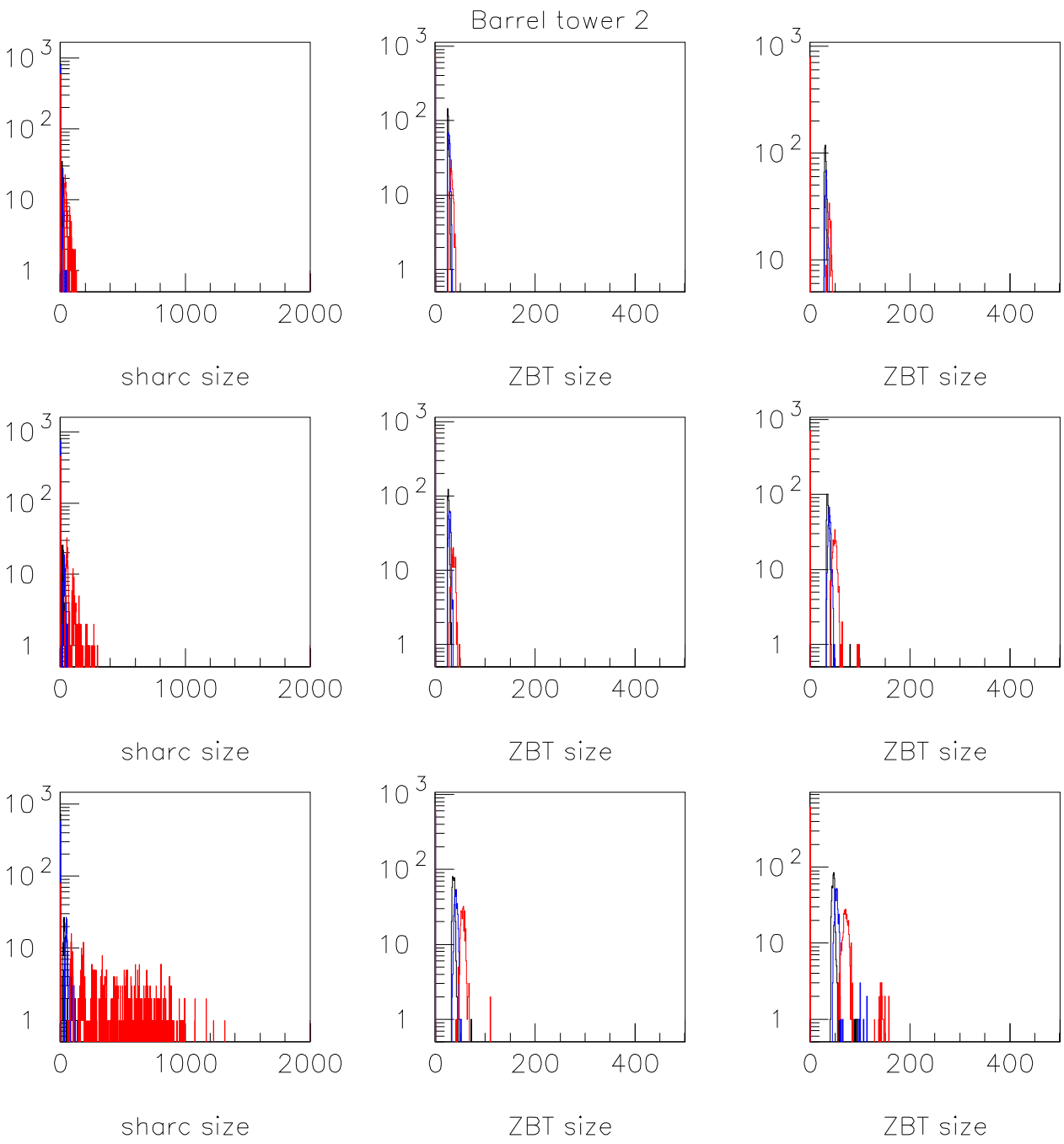

Barrel tower 1
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

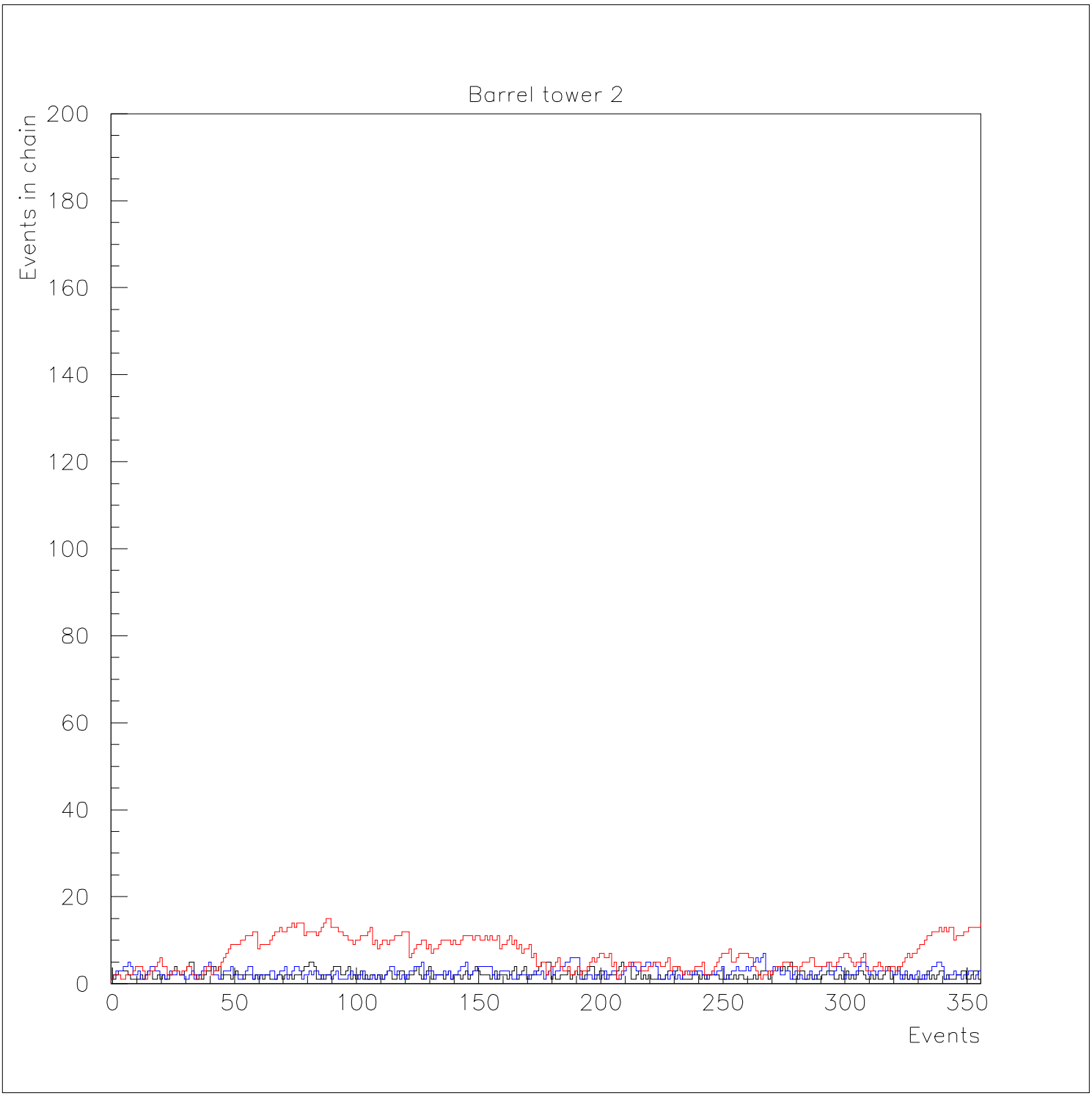

Barrel tower 1
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

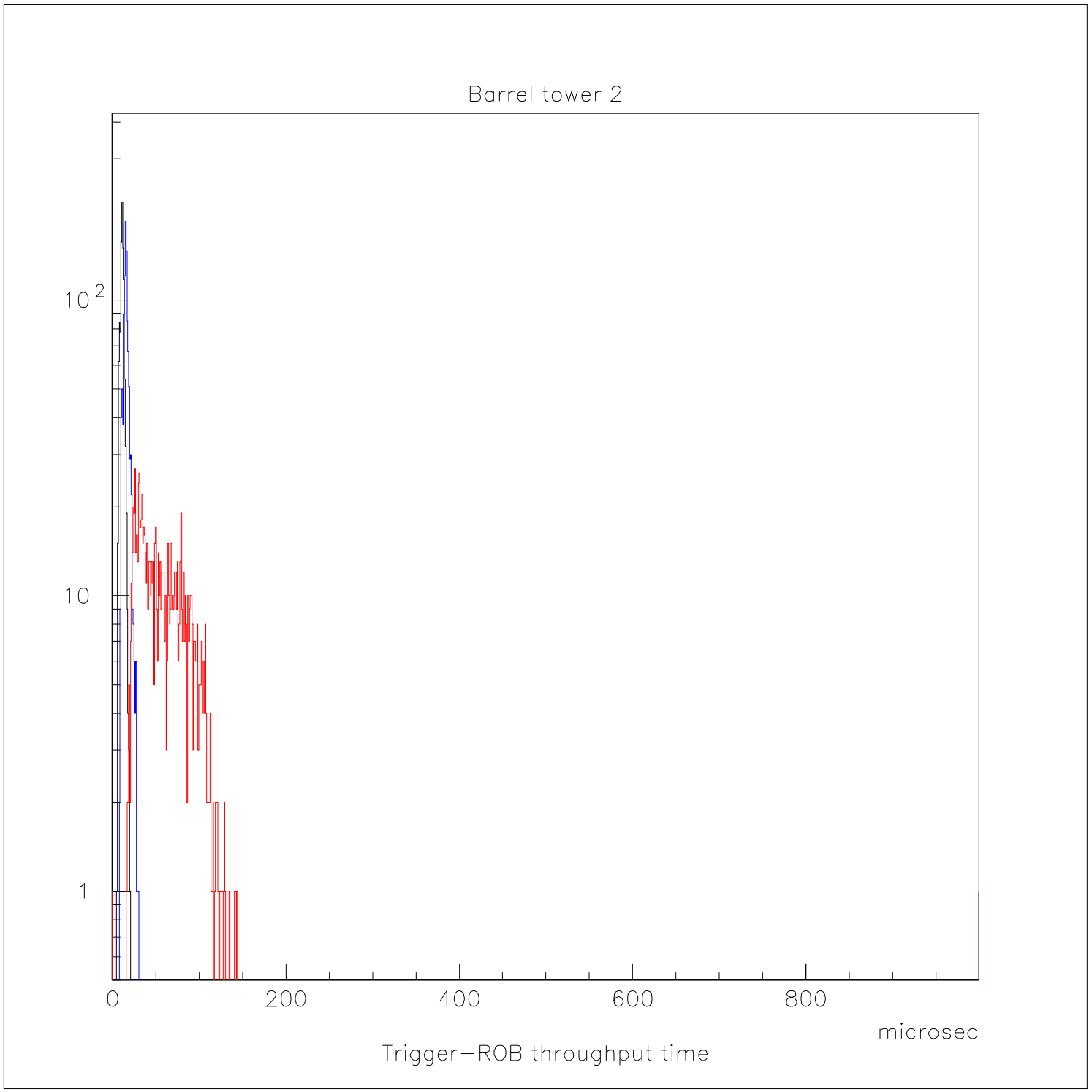

Barrel tower 1
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

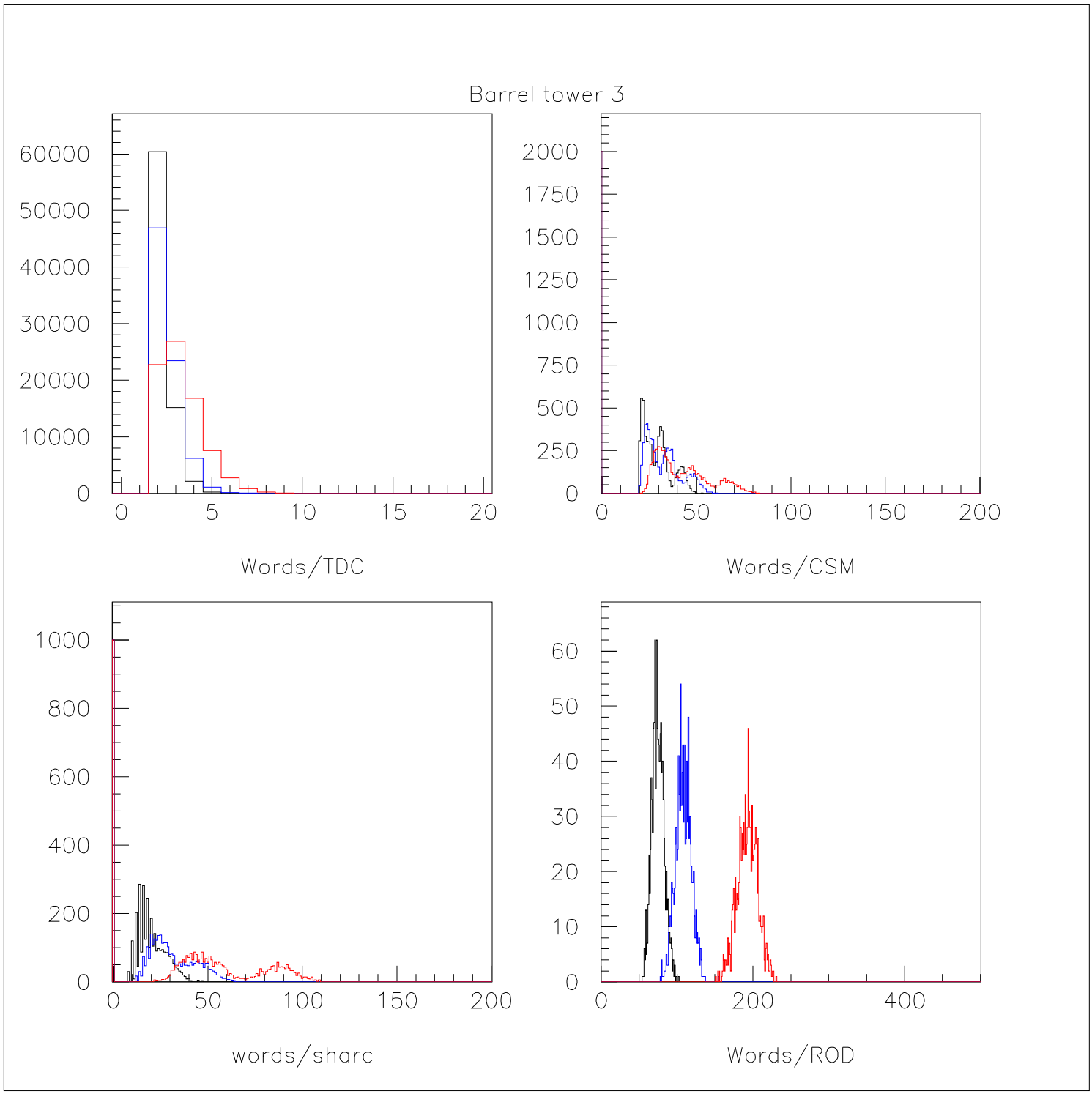

Barrel tower 2
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

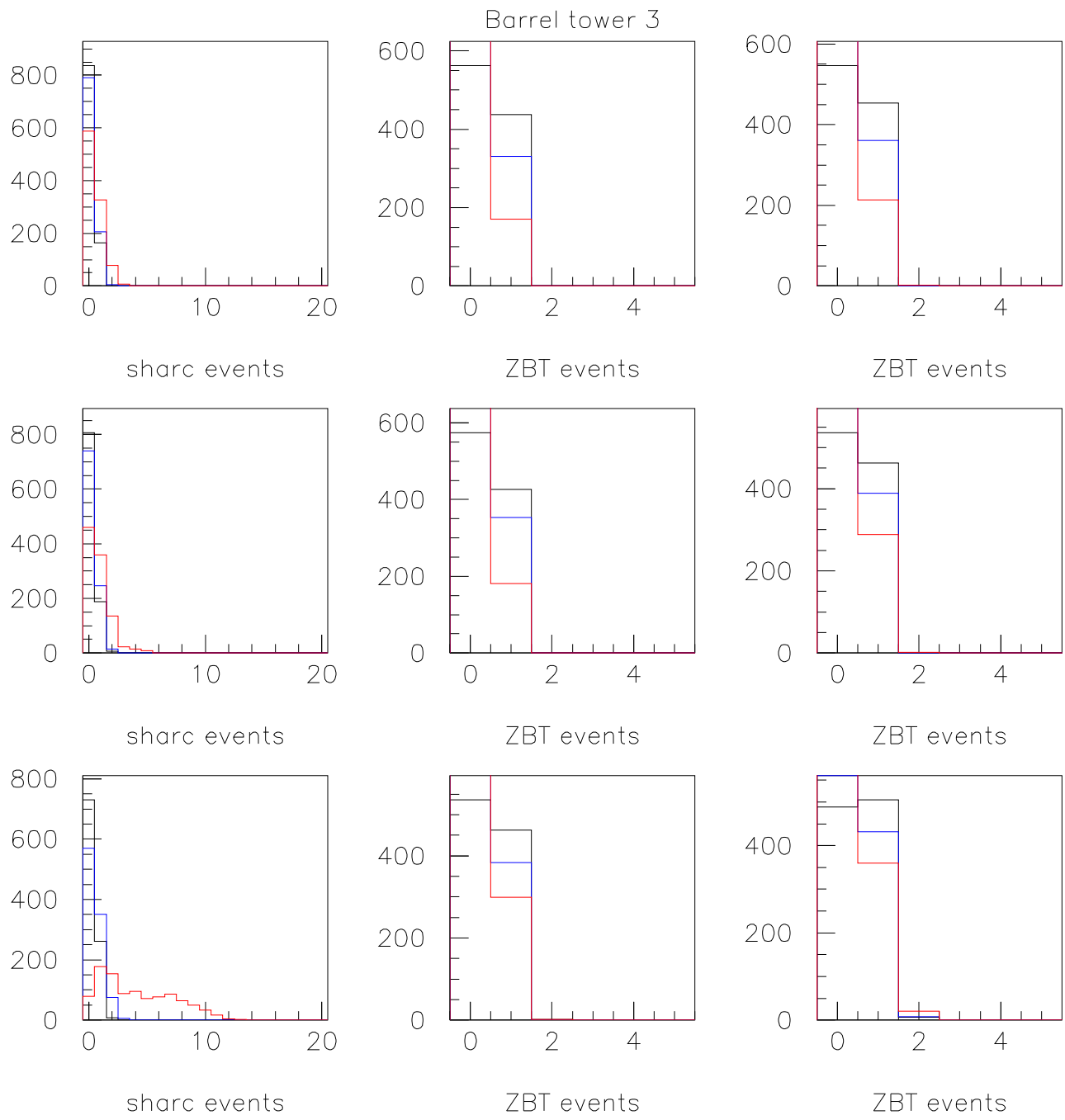

Barrel tower 2
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events

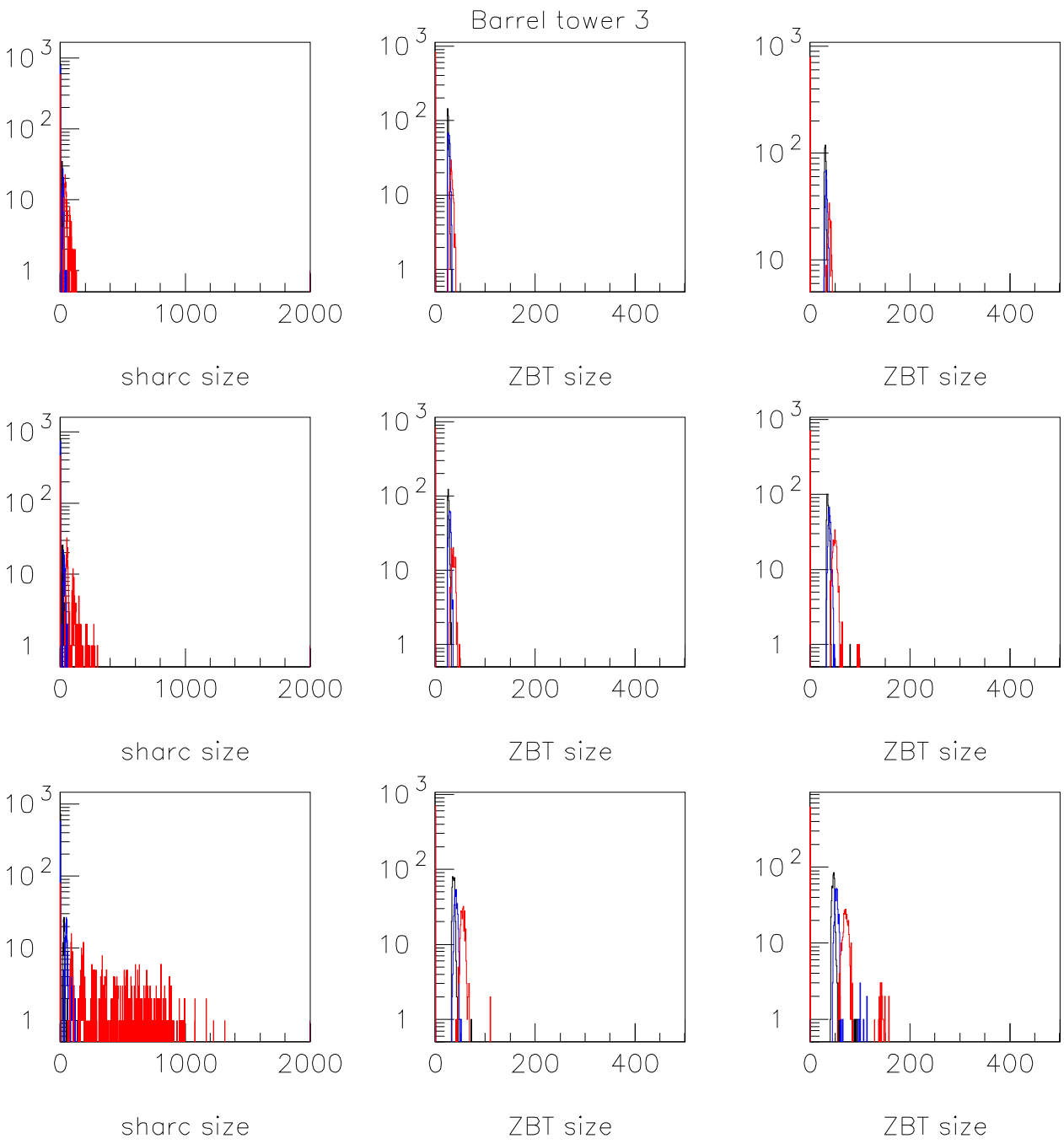

Barrel tower 2
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

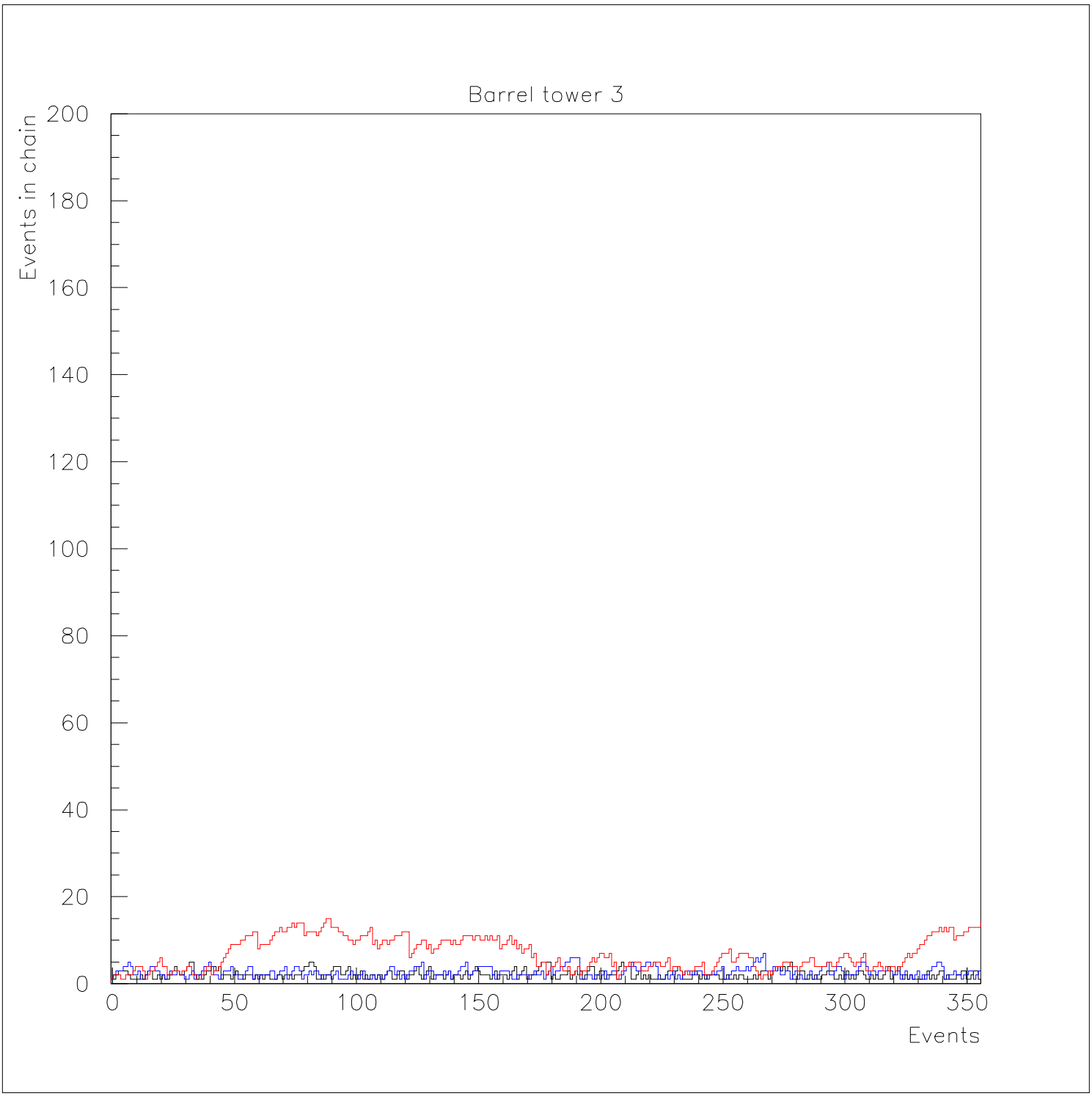

Barrel tower 2
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

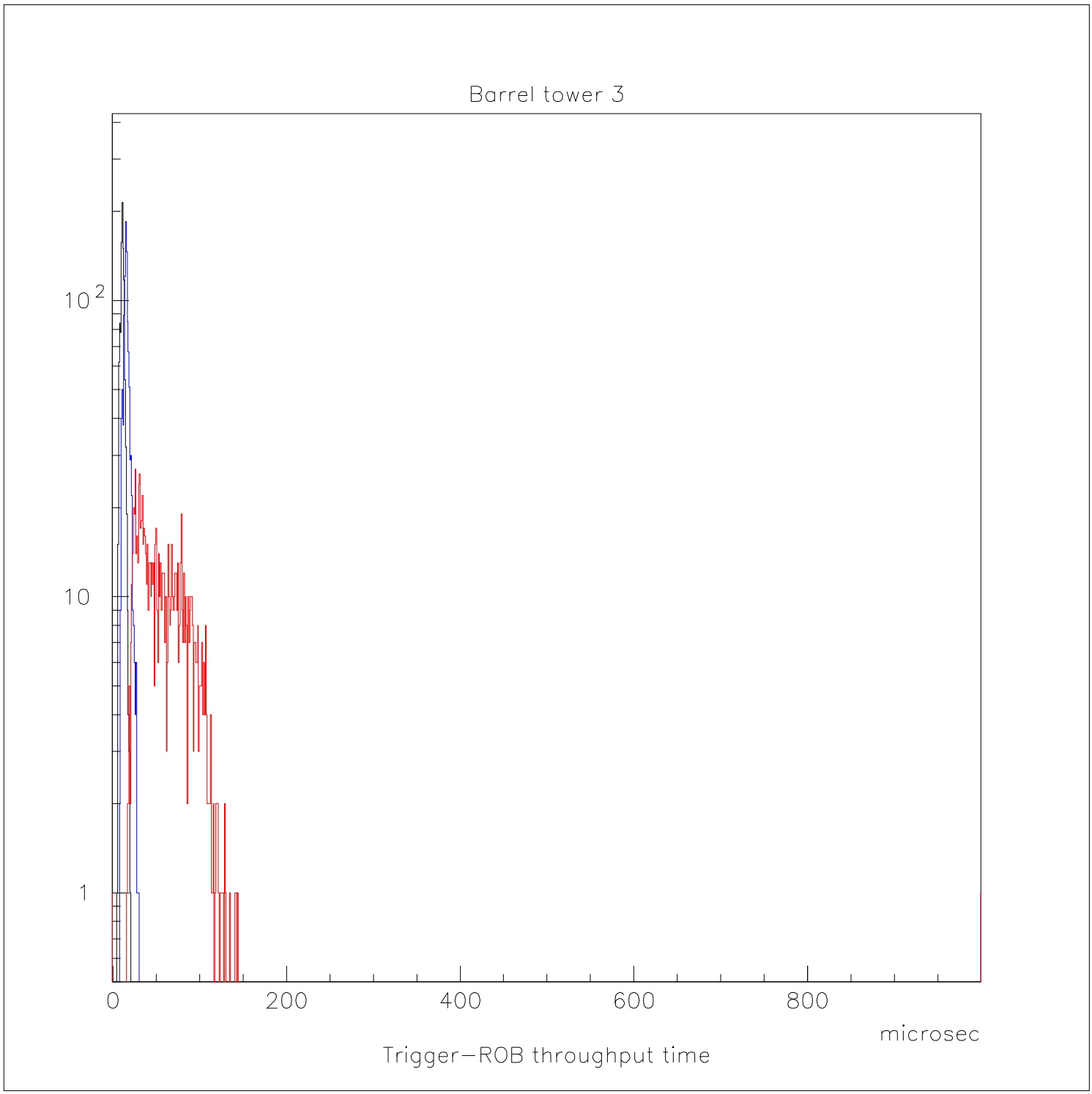

Barrel tower 2
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

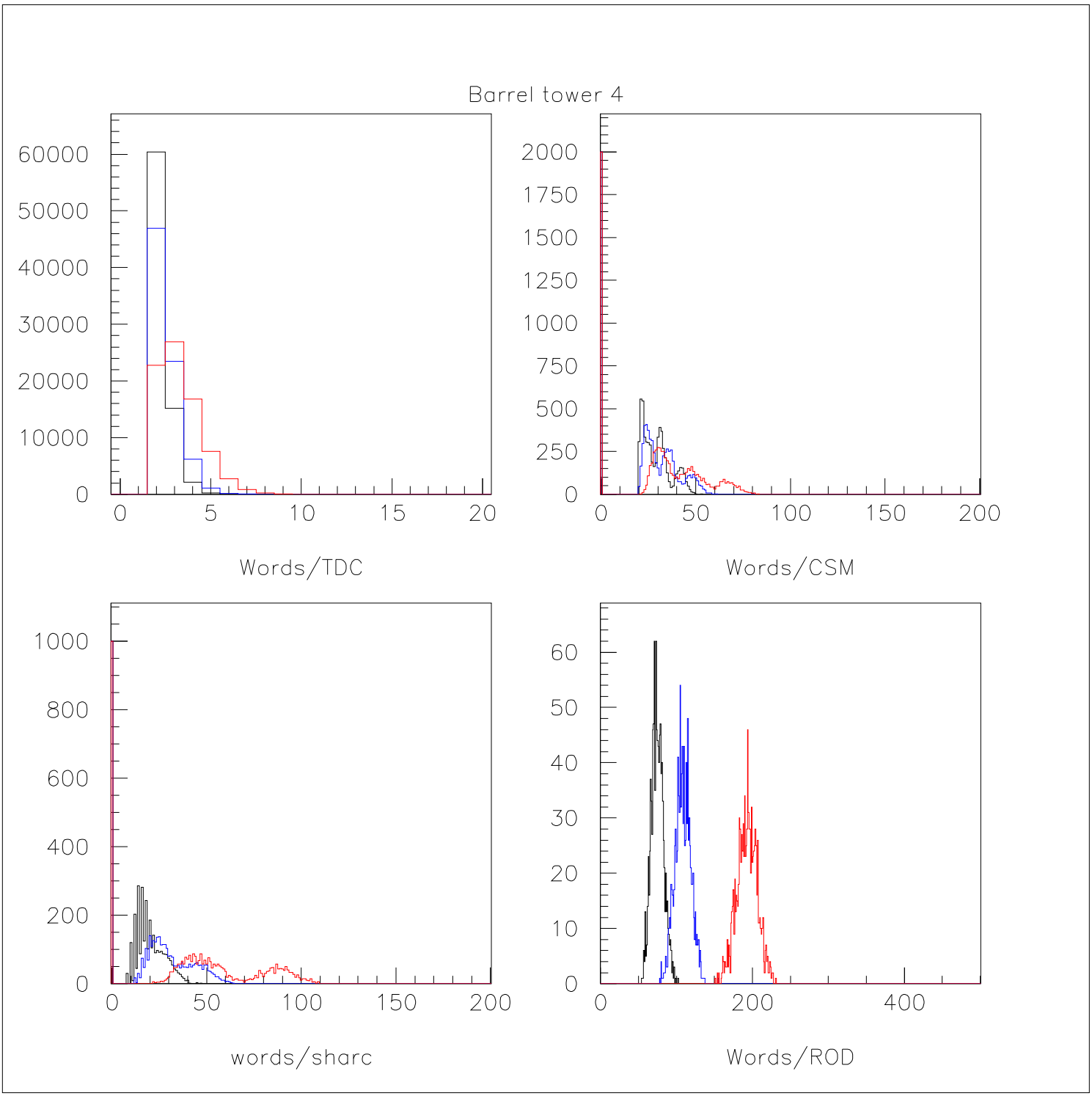

Barrel tower 3
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

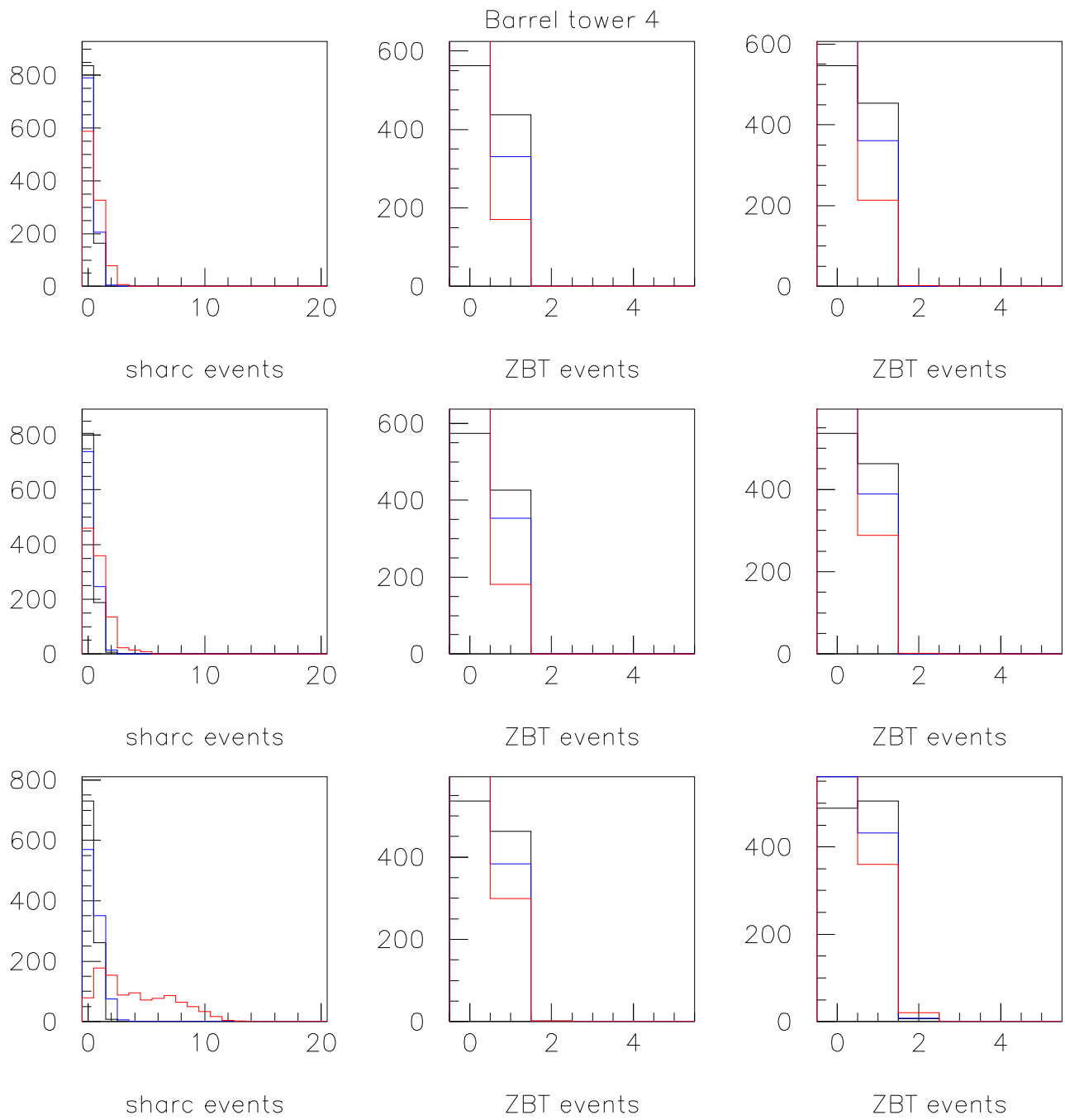

Barrel tower 3
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events

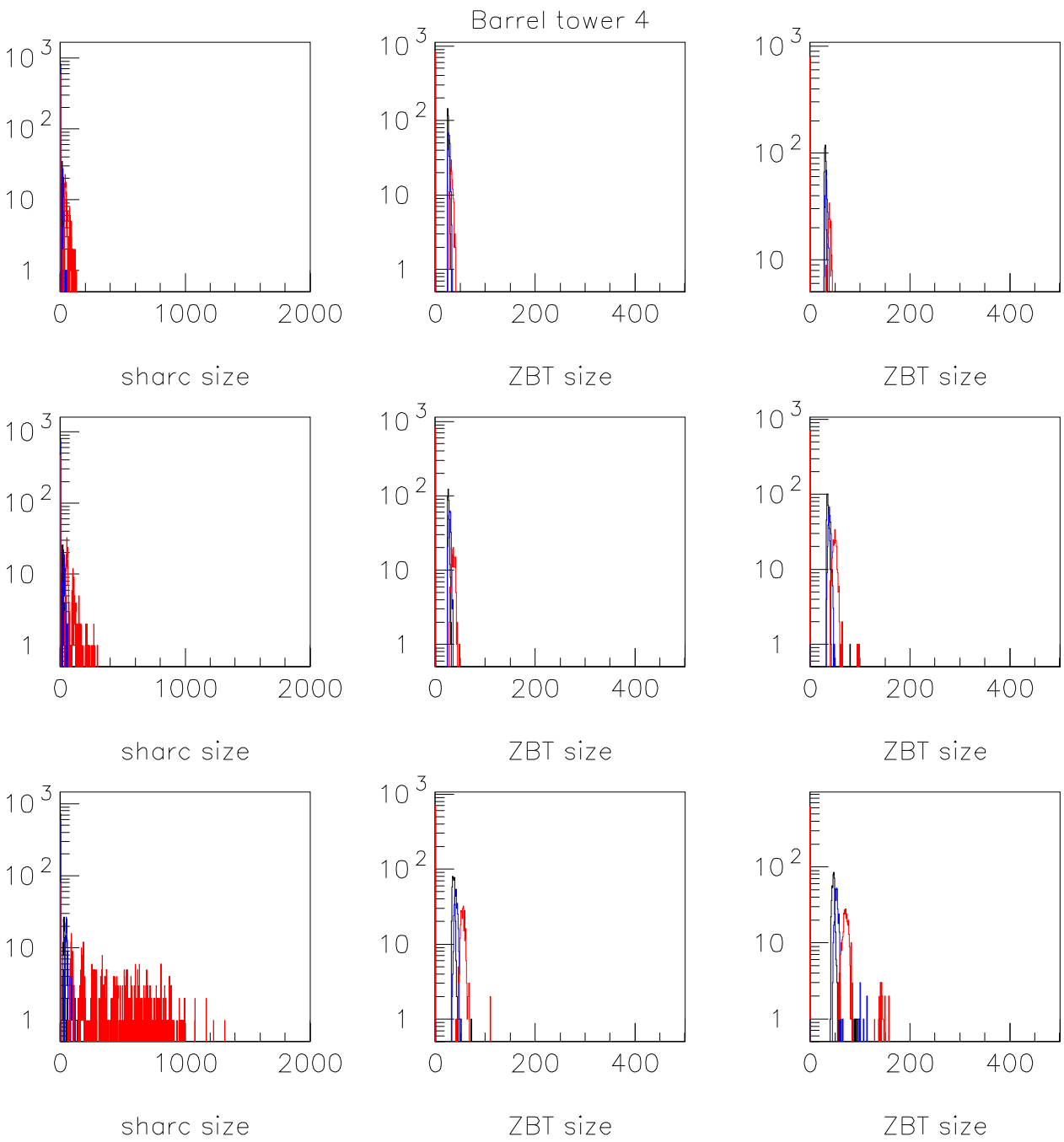

Barrel tower 3
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

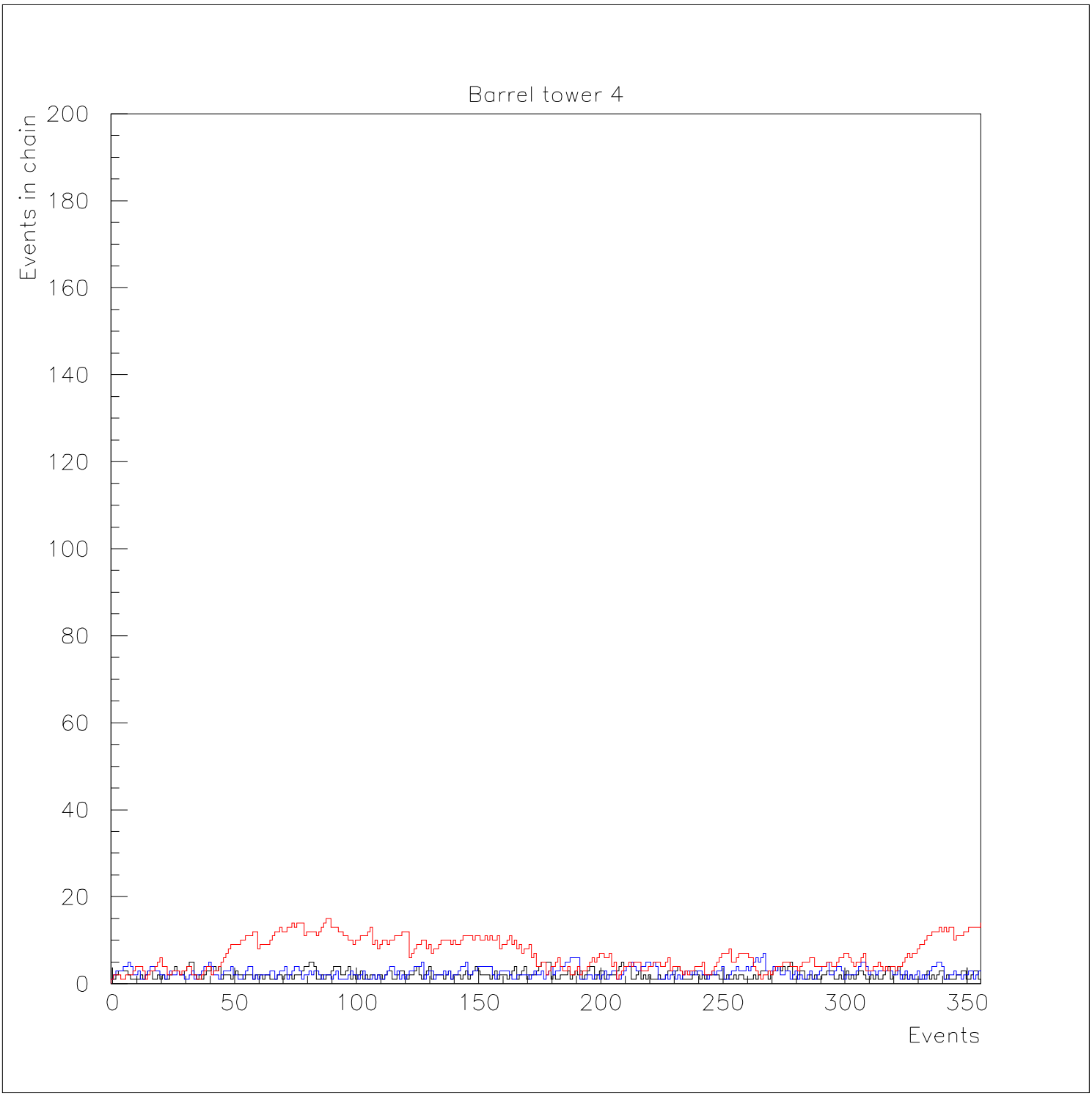

Barrel tower 3
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

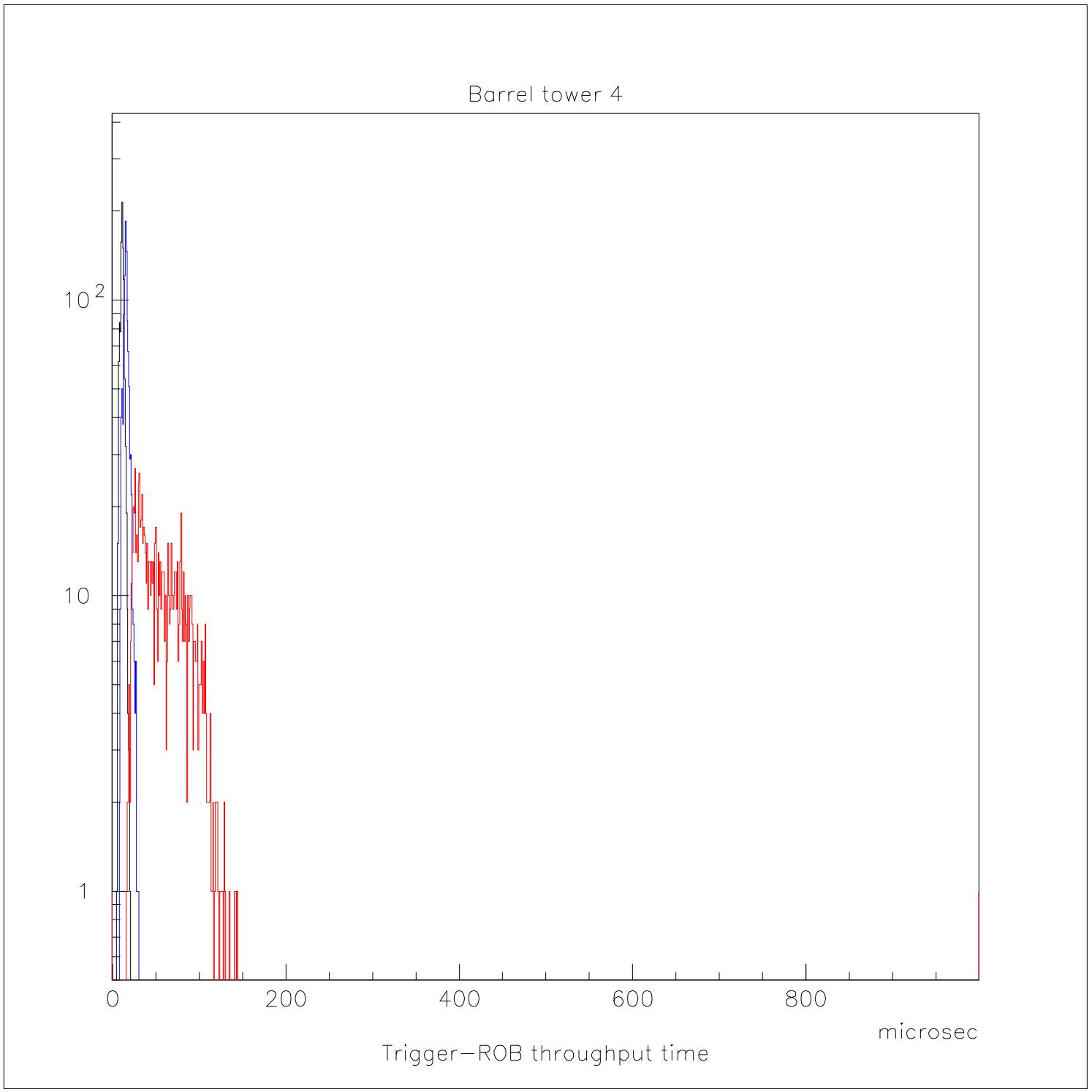

Barrel tower 3
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

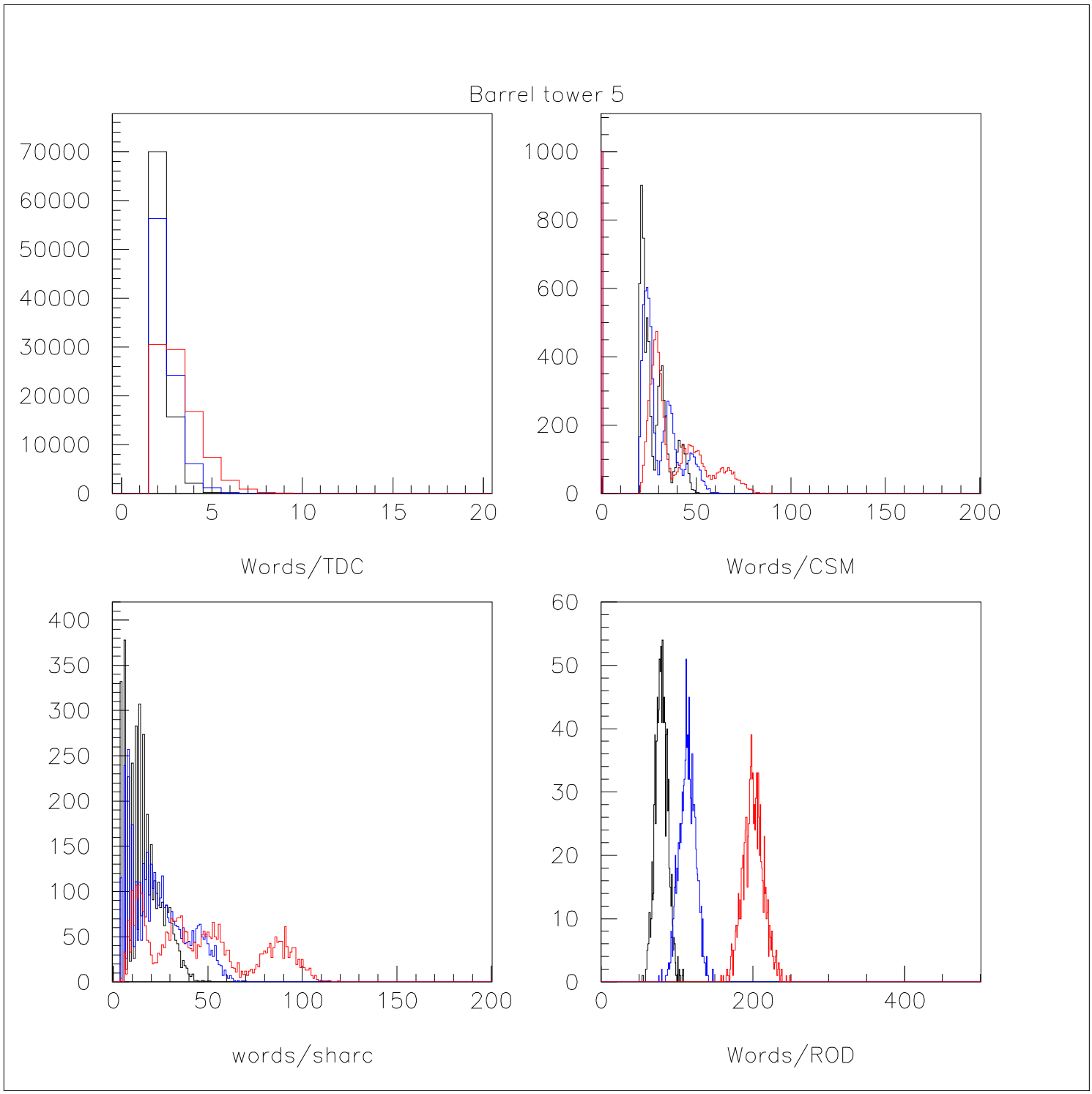

Barrel tower 4
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

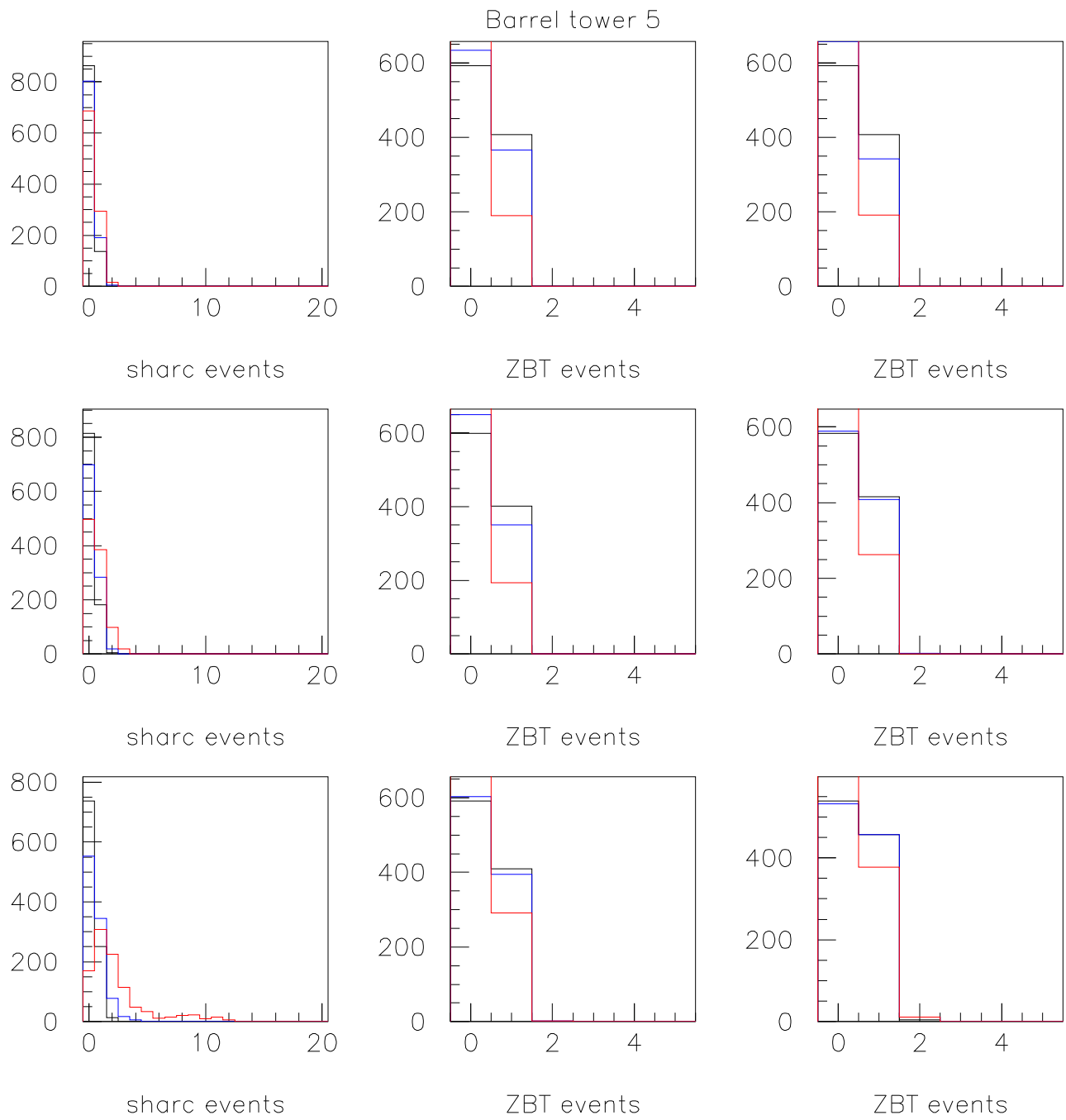

Barrel tower 4
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events

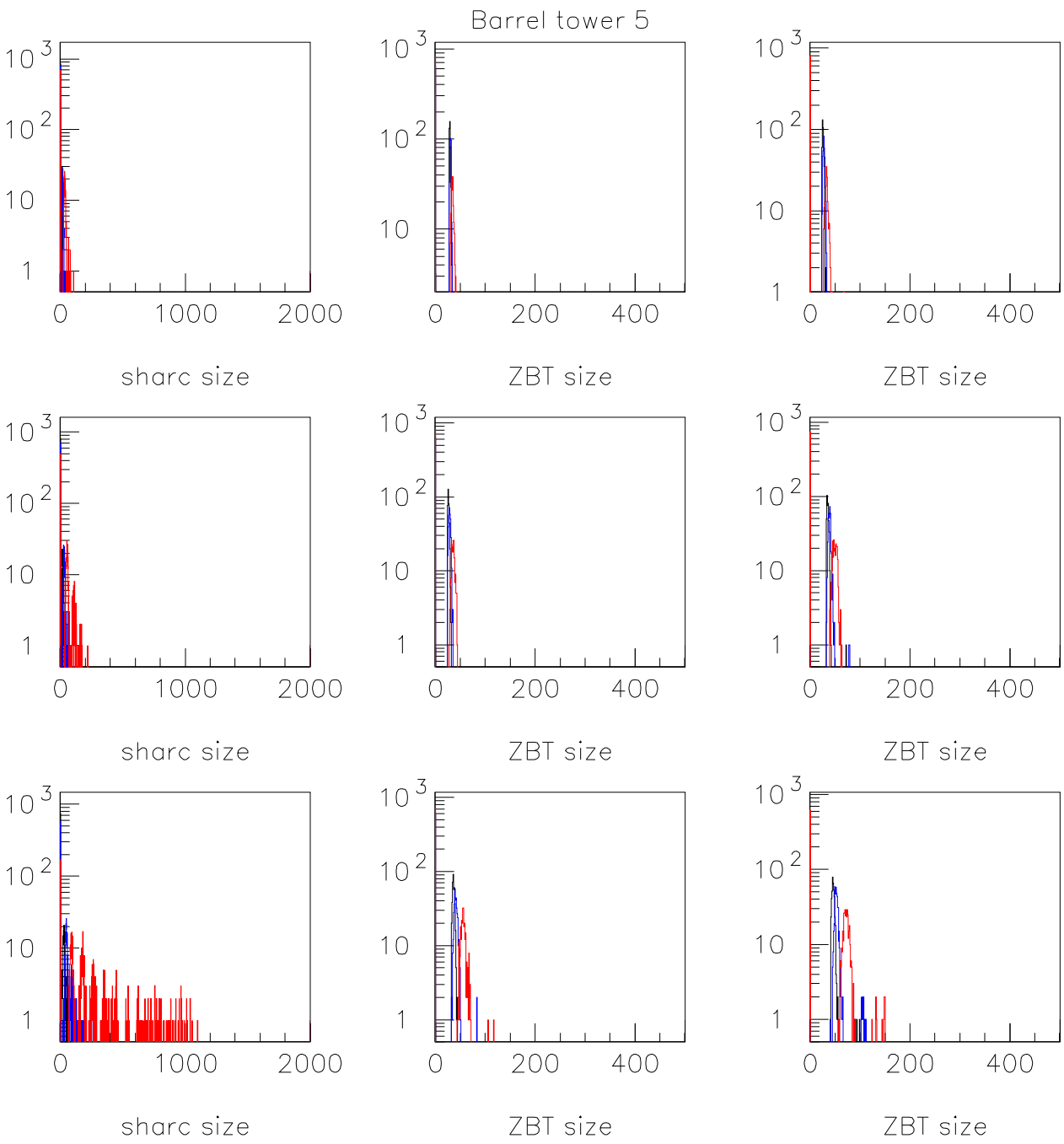

Barrel tower 4
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

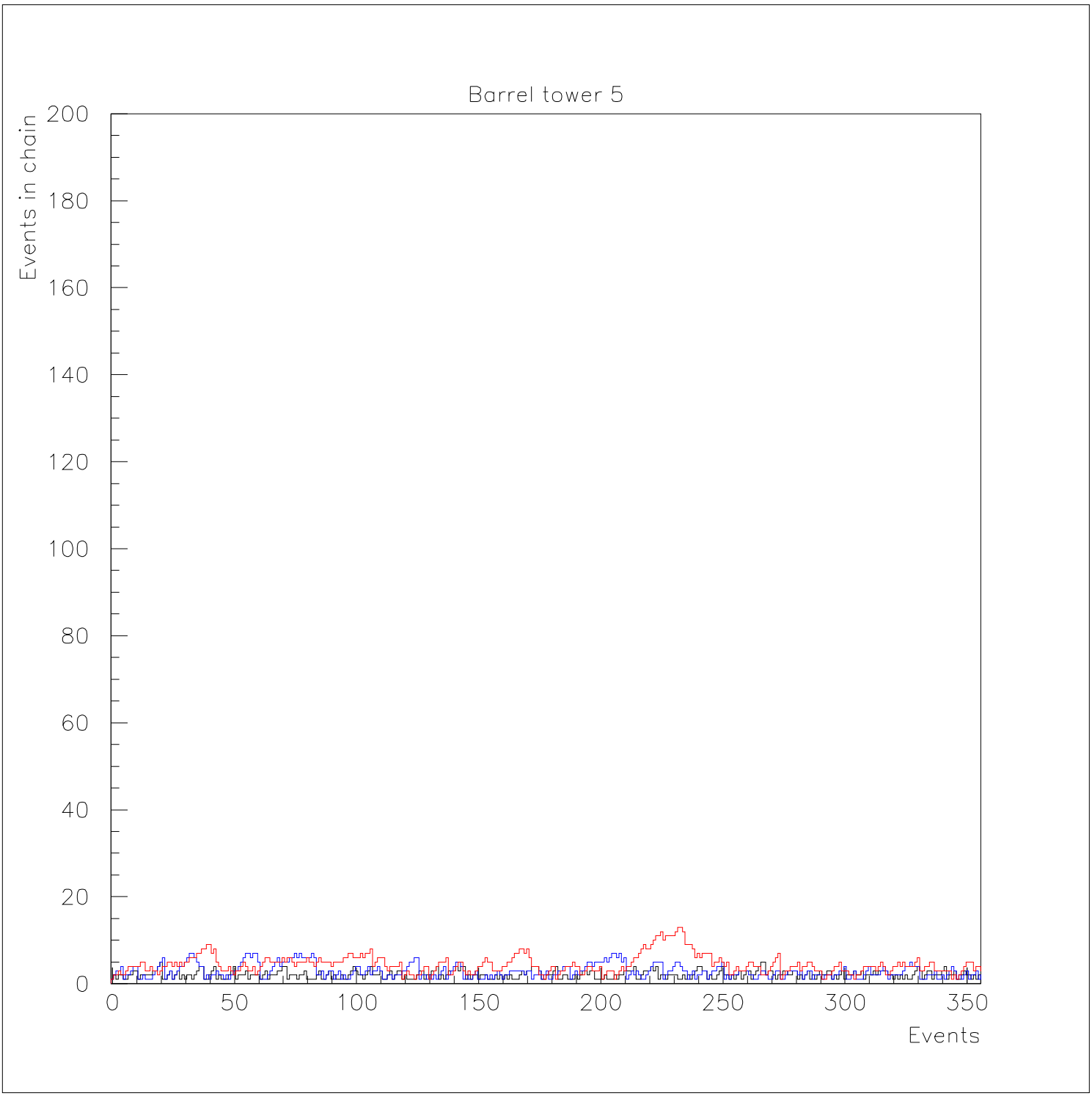

Barrel tower 4
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

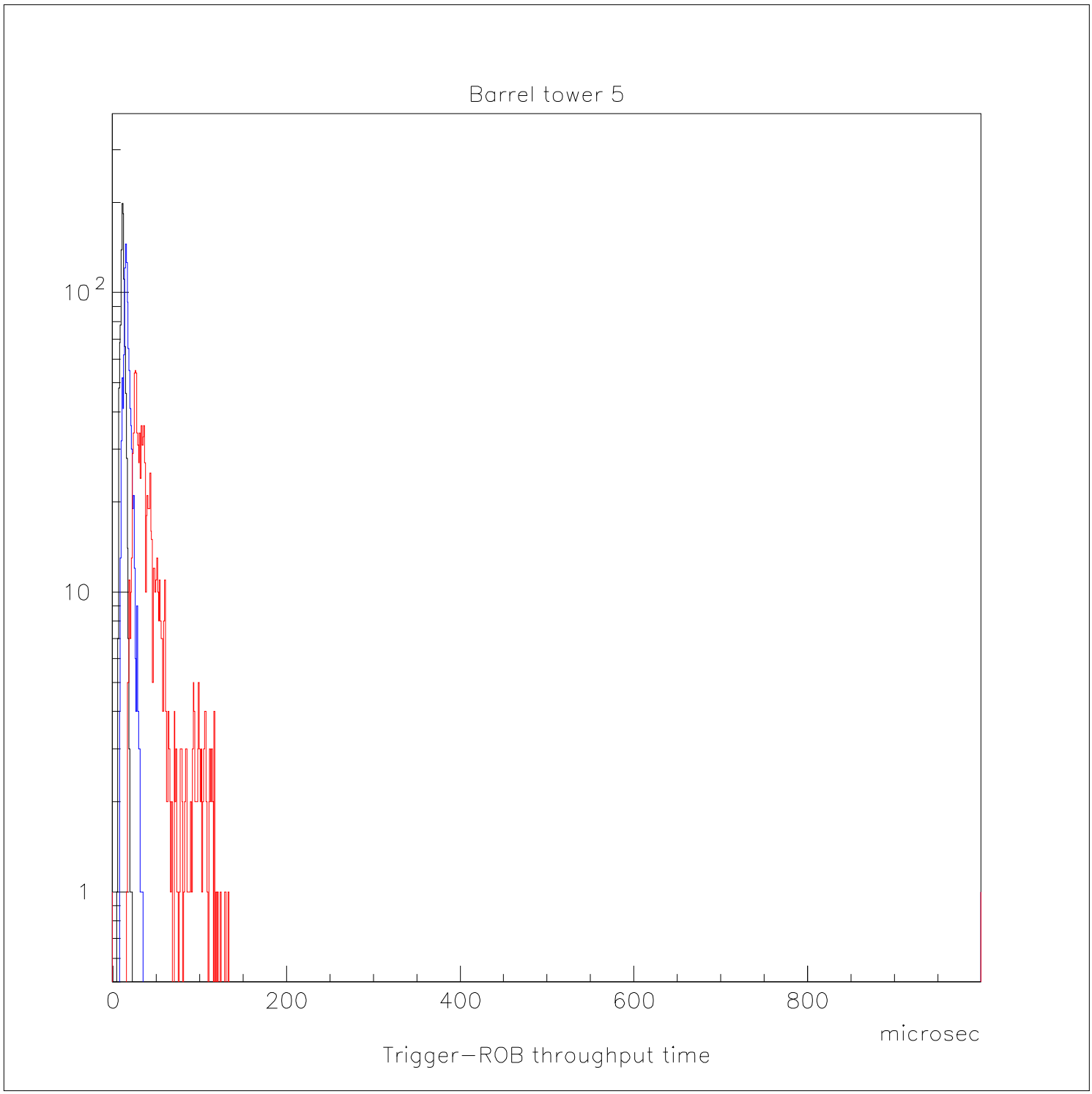

Barrel tower 4
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

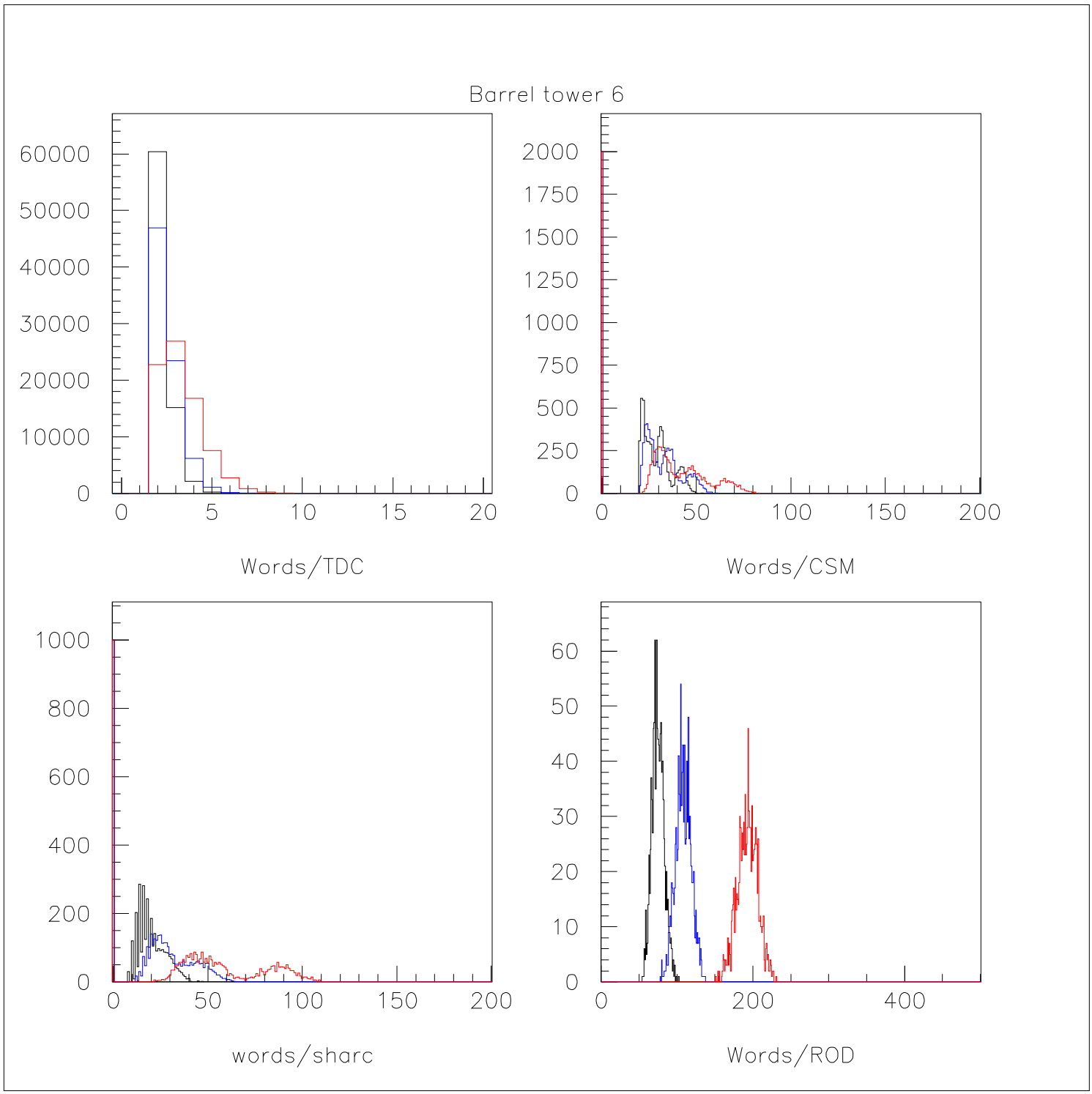

Barrel tower 5
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
1000
800
600
400
200
0
0
50
100
150
200
Words/CSM
400
350
300
250
200
150
100
50
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

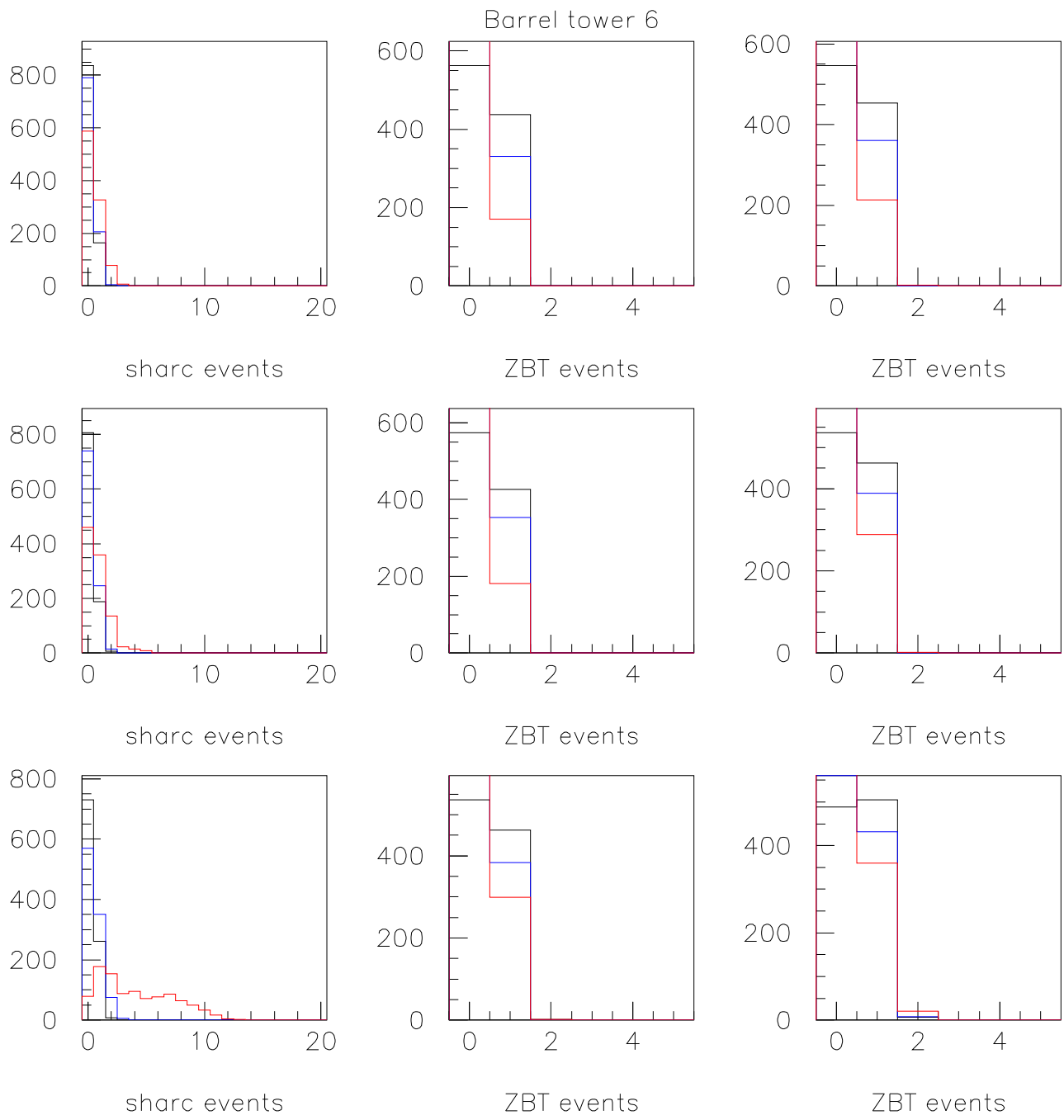

Barrel tower 5
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events

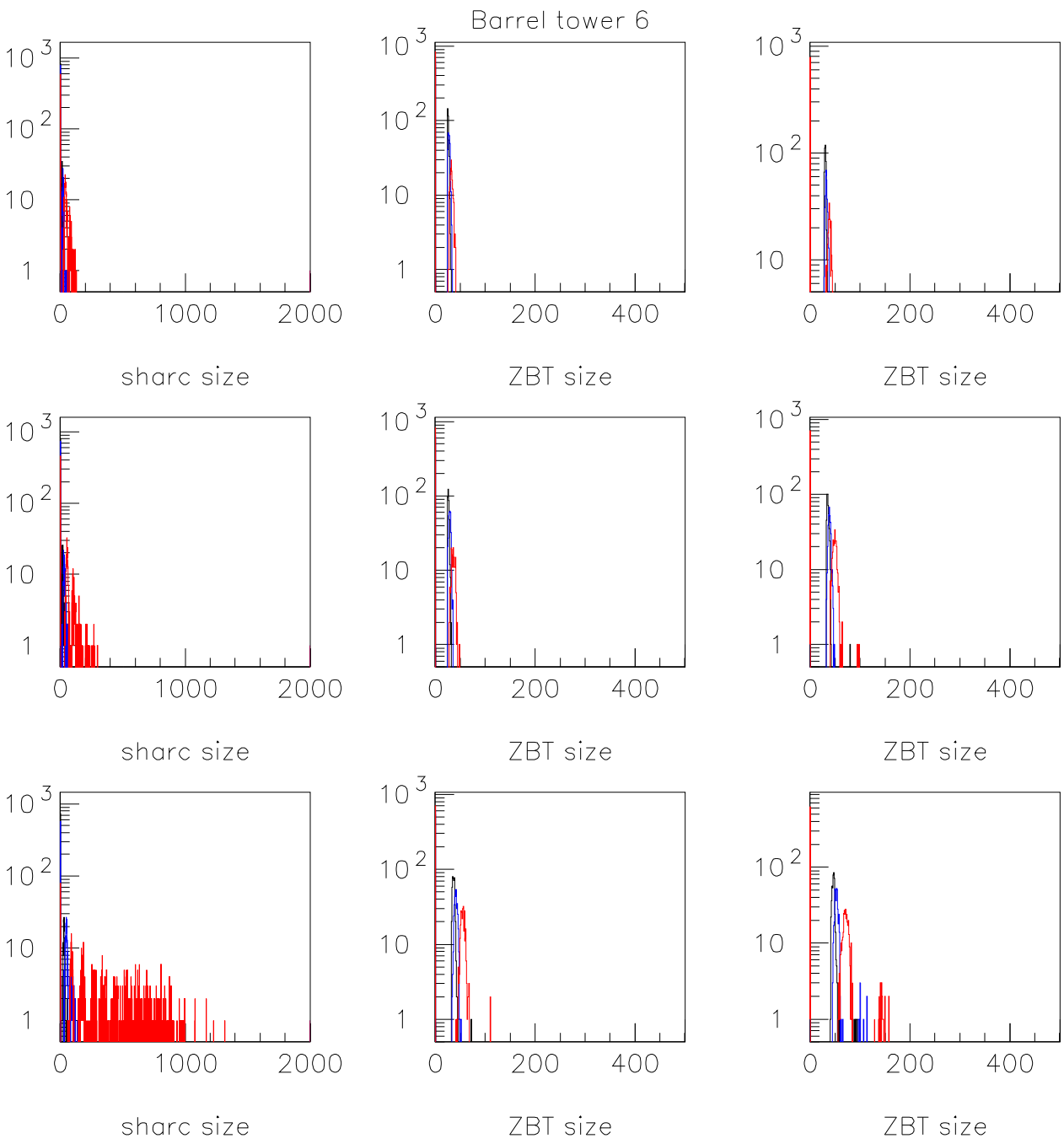

Barrel tower 5
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

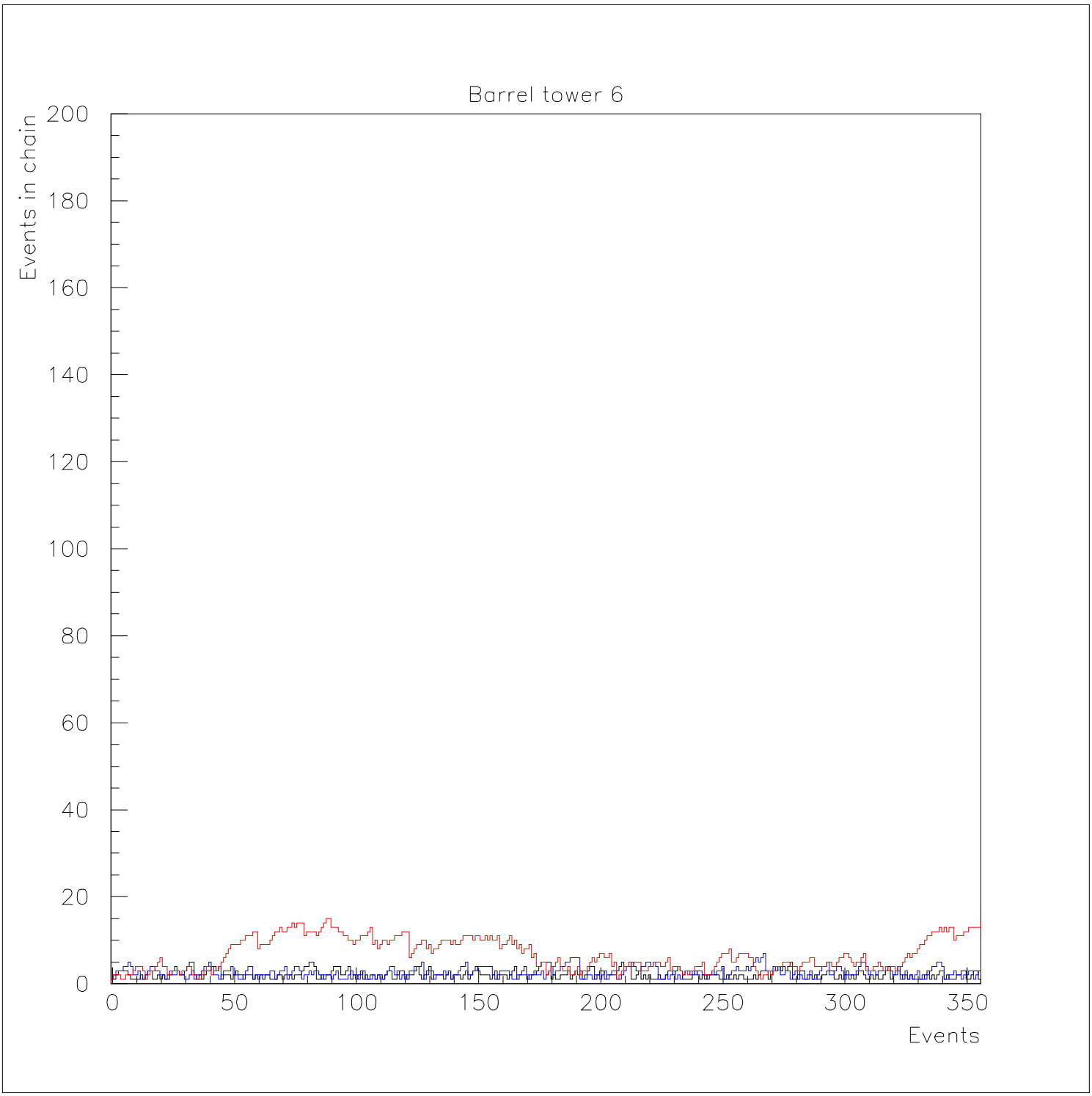

Barrel tower 5
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

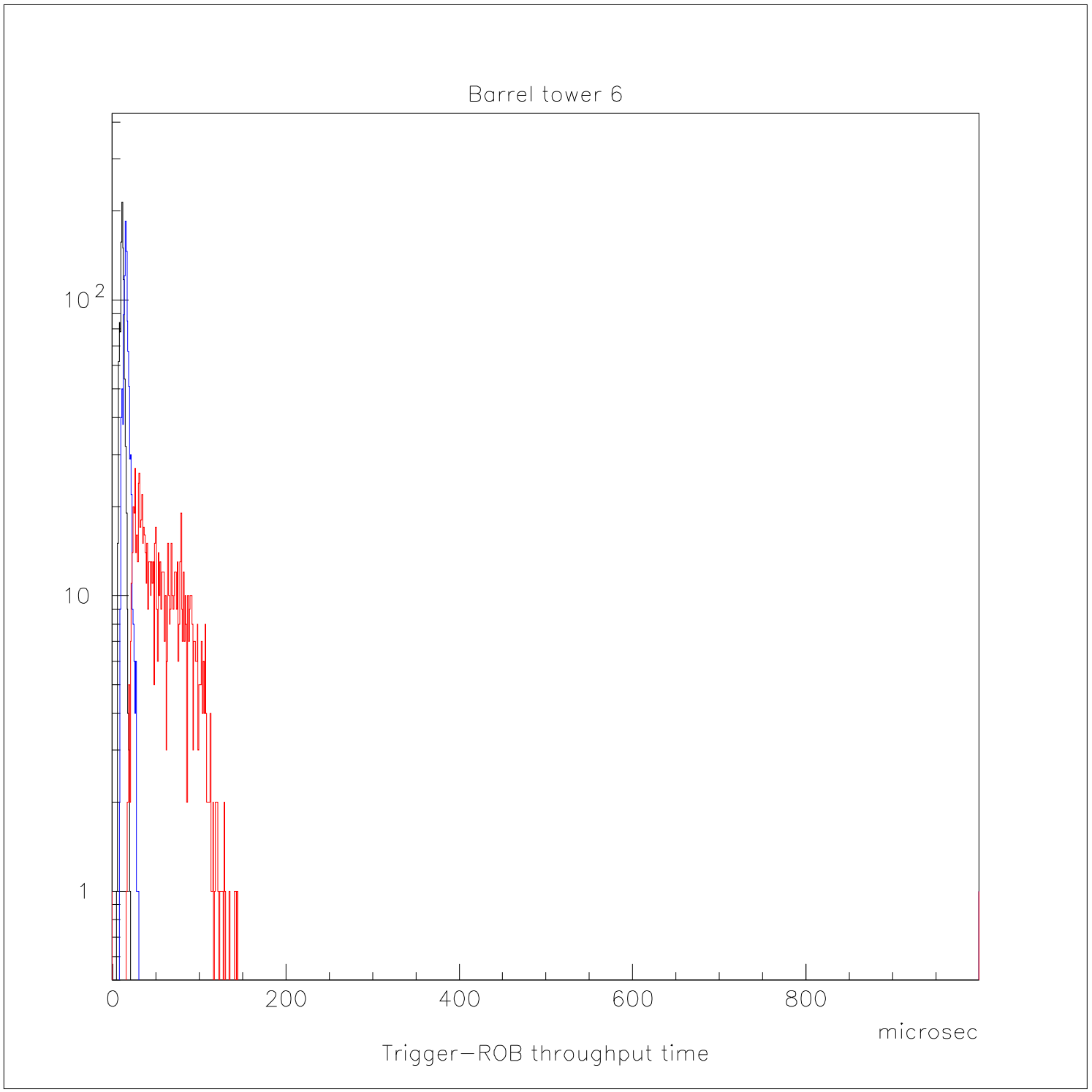

Barrel tower 5
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

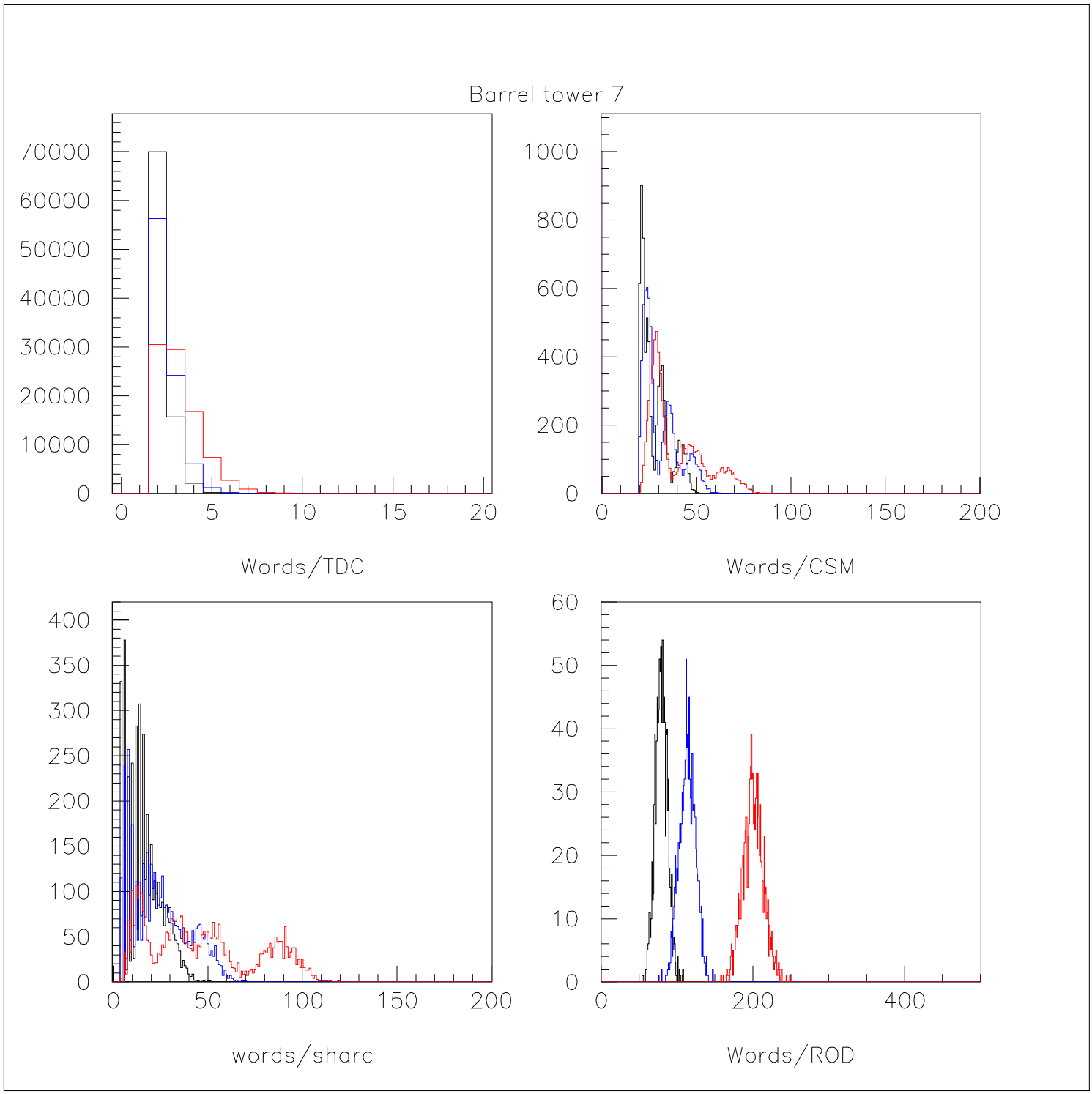

Barrel tower 6
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

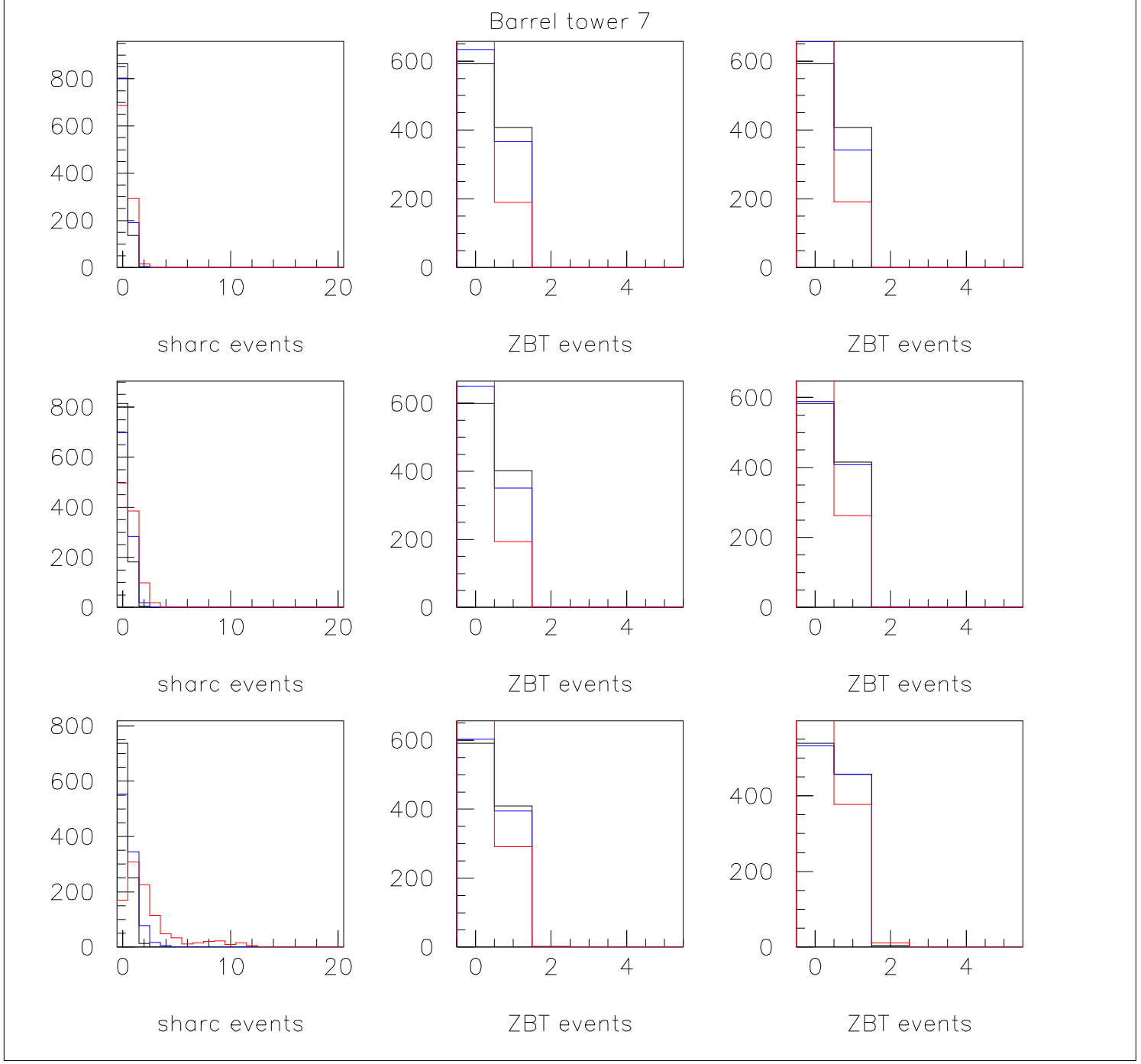

Barrel tower 6
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events

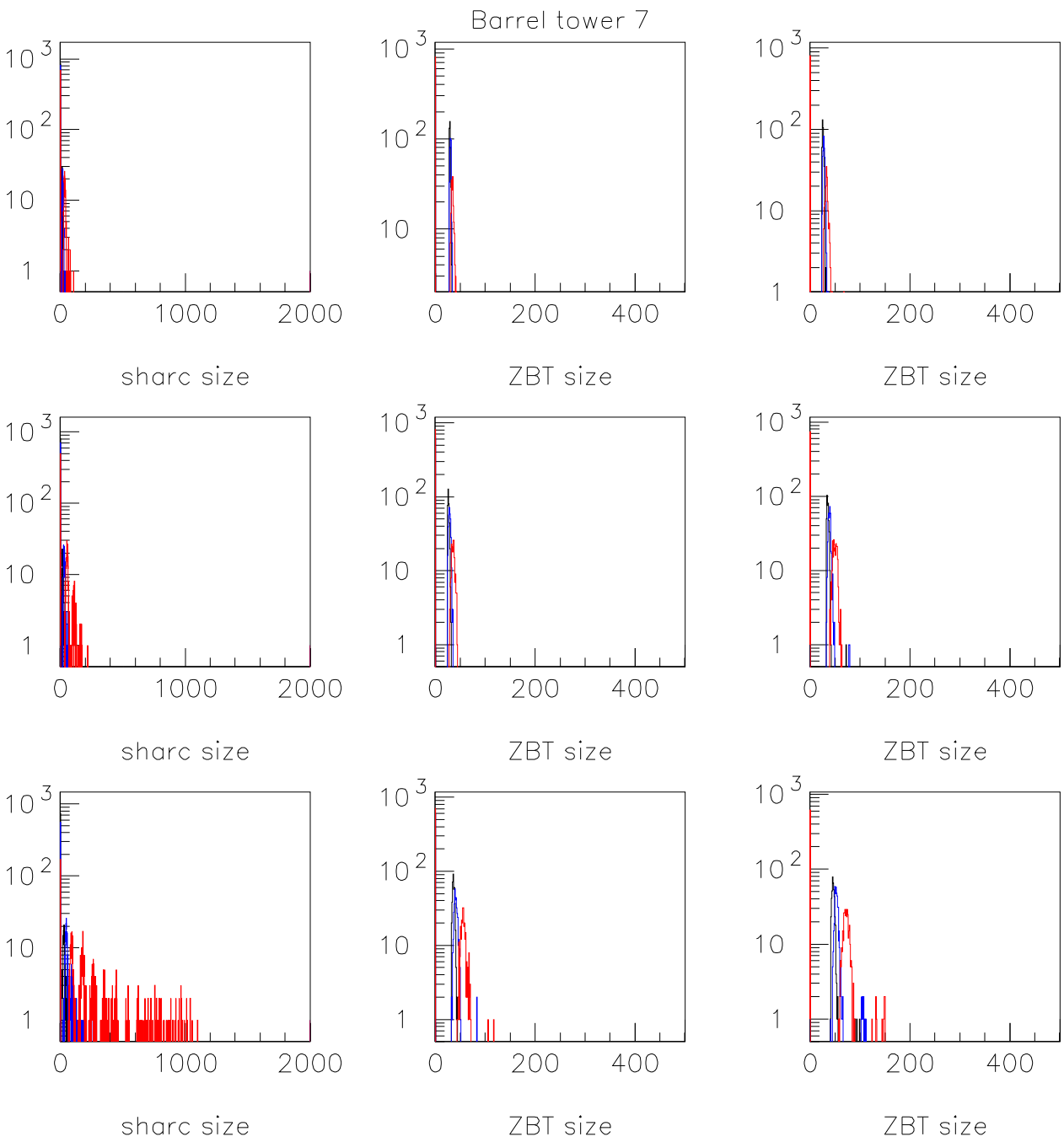

Barrel tower 6
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

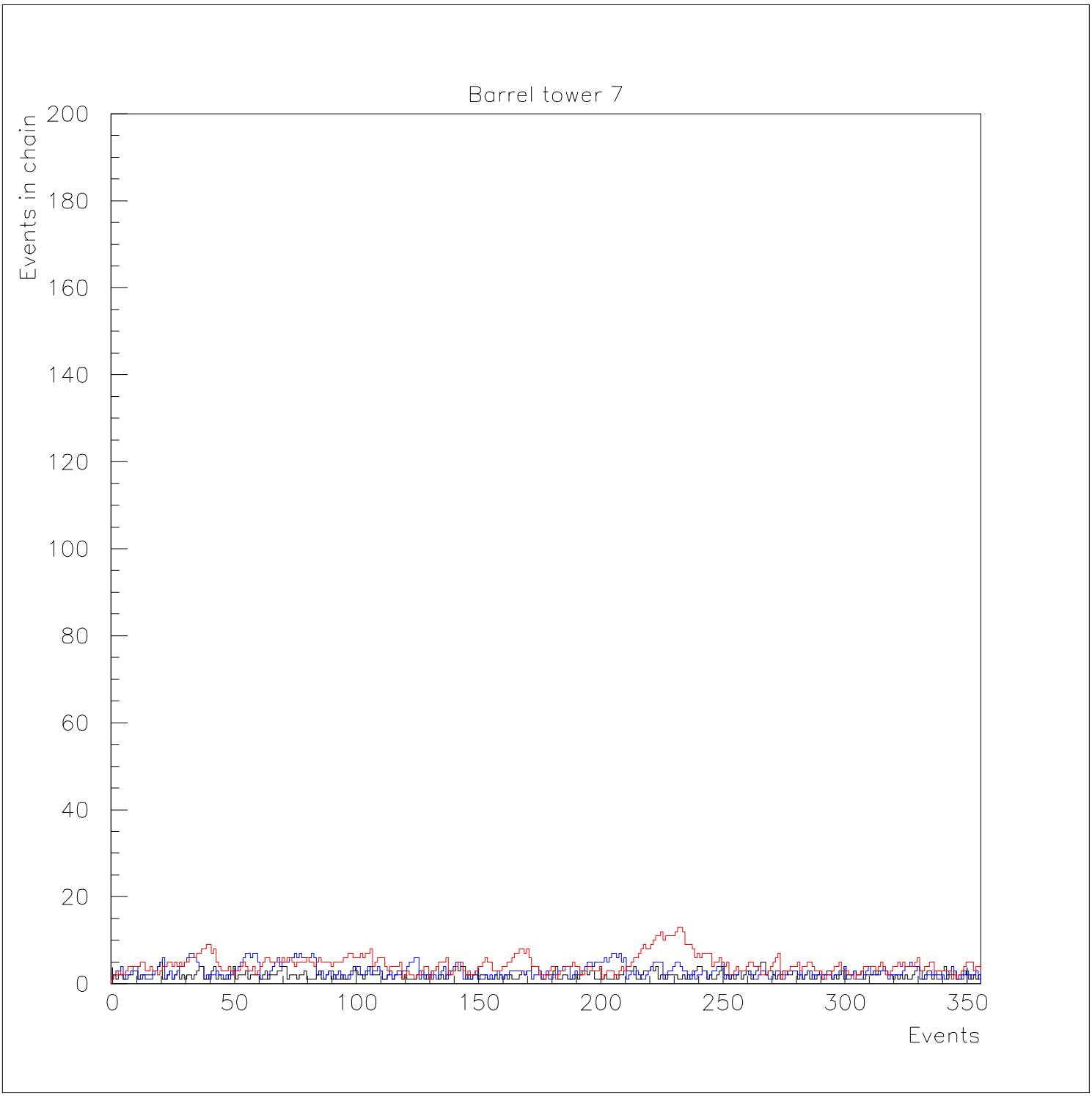

Barrel tower 6
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

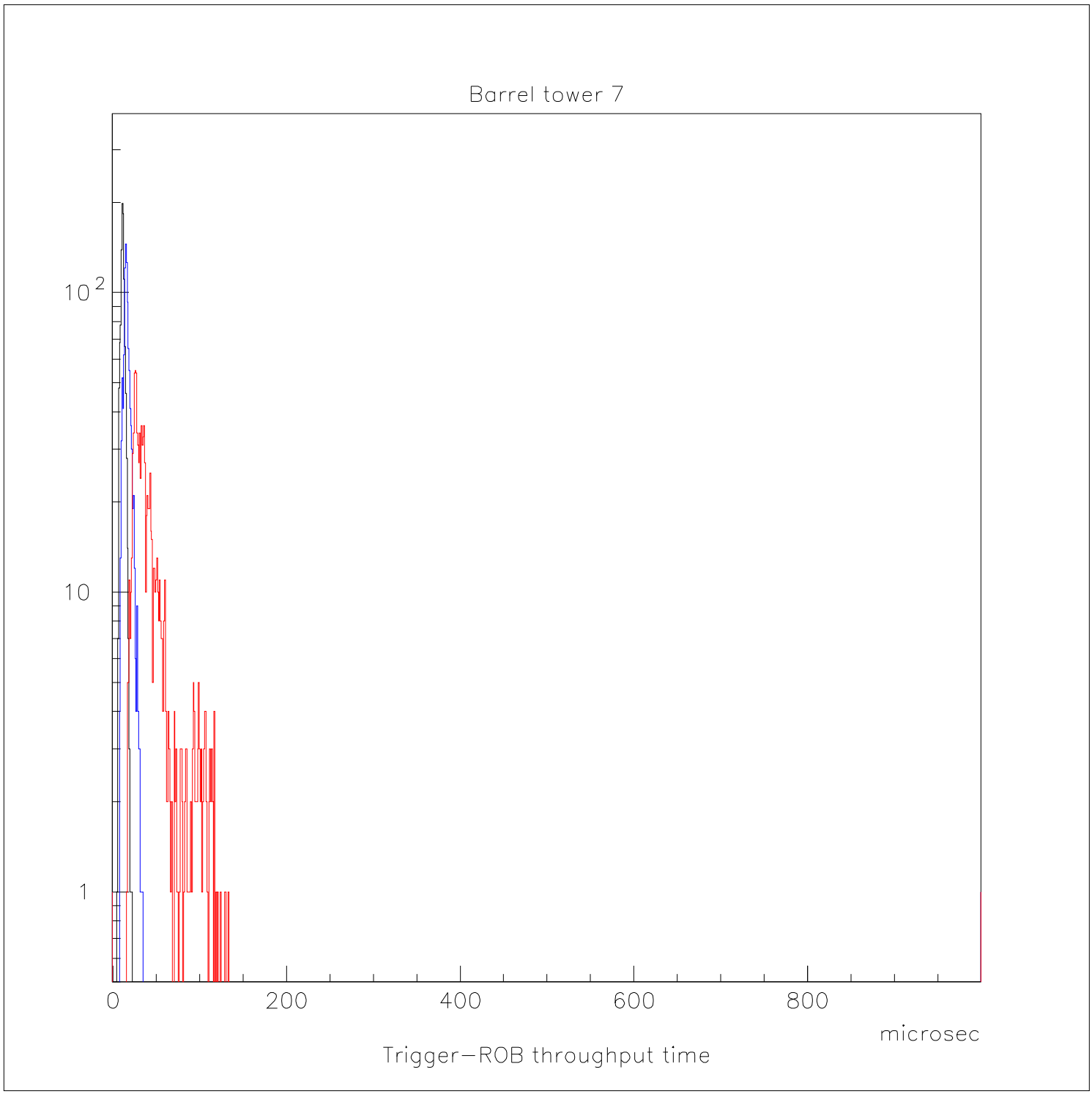

Barrel tower 6
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

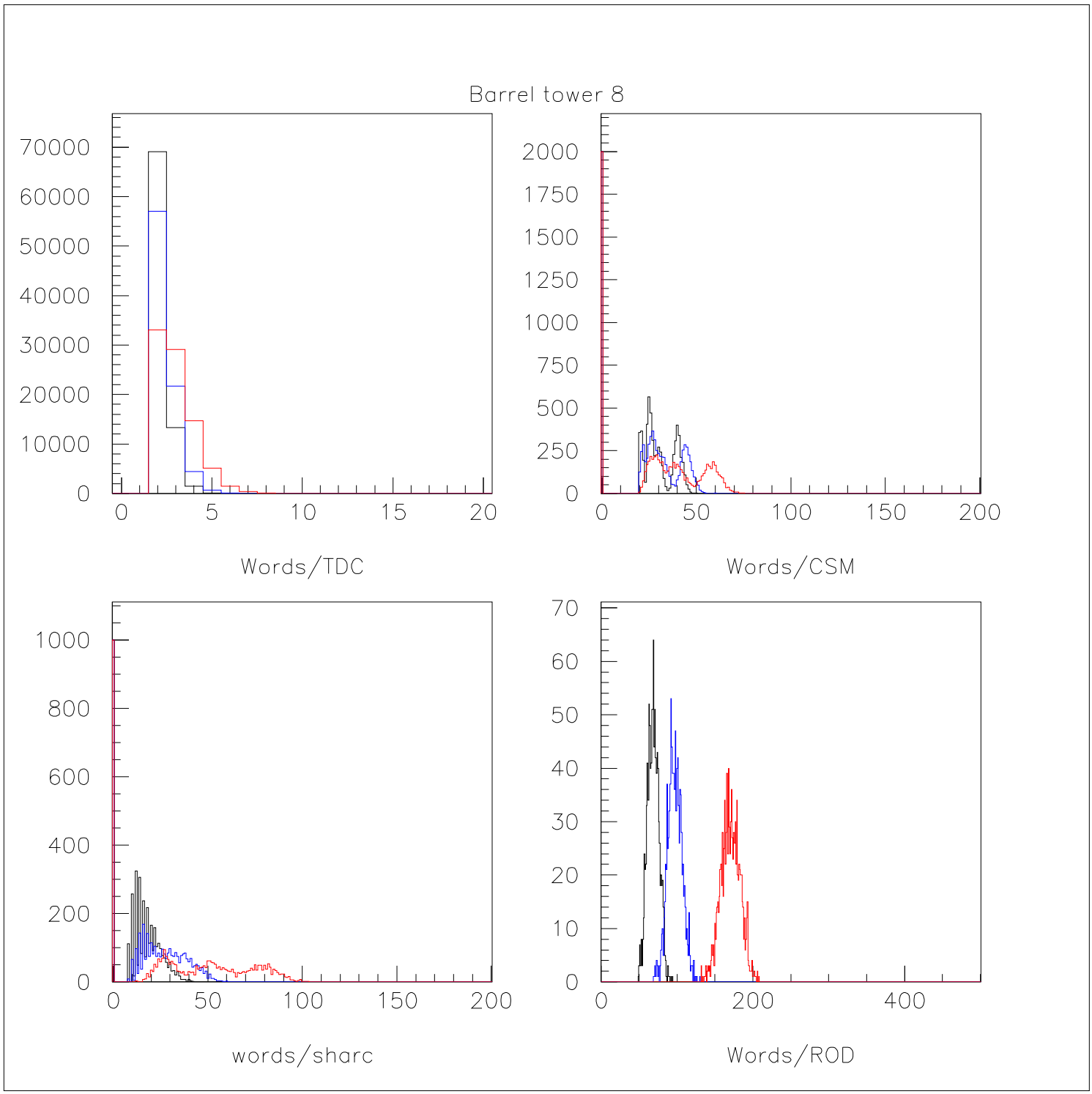

Barrel tower 7
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
1000
800
600
400
200
0
0
50
100
150
200
Words/CSM
400
350
300
250
200
150
100
50
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

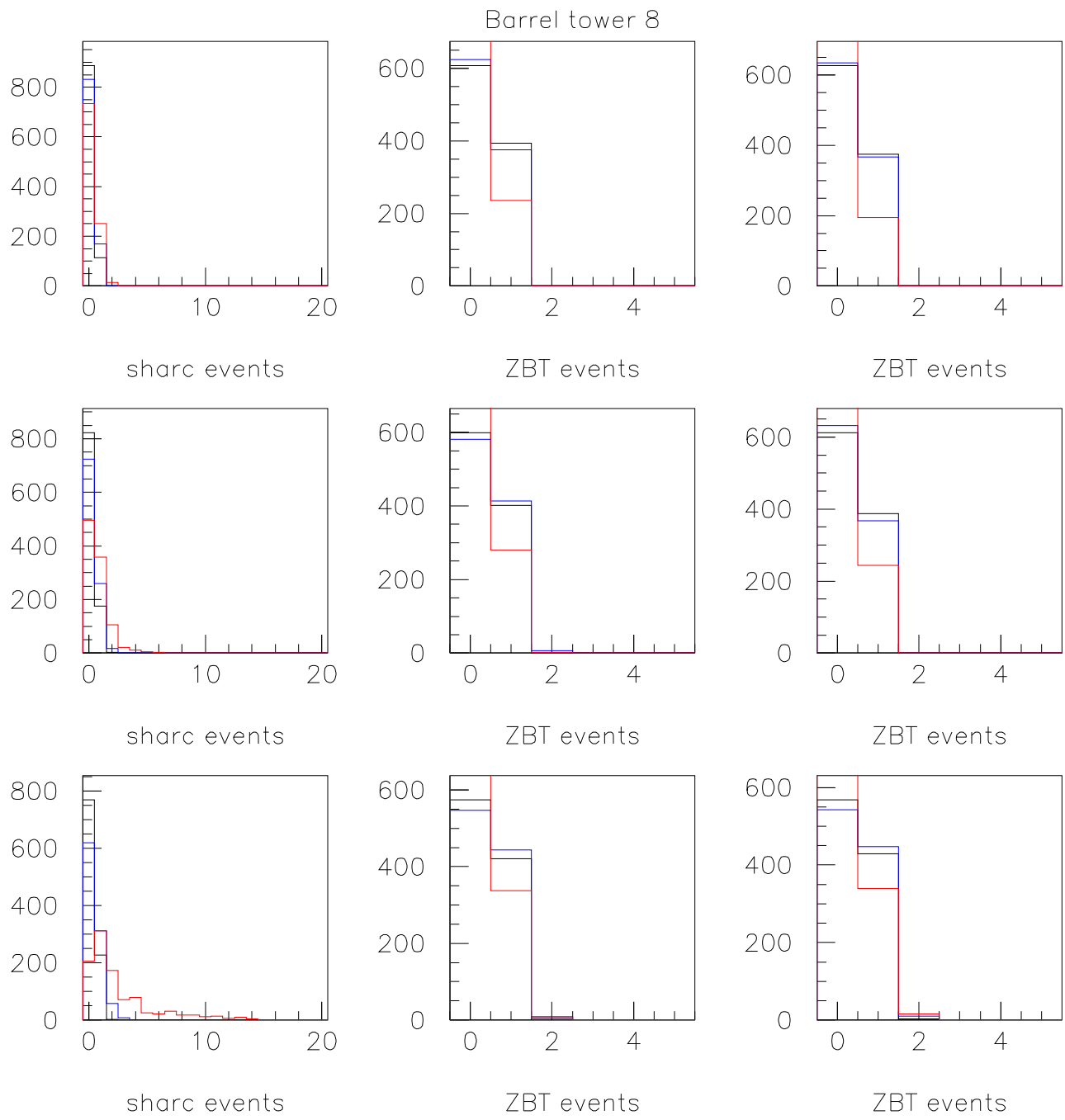

Barrel tower 7
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events

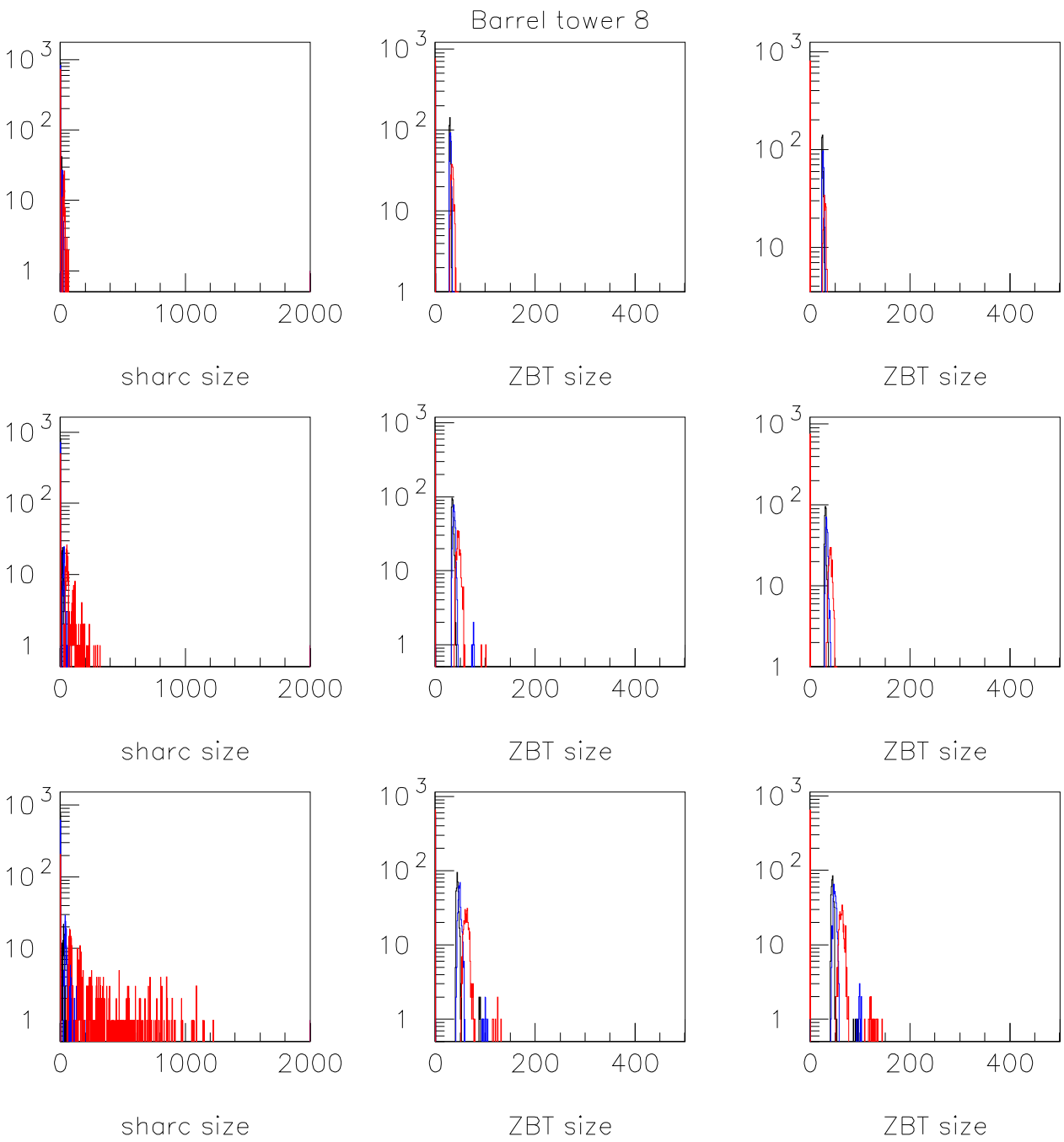

Barrel tower 7
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

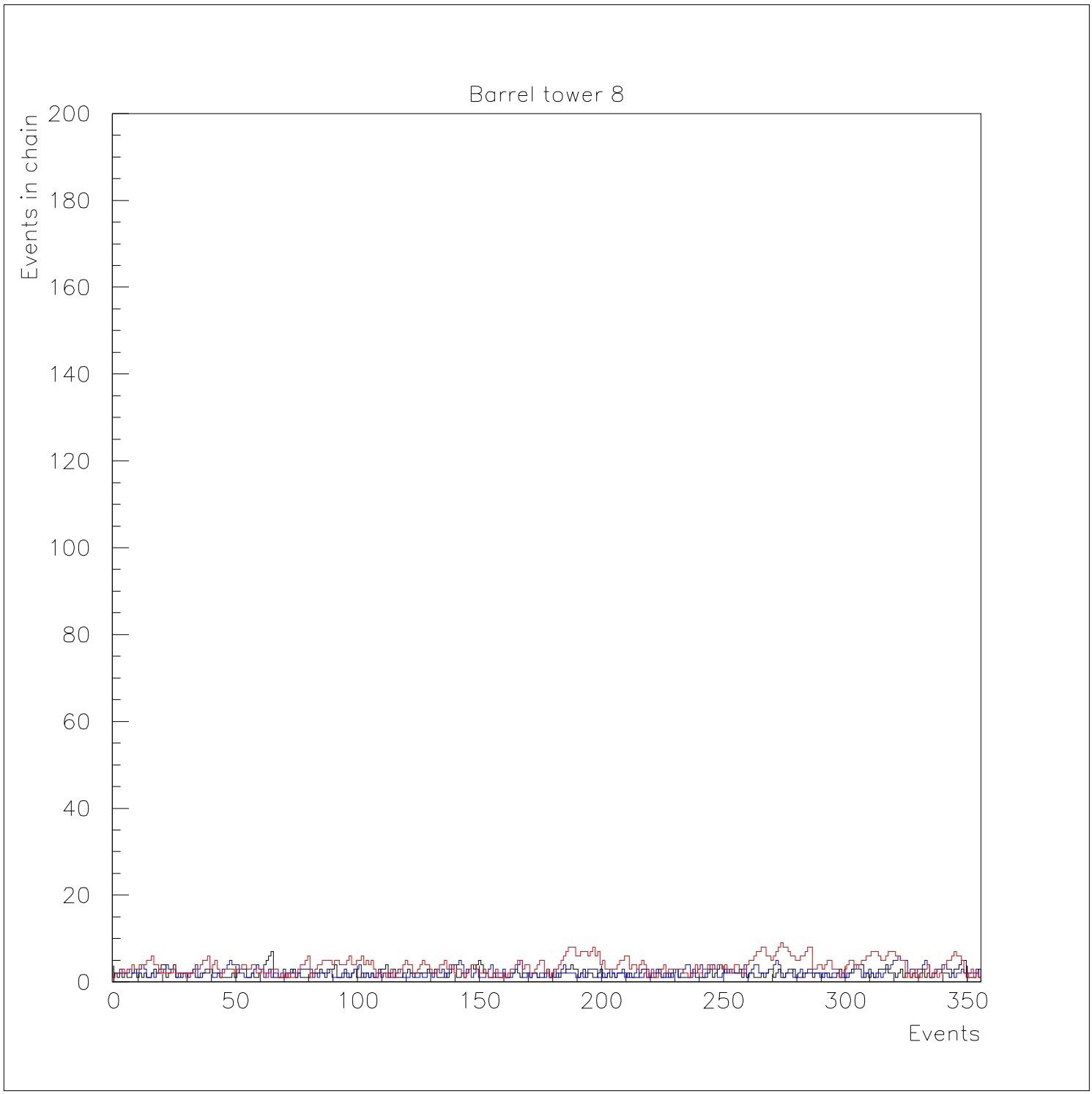

Barrel tower 7
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

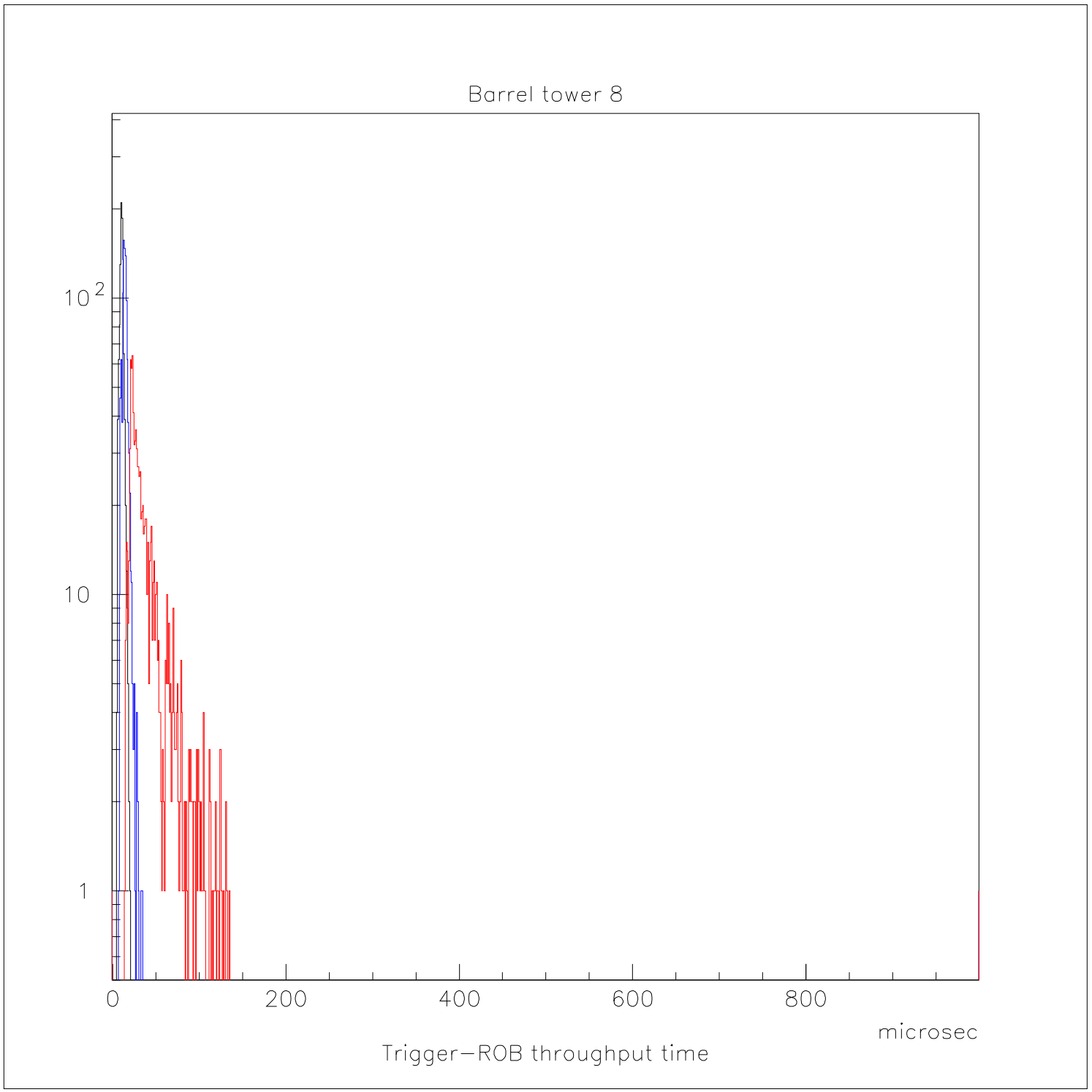

Barrel tower 7
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

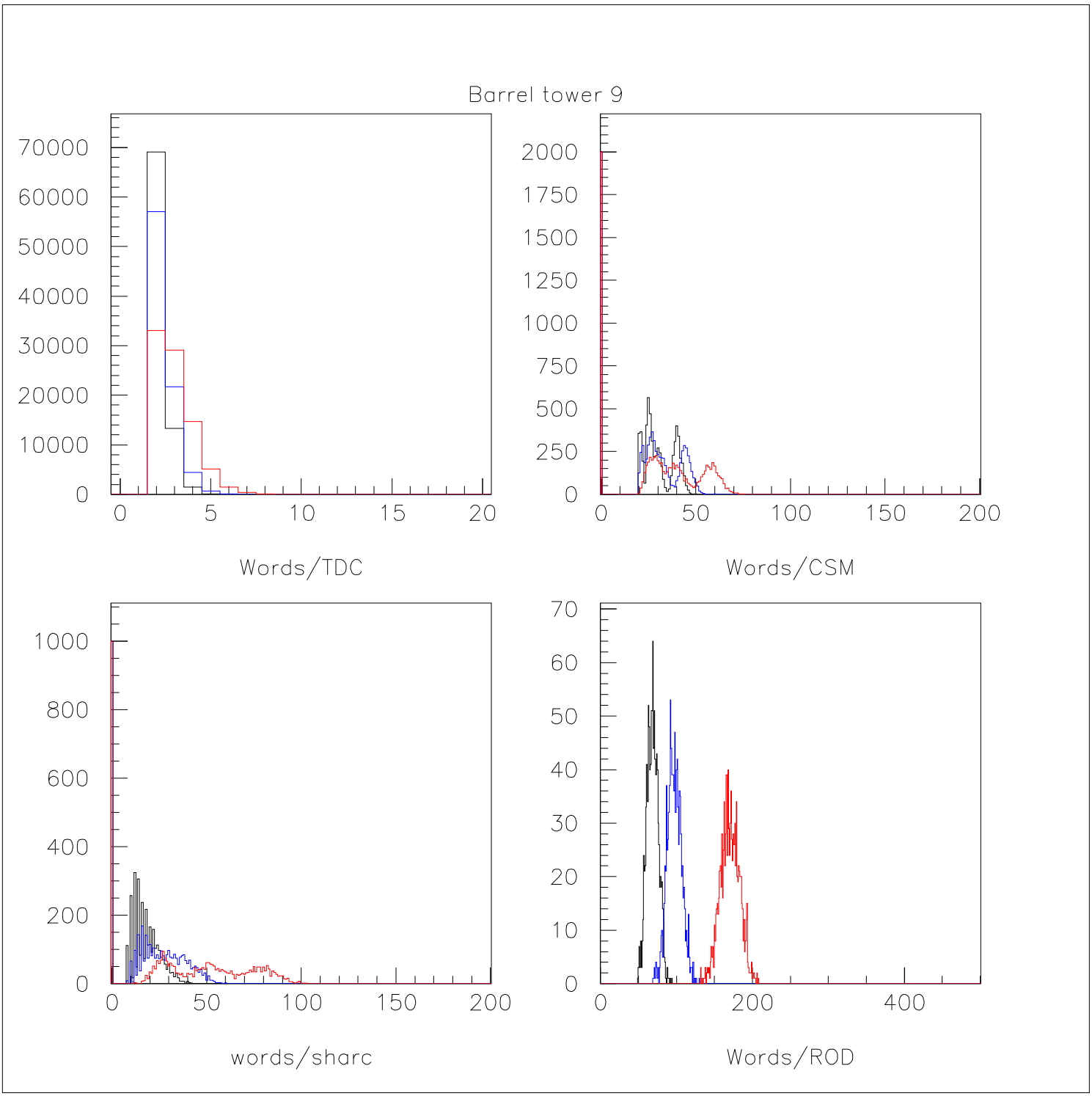

Barrel tower 8
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
70
60
50
40
30
20
10
0
0
200
400
Words/ROD

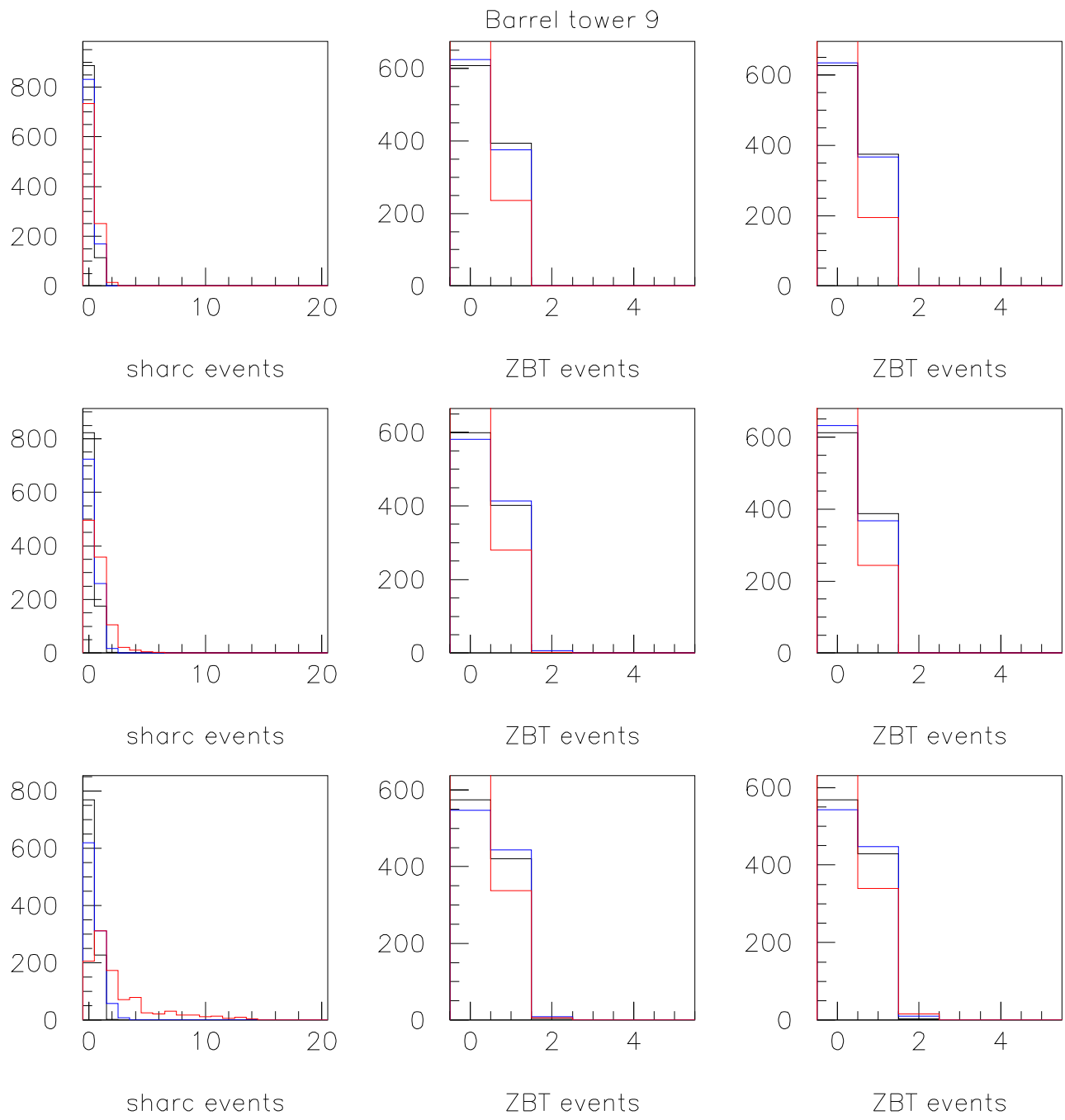

Barrel tower 8
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

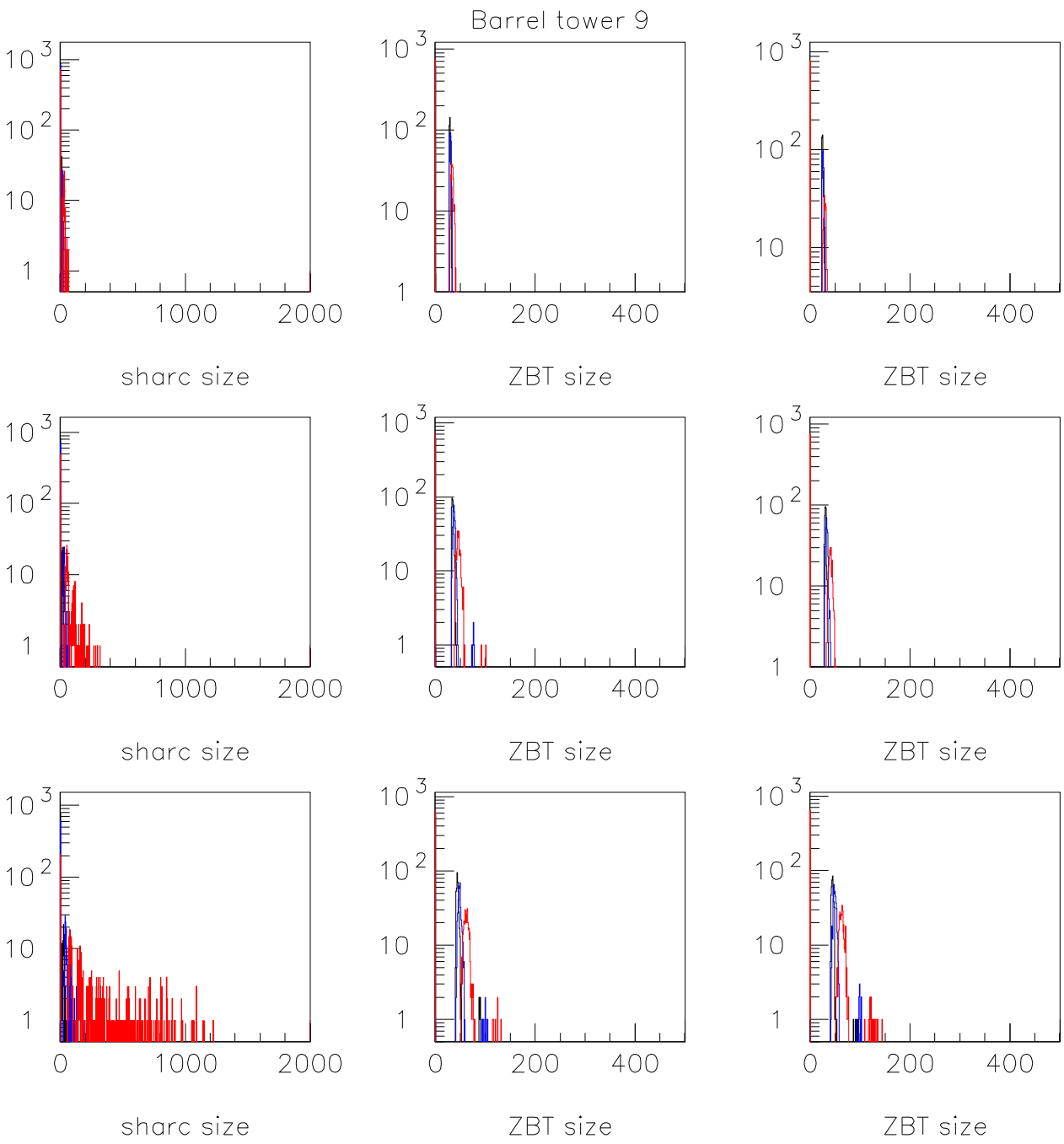

Barrel tower 8
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

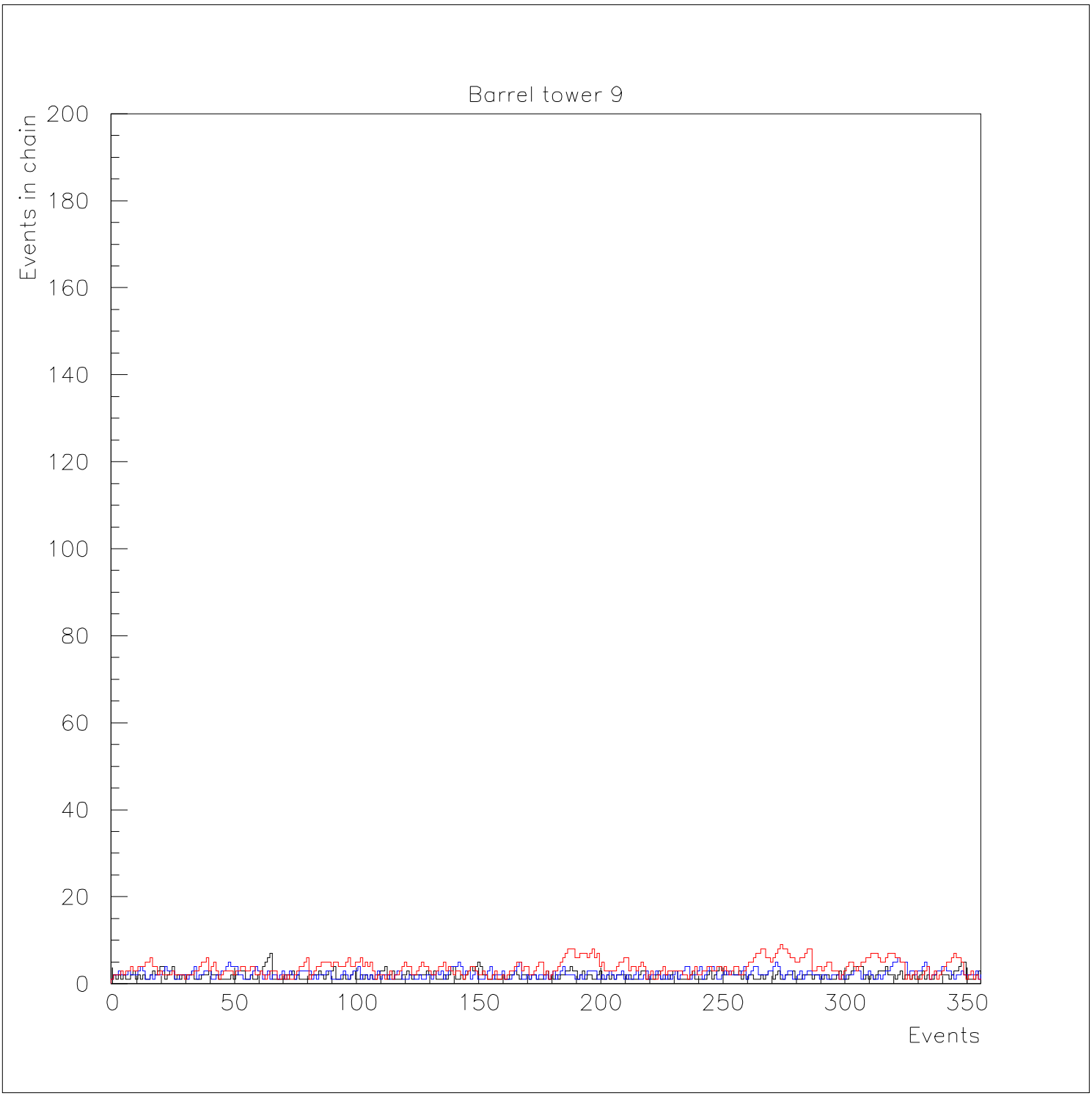

Barrel tower 8
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

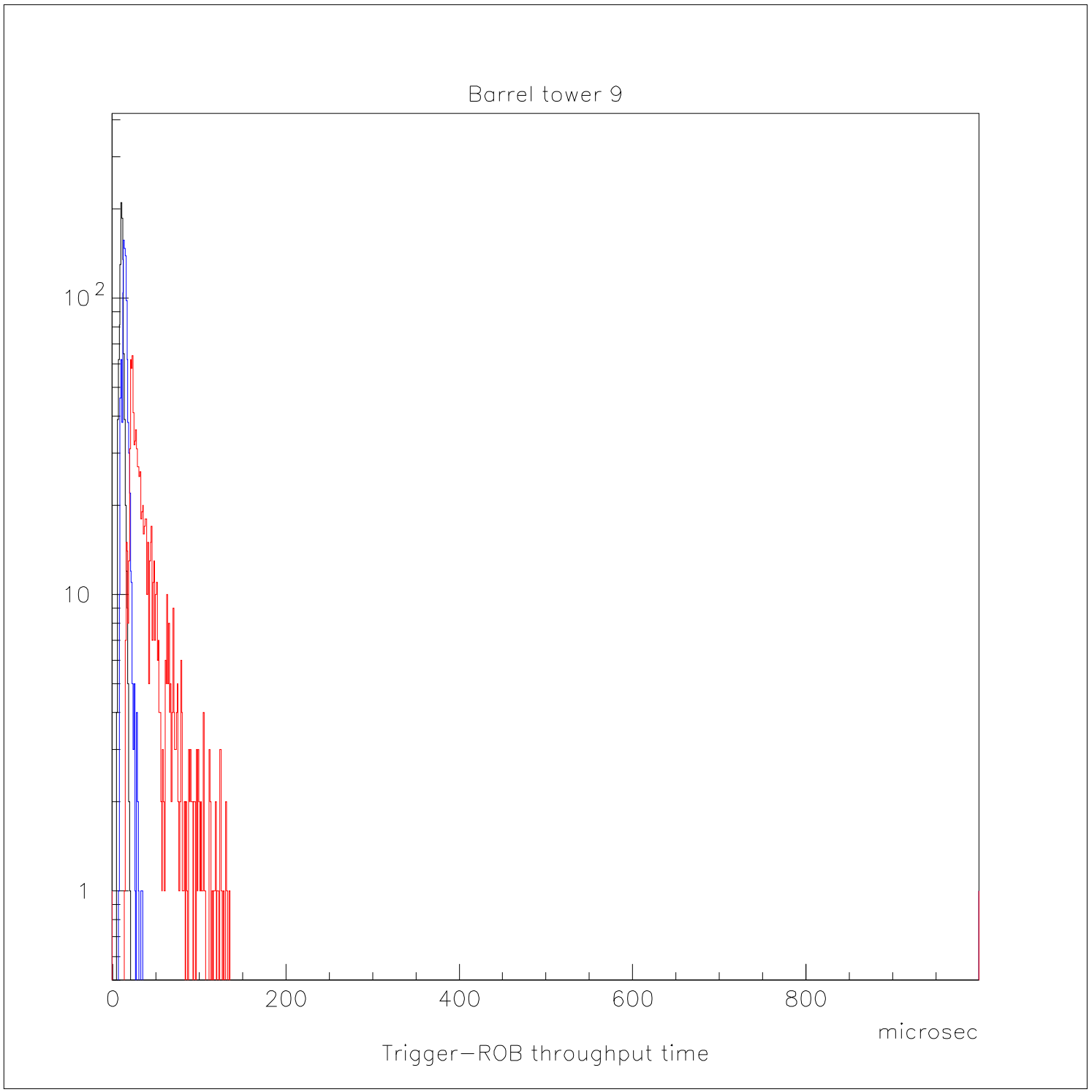

Barrel tower 8
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

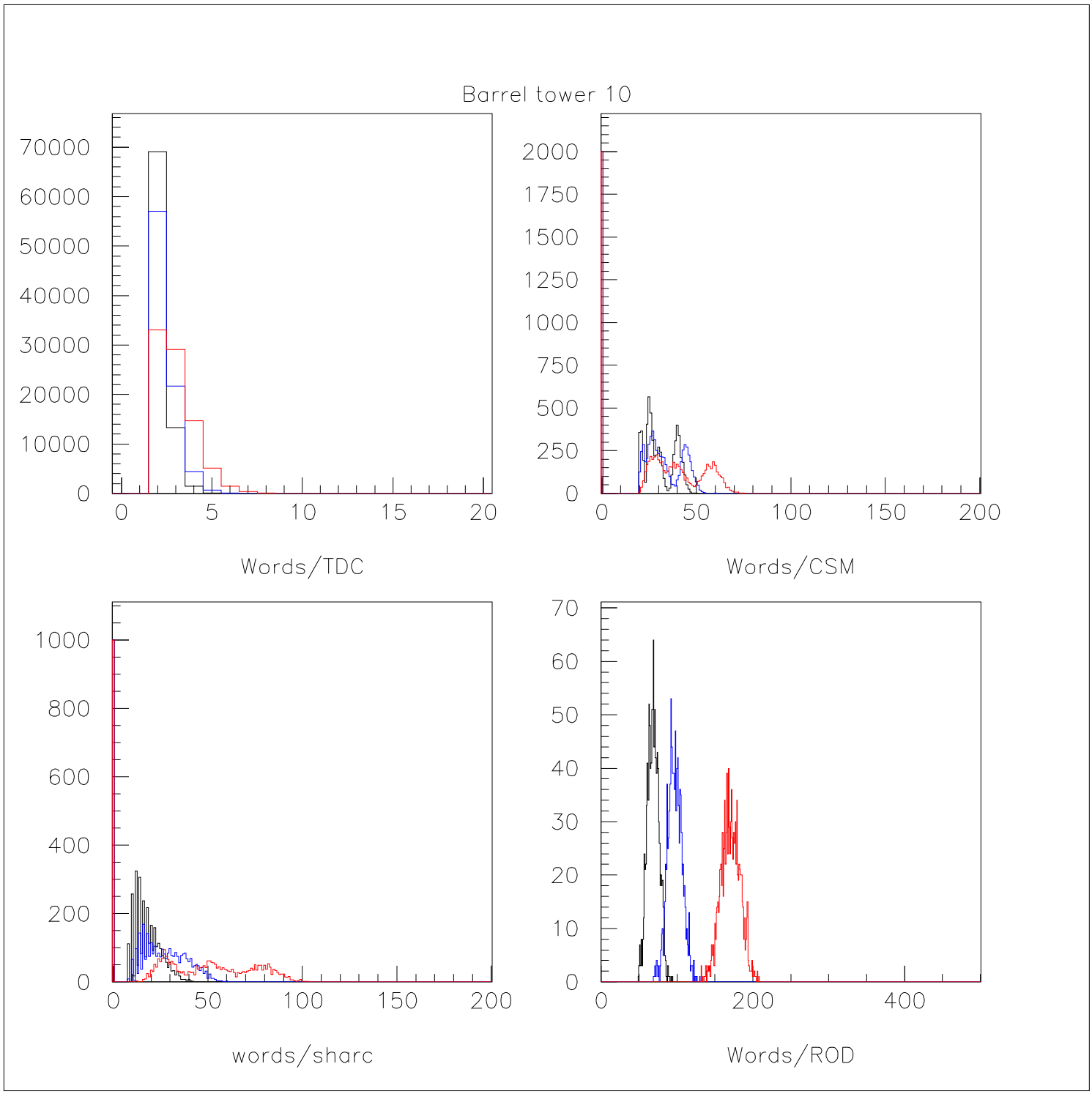

Barrel tower 9
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
70
60
50
40
30
20
10
0
0
200
400
Words/ROD

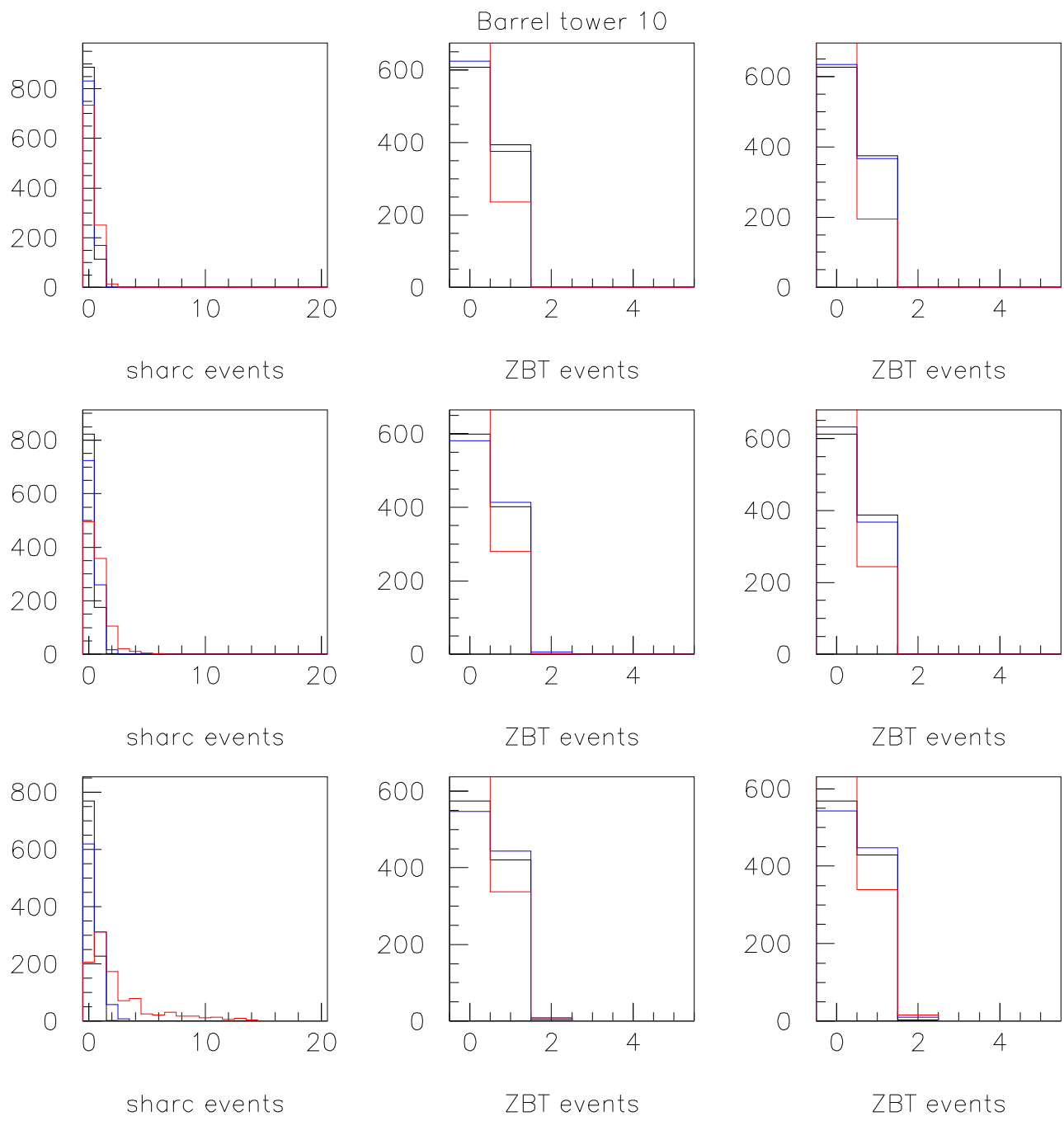

Barrel tower 9
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

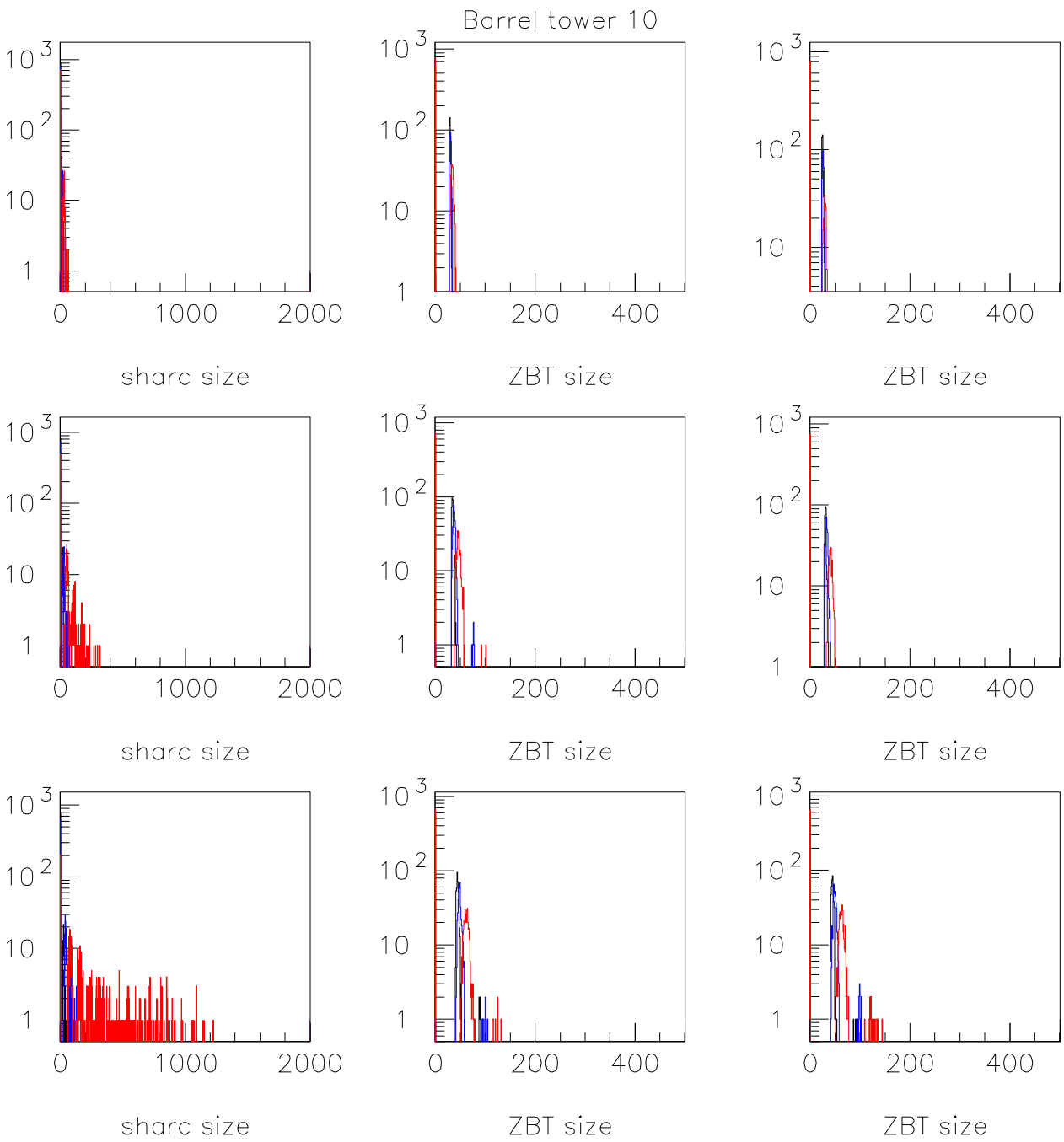

Barrel tower 9
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

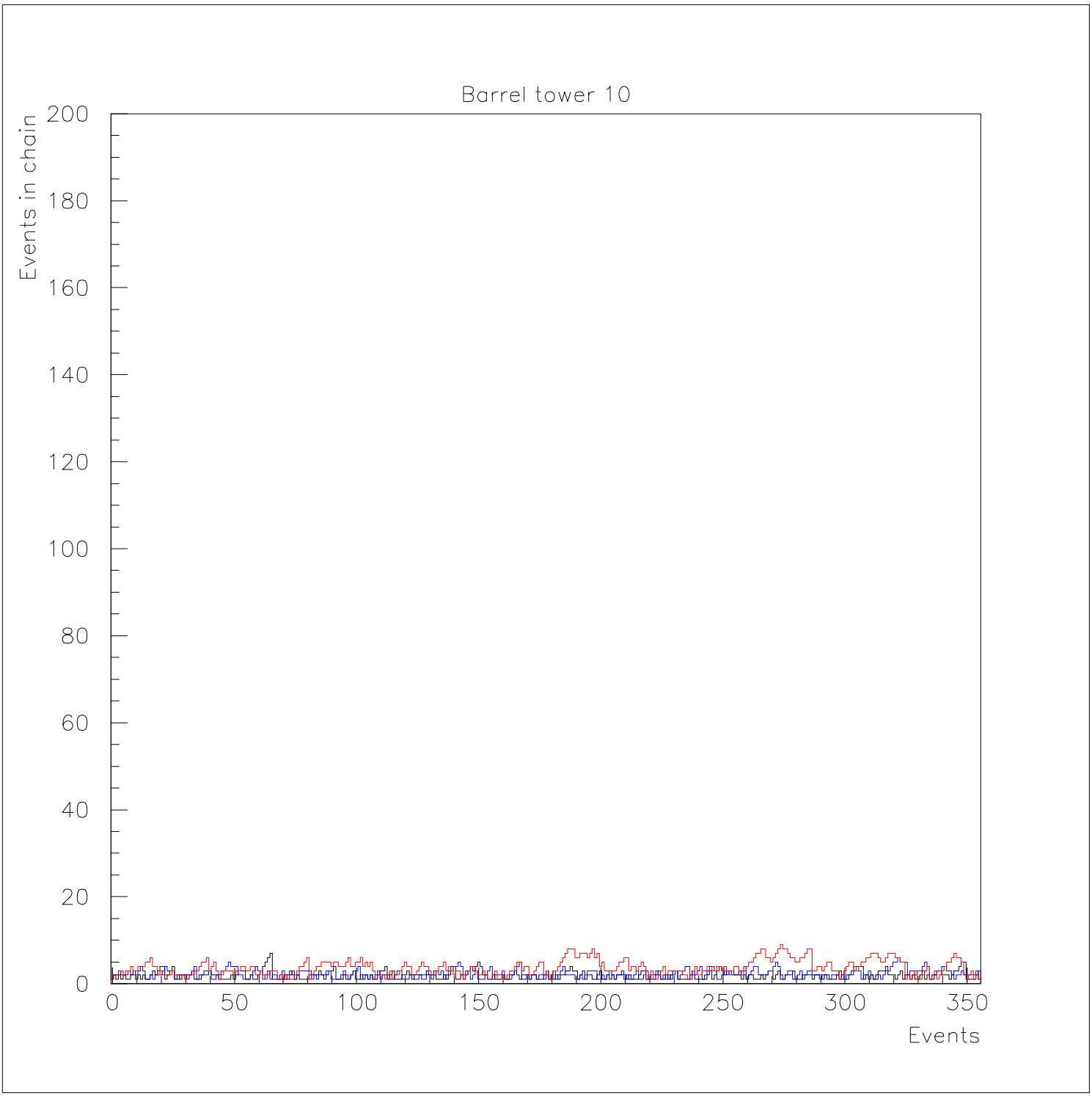

Barrel tower 9
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

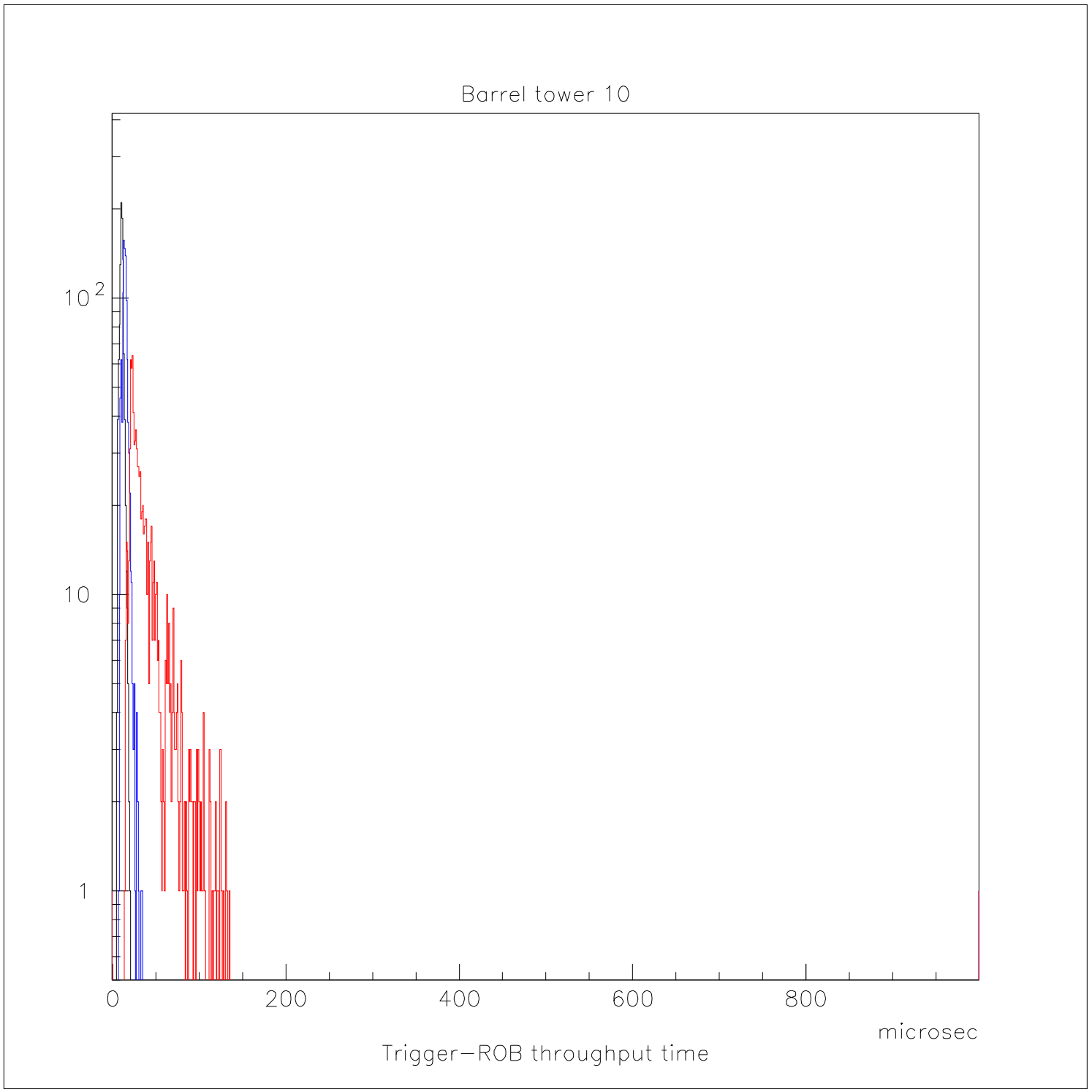

Barrel tower 9
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

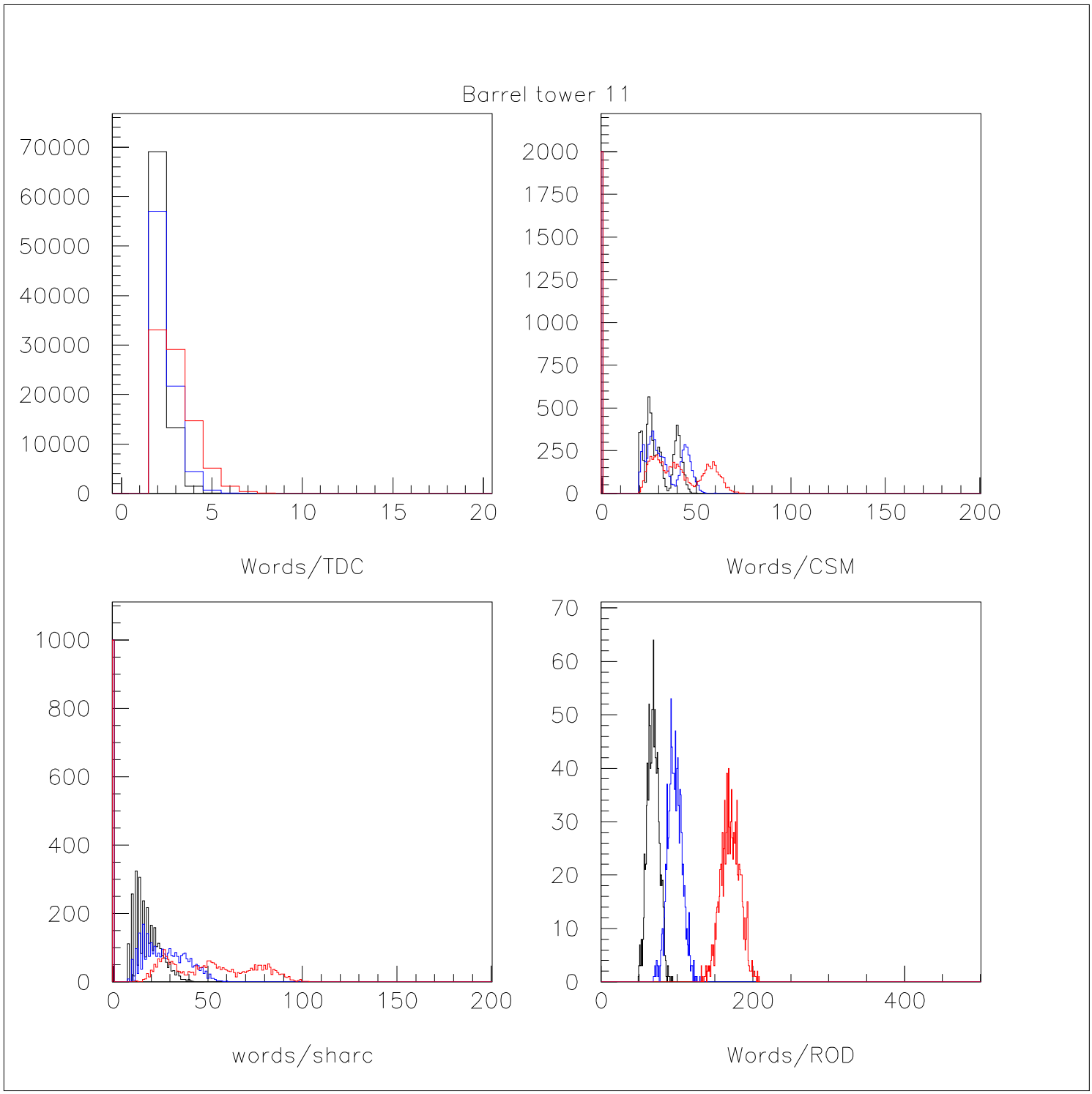

Barrel tower 10
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
70
60
50
40
30
20
10
0
0
200
400
Words/ROD

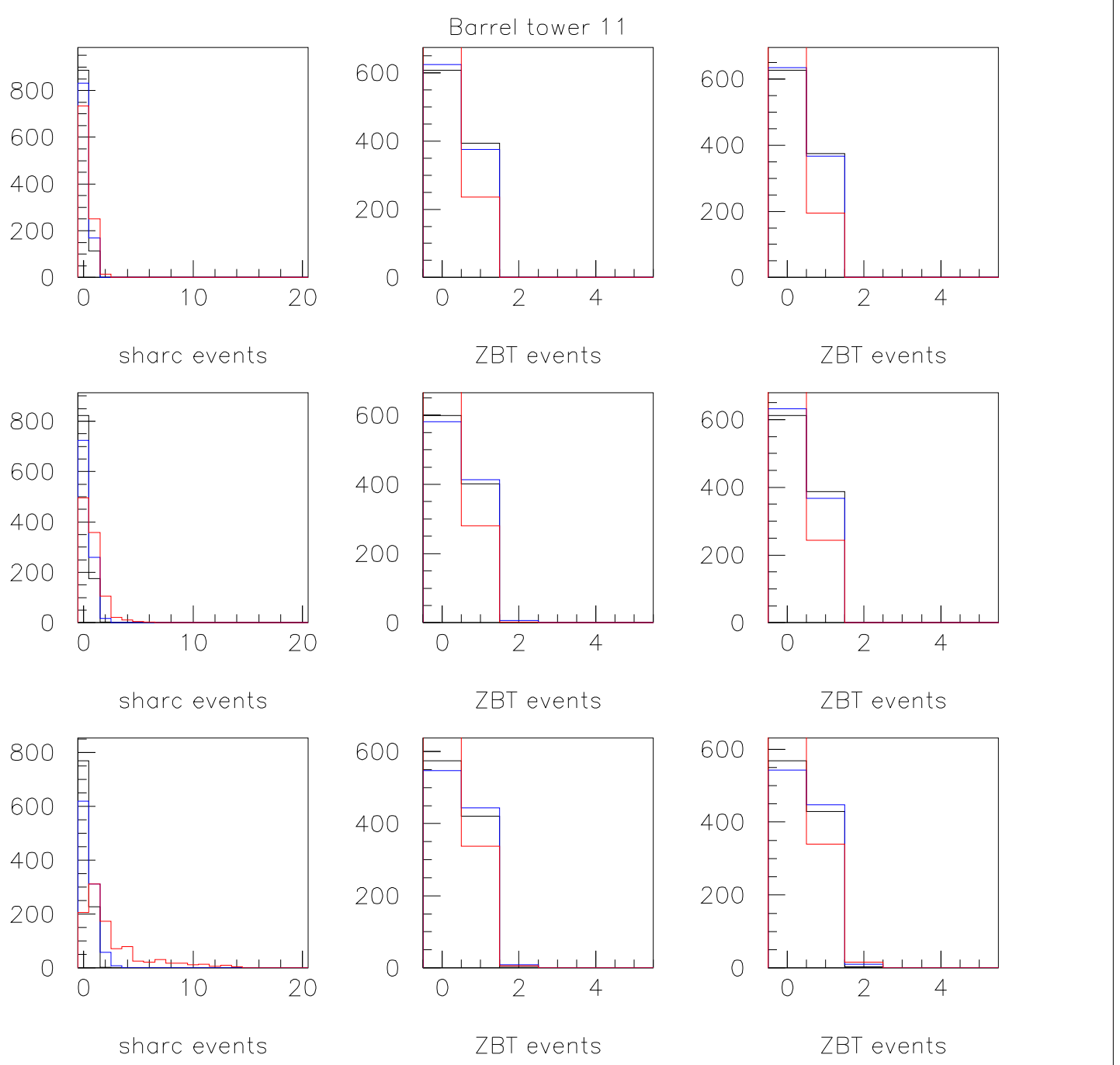

Barrel tower 10
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

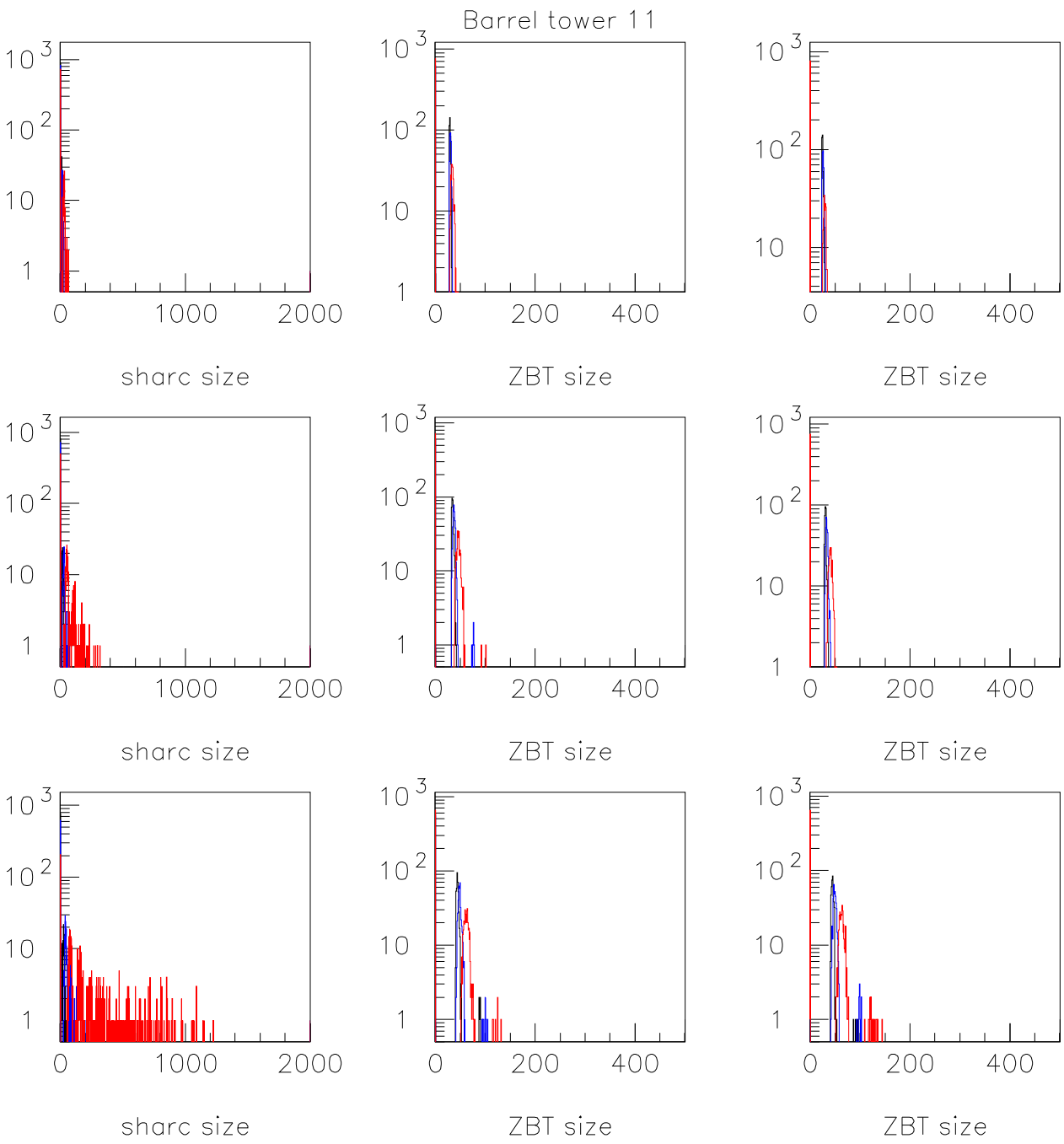

Barrel tower 10
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

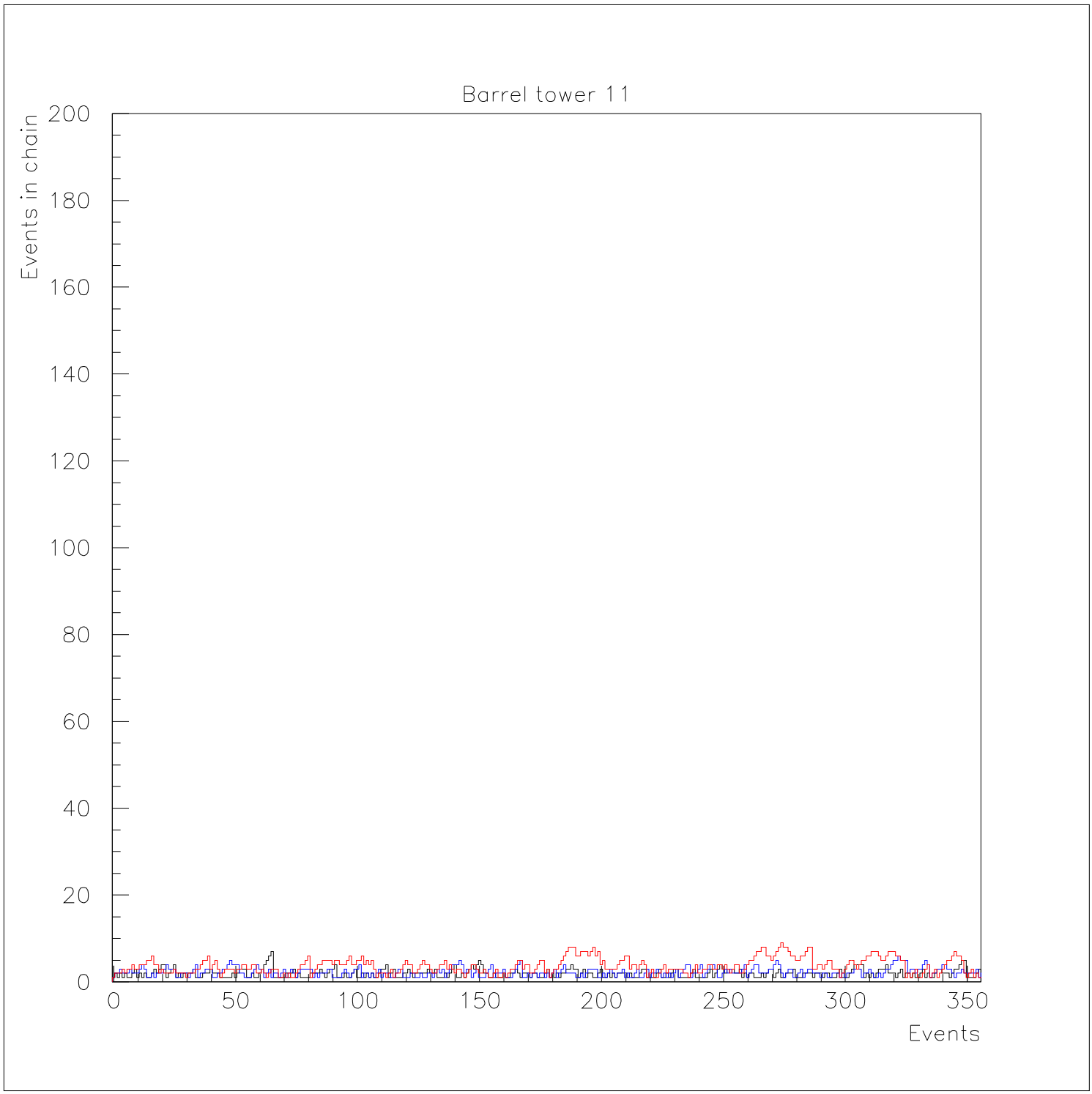

Barrel tower 10
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

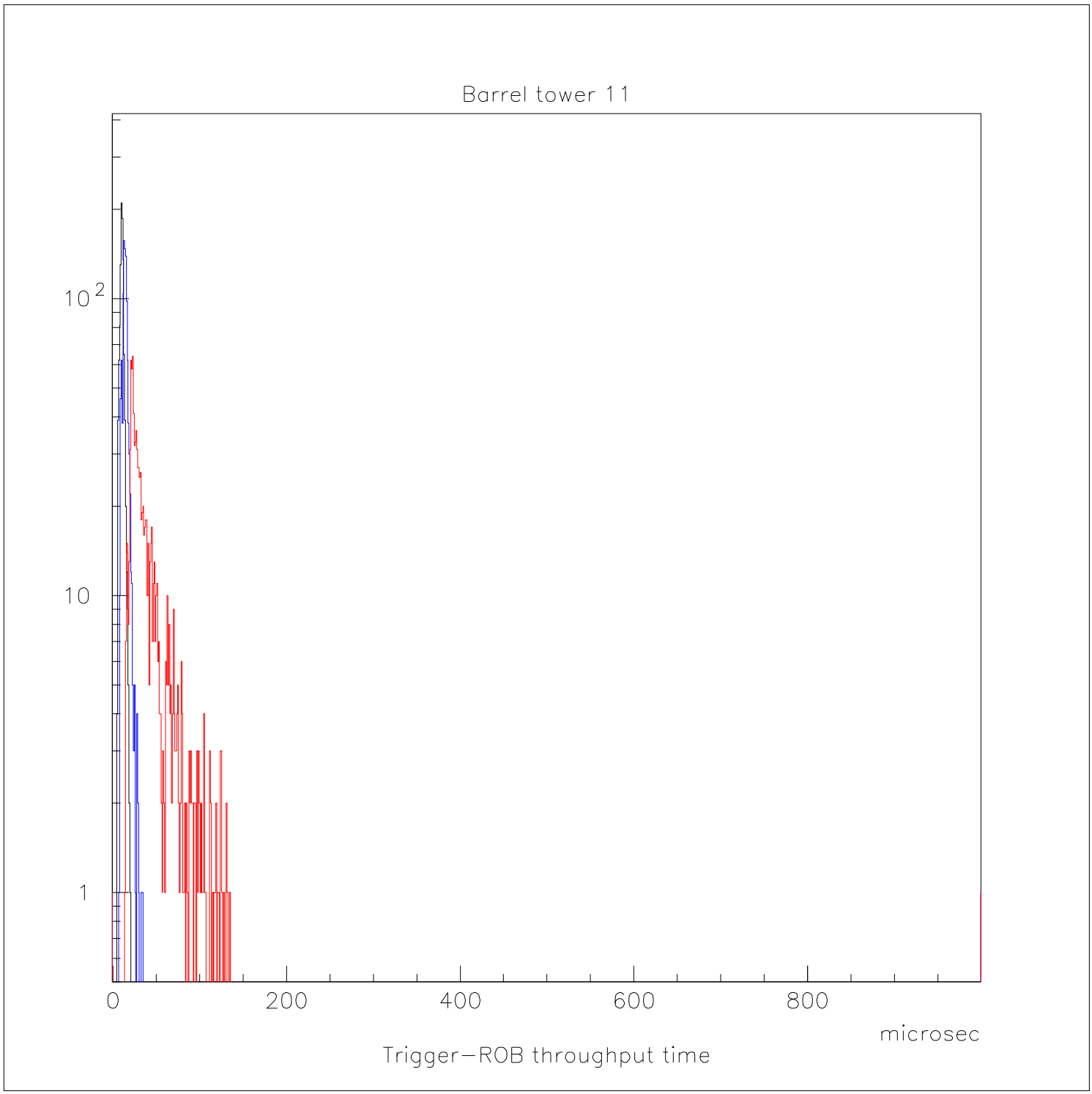

Barrel tower 10
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

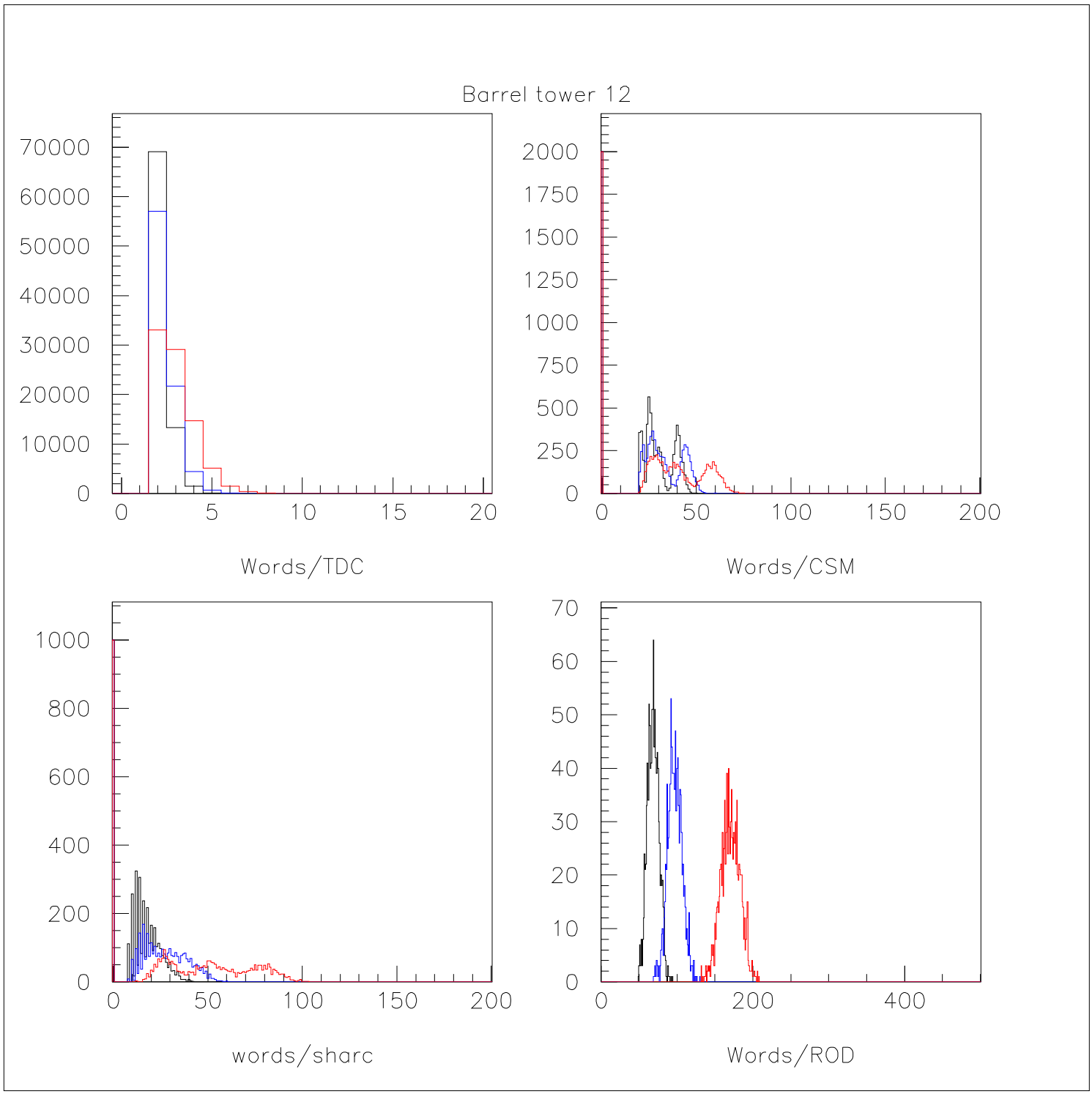

Barrel tower 11
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
70
60
50
40
30
20
10
0
0
200
400
Words/ROD

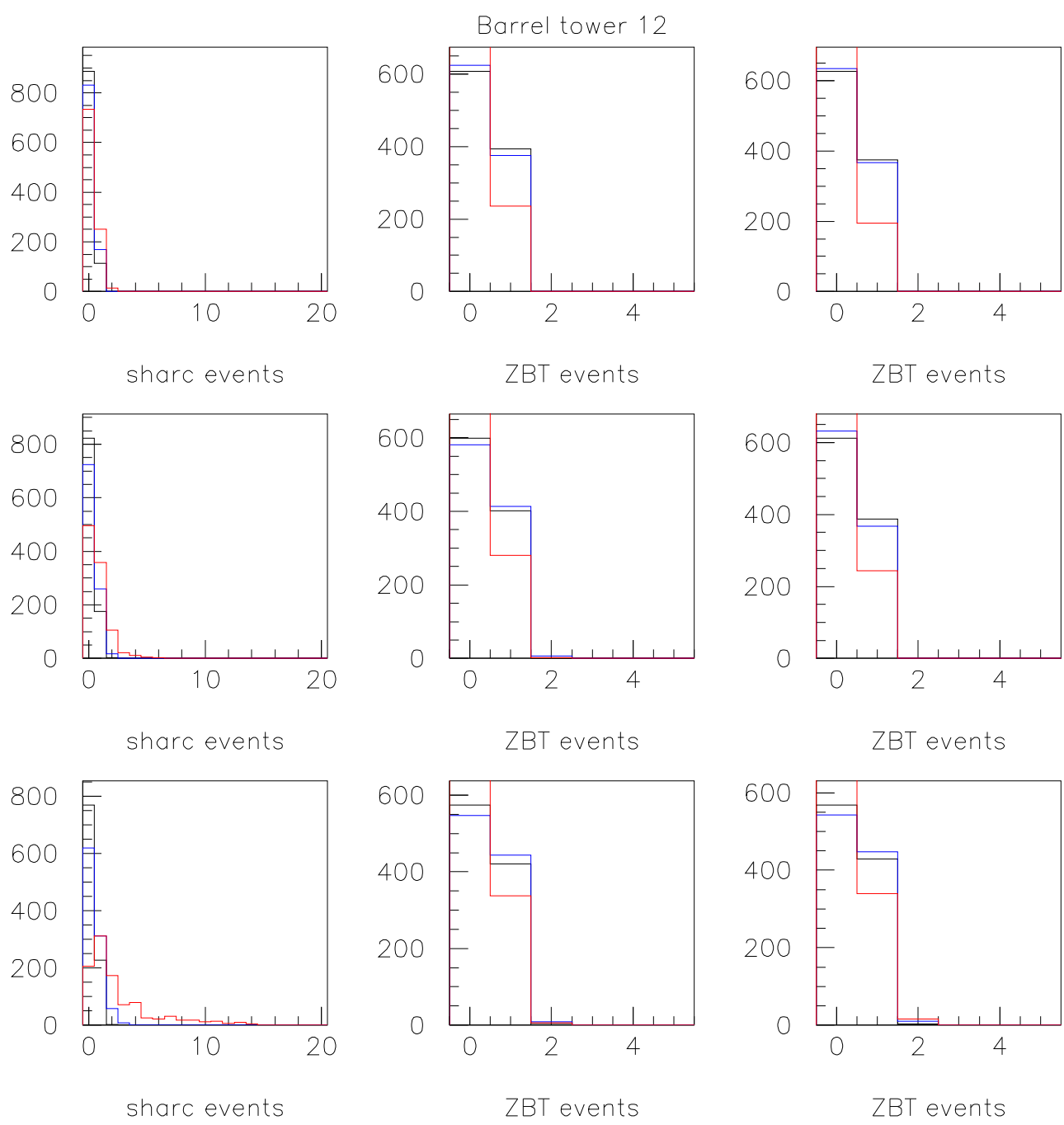

Barrel tower 11
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

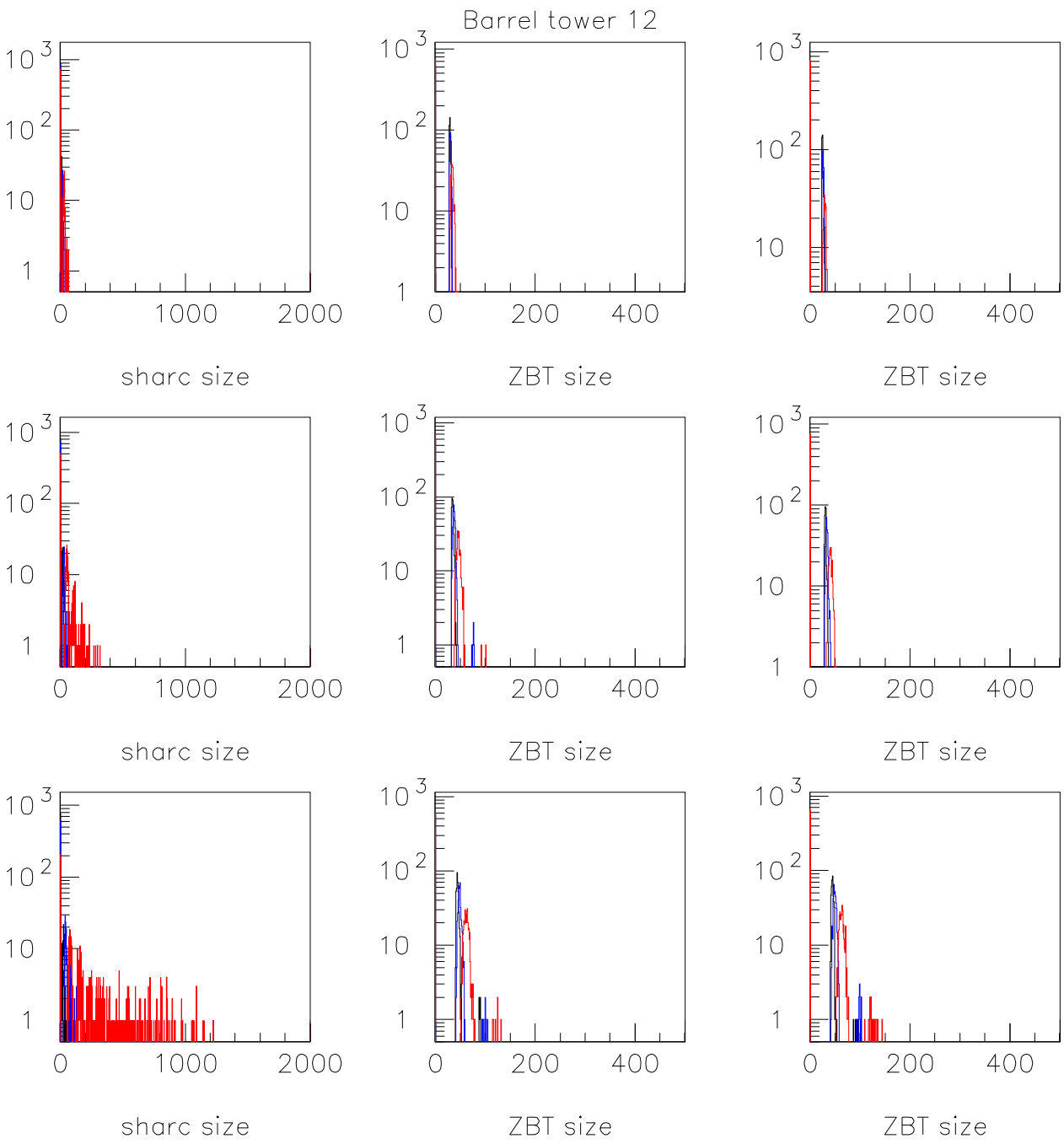

Barrel tower 11
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

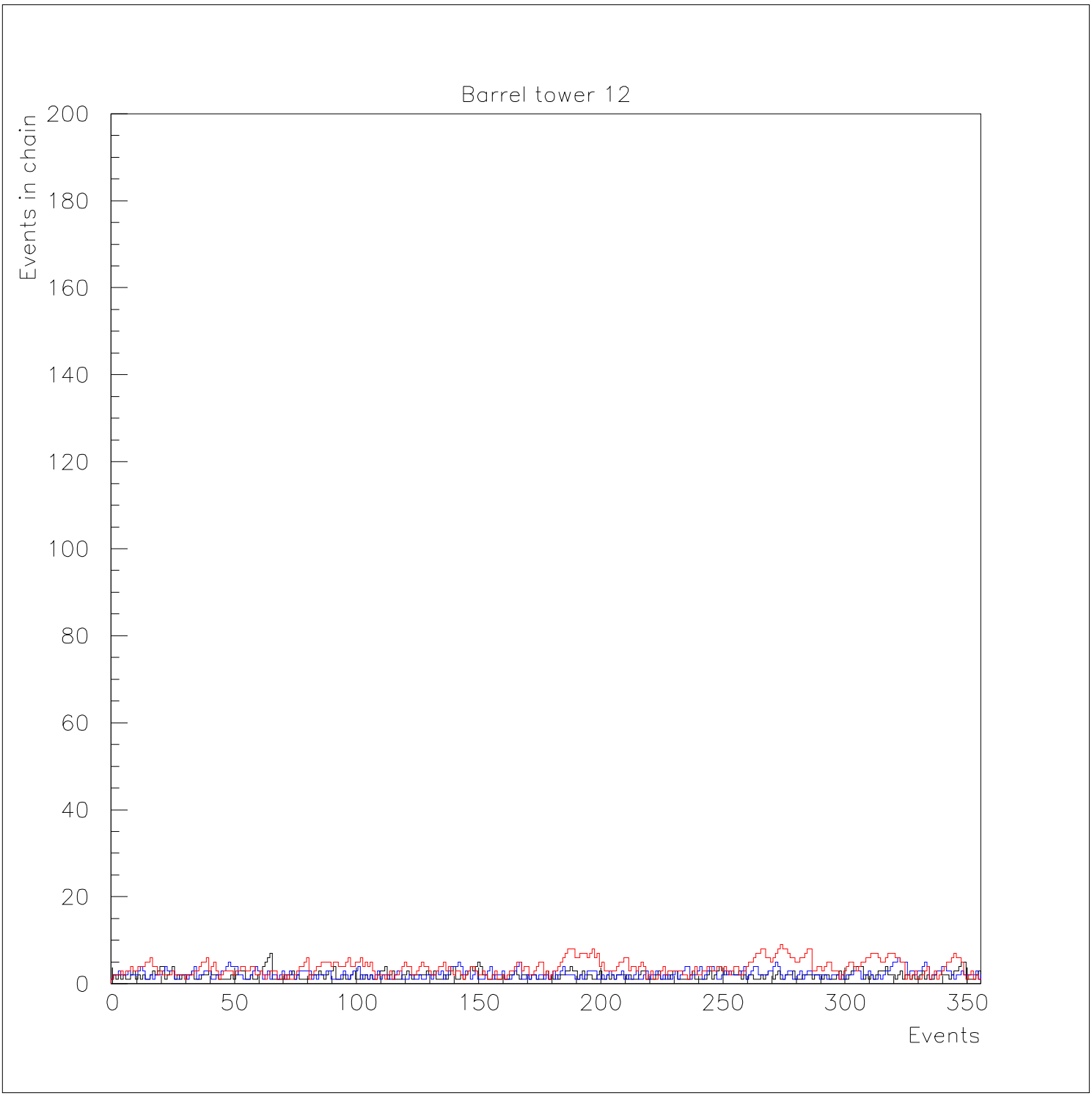

Barrel tower 11
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

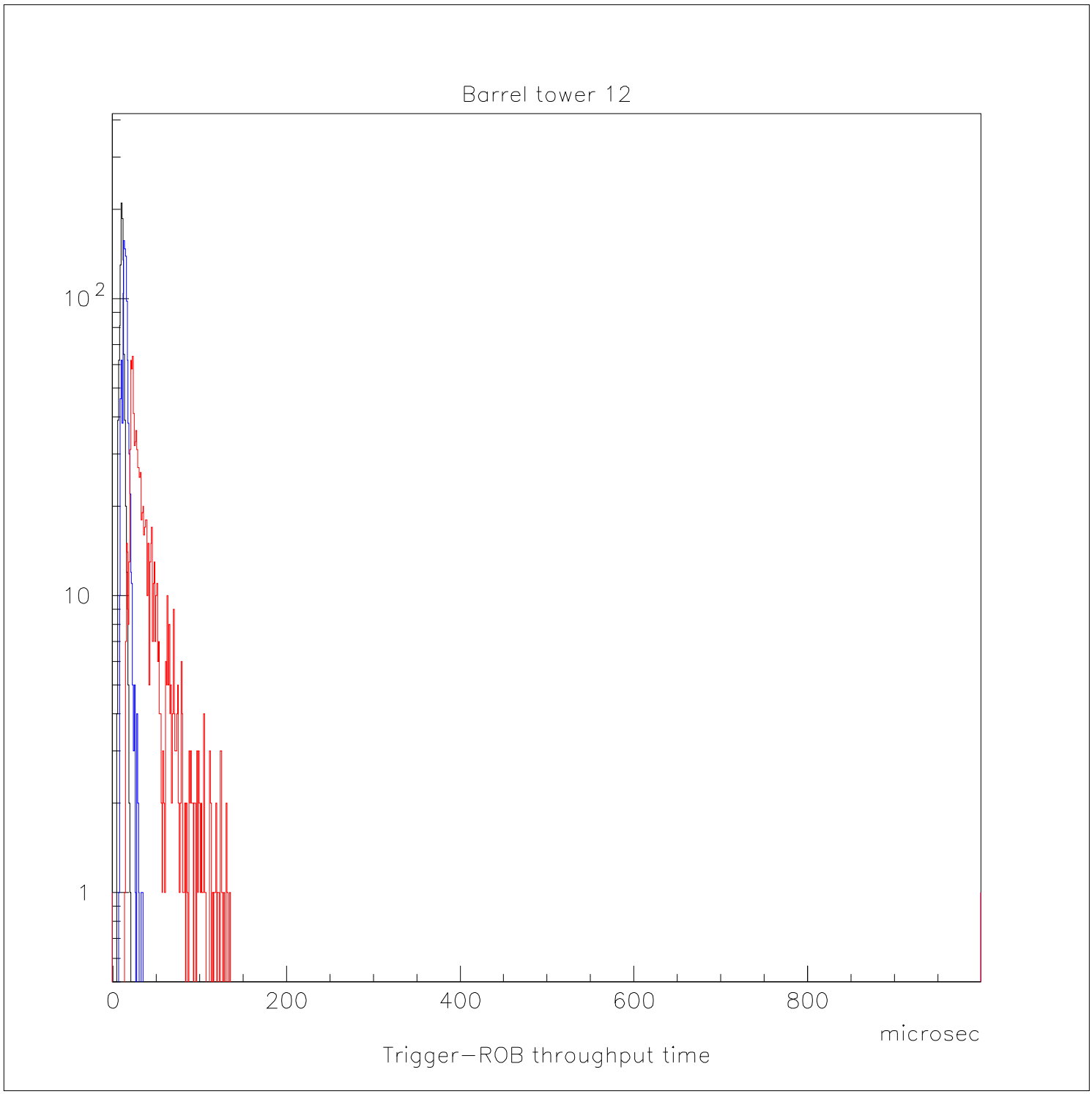

Barrel tower 11
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

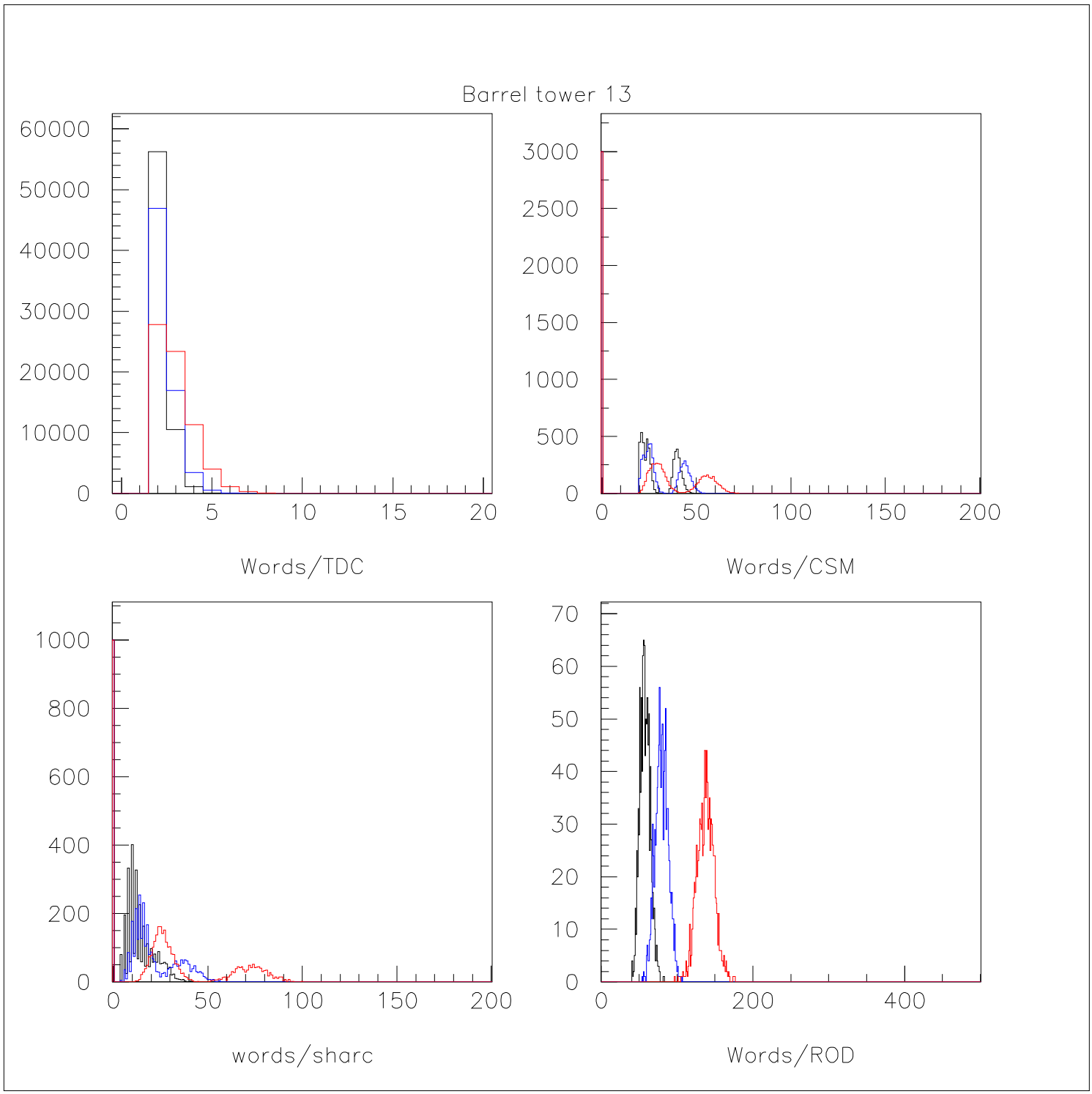

Barrel tower 12
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
70
60
50
40
30
20
10
0
0
200
400
Words/ROD

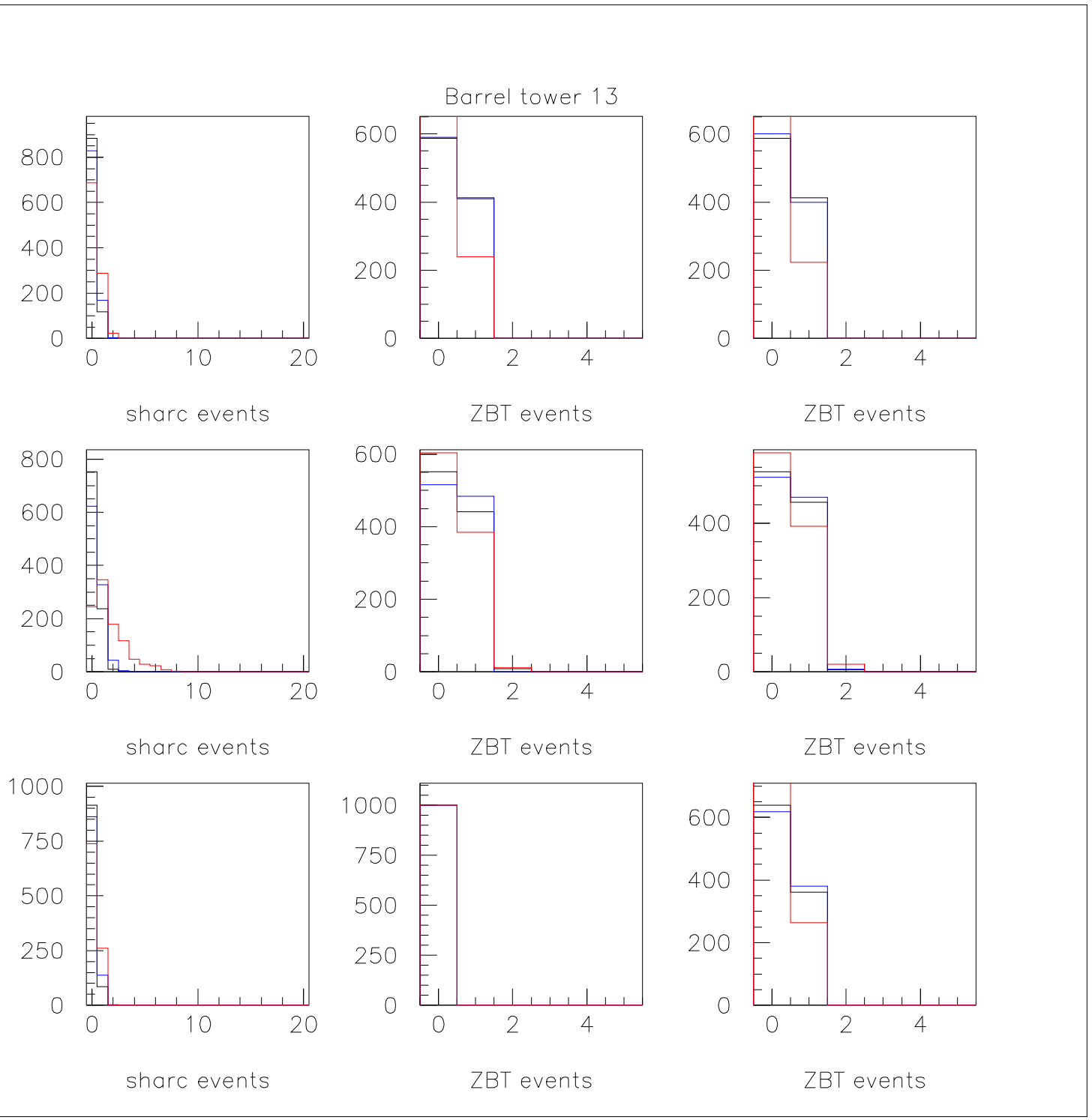

Barrel tower 12
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

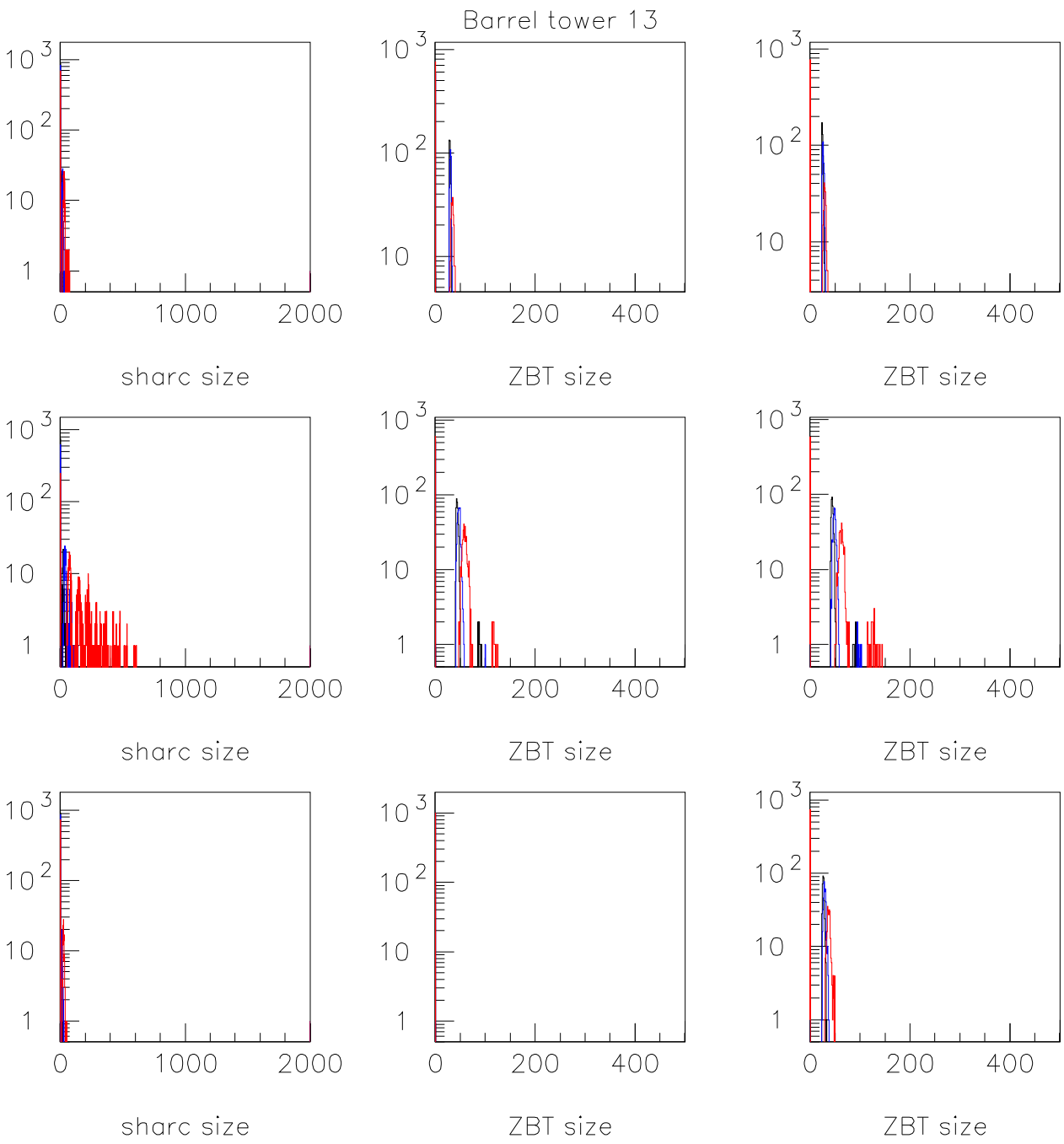

Barrel tower 12
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

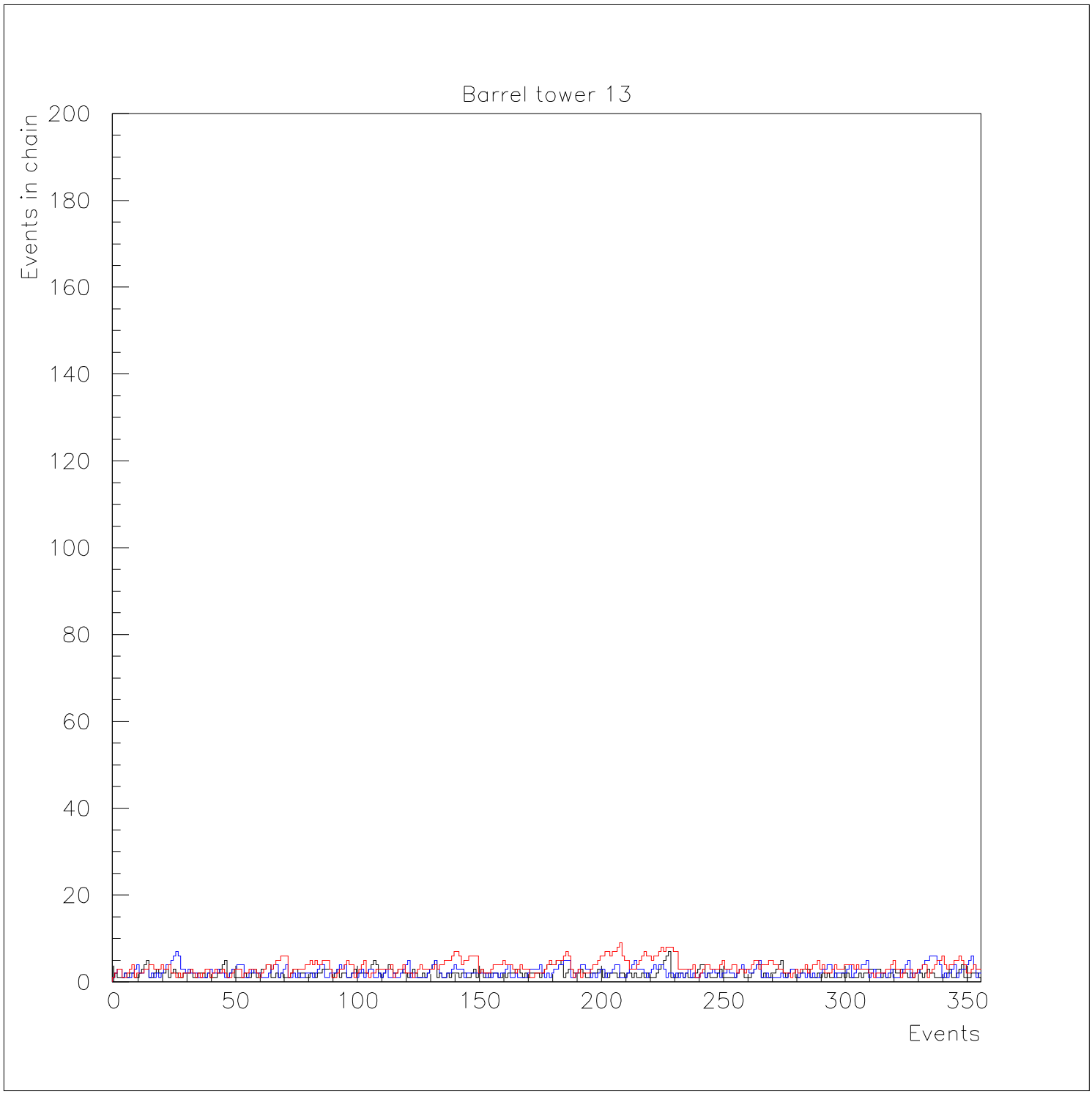

Barrel tower 12
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

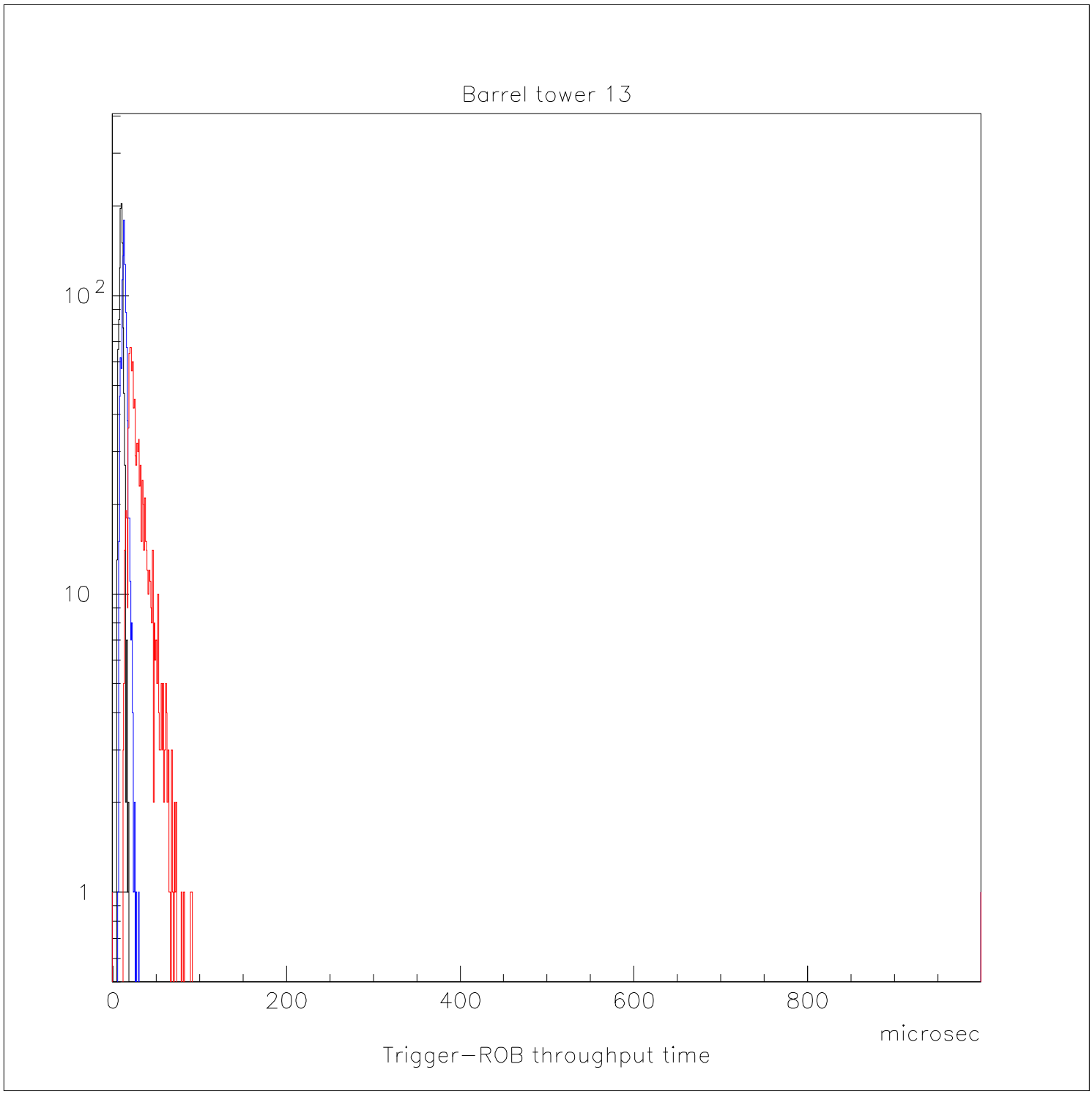

Barrel tower 12
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

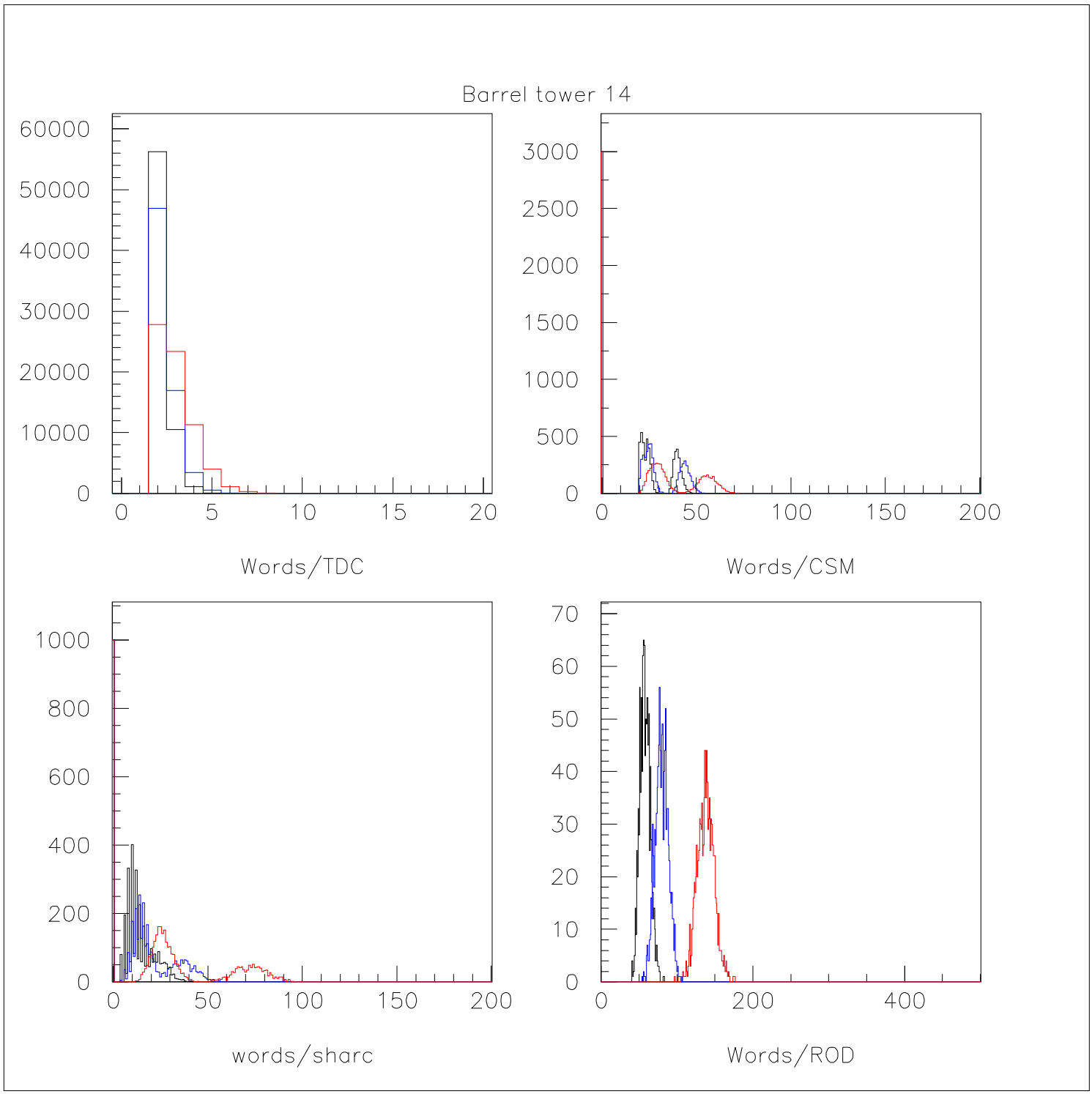

Barrel tower 13
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
3000
2500
2000
1500
1000
500
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
70
60
50
40
30
20
10
0
0
200
400
Words/ROD

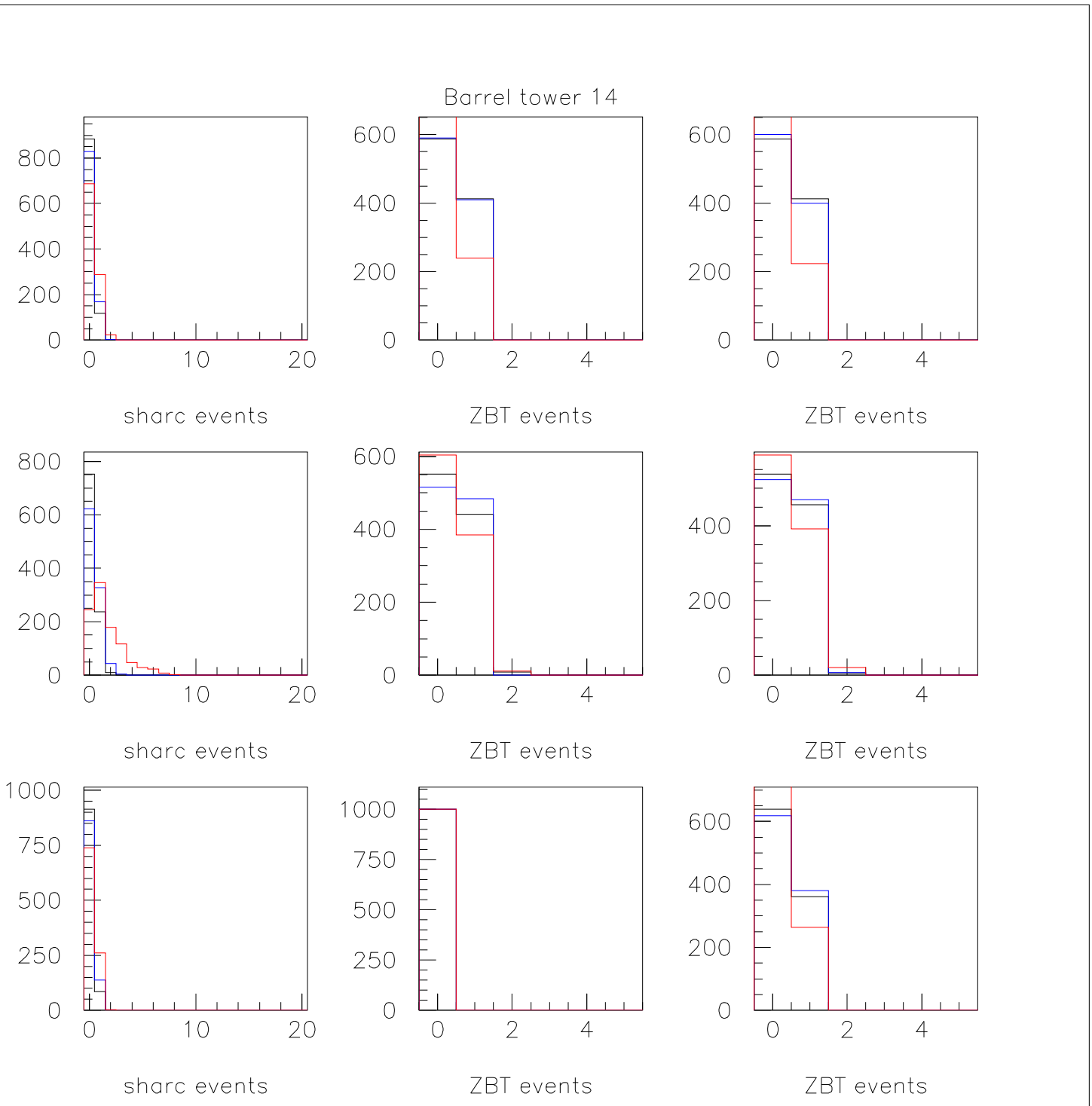

Barrel tower 13
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
10
20
sharc events
1000
750
500
250
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

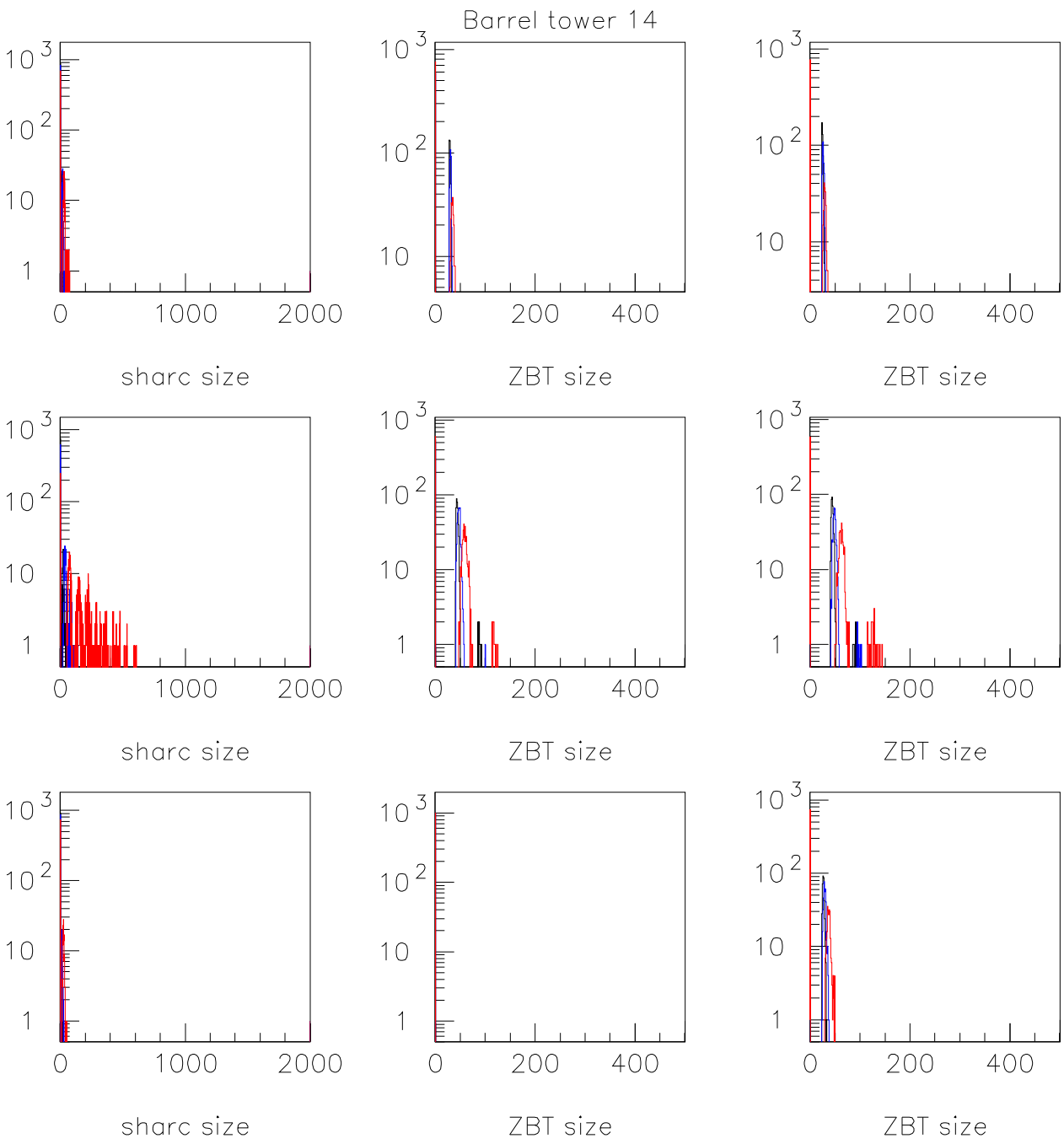

Barrel tower 13
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

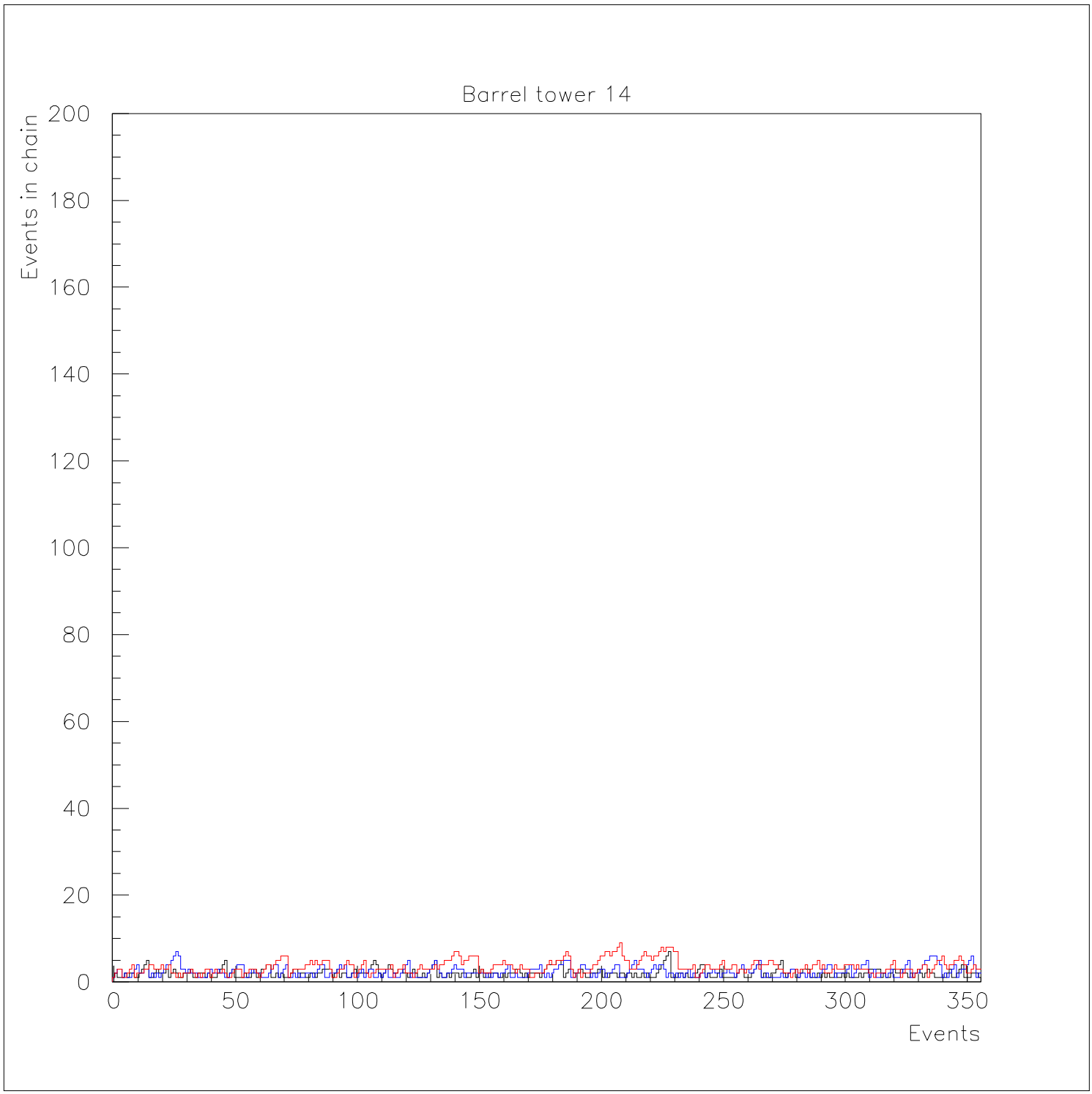

Barrel tower 13
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

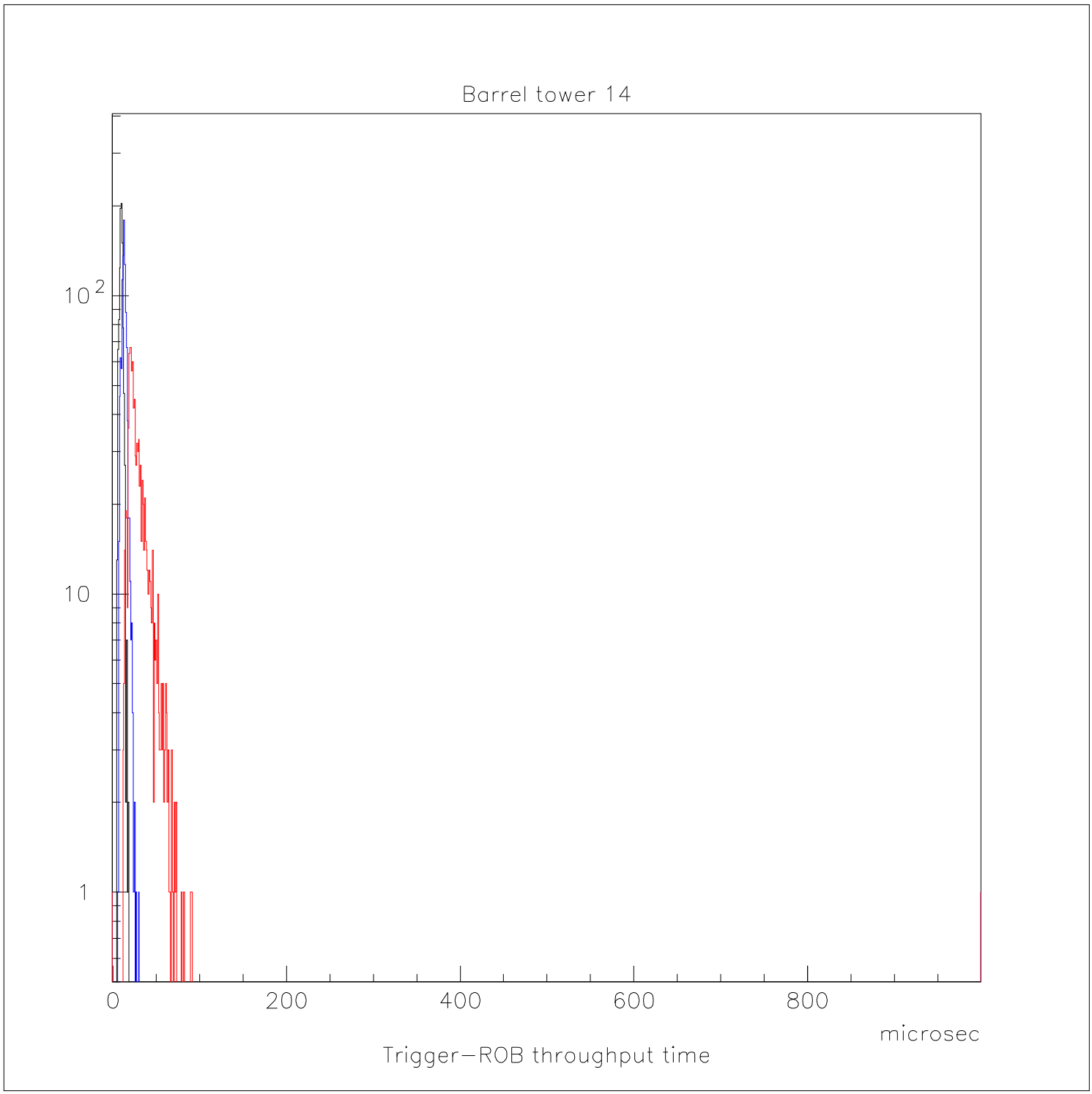

Barrel tower 13
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

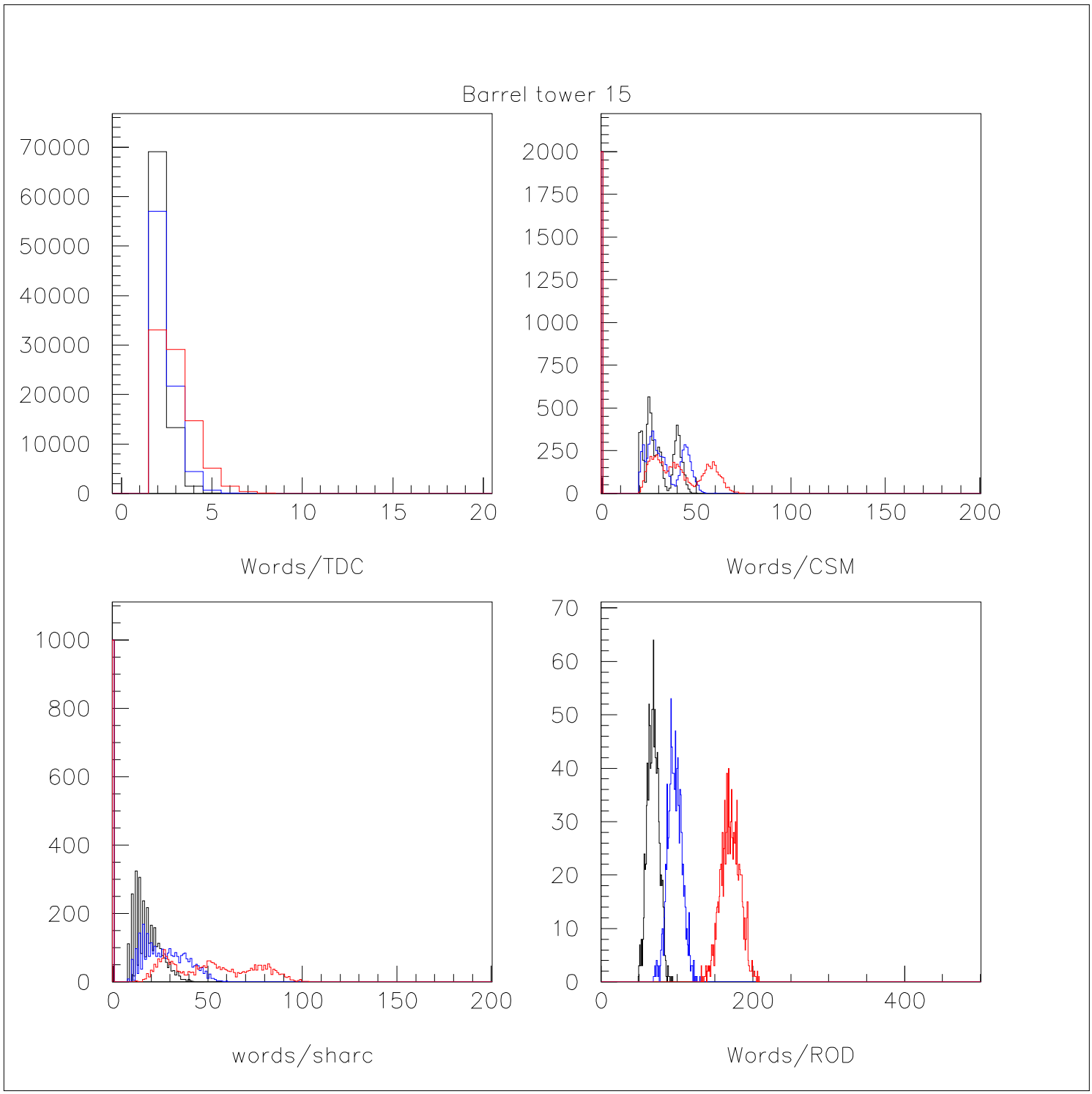

Barrel tower 14
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
3000
2500
2000
1500
1000
500
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
70
60
50
40
30
20
10
0
0
200
400
Words/ROD

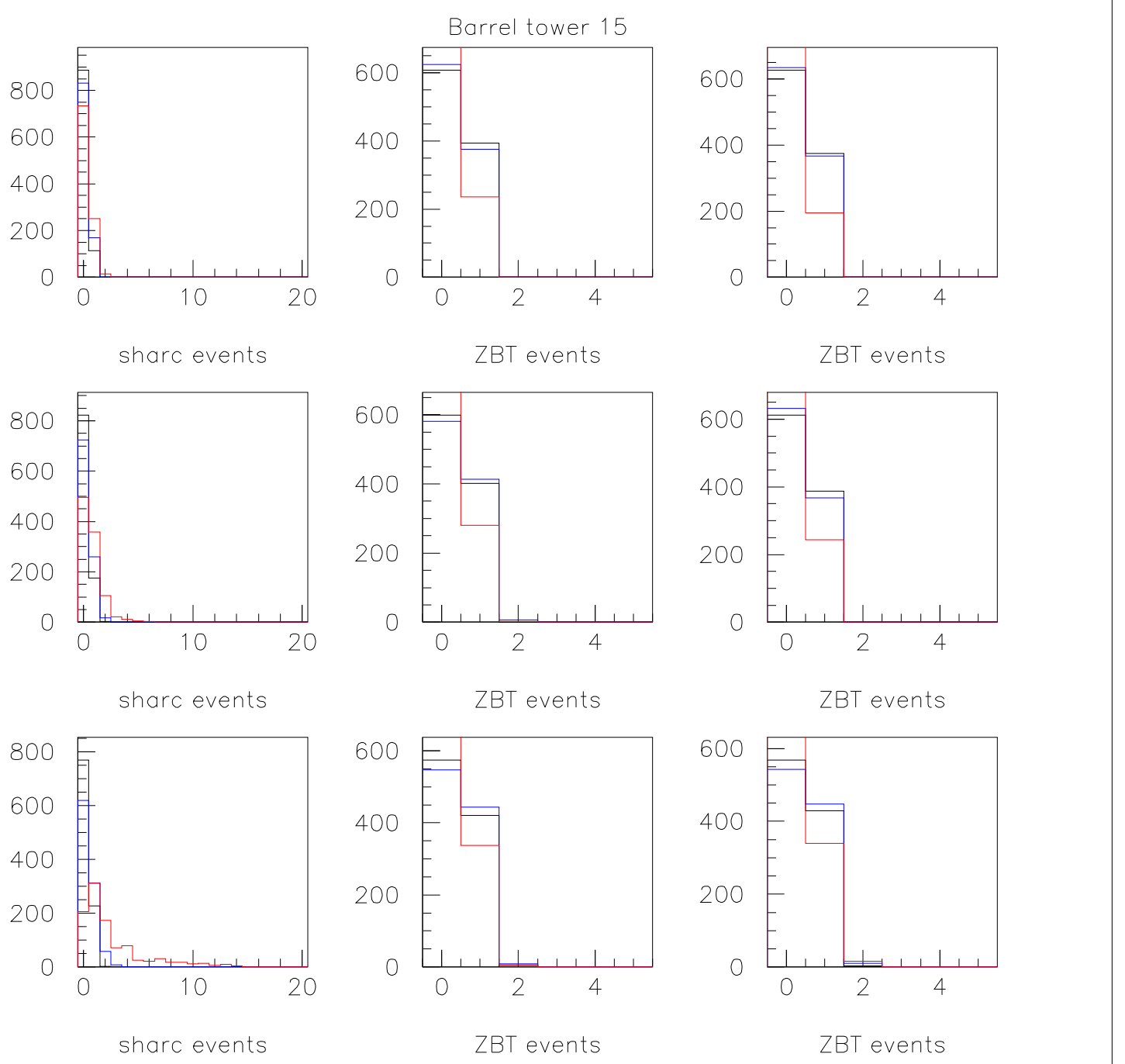

Barrel tower 14
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
10
20
sharc events
1000
750
500
250
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

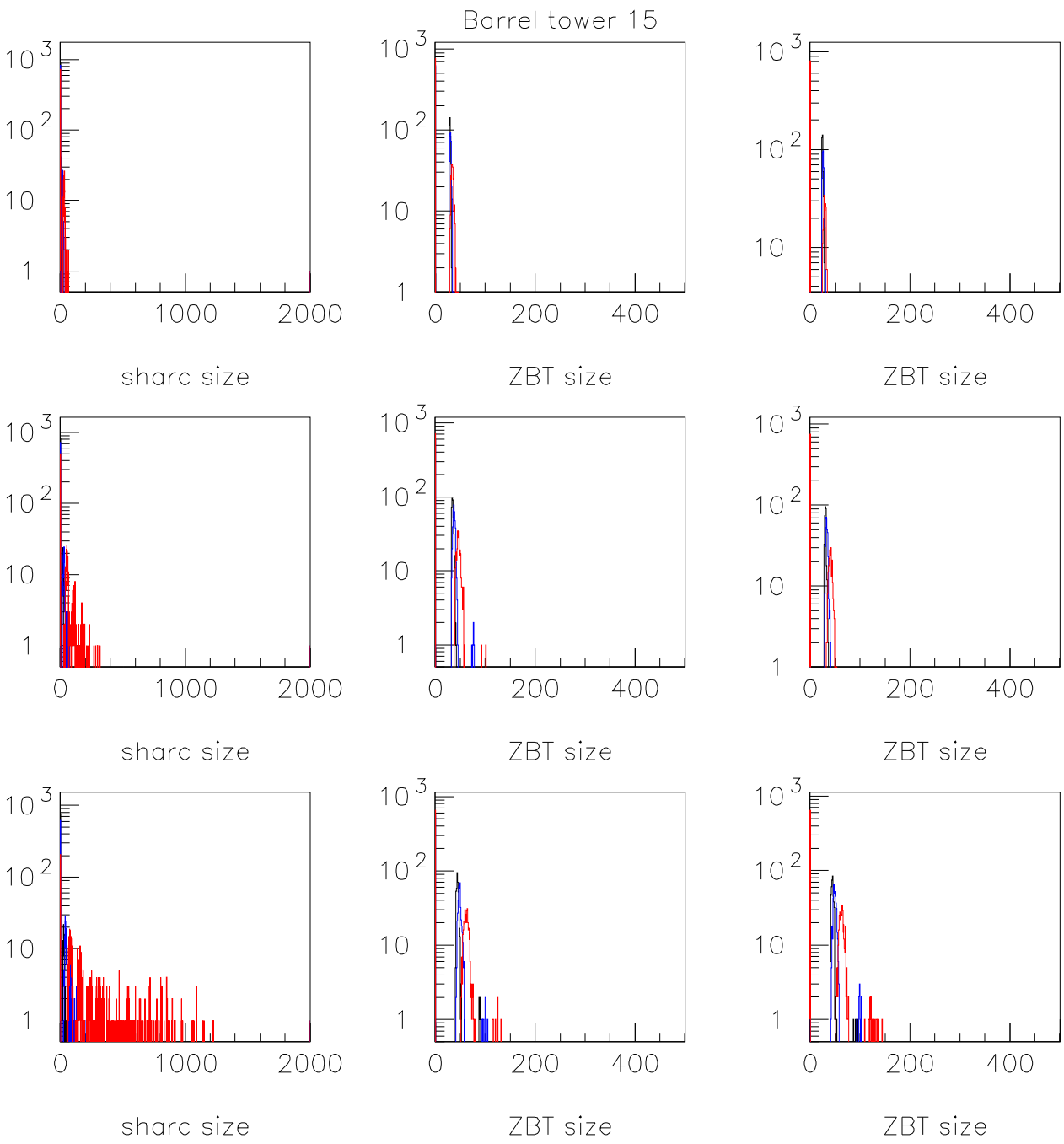

Barrel tower 14
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

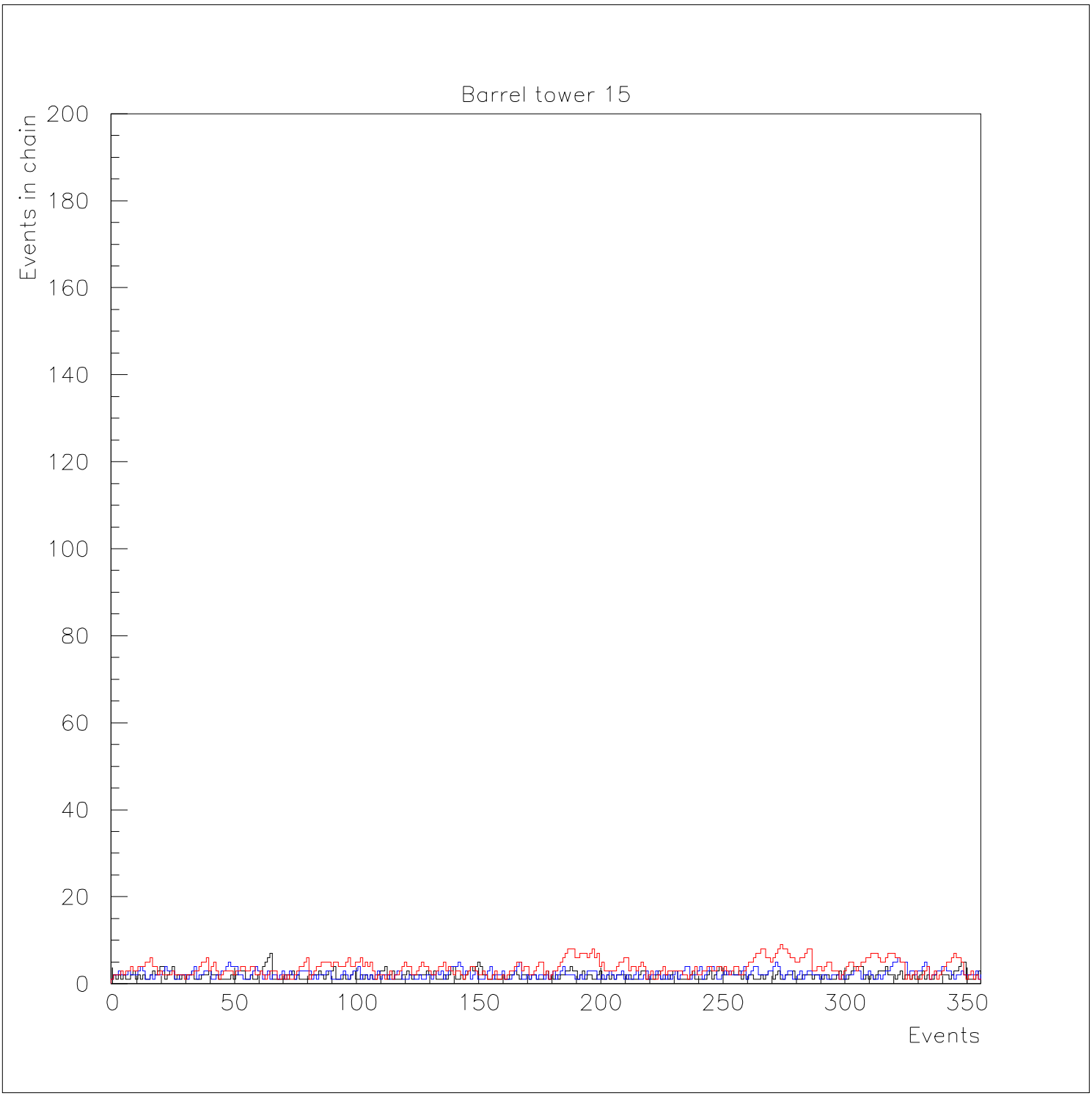

Barrel tower 14
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

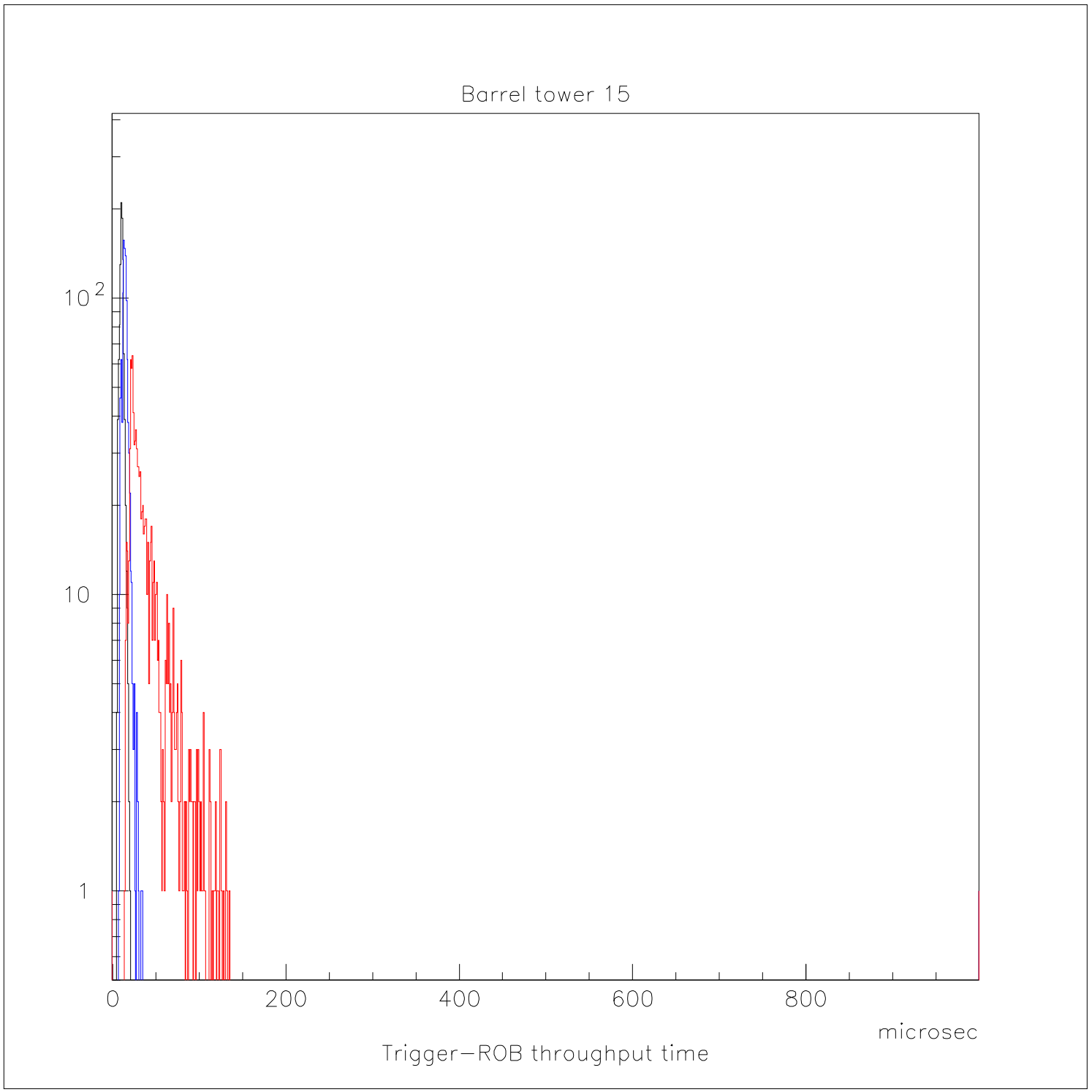

Barrel tower 14
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

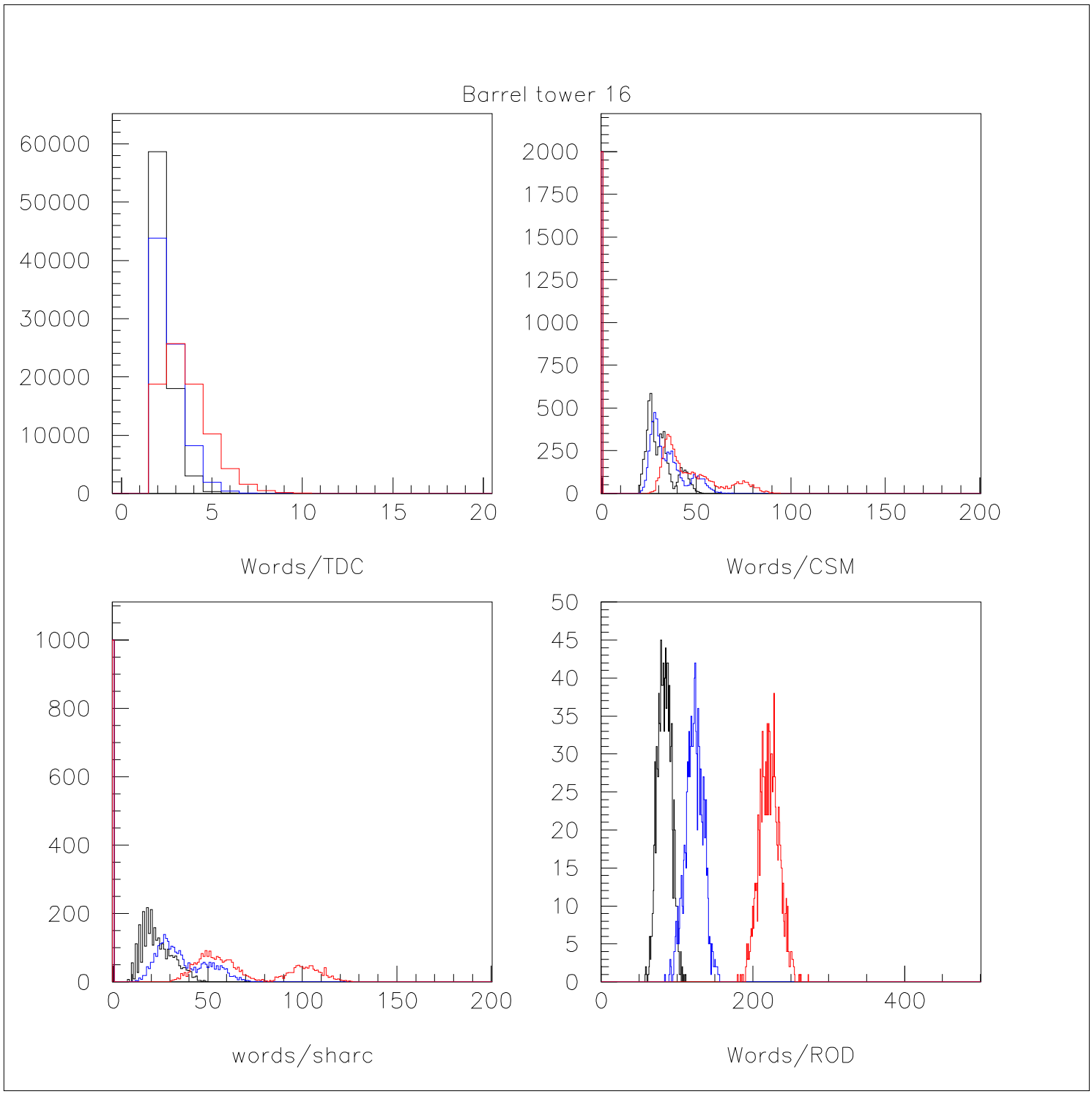

Barrel tower 15
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
70
60
50
40
30
20
10
0
0
200
400
Words/ROD

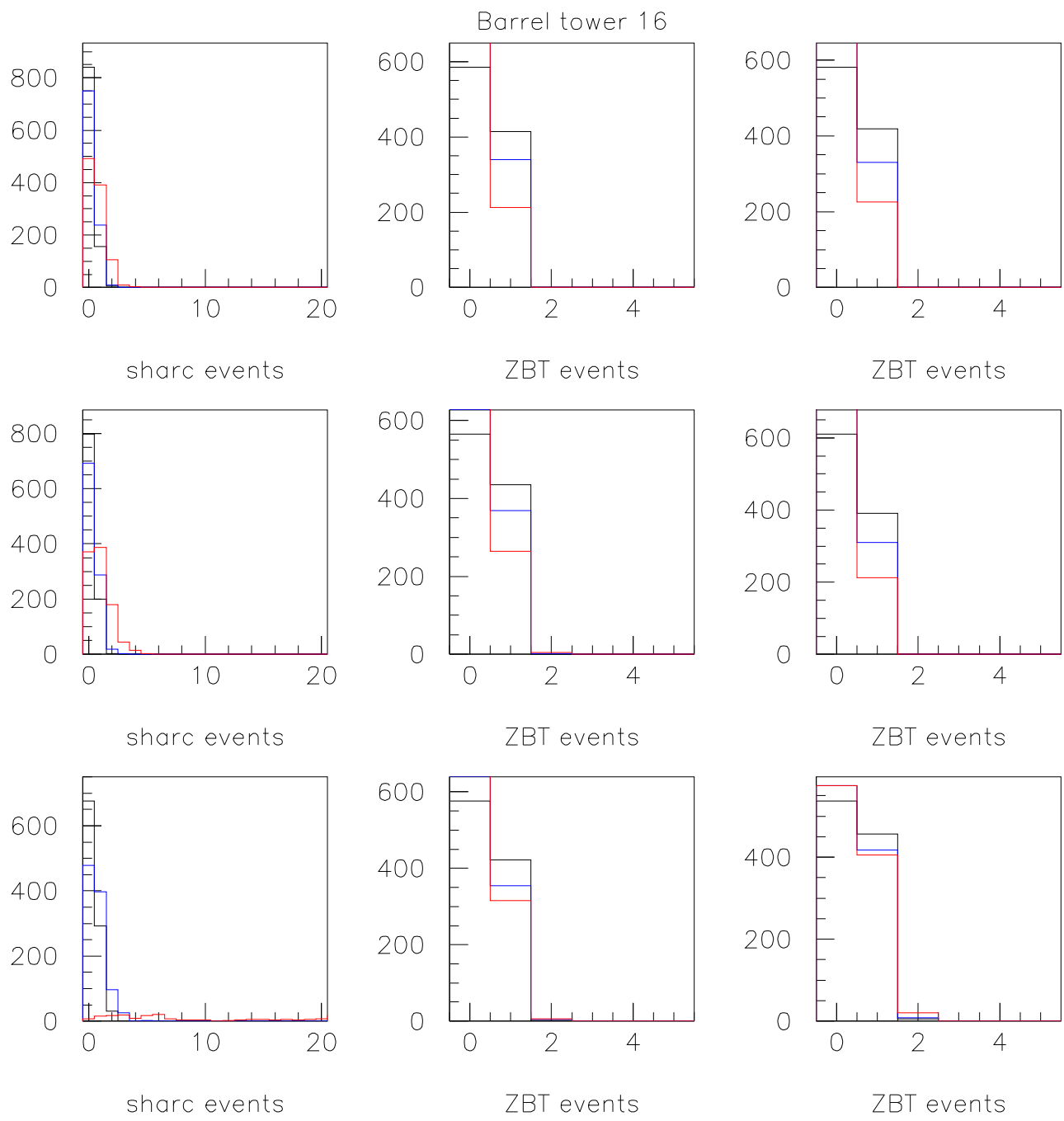

Barrel tower 15
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

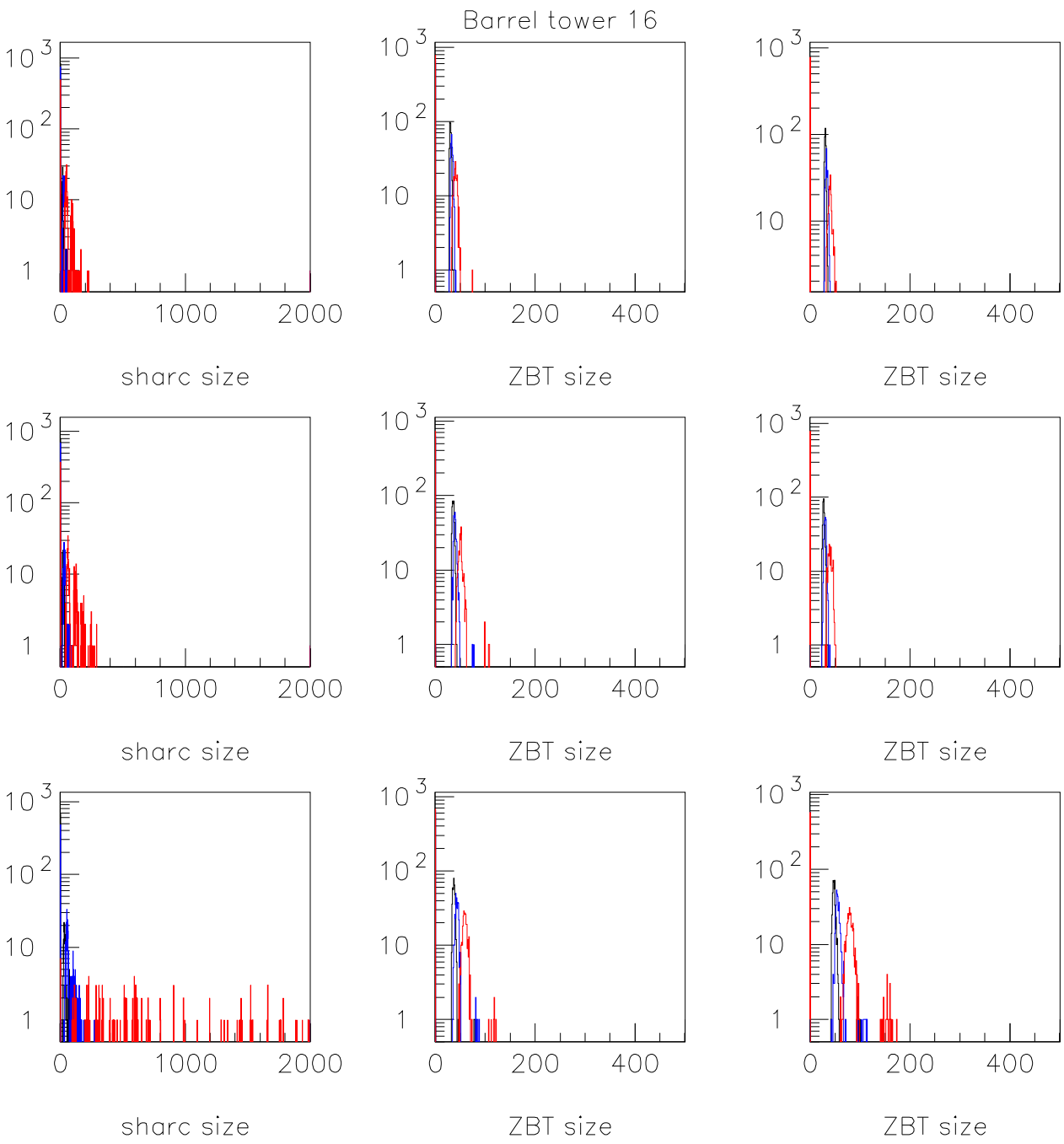

Barrel tower 15
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

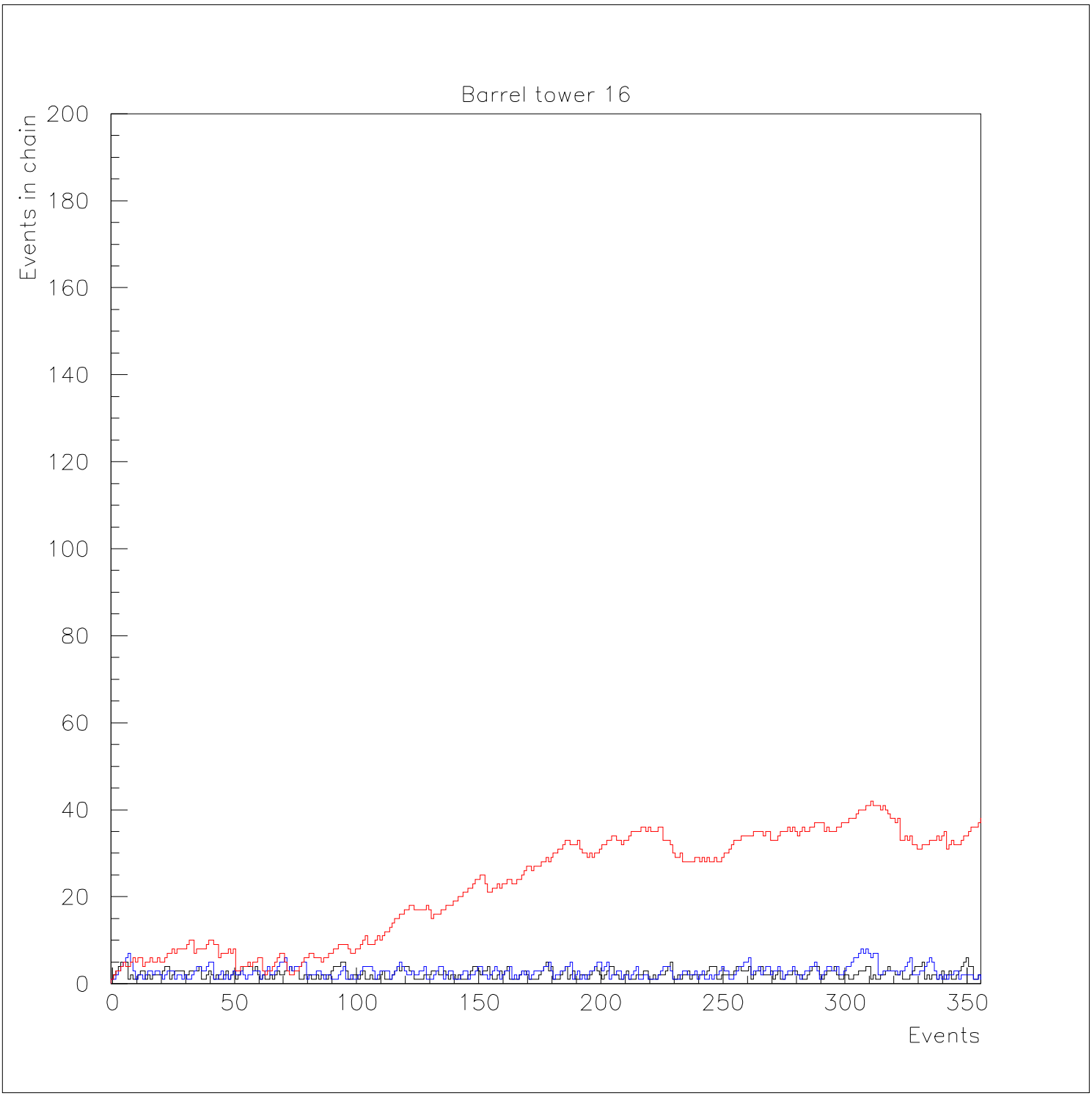

Barrel tower 15
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

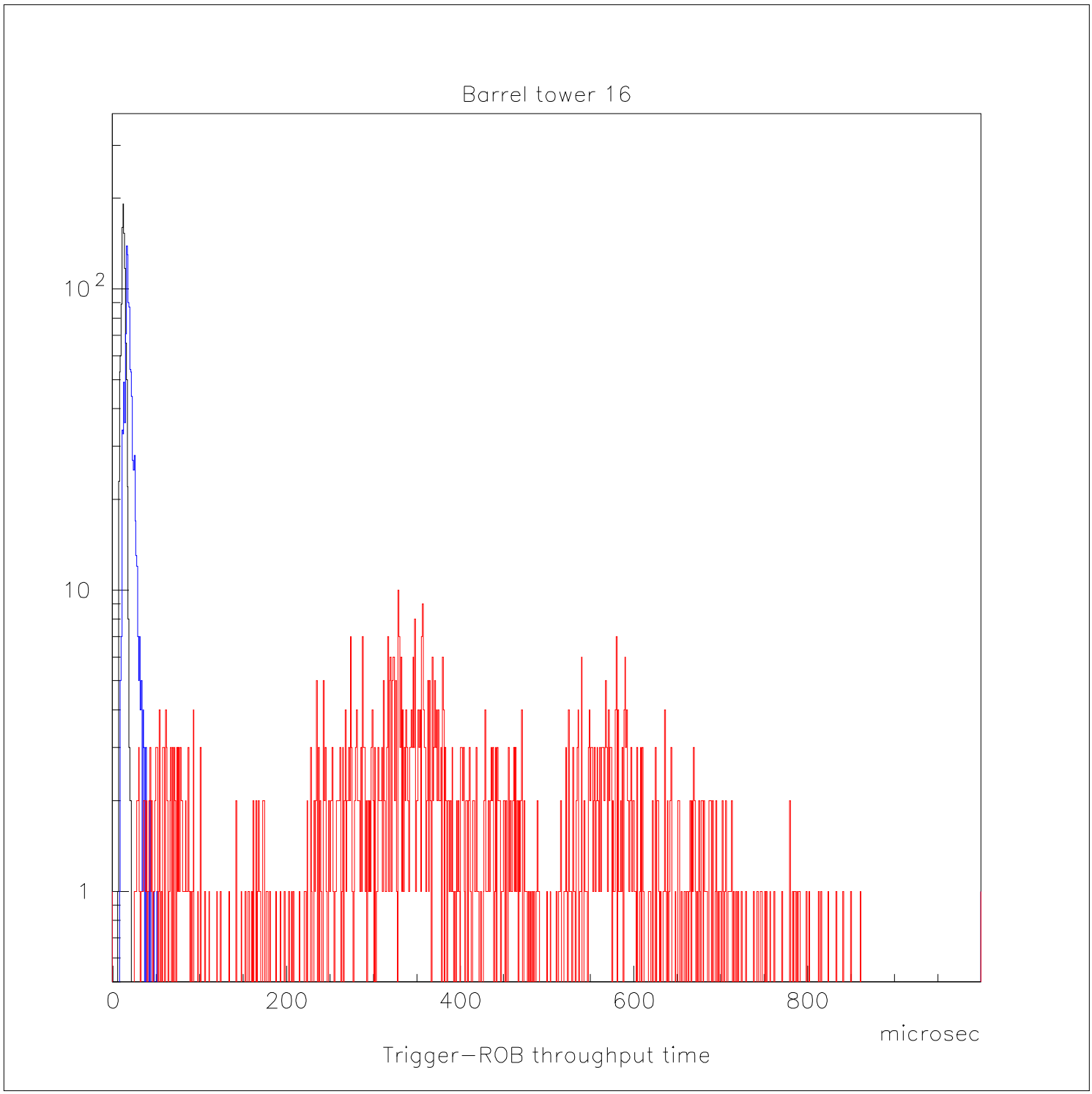

Barrel tower 15
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

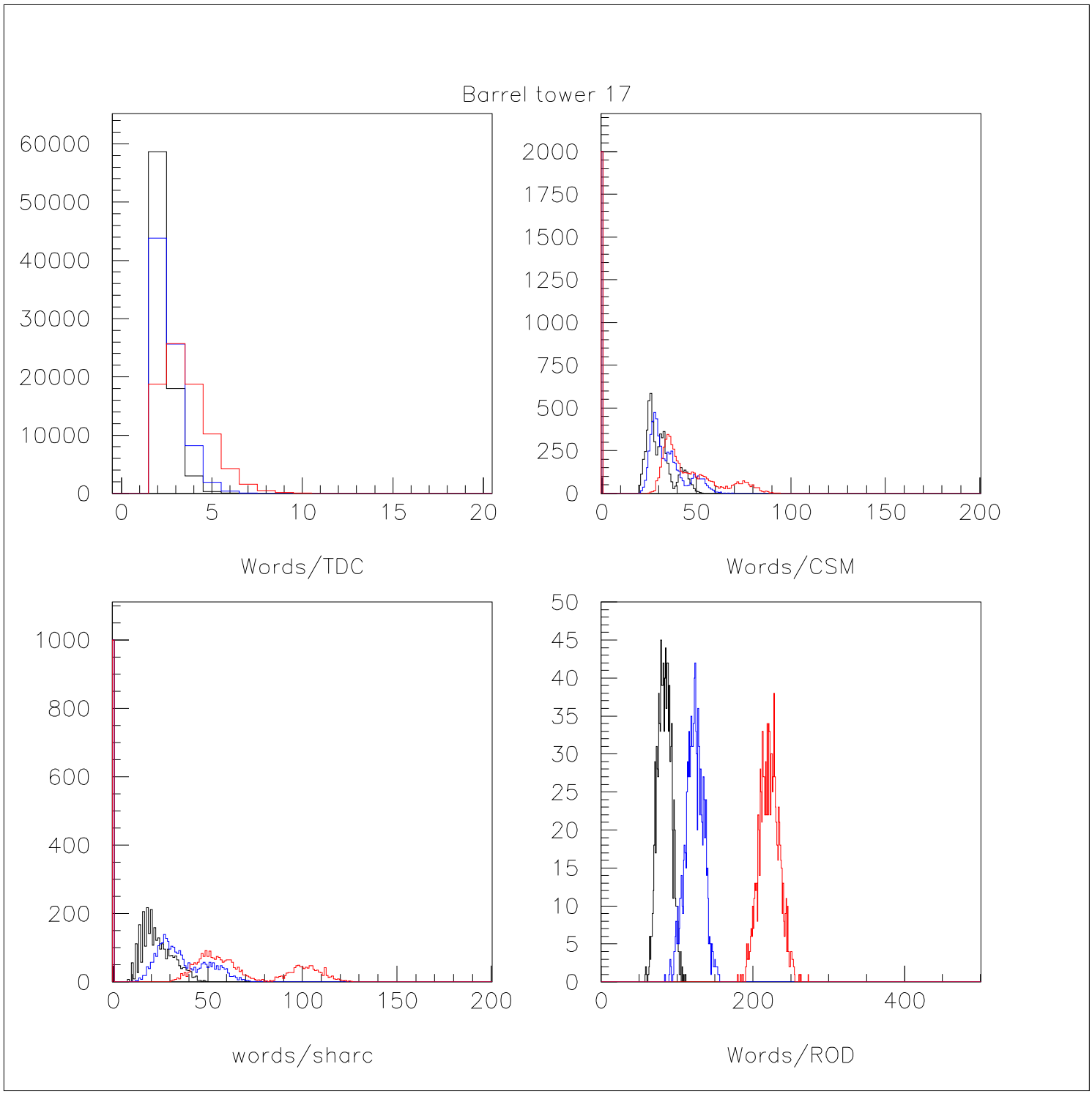

Barrel tower 16
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
50
45
40
35
30
25
20
15
10
5
0
0
200
400
Words/ROD

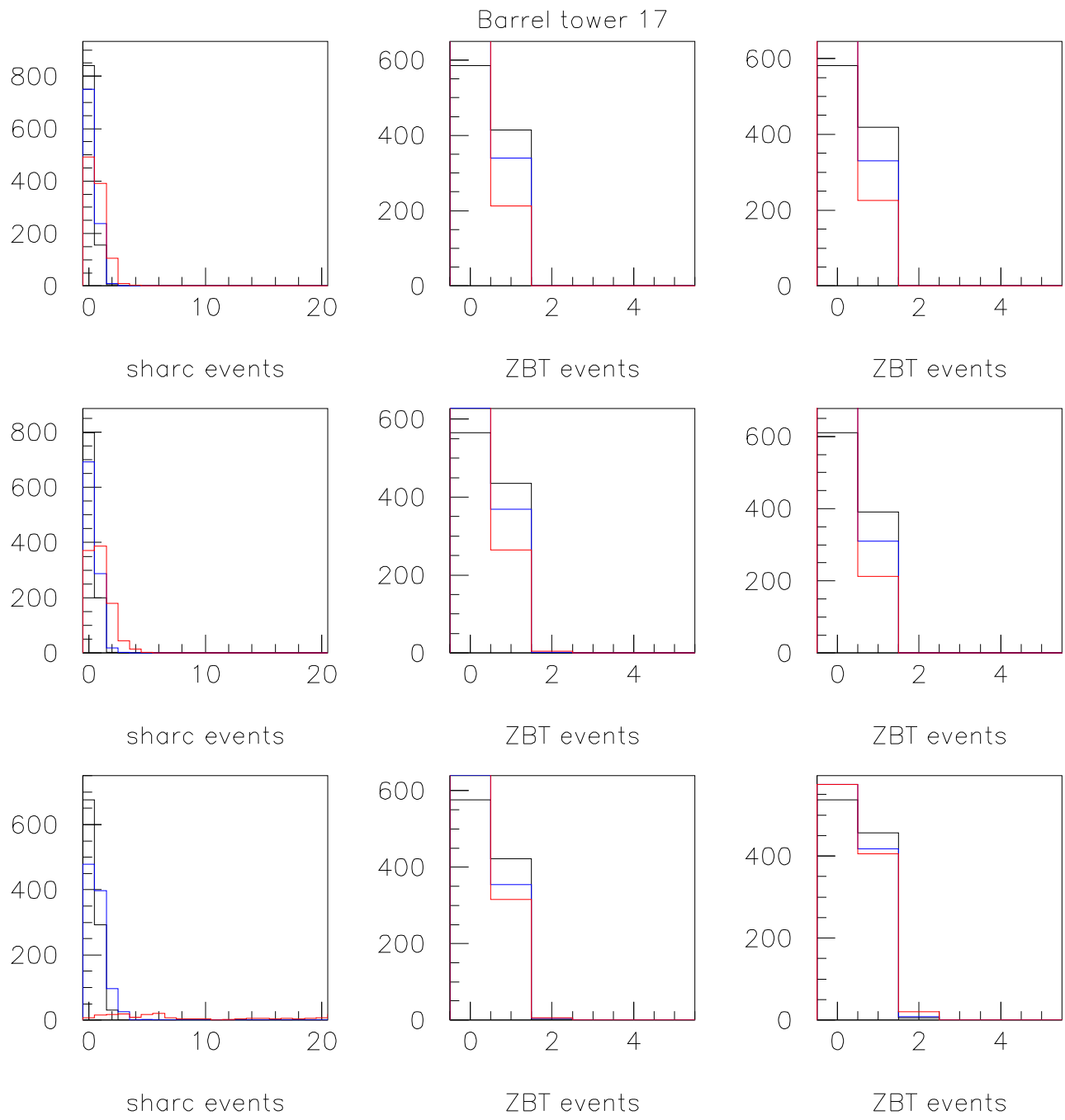

Barrel tower 16
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events

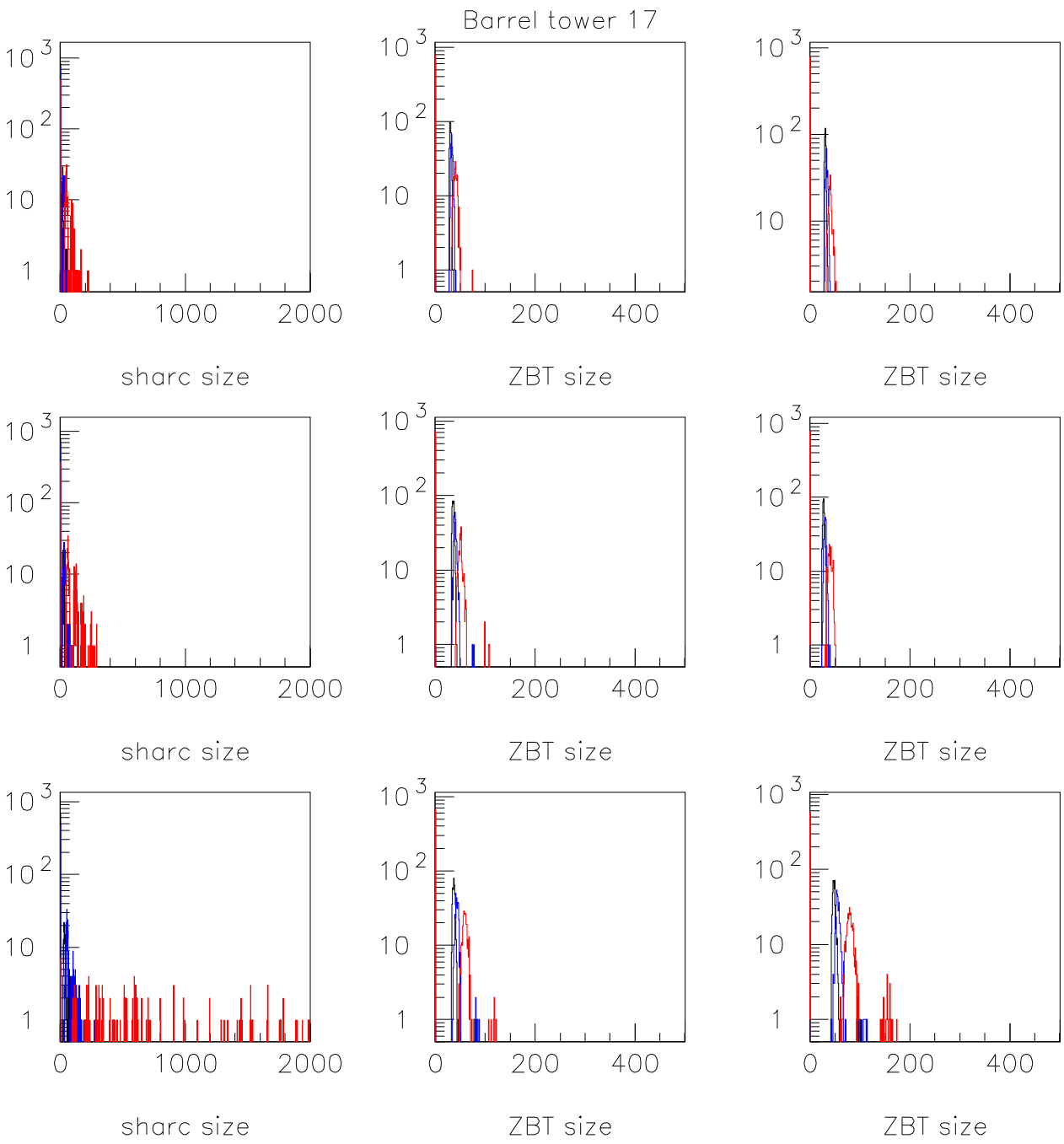

Barrel tower 16
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

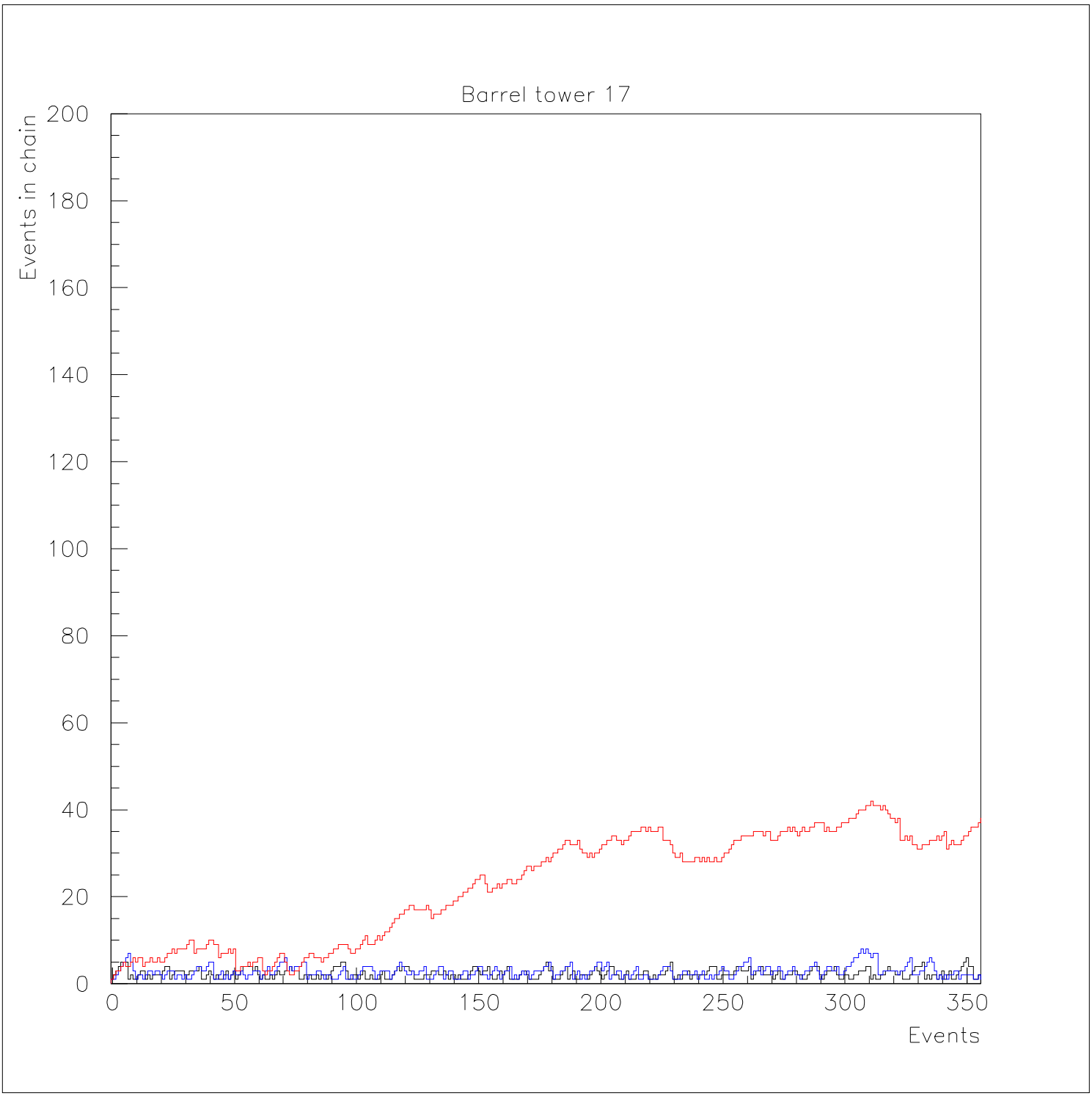

Barrel tower 16
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

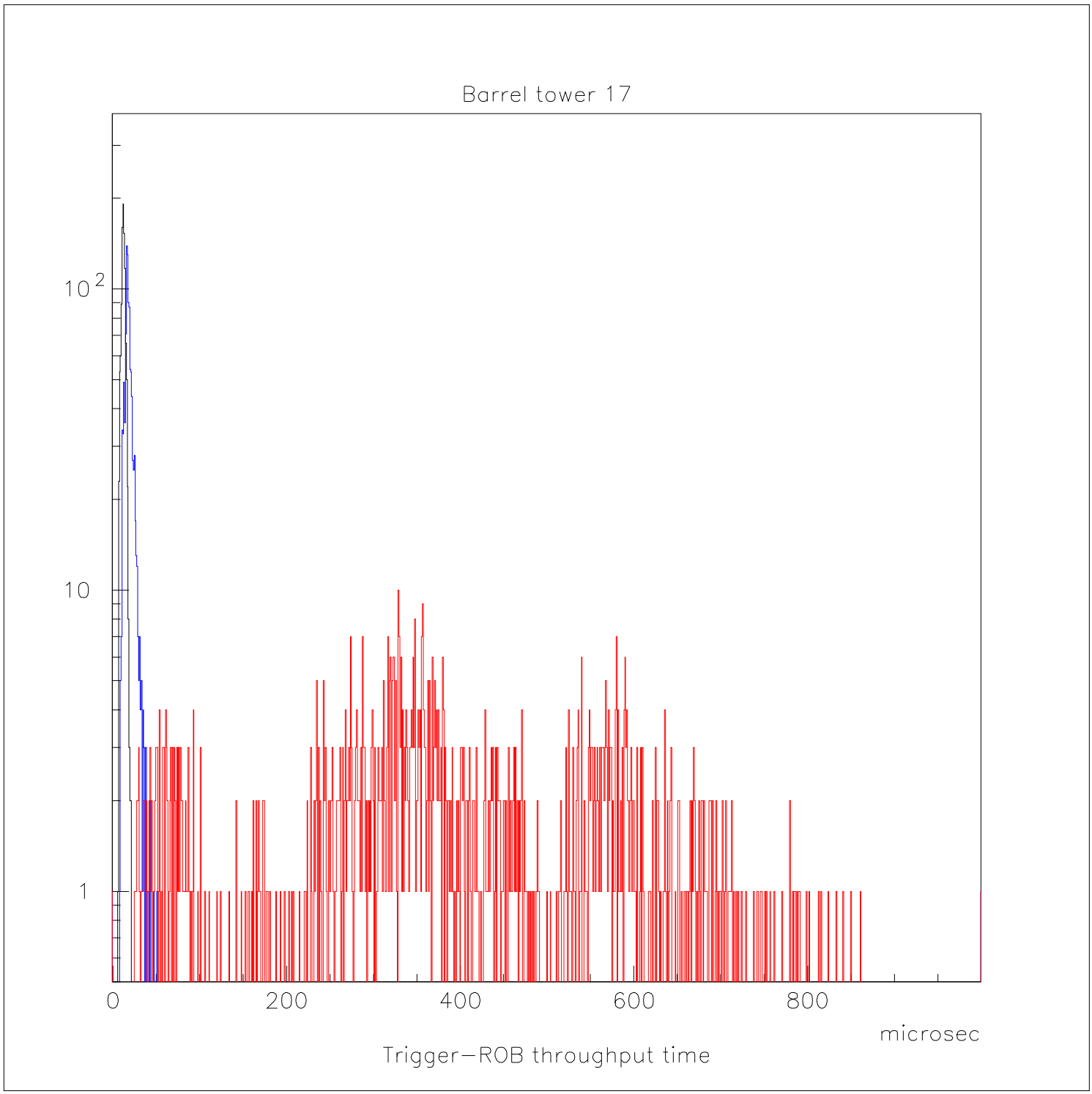

Barrel tower 16
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

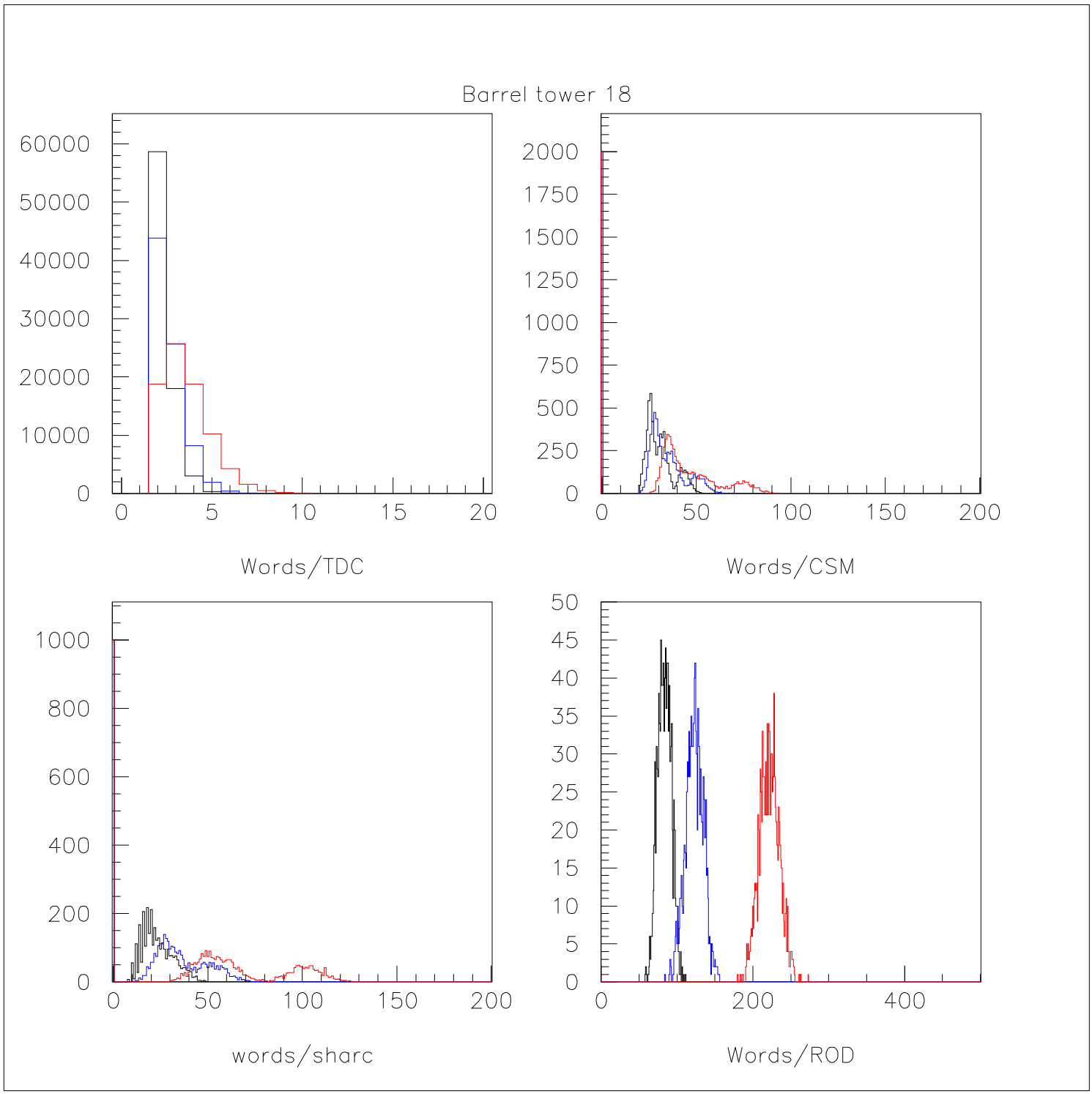

Barrel tower 17
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
50
45
40
35
30
25
20
15
10
5
0
0
200
400
Words/ROD

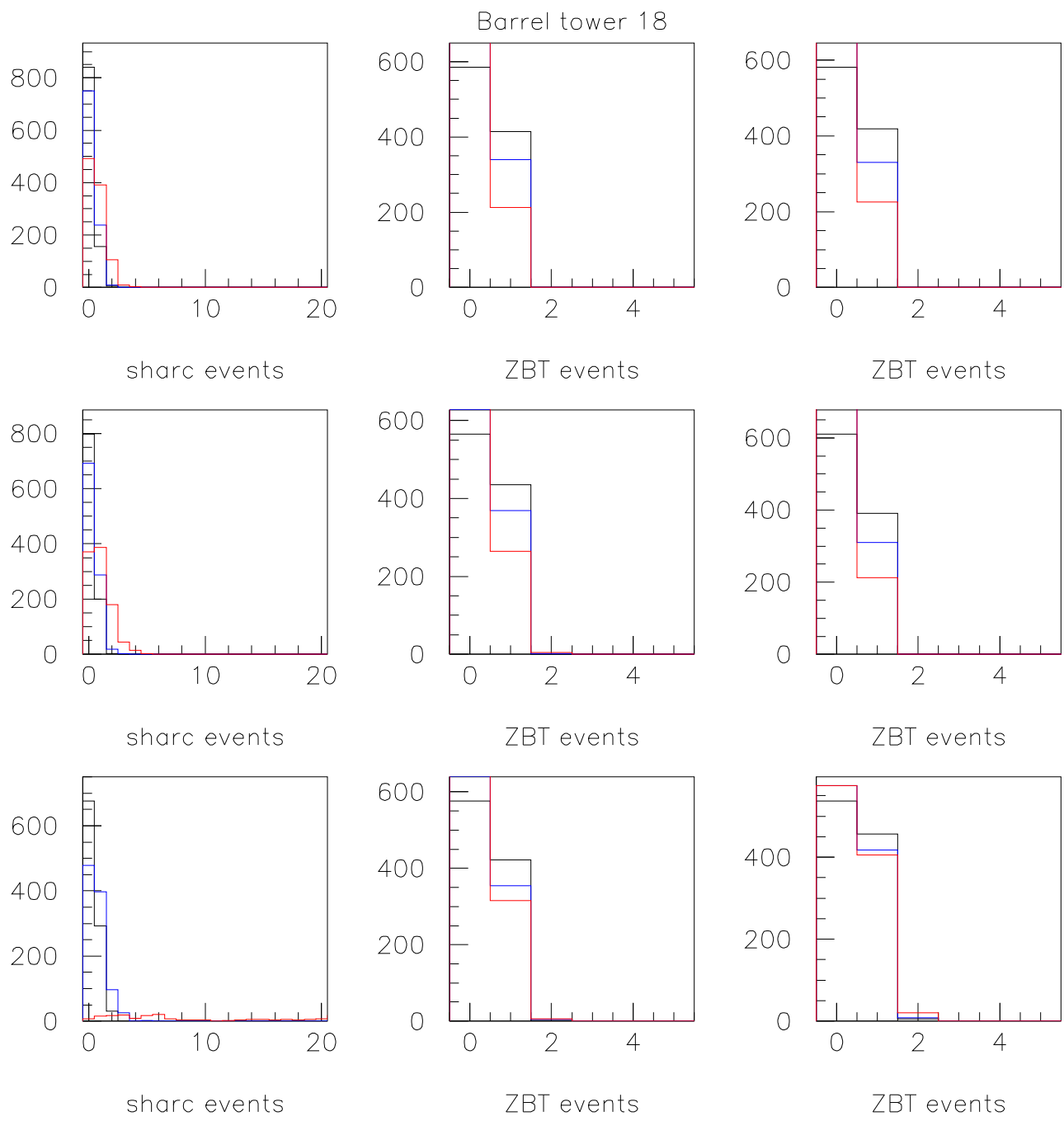

Barrel tower 17
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events


Barrel tower 17
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size


Barrel tower 17
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events


Barrel tower 17
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time


Barrel tower 18
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
50
45
40
35
30
25
20
15
10
5
0
0
200
400
Words/ROD


Barrel tower 18
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
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20
sharc events
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400
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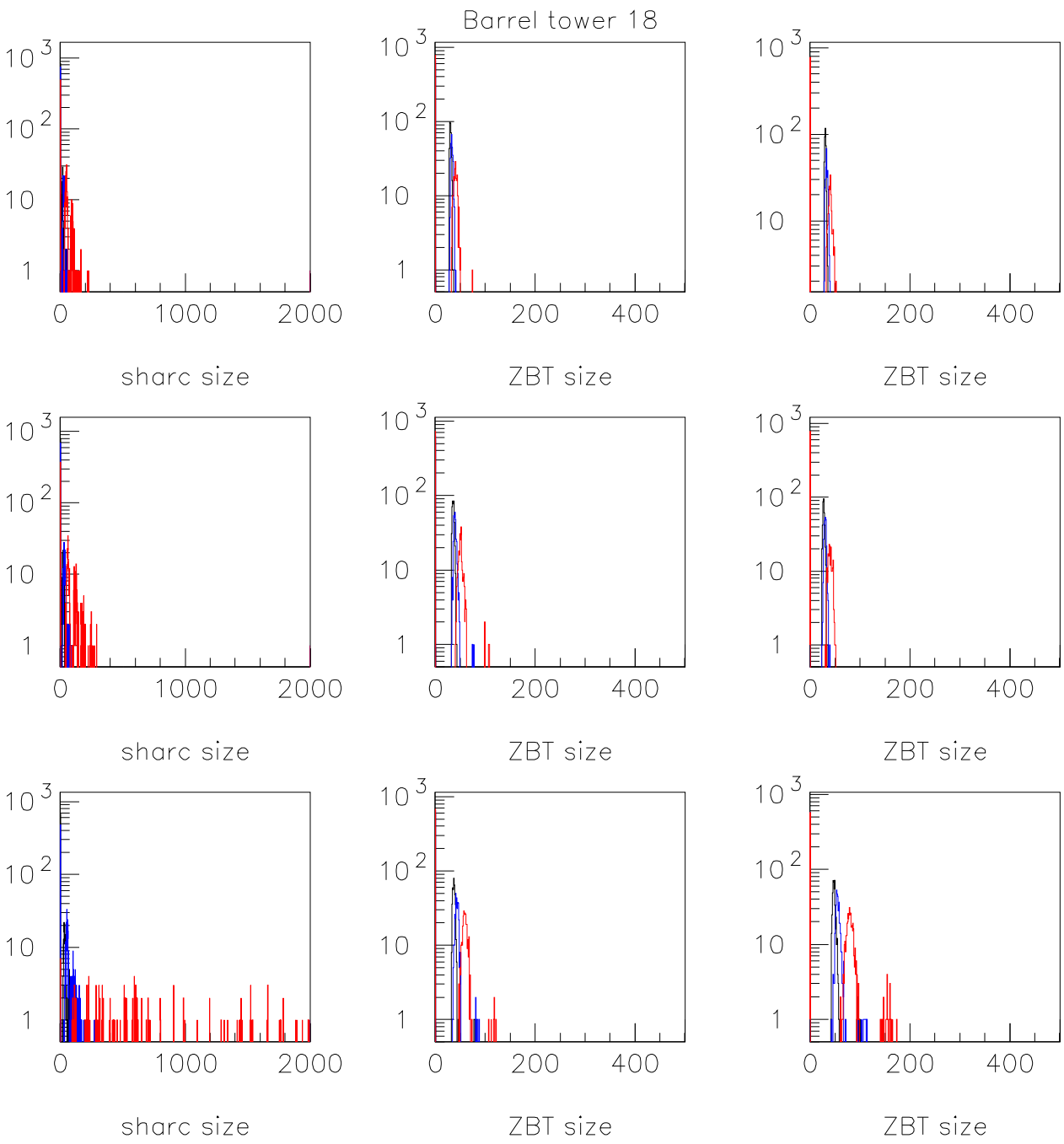
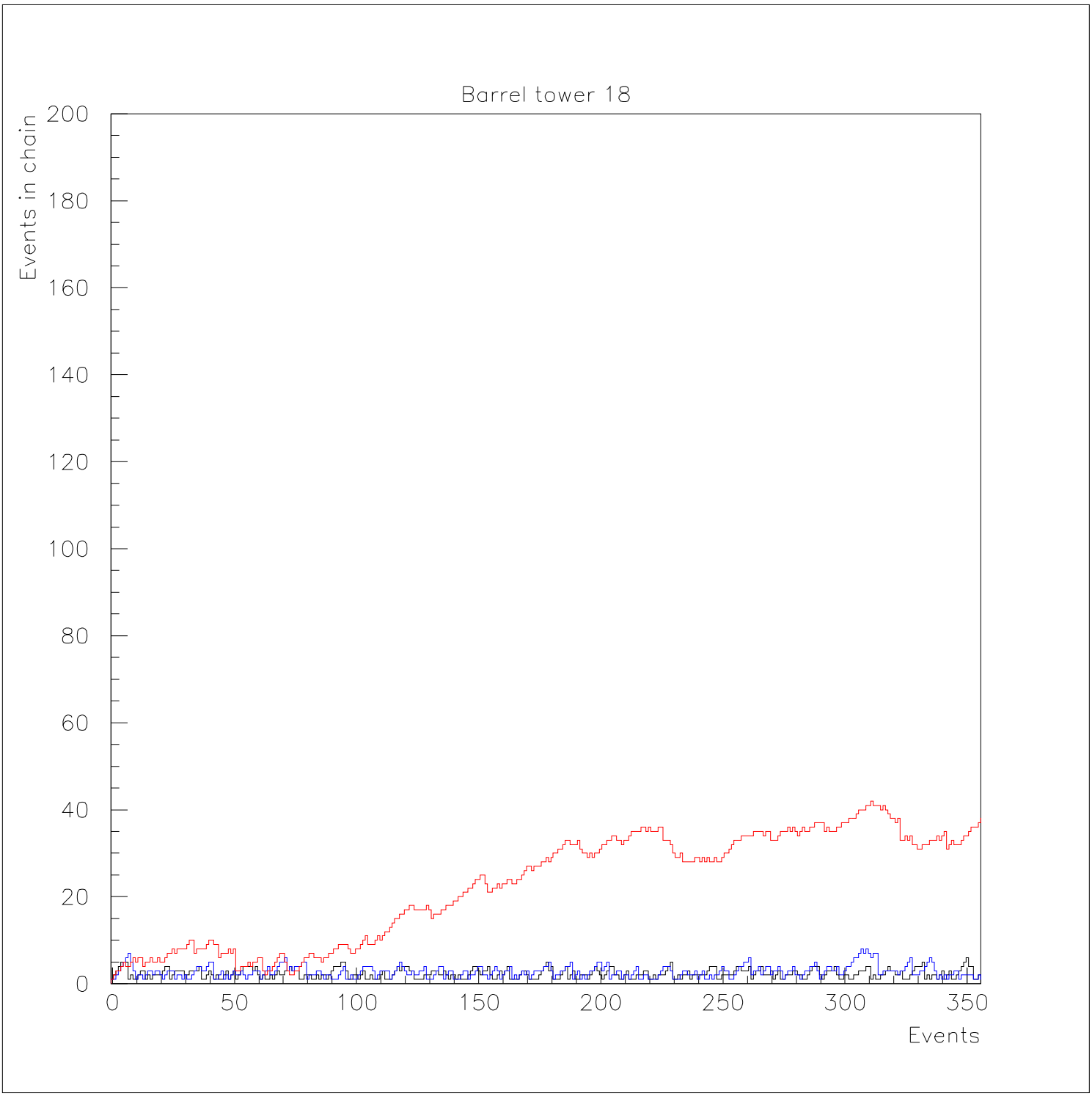
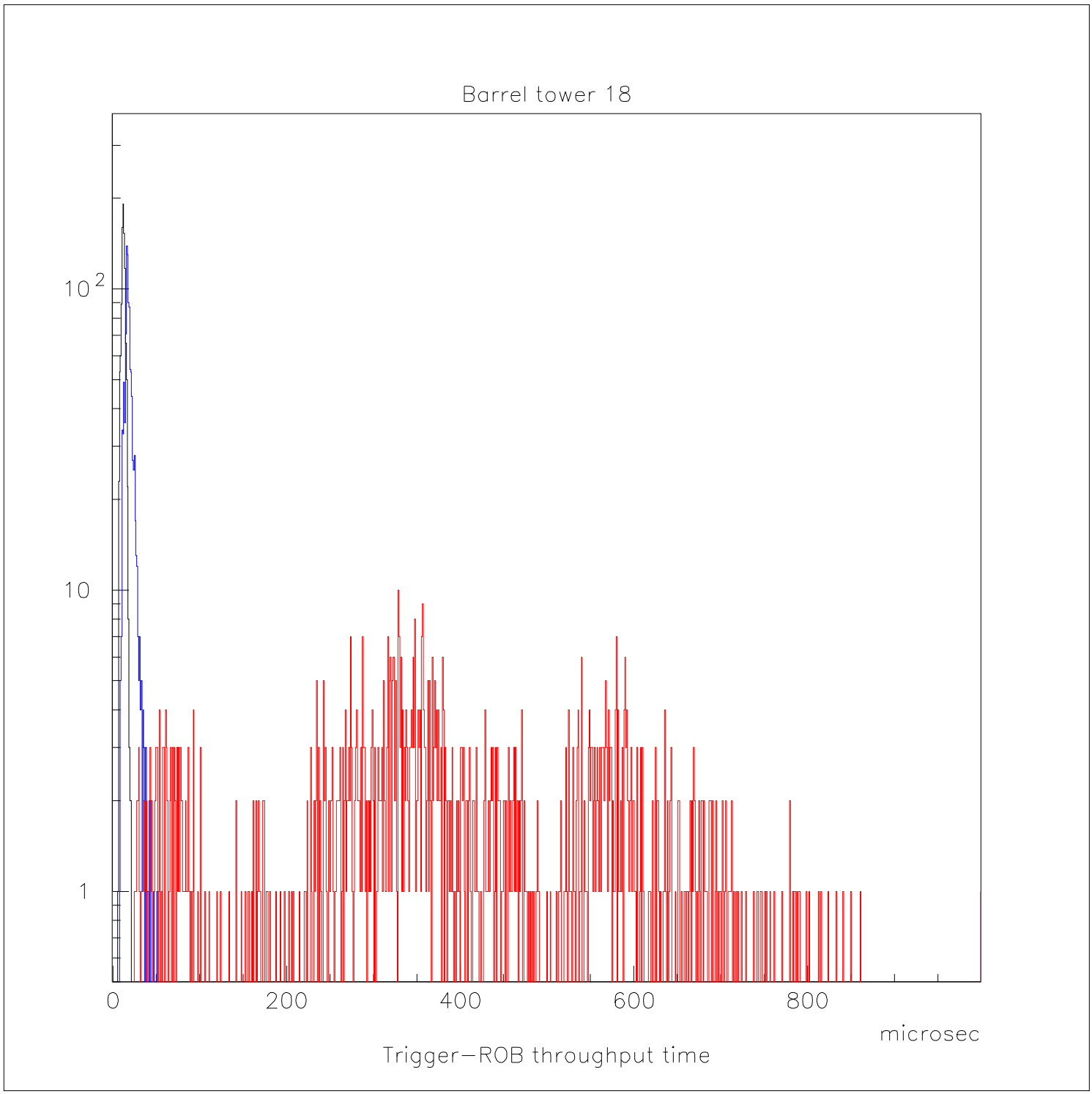
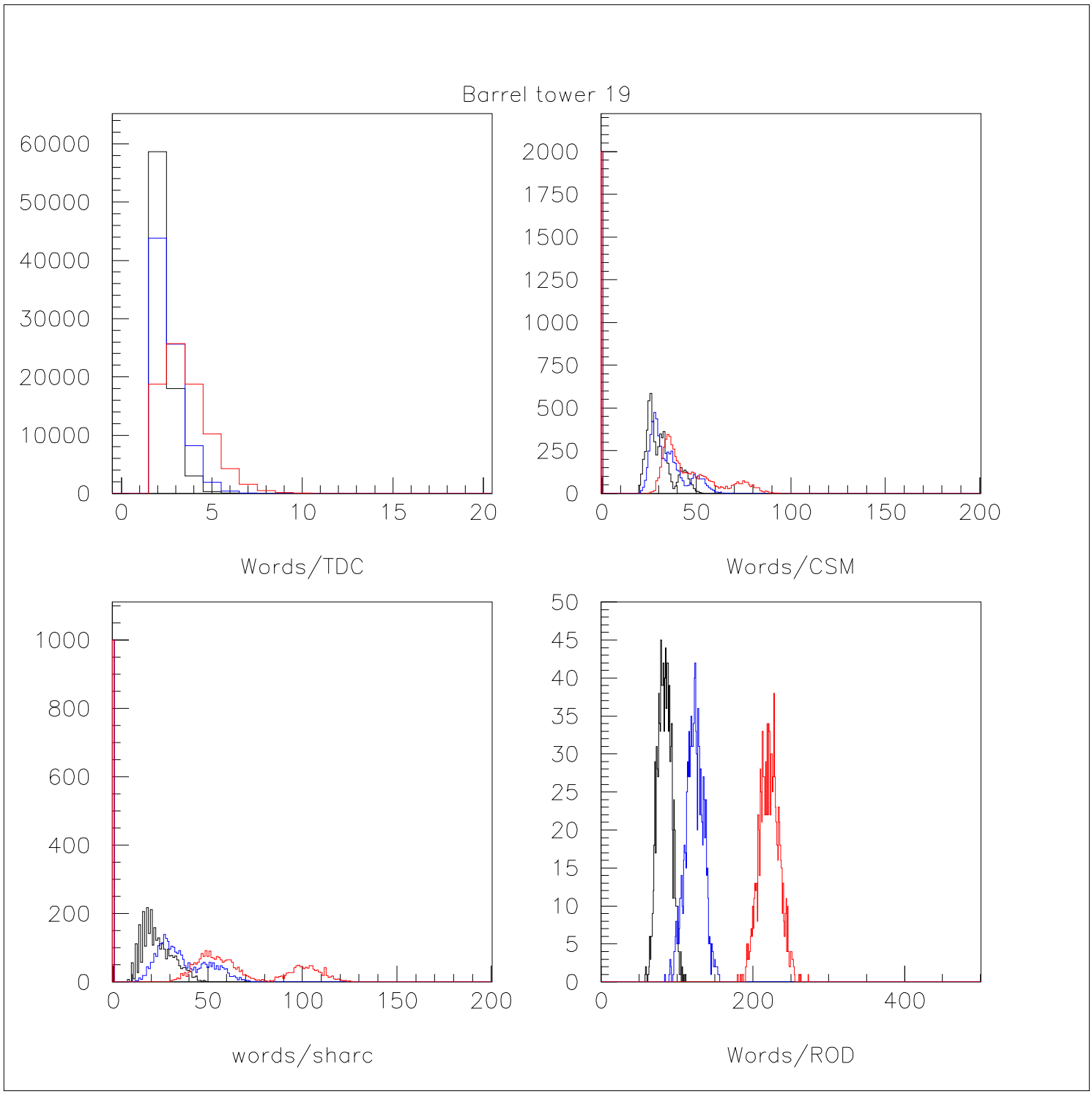
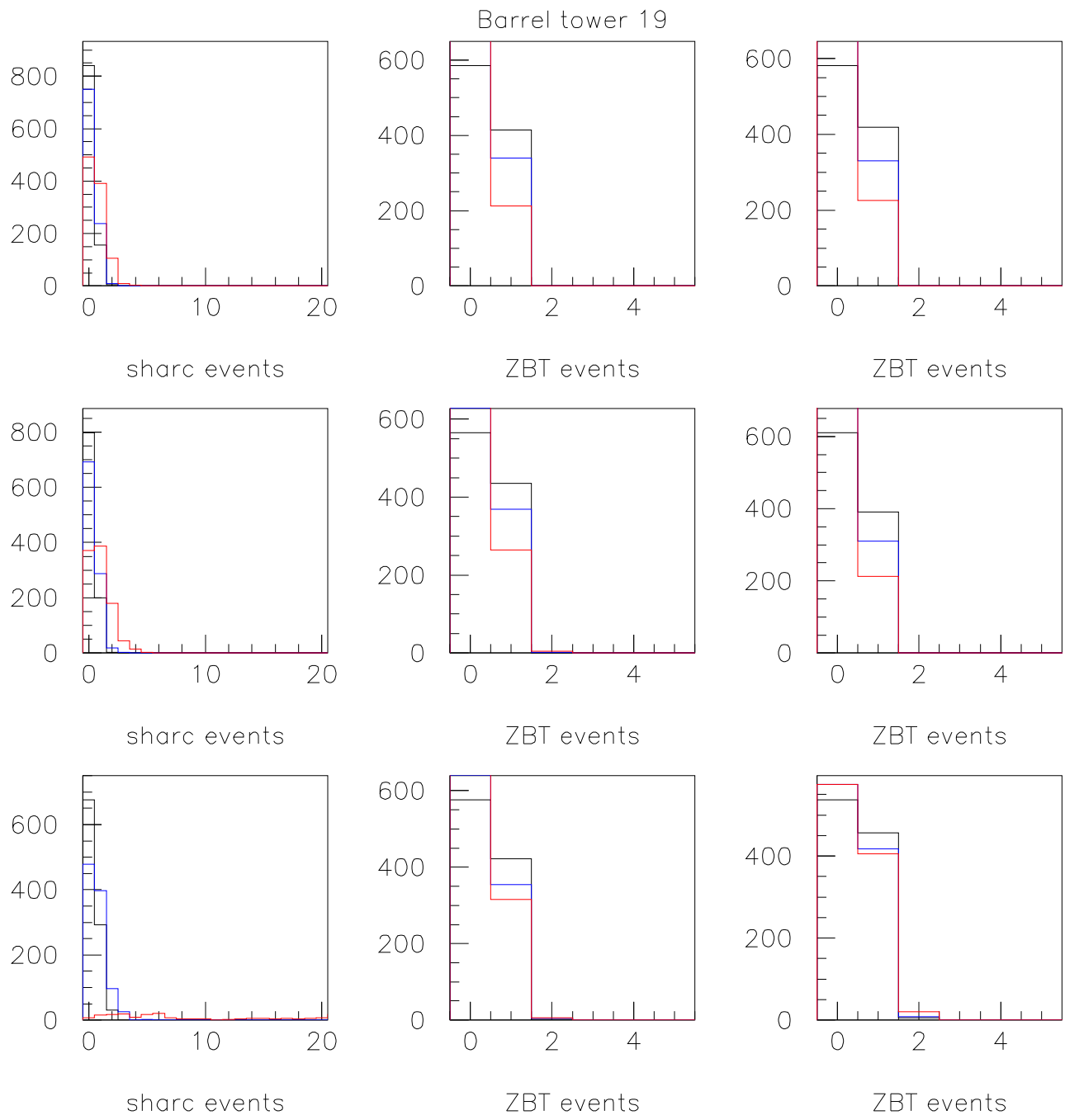
4
ZBT events
400
200
0
0
2
4
ZBT events

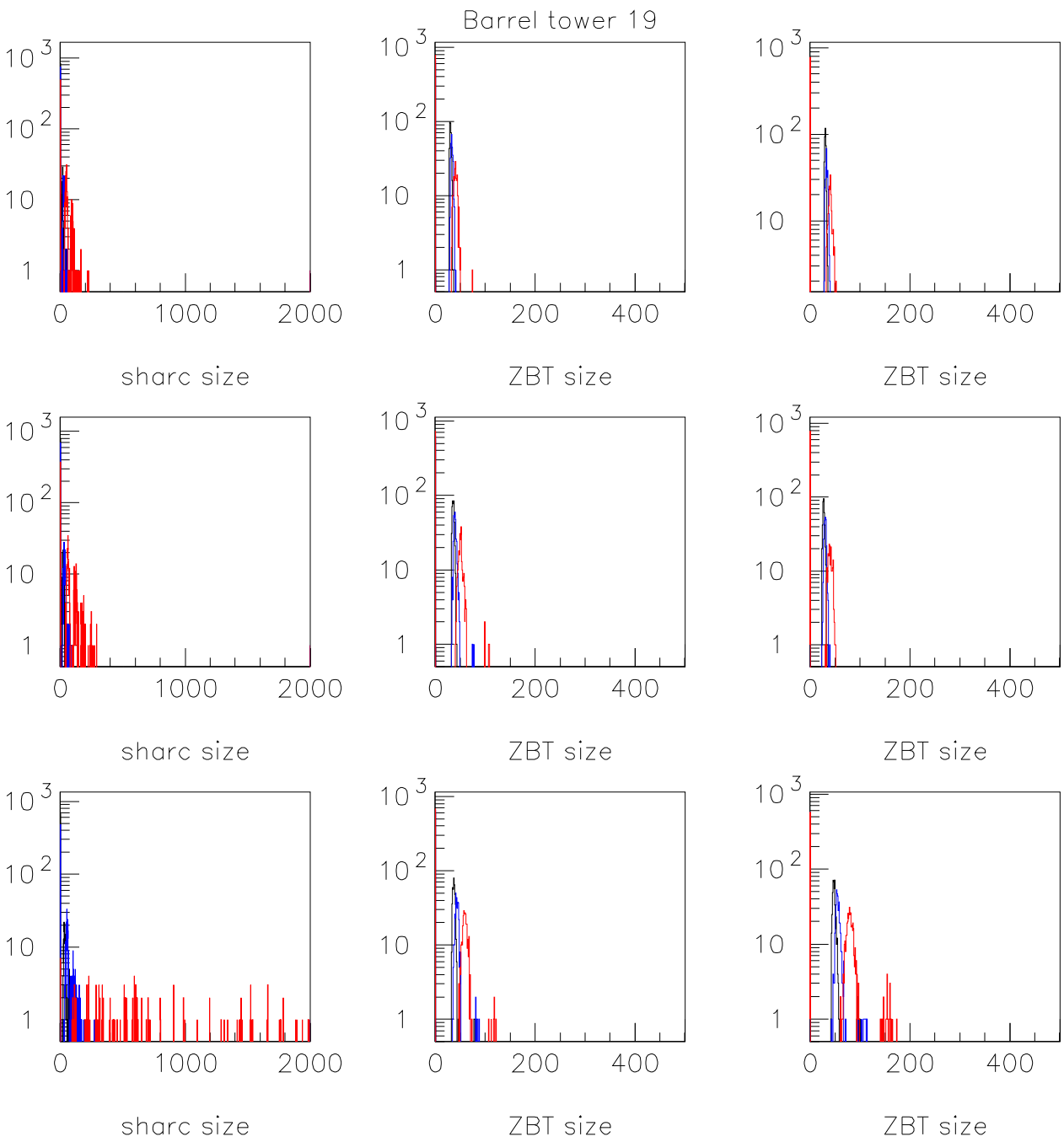

Barrel tower 18
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

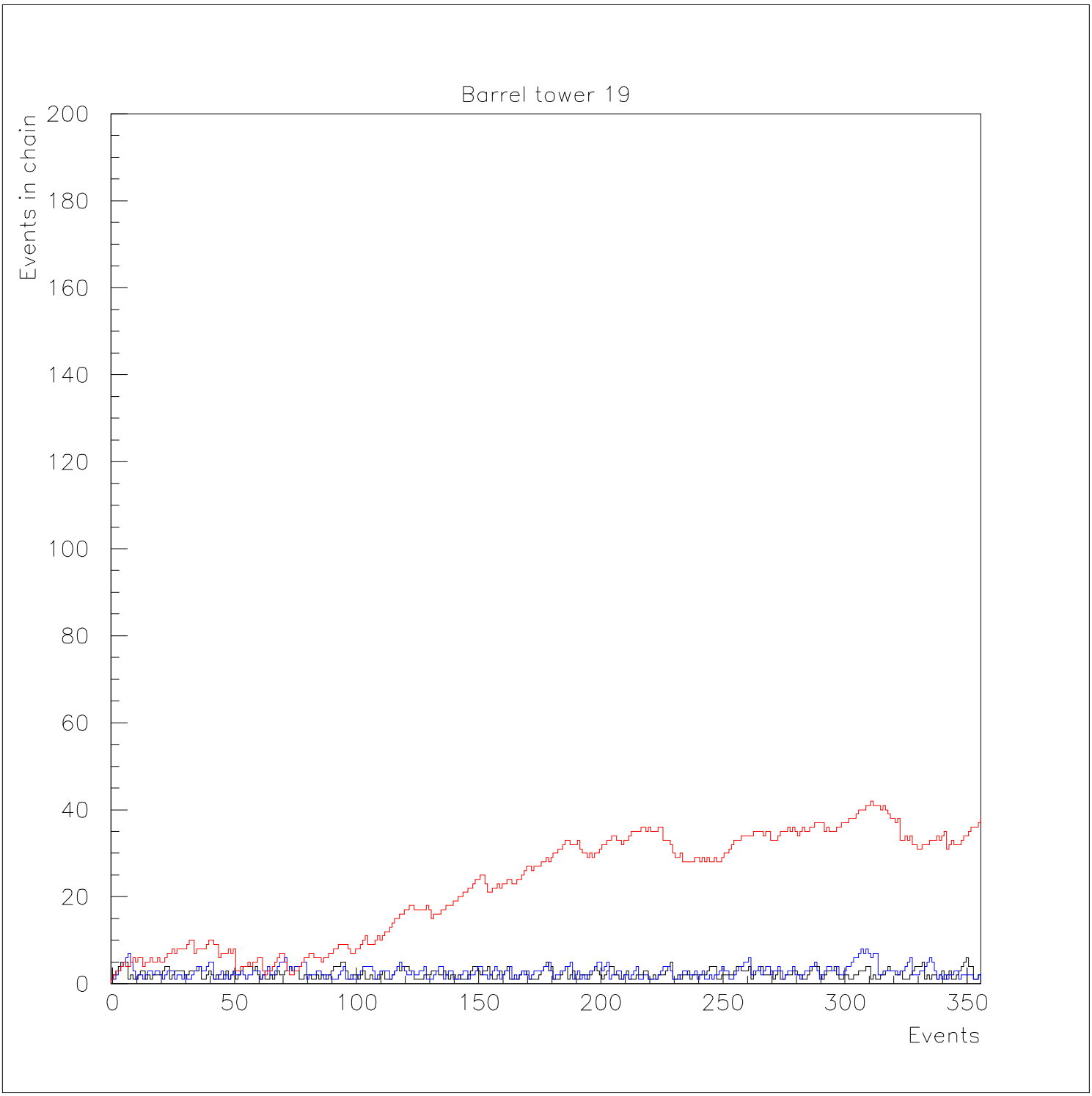

Barrel tower 18
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

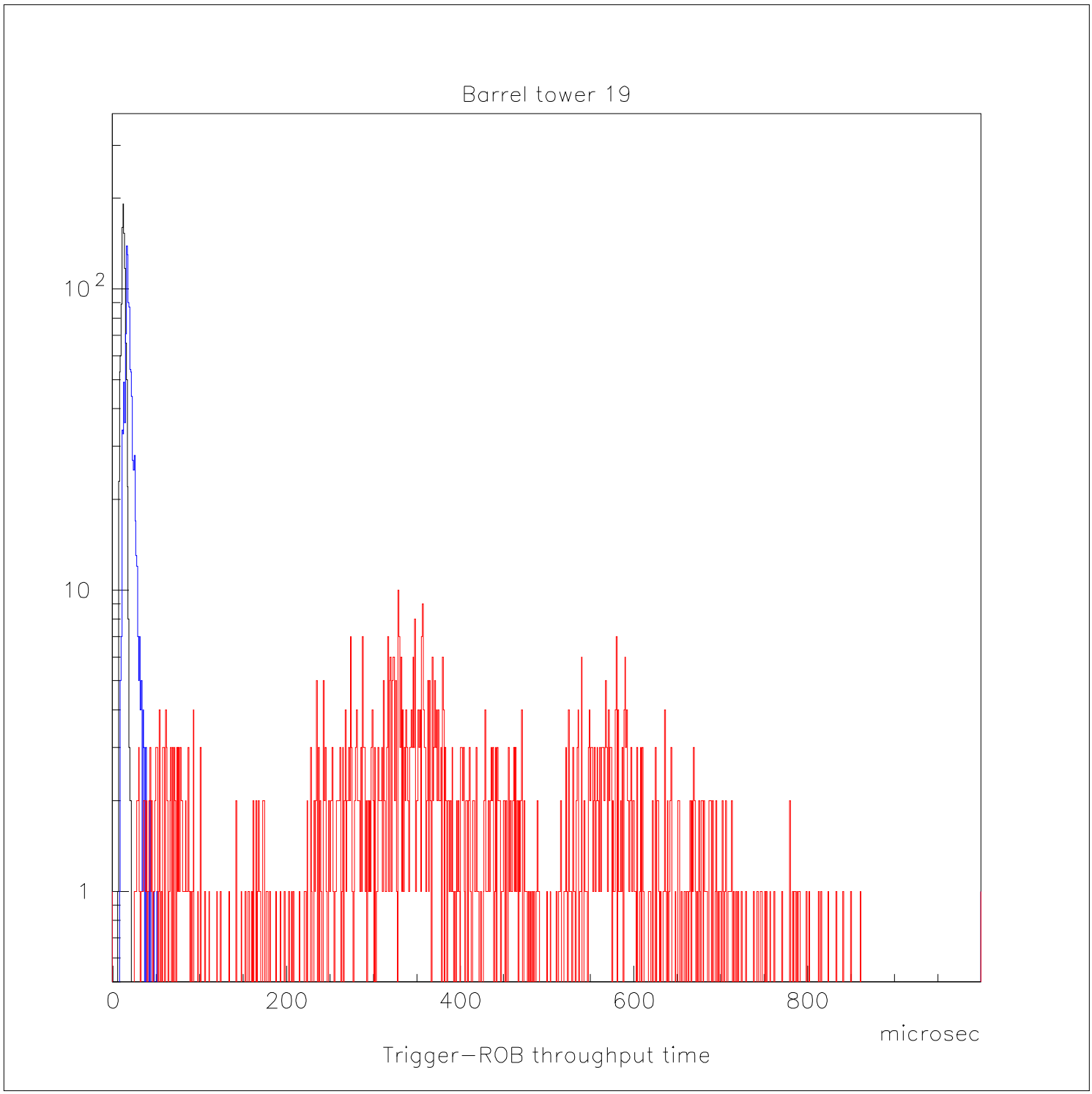

Barrel tower 18
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

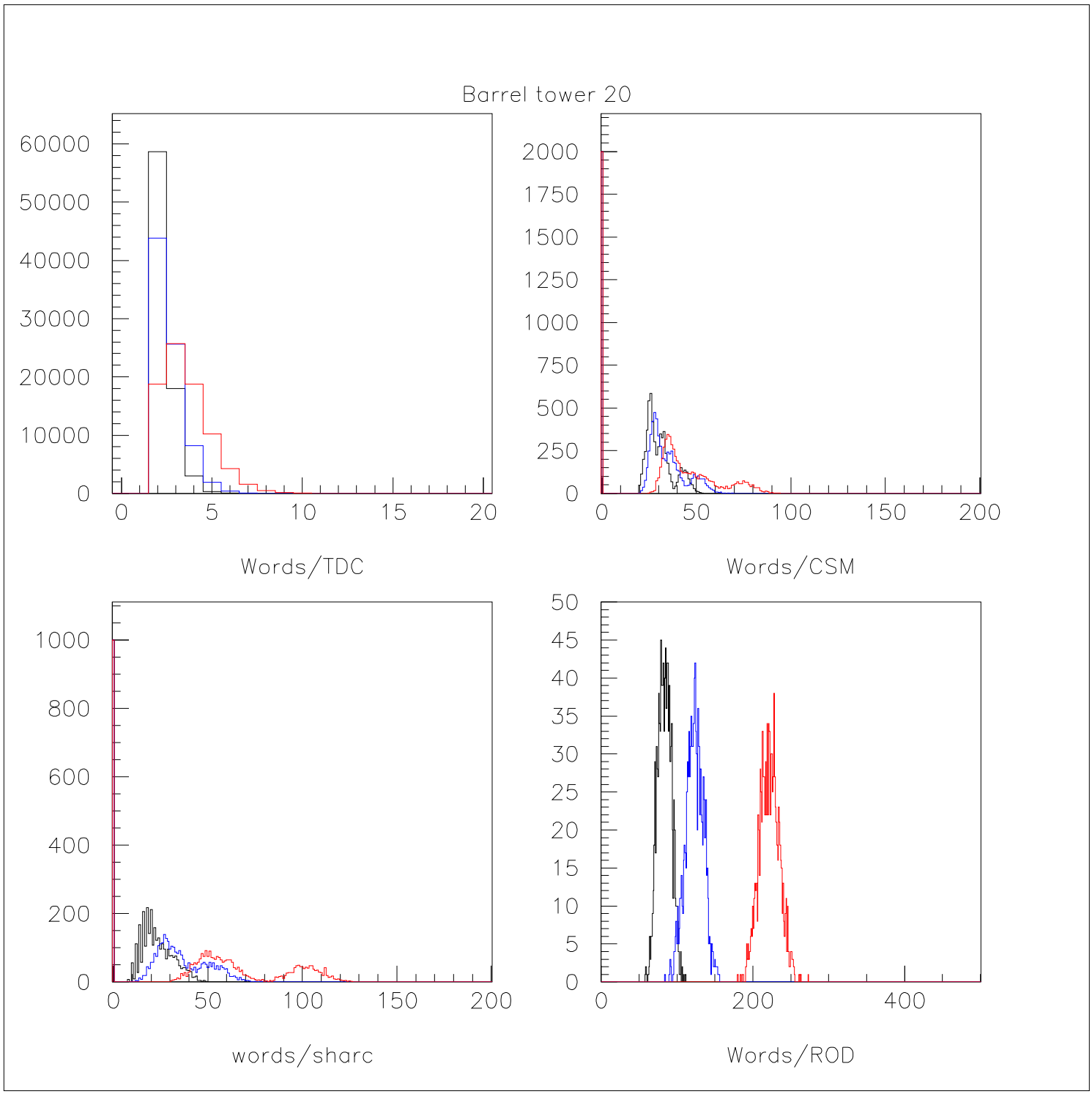

Barrel tower 19
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
50
45
40
35
30
25
20
15
10
5
0
0
200
400
Words/ROD

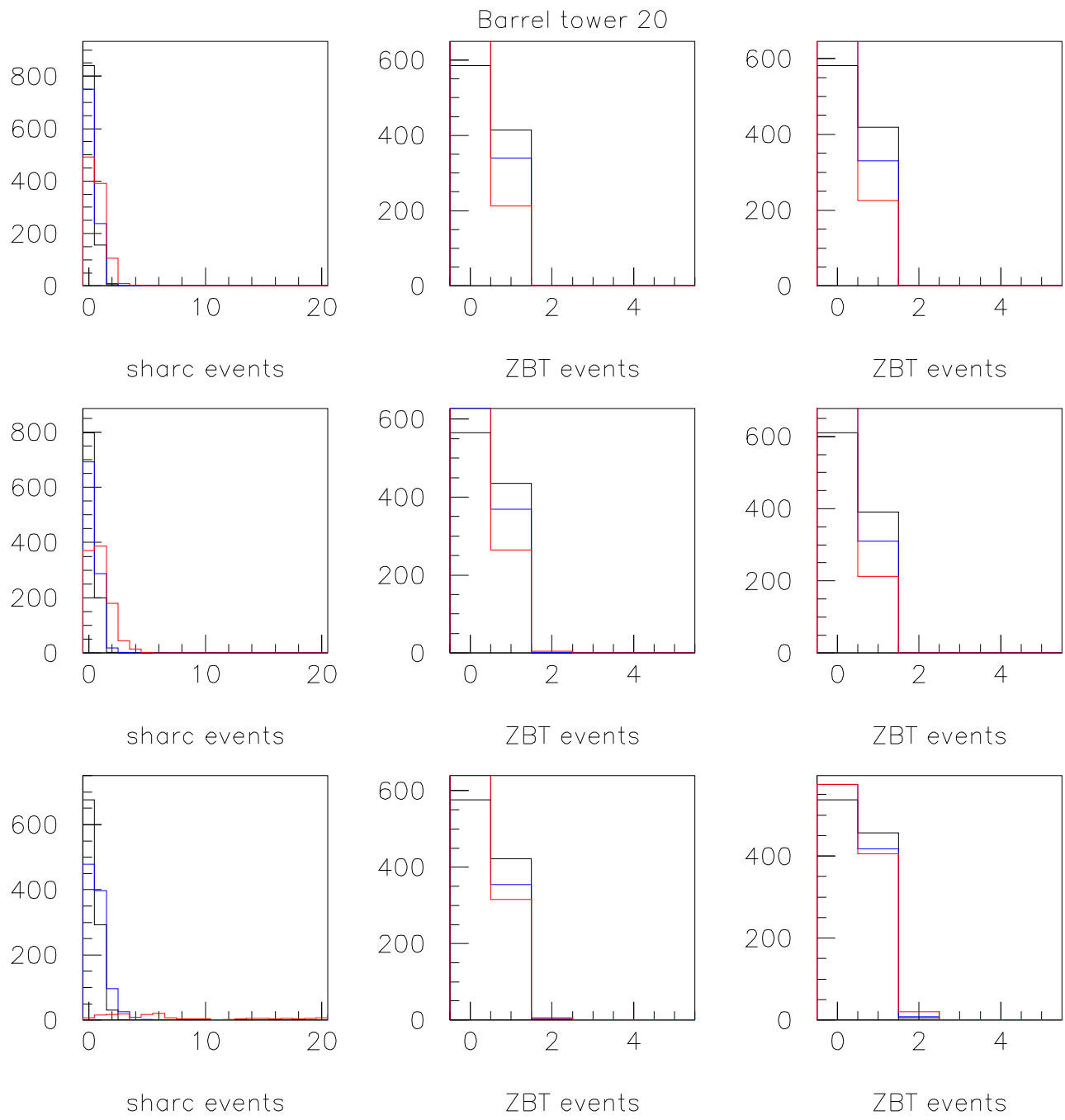

Barrel tower 19
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events

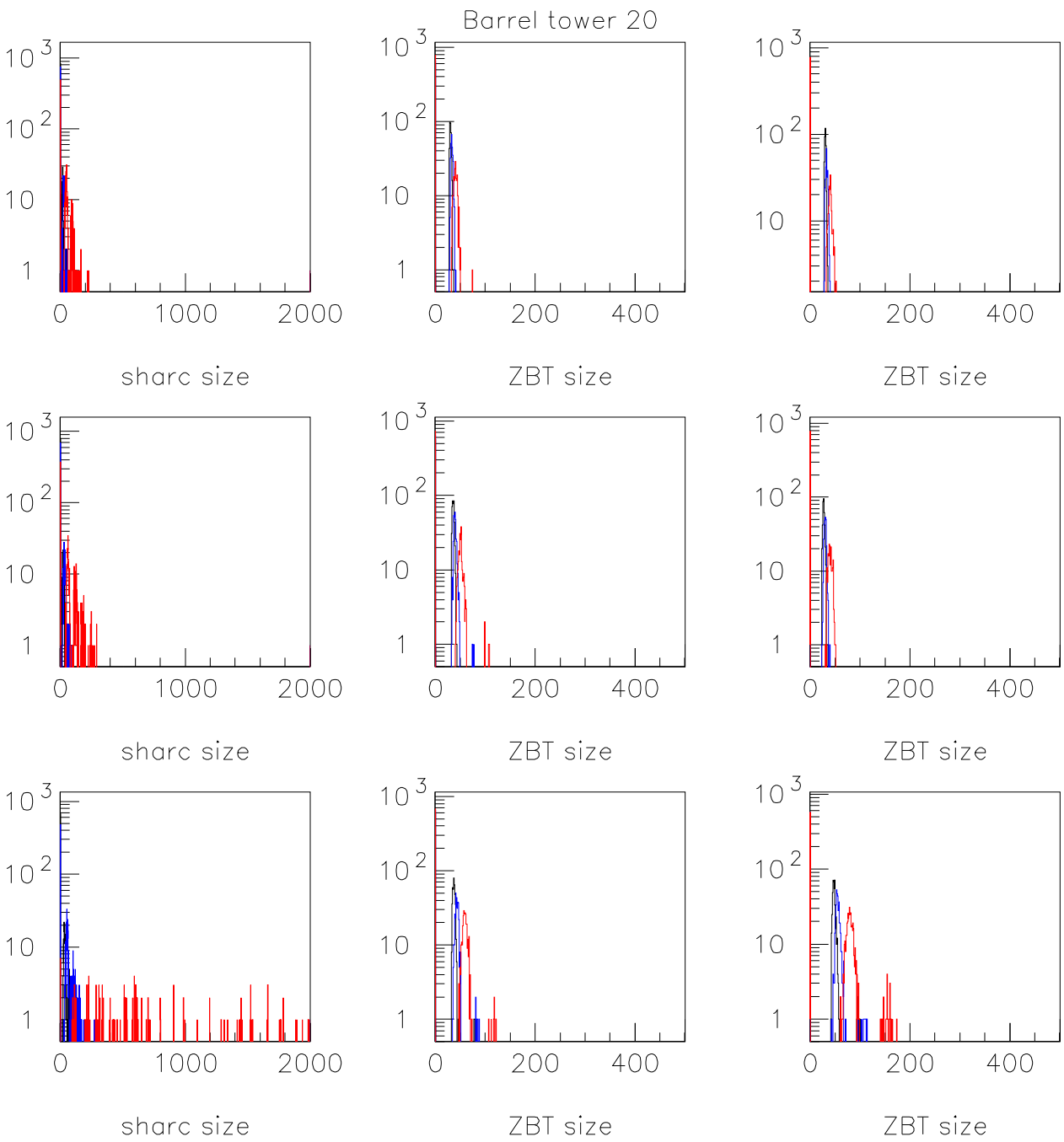

Barrel tower 19
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

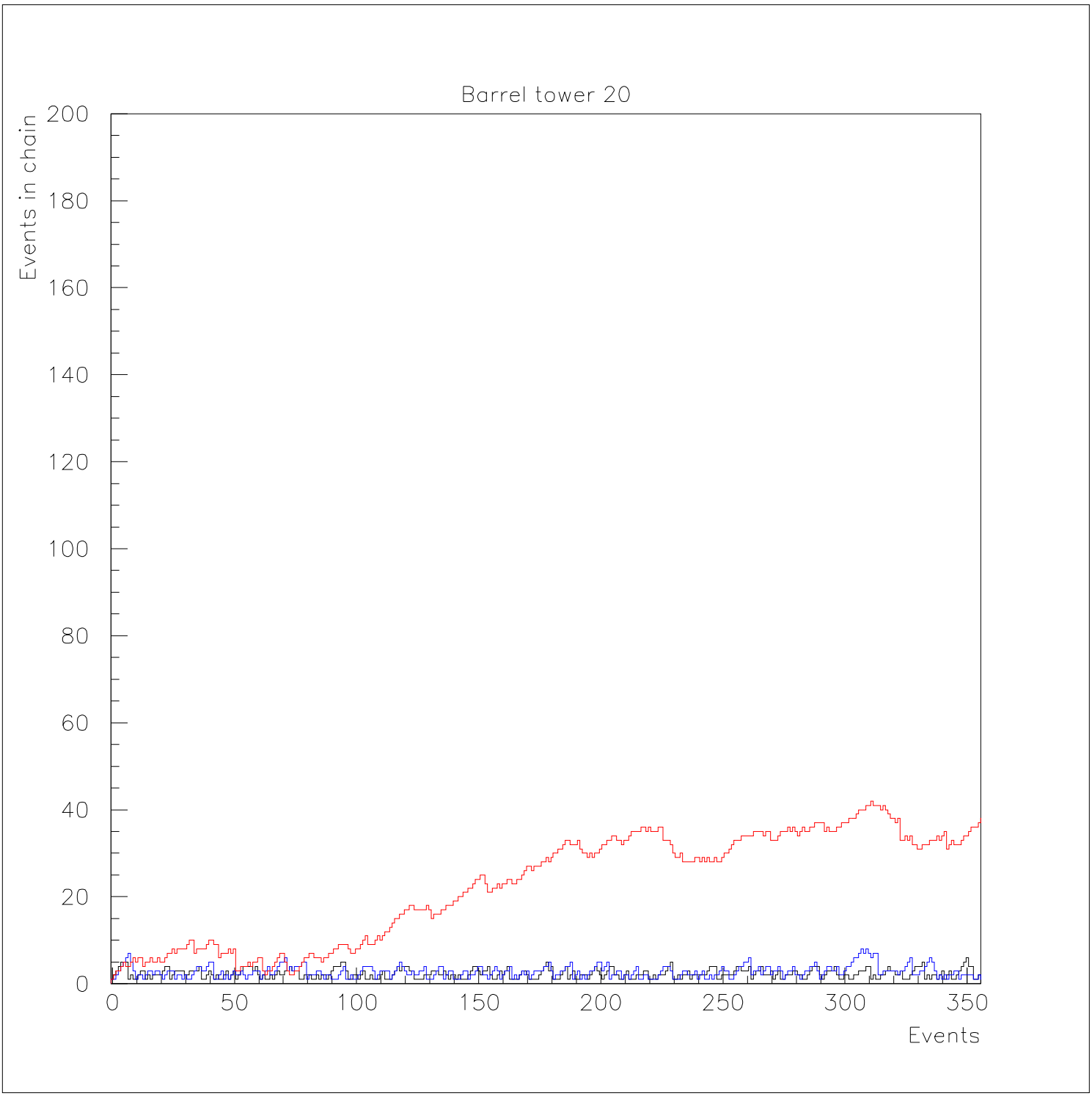

Barrel tower 19
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

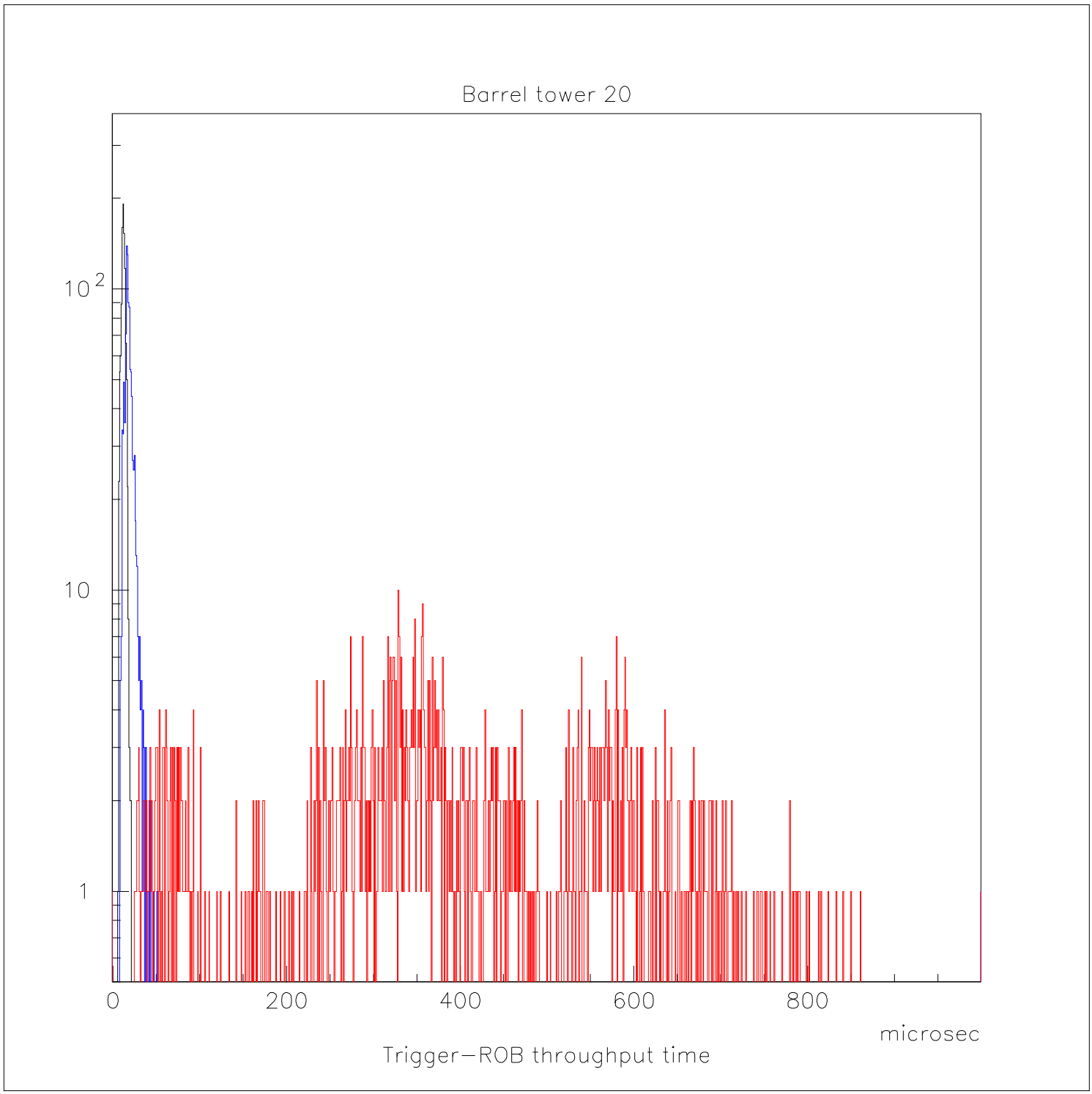

Barrel tower 19
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

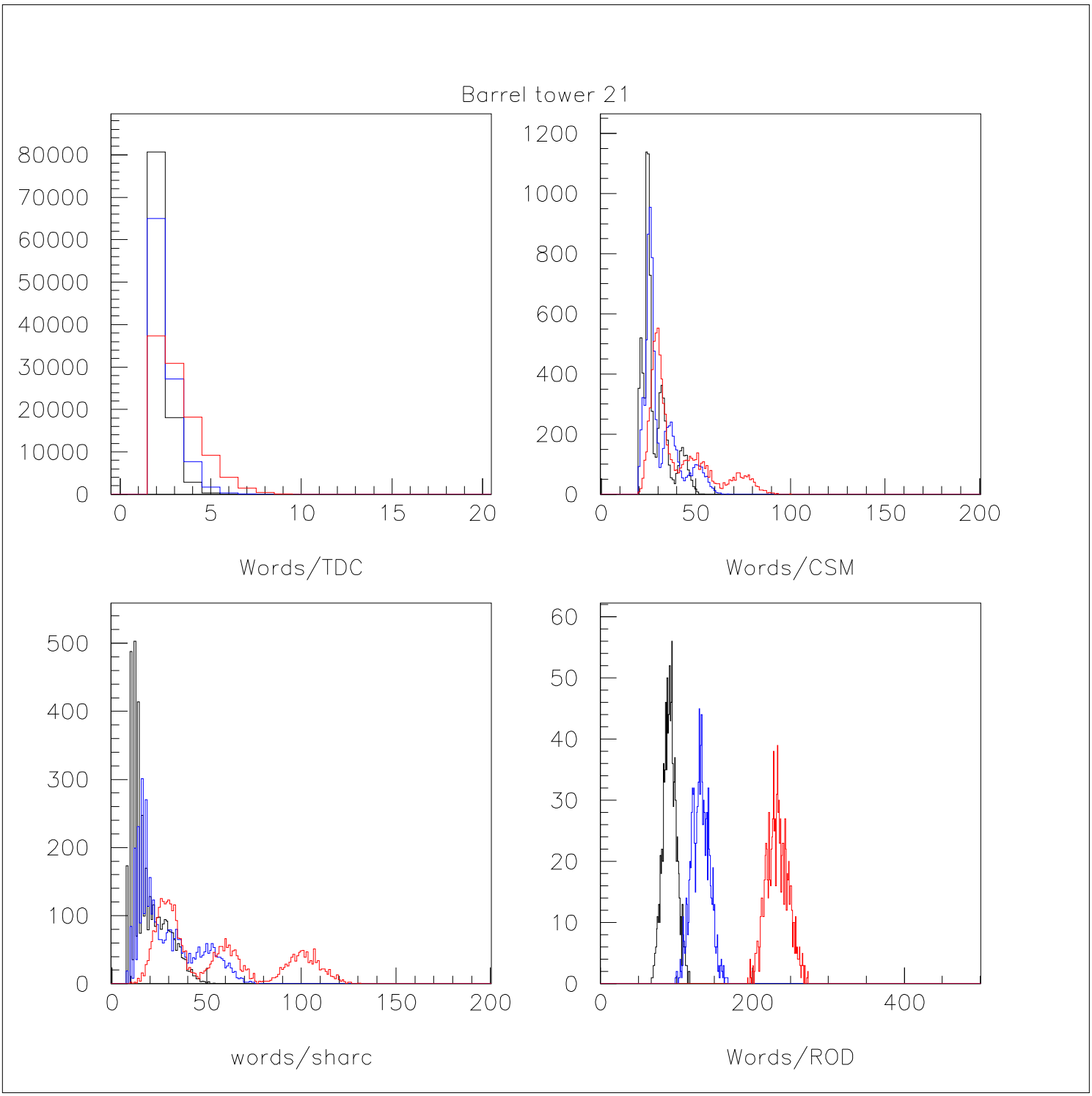

Barrel tower 20
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
50
45
40
35
30
25
20
15
10
5
0
0
200
400
Words/ROD

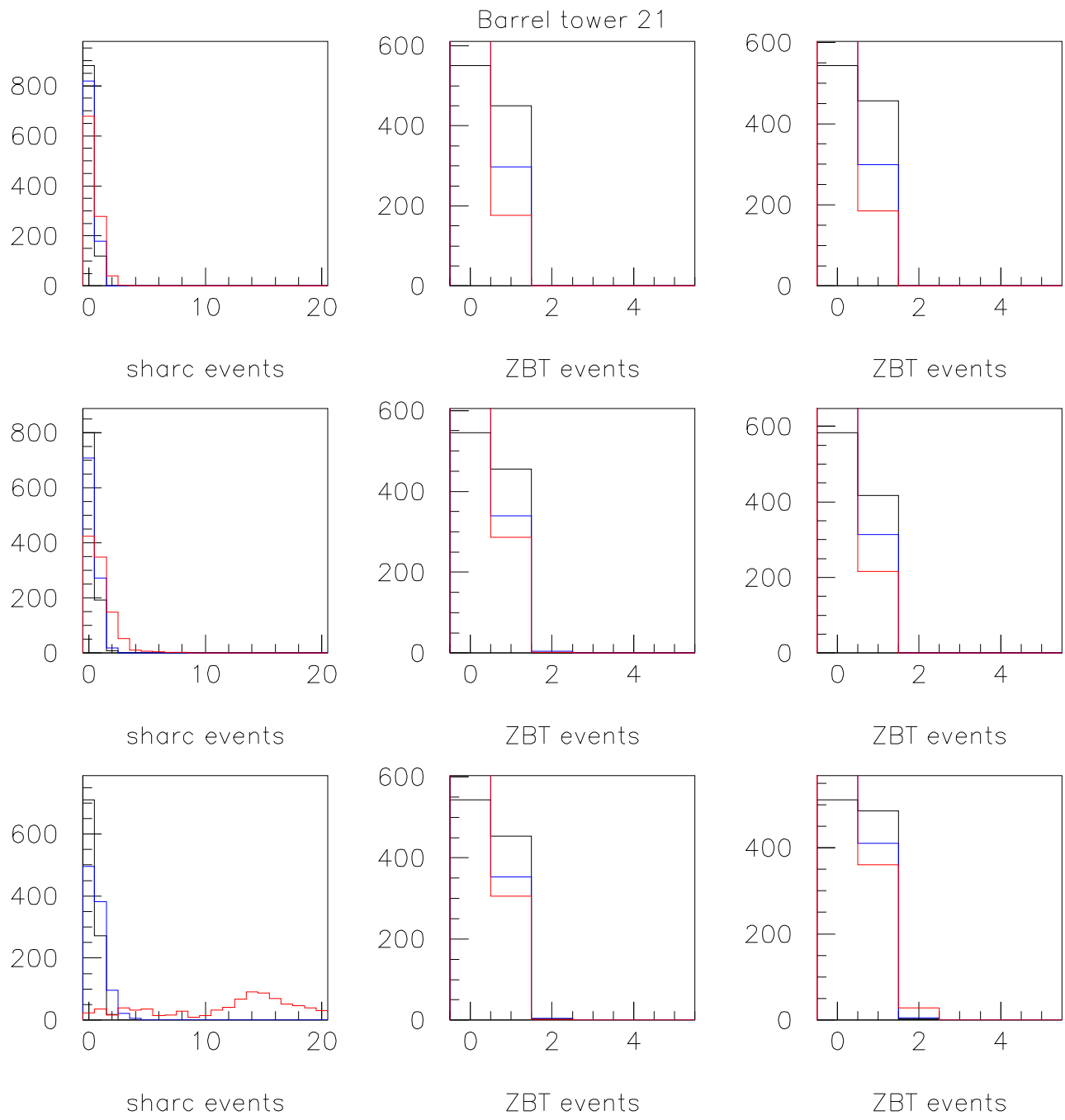

Barrel tower 20
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events

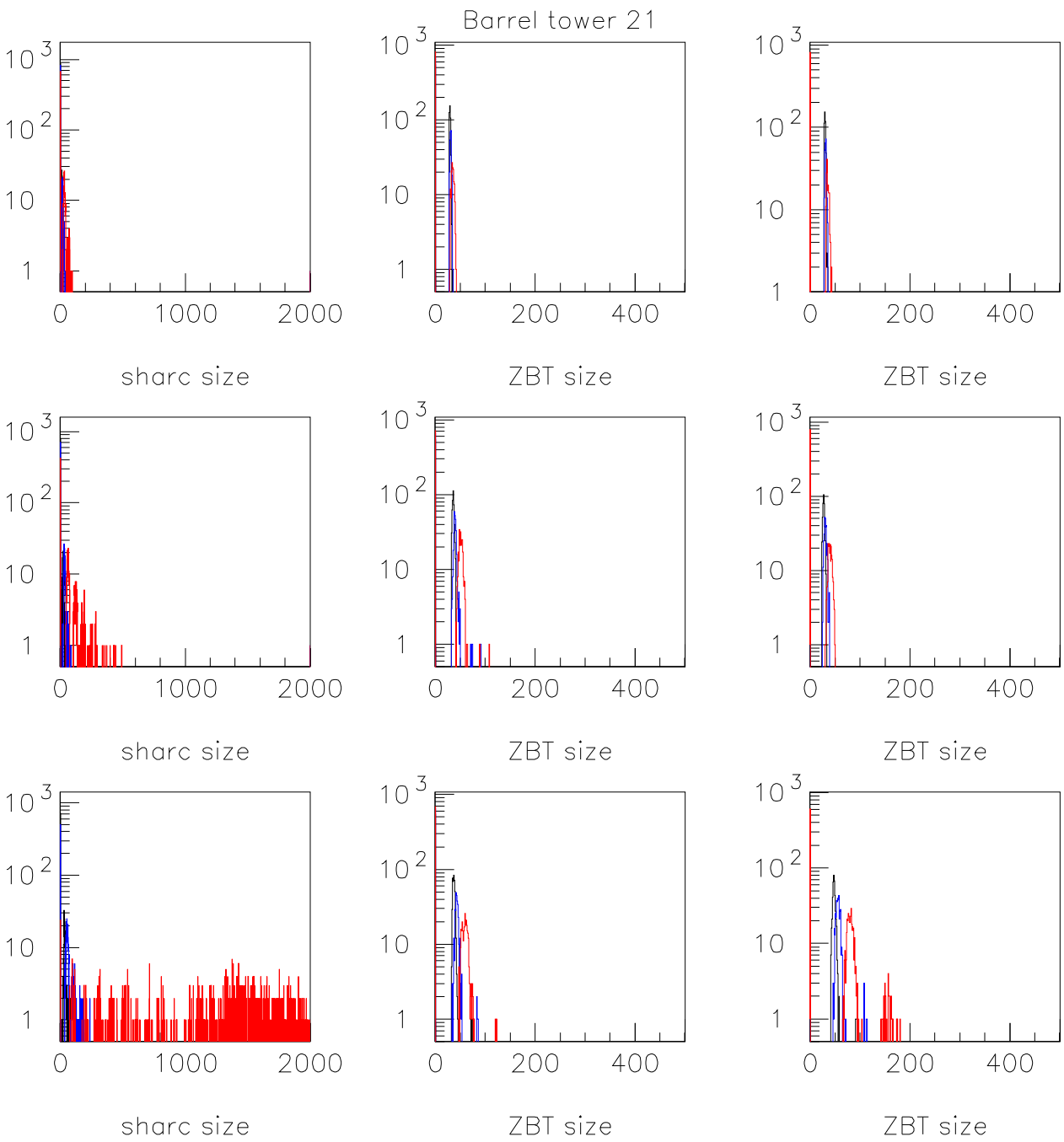

Barrel tower 20
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

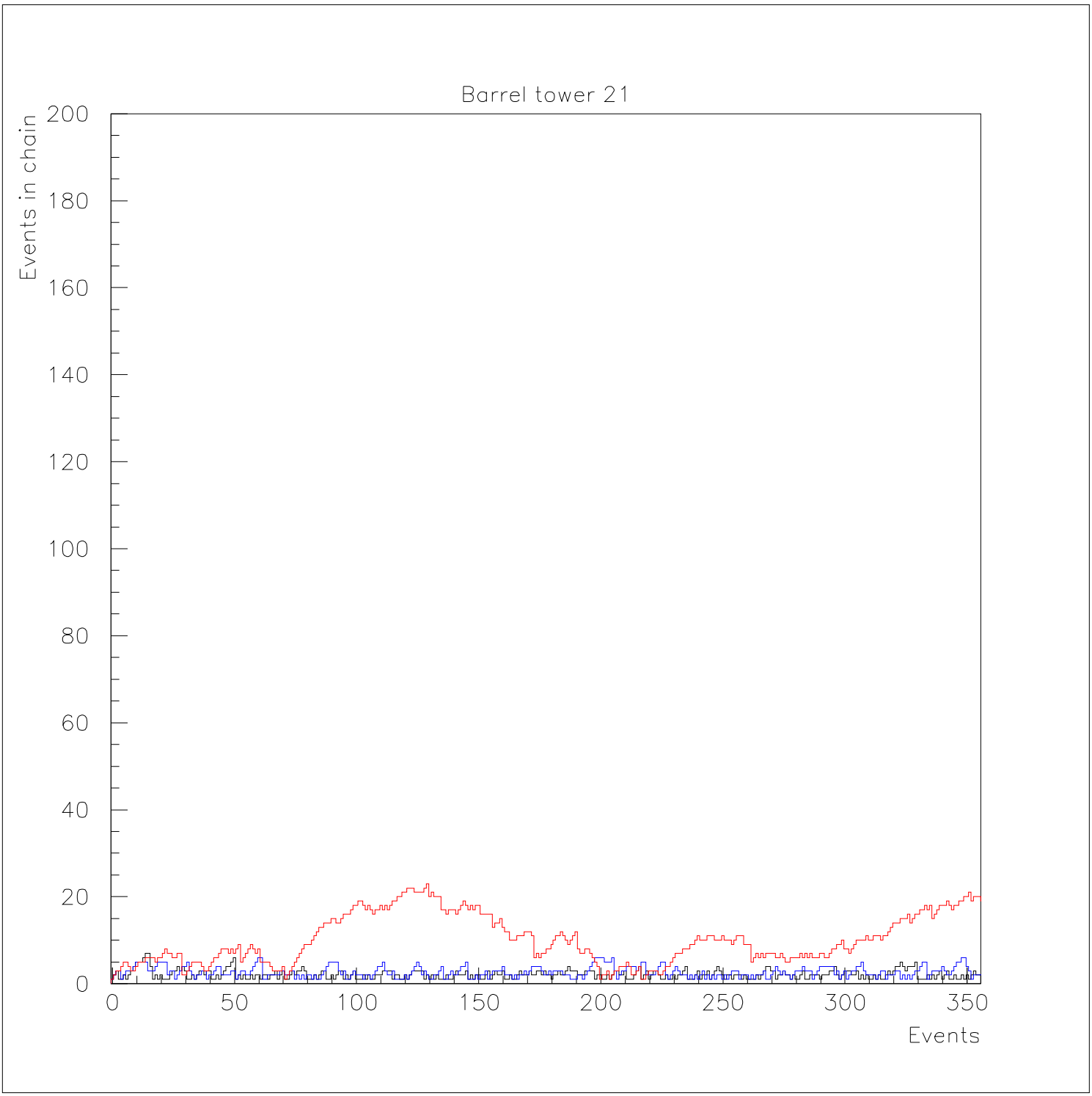

Barrel tower 20
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

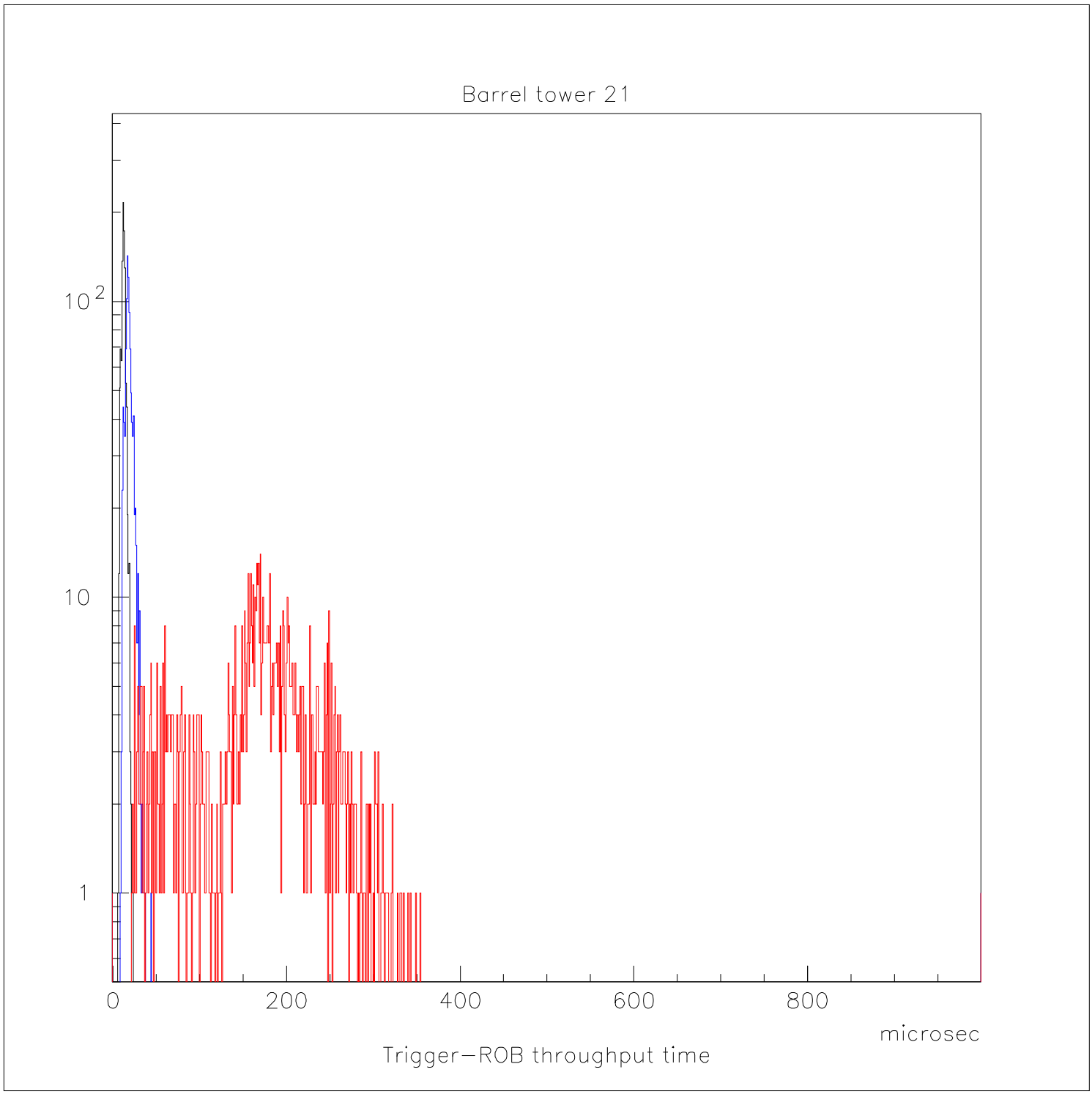

Barrel tower 20
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

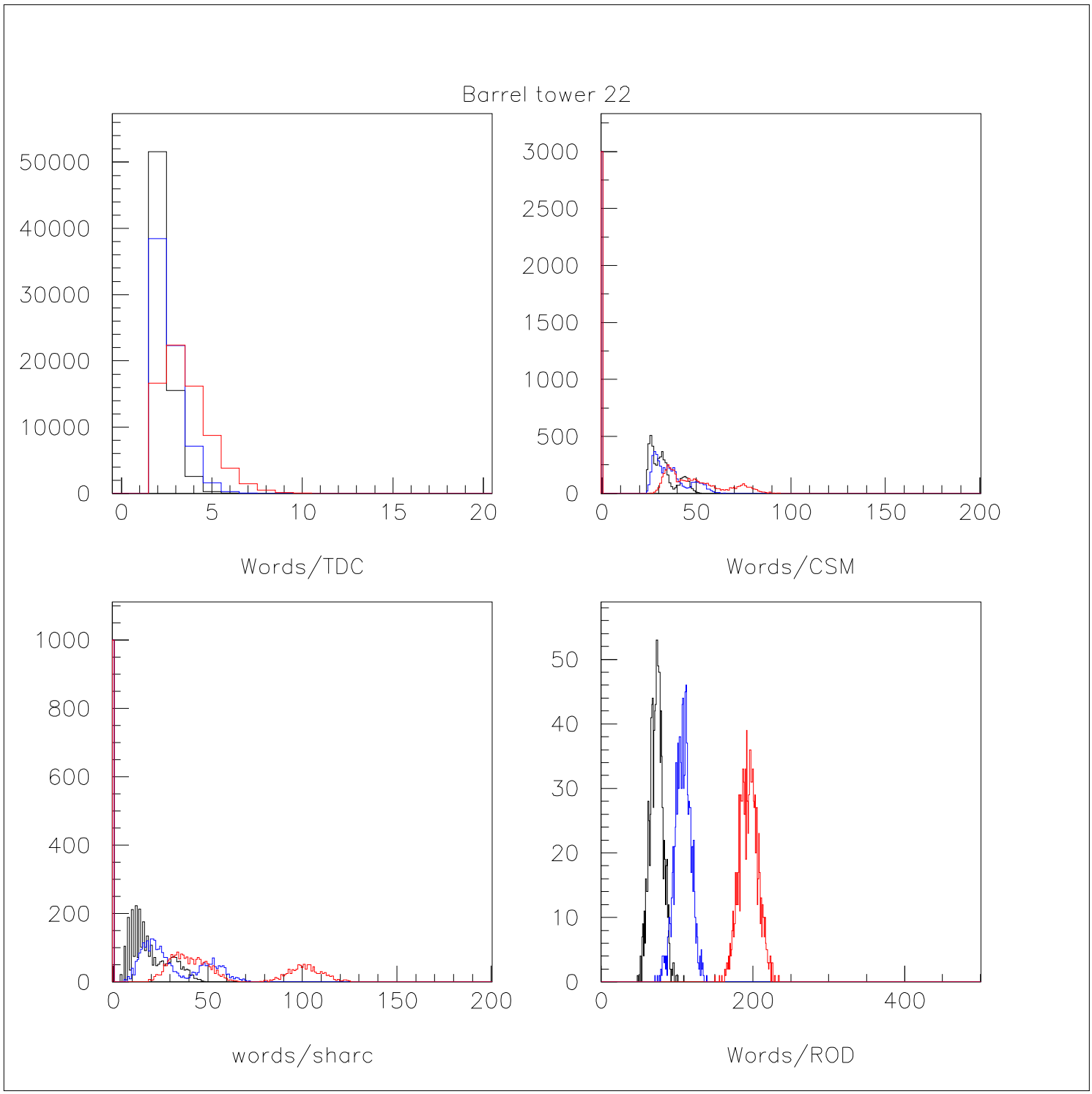

Barrel tower 21
80000
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
1200
1000
800
600
400
200
0
0
50
100
150
200
Words/CSM
500
400
300
200
100
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

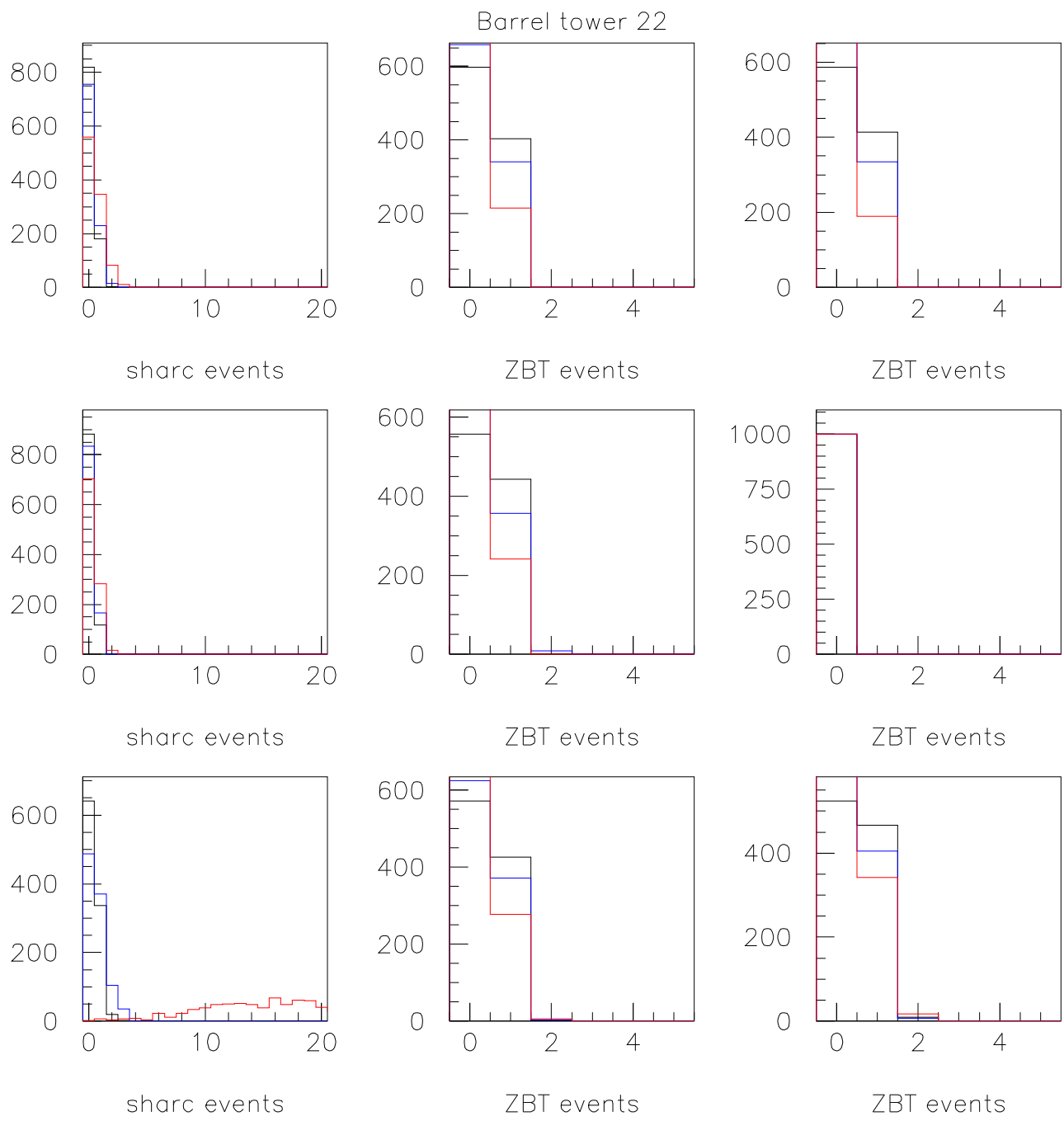

Barrel tower 21
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events

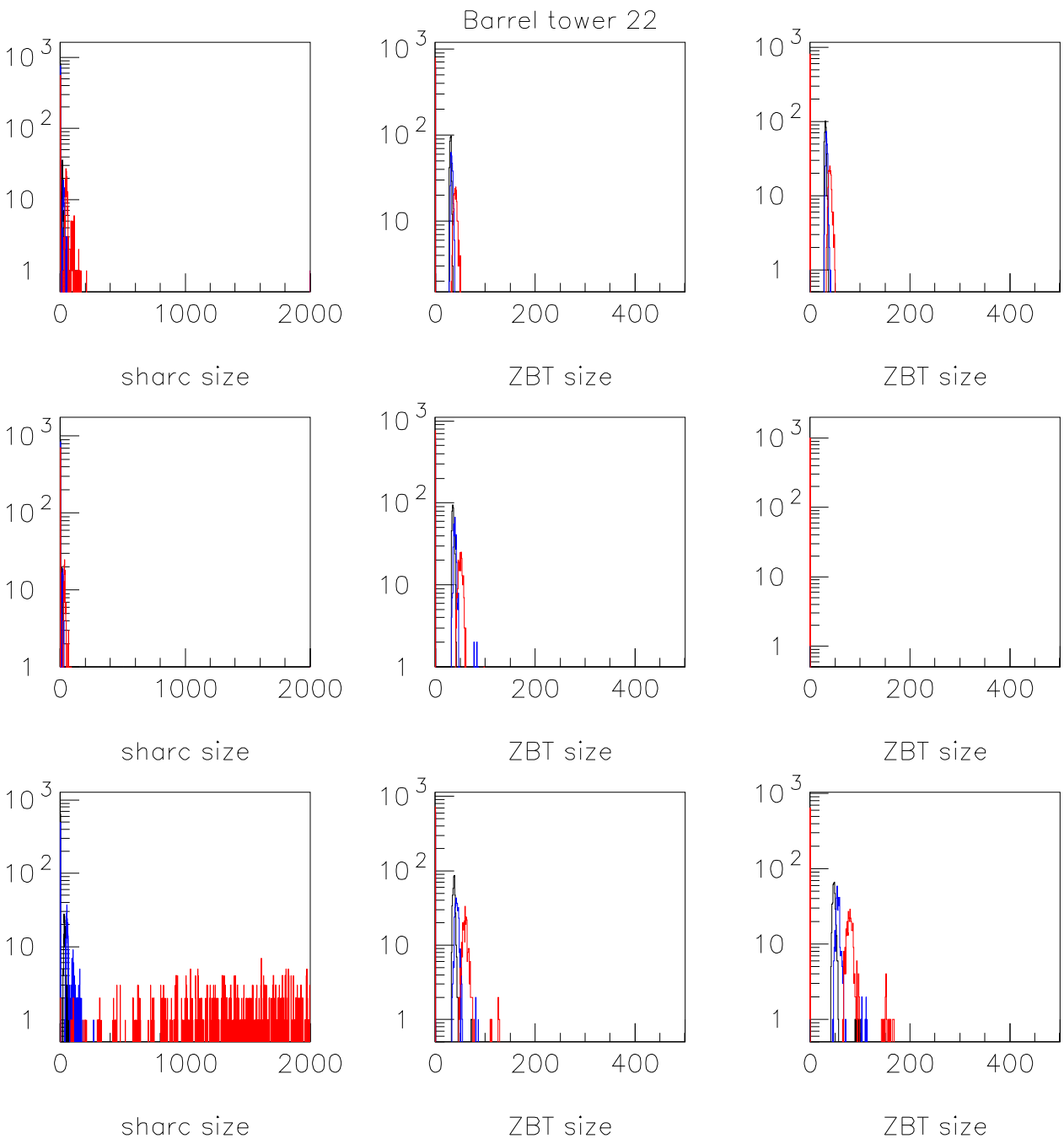

Barrel tower 21
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

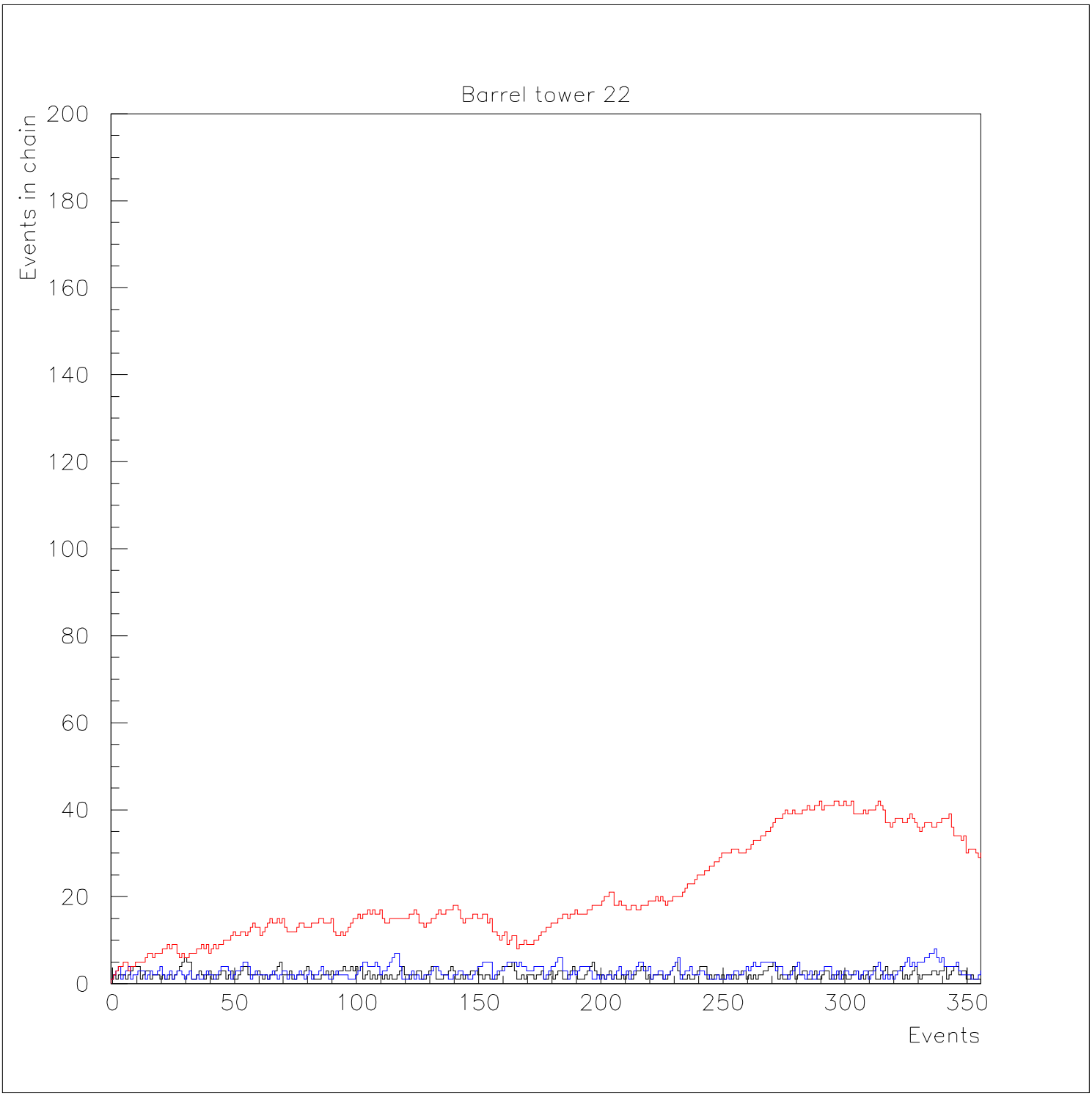

Barrel tower 21
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

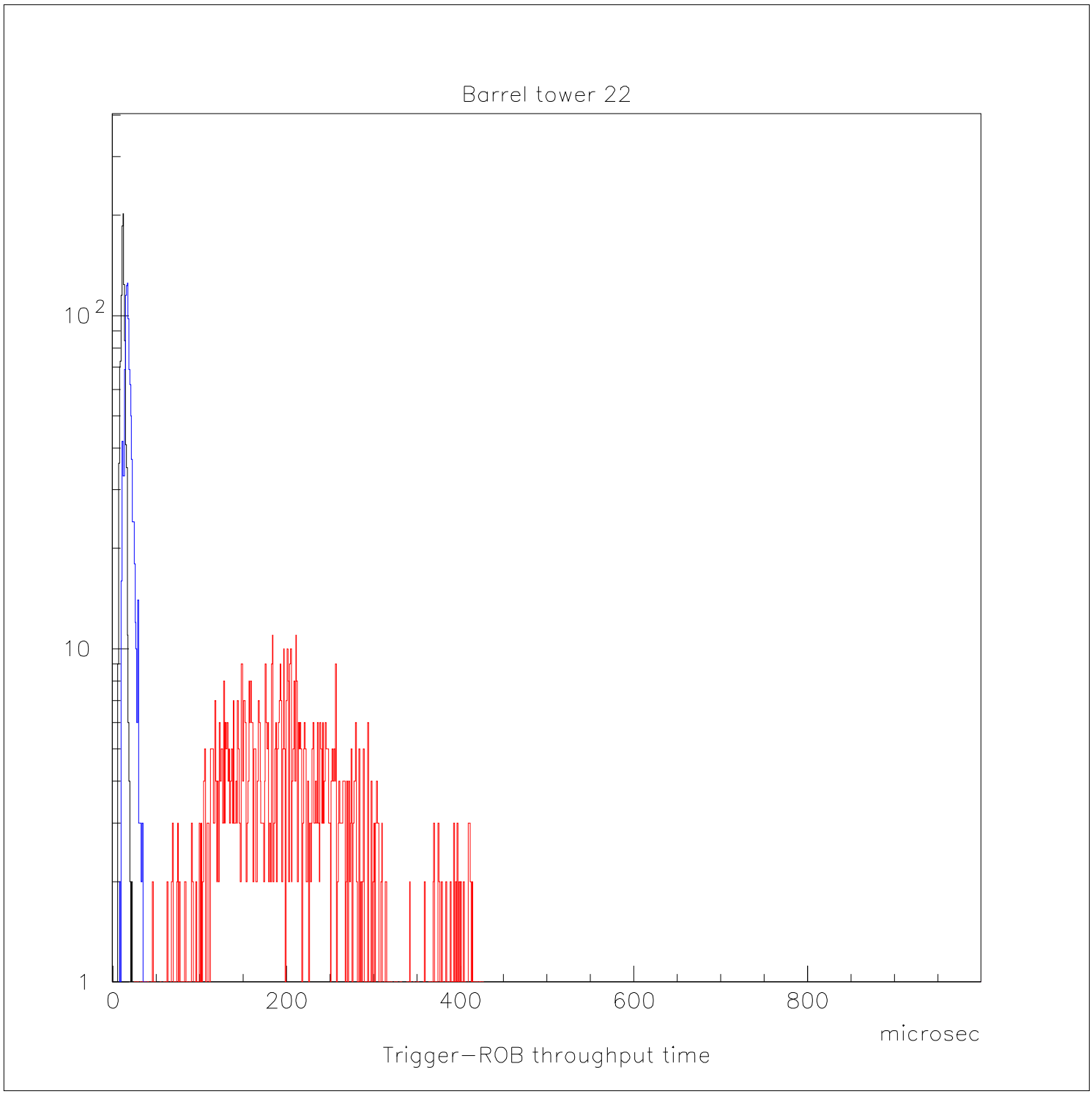

Barrel tower 21
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

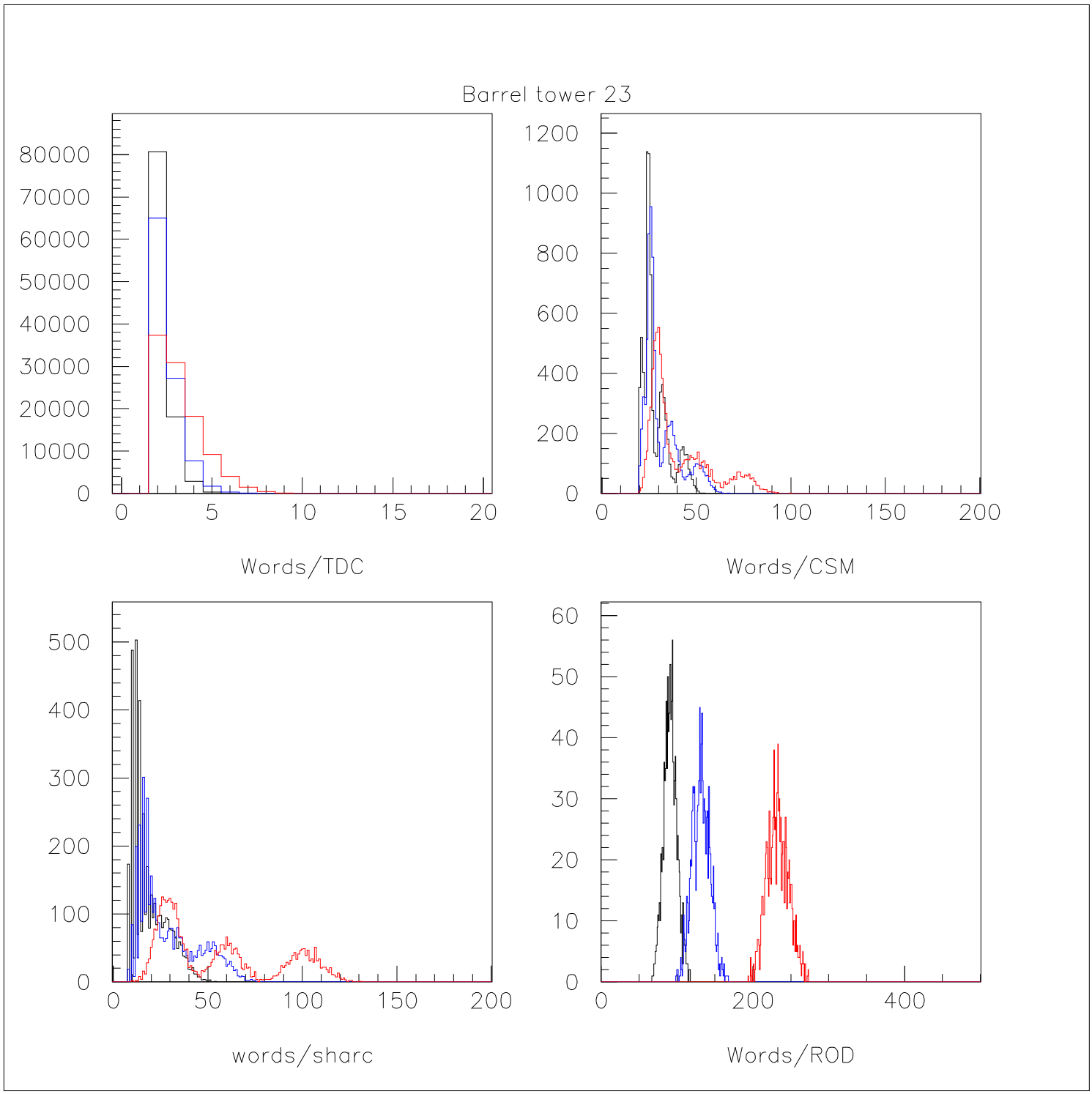

Barrel tower 22
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
3000
2500
2000
1500
1000
500
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
50
40
30
20
10
0
0
200
400
Words/ROD

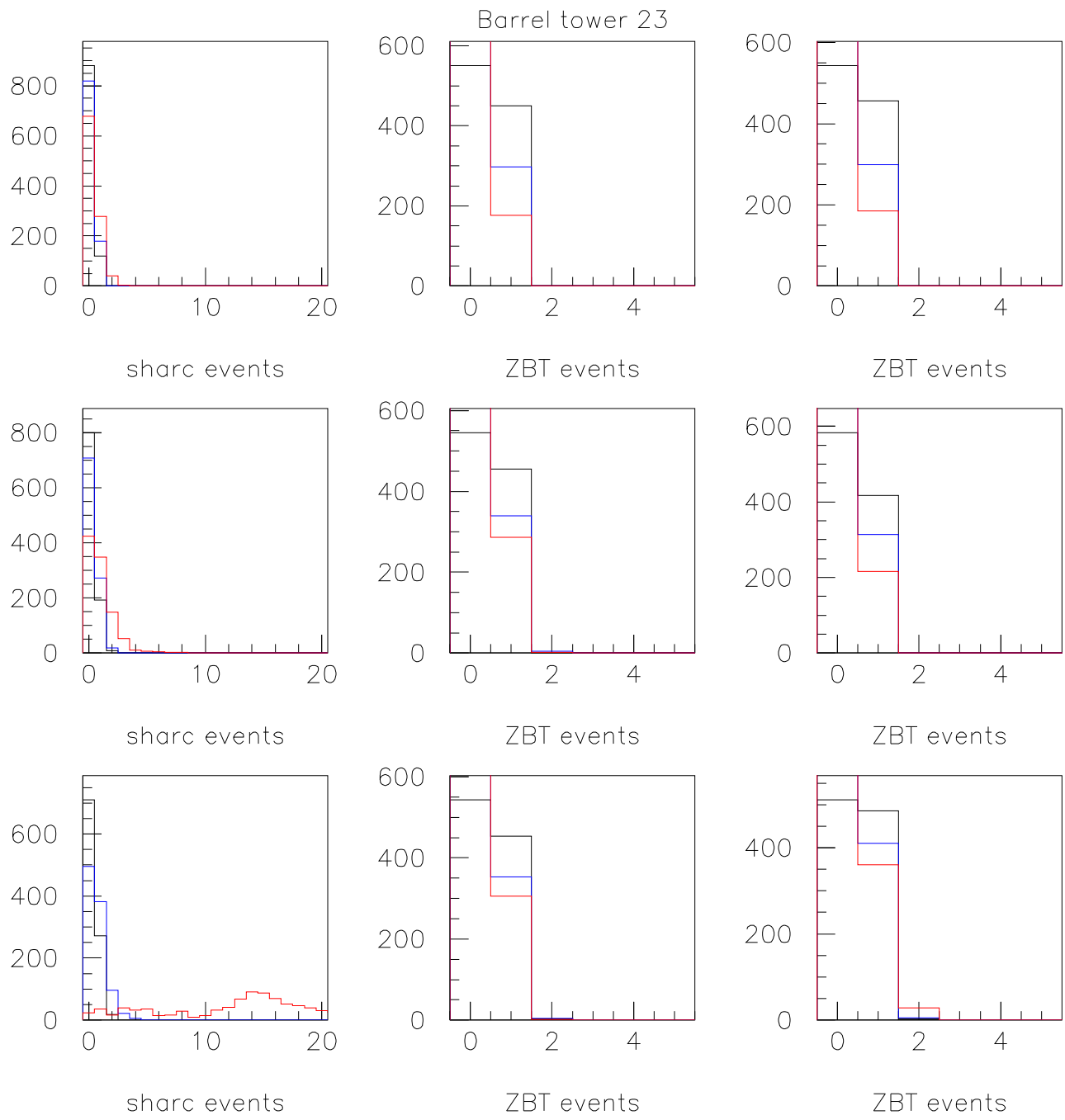

Barrel tower 22
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events

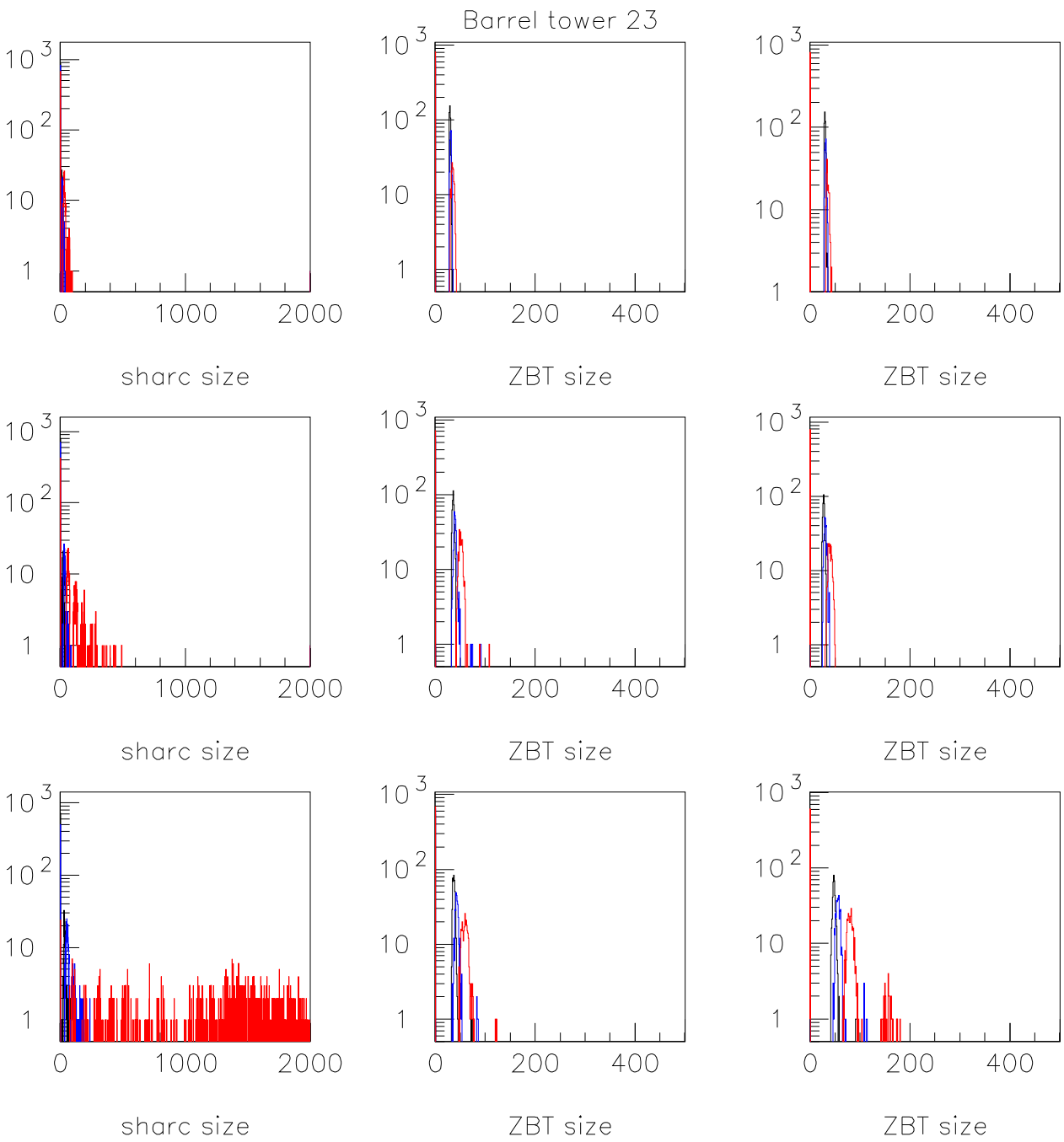

Barrel tower 22
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

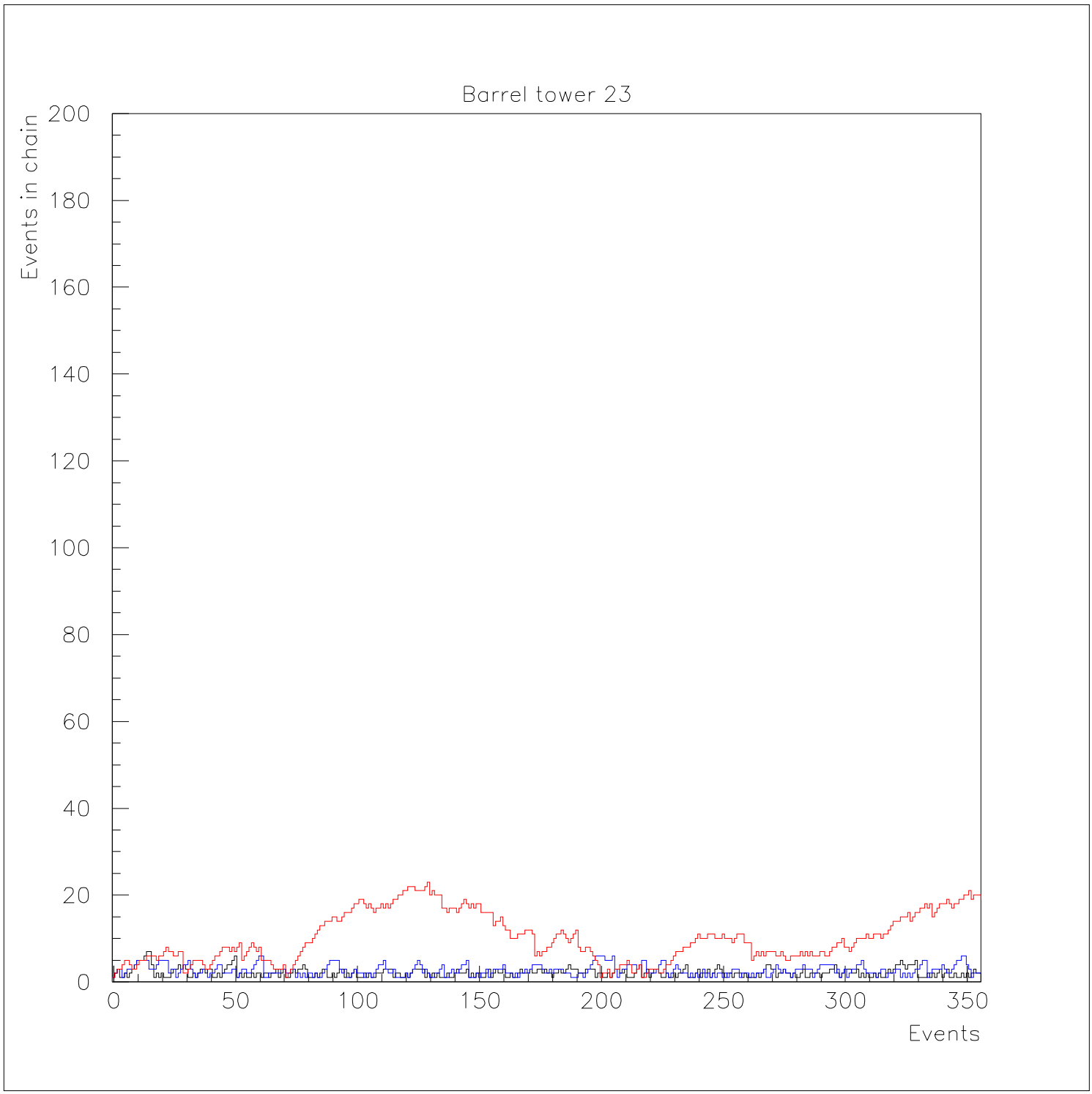

Barrel tower 22
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

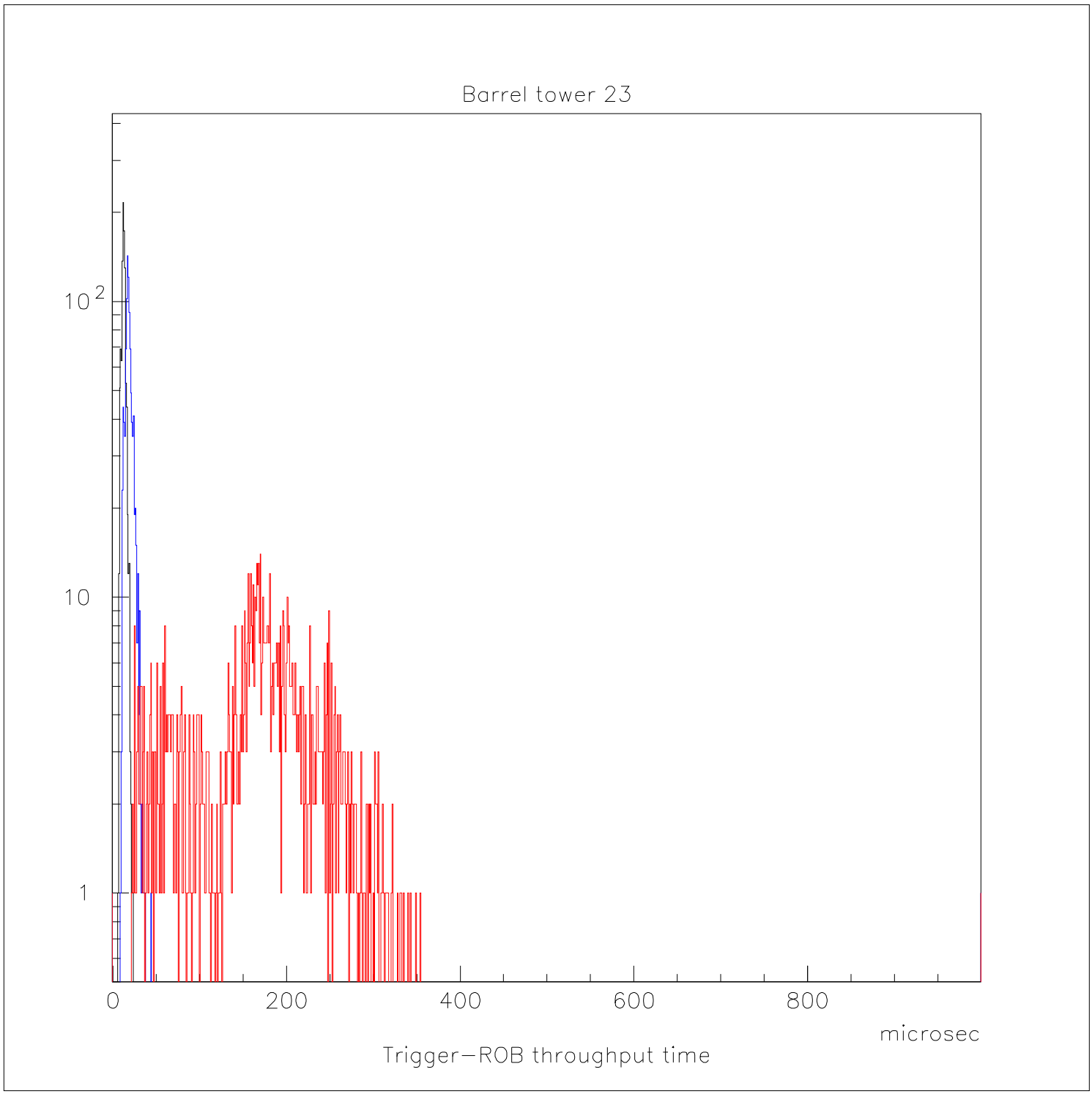

Barrel tower 22
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

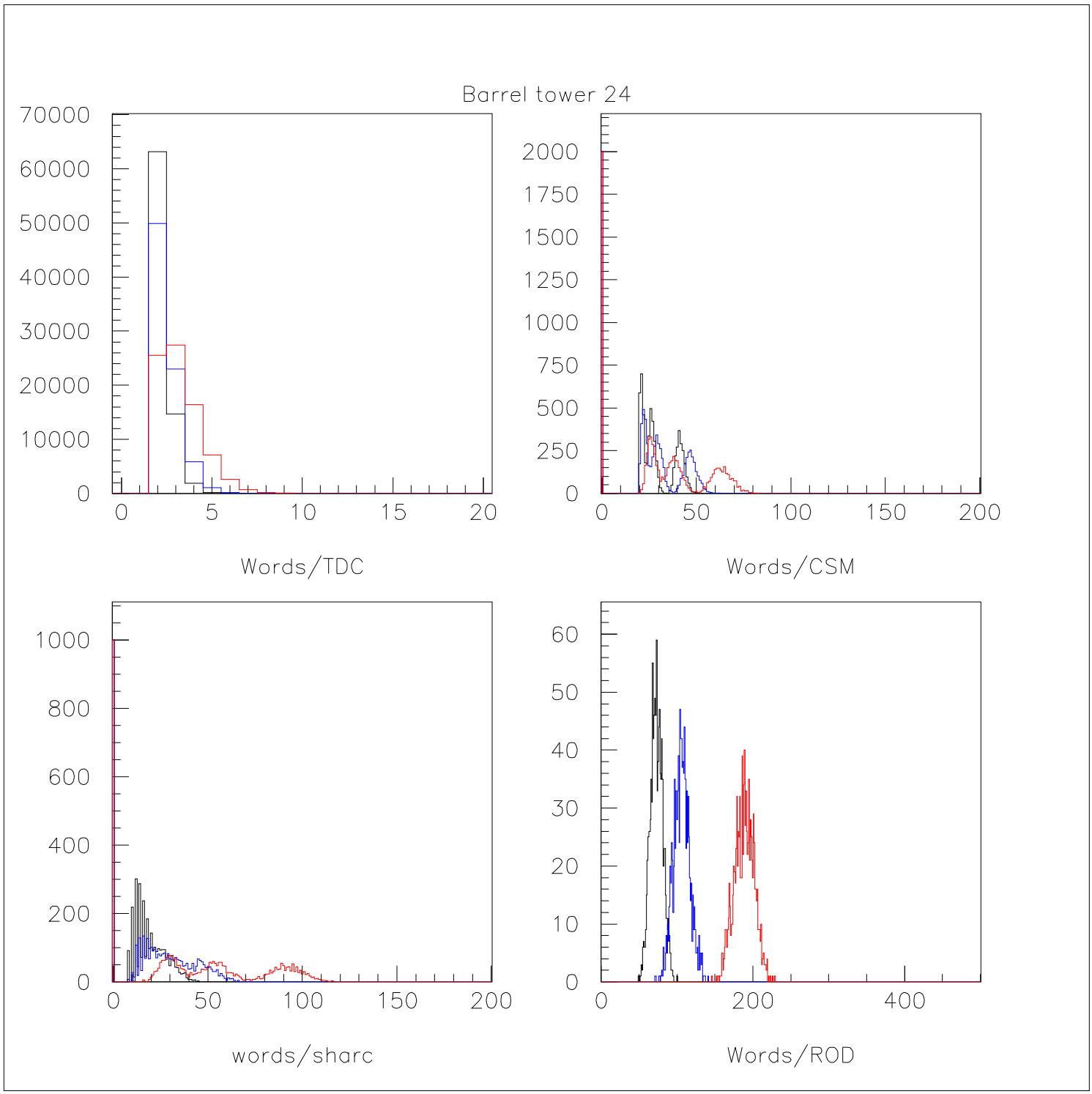

Barrel tower 23
80000
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
1200
1000
800
600
400
200
0
0
50
100
150
200
Words/CSM
500
400
300
200
100
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

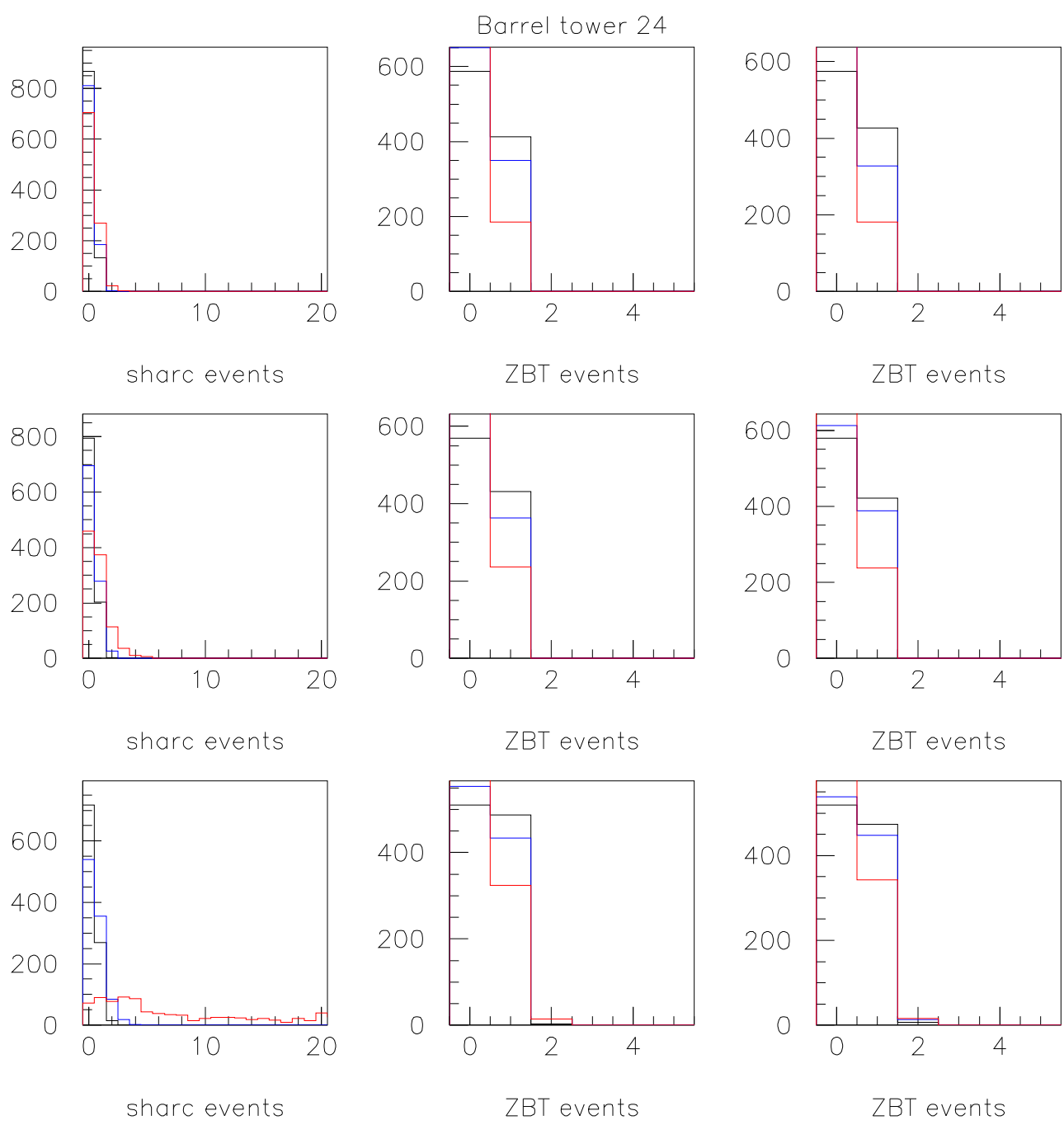

Barrel tower 23
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events


Barrel tower 23
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size


Barrel tower 23
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events


Barrel tower 23
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time


Barrel tower 24
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD


Barrel tower 24
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
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sharc events
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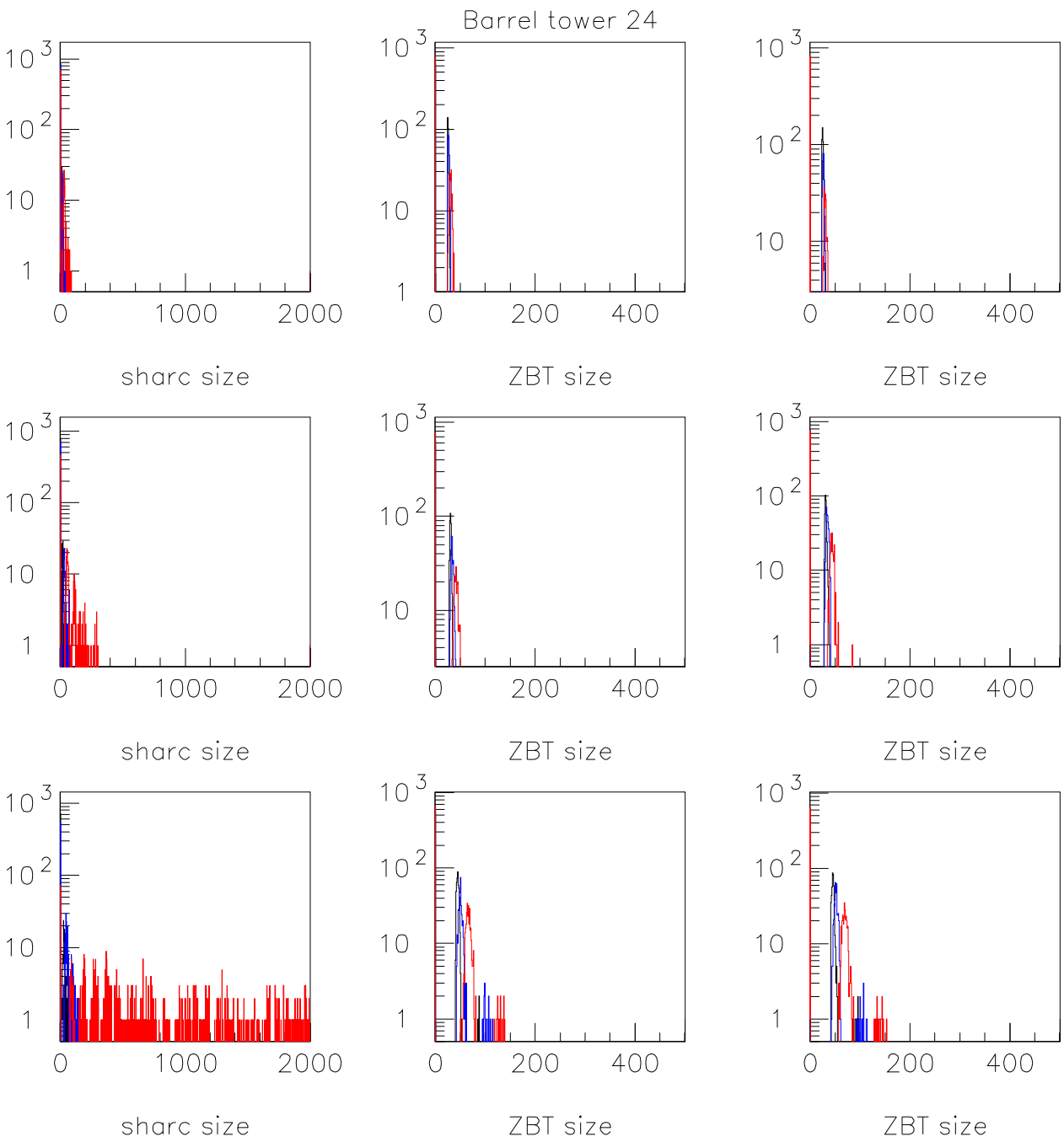
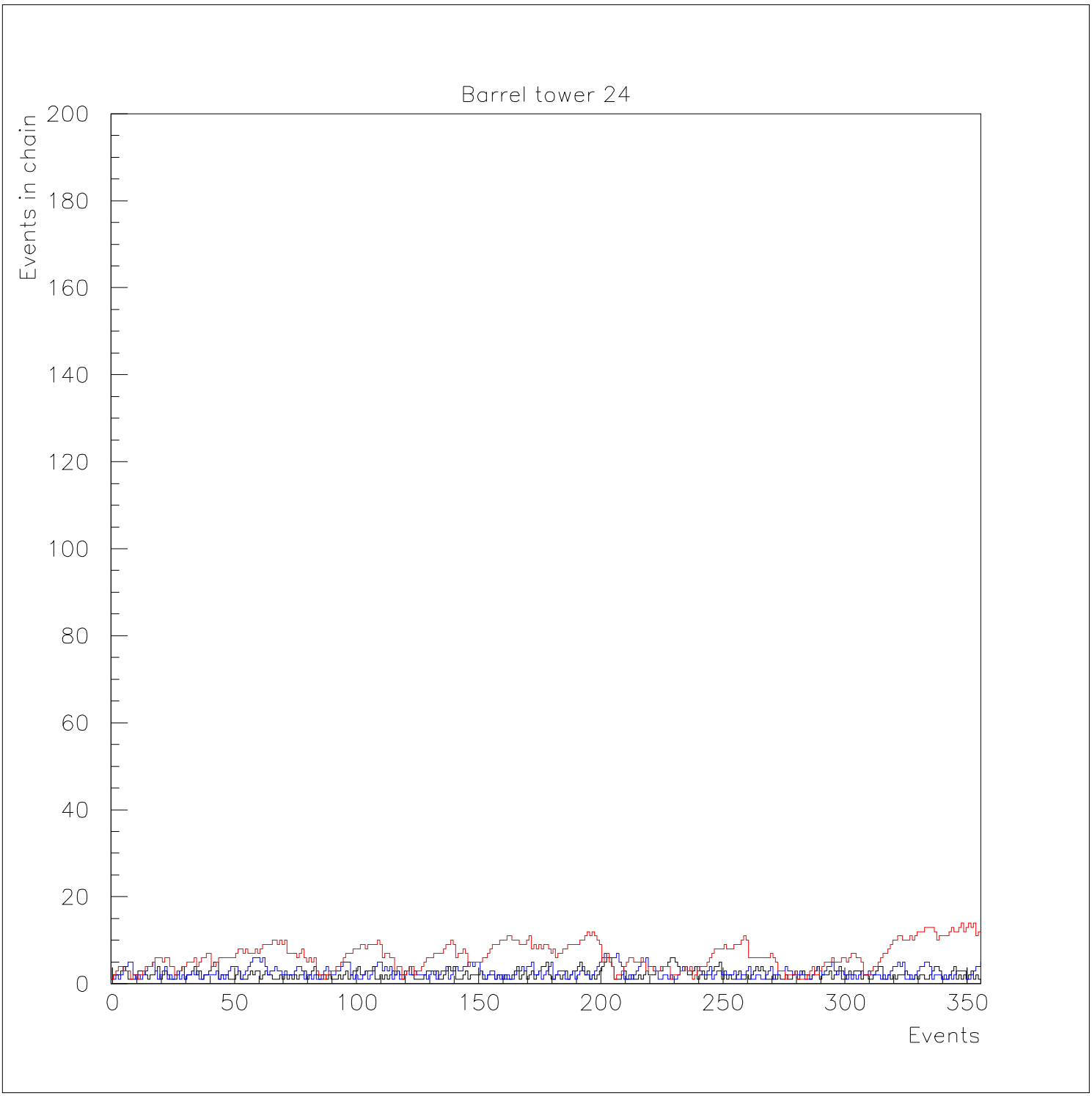
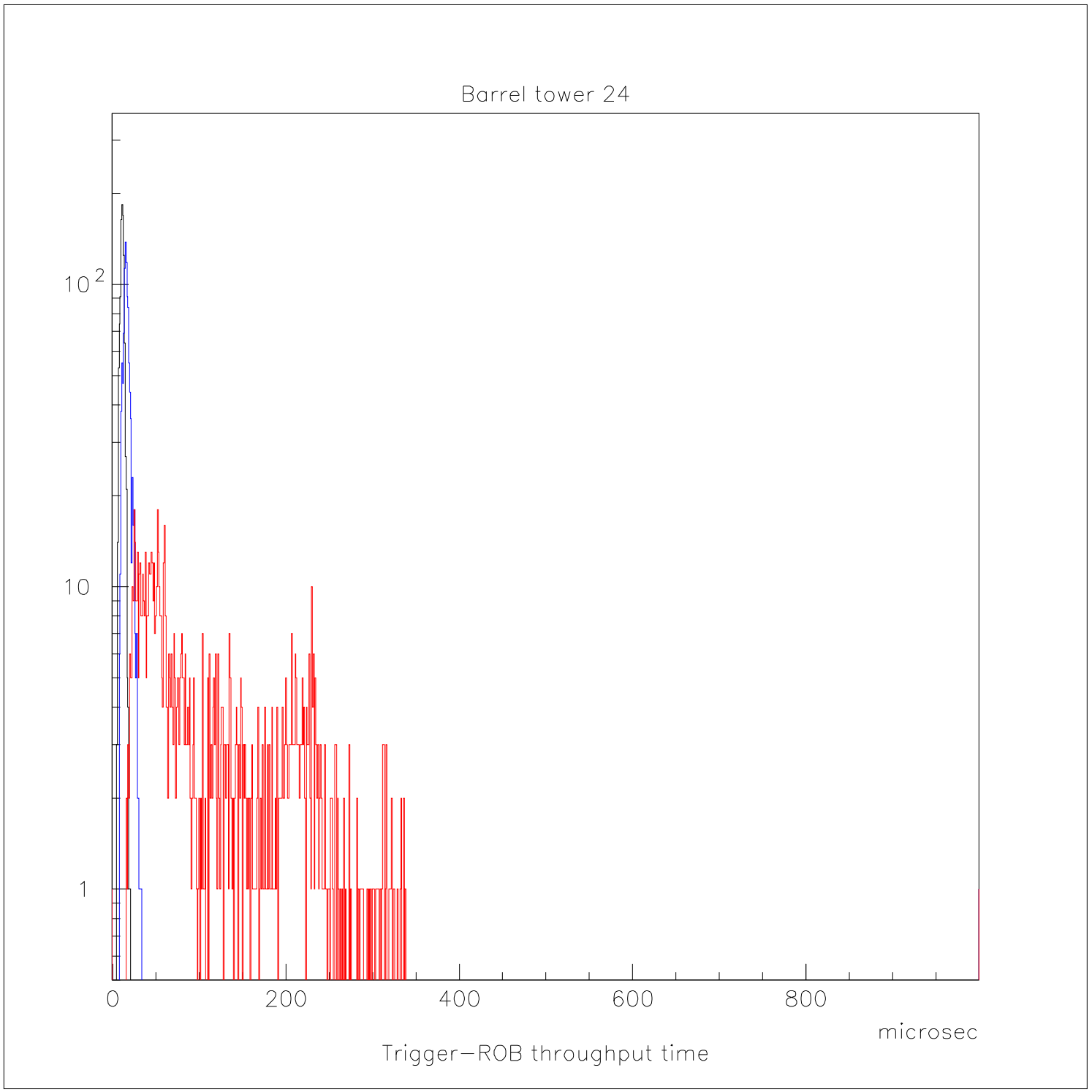
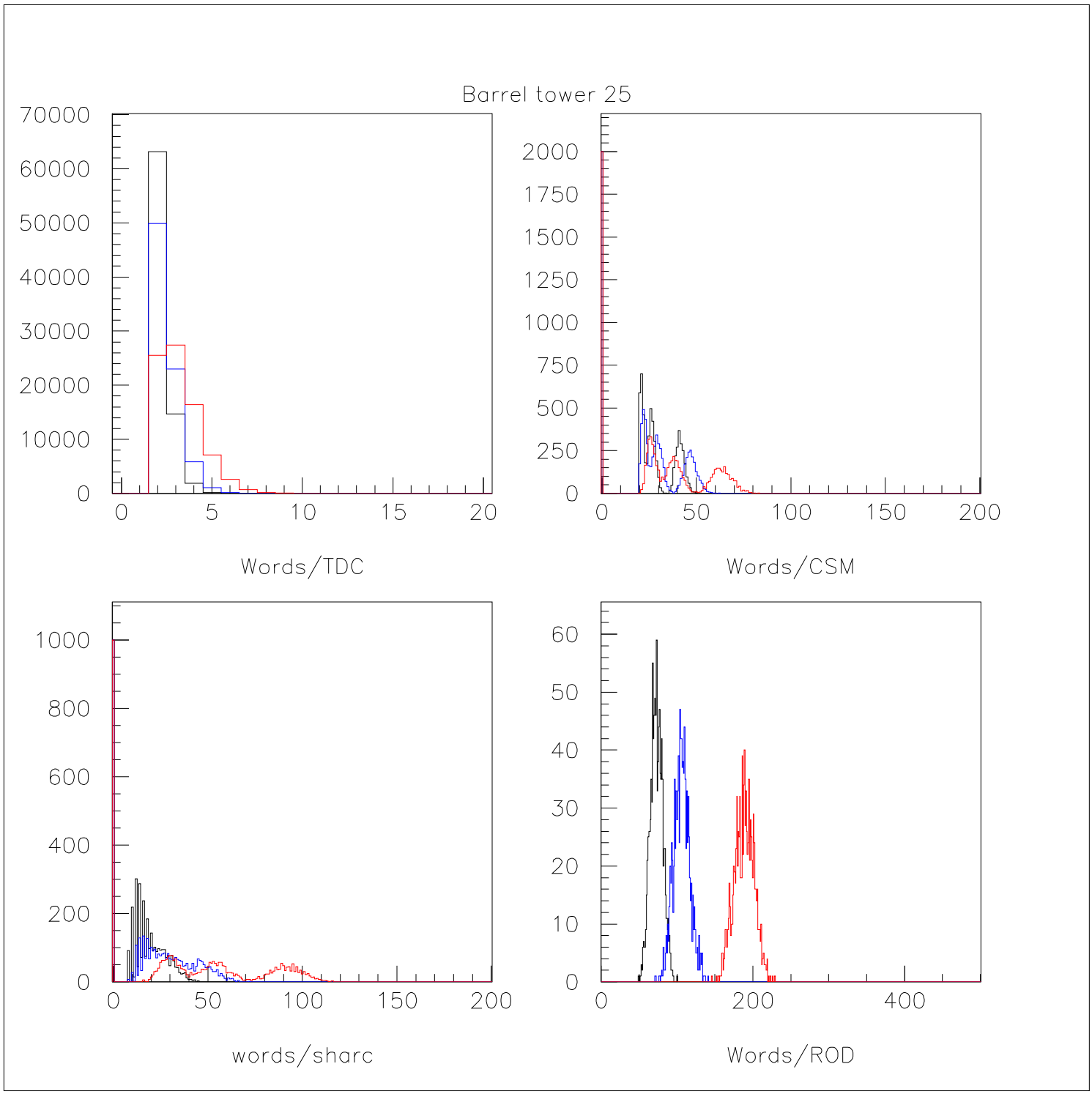
0
0
2
4
ZBT events


Barrel tower 24
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size


Barrel tower 24
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events


Barrel tower 24
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time


Barrel tower 25
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
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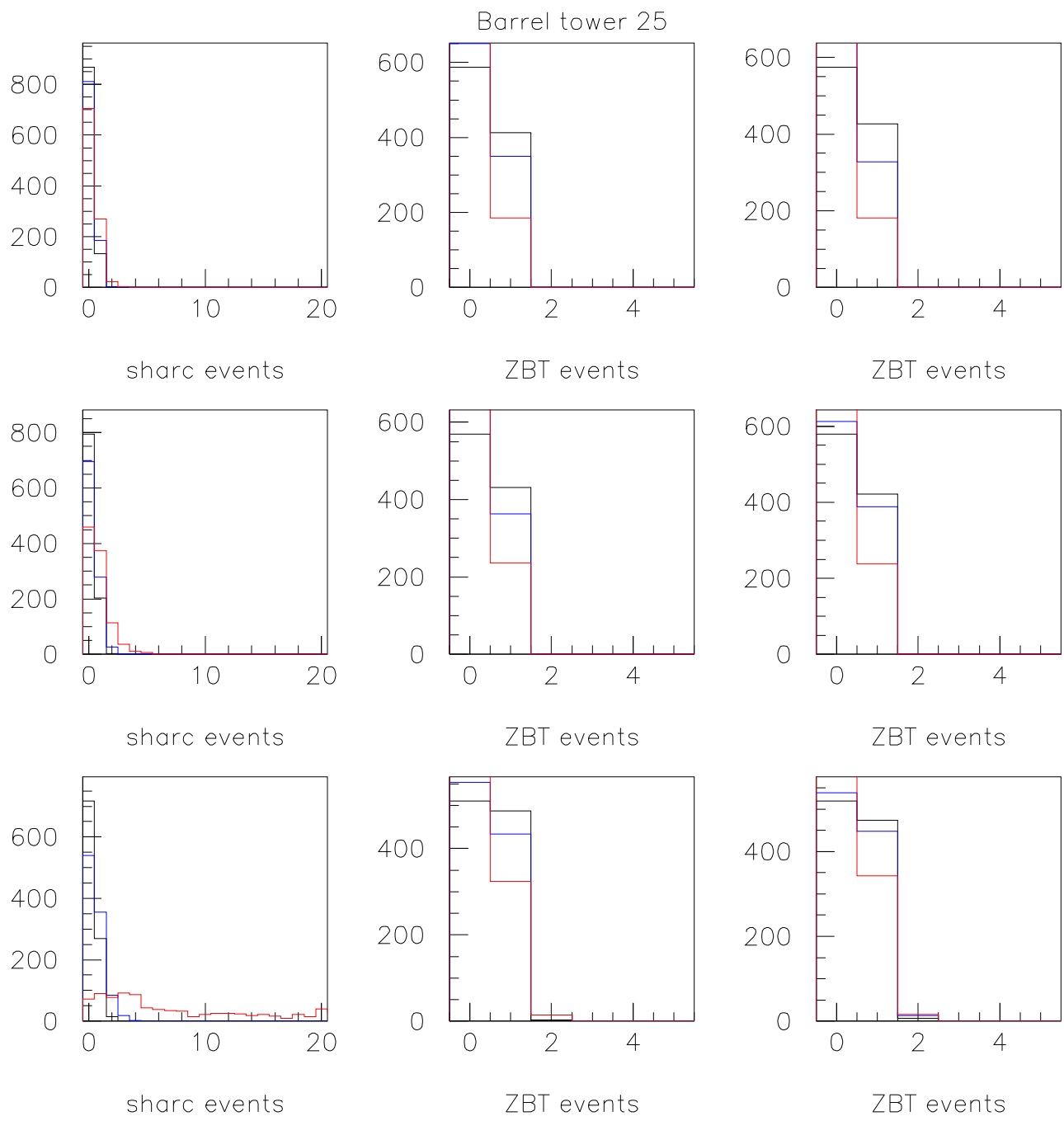
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD


Barrel tower 25
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
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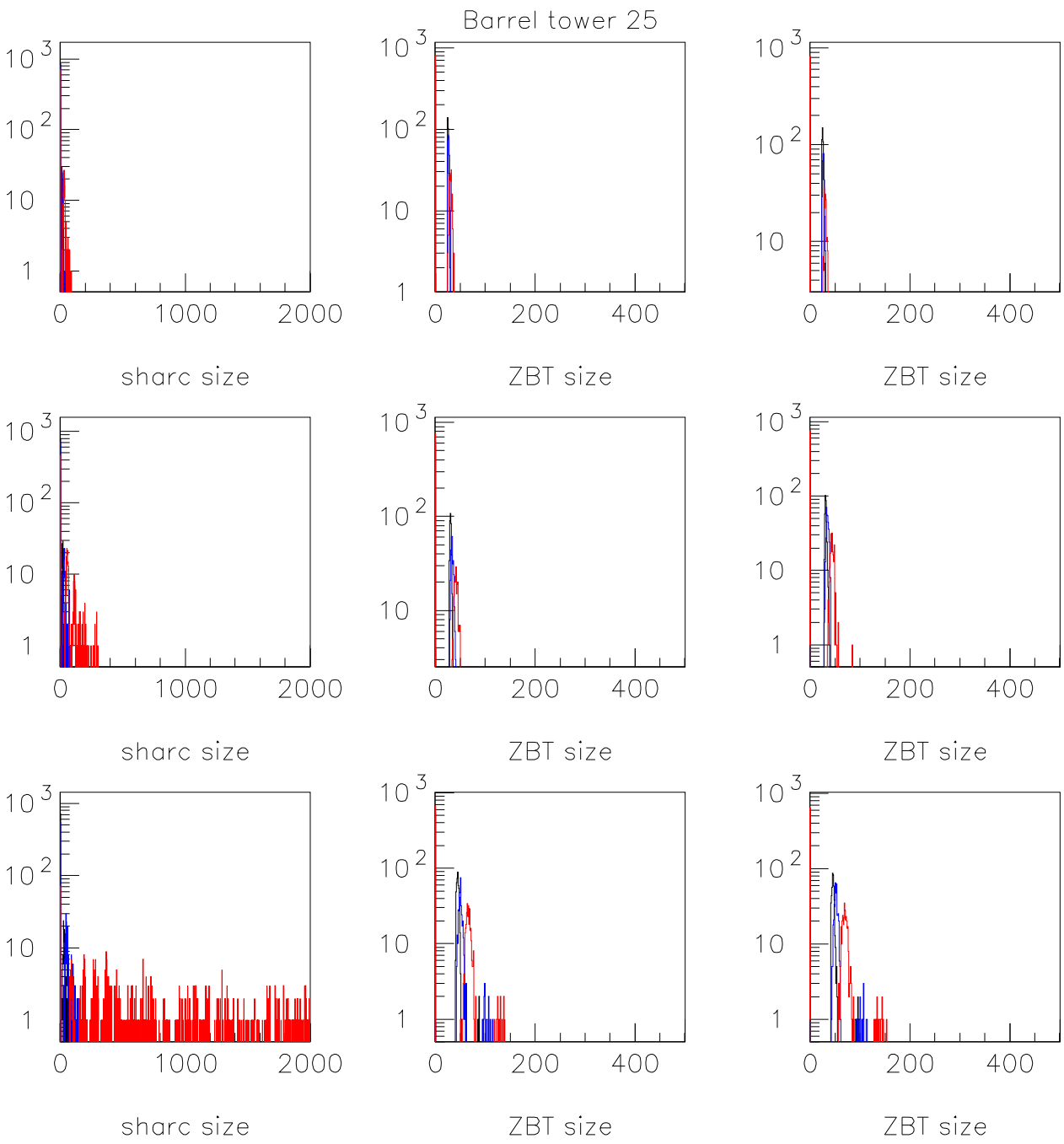
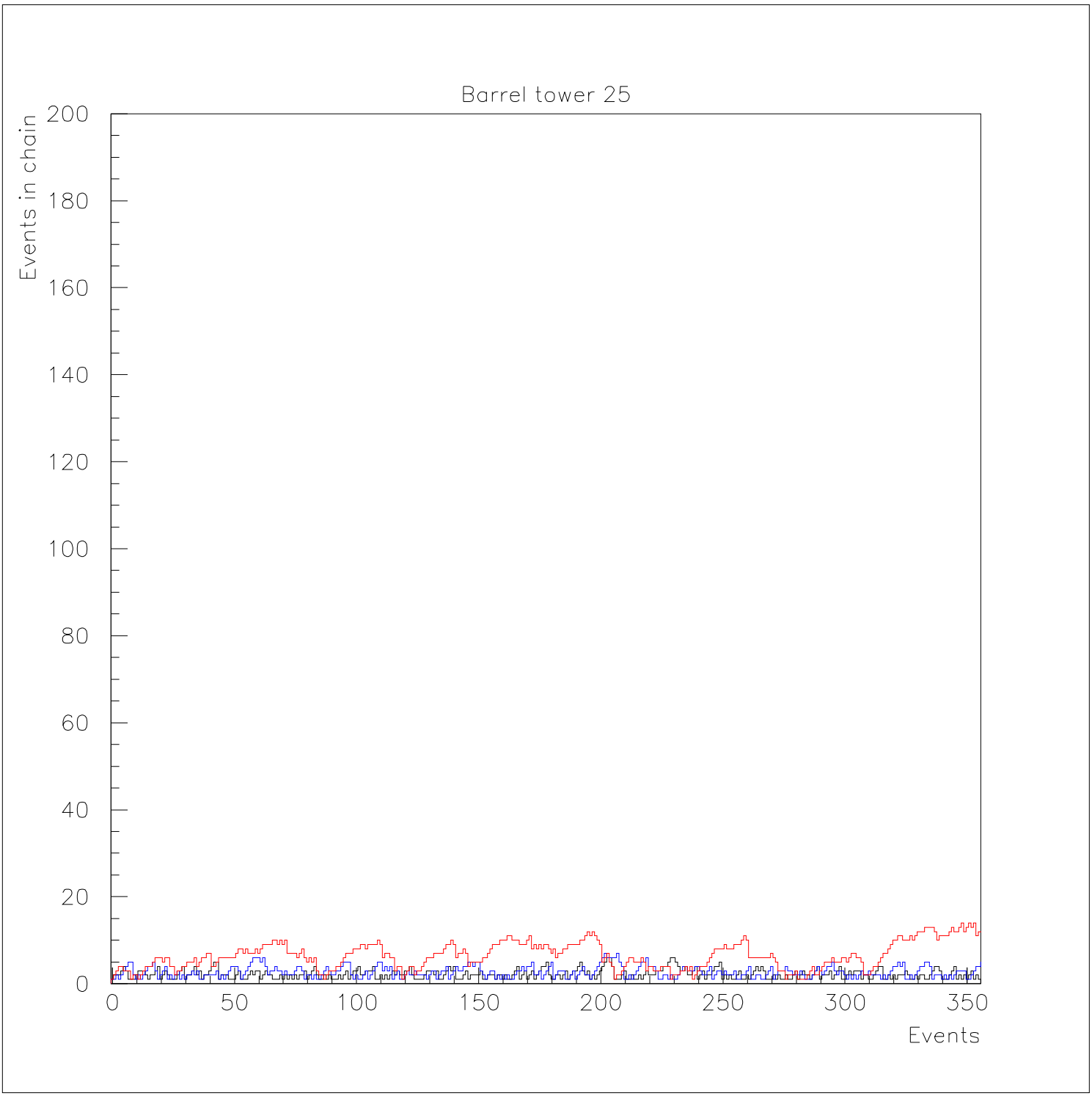
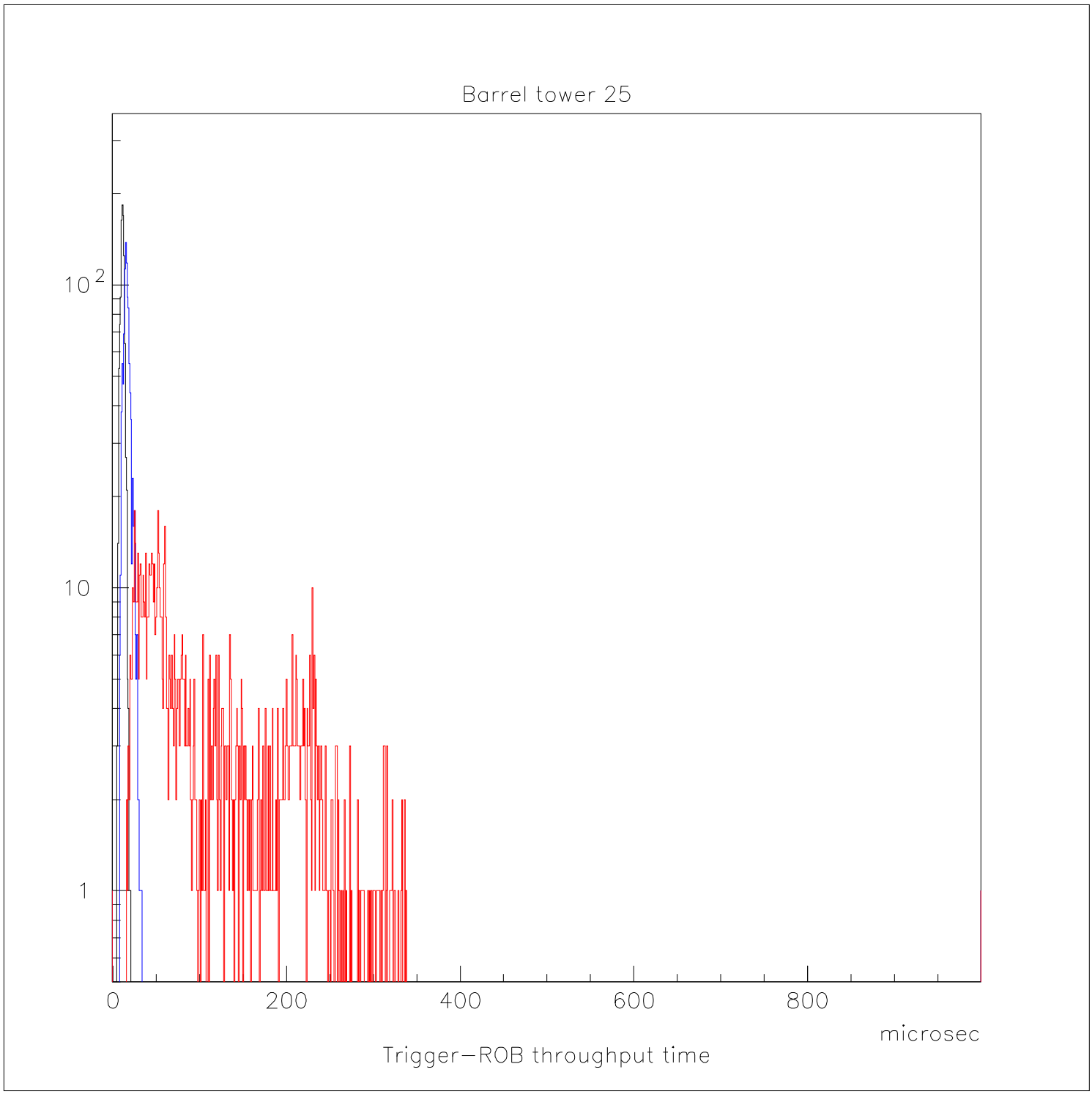
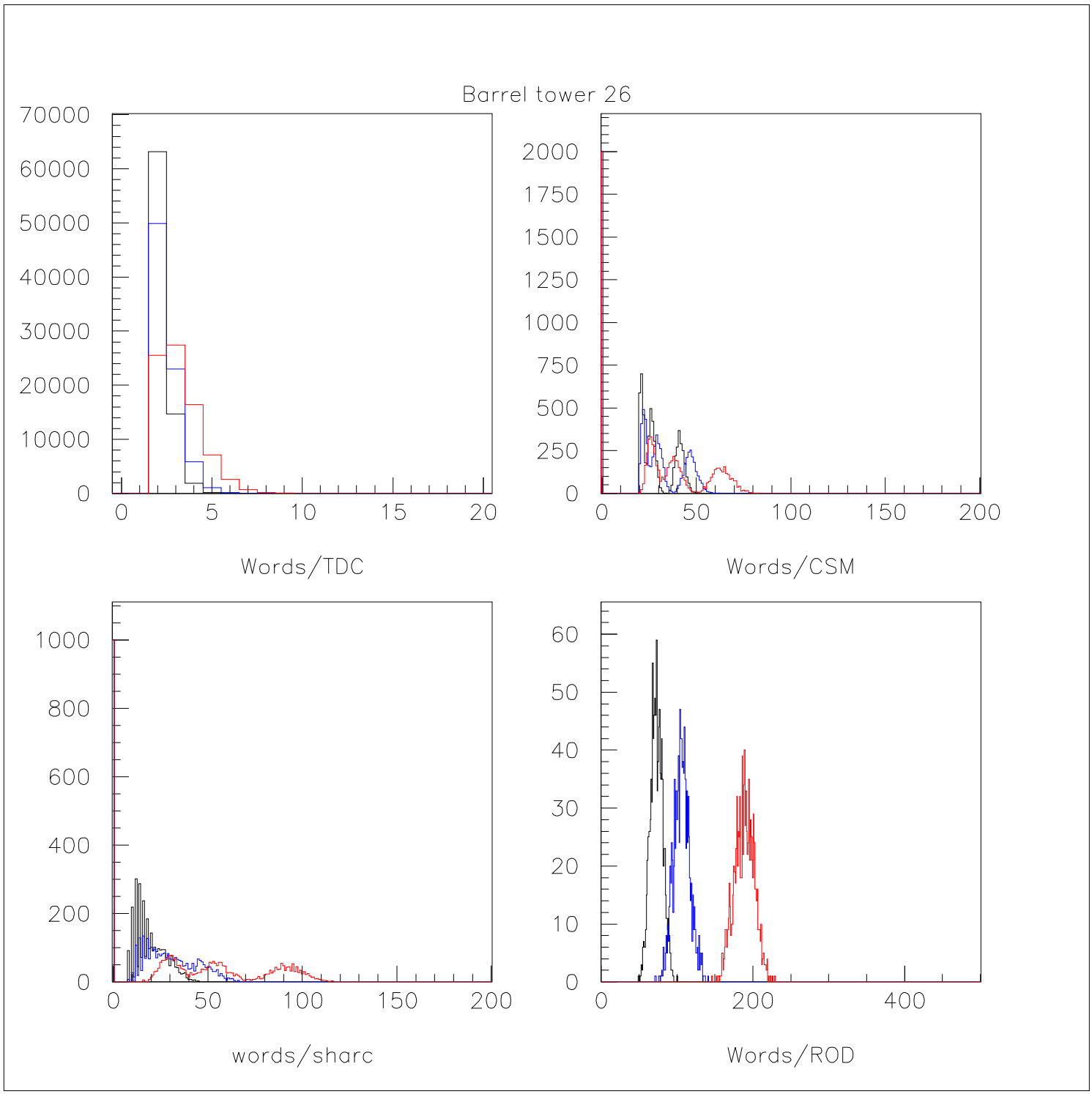
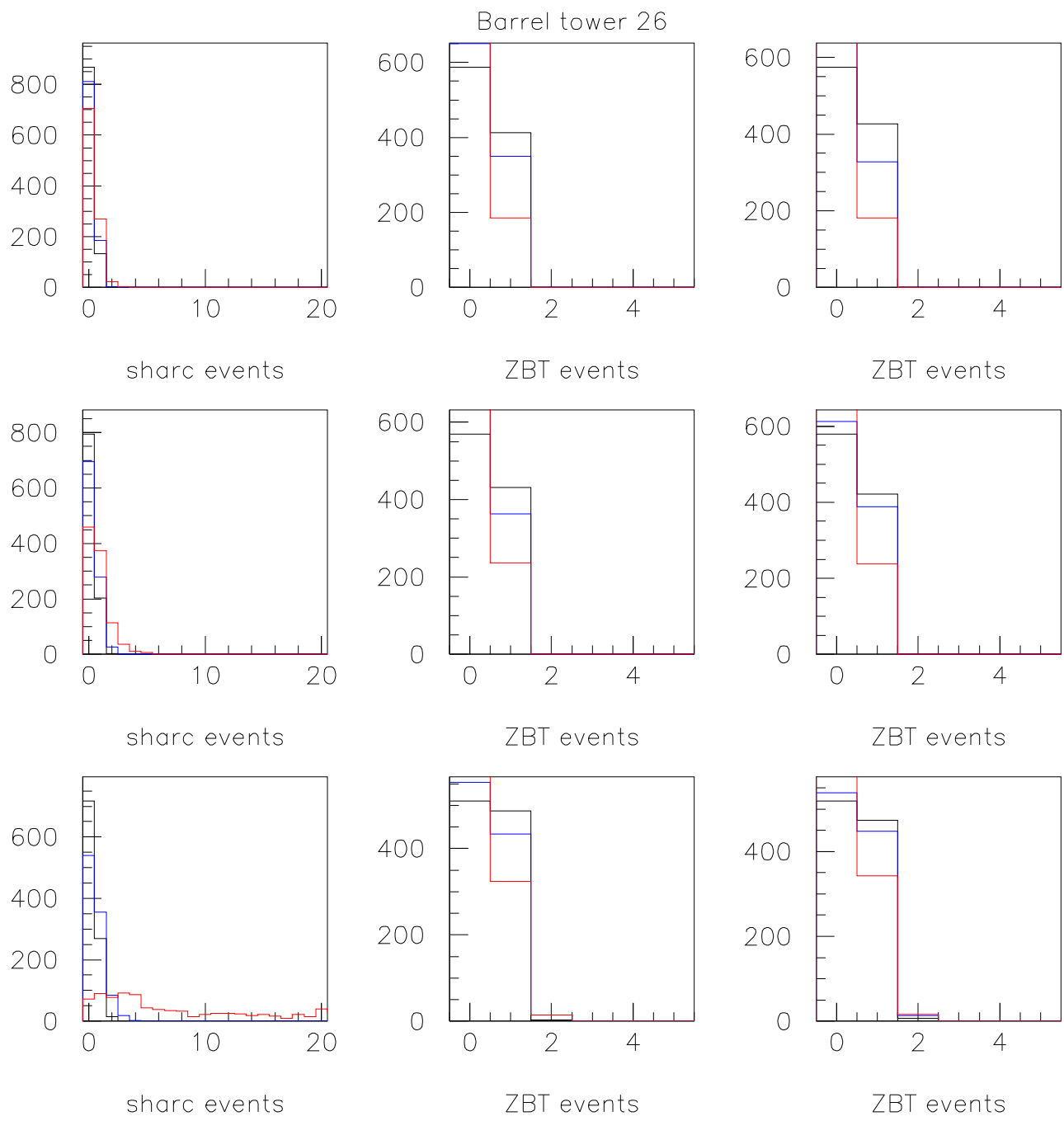
10
20
sharc events
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events

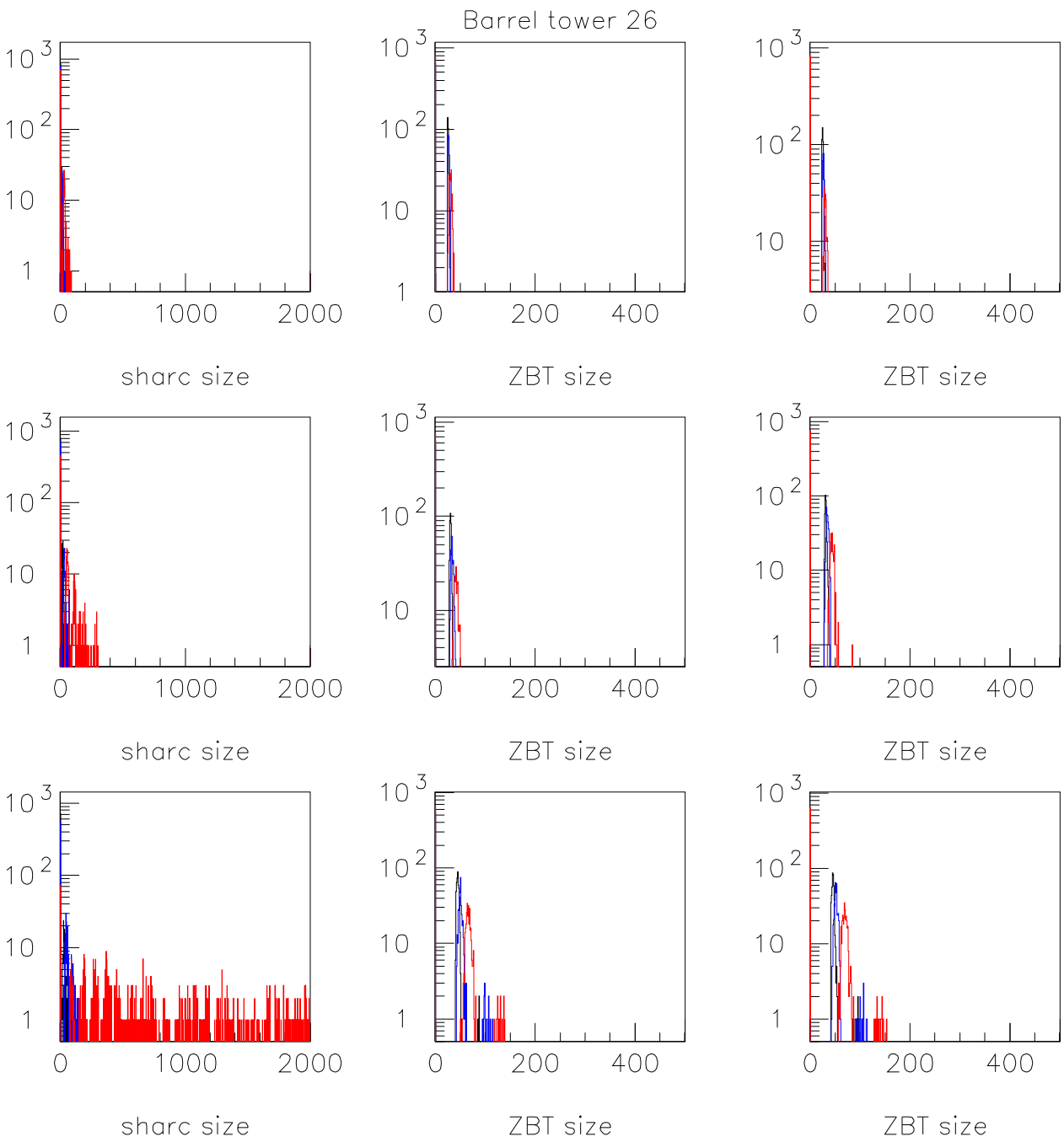

Barrel tower 25
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

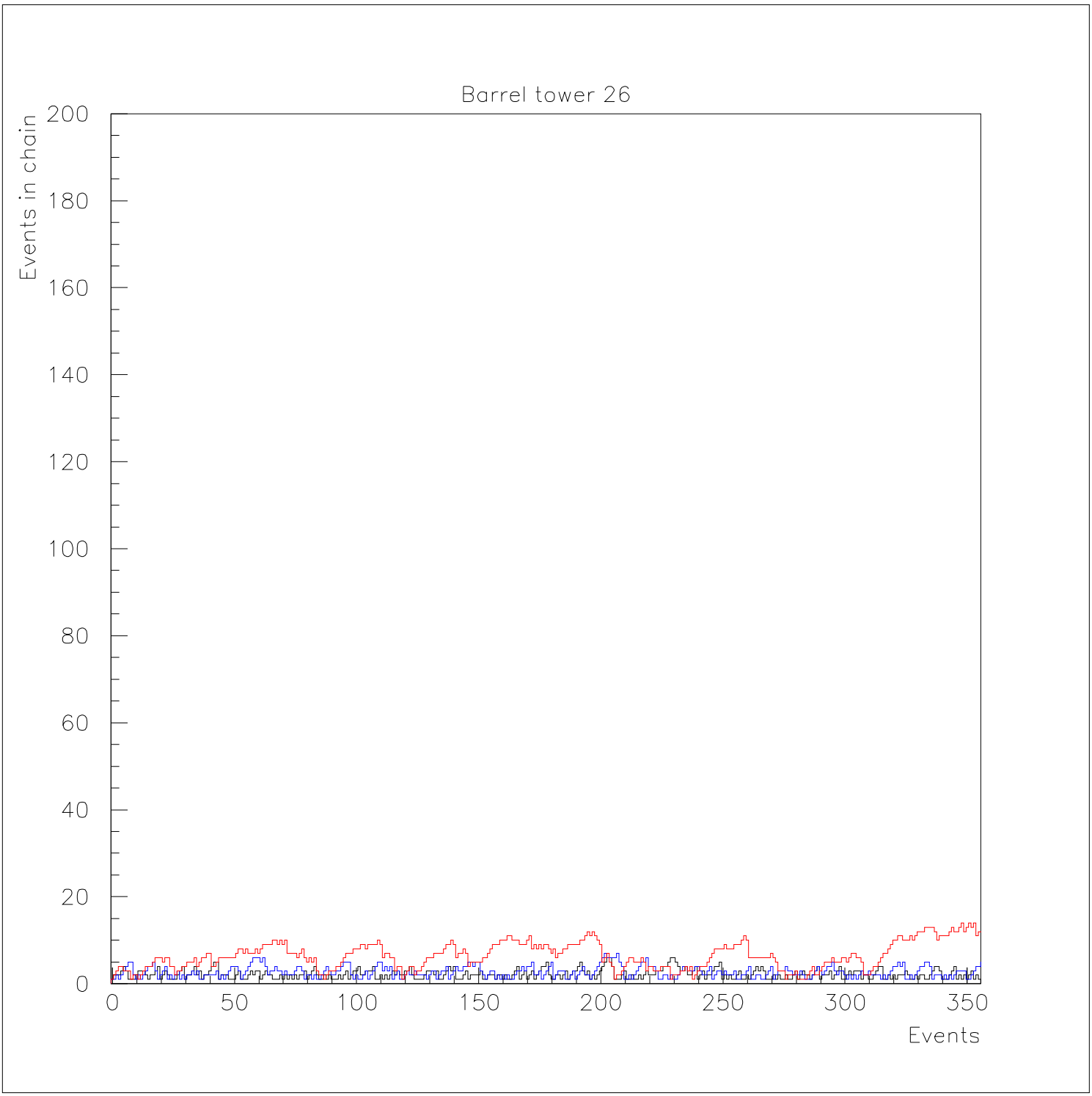

Barrel tower 25
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

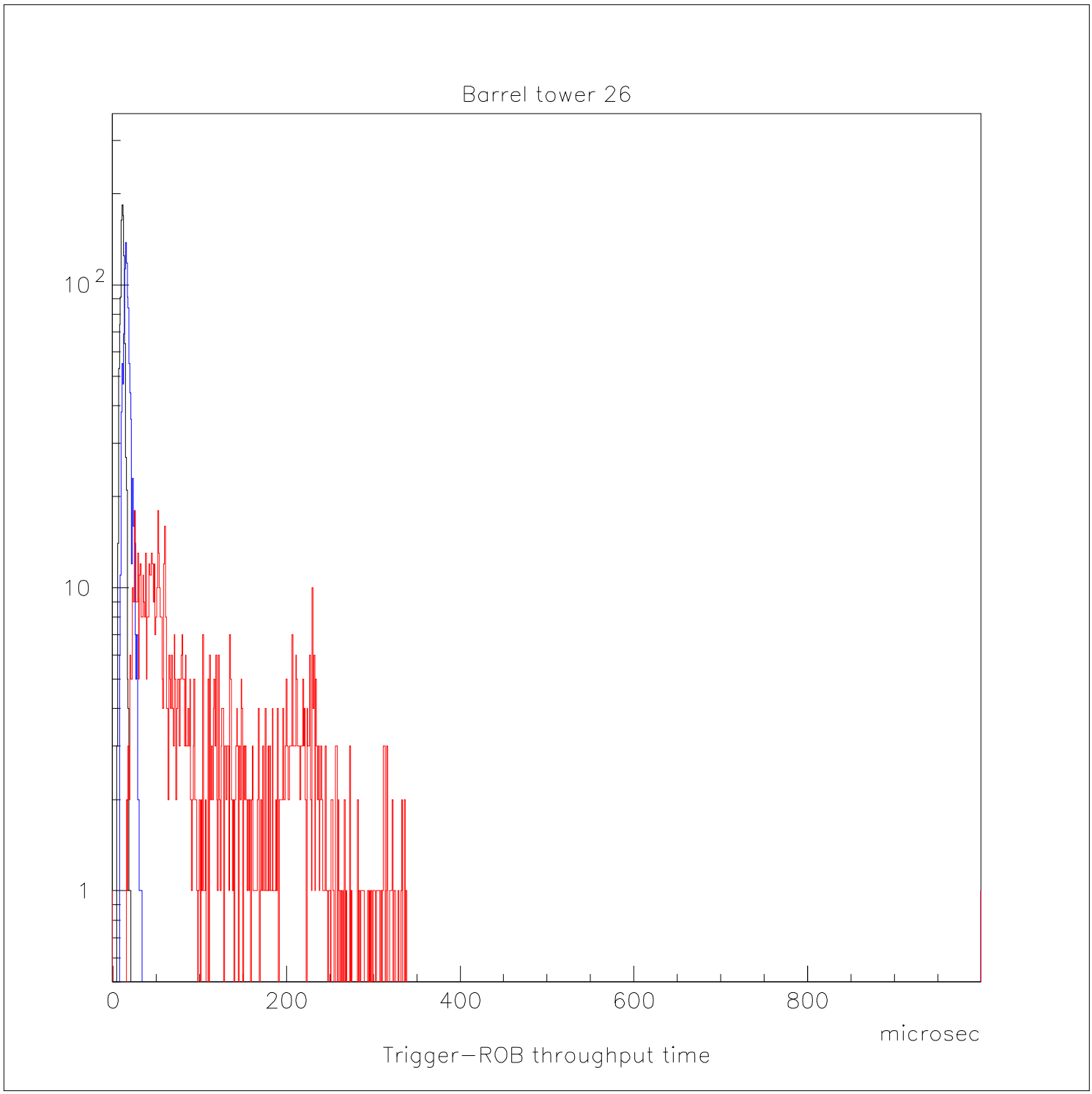

Barrel tower 25
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

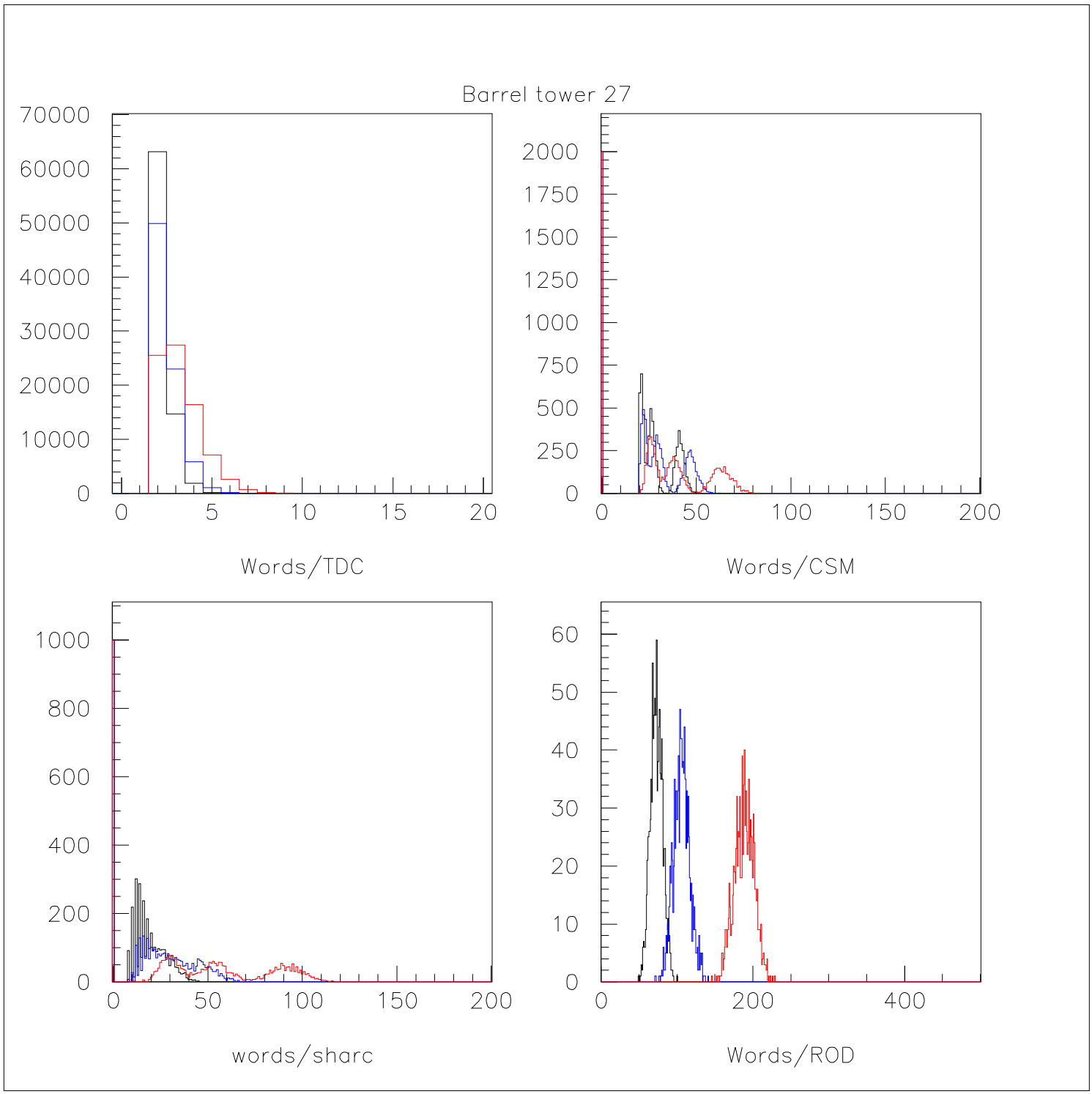

Barrel tower 26
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

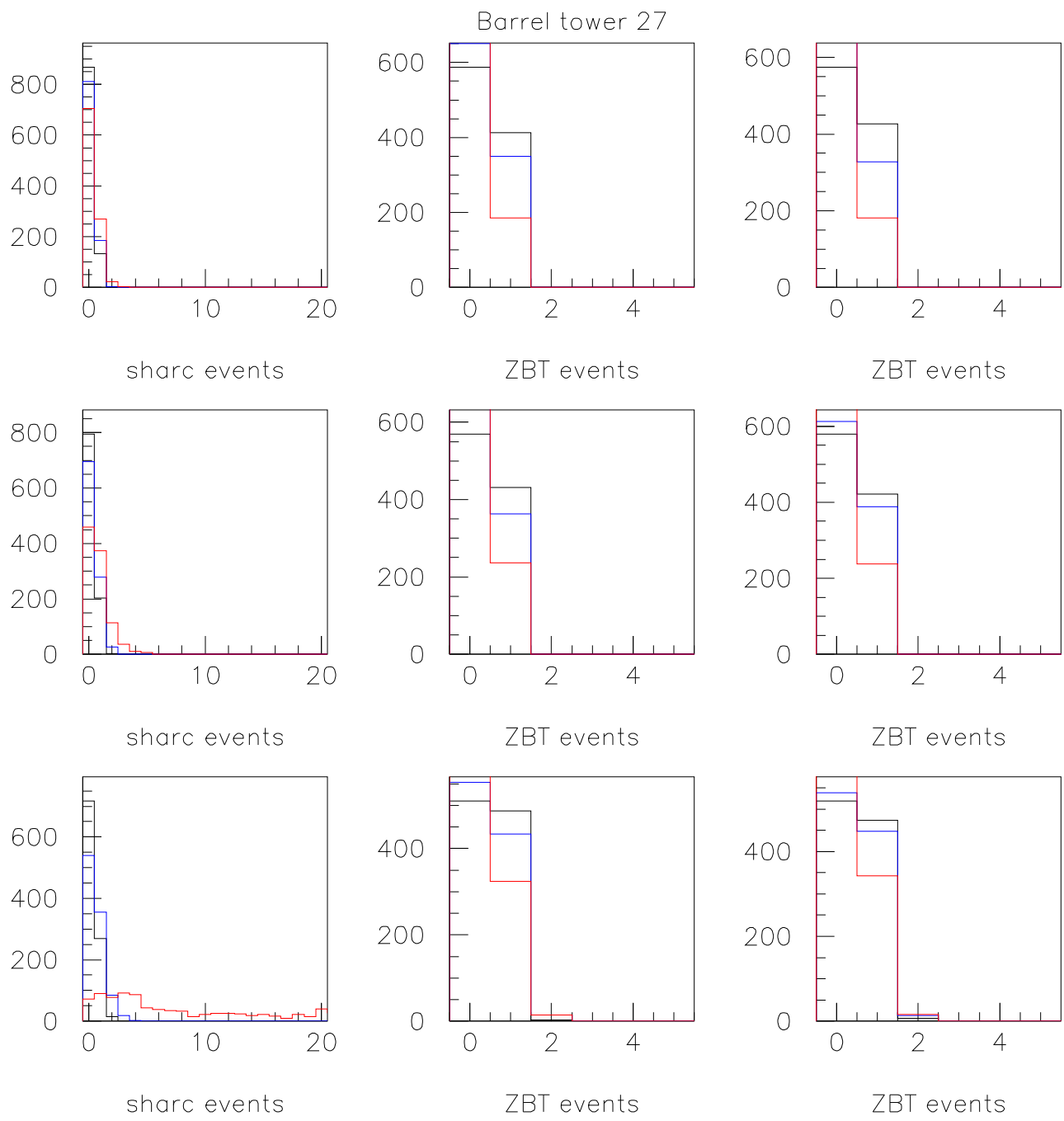

Barrel tower 26
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events


Barrel tower 26
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size


Barrel tower 26
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events


Barrel tower 26
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time


Barrel tower 27
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD


Barrel tower 27
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
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sharc events
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200
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2
4
ZBT events
400
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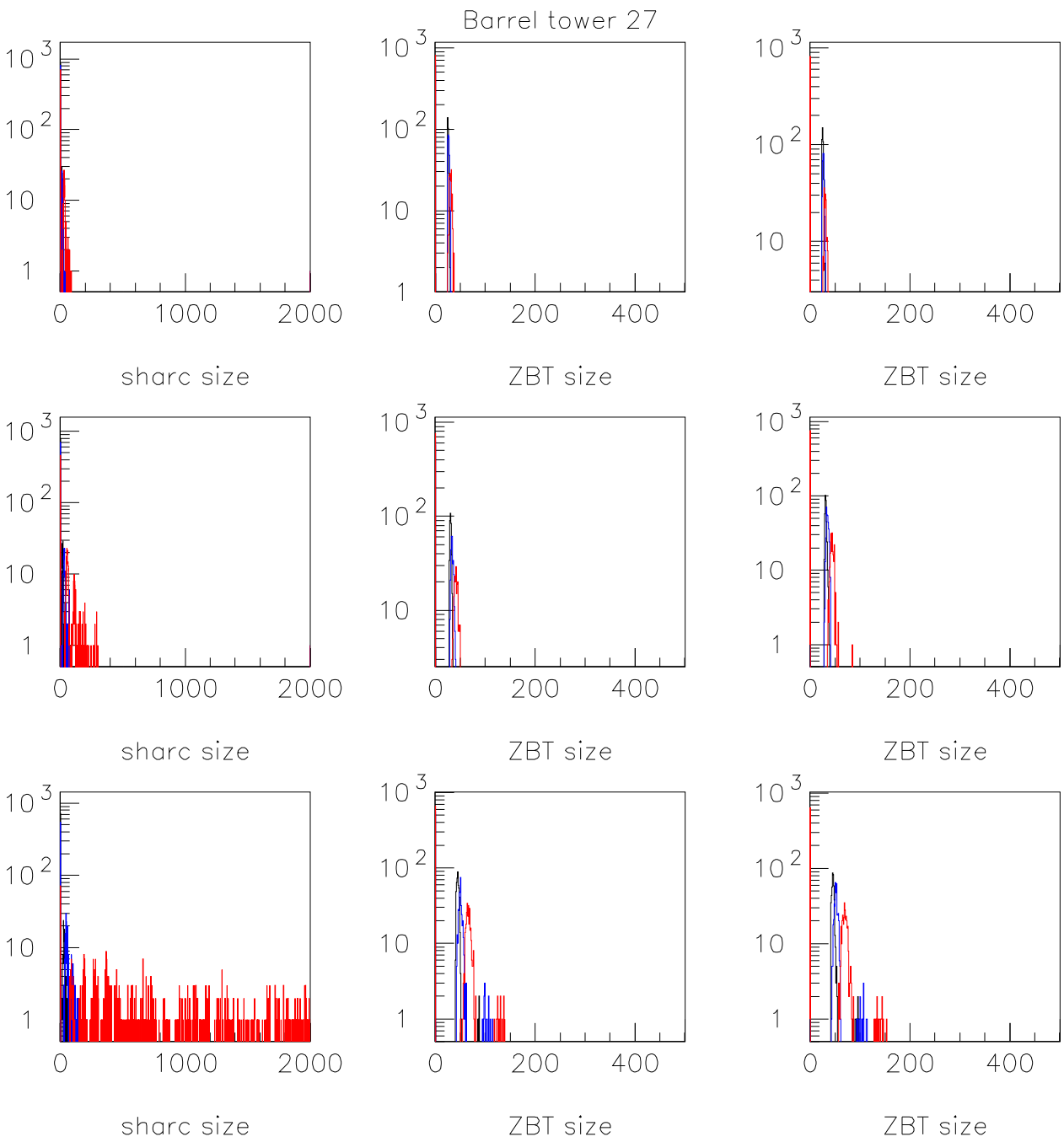
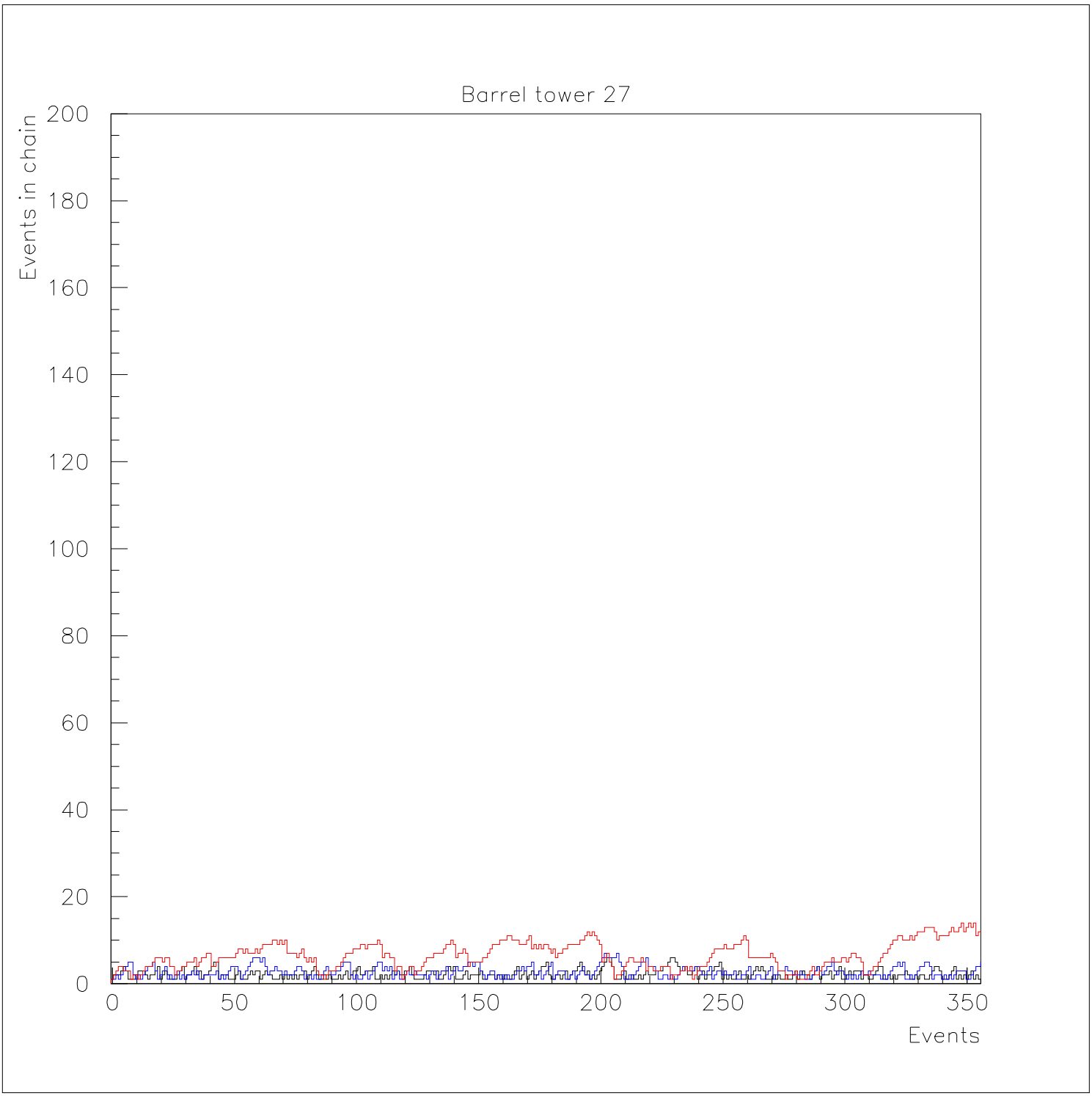
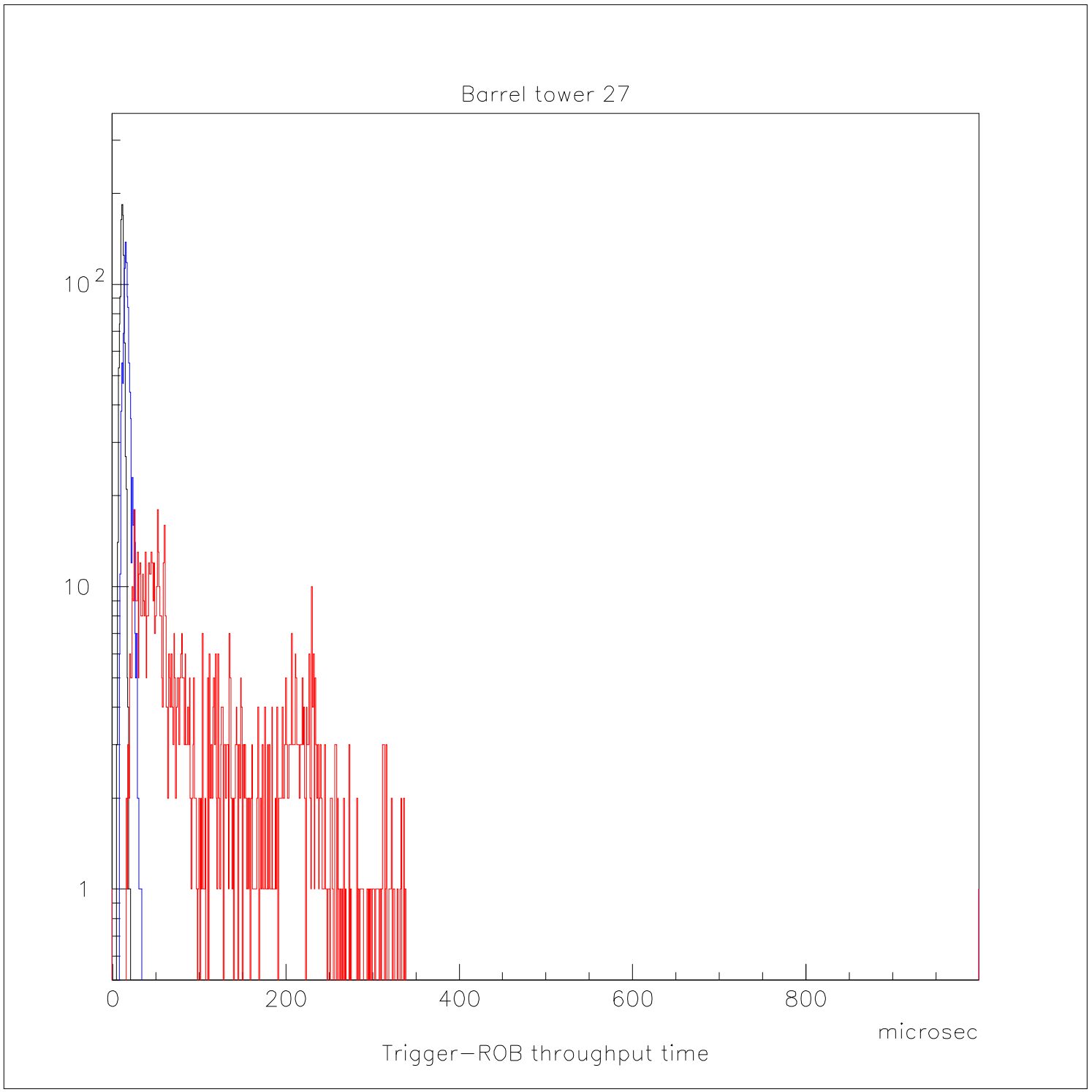
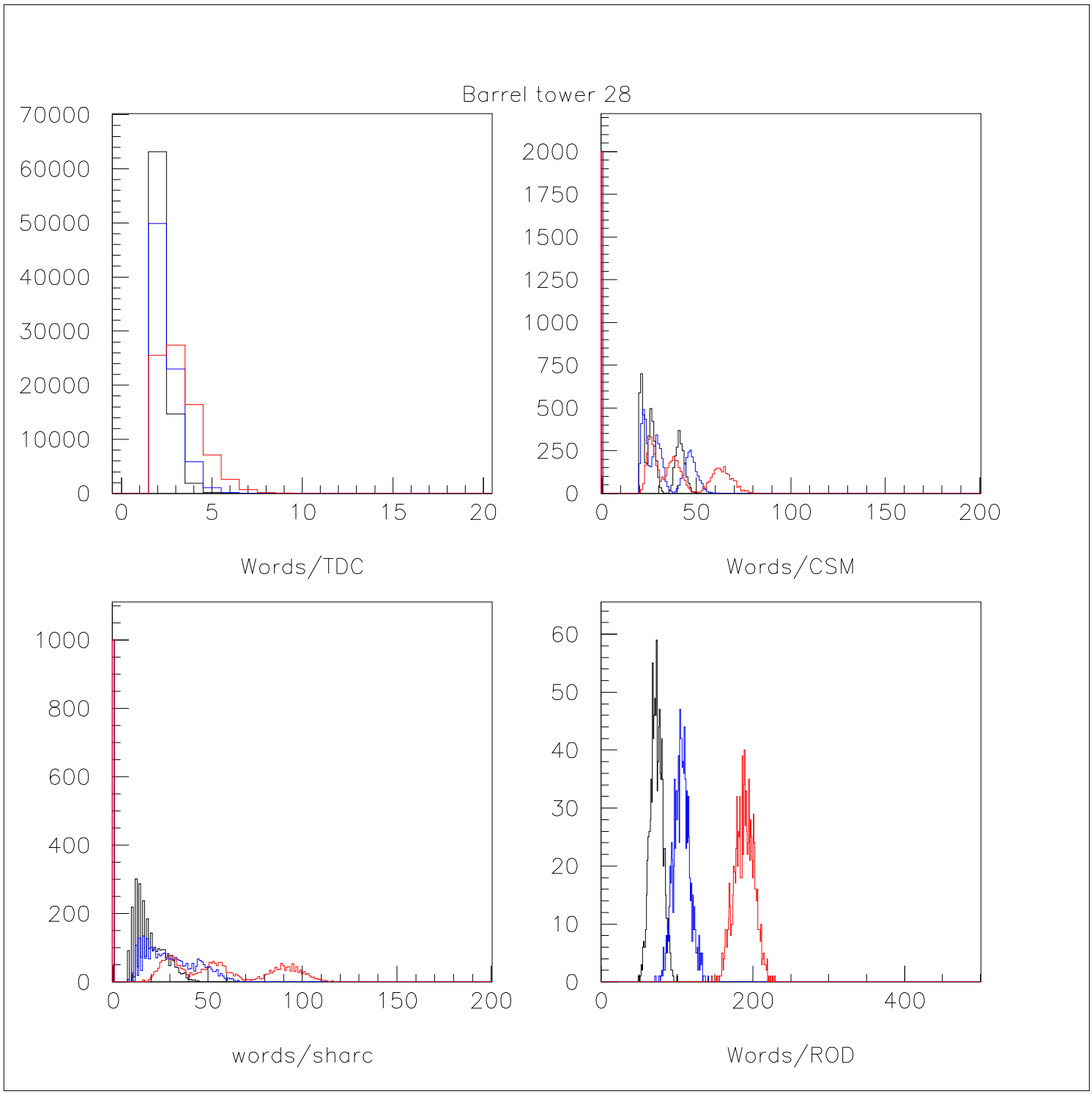
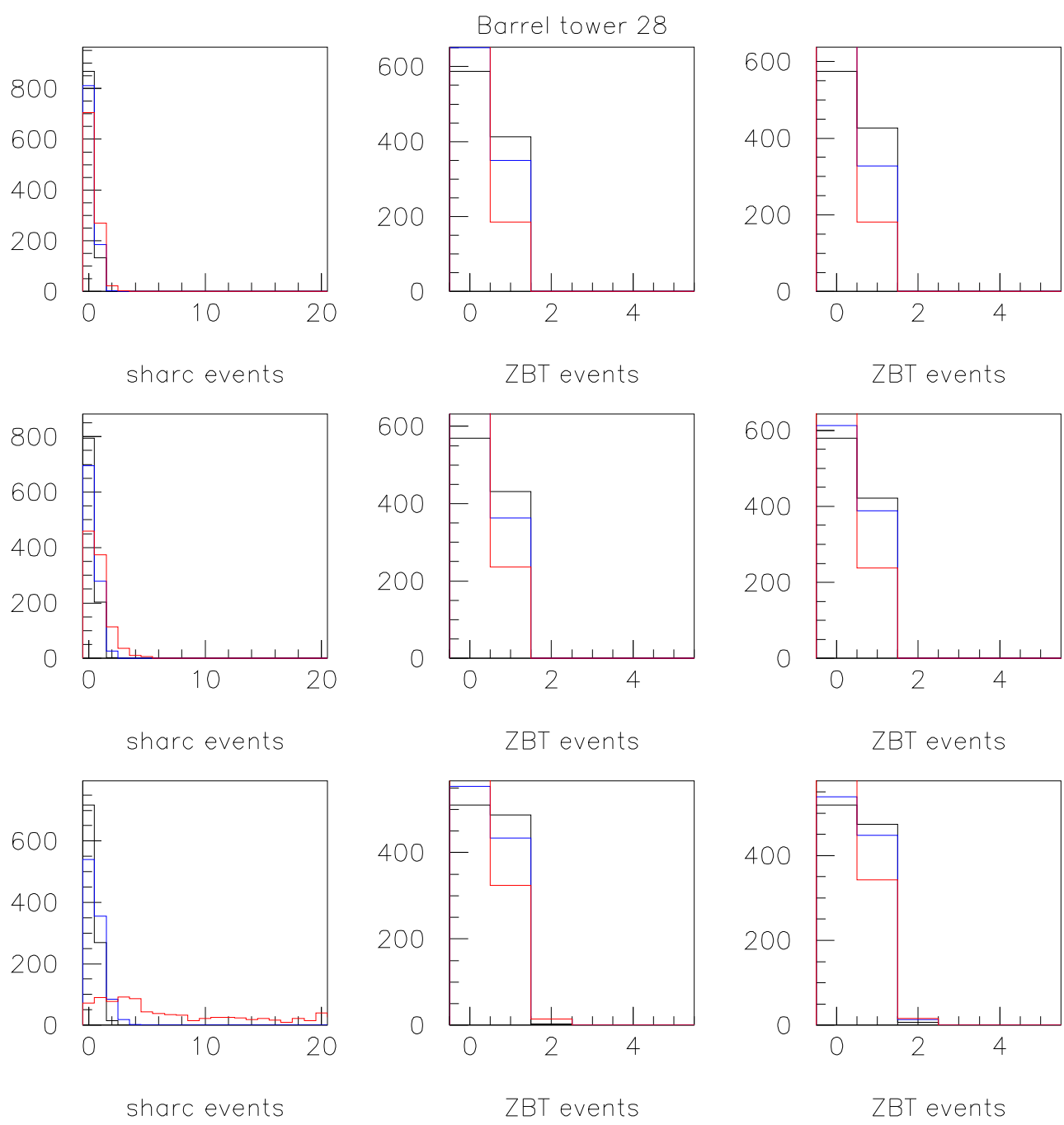
0
0
2
4
ZBT events


Barrel tower 27
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size


Barrel tower 27
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events


Barrel tower 27
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time


Barrel tower 28
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD


Barrel tower 28
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
400
200
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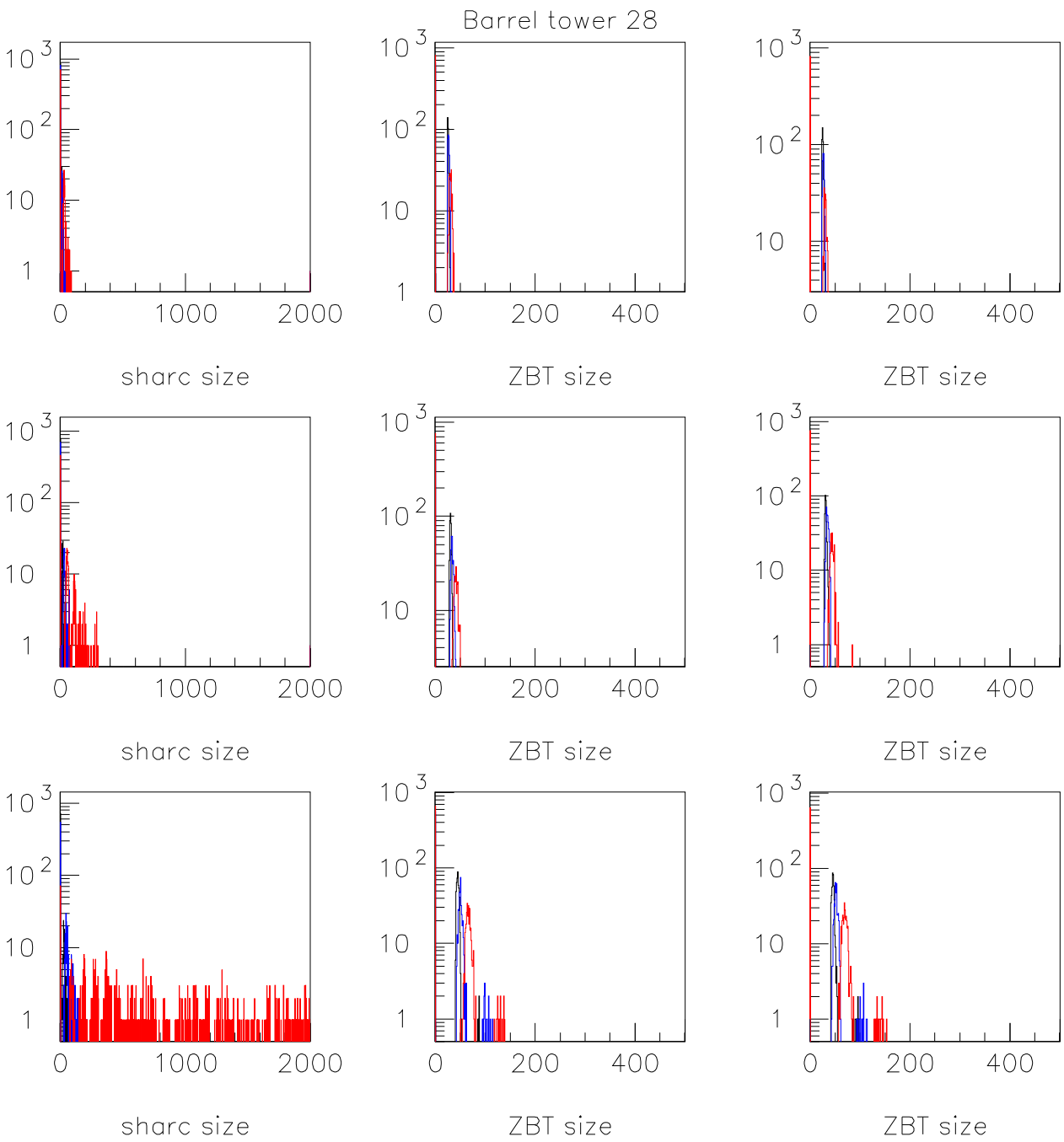
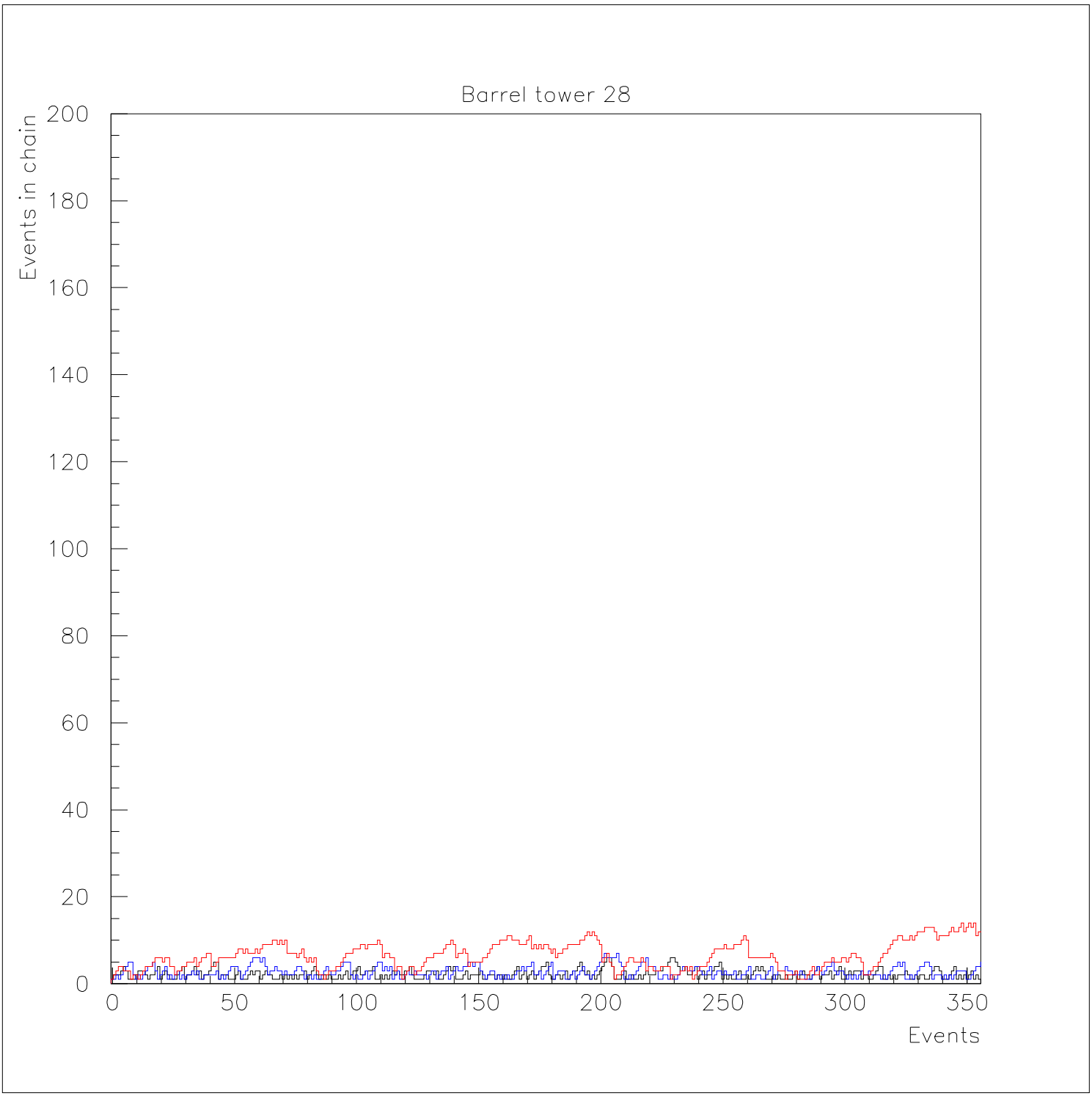
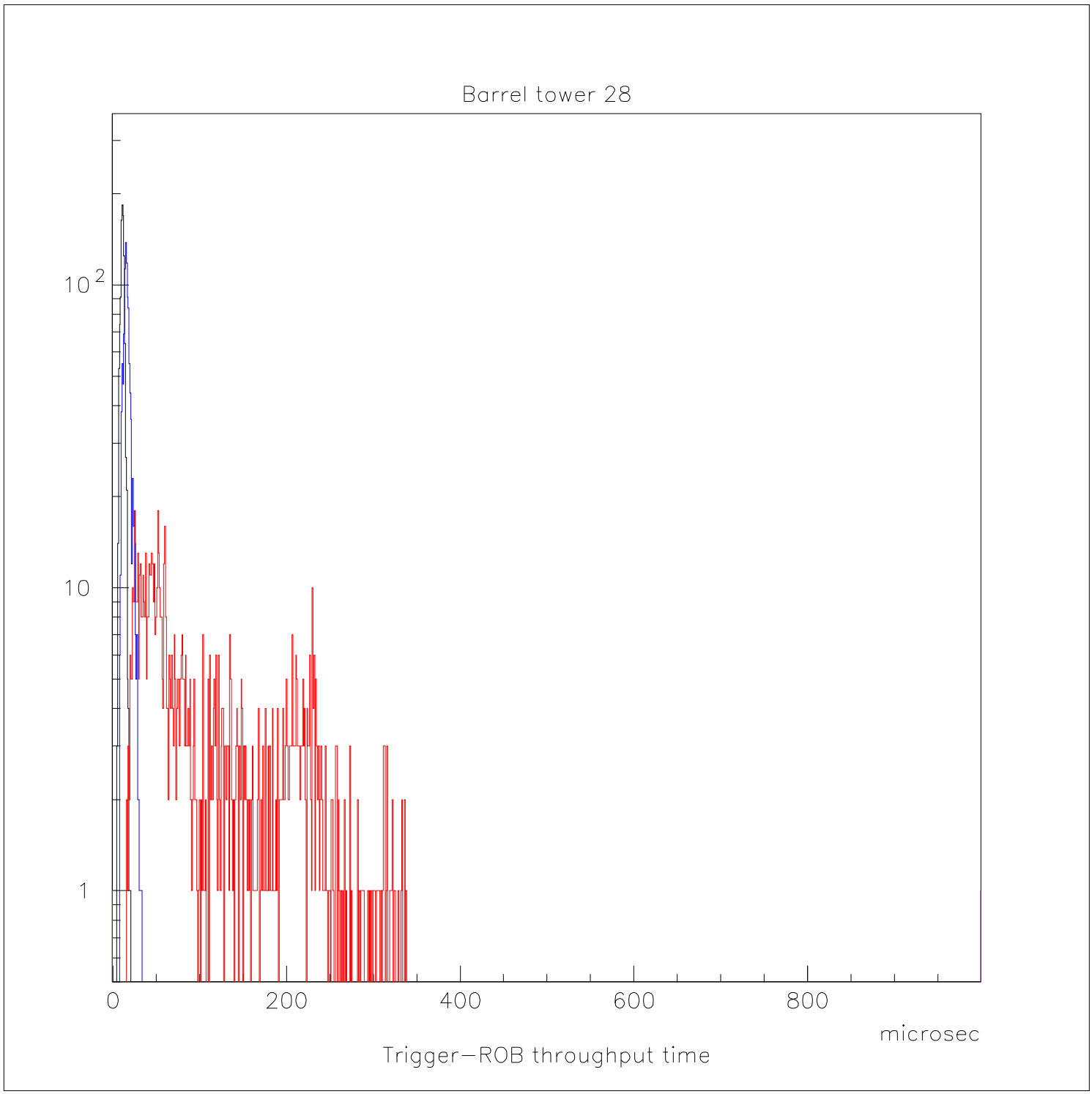
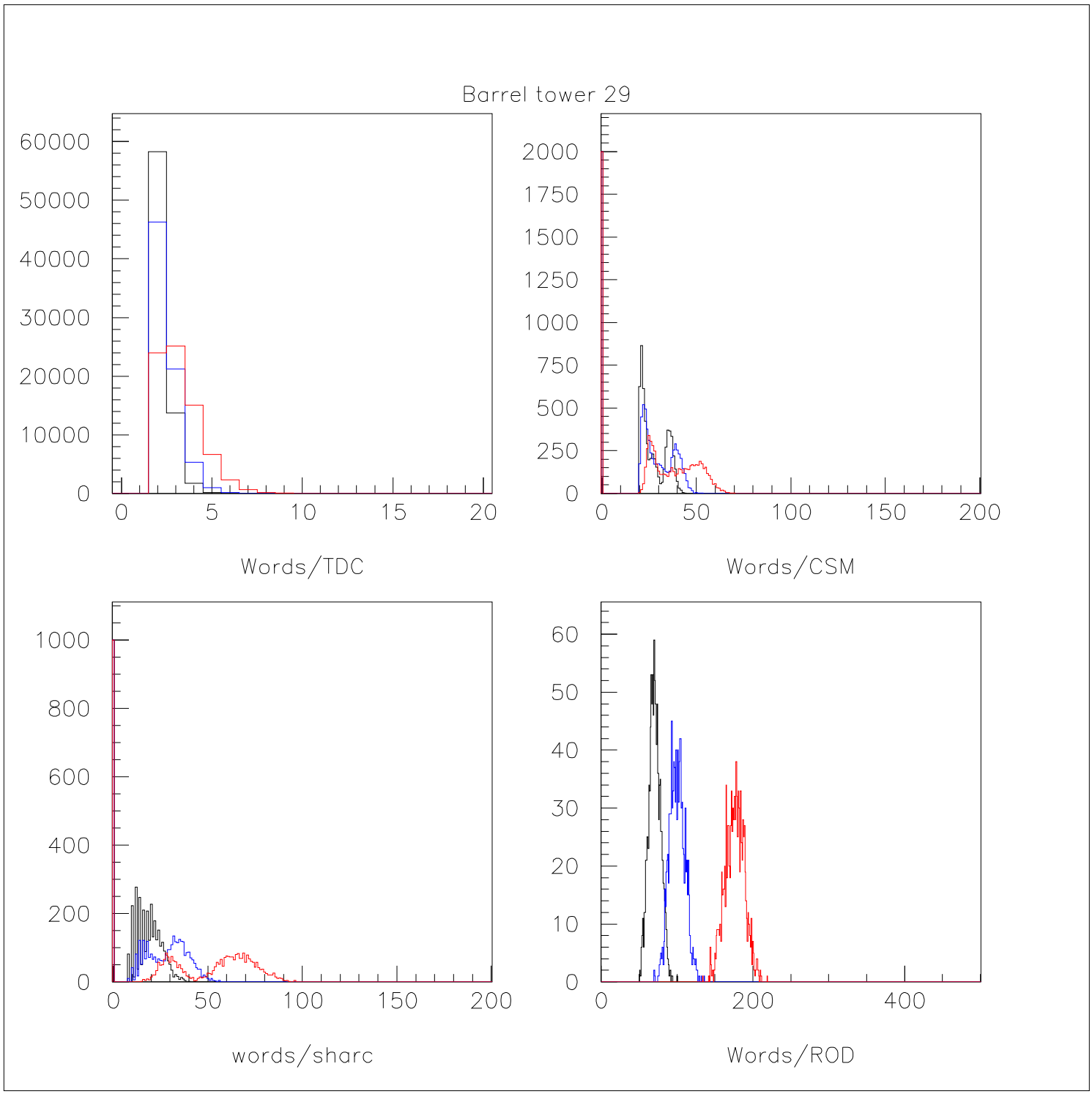
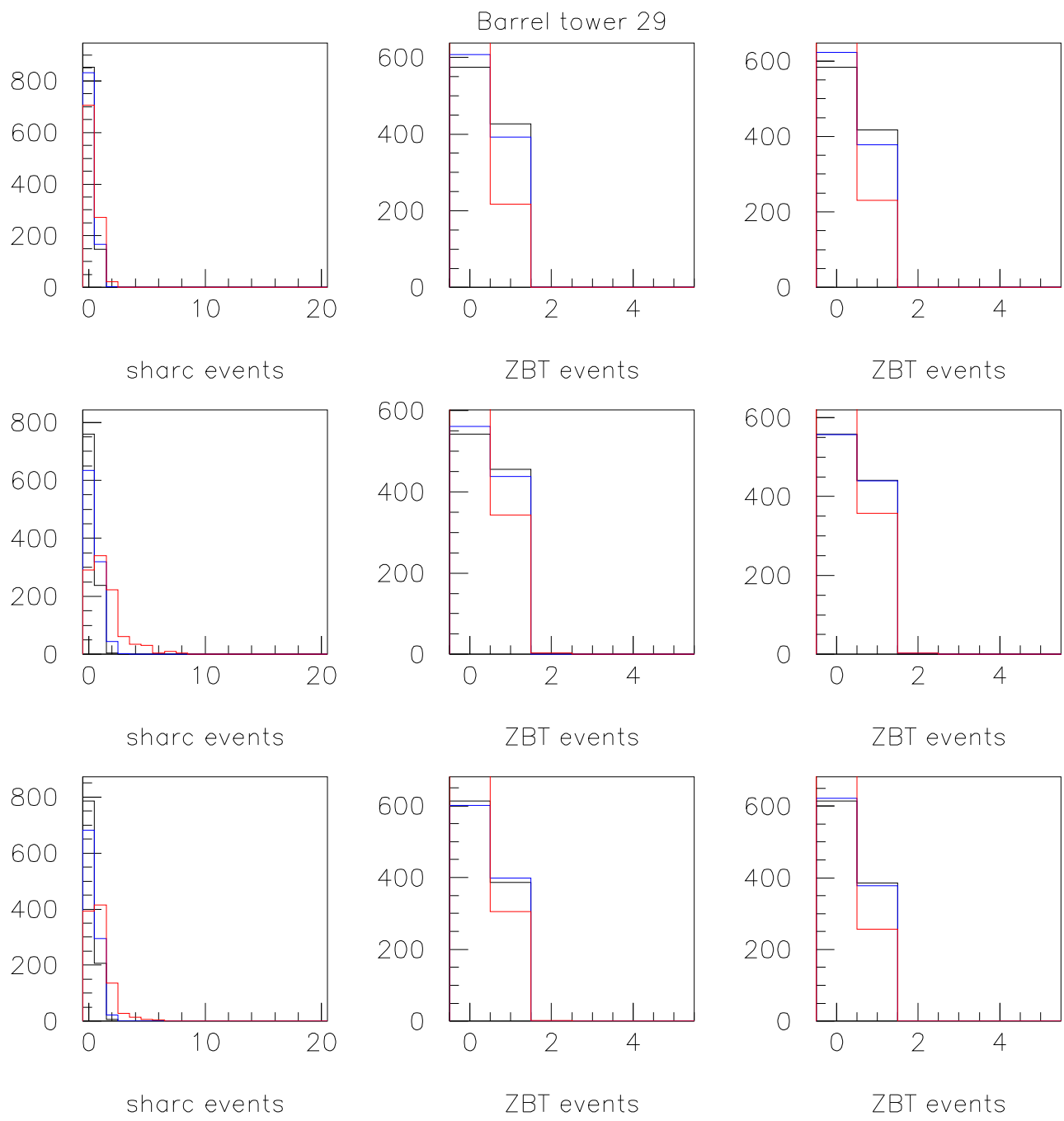
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events

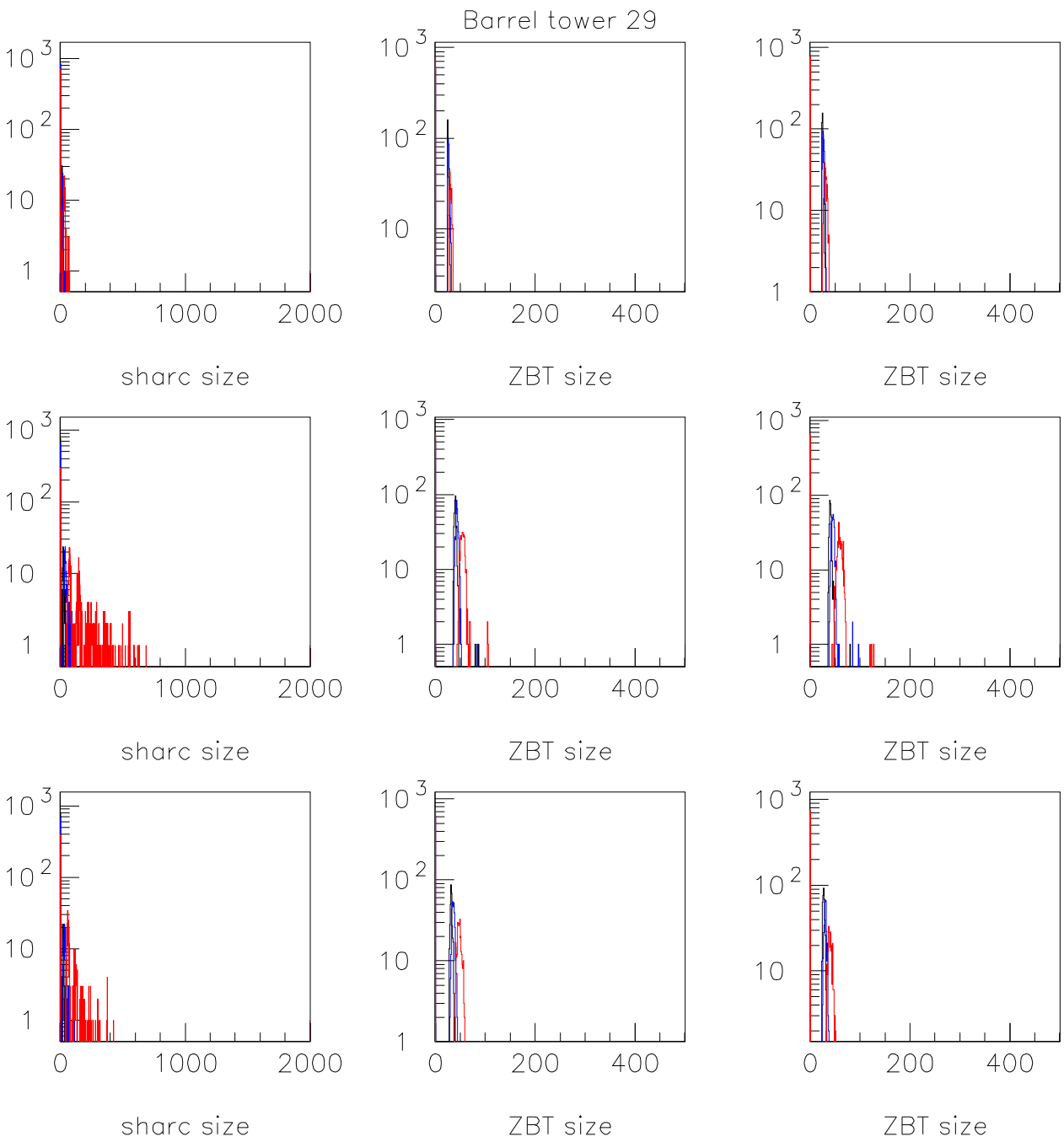

Barrel tower 28
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

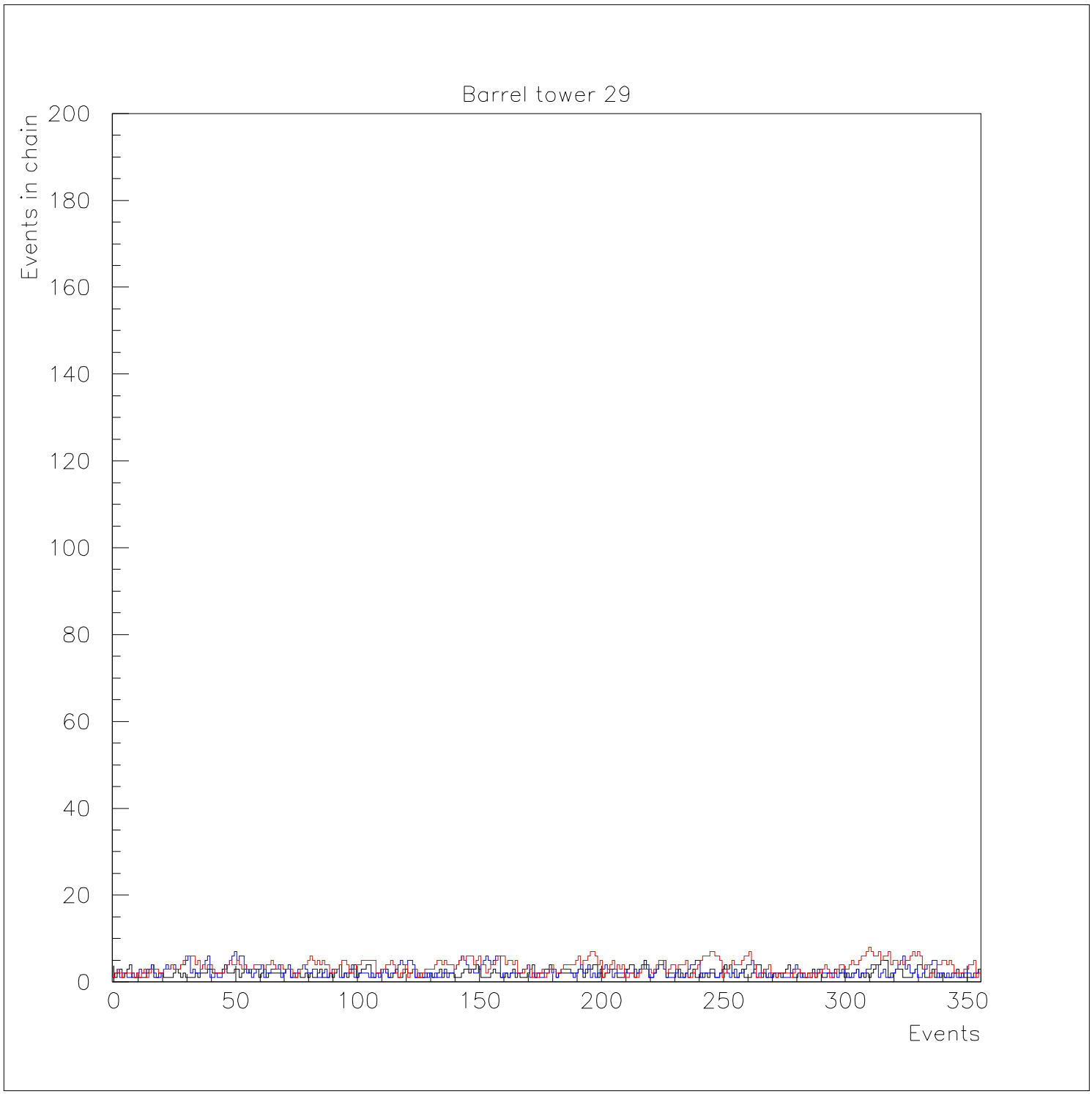

Barrel tower 28
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

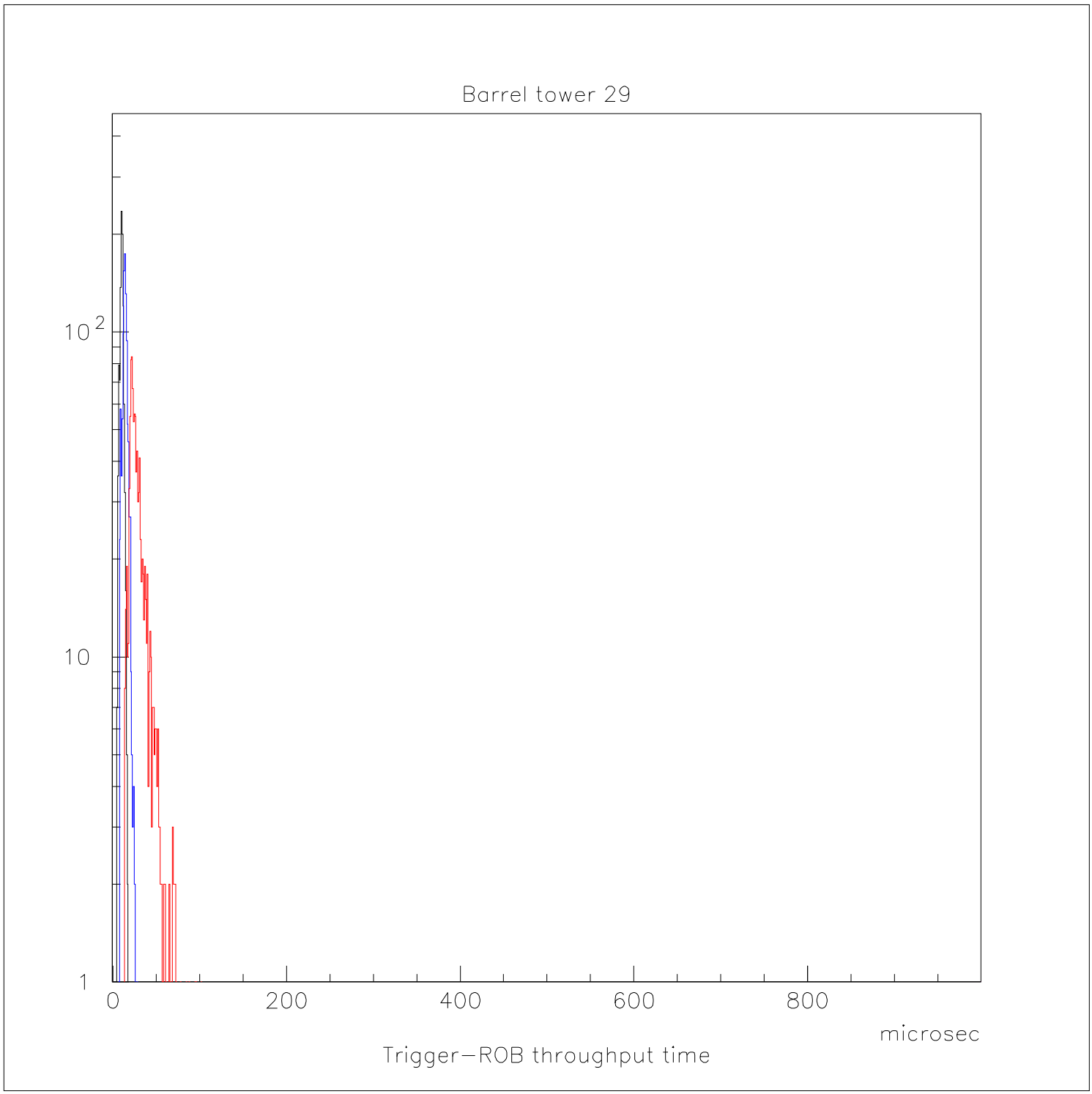

Barrel tower 28
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

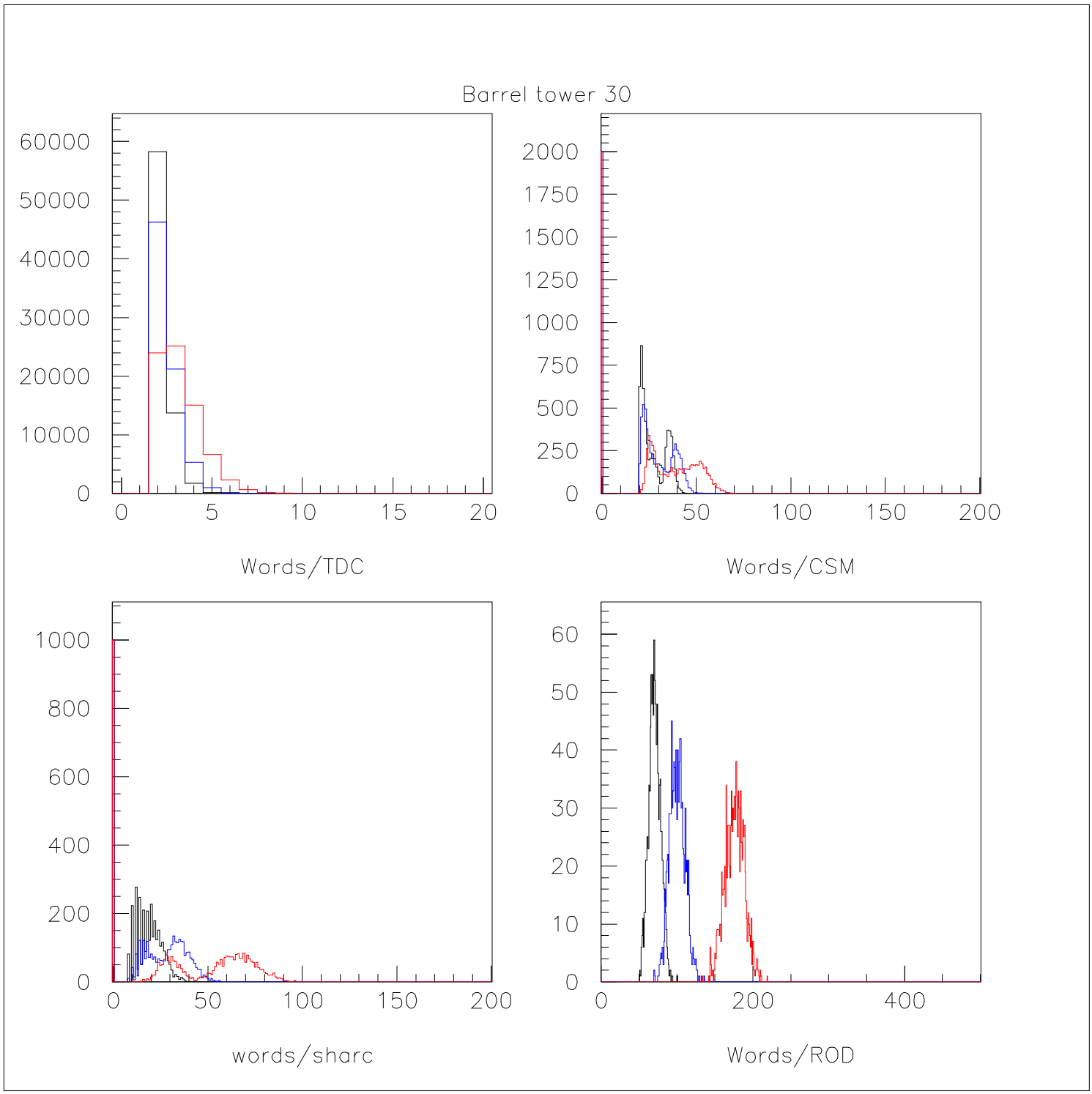

Barrel tower 29
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

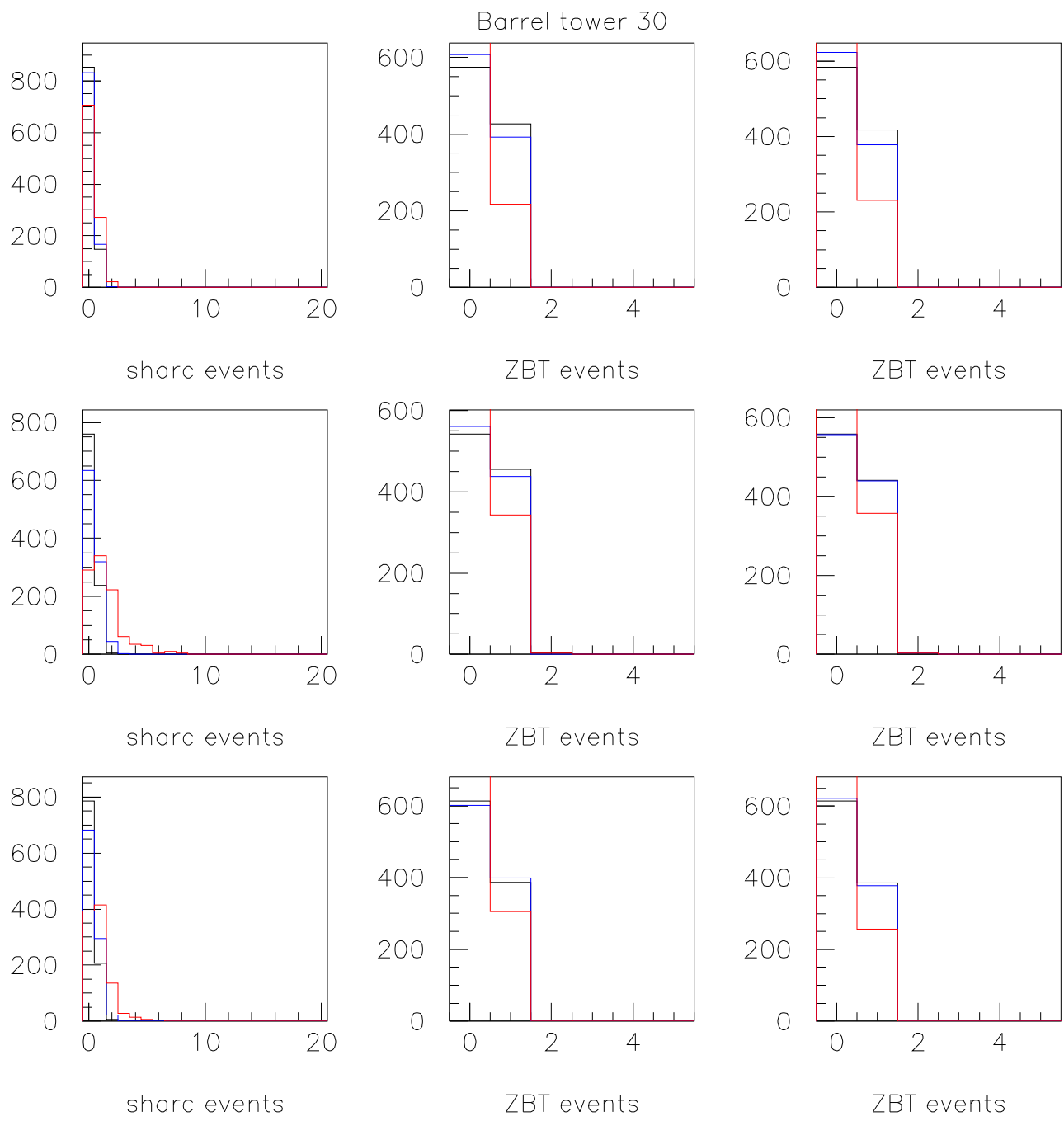

Barrel tower 29
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
ZBT events

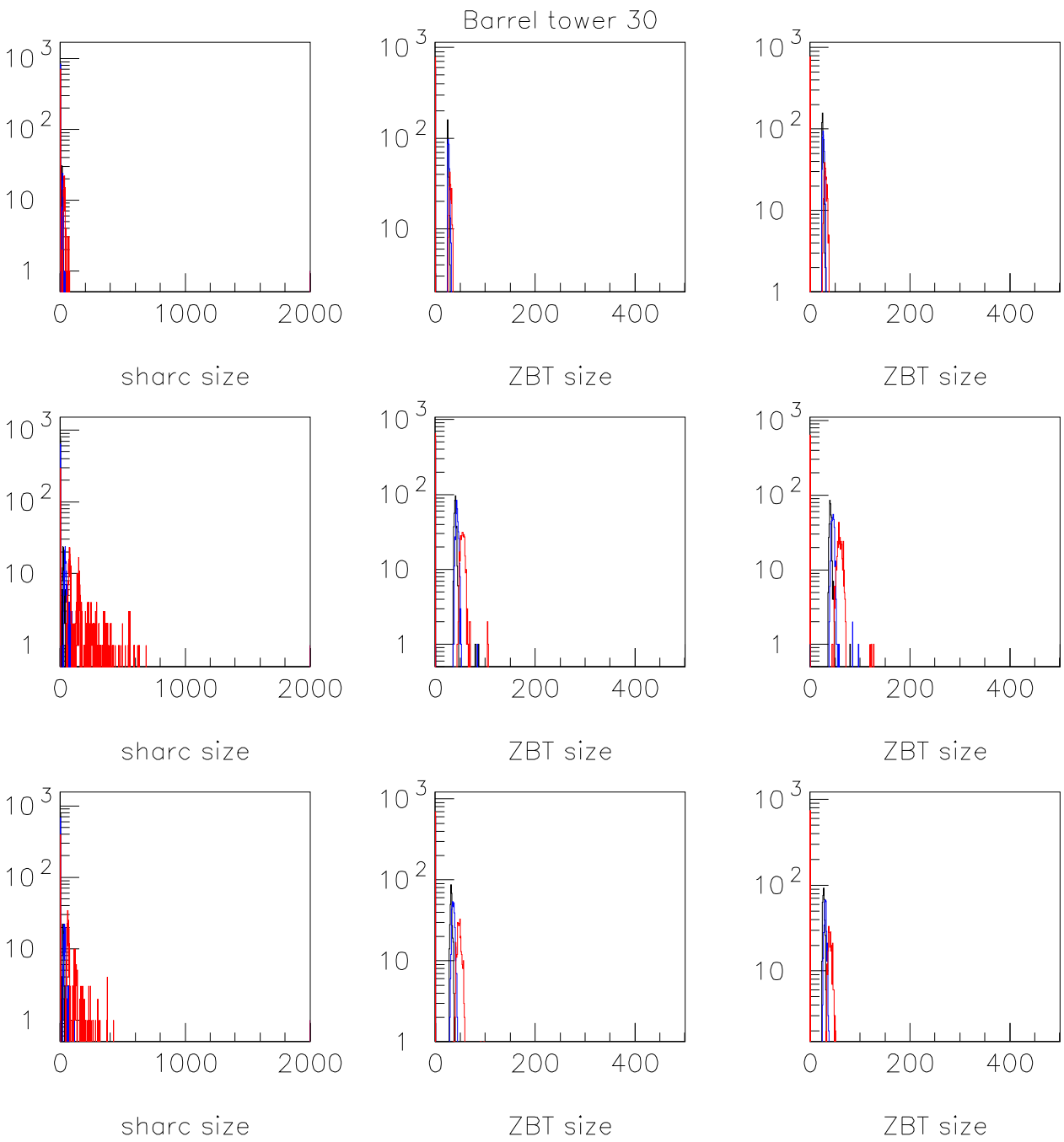

Barrel tower 29
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

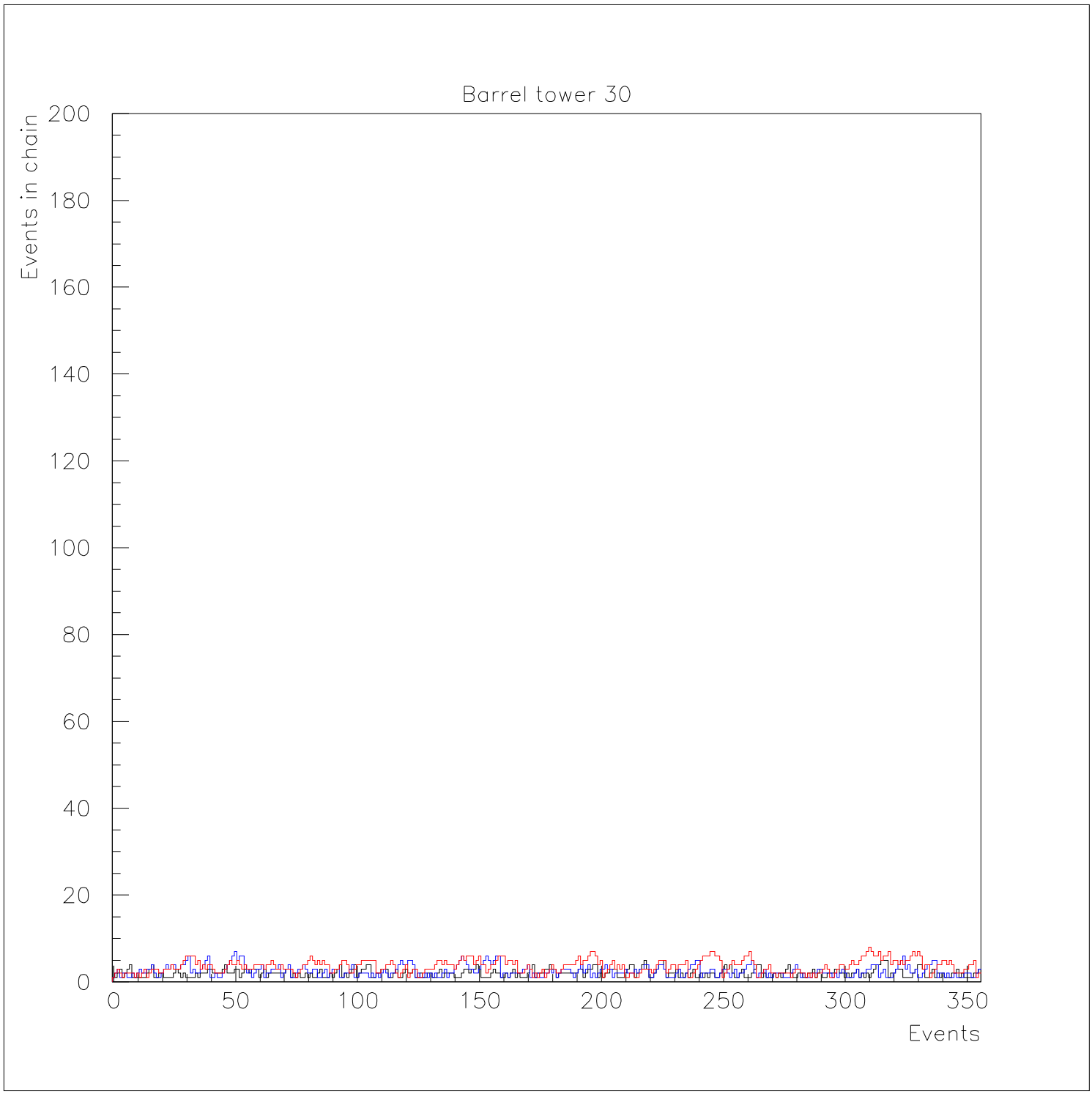

Barrel tower 29
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

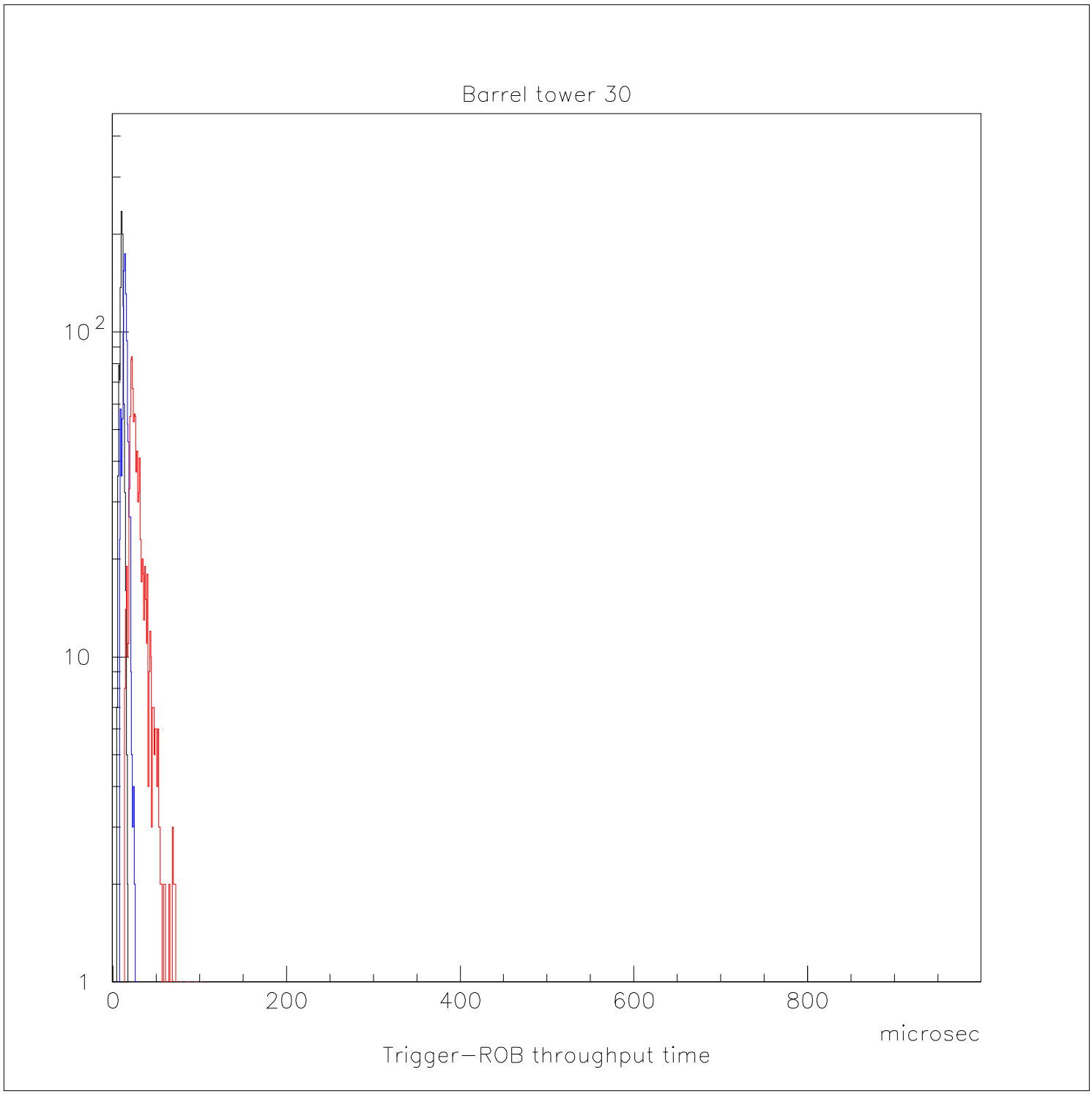

Barrel tower 29
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

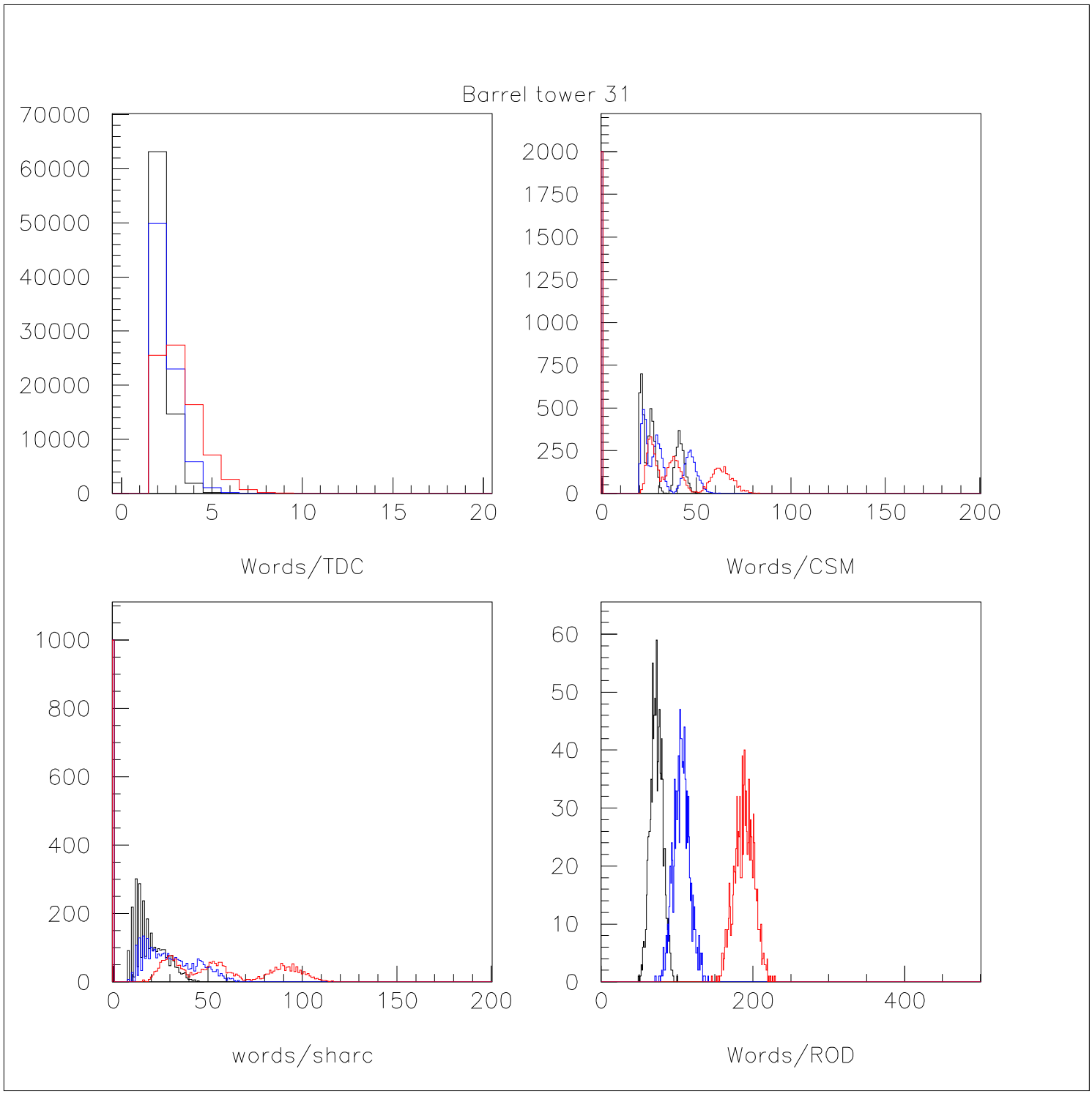

Barrel tower 30
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

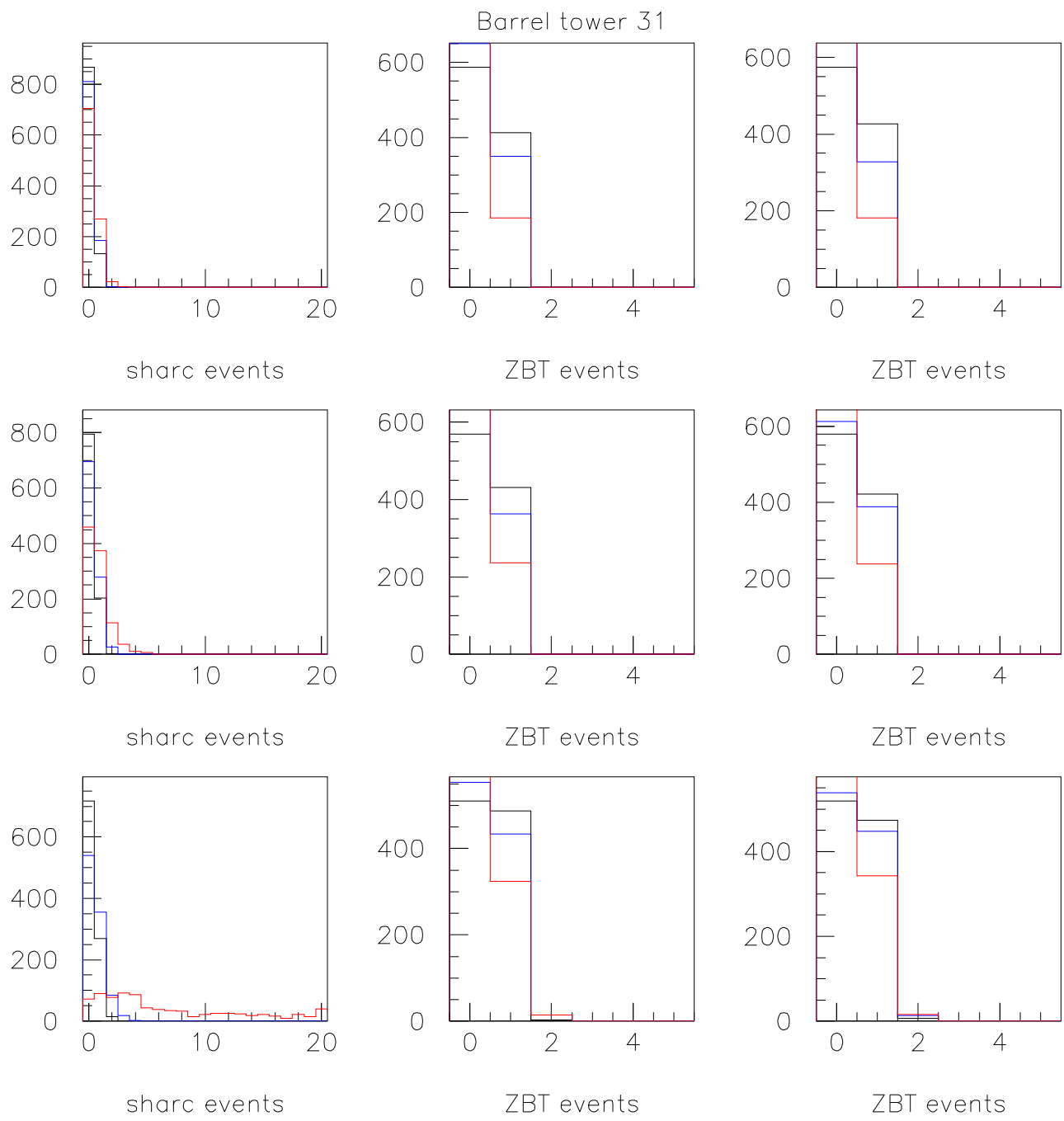

Barrel tower 30
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
ZBT events

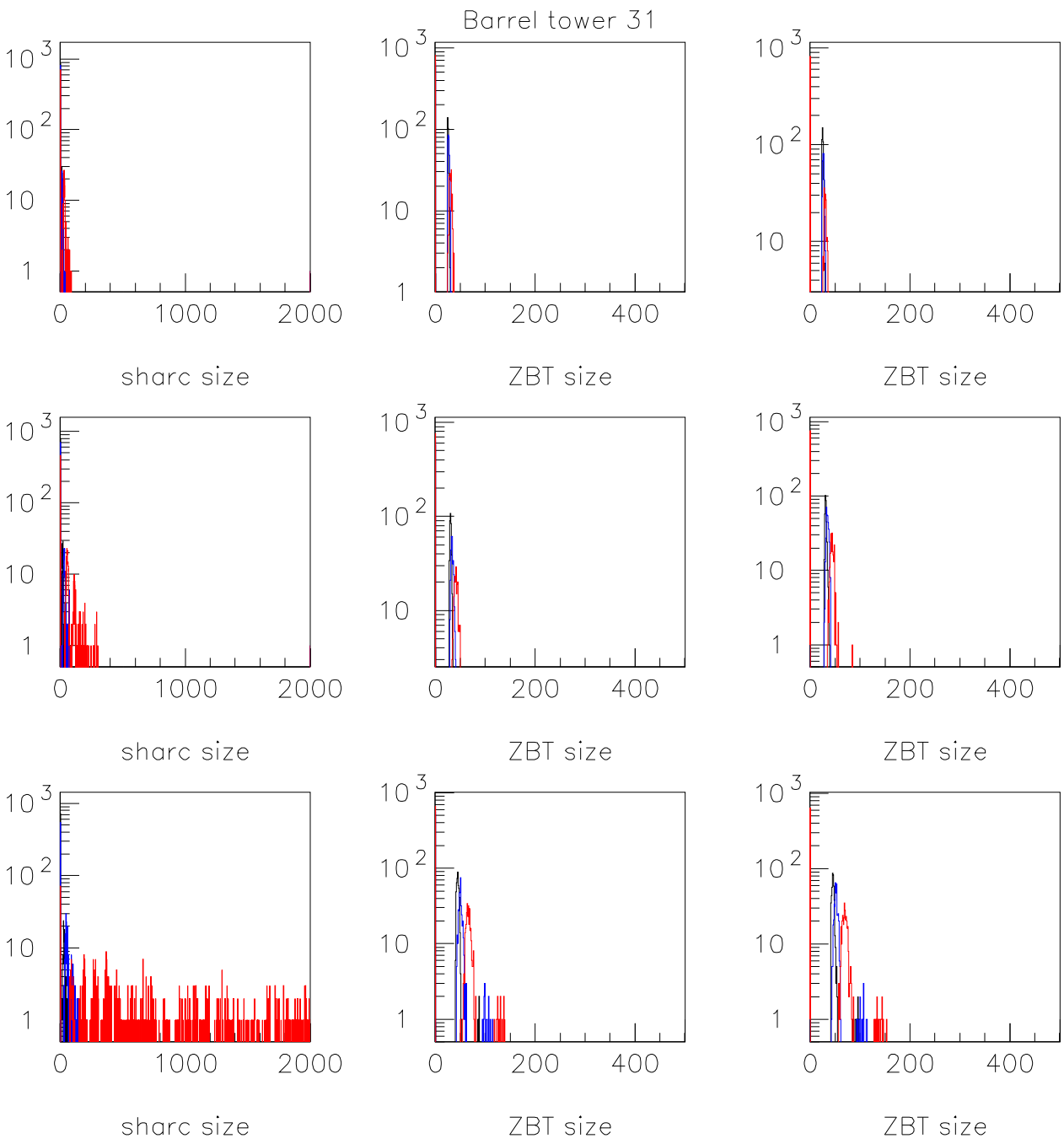

Barrel tower 30
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

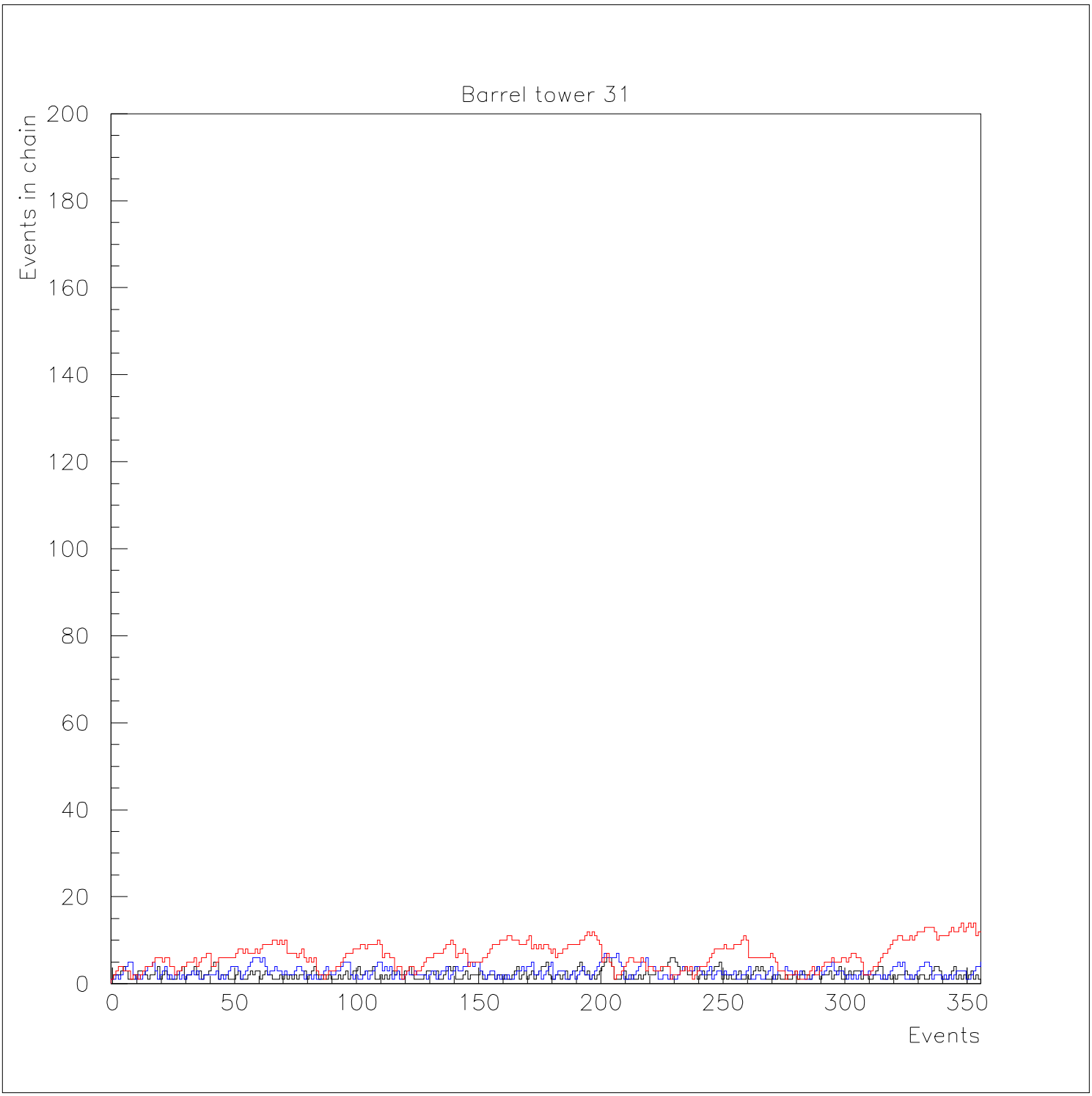

Barrel tower 30
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

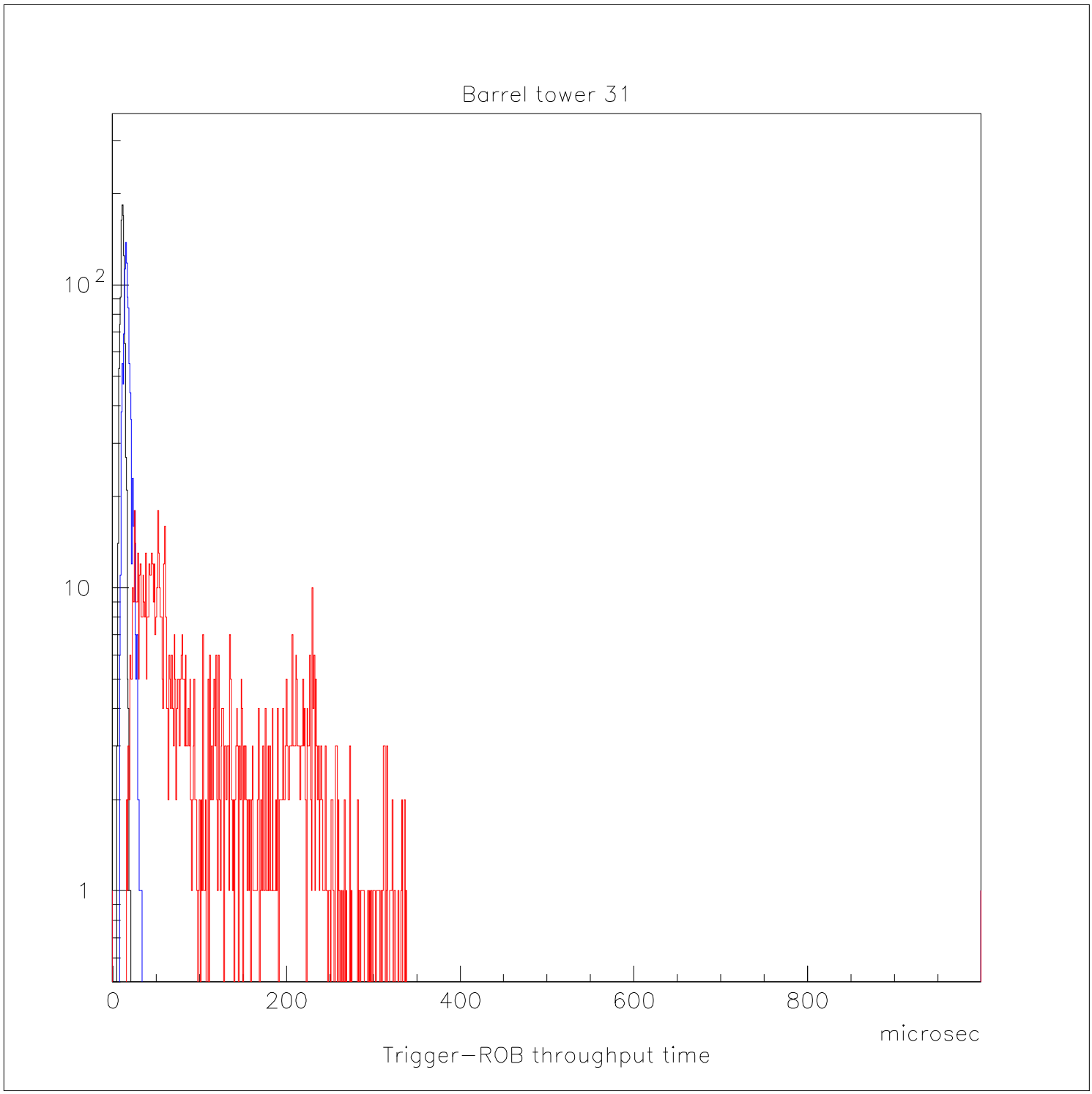

Barrel tower 30
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

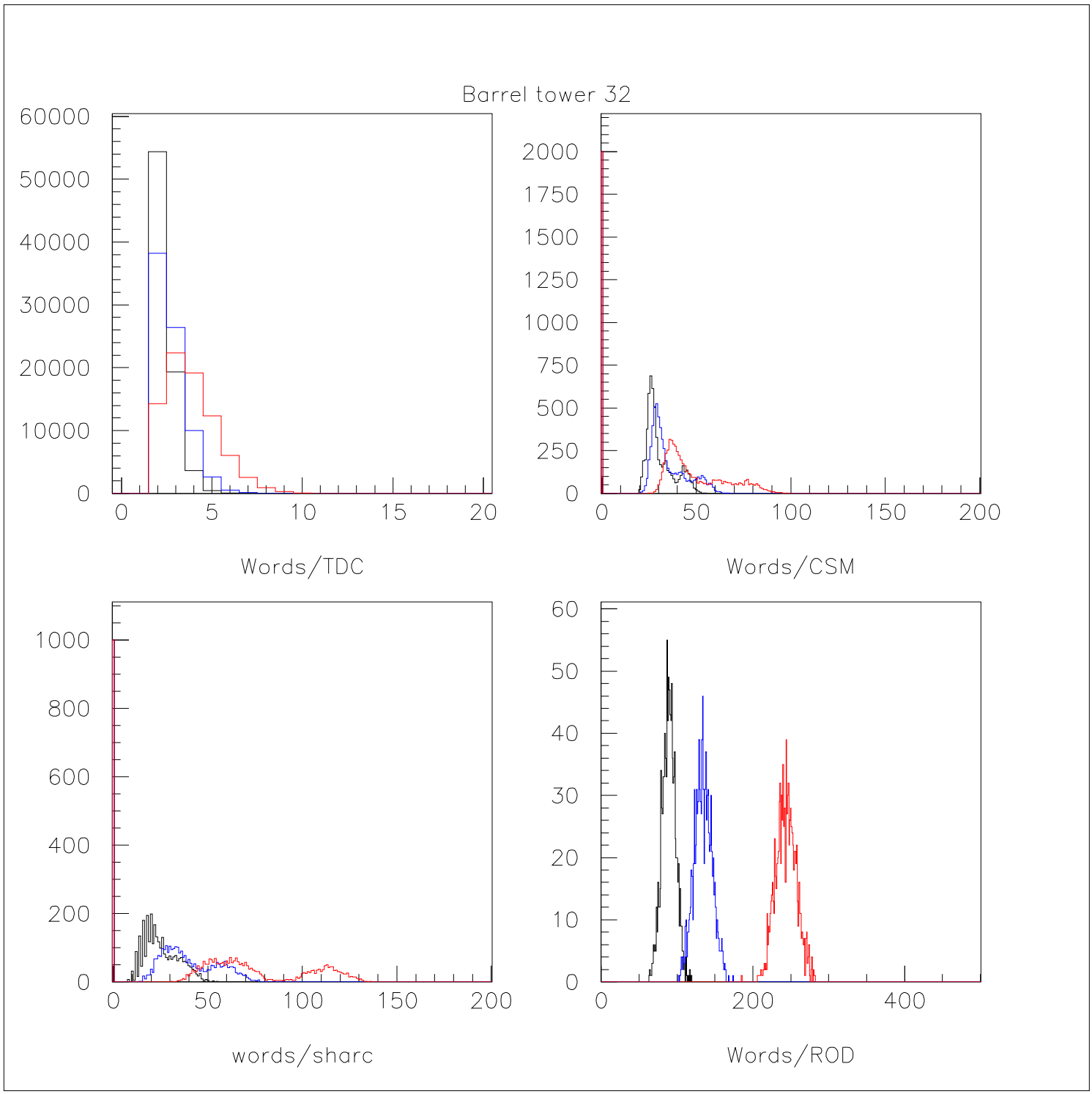

Barrel tower 31
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

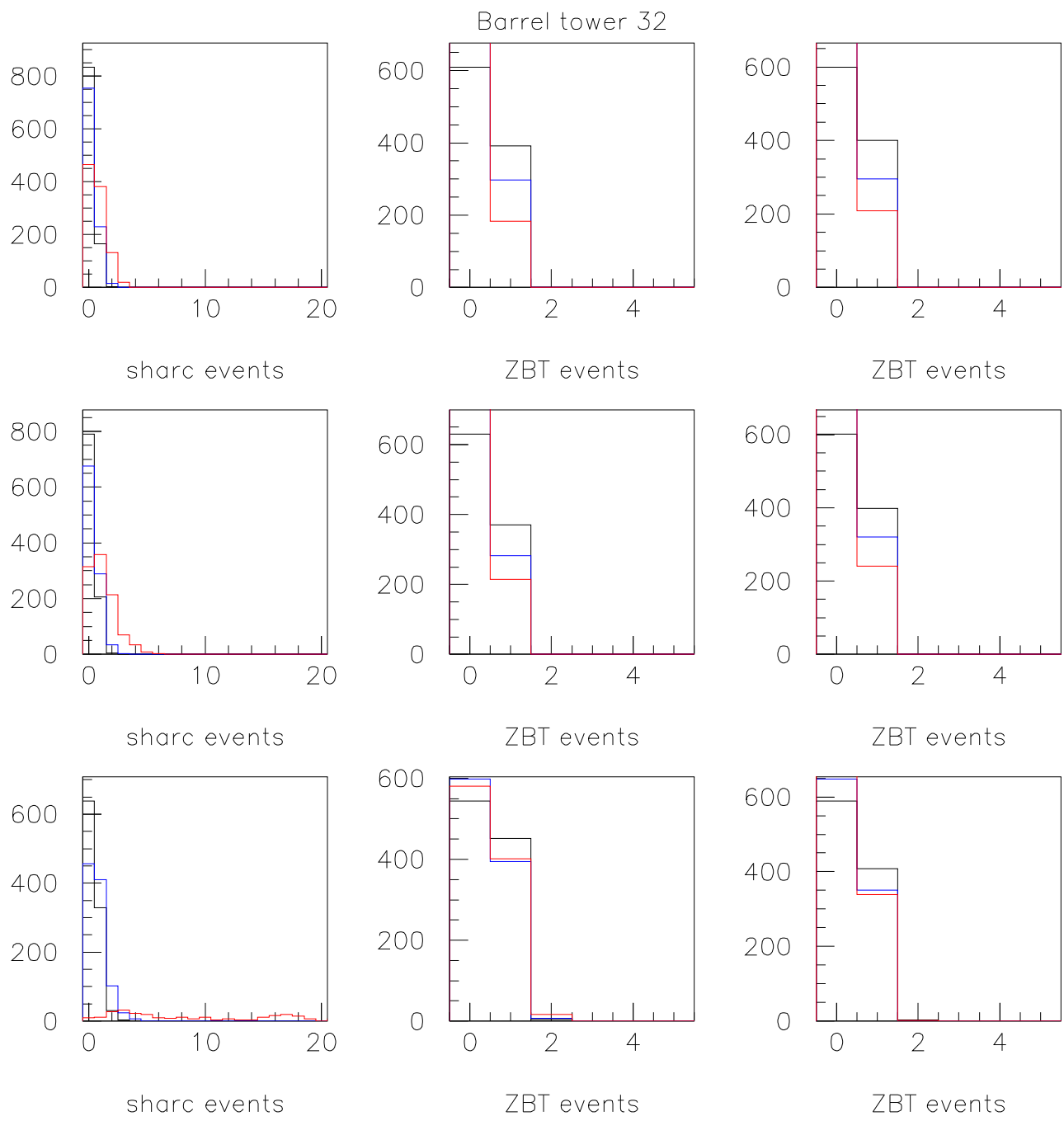

Barrel tower 31
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events

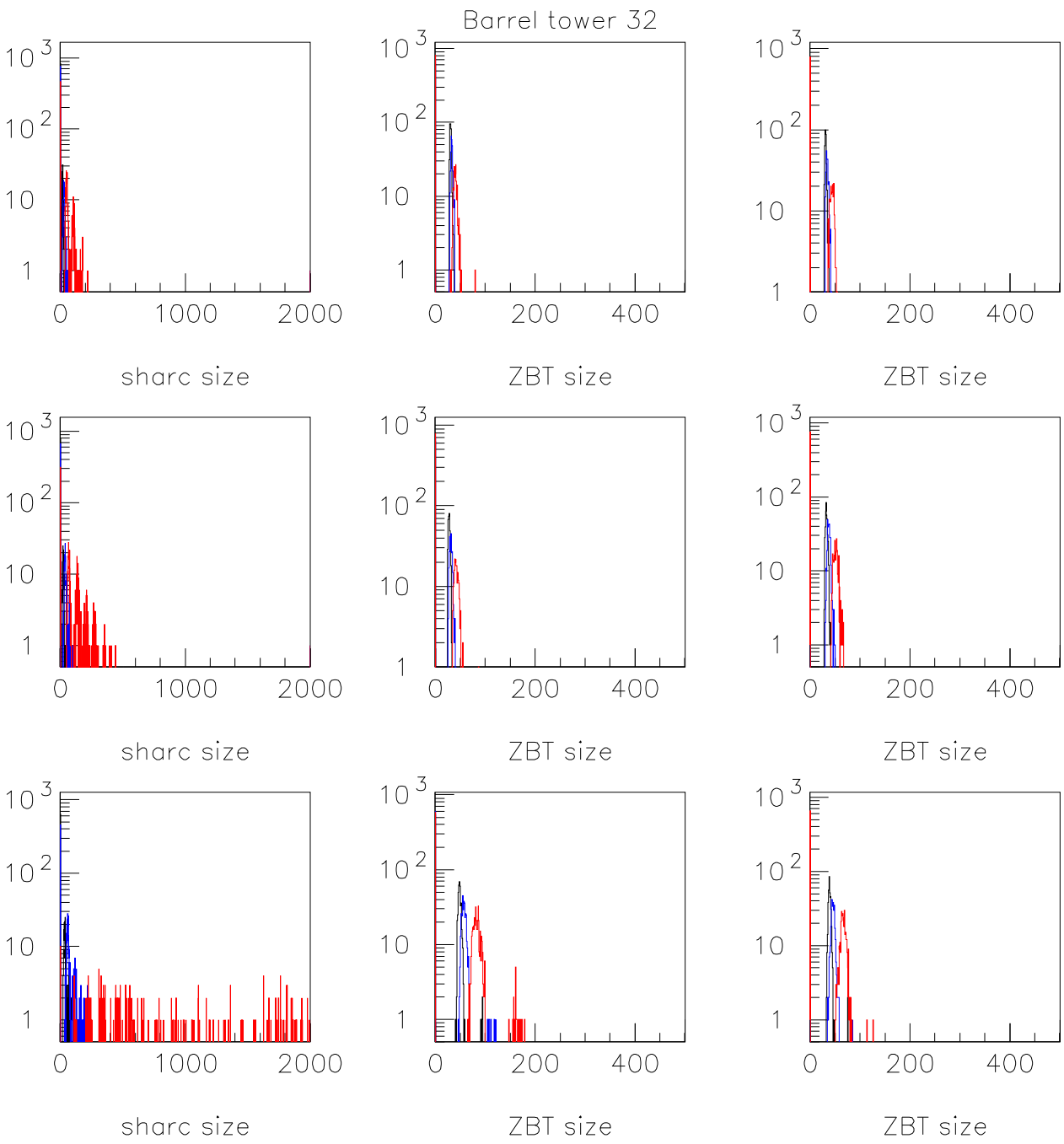

Barrel tower 31
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

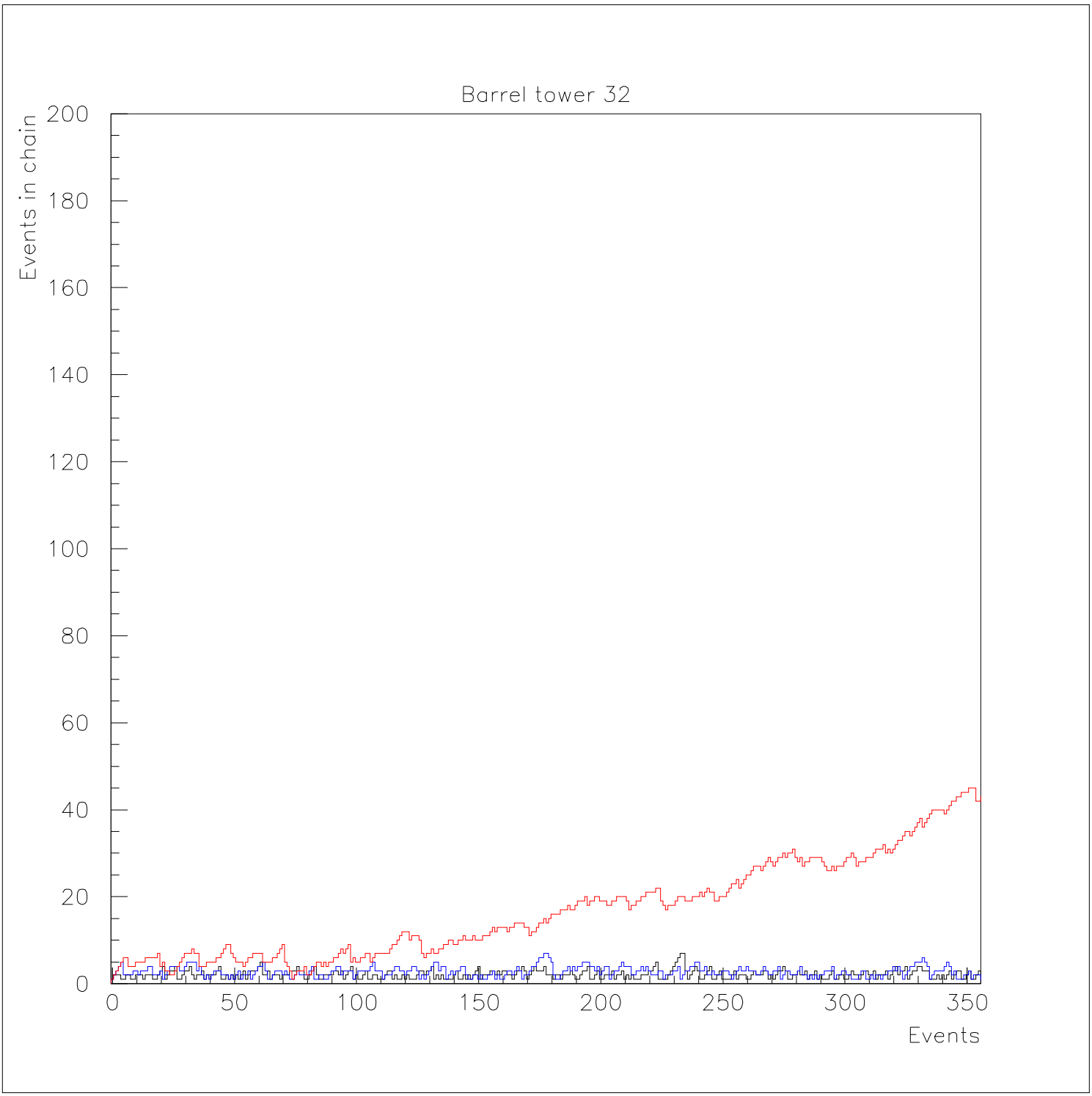

Barrel tower 31
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

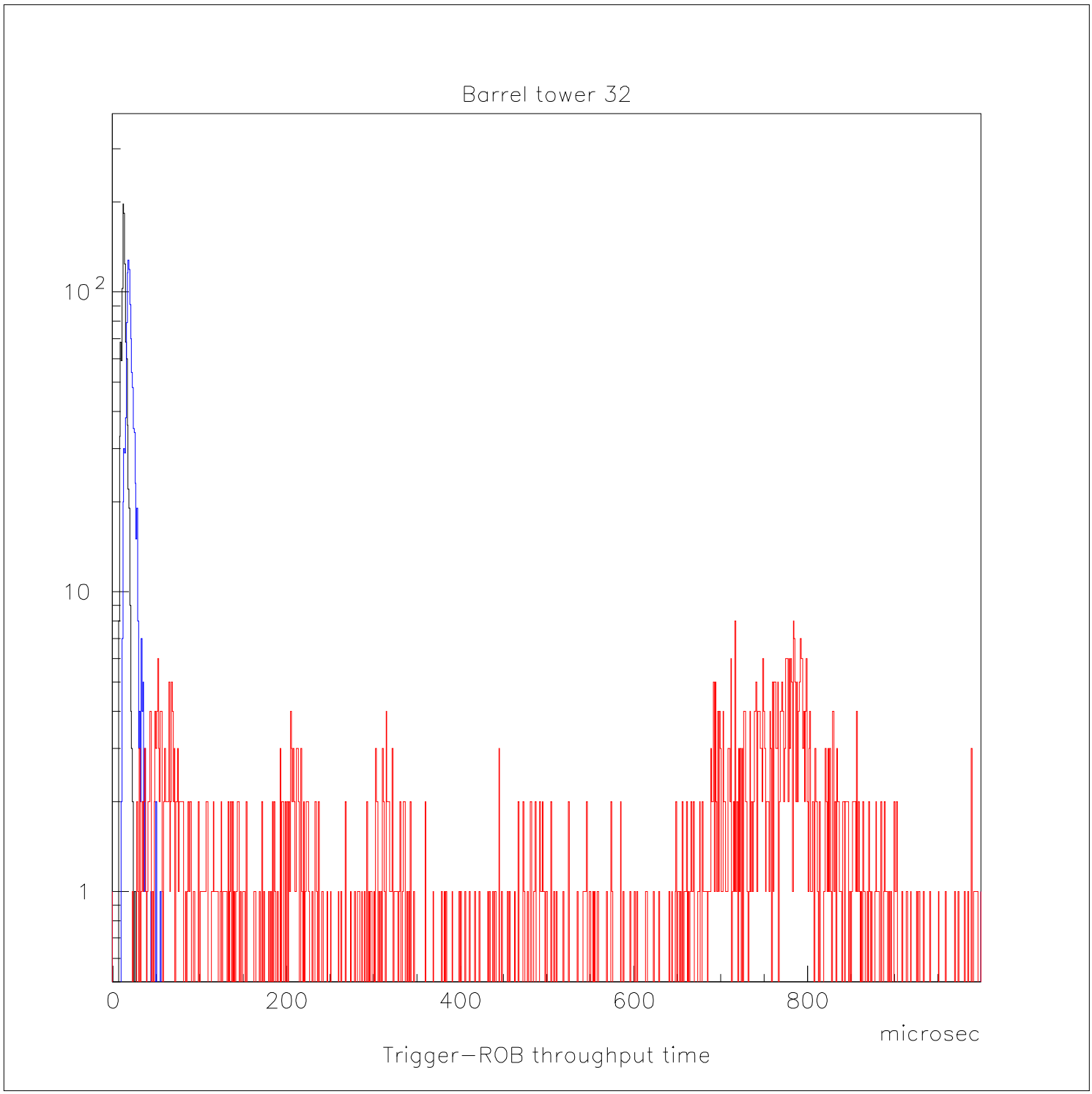

Barrel tower 31
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

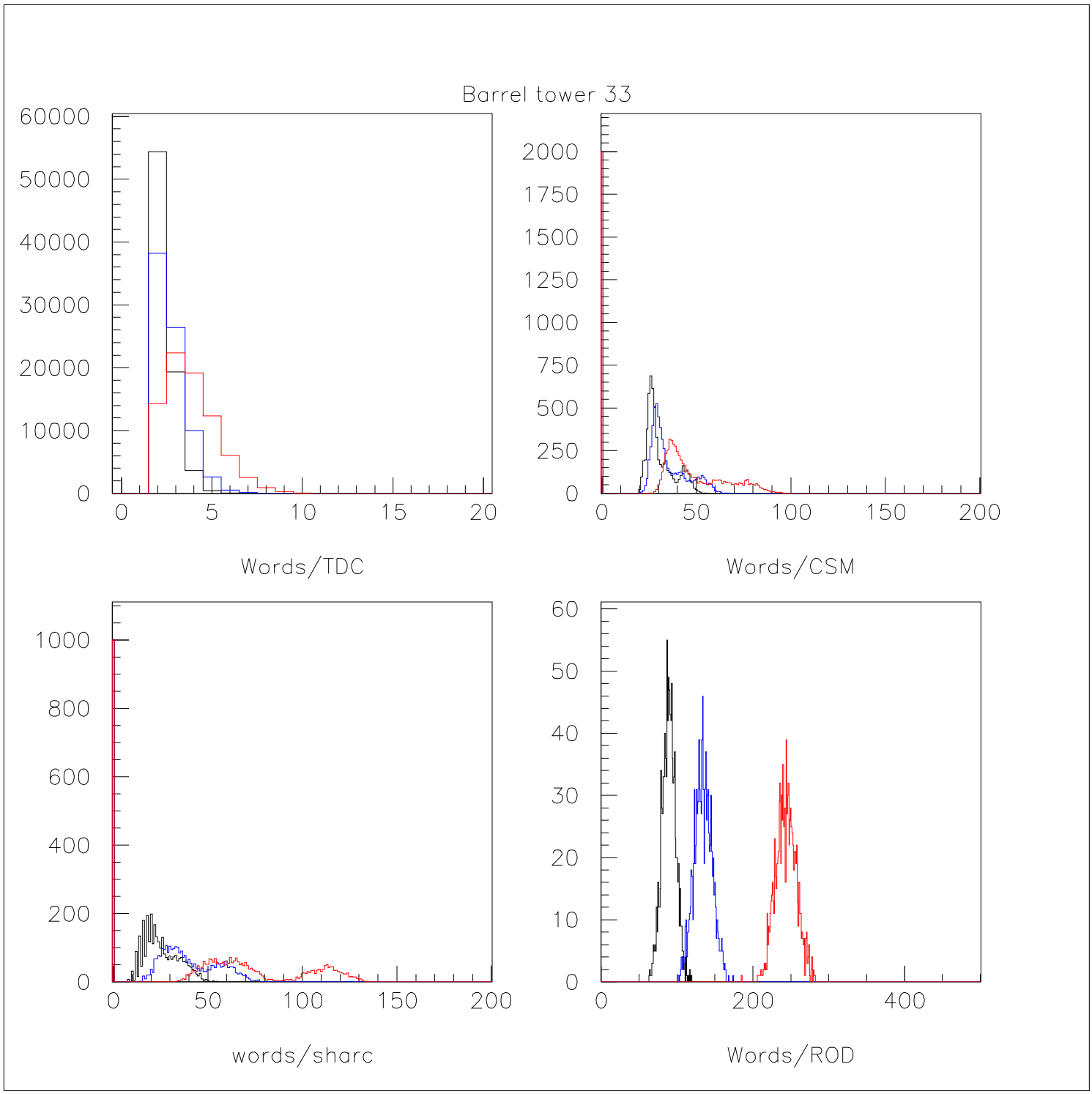

Barrel tower 32
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

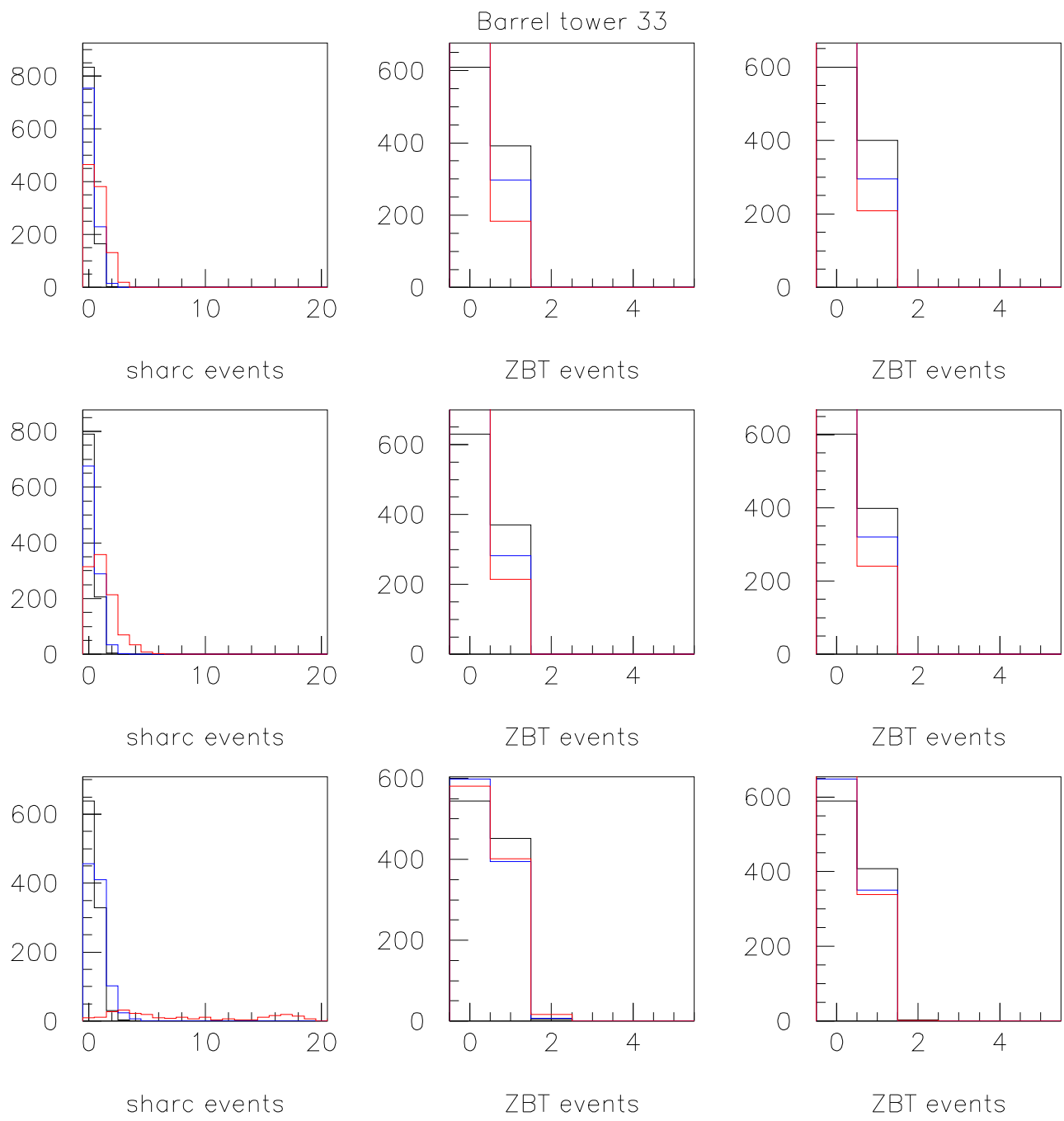

Barrel tower 32
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events


Barrel tower 32
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size


Barrel tower 32
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events


Barrel tower 32
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time


Barrel tower 33
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD


Barrel tower 33
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
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400
200
0
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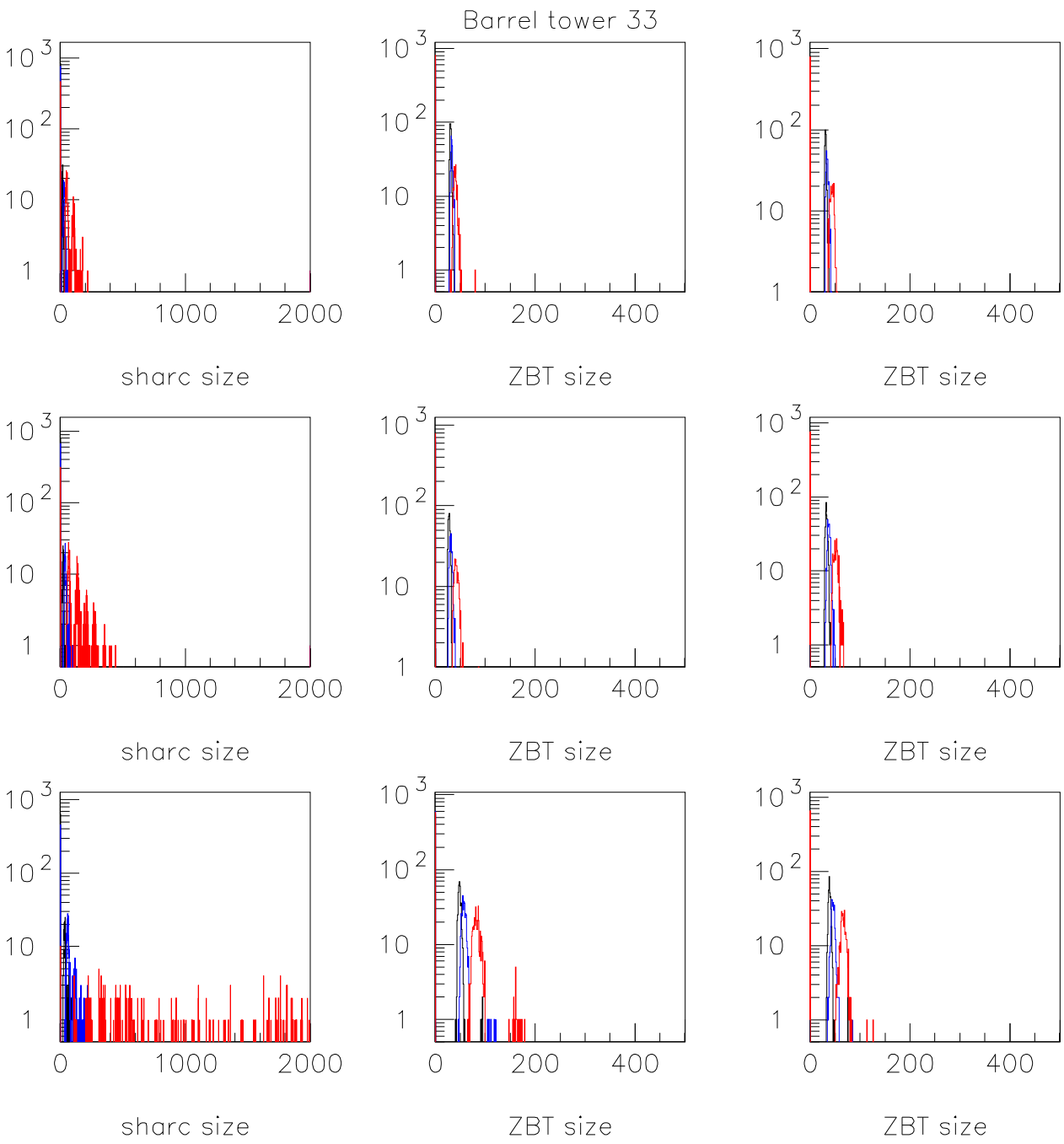
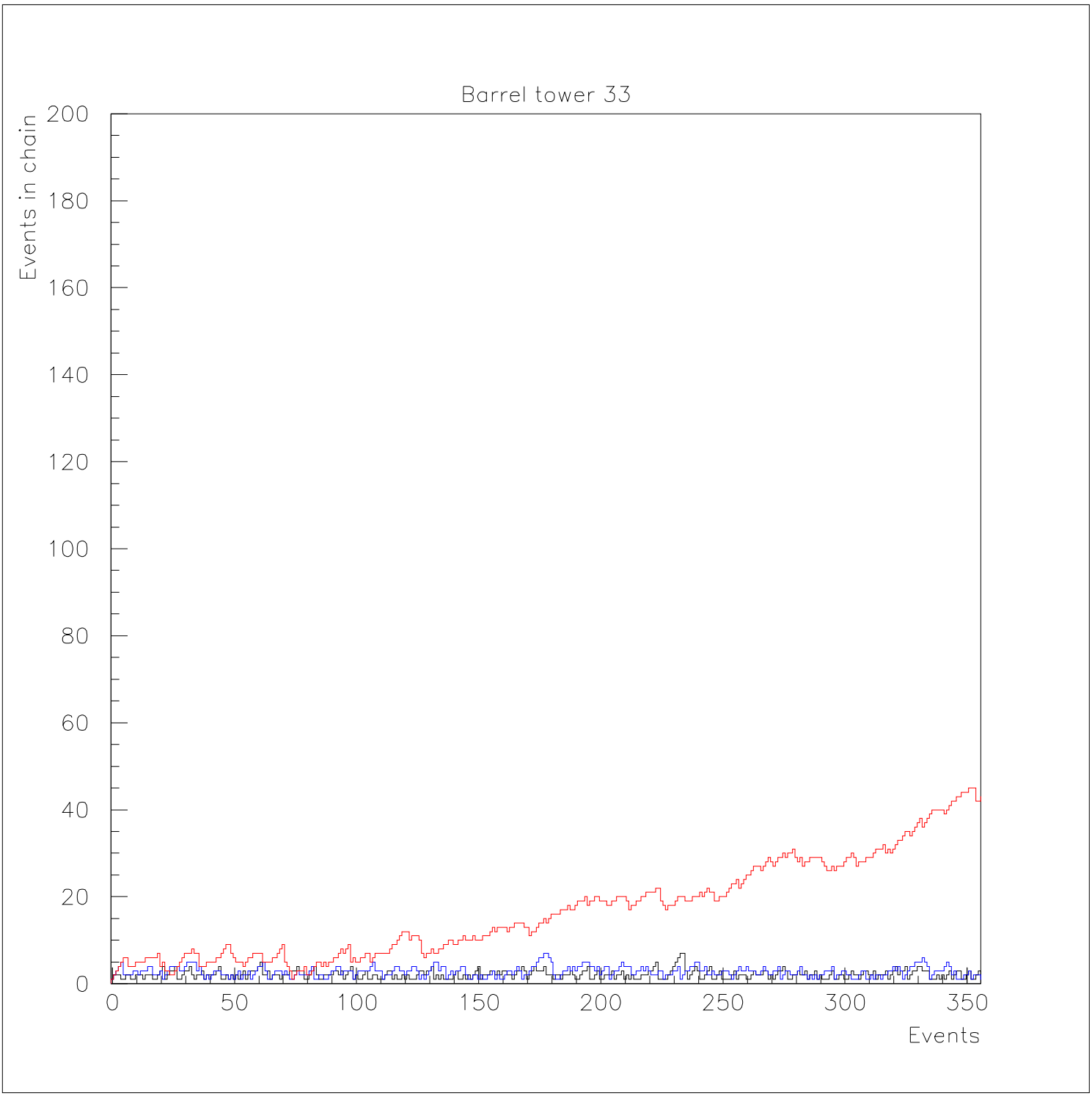
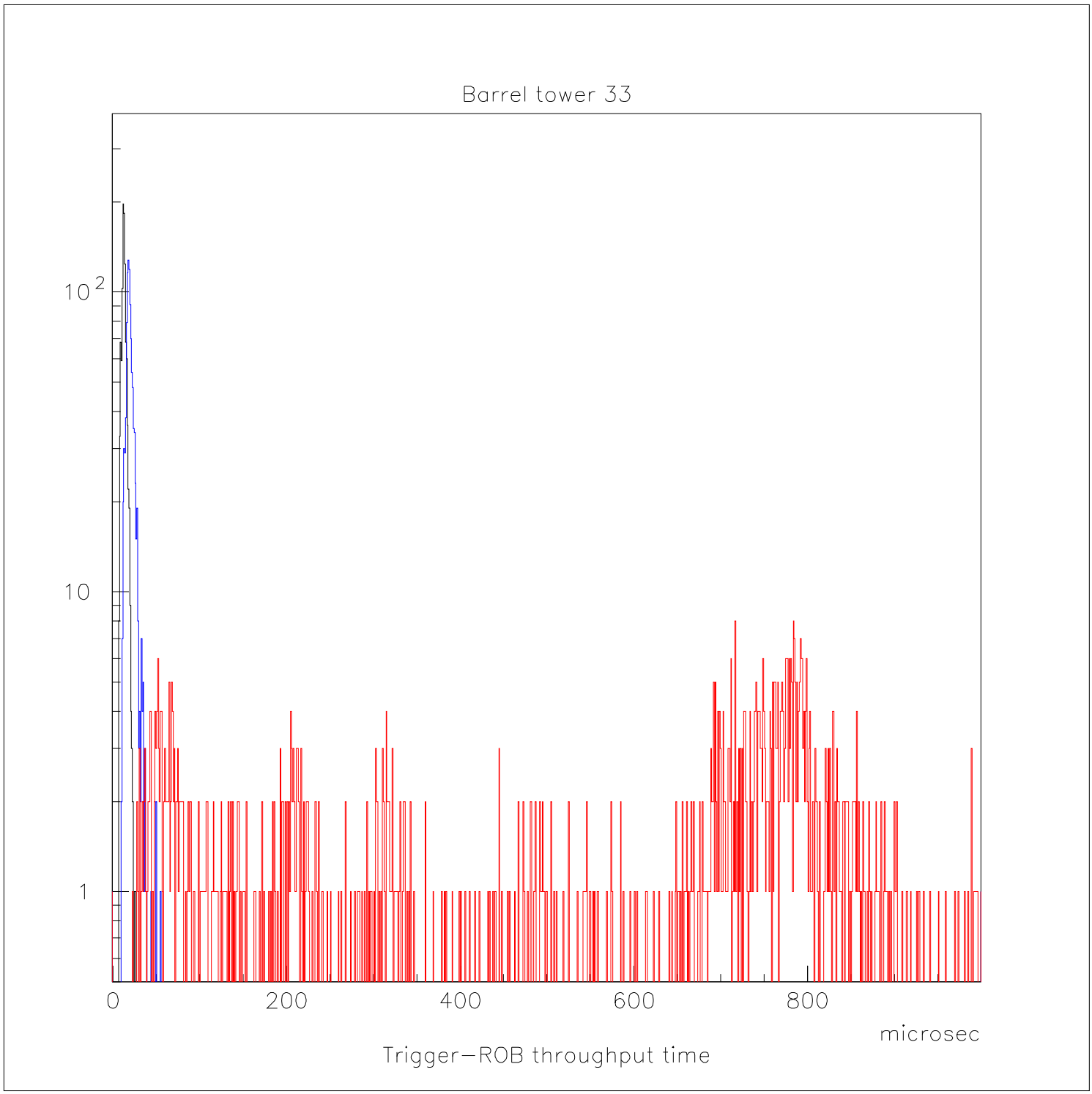
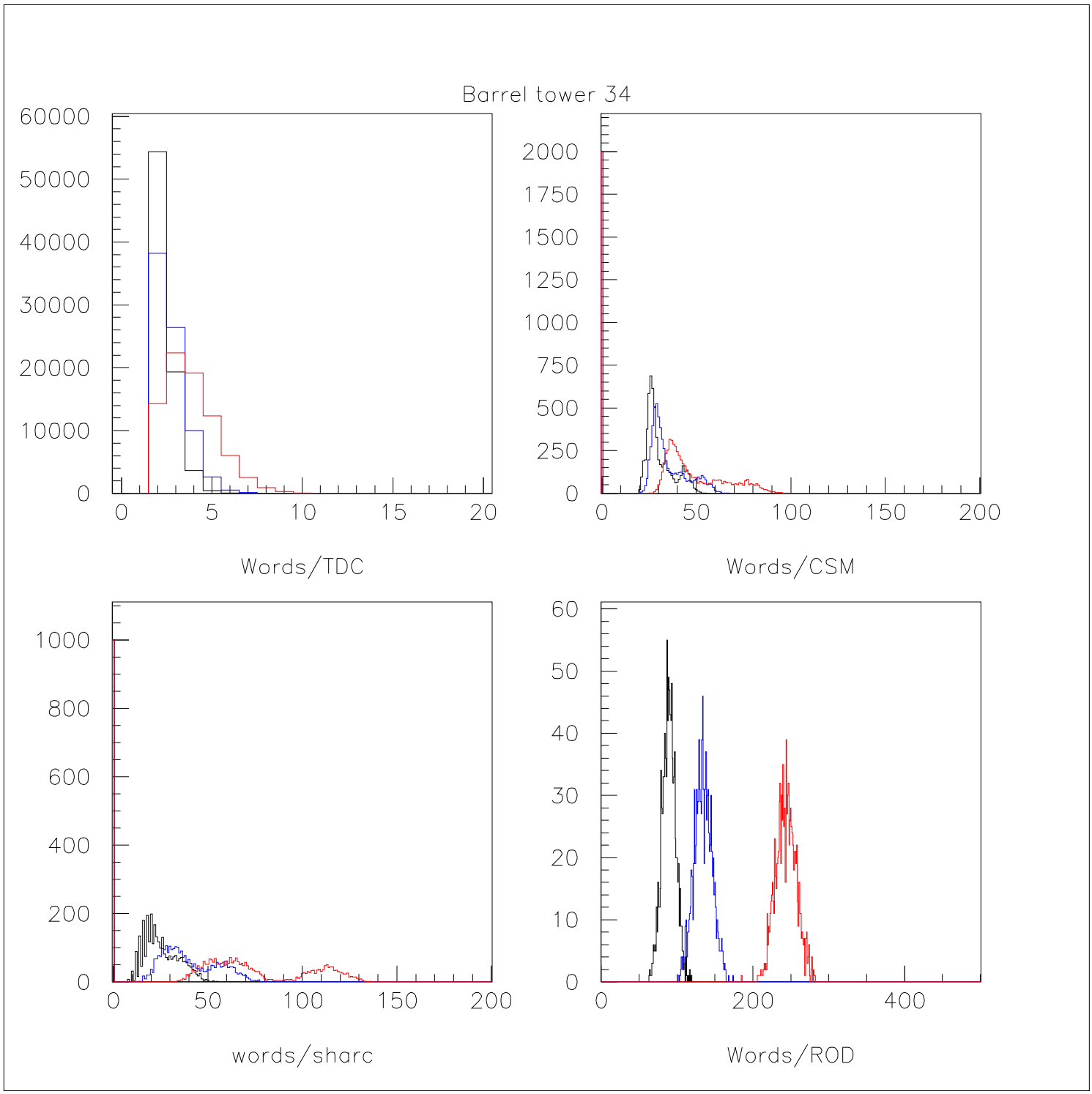
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events


Barrel tower 33
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size


Barrel tower 33
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events


Barrel tower 33
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time


Barrel tower 34
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
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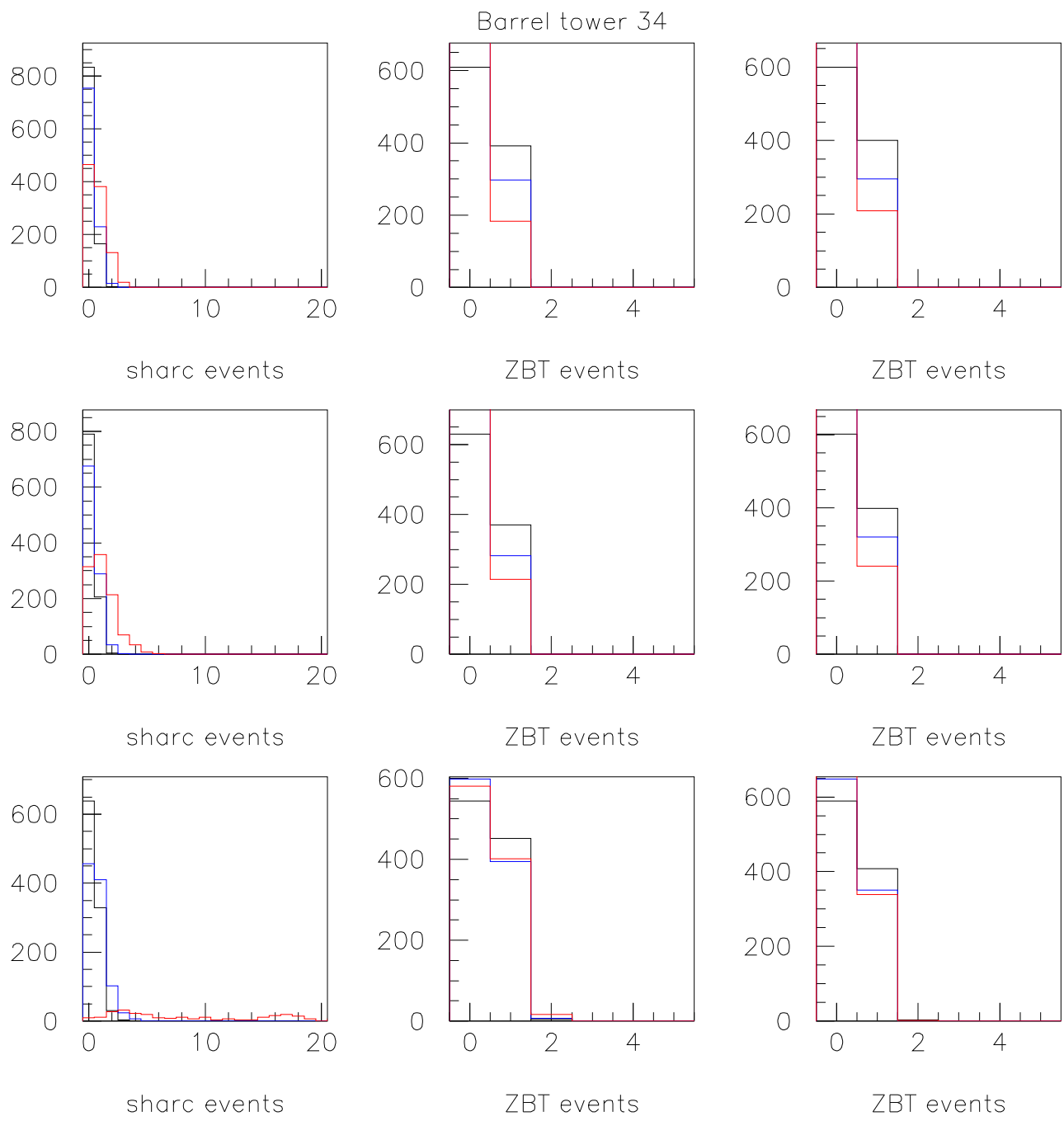
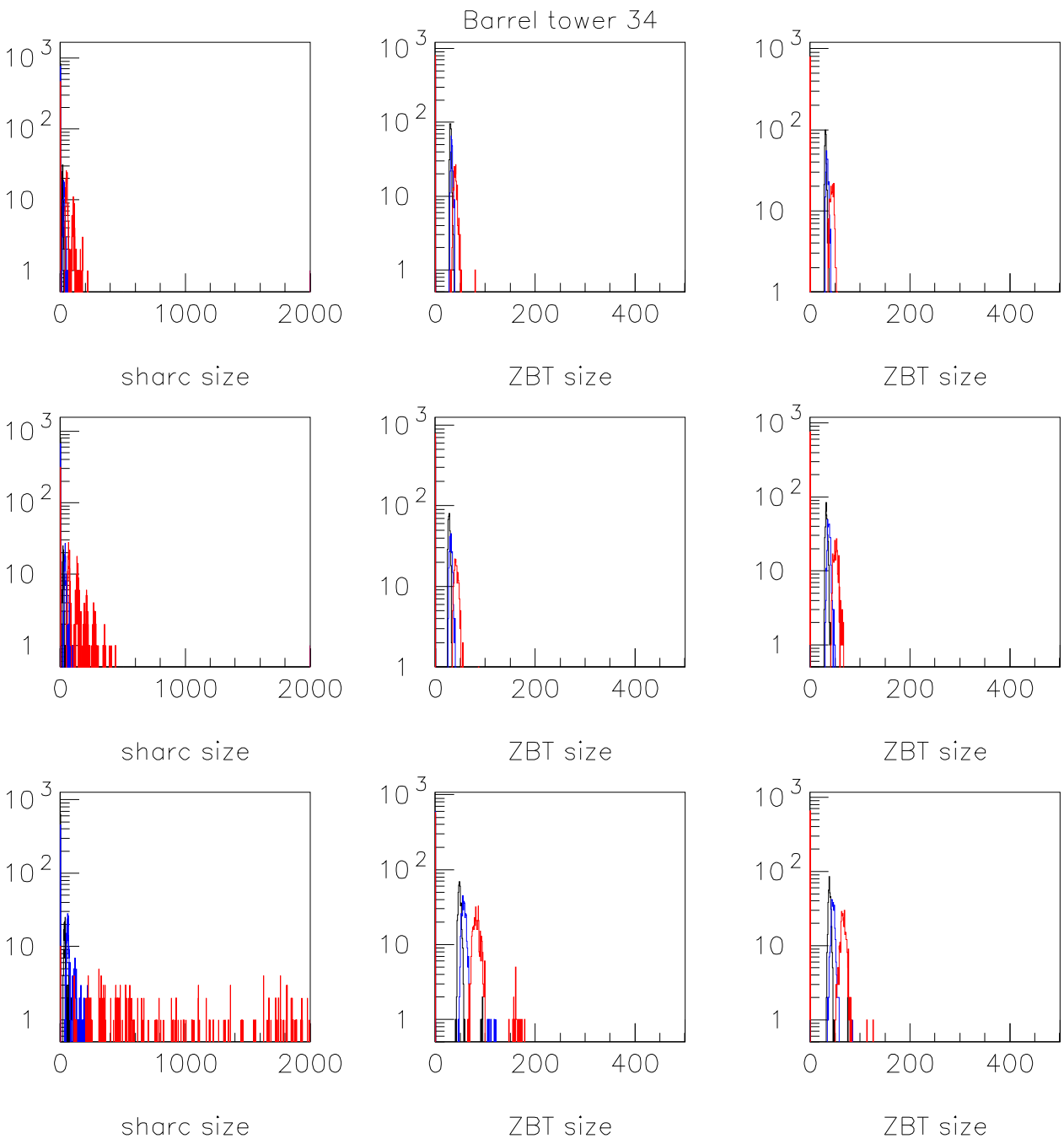
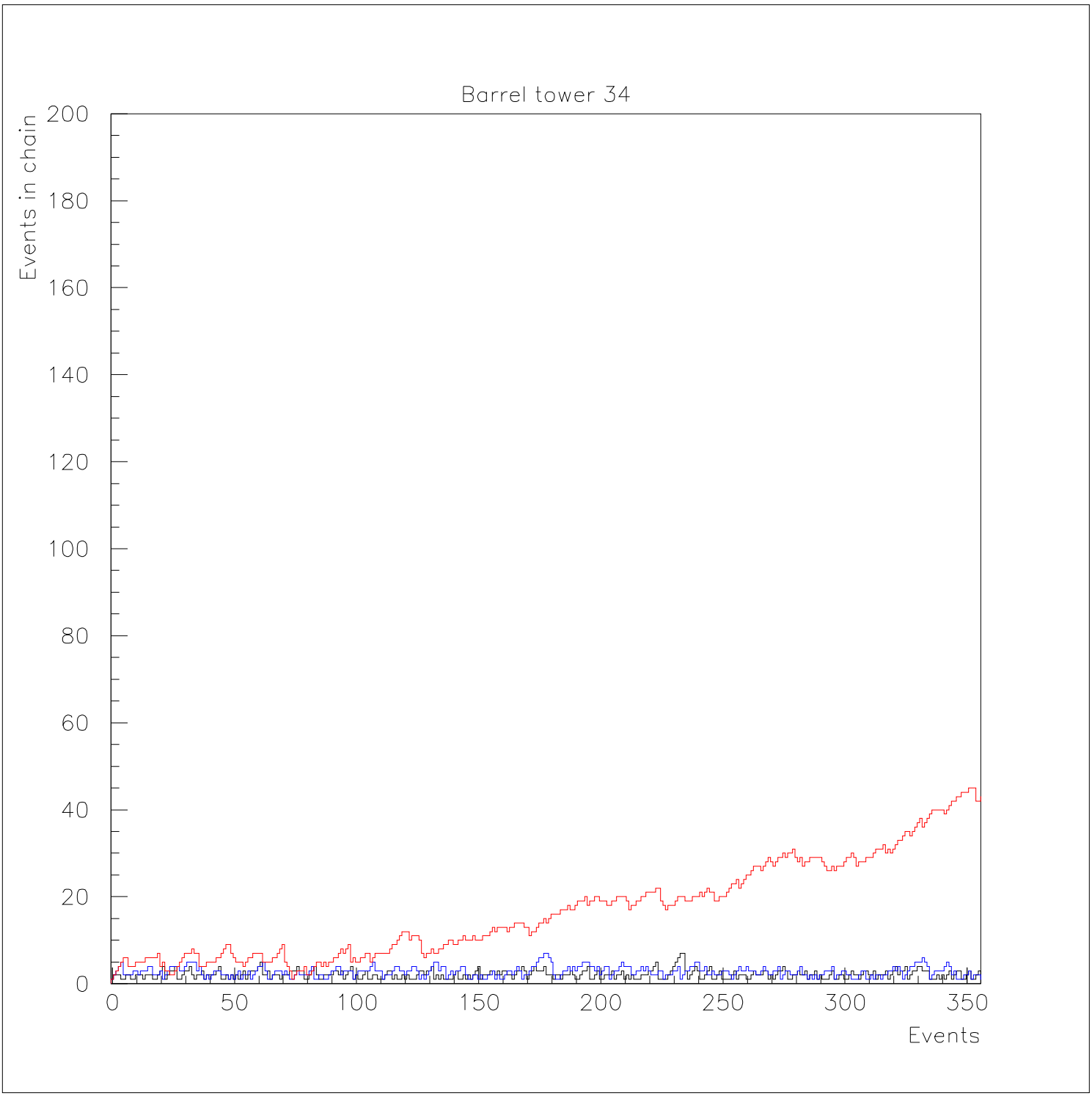
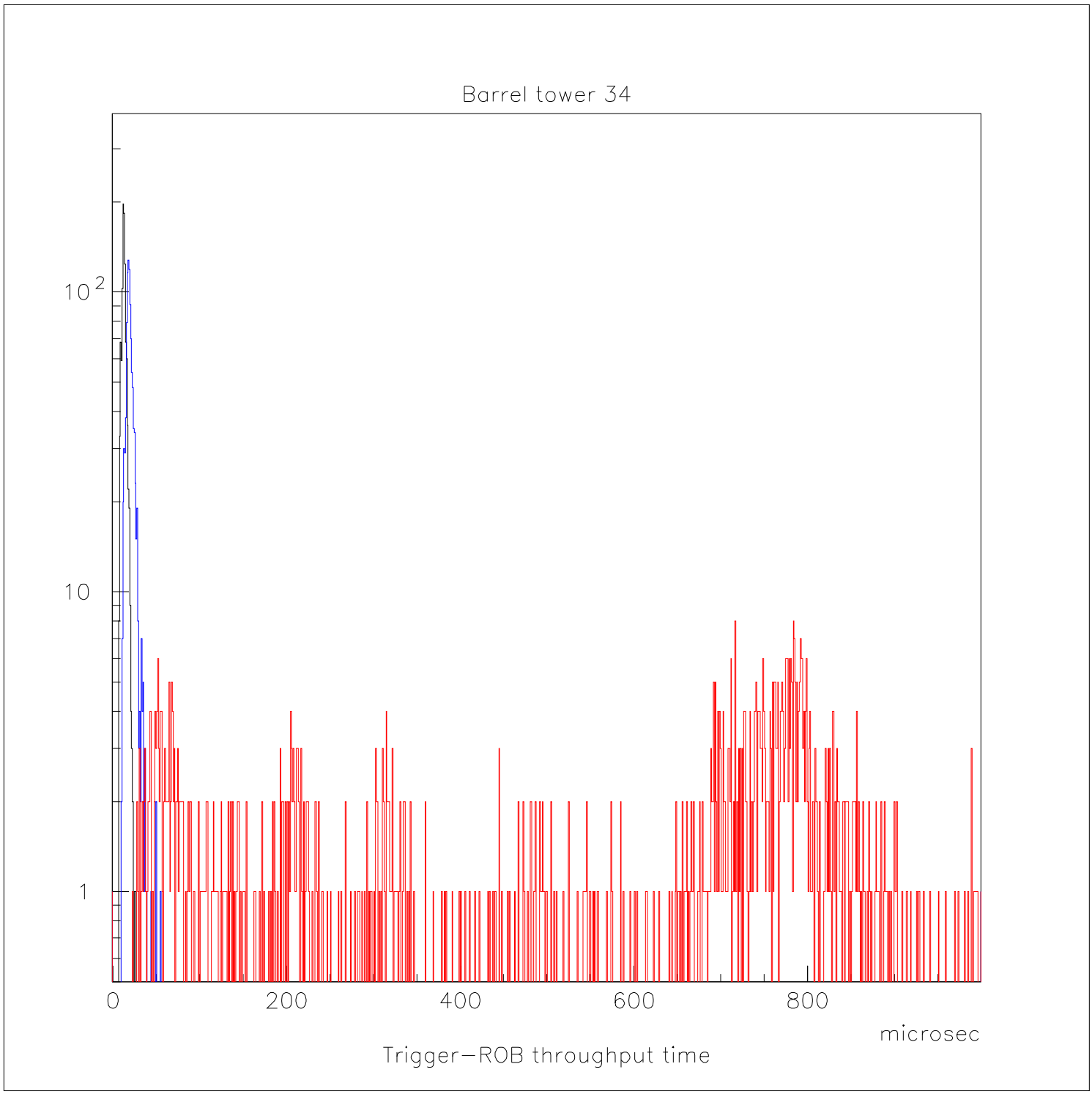
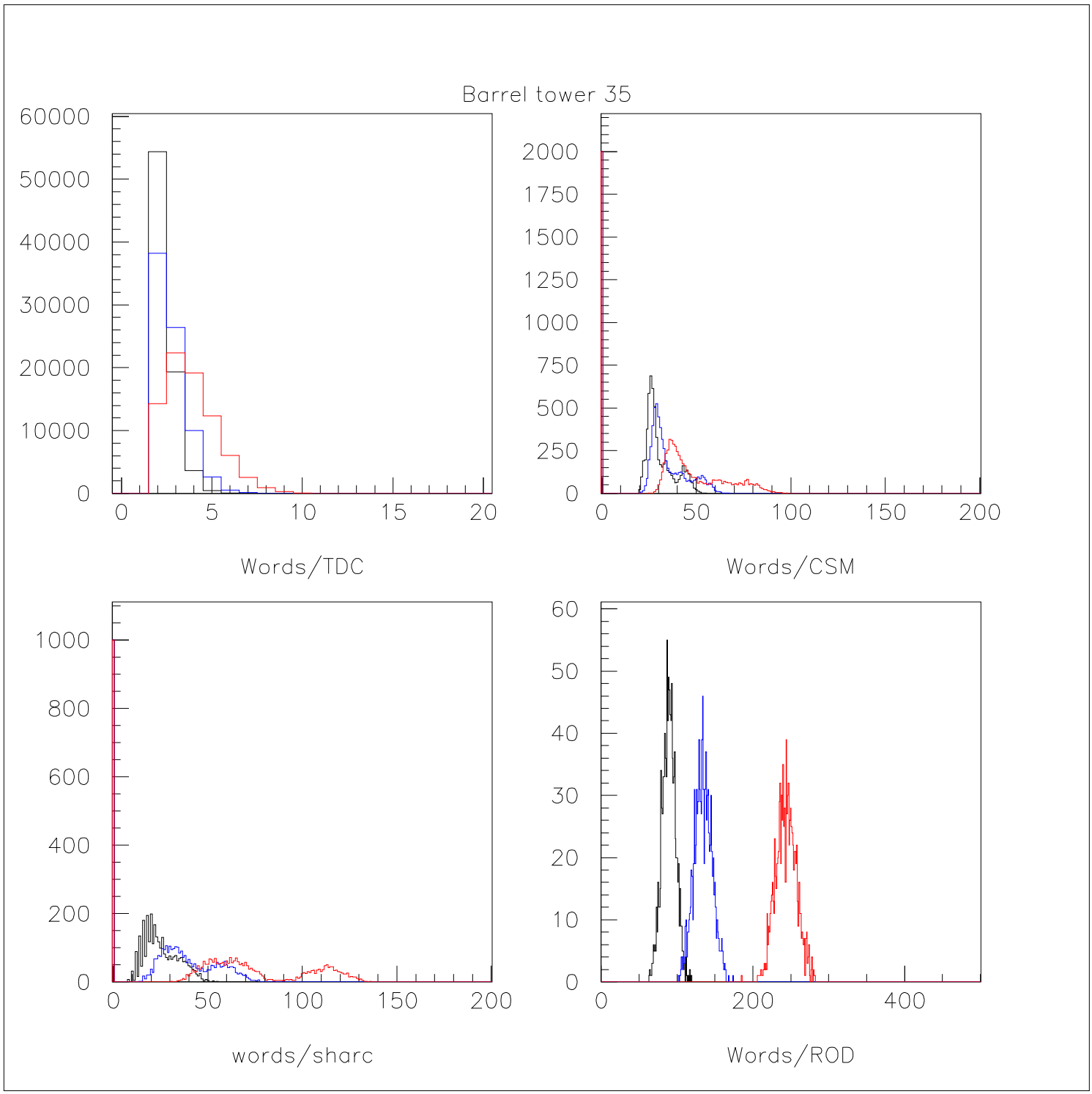
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD


Barrel tower 34
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events


Barrel tower 34
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size


Barrel tower 34
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events


Barrel tower 34
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time


Barrel tower 35
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
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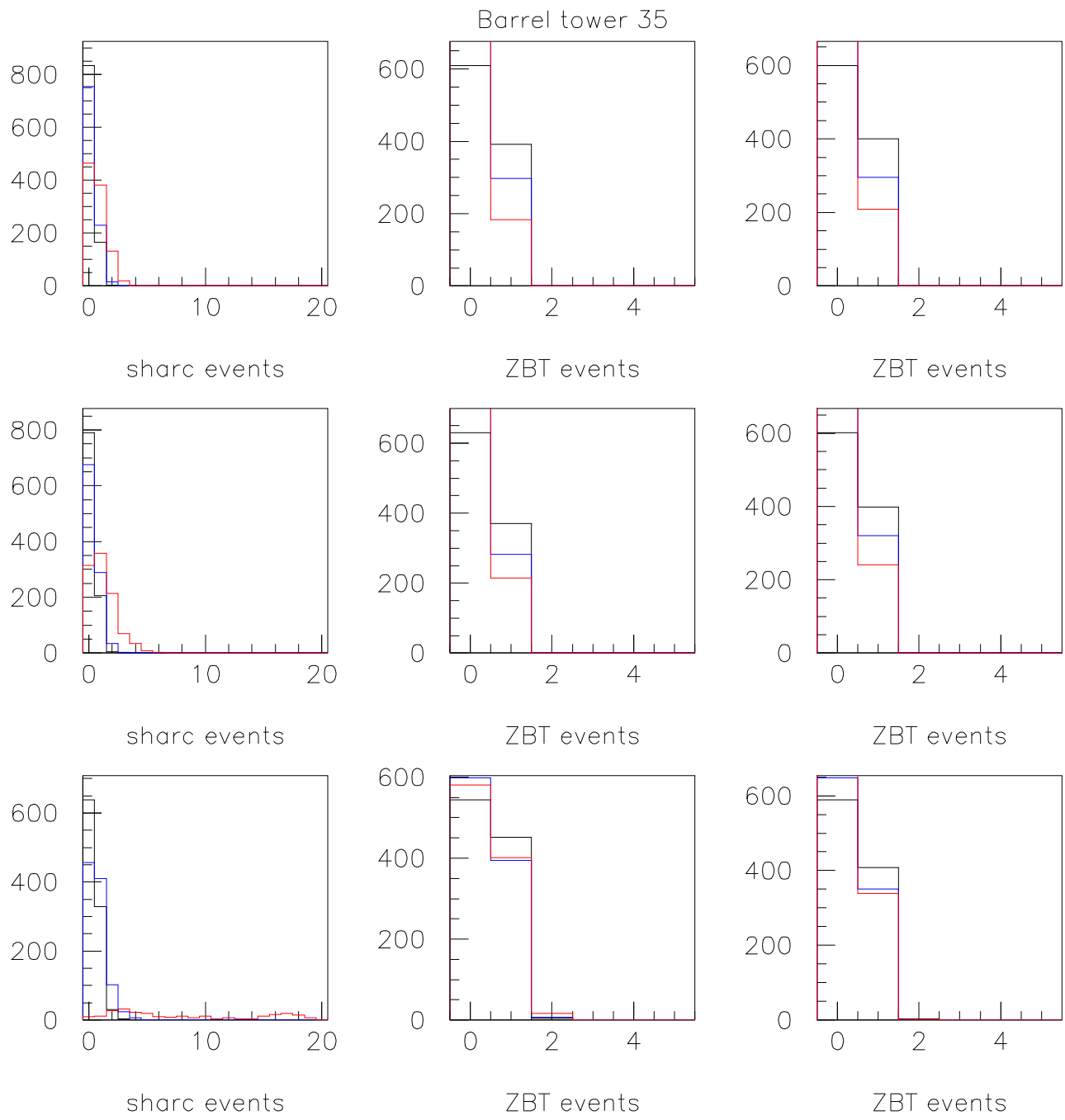
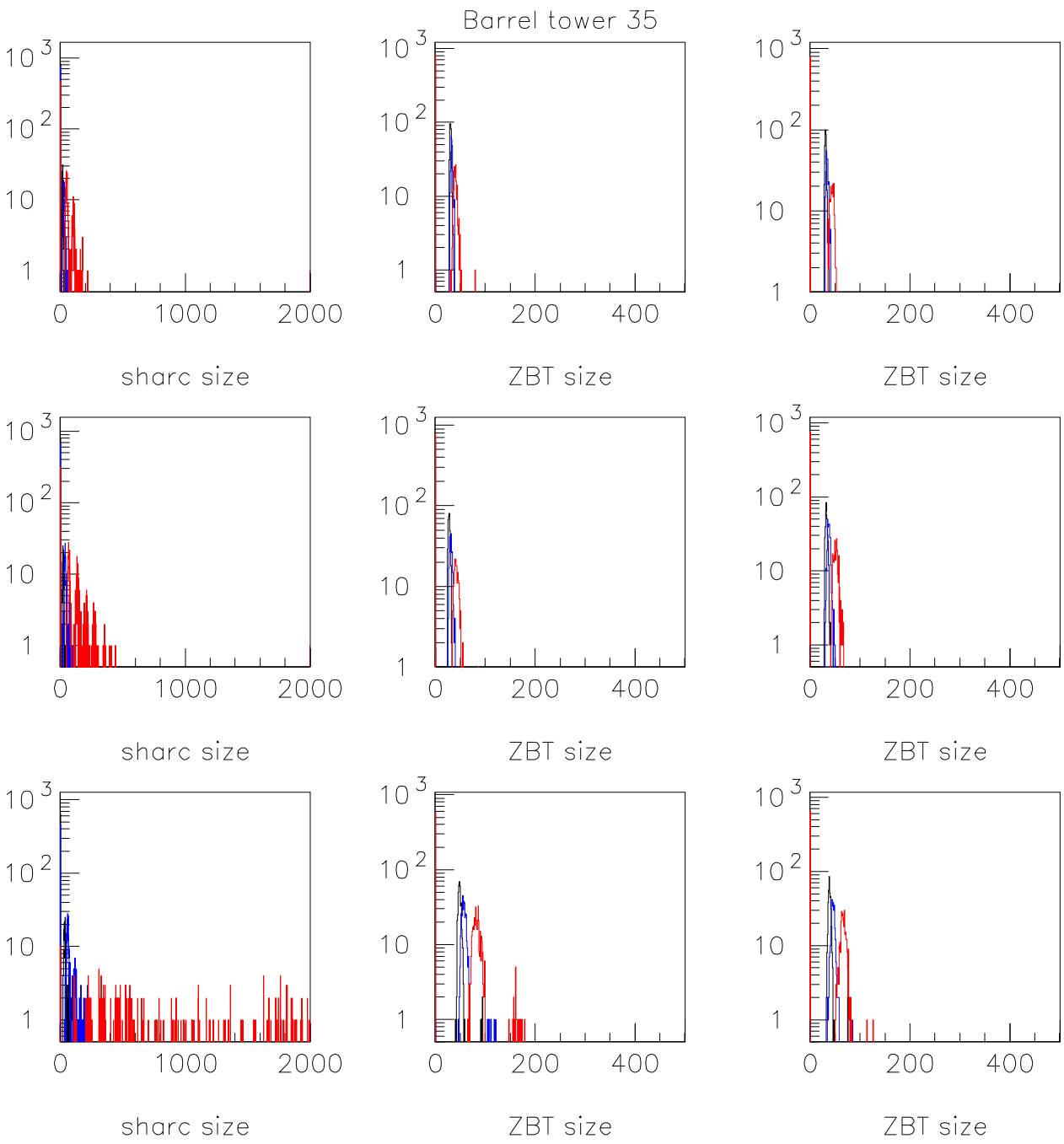
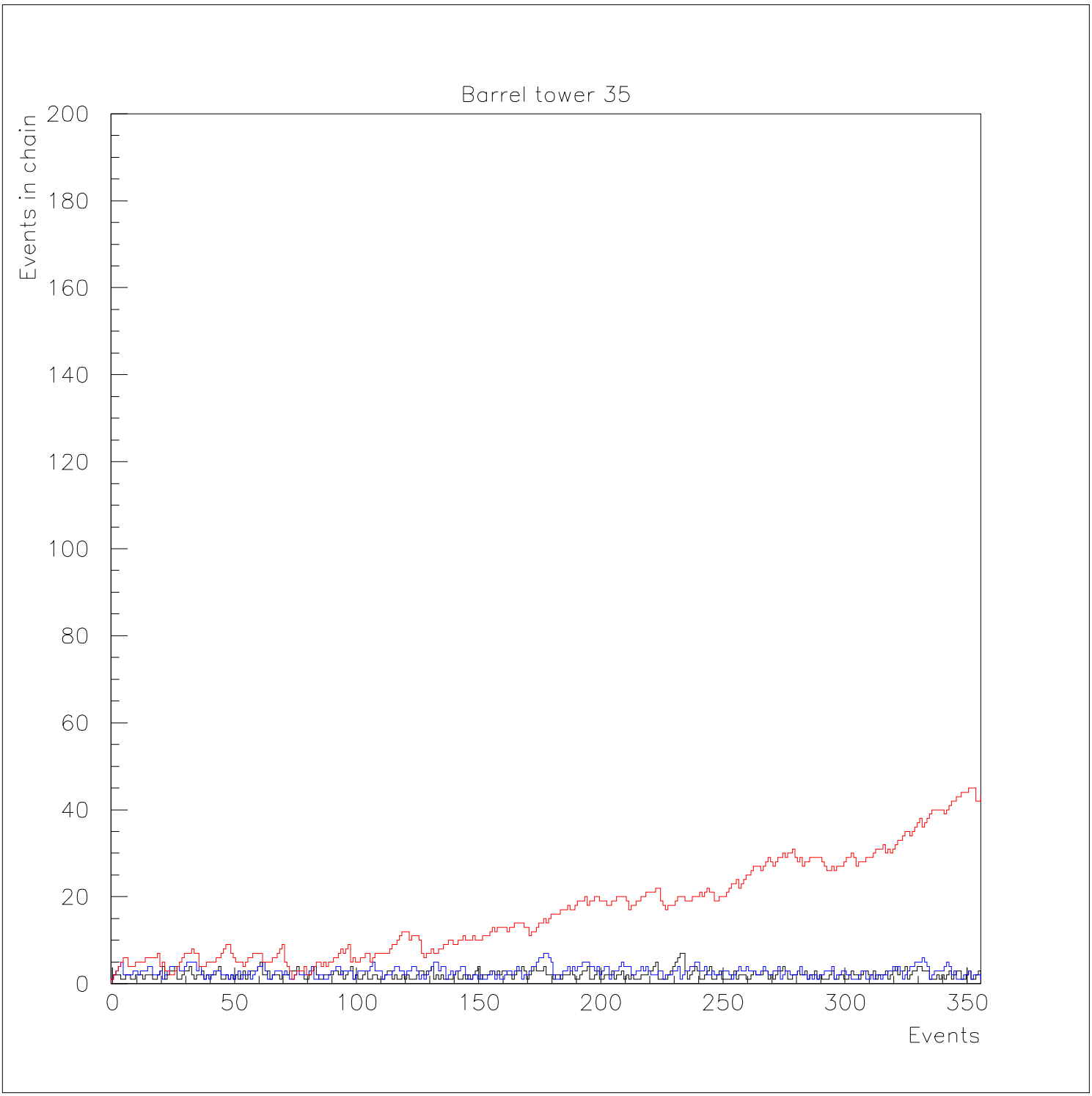
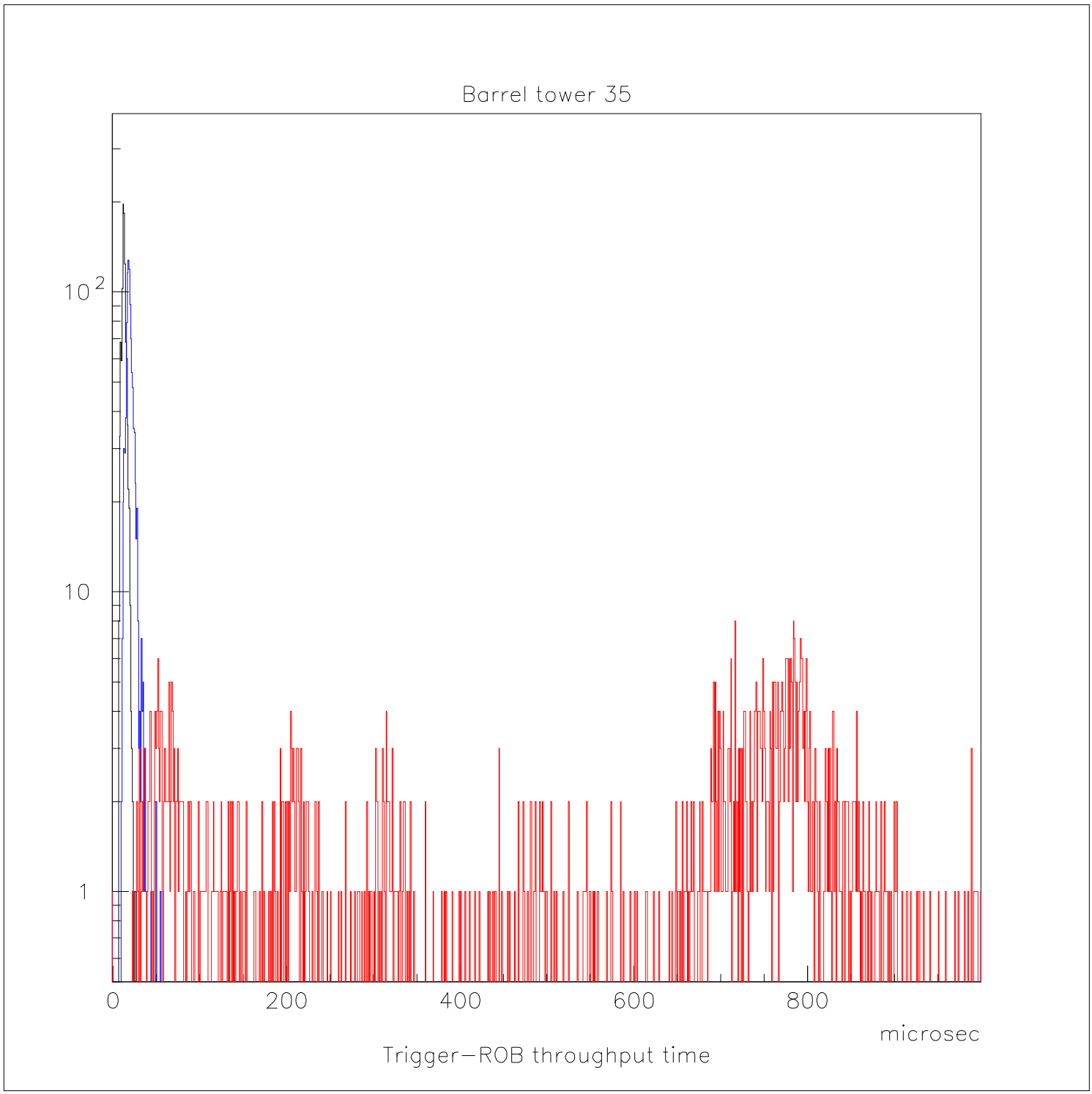
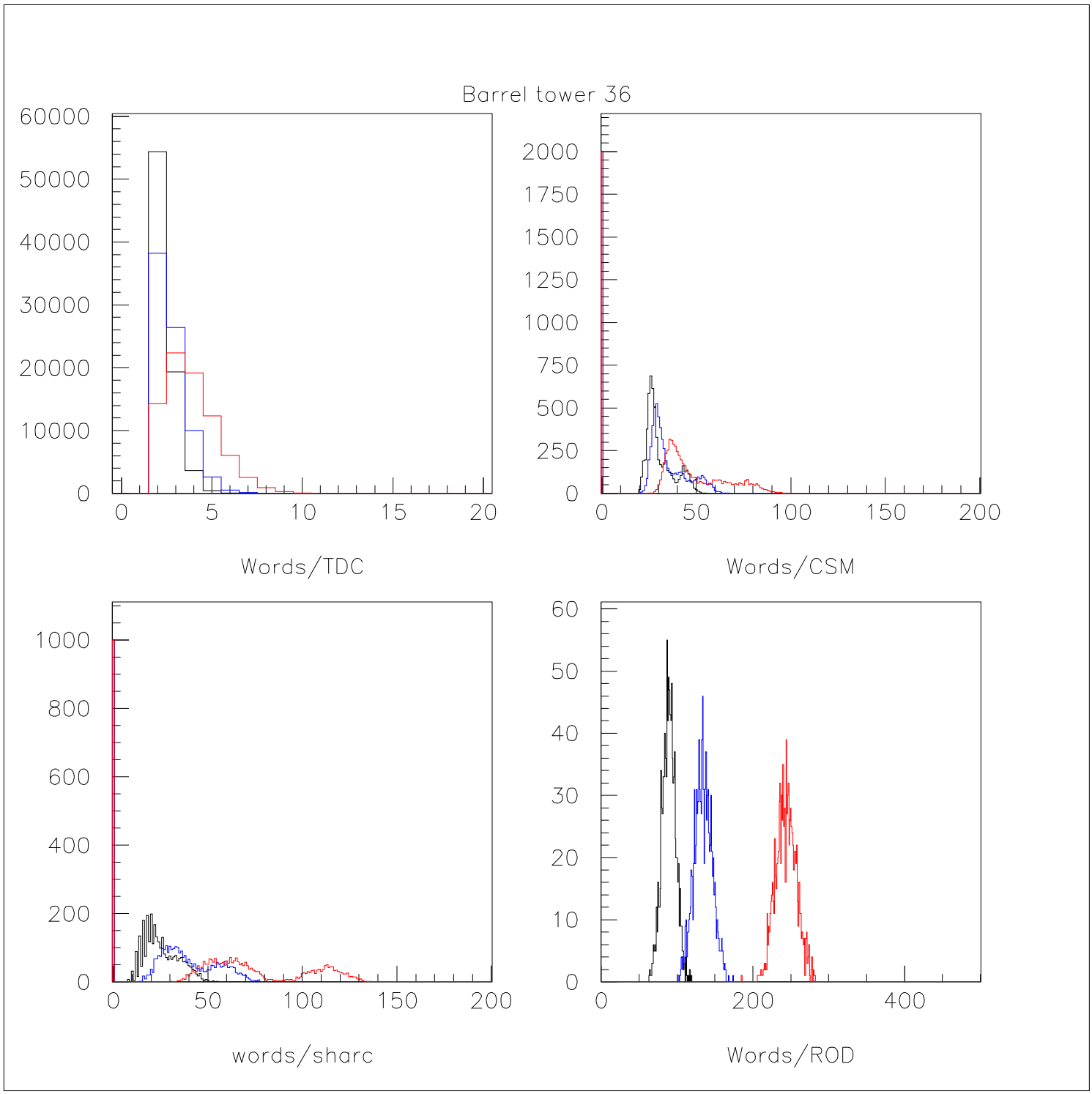
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

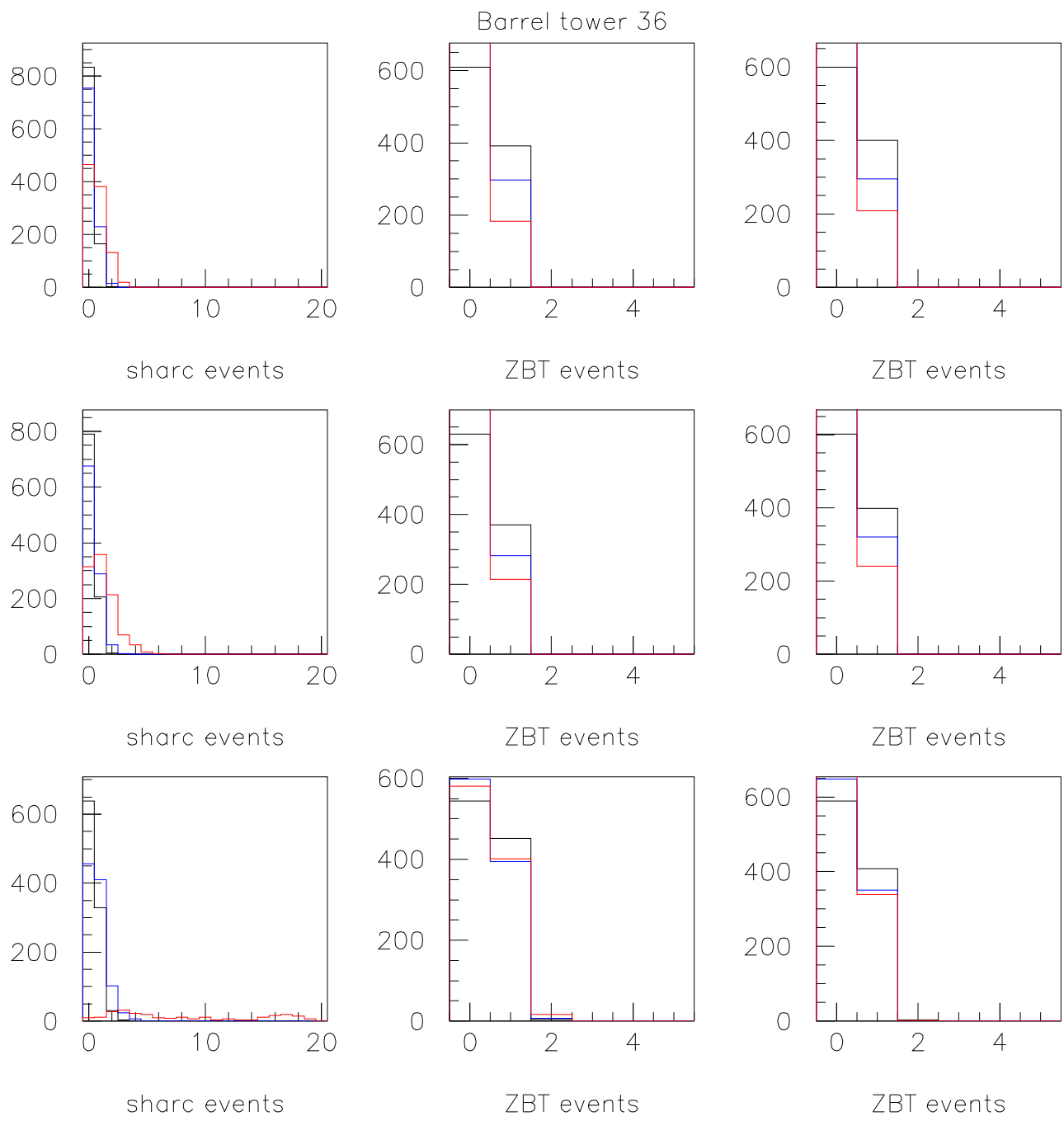

Barrel tower 35
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

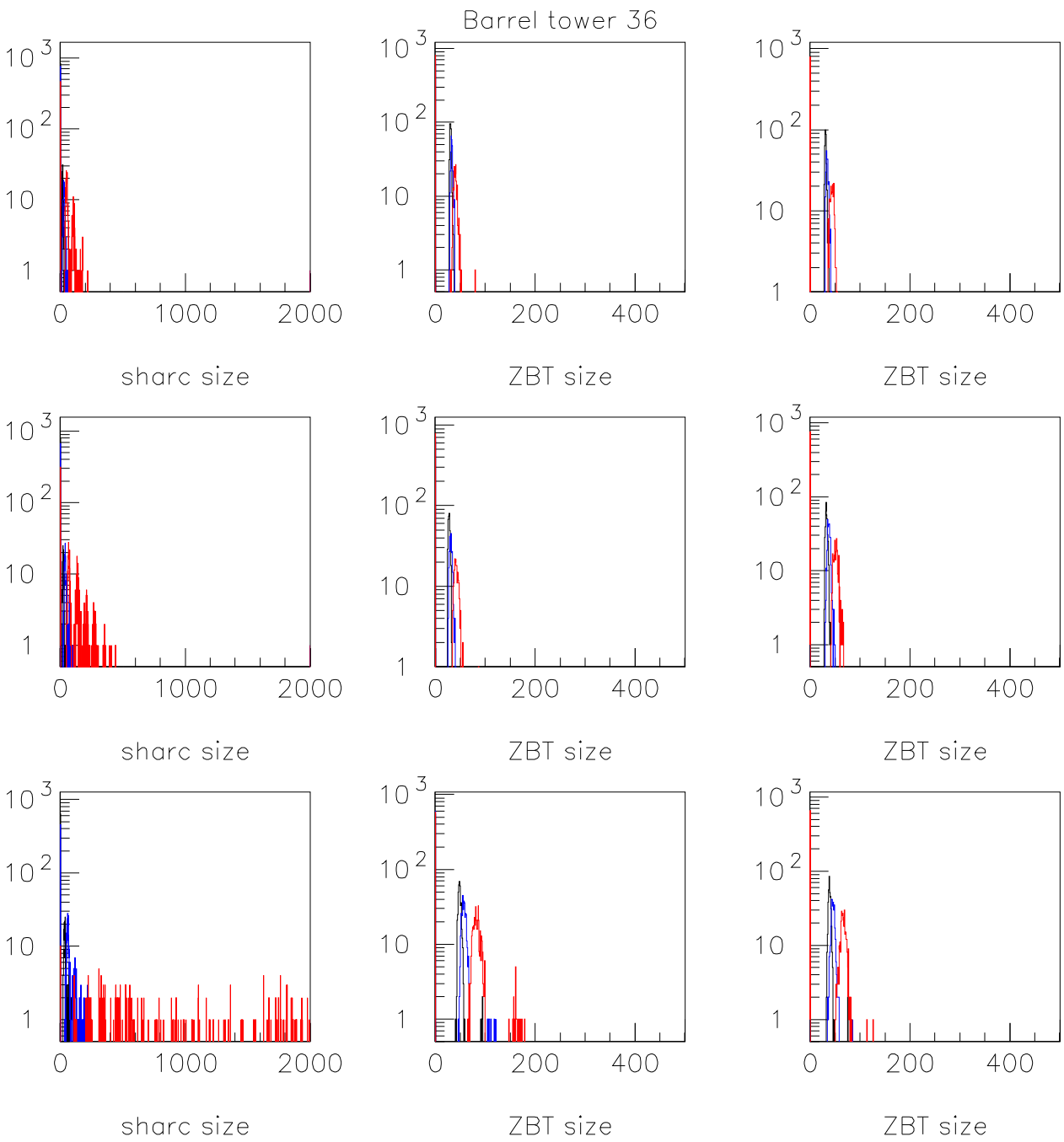

Barrel tower 35
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

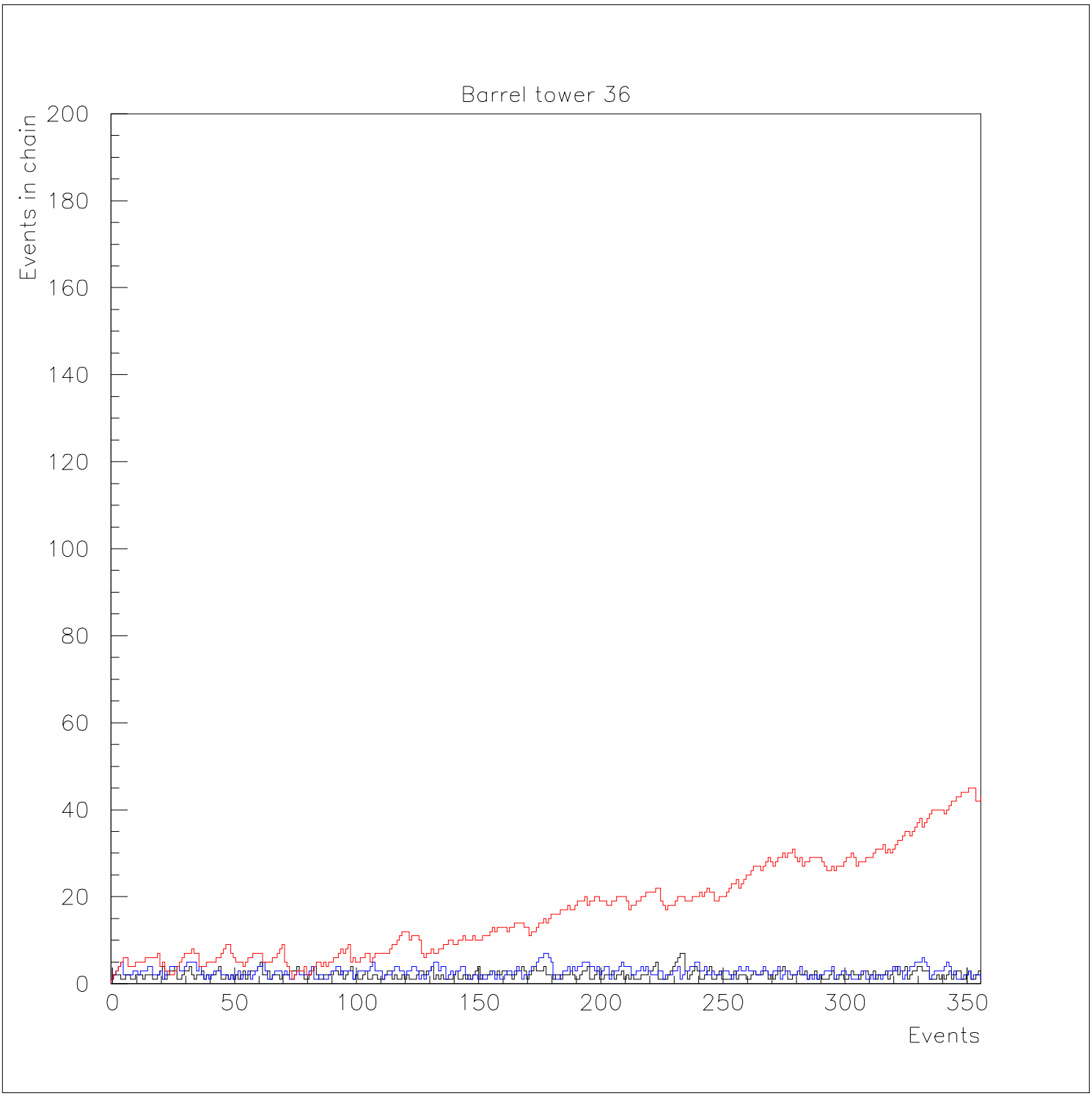

Barrel tower 35
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

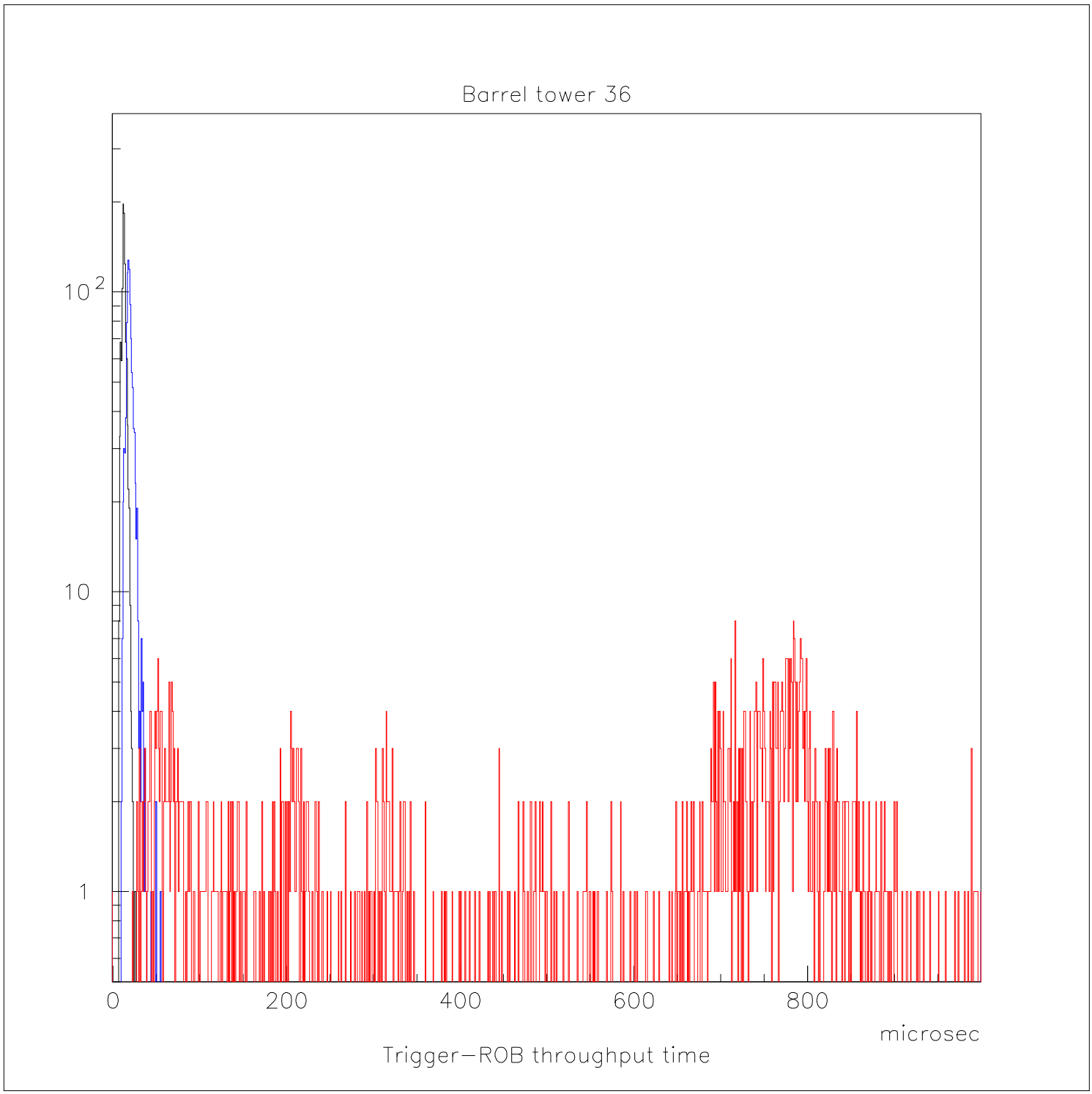

Barrel tower 35
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

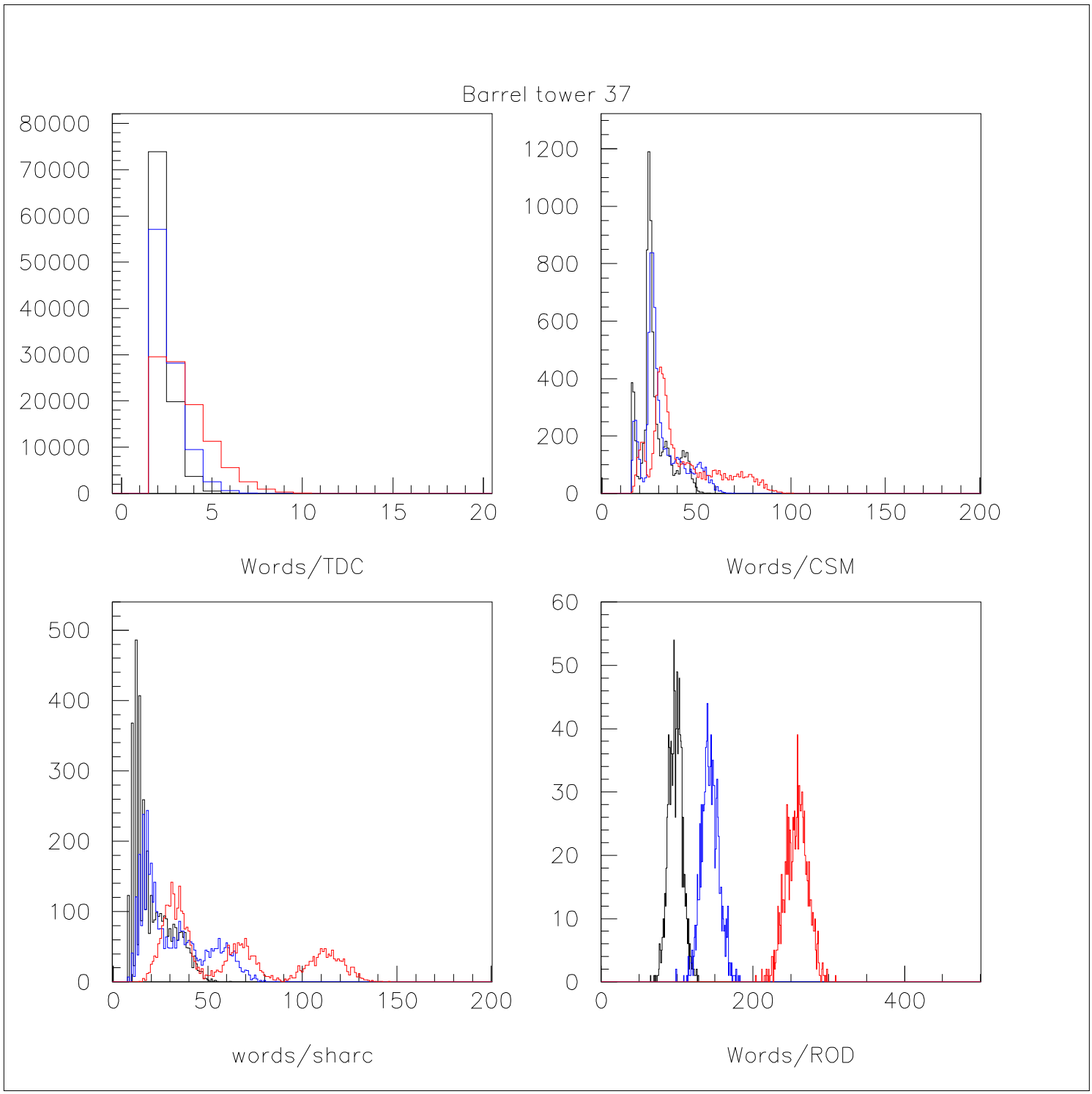

Barrel tower 36
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

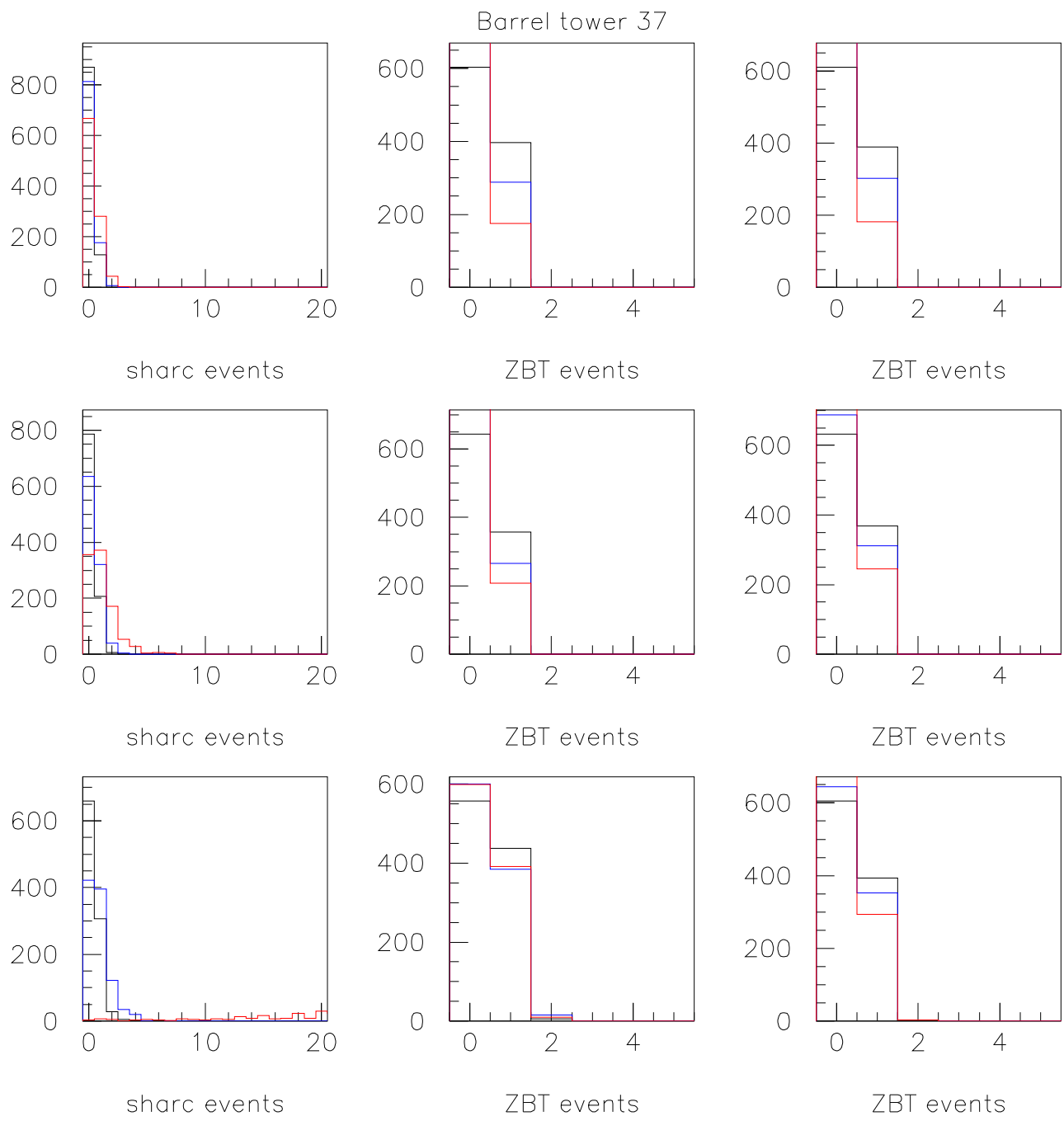

Barrel tower 36
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events


Barrel tower 36
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size


Barrel tower 36
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events


Barrel tower 36
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time


Barrel tower 37
80000
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
1200
1000
800
600
400
200
0
0
50
100
150
200
Words/CSM
500
400
300
200
100
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD


Barrel tower 37
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
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sharc events
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400
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2
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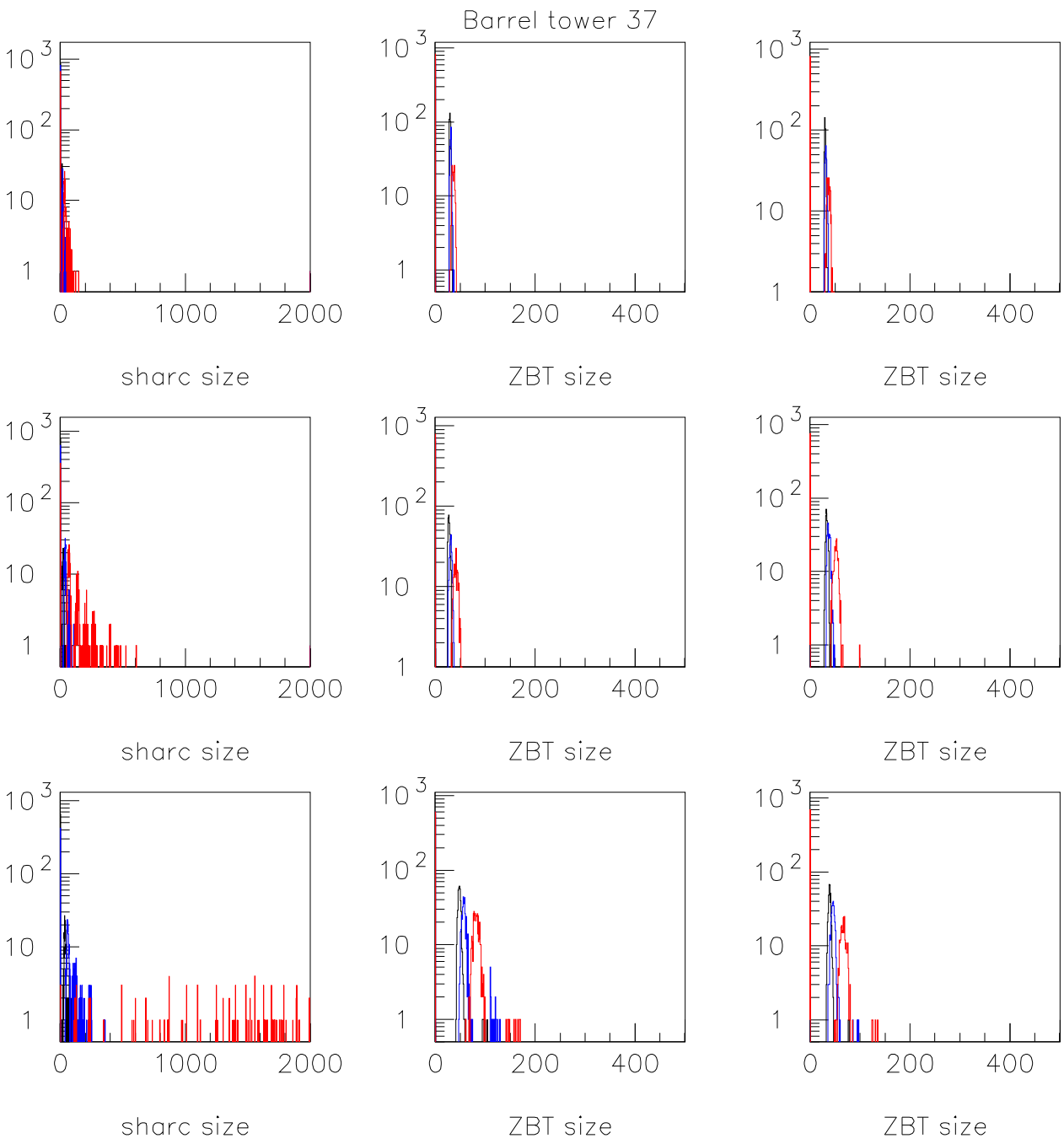
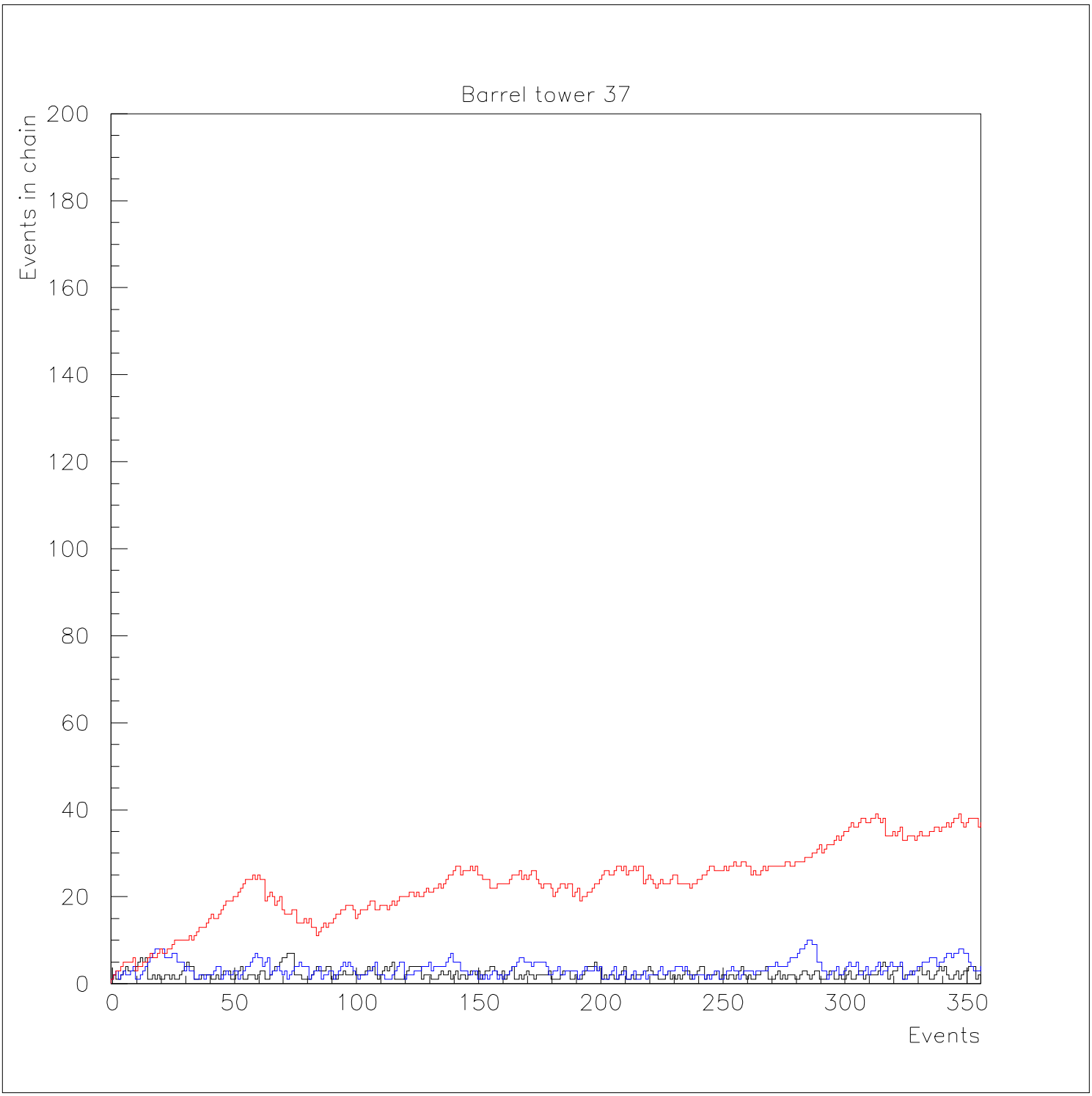
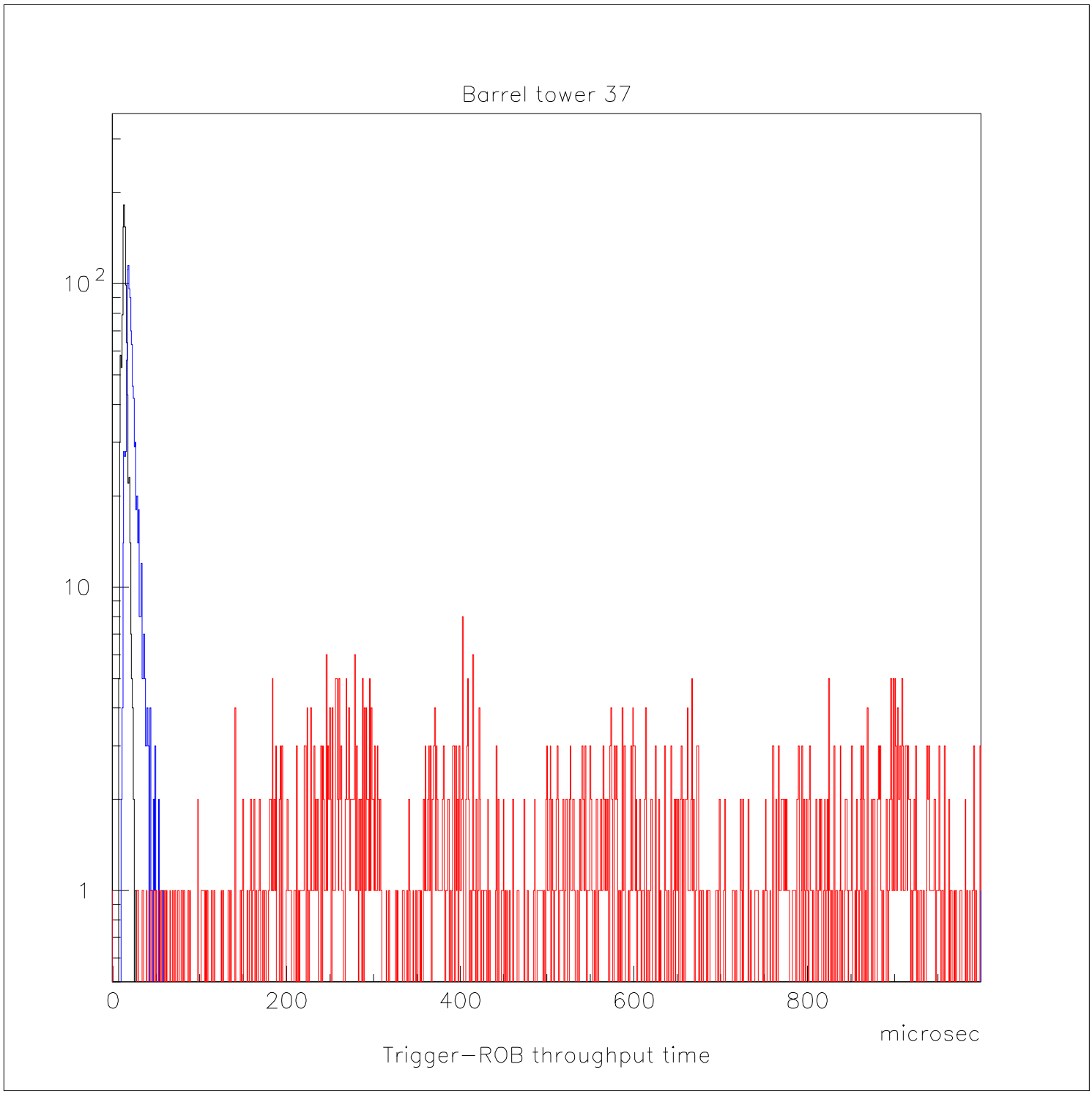
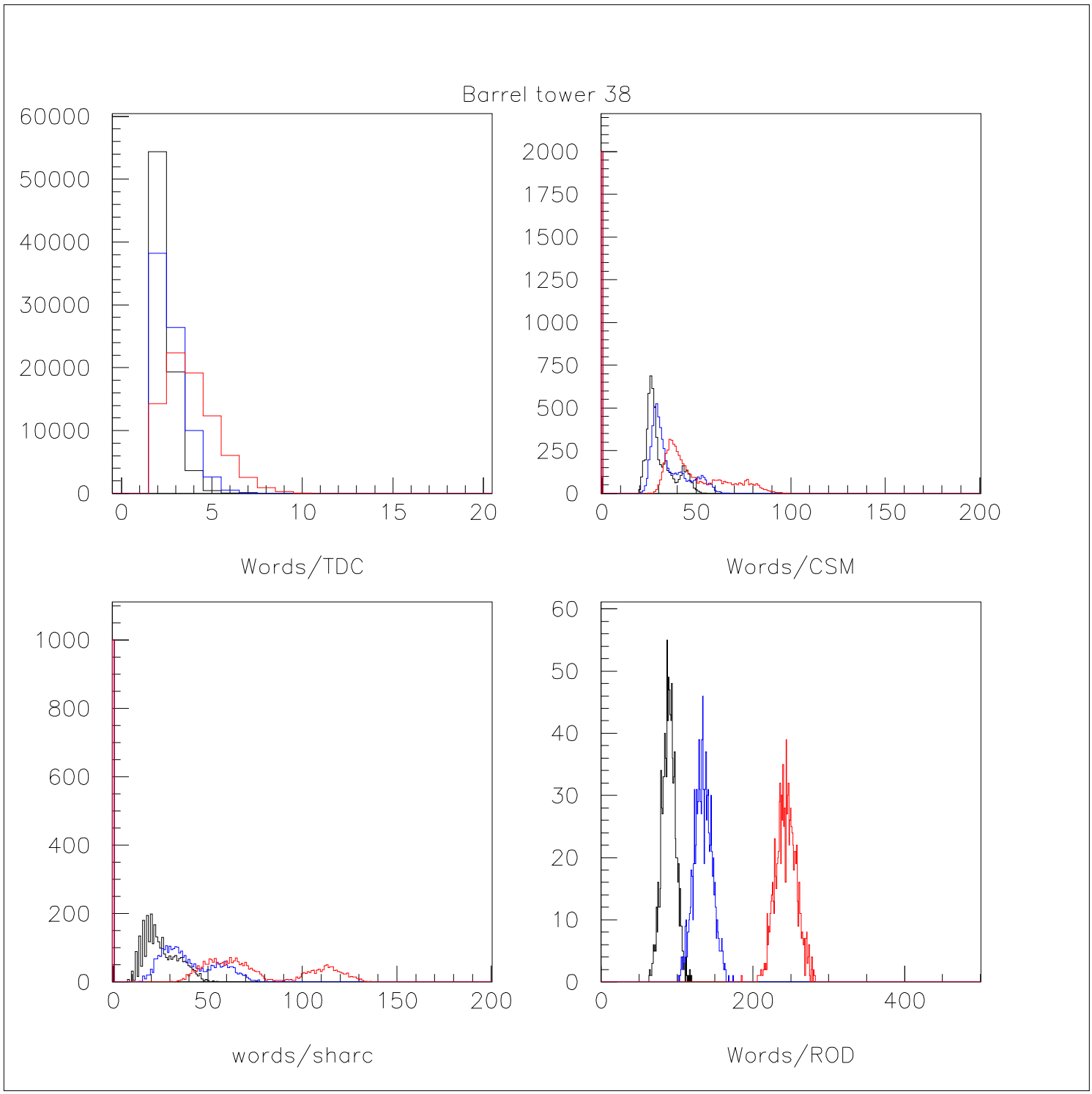
ZBT events
600
400
200
0
0
2
4
ZBT events


Barrel tower 37
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size


Barrel tower 37
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events


Barrel tower 37
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time


Barrel tower 38
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
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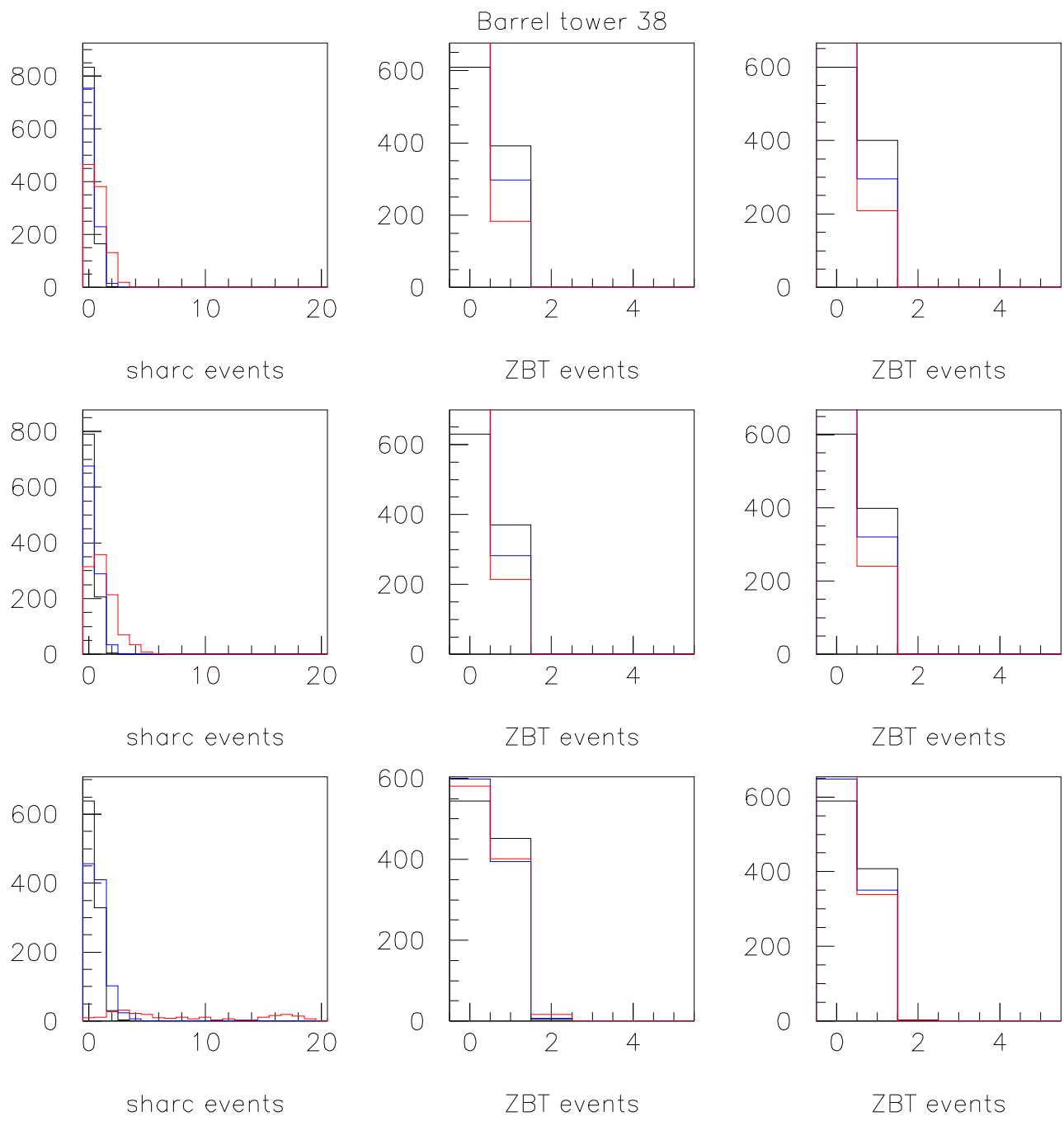
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD


Barrel tower 38
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
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400
200
0
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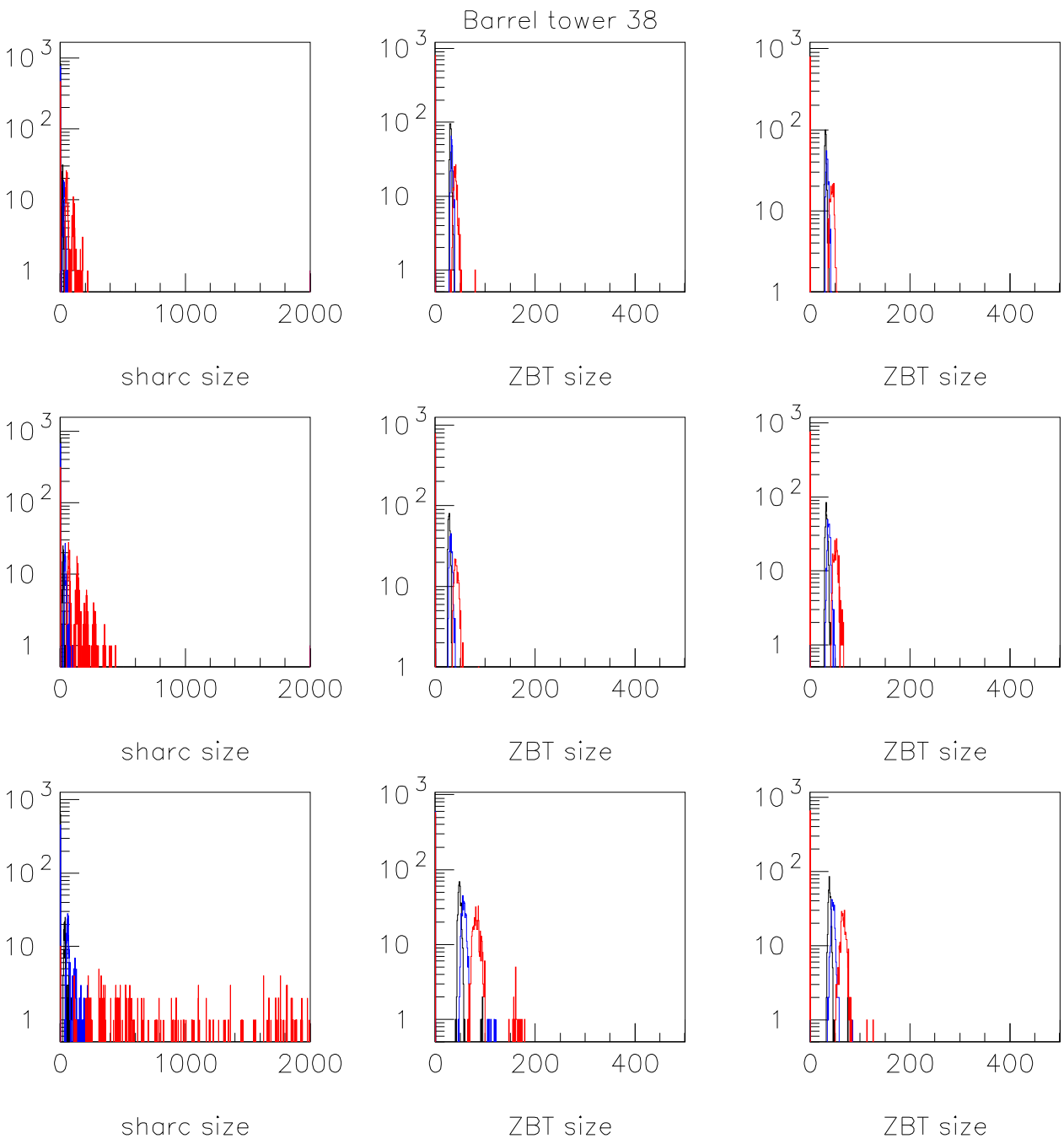
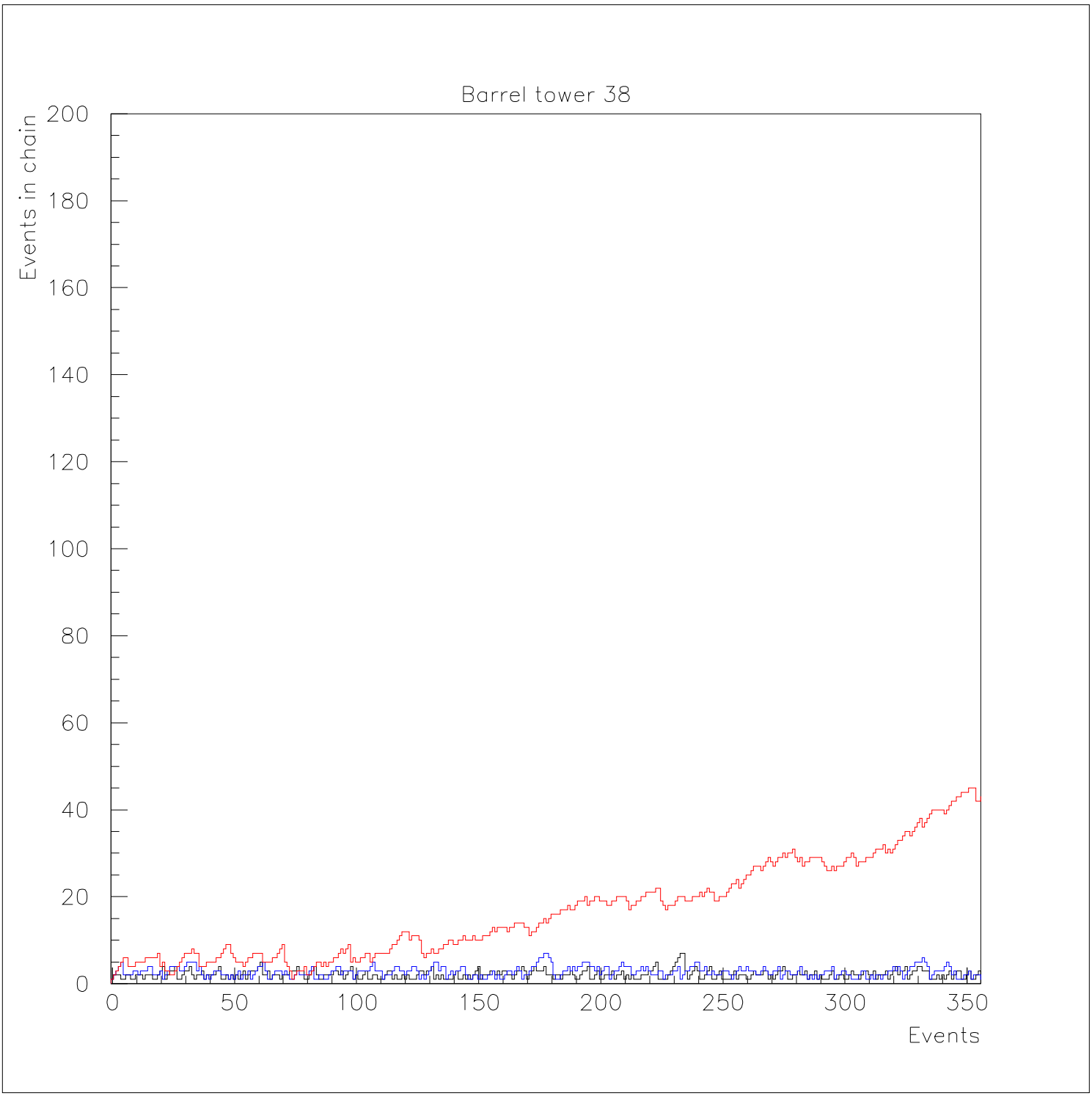
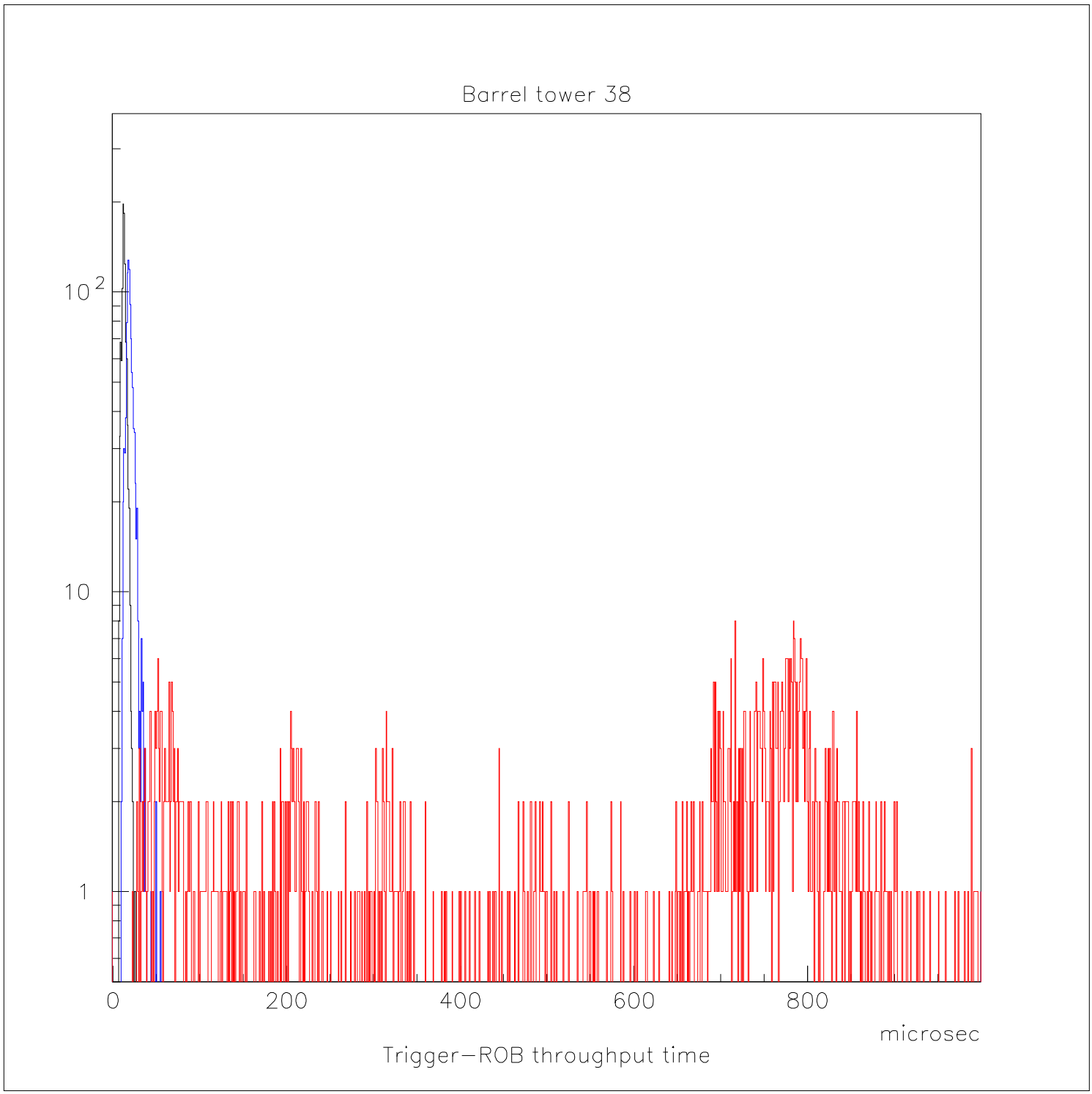
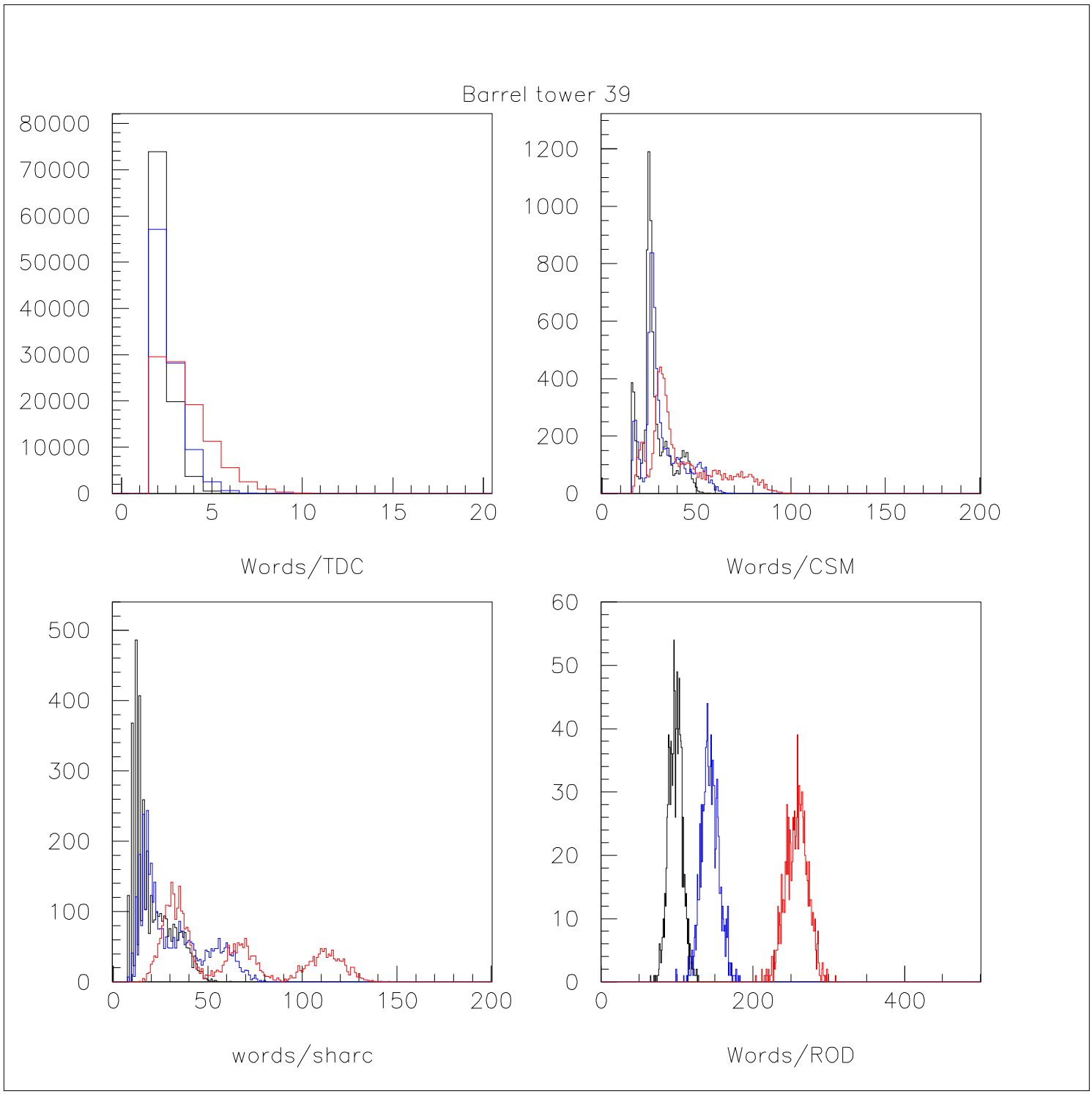
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events


Barrel tower 38
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size


Barrel tower 38
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events


Barrel tower 38
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time


Barrel tower 39
80000
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
1200
1000
800
600
400
200
0
0
50
100
150
200
Words/CSM
500
400
300
200
100
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150
200
words/sharc
60
50
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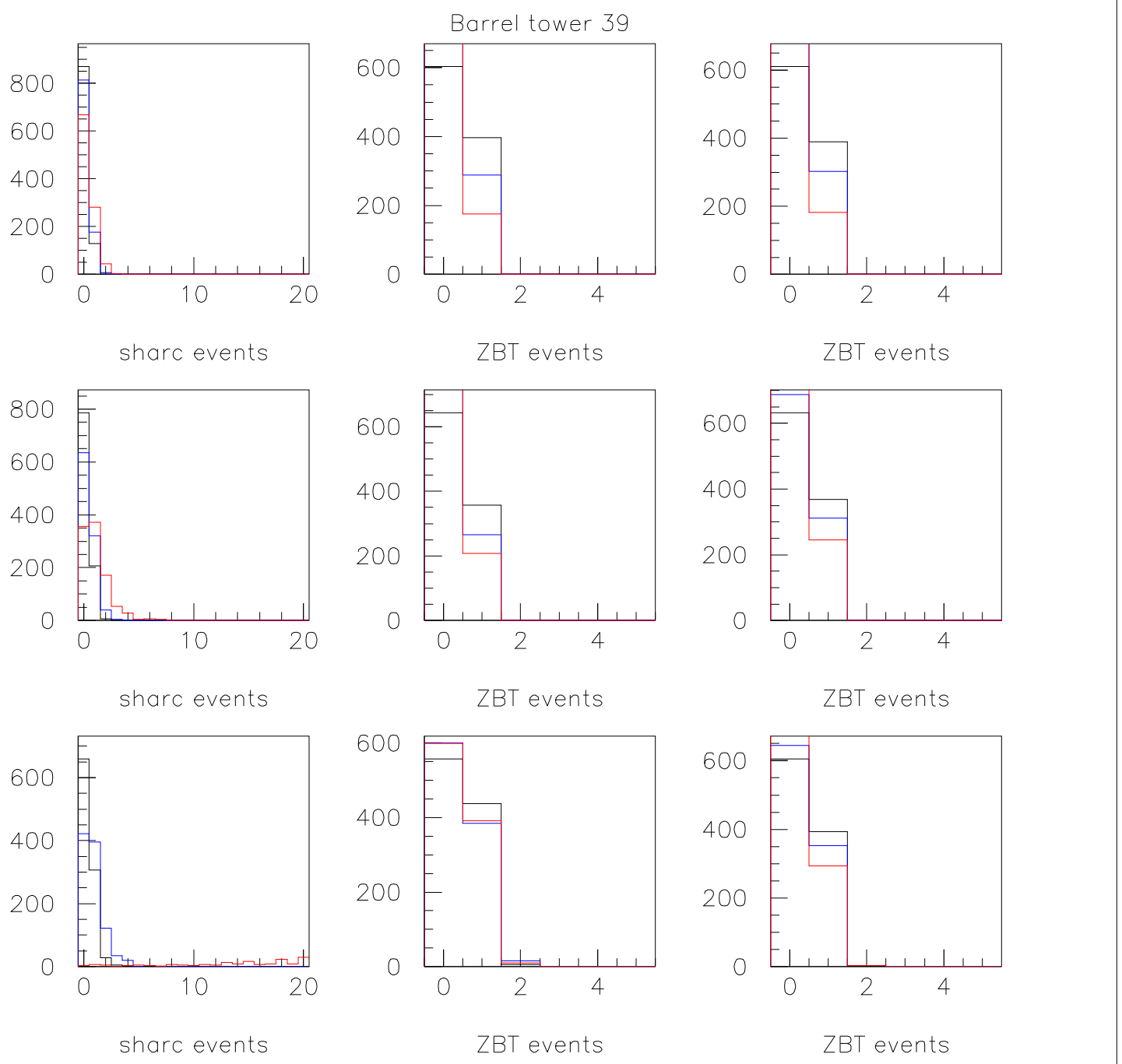
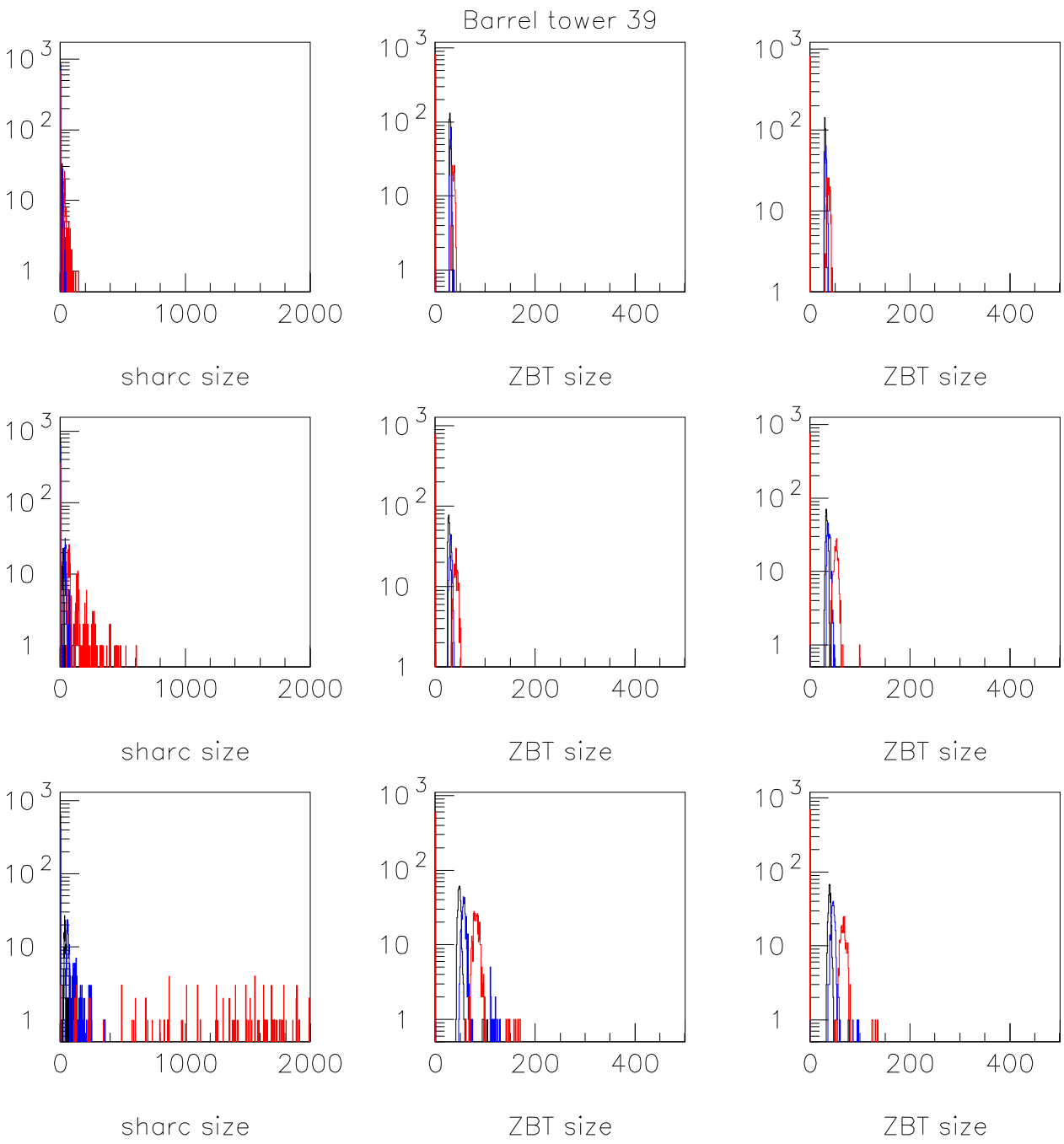
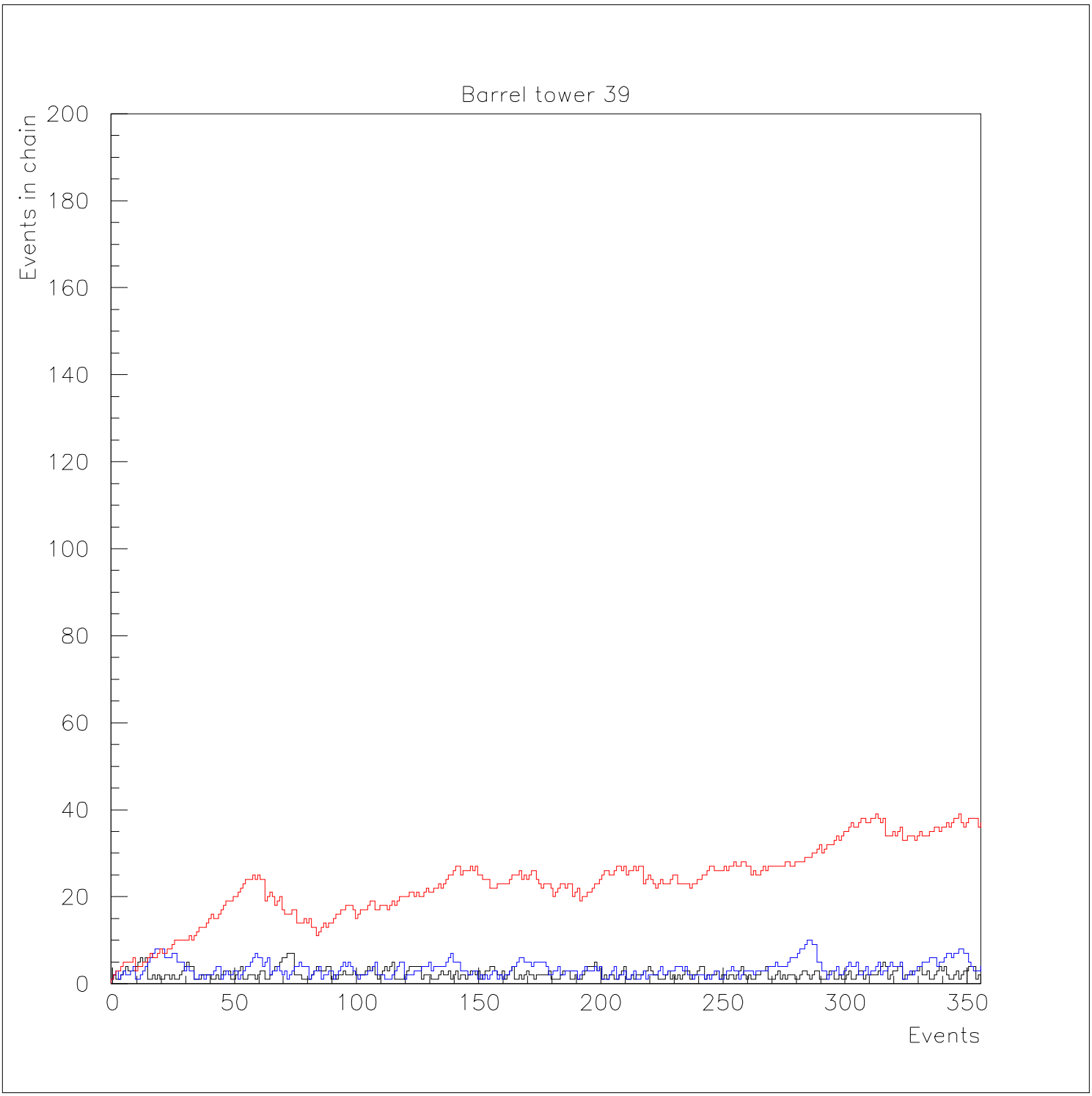
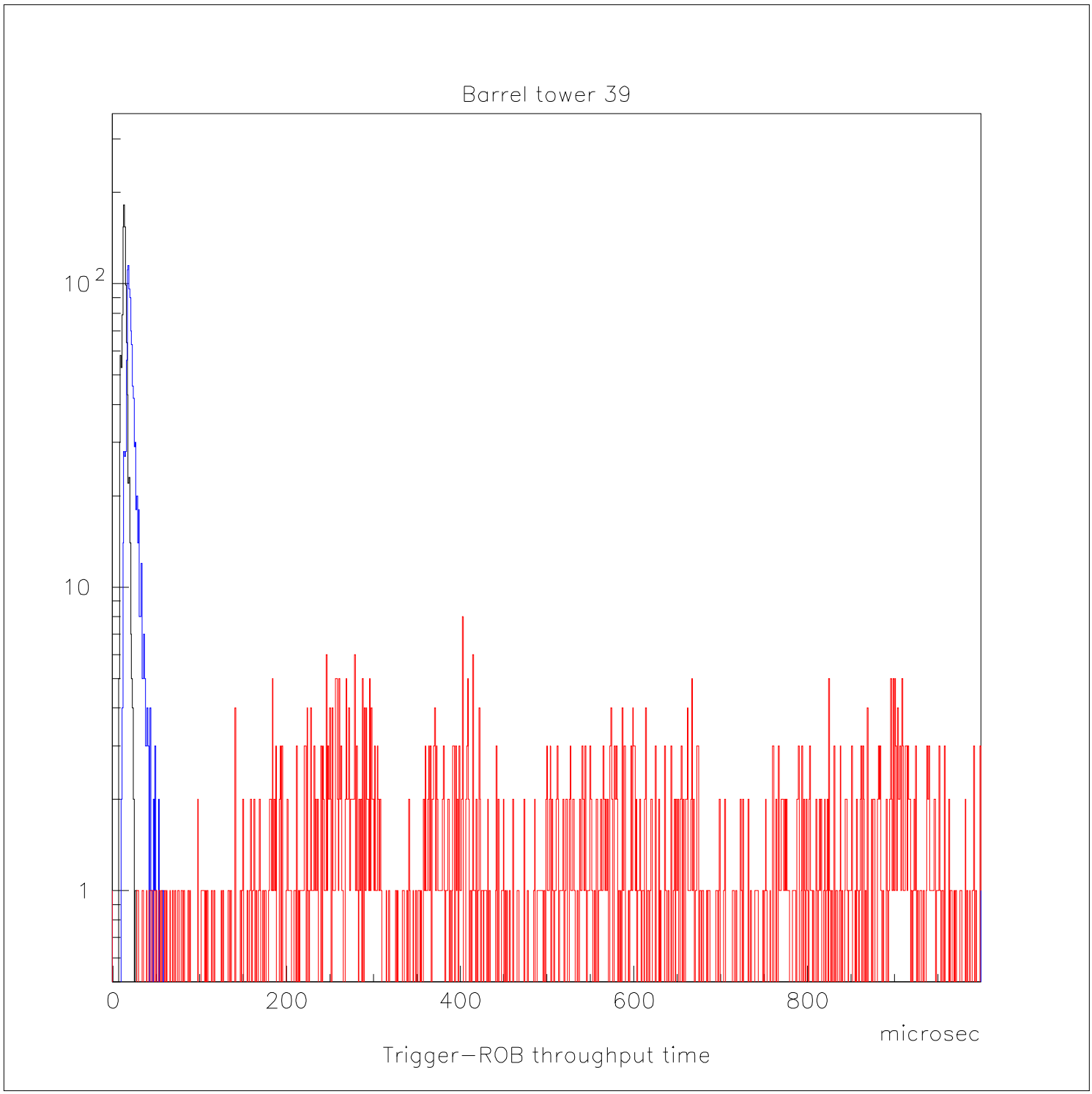
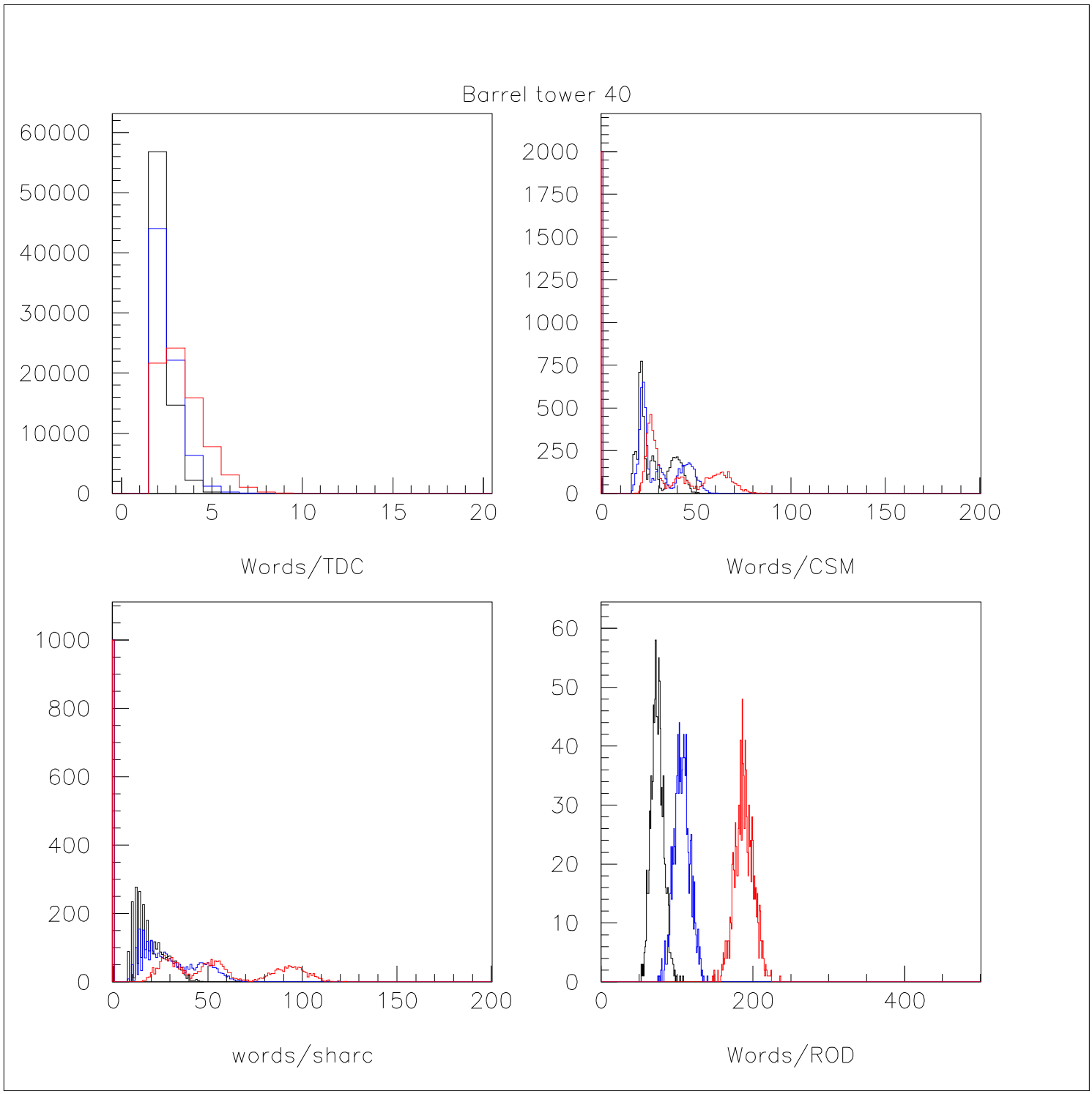
0
0
200
400
Words/ROD

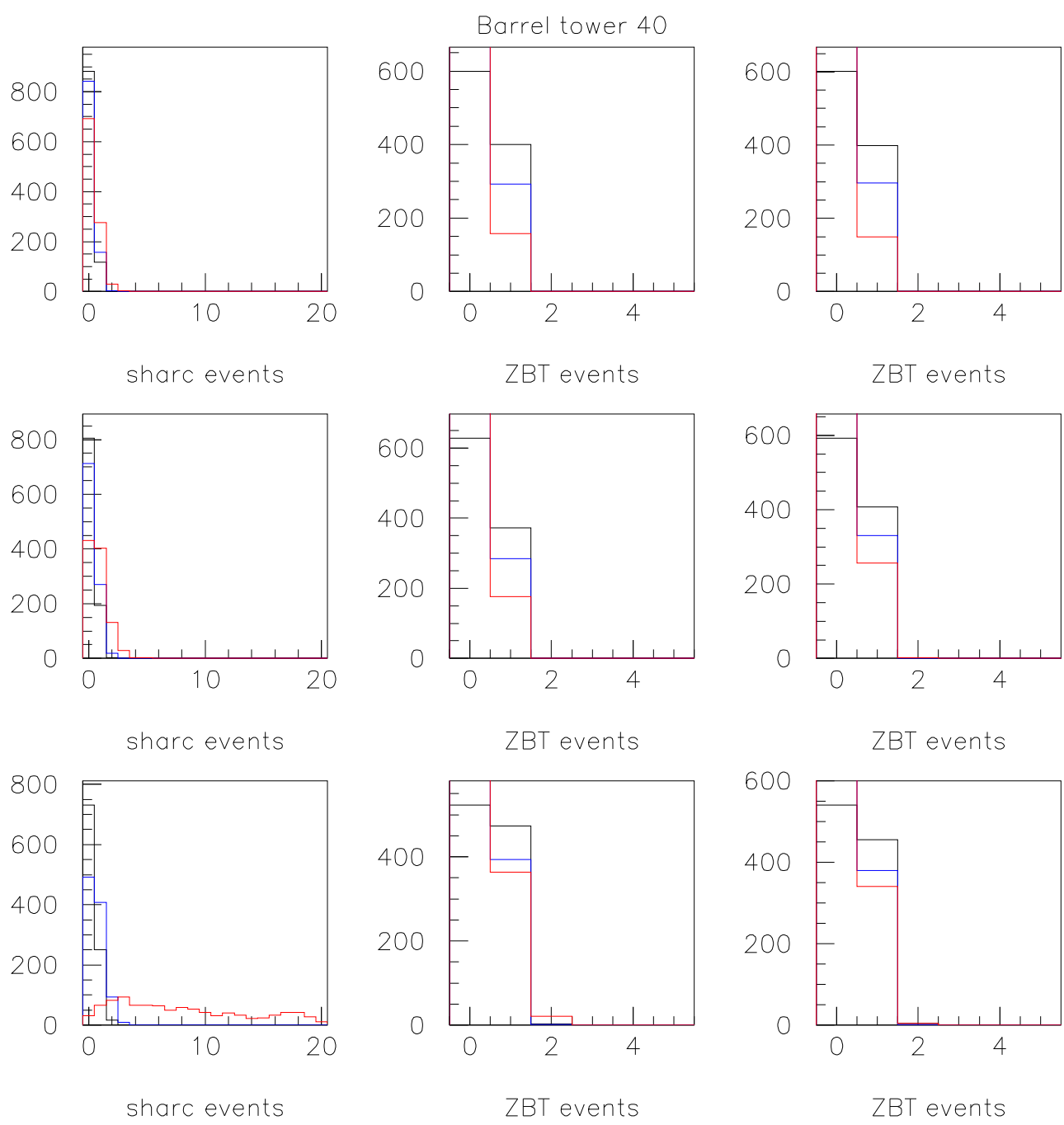

Barrel tower 39
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

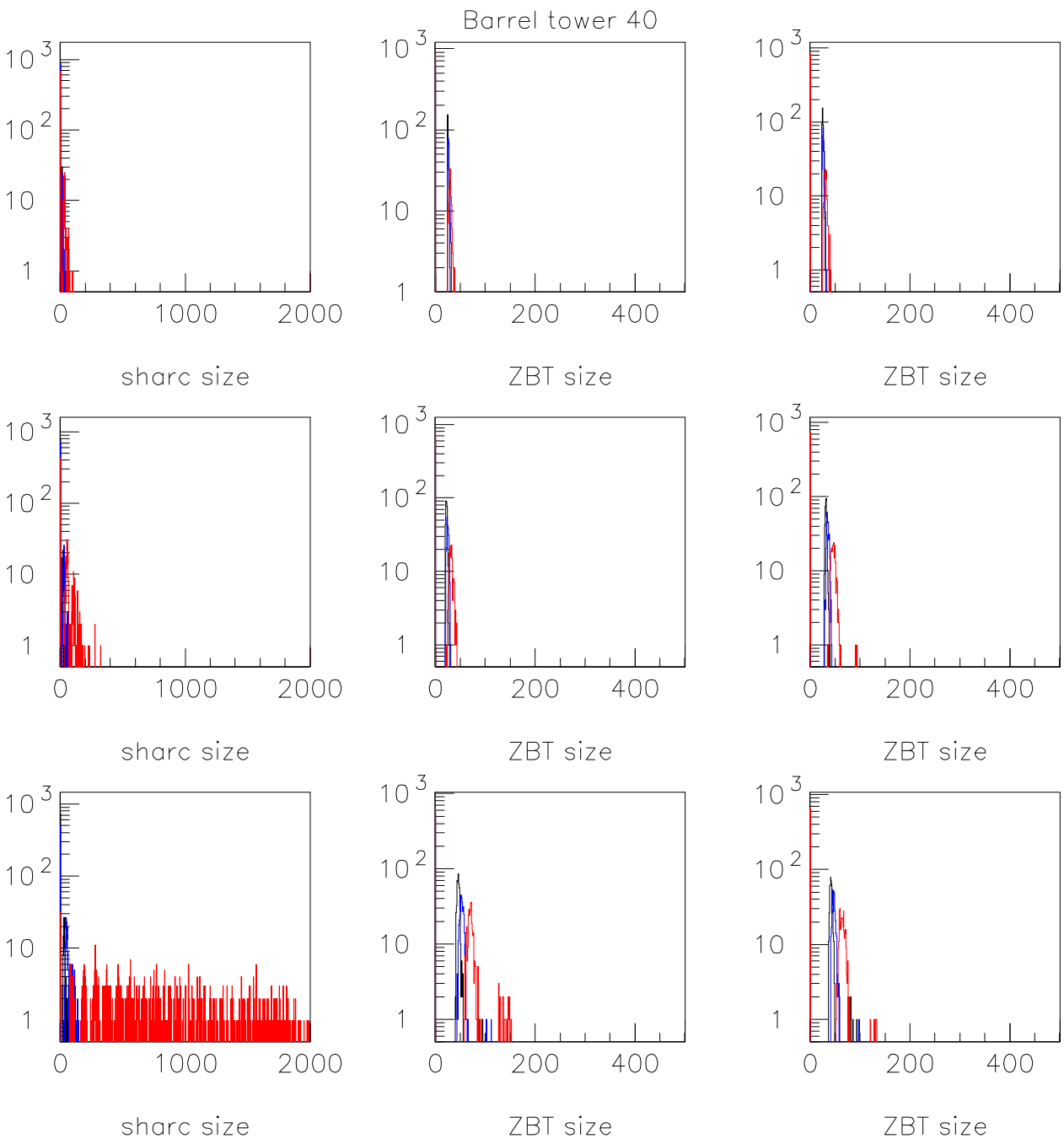

Barrel tower 39
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

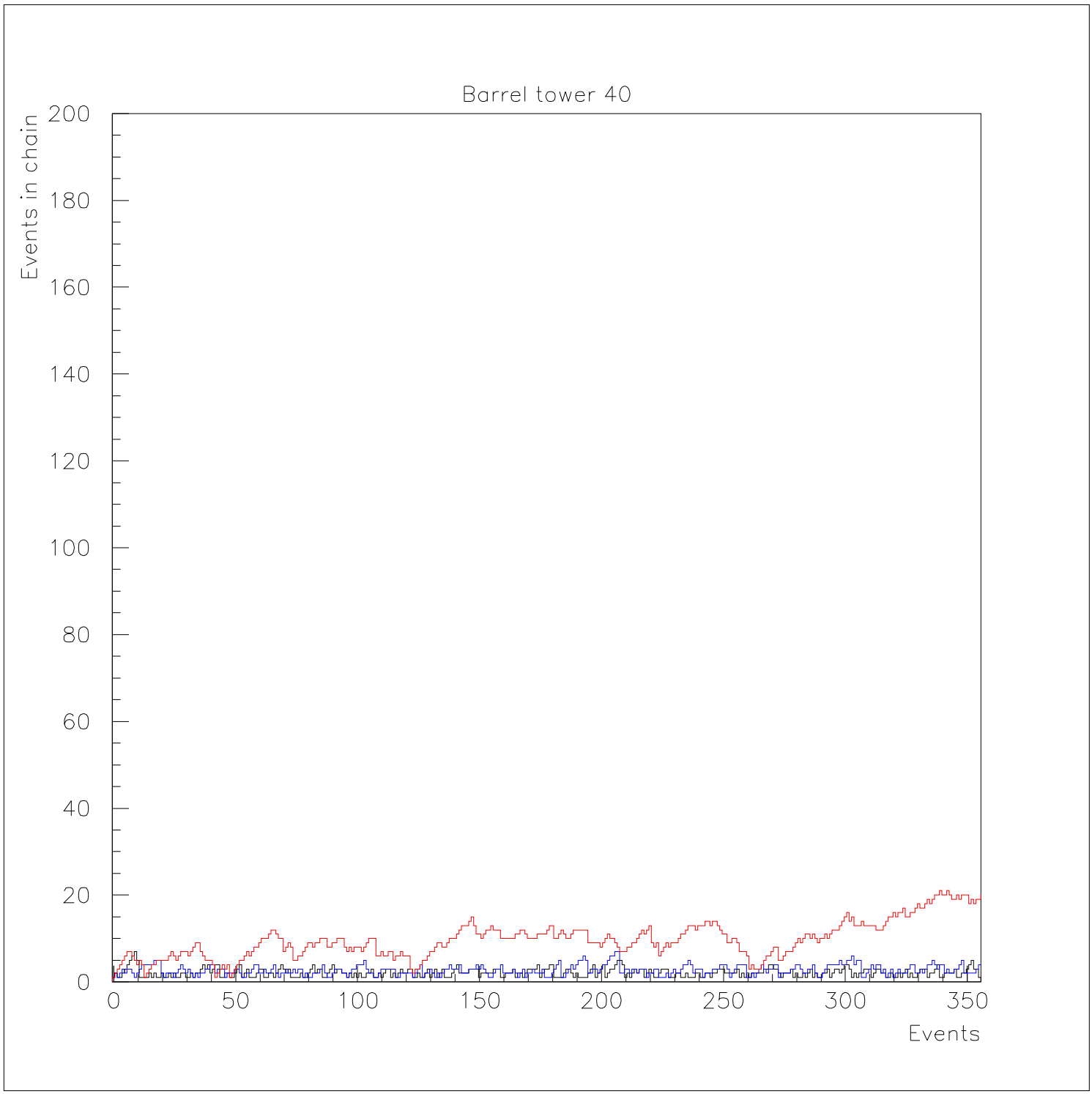

Barrel tower 39
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

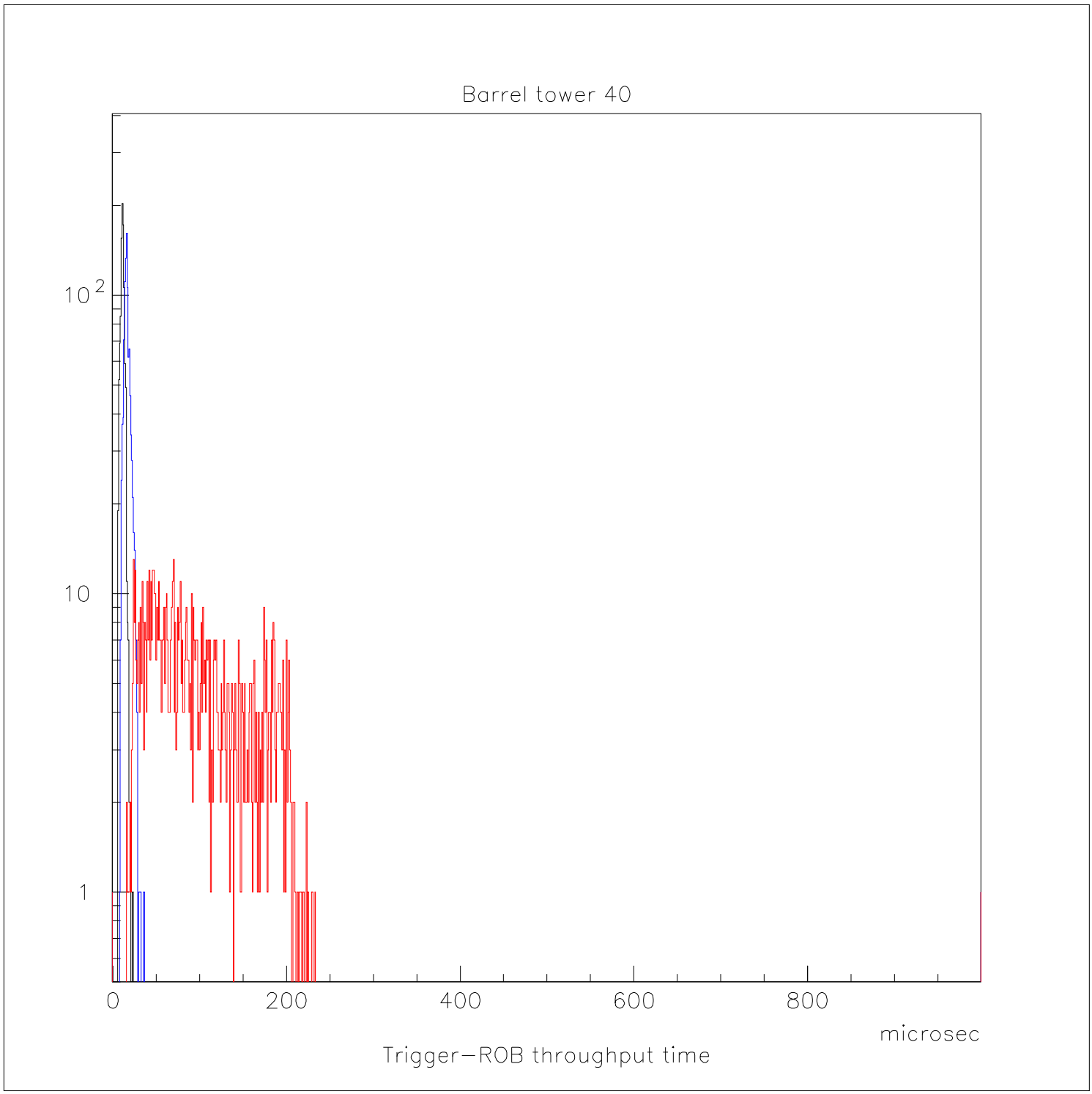

Barrel tower 39
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

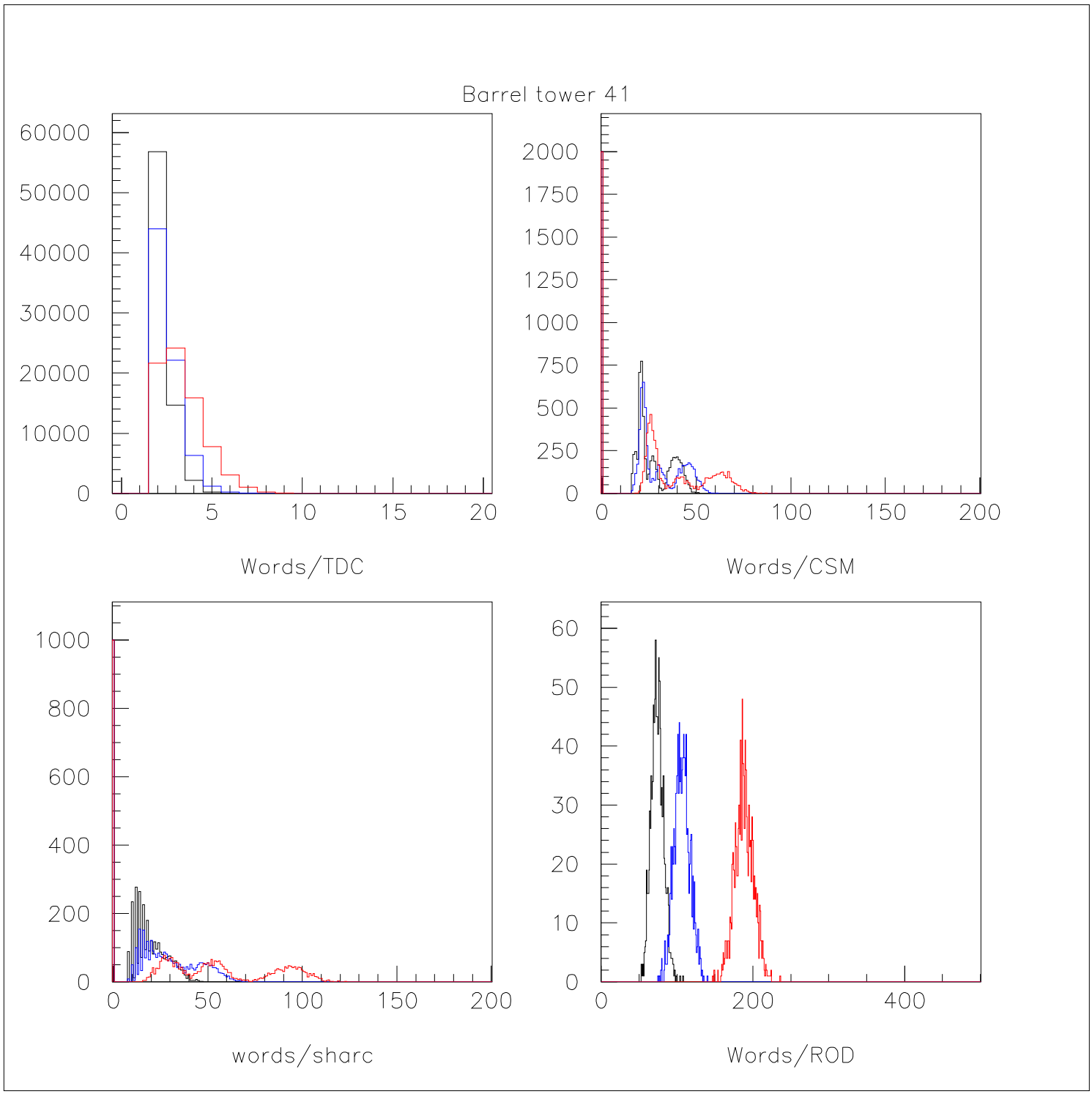

Barrel tower 40
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

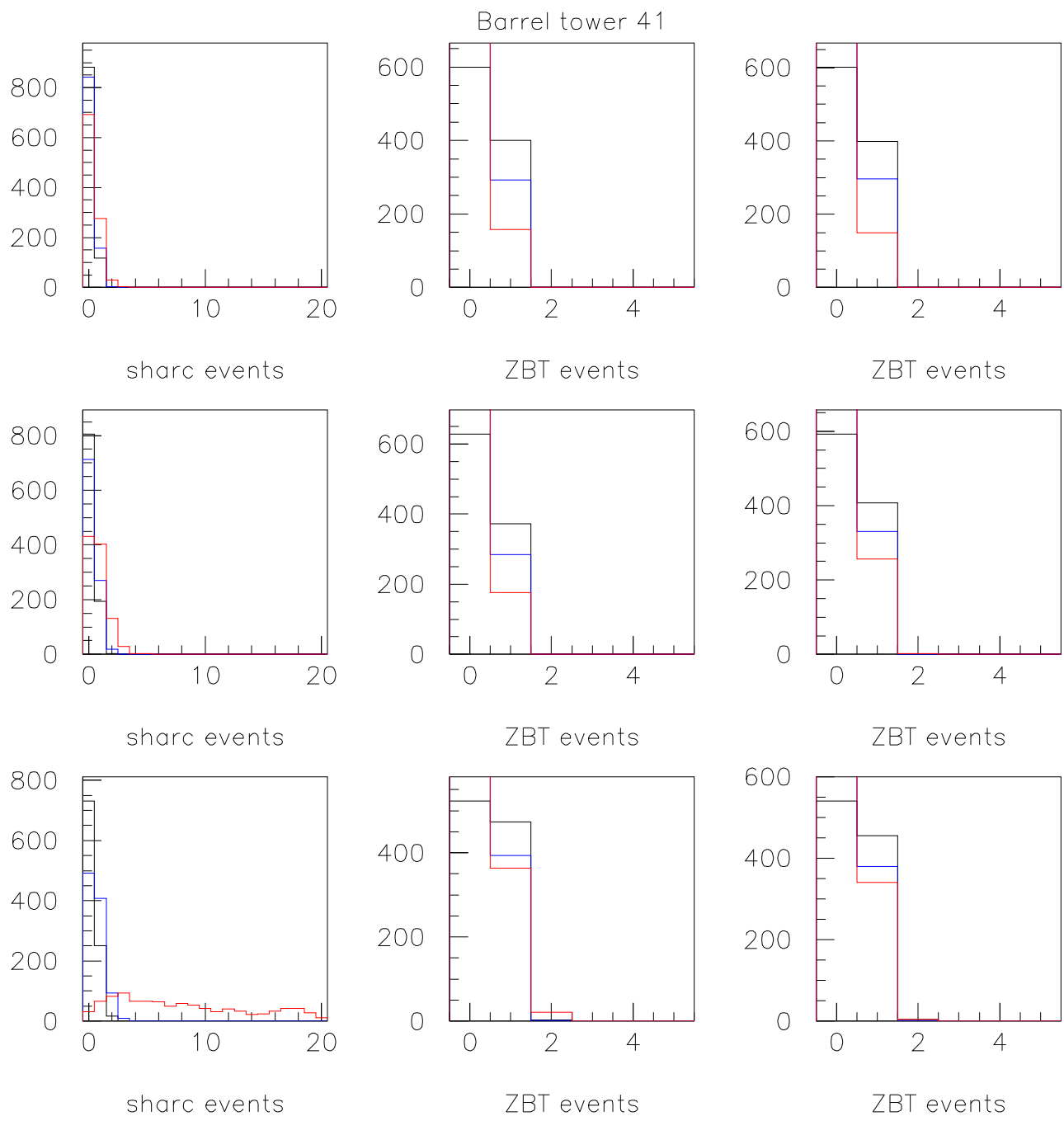

Barrel tower 40
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events


Barrel tower 40
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size


Barrel tower 40
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events


Barrel tower 40
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time


Barrel tower 41
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD


Barrel tower 41
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
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20
sharc events
400
200
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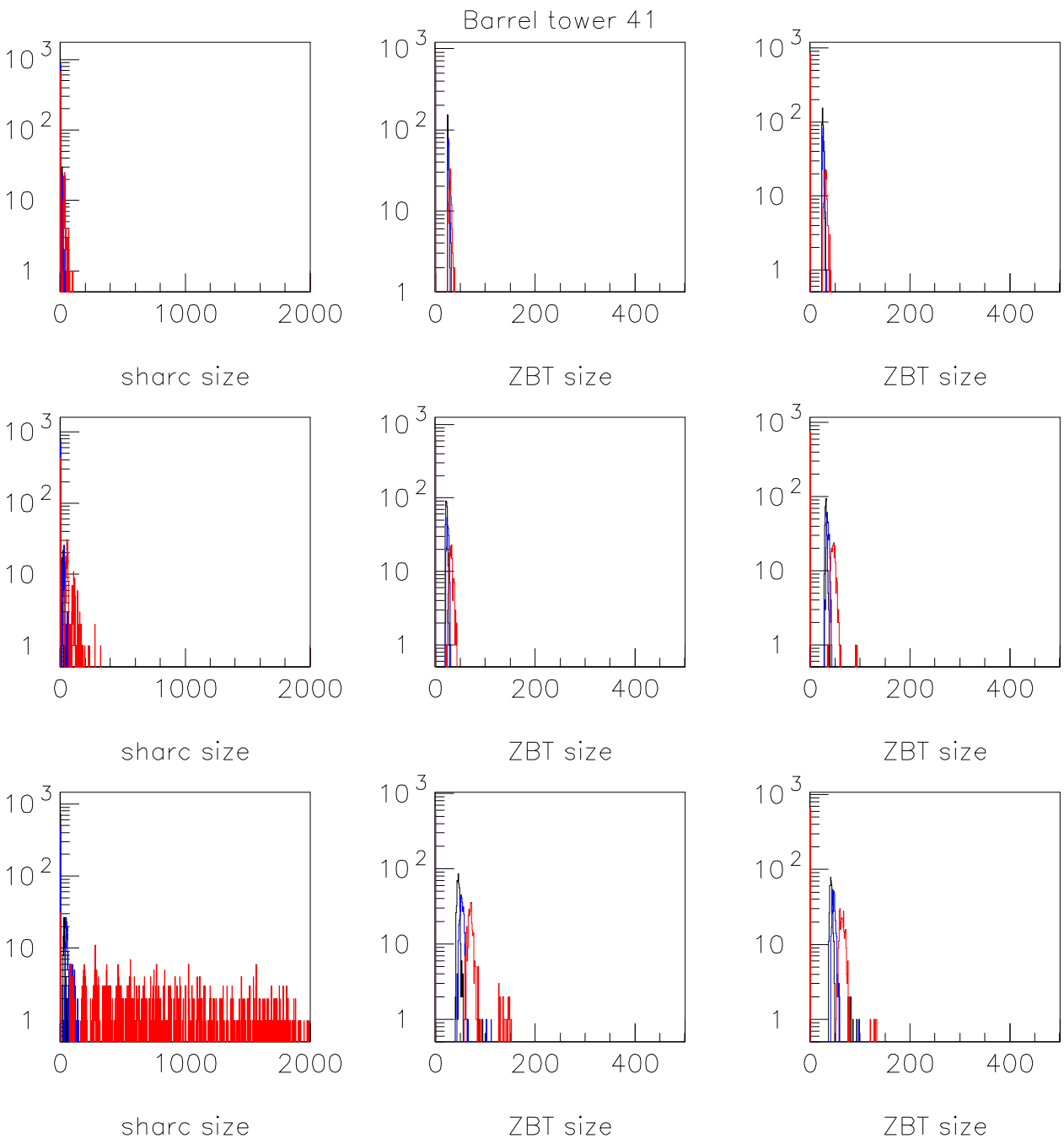
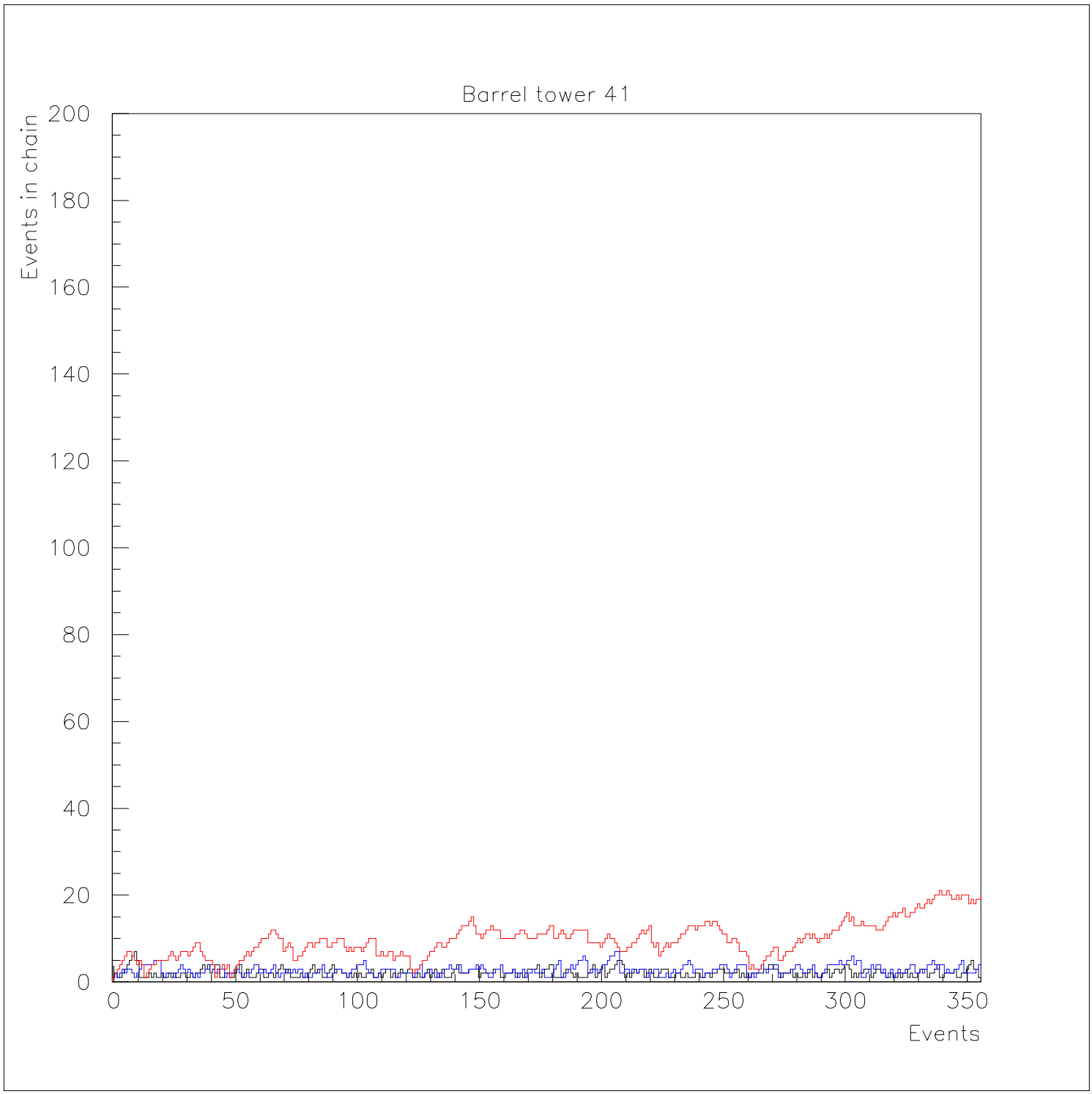
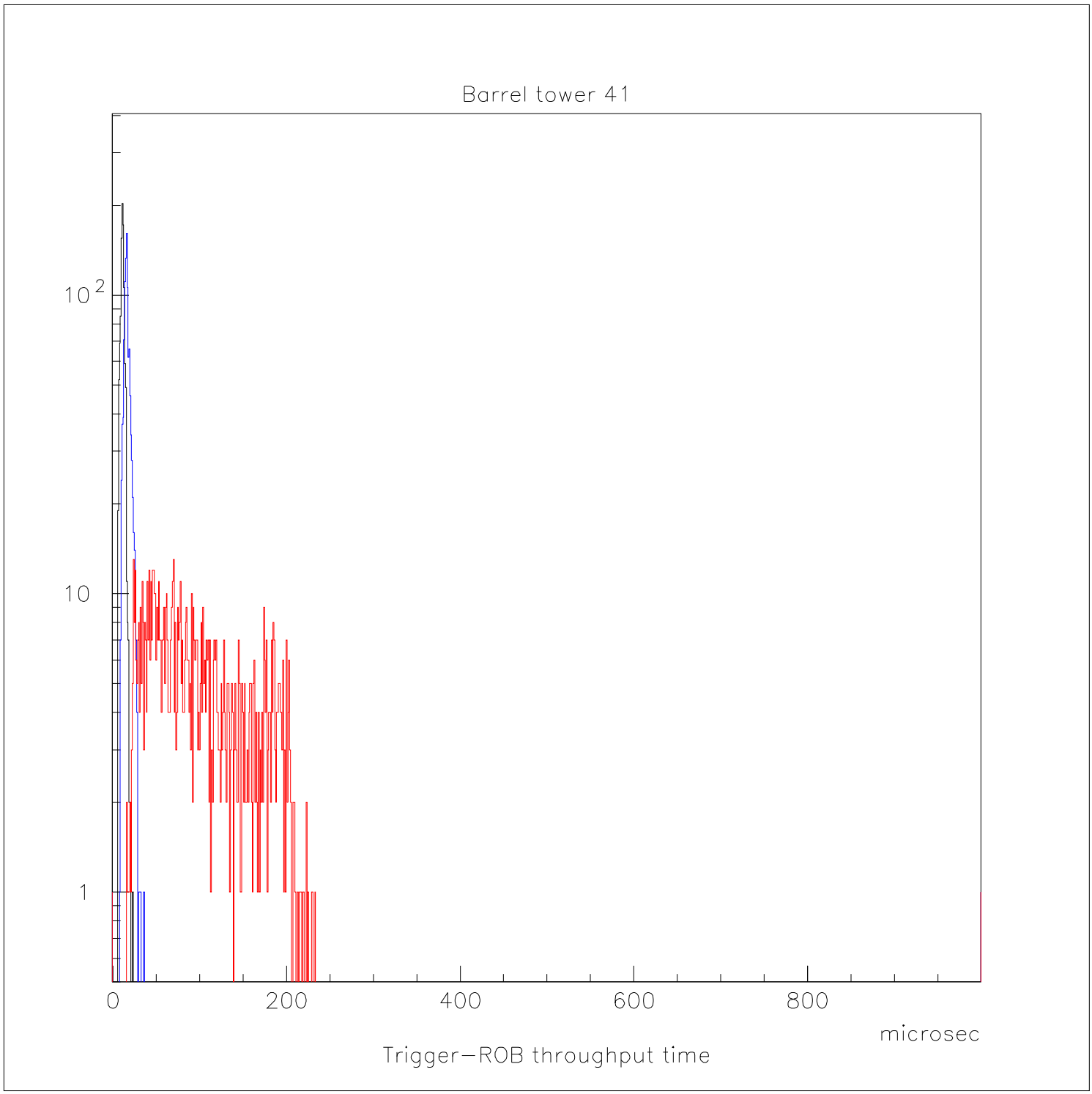
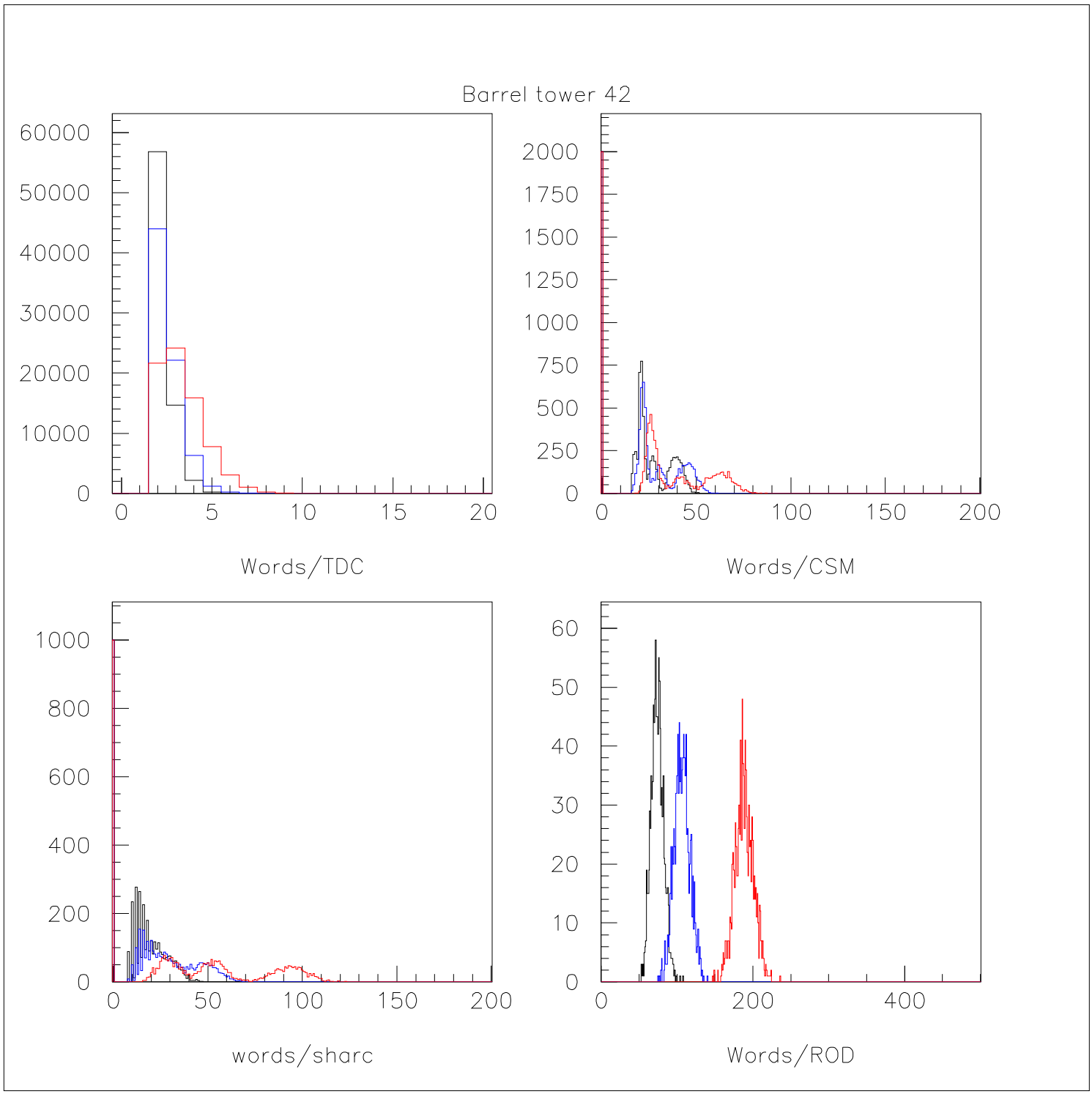
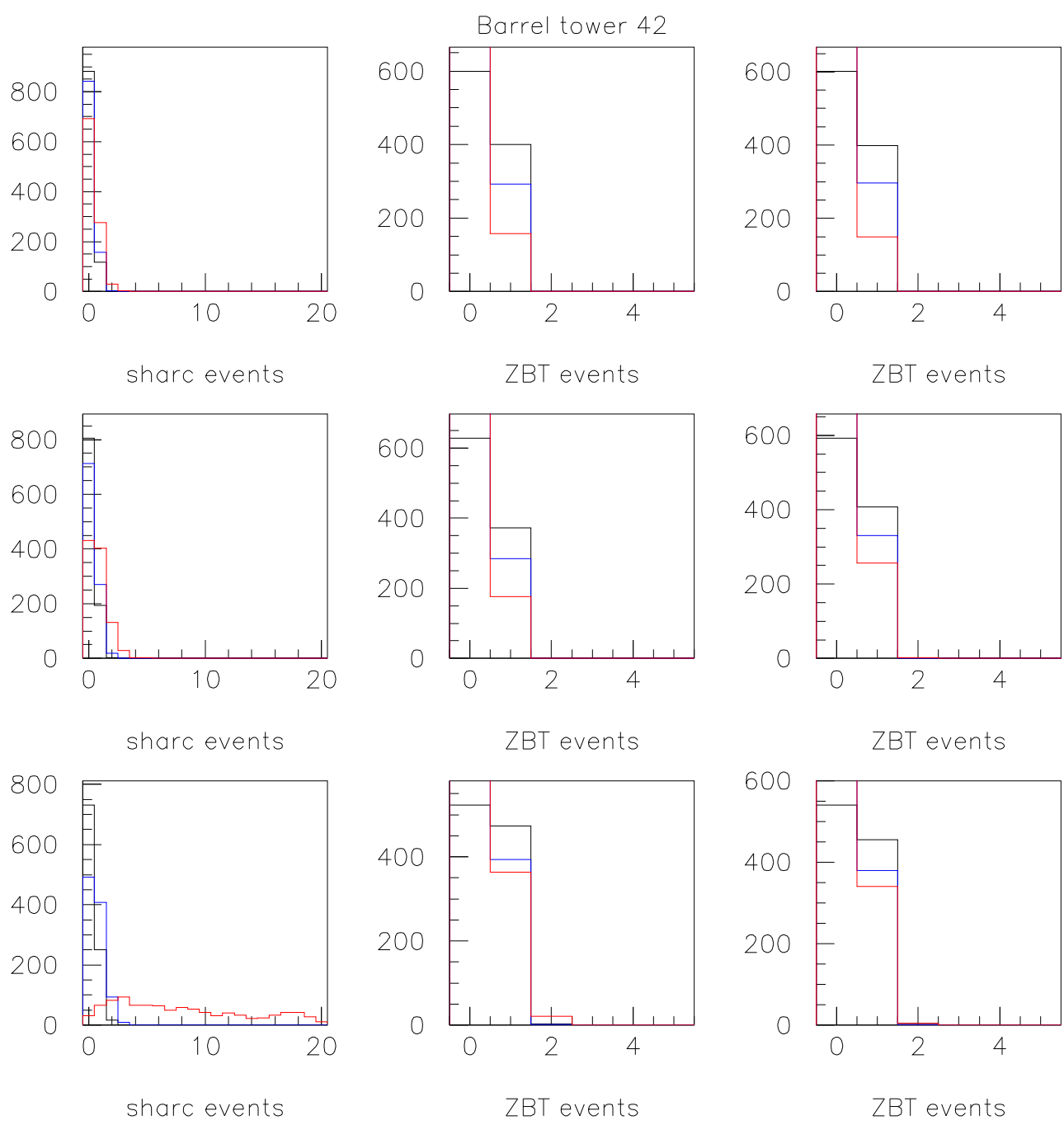
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events


Barrel tower 41
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size


Barrel tower 41
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events


Barrel tower 41
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time


Barrel tower 42
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD


Barrel tower 42
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
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20
sharc events
400
200
0
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2
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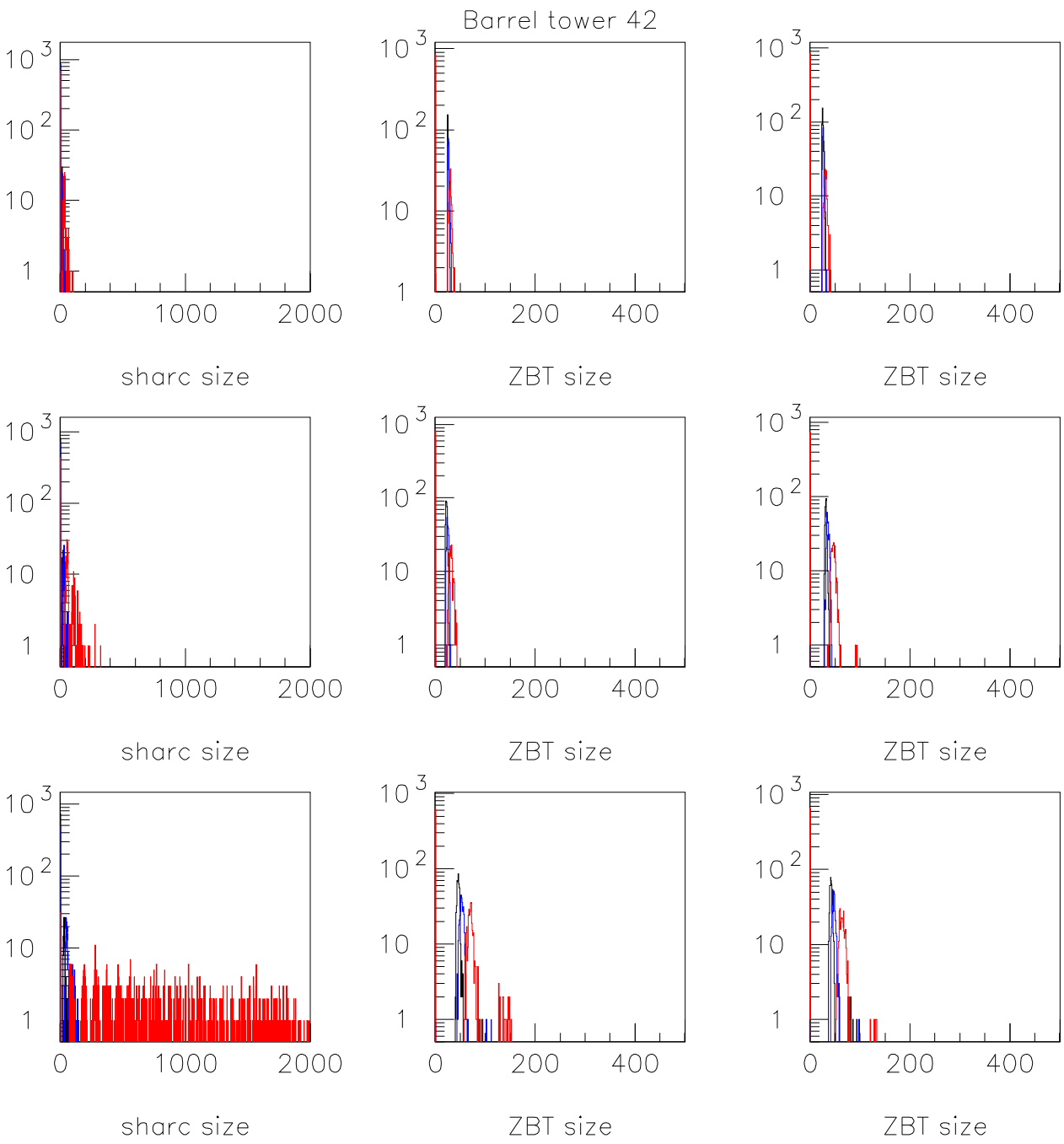
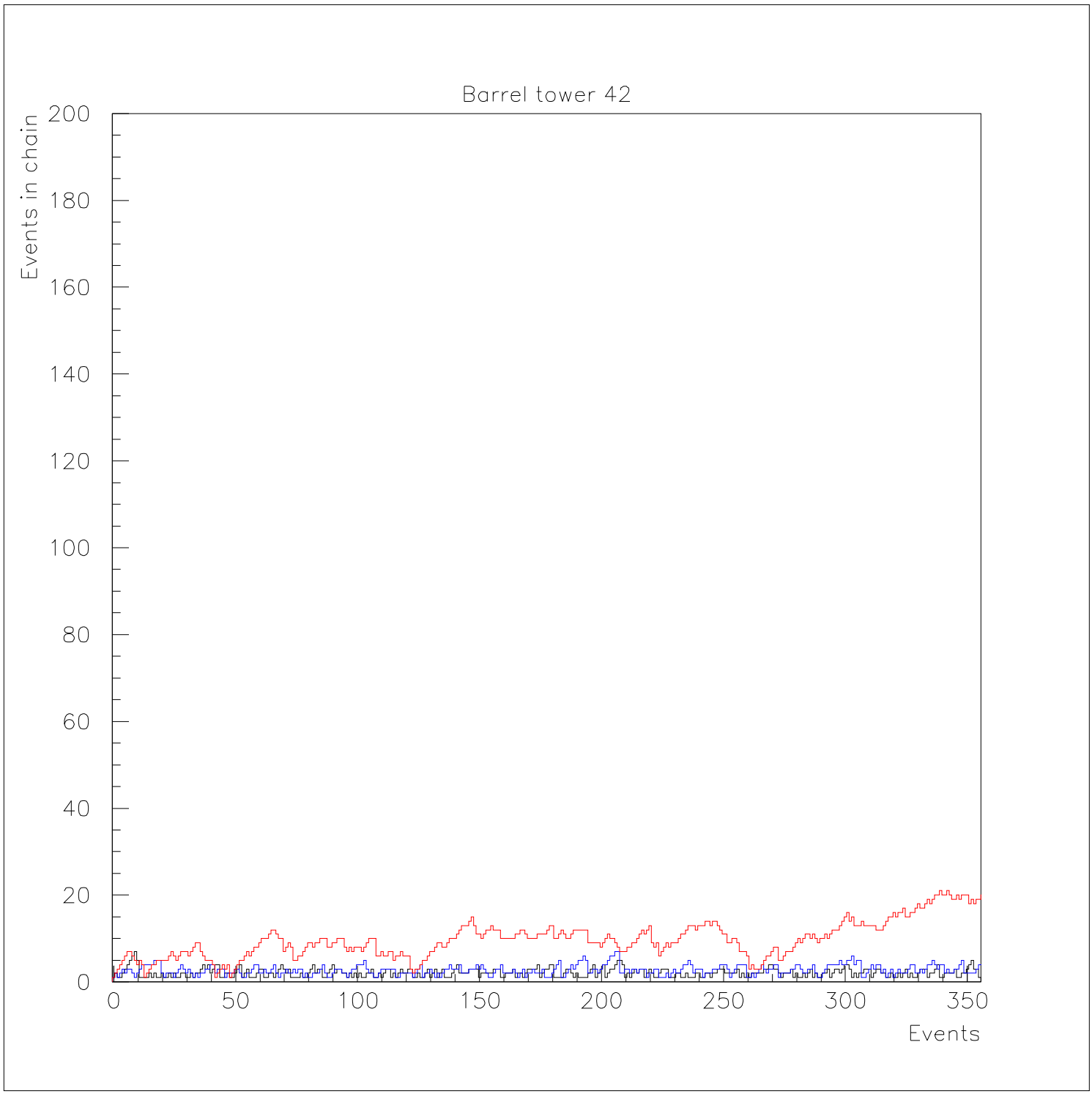
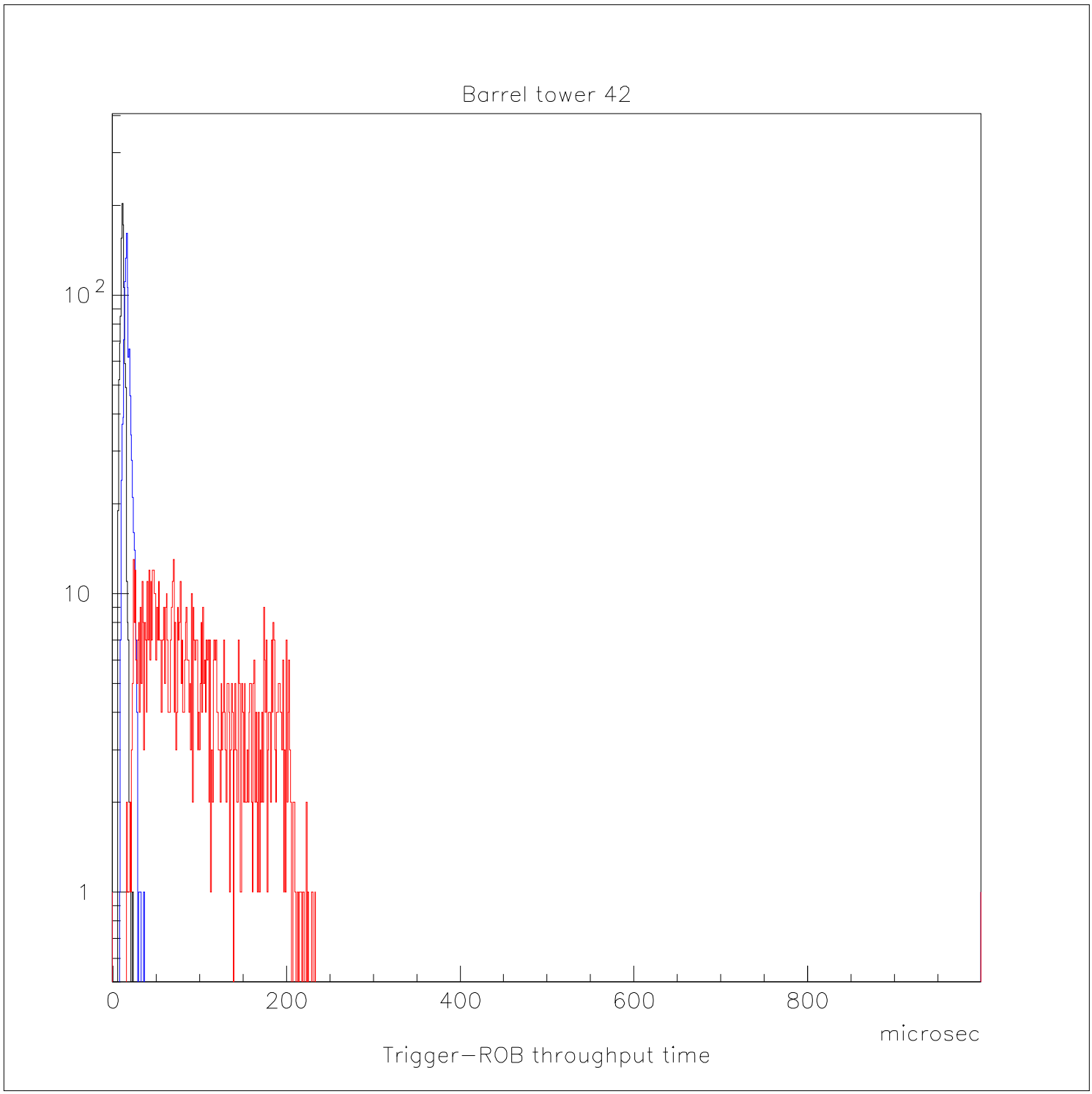
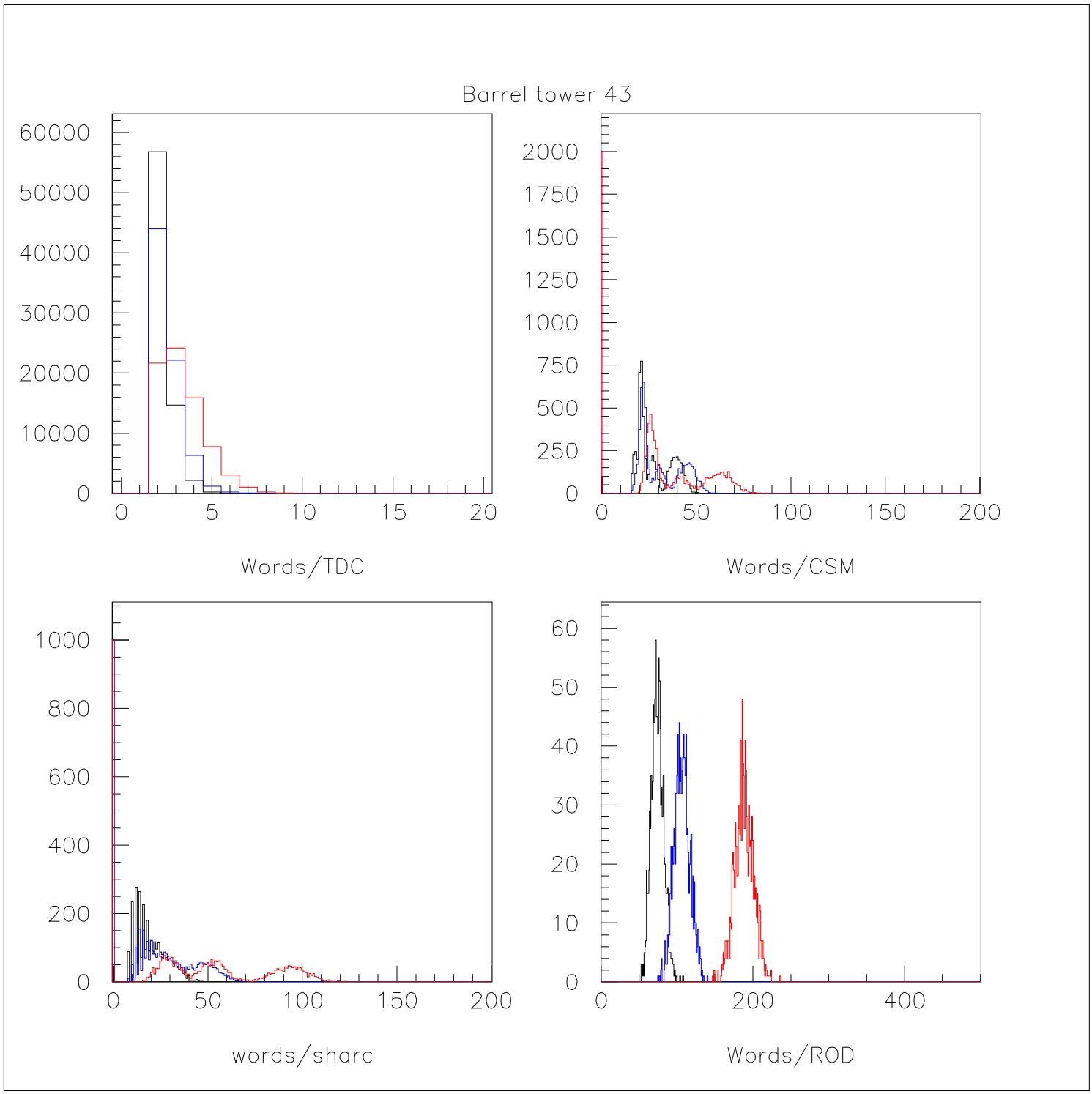
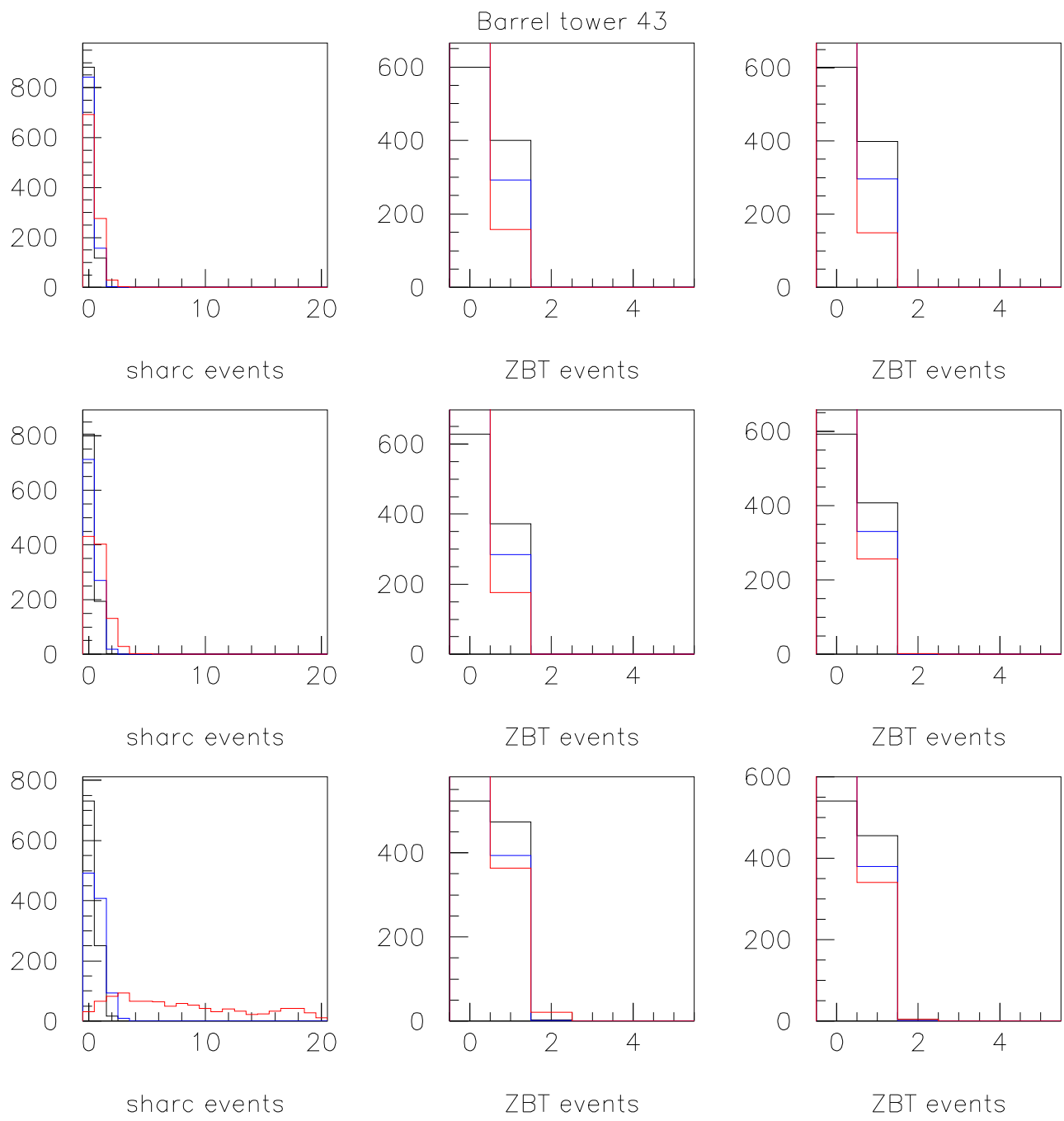
ZBT events
600
400
200
0
0
2
4
ZBT events

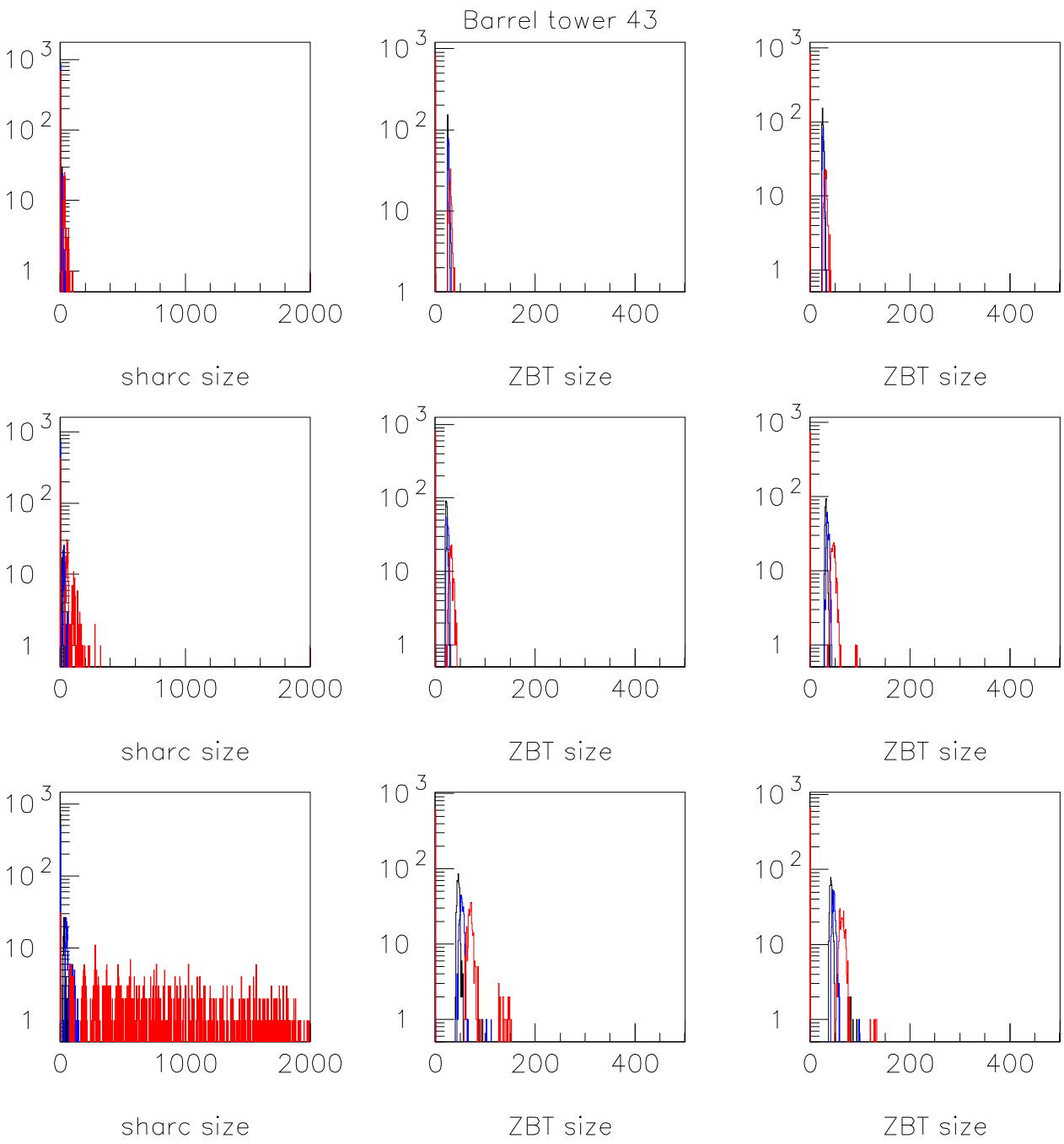

Barrel tower 42
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

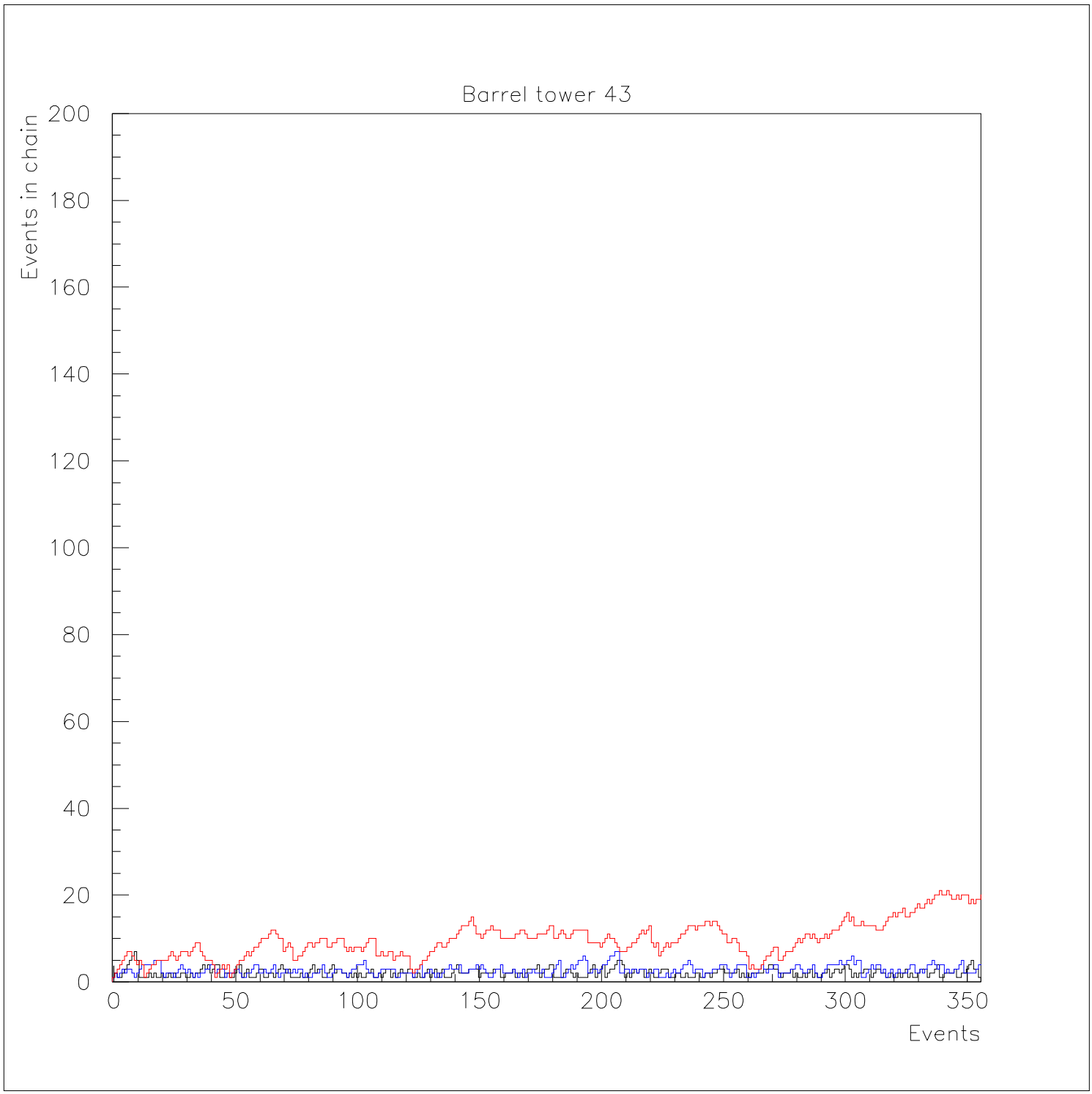

Barrel tower 42
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

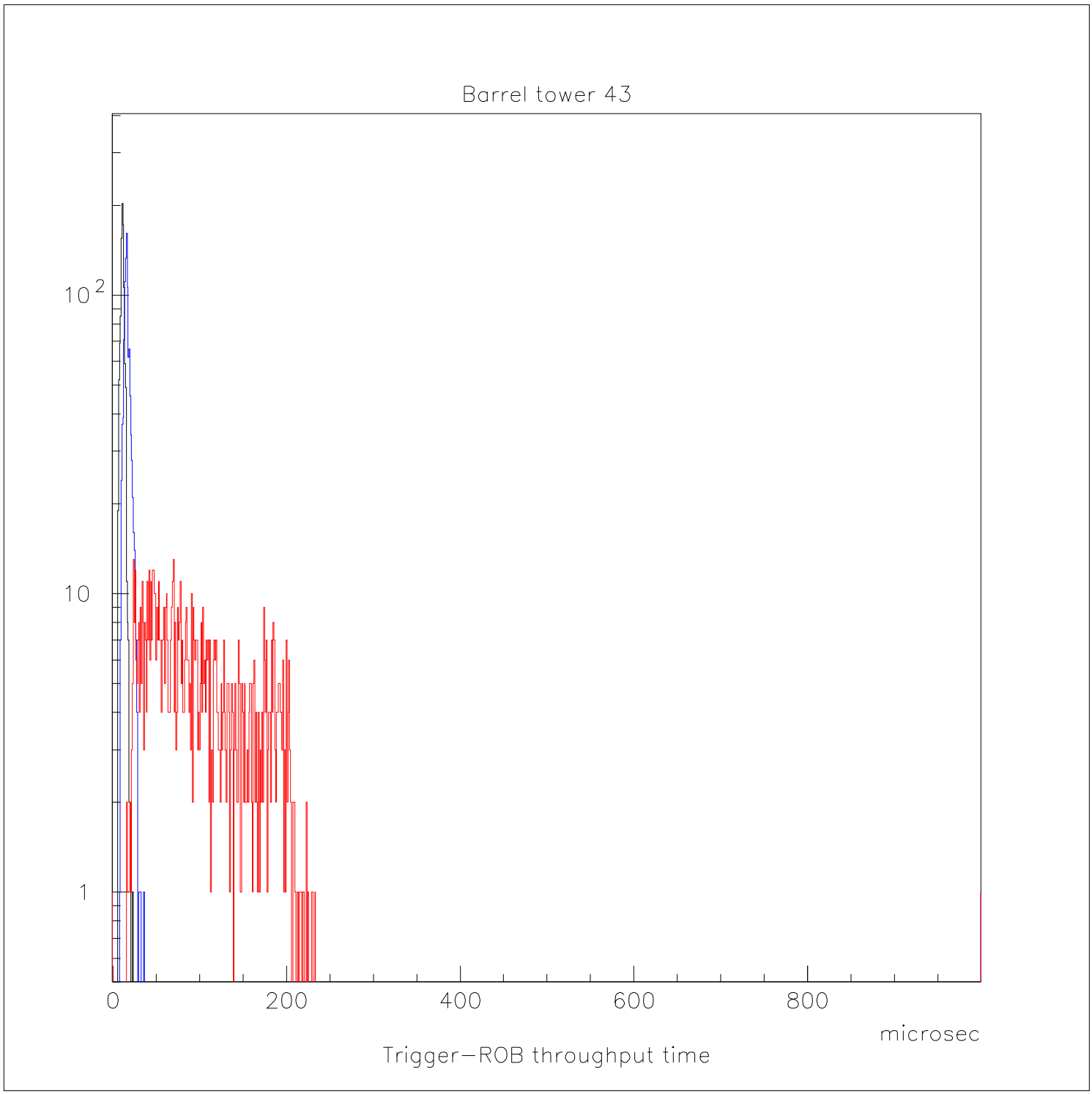

Barrel tower 42
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

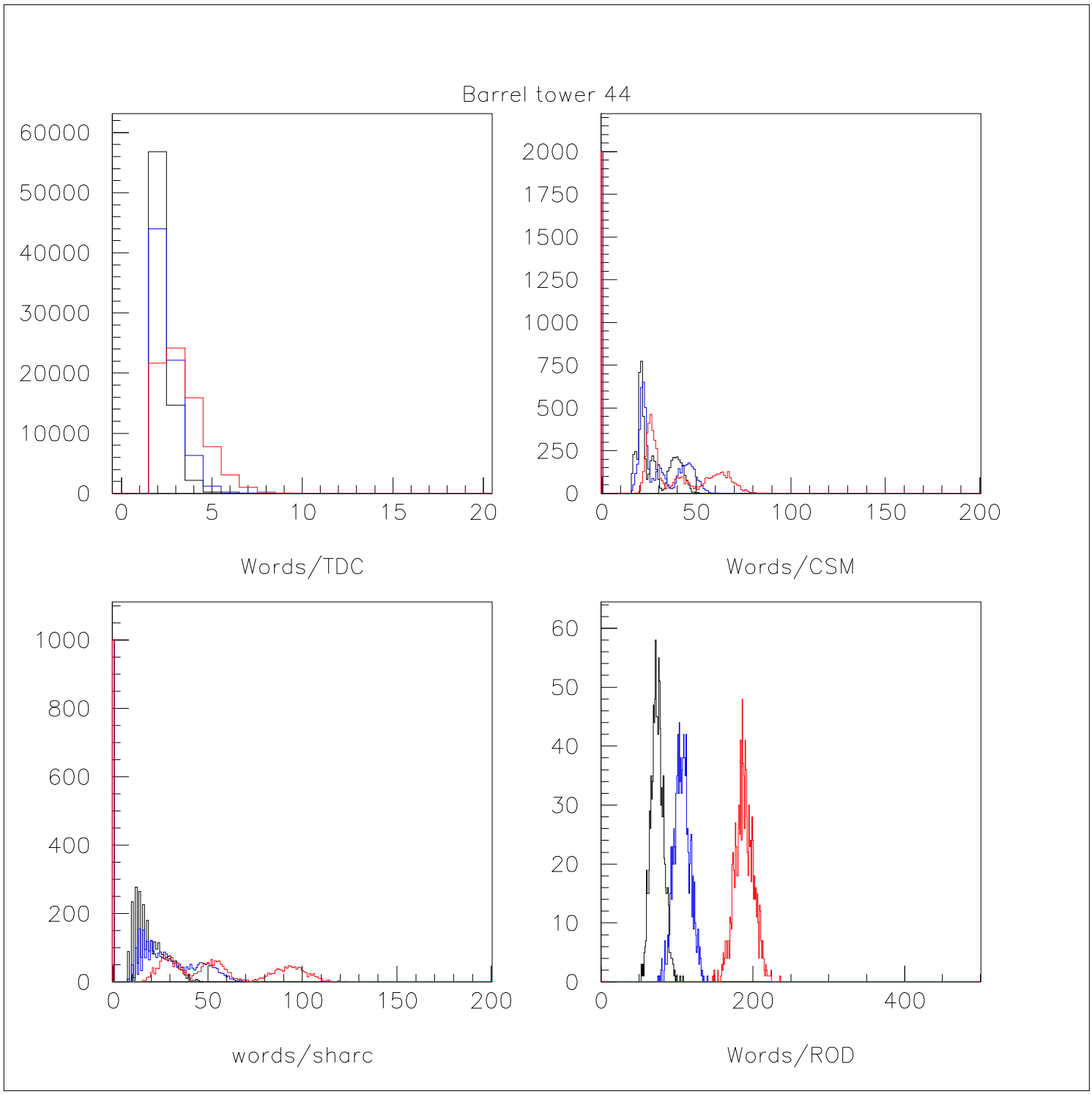

Barrel tower 43
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

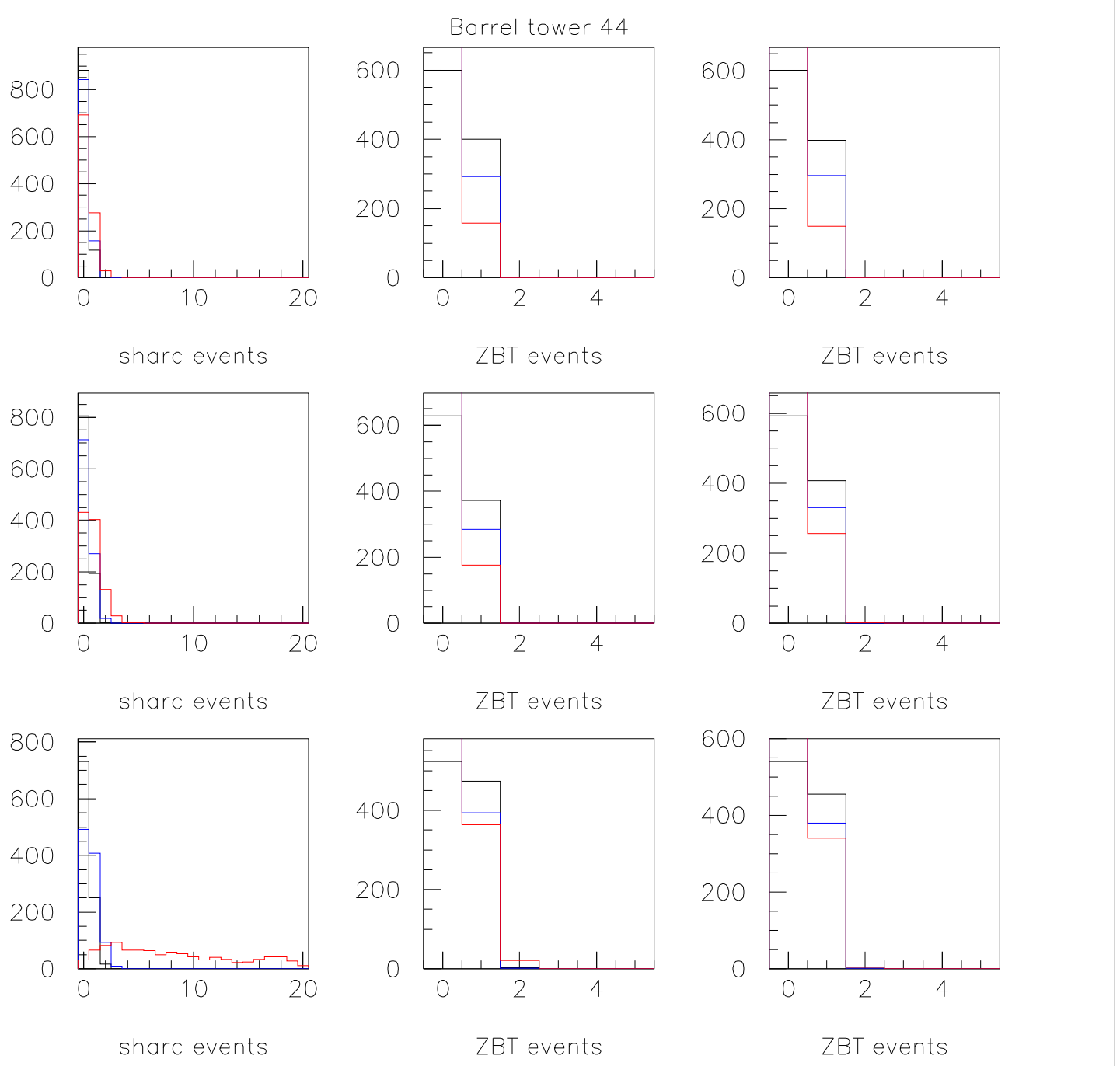

Barrel tower 43
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

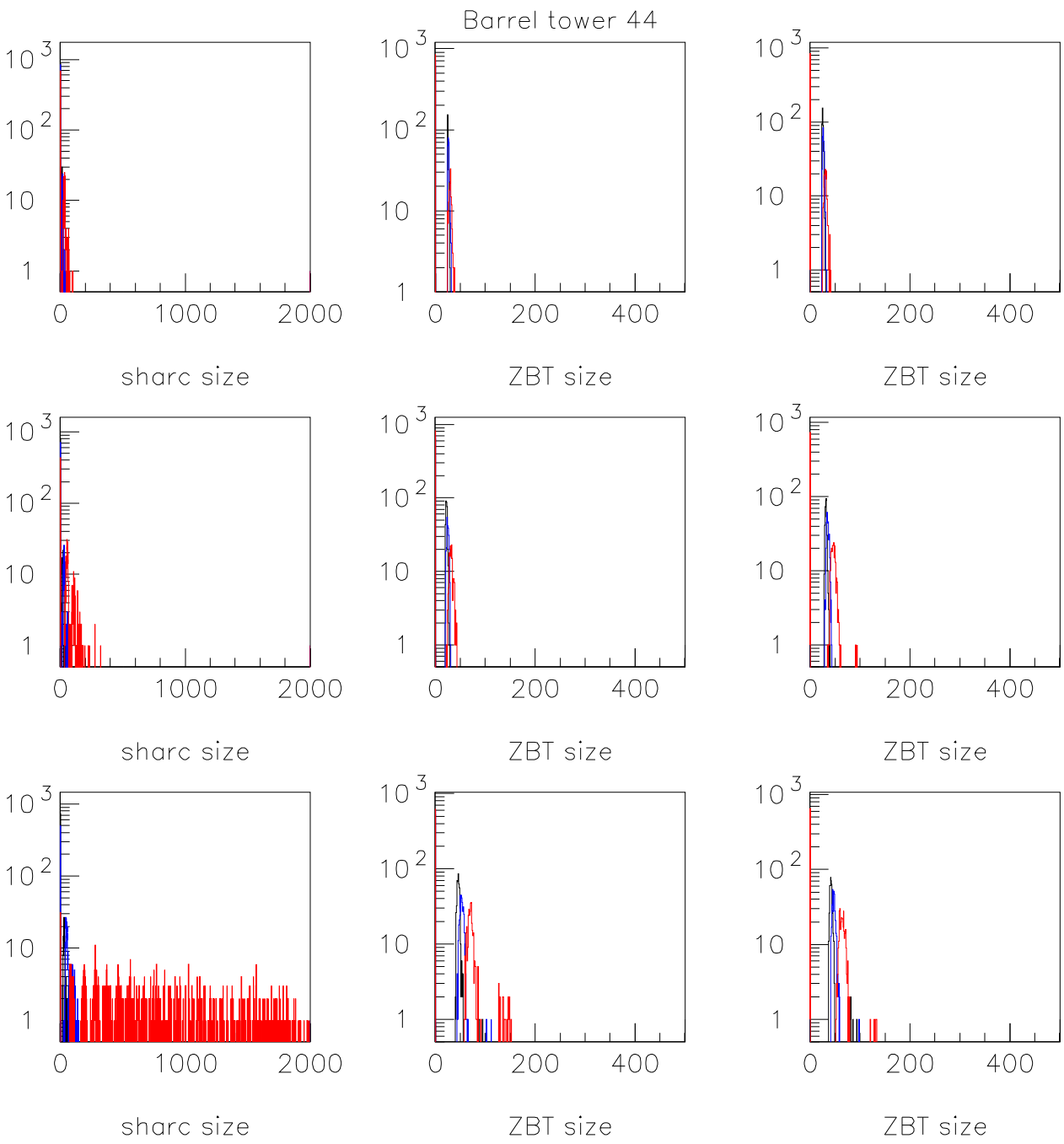

Barrel tower 43
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

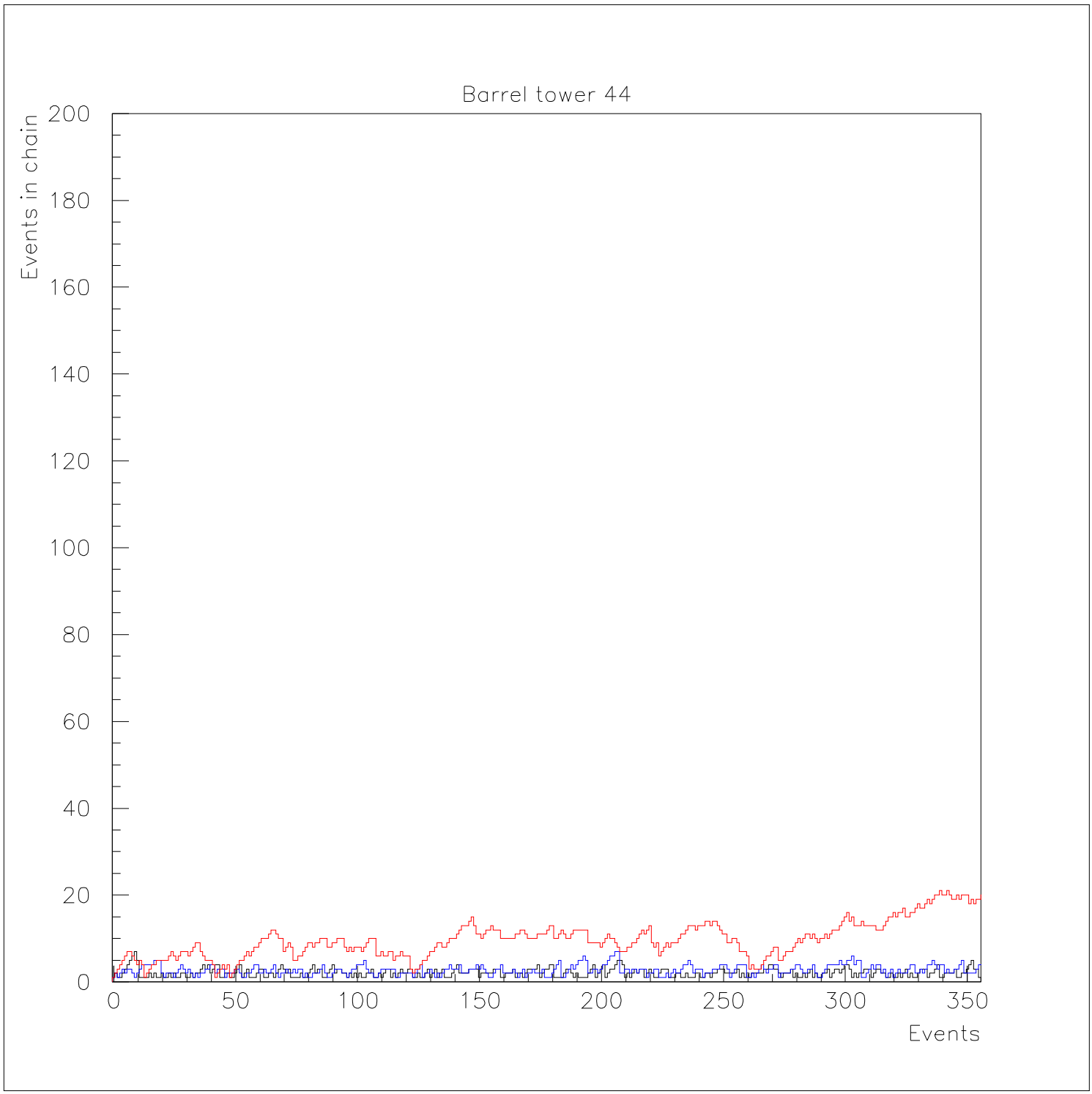

Barrel tower 43
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

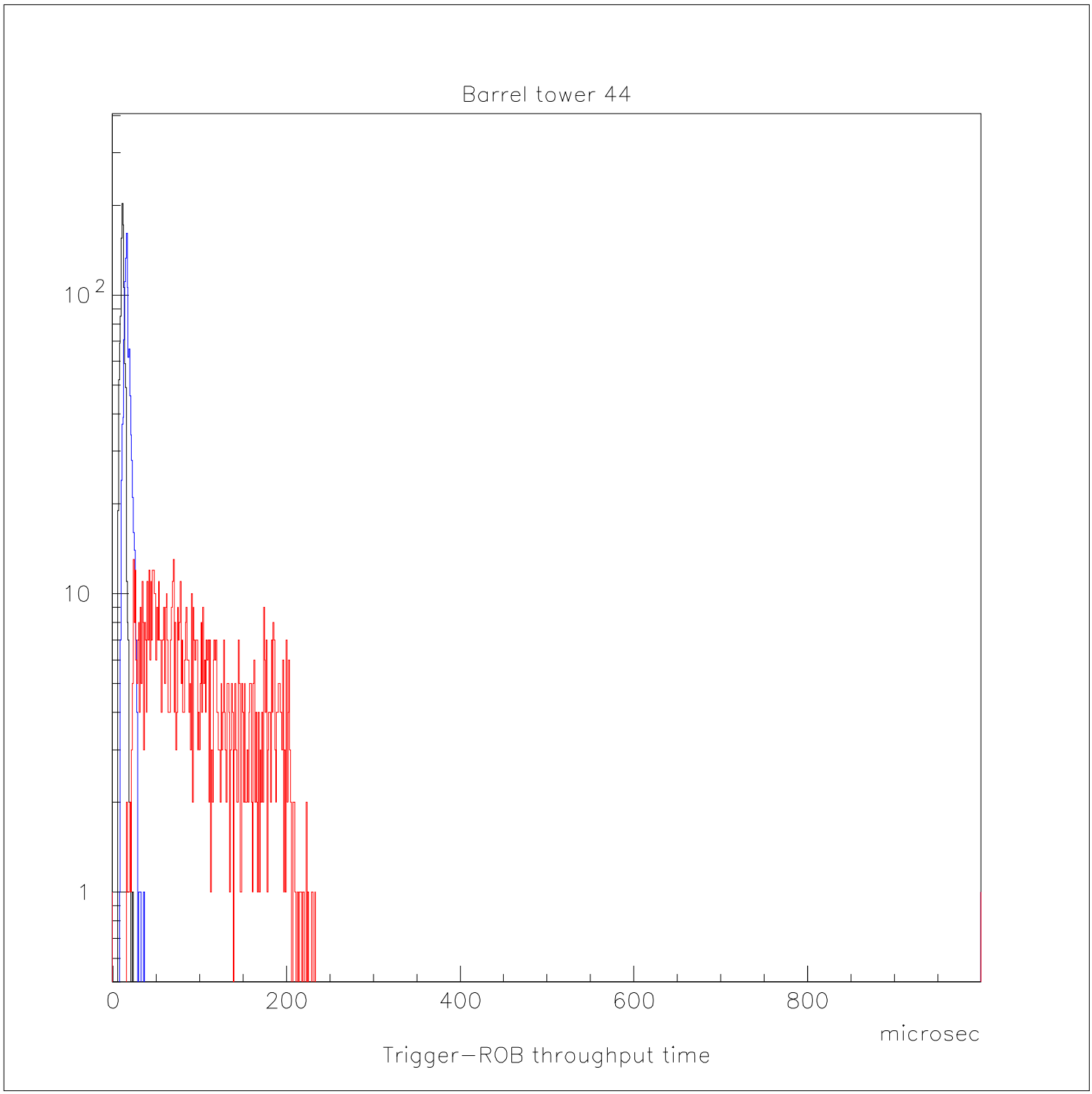

Barrel tower 43
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

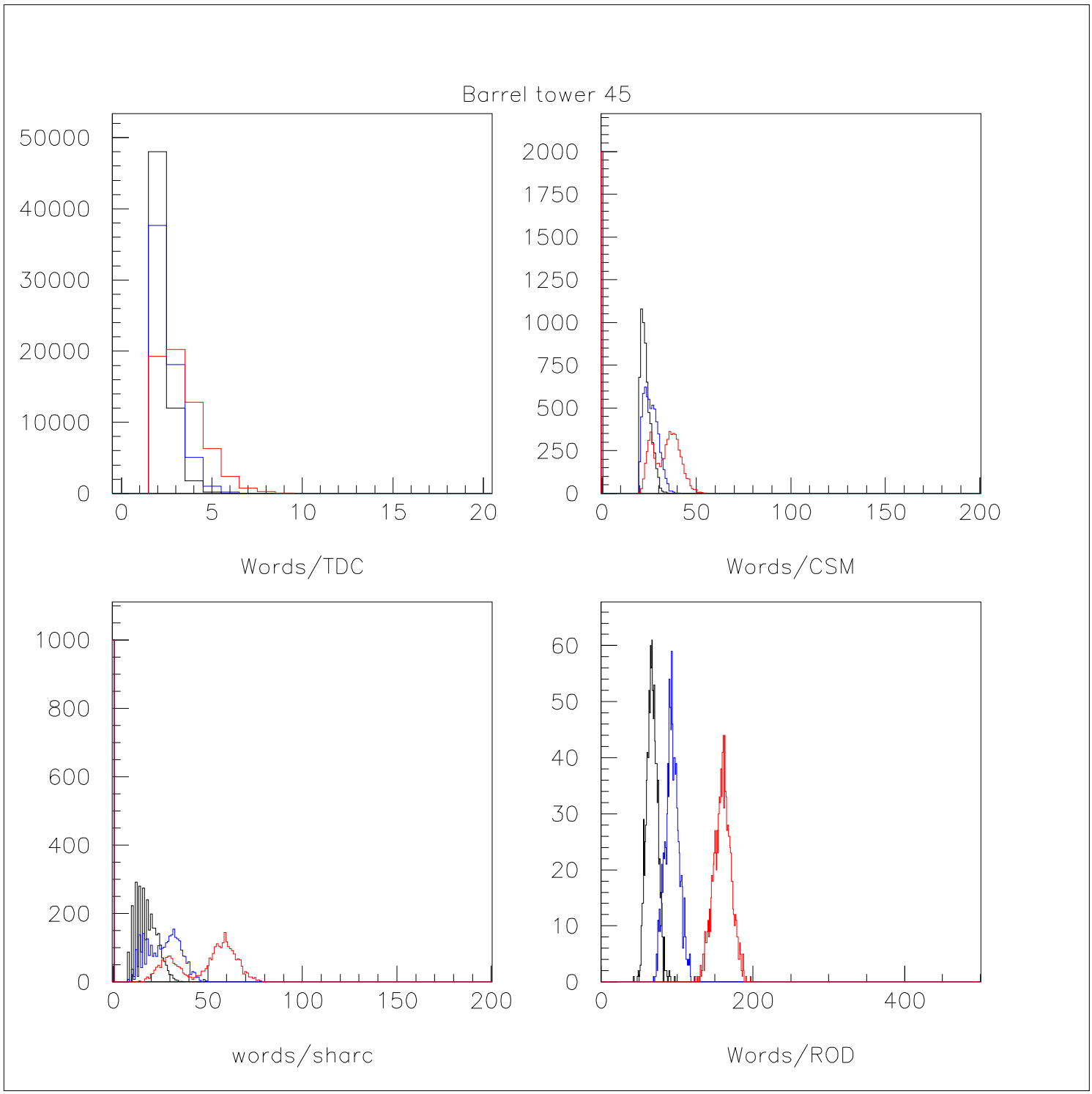

Barrel tower 44
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

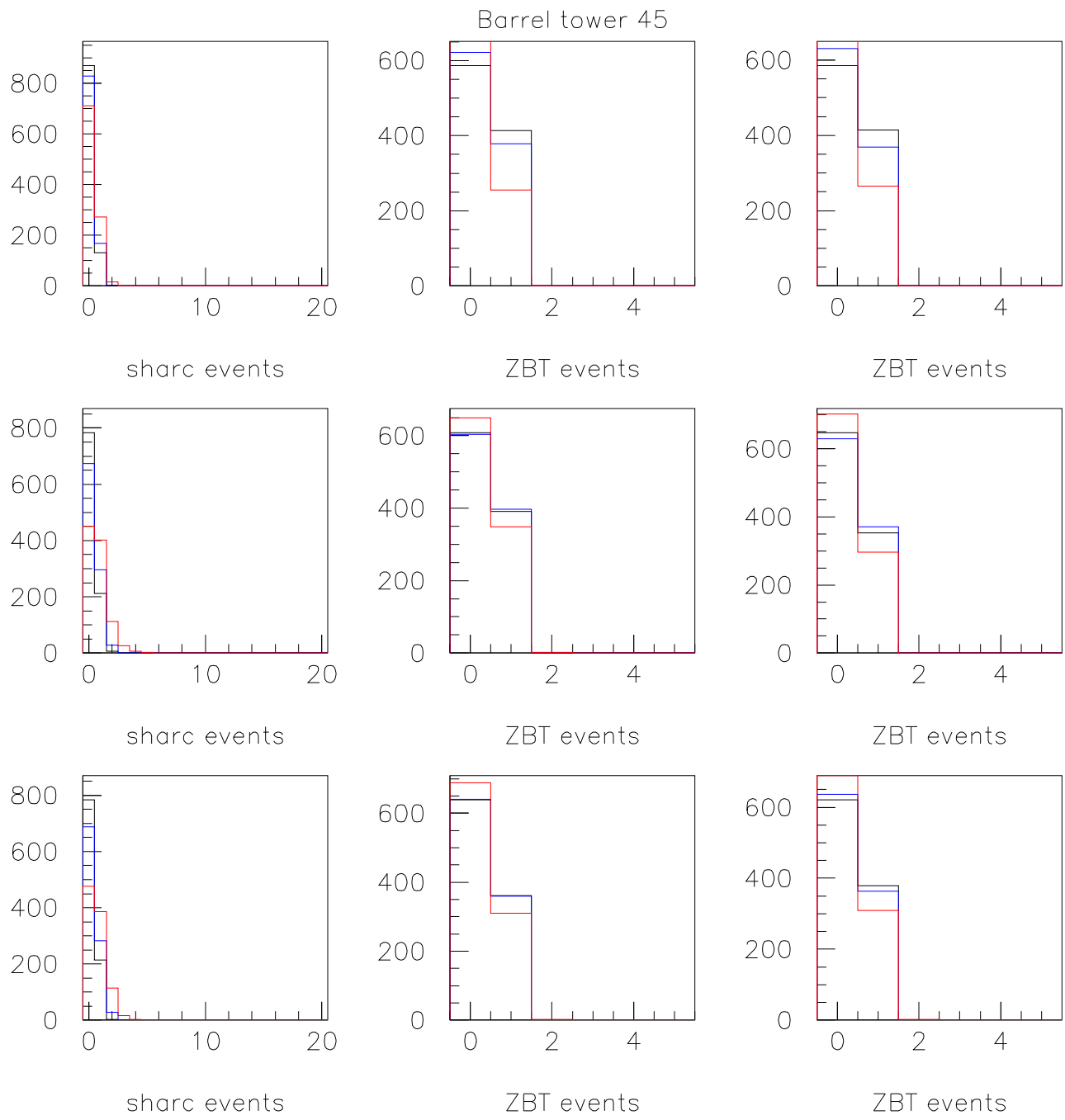

Barrel tower 44
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

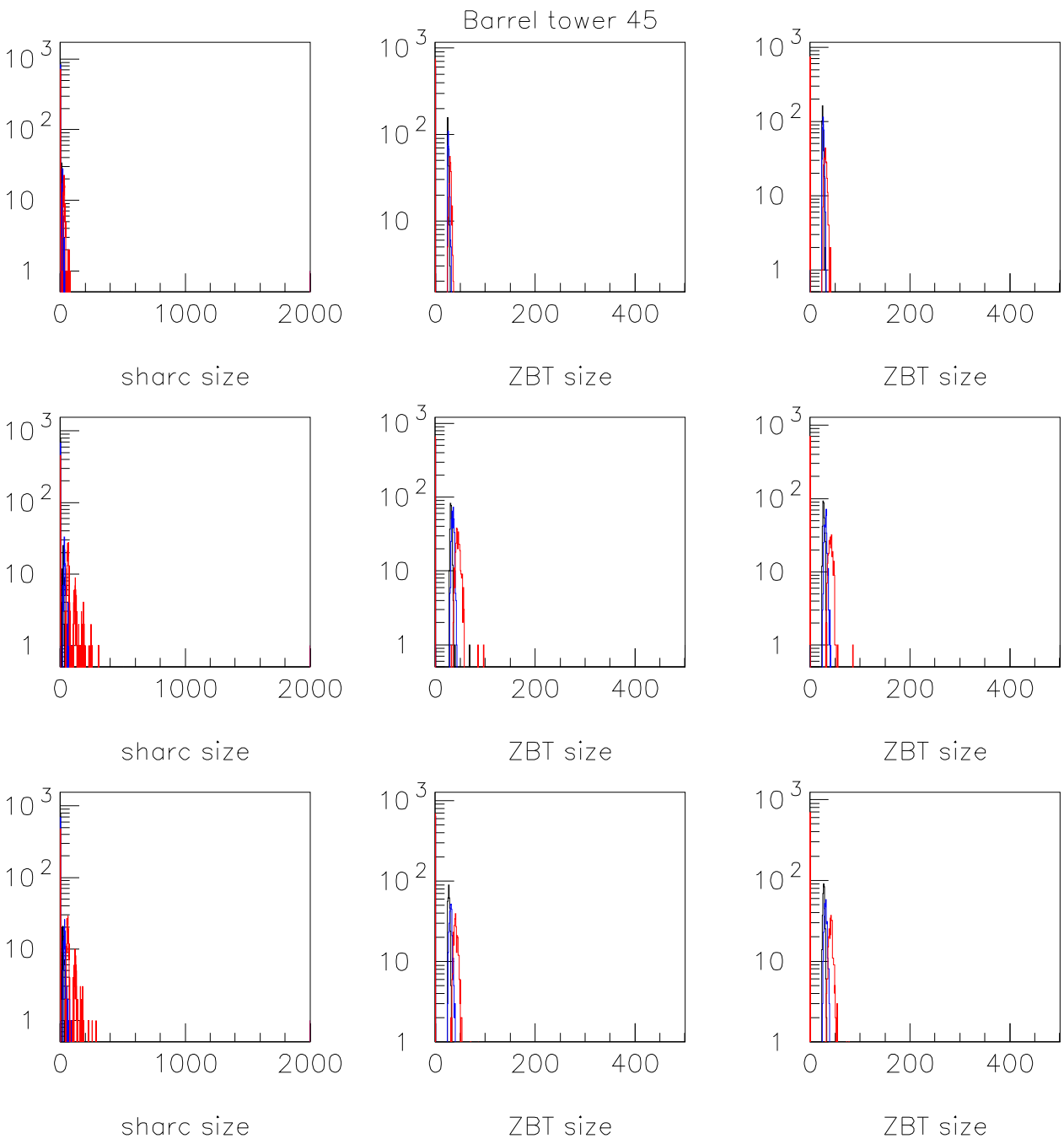

Barrel tower 44
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

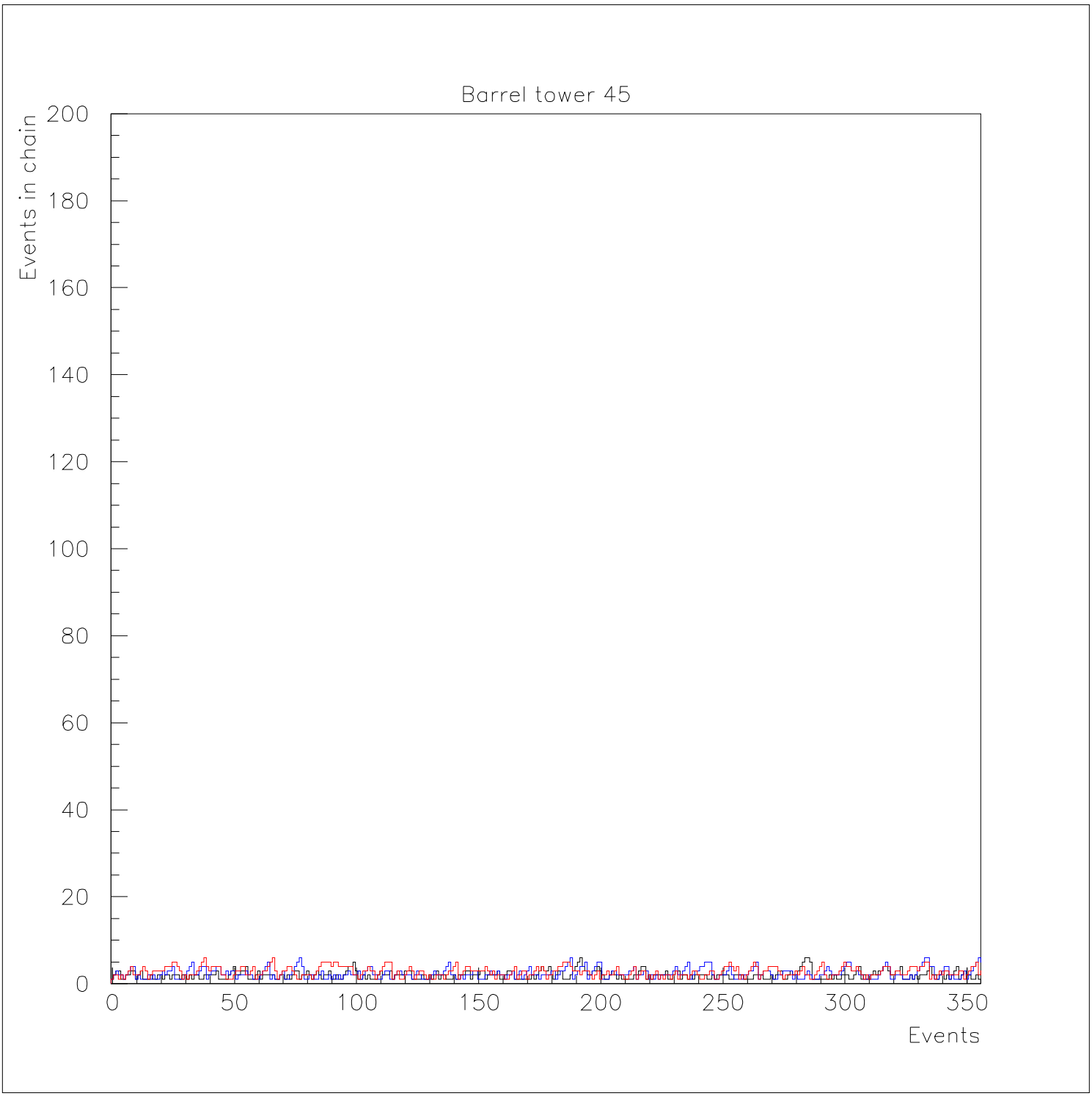

Barrel tower 44
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

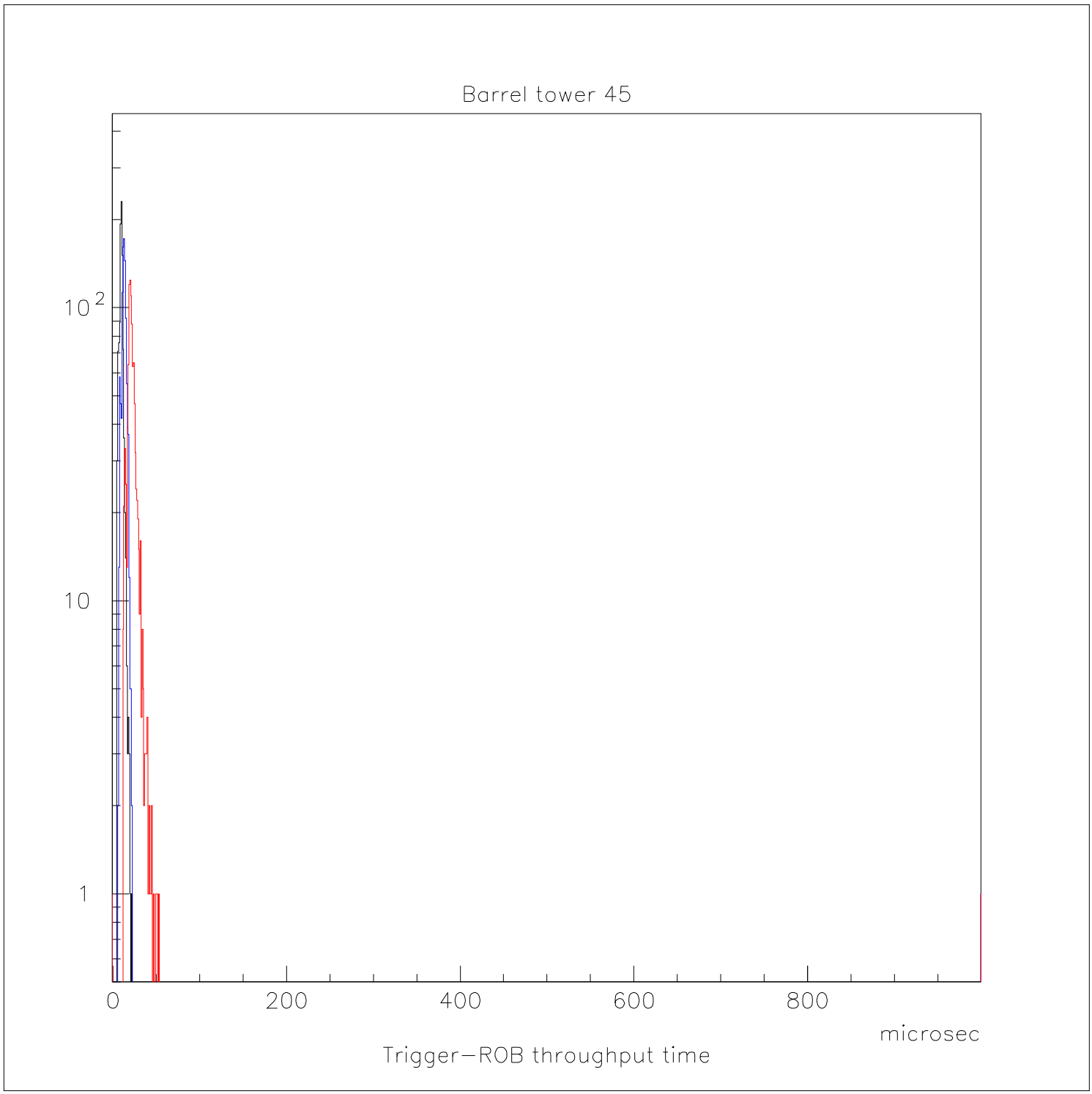

Barrel tower 44
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

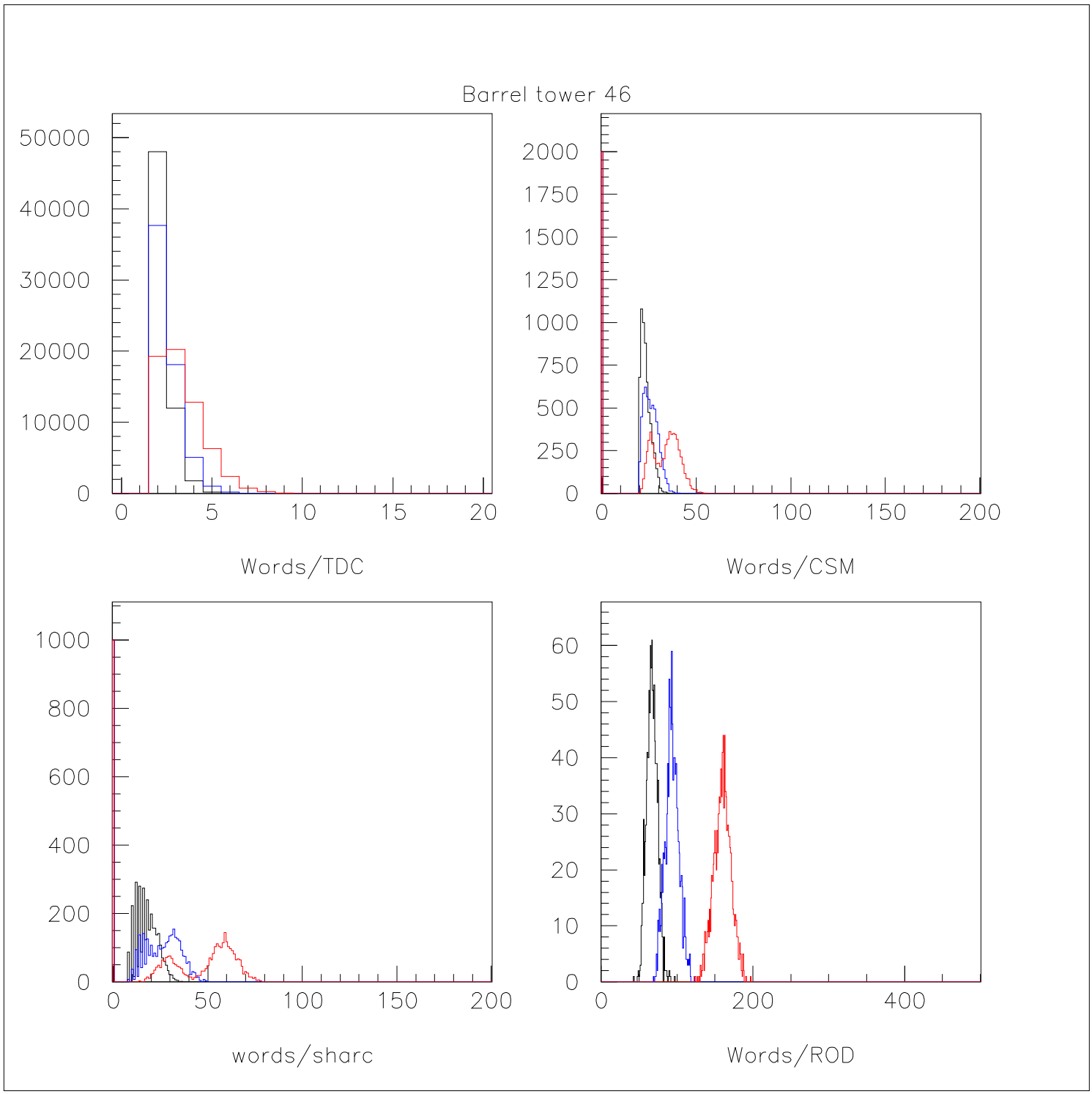

Barrel tower 45
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

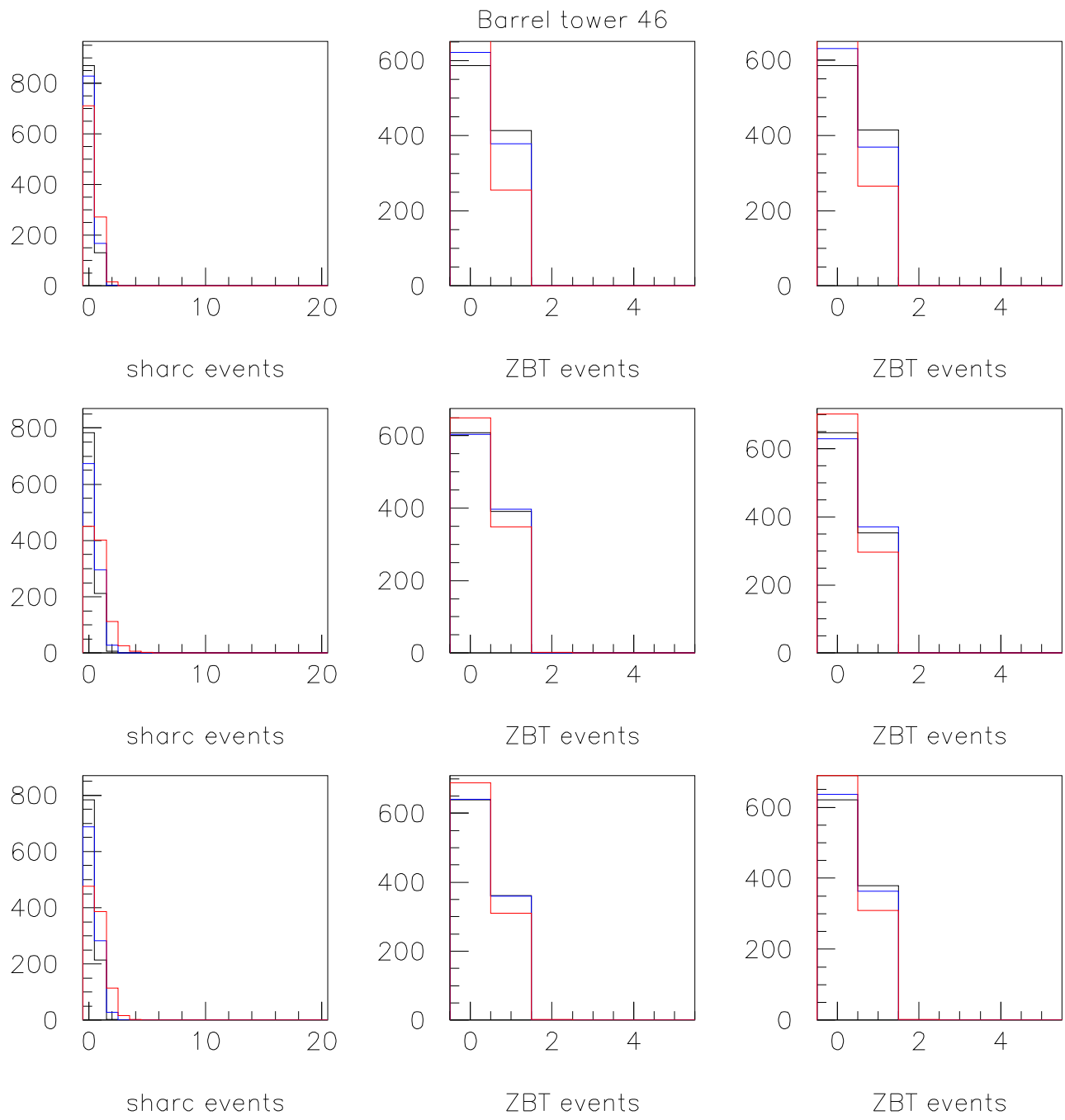

Barrel tower 45
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

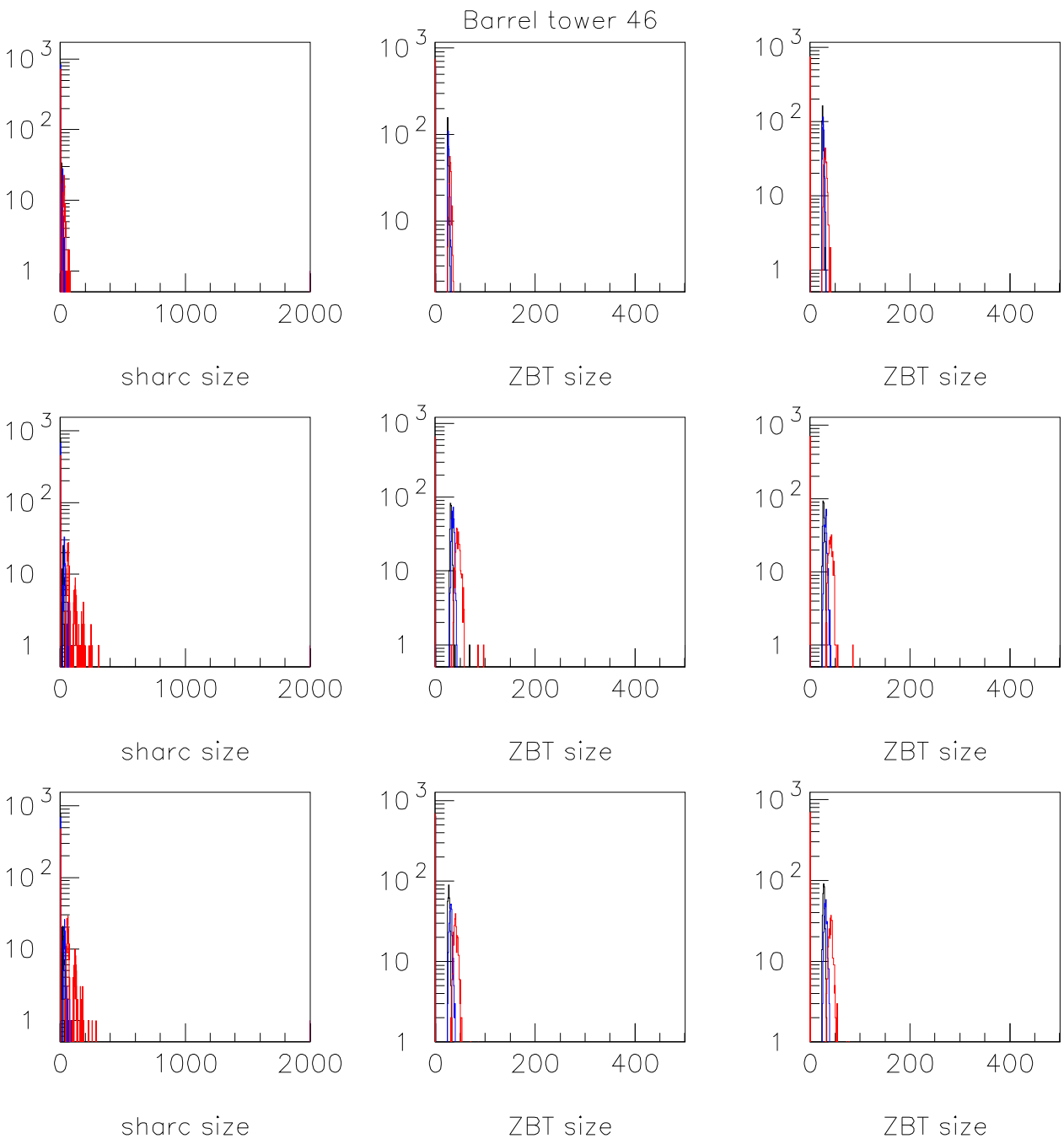

Barrel tower 45
$10^3$
$10^2$
10
1
0
1000
2000
200
400
sharc size
ZBT size

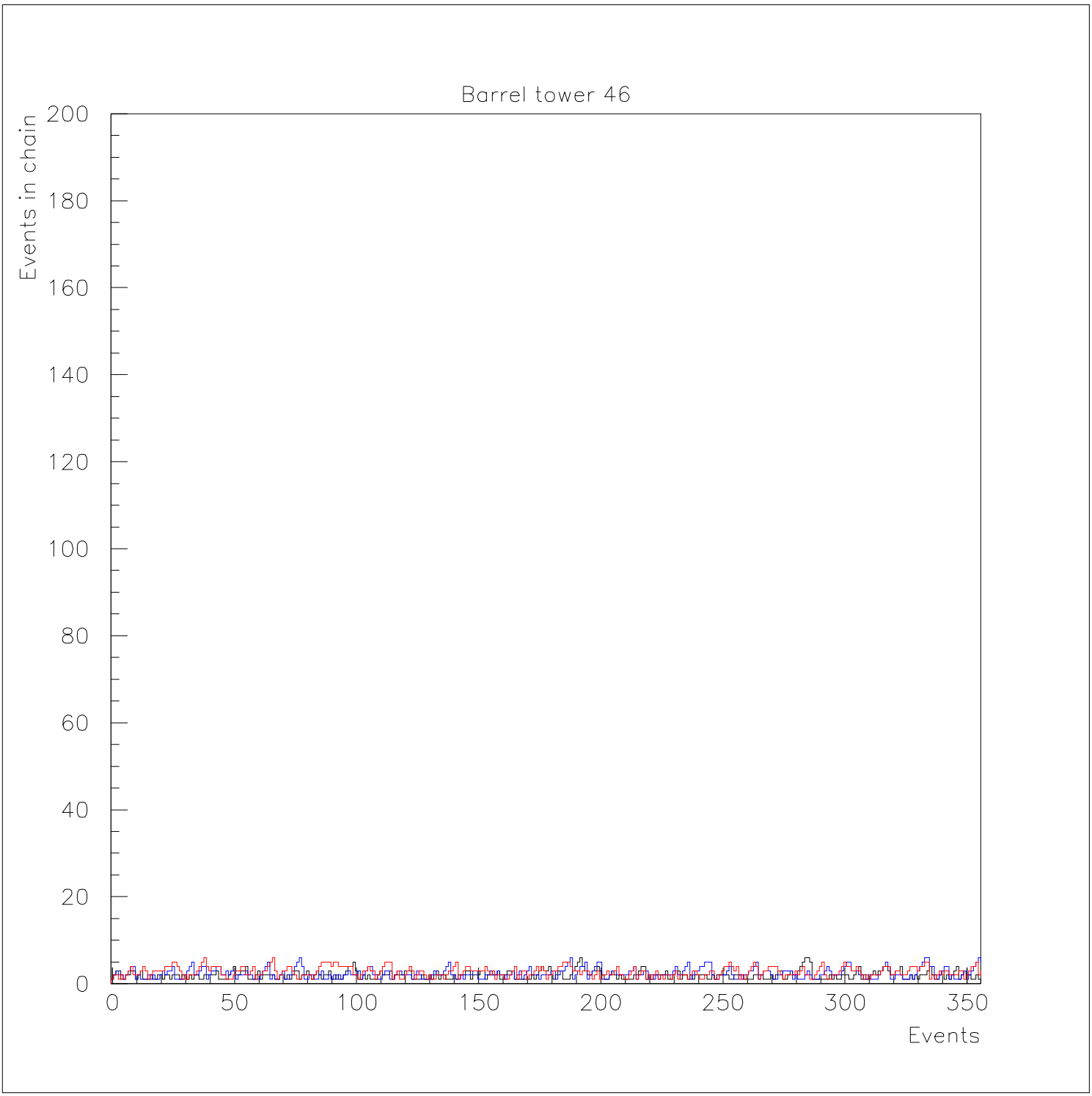

Barrel tower 45
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

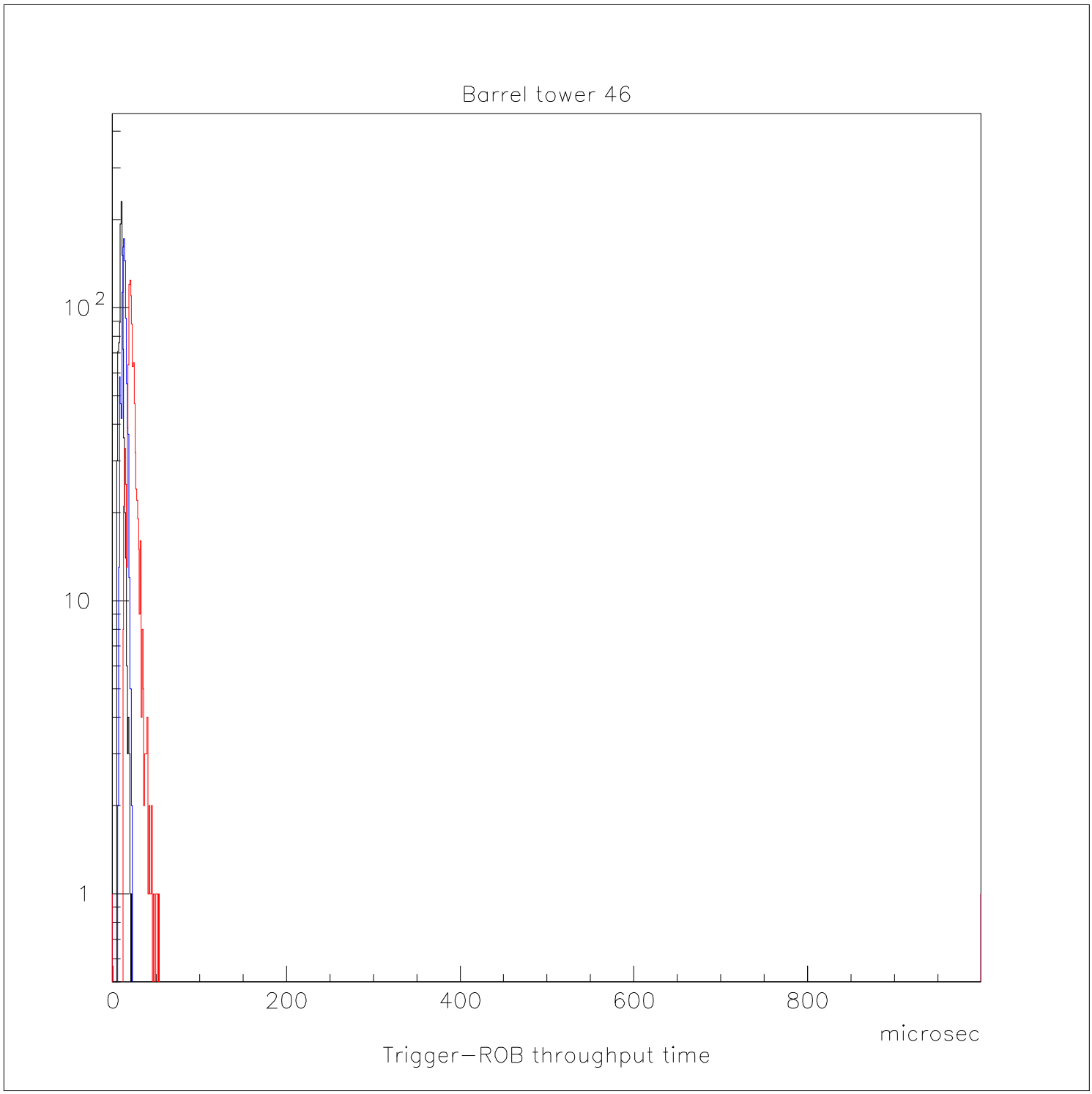

Barrel tower 45
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

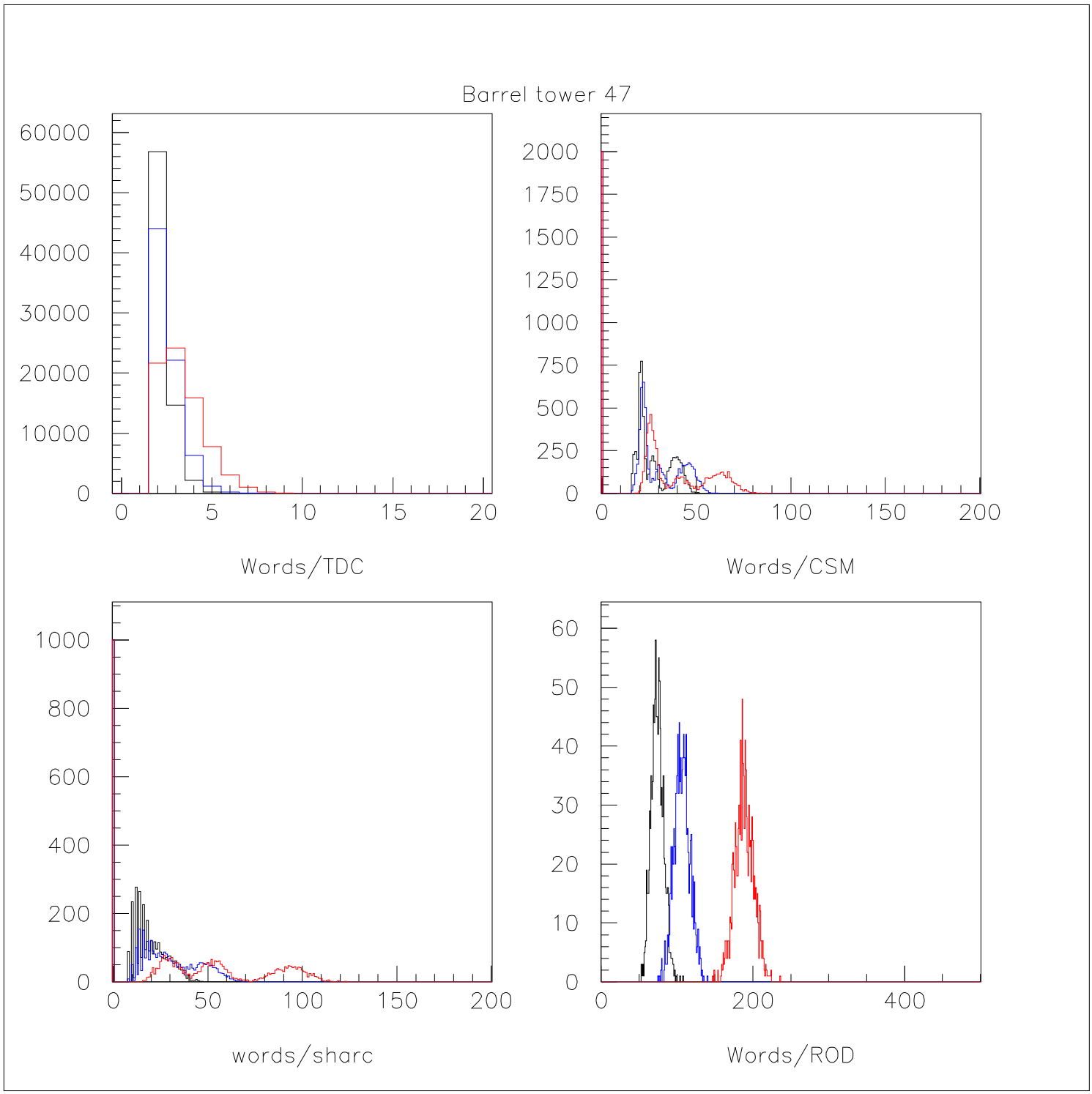

Barrel tower 46
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

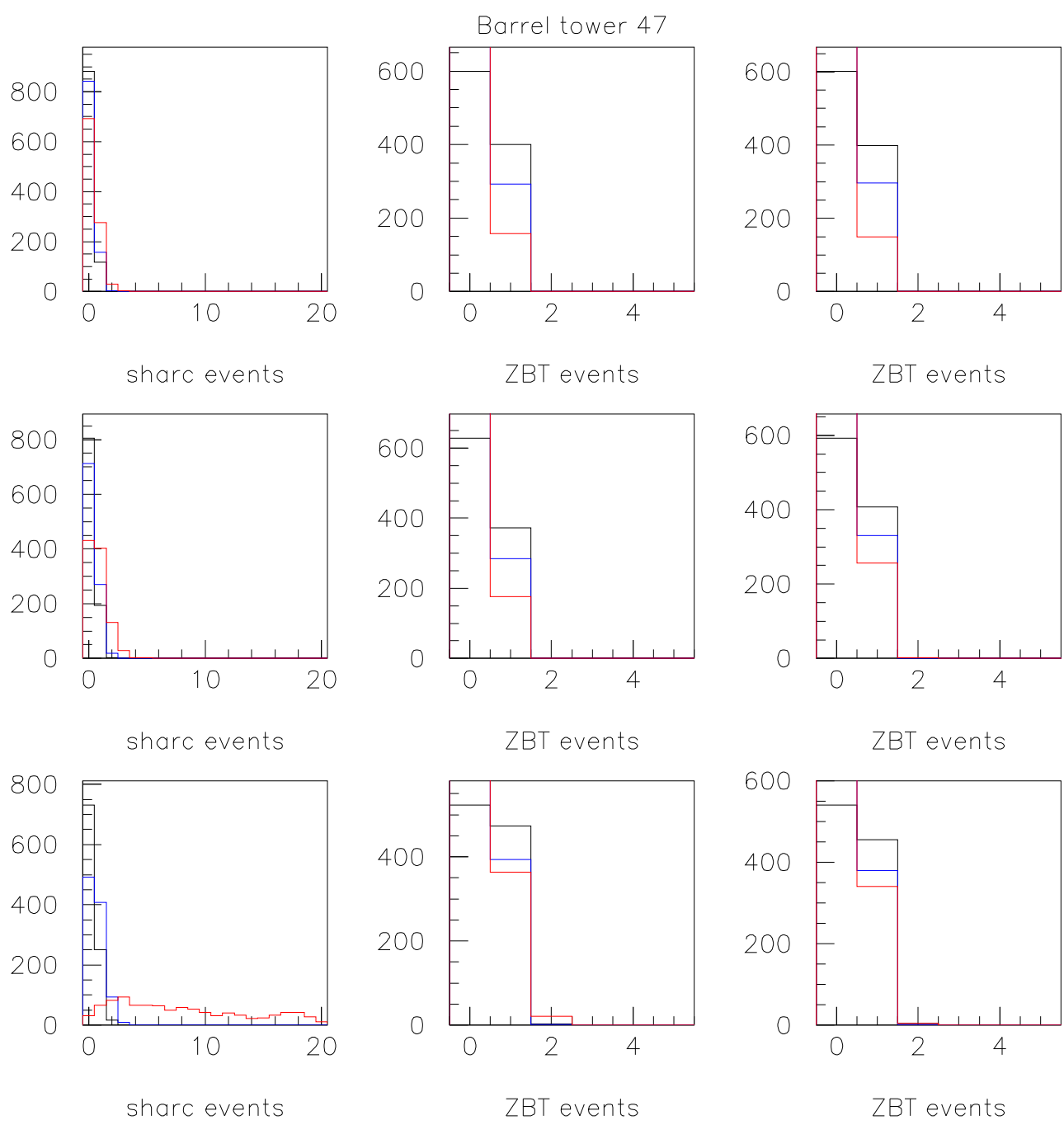

Barrel tower 46
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

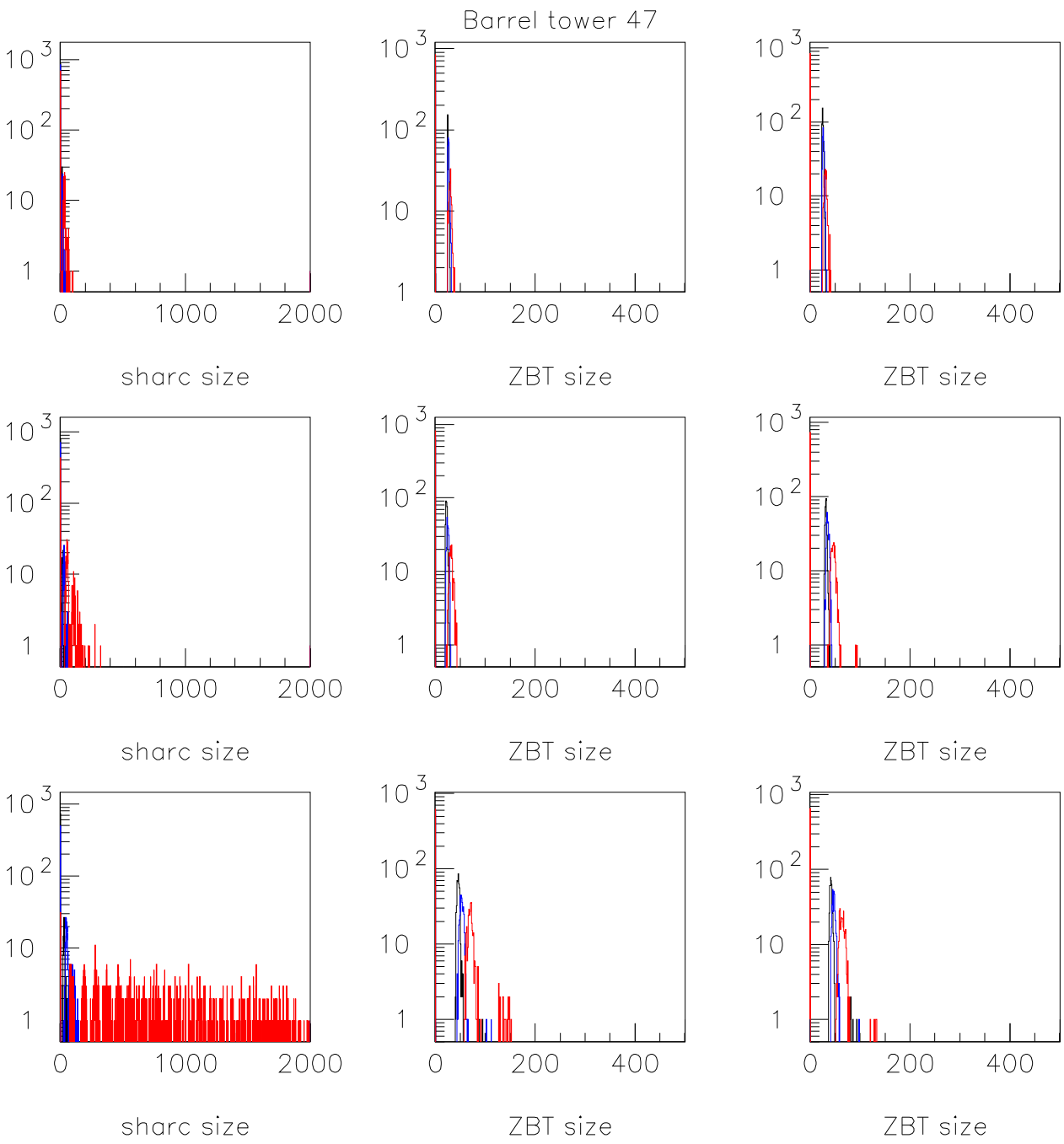

Barrel tower 46
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

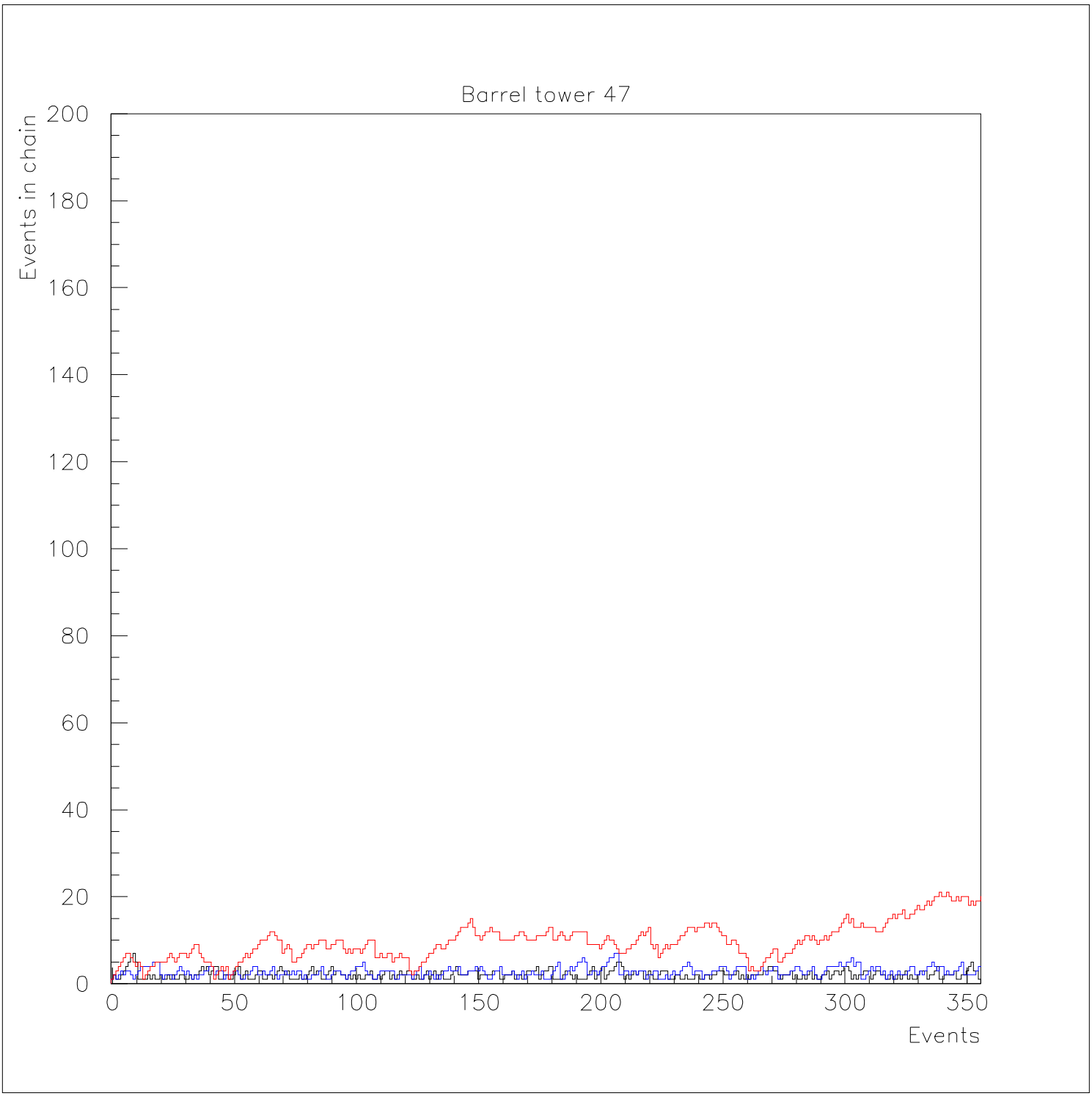

Barrel tower 46
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

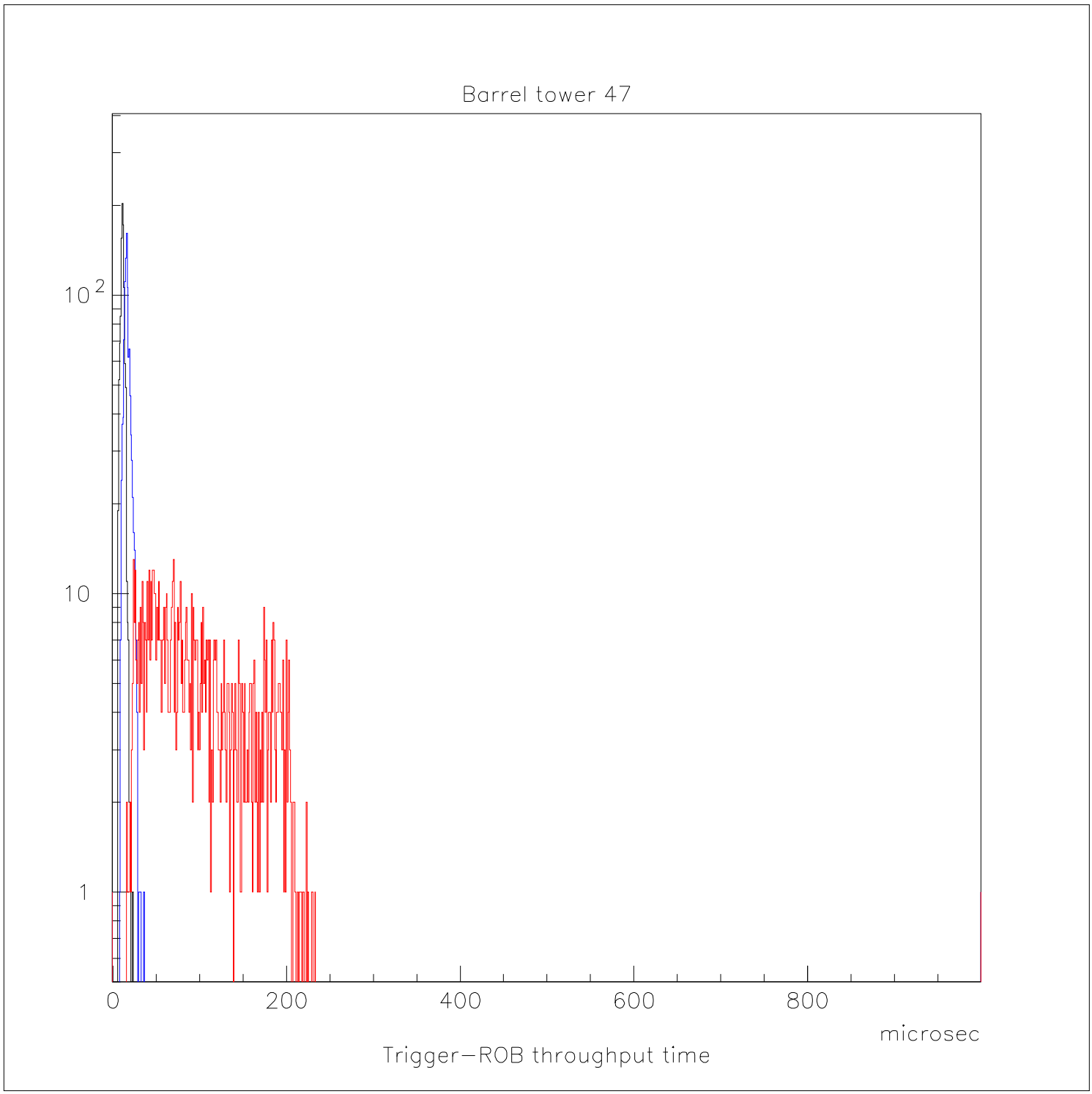

Barrel tower 46
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

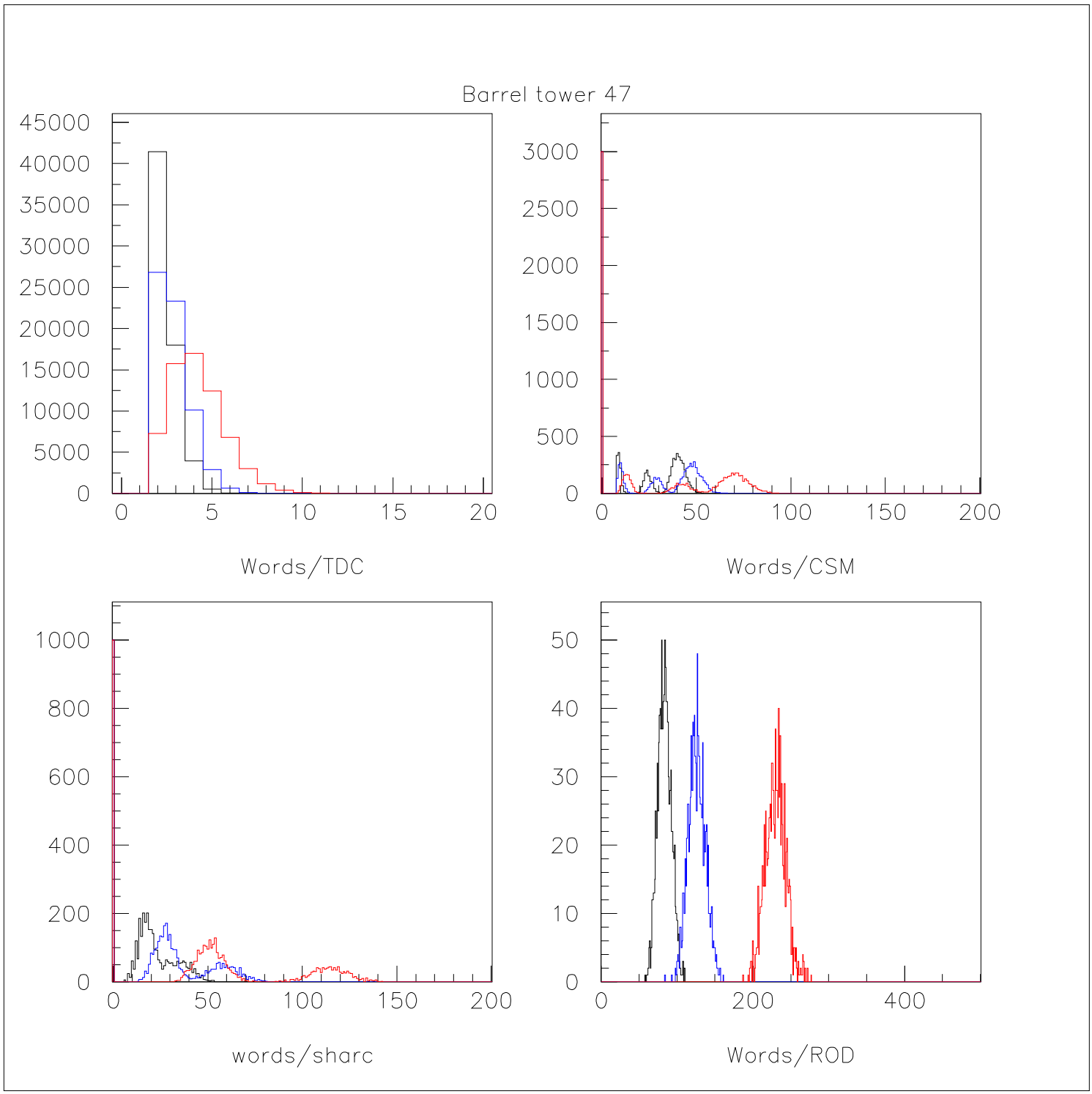

Barrel tower 47
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

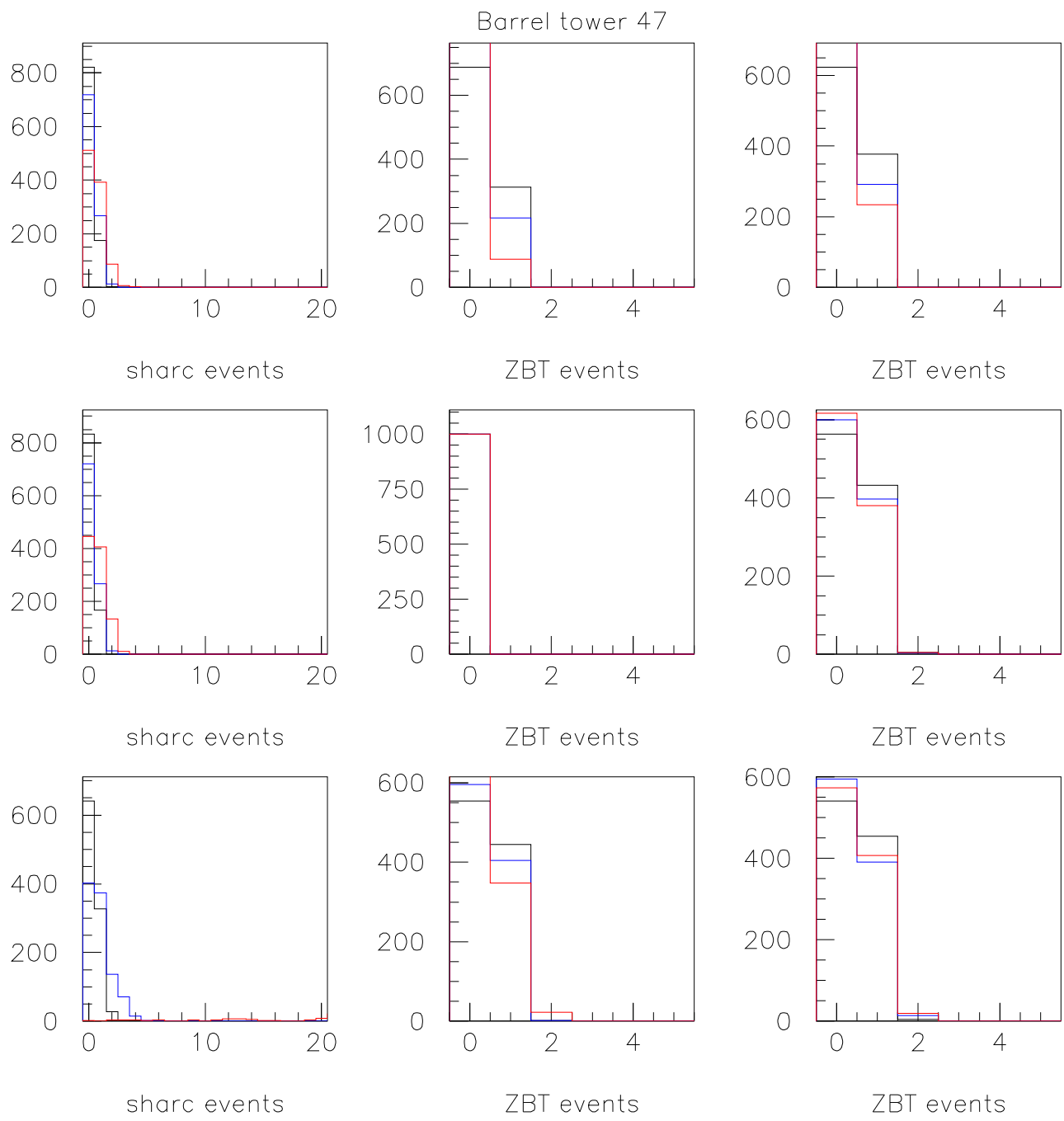

Barrel tower 47
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

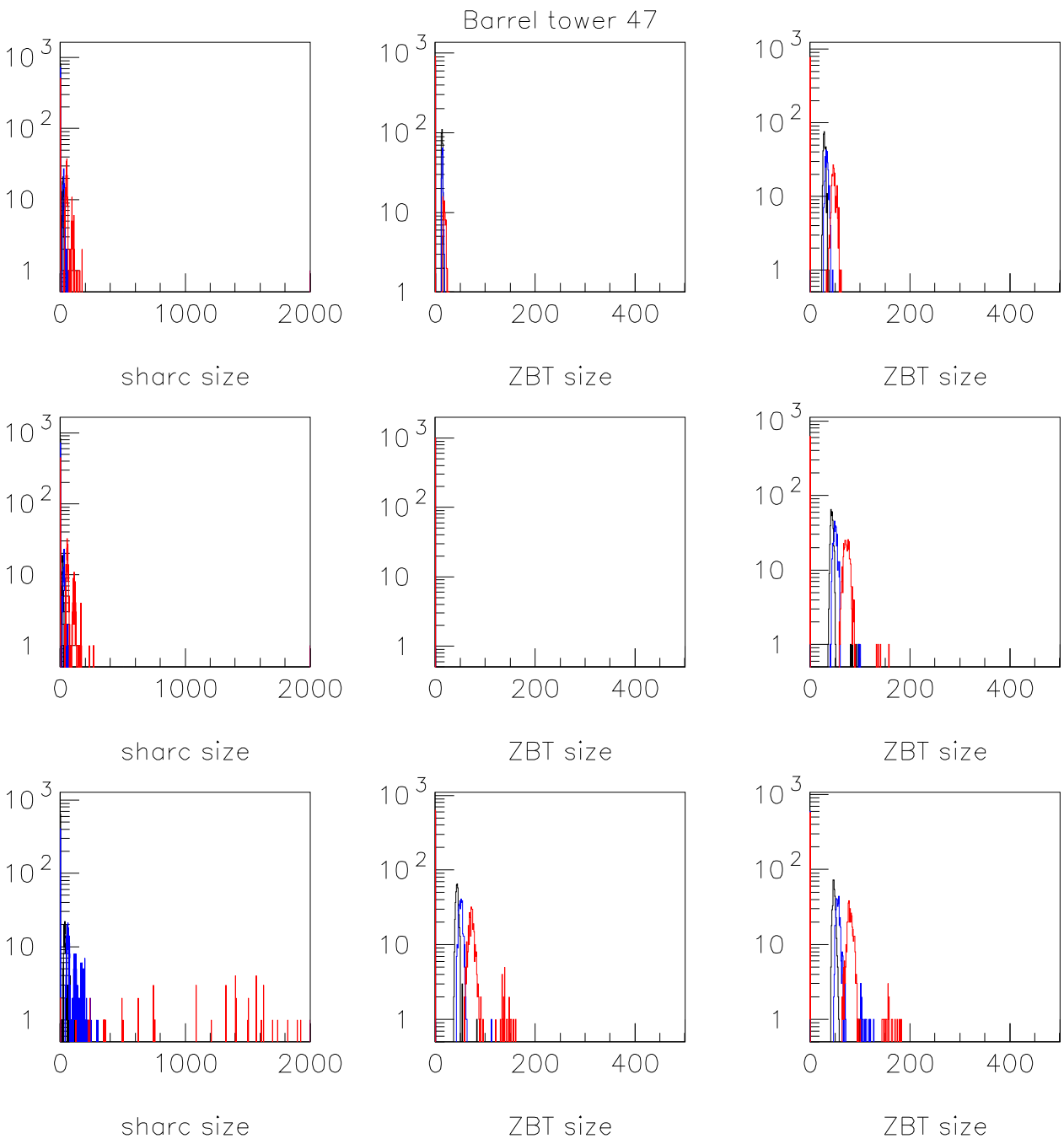

Barrel tower 47
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

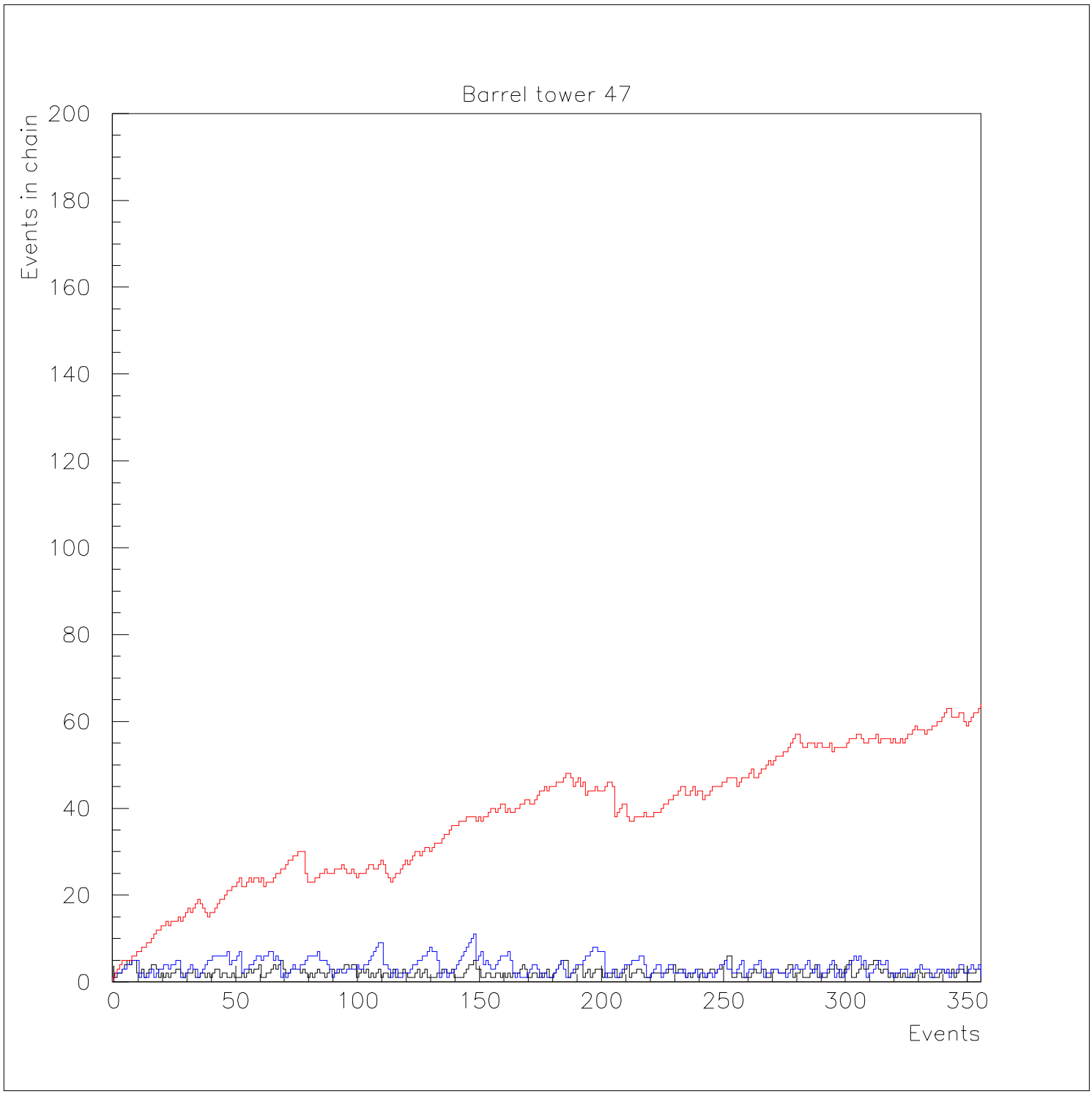

Barrel tower 47
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

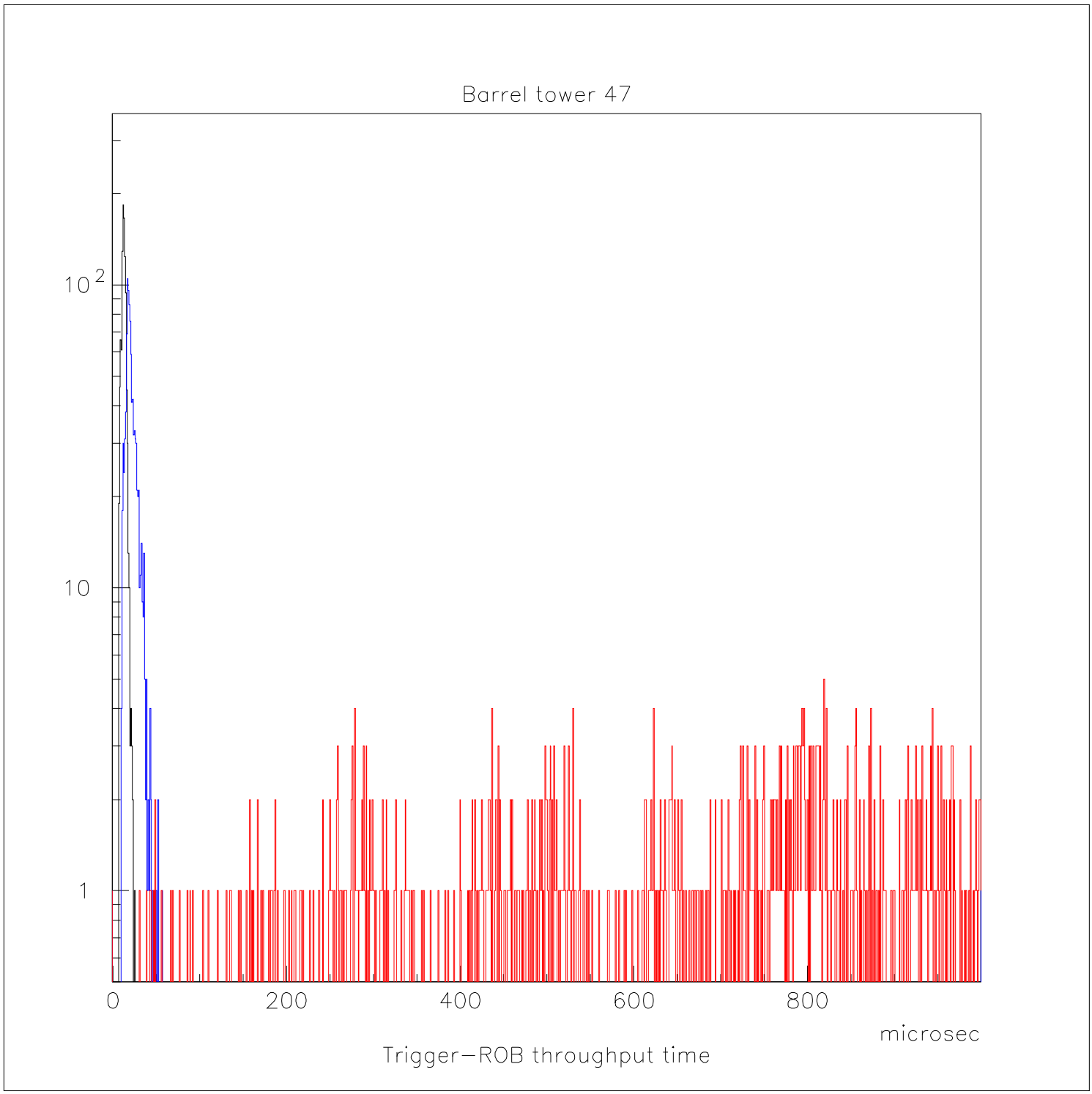

Barrel tower 47
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

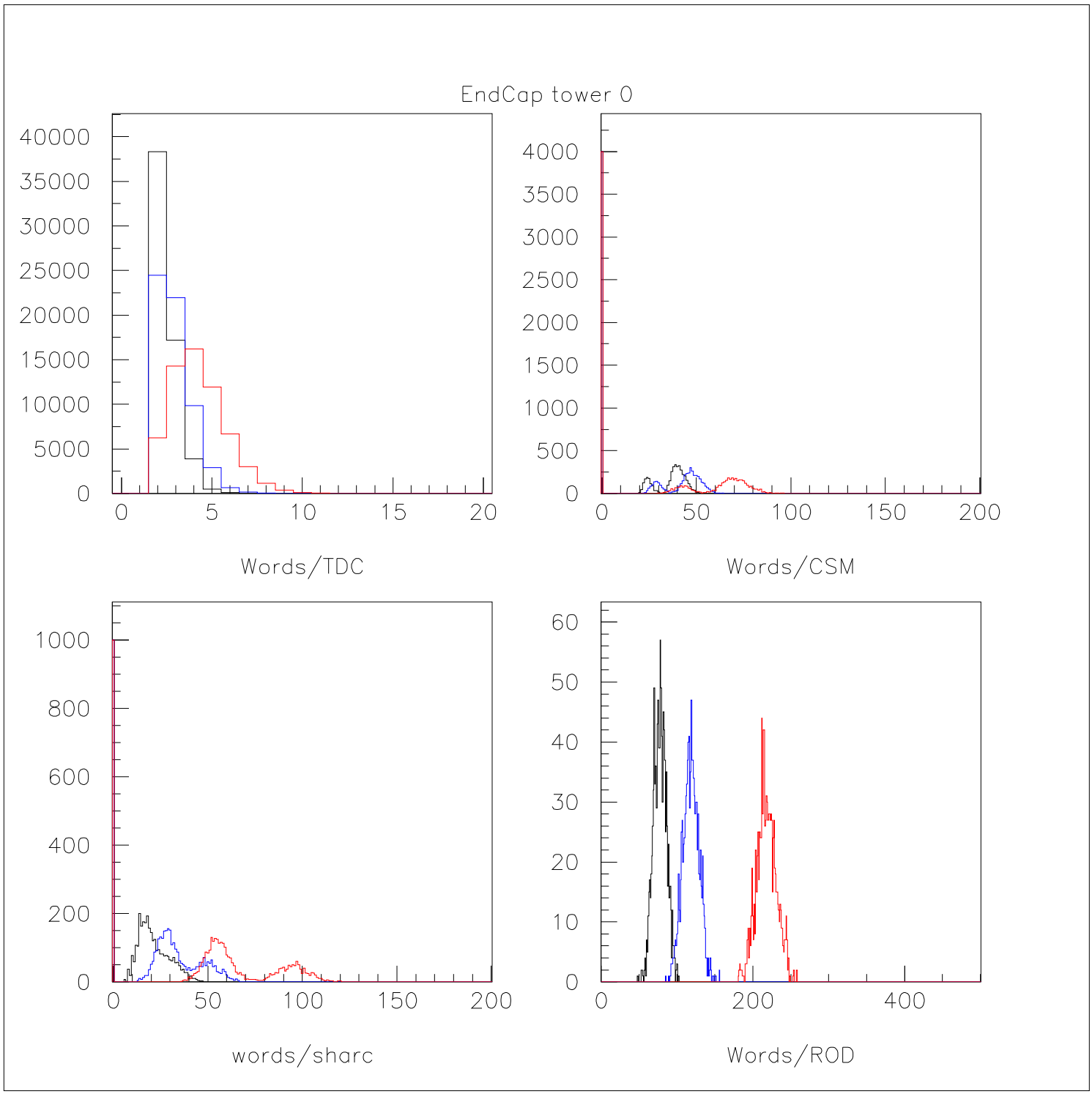

Barrel tower 47
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
0
5
10
15
20
Words/TDC
3000
2500
2000
1500
1000
500
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
50
40
30
20
10
0
0
200
400
Words/ROD

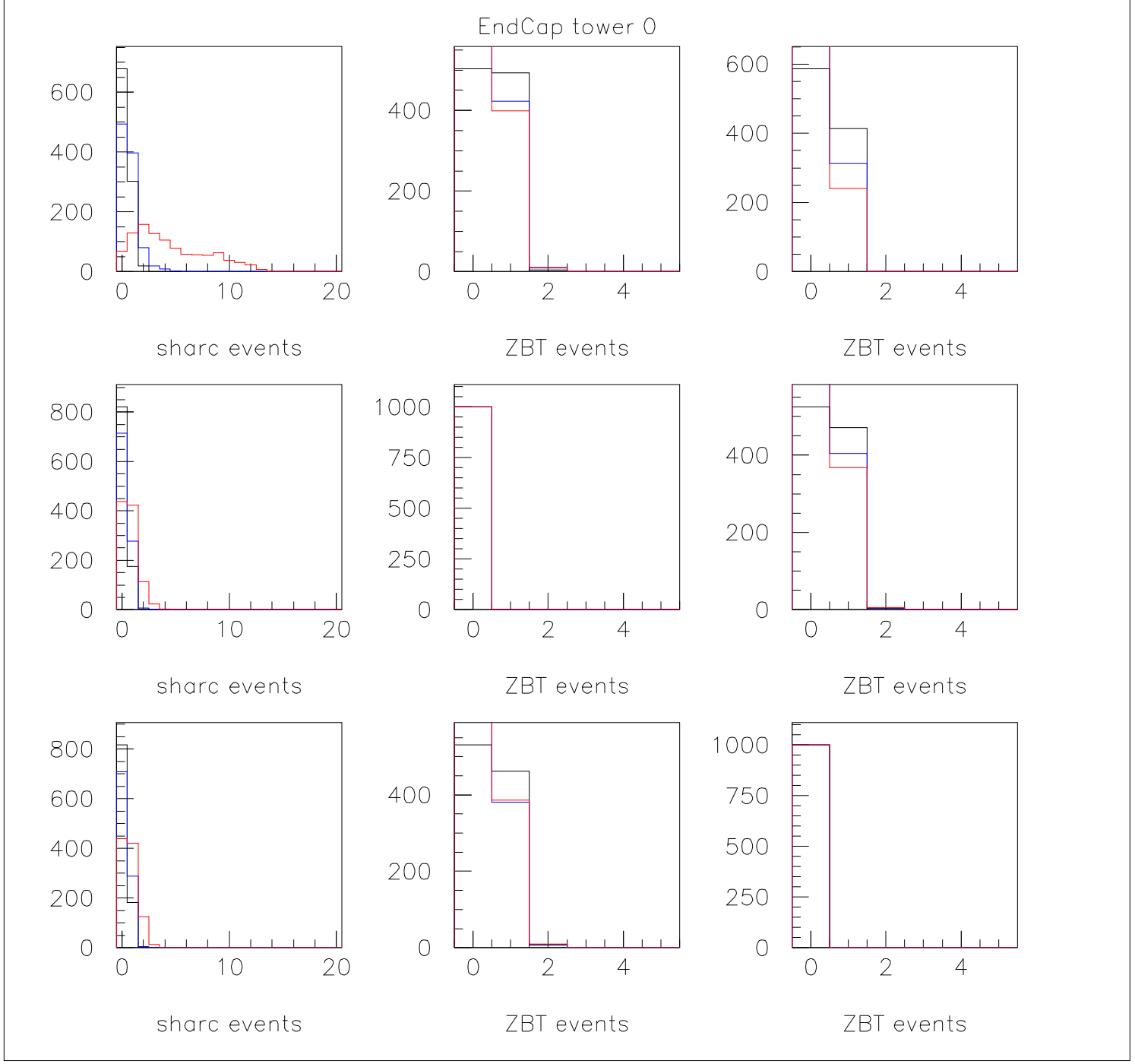

Barrel tower 47
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
1000
750
500
250
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

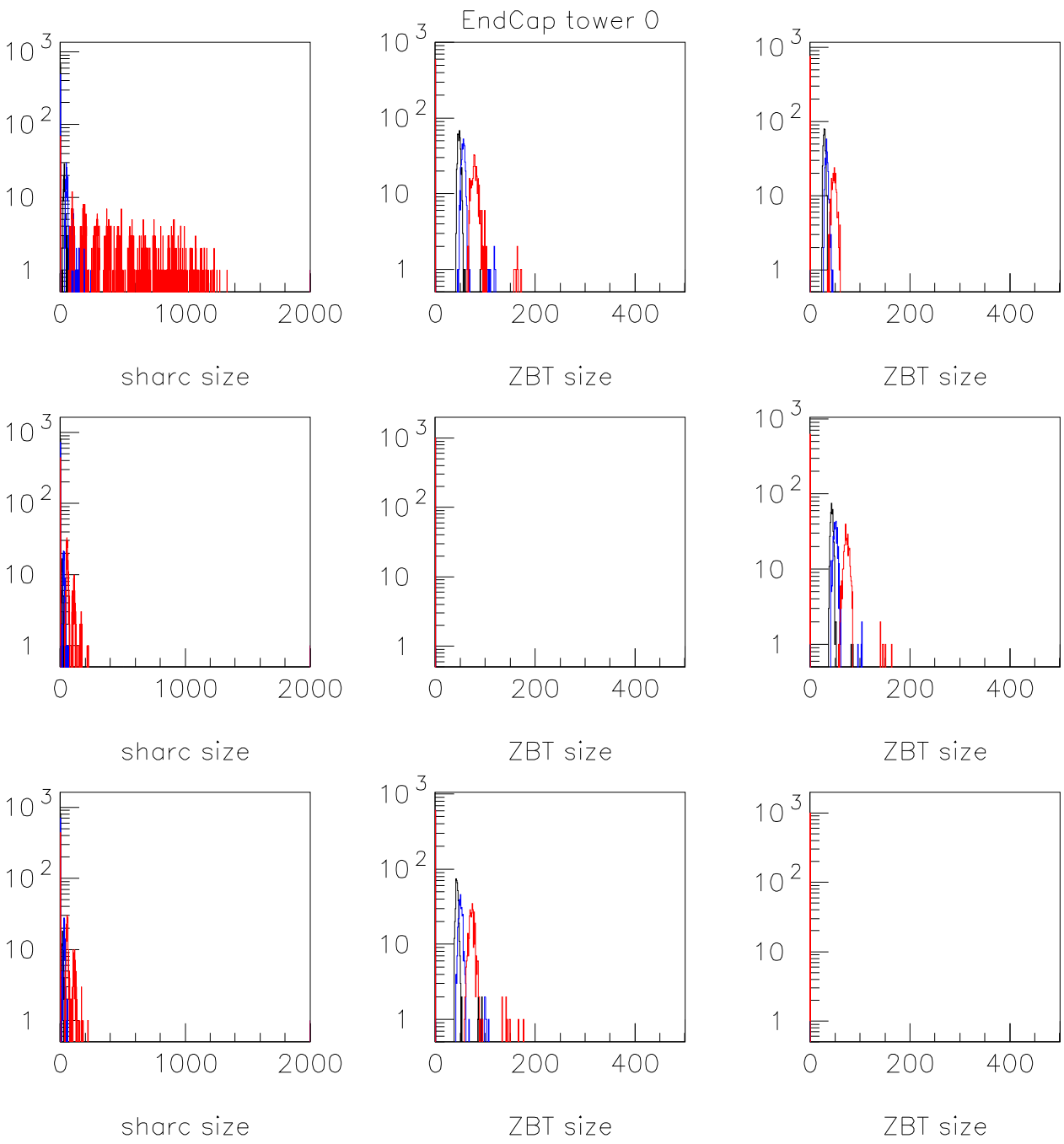

Barrel tower 47
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

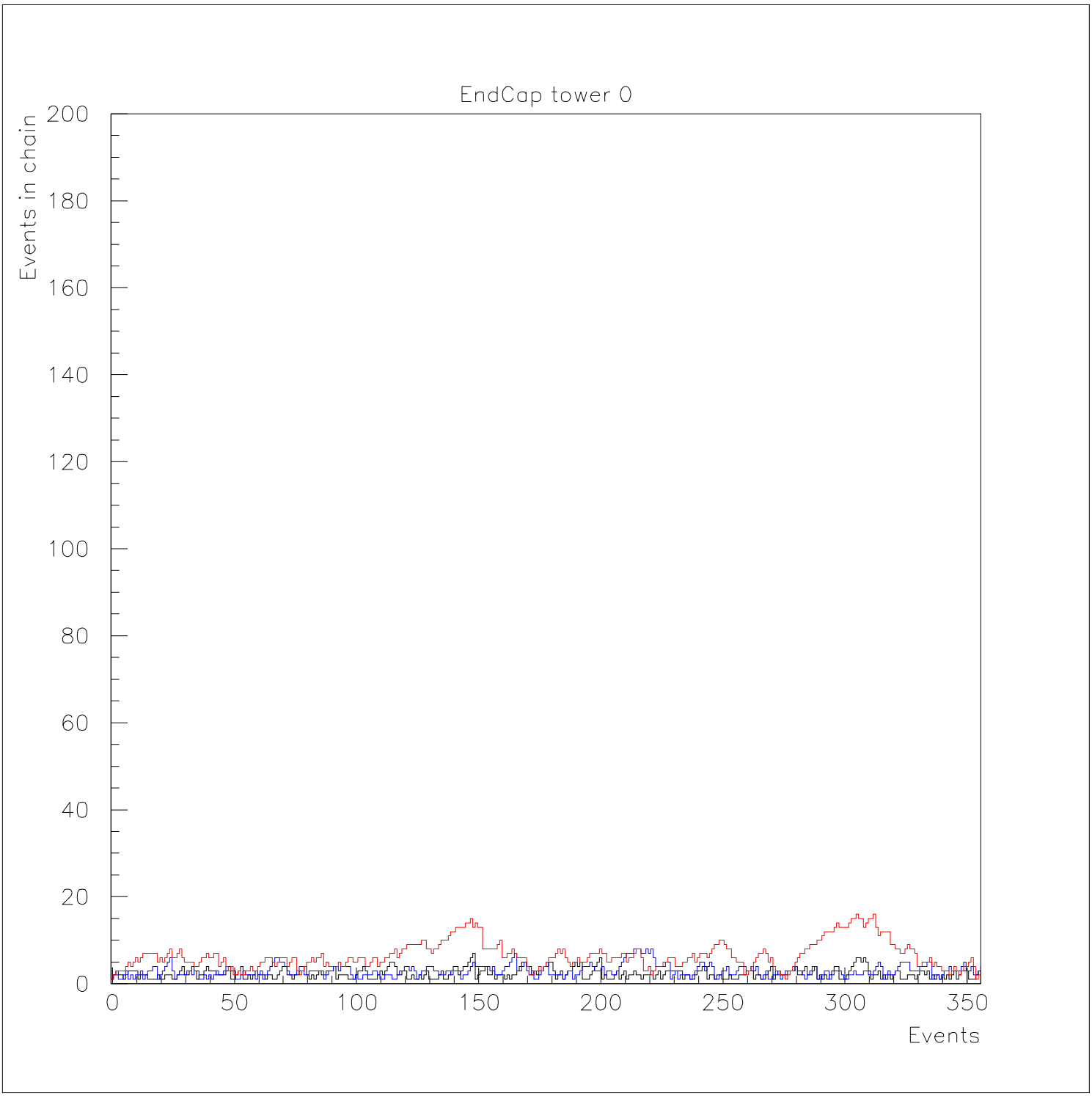

Barrel tower 47
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

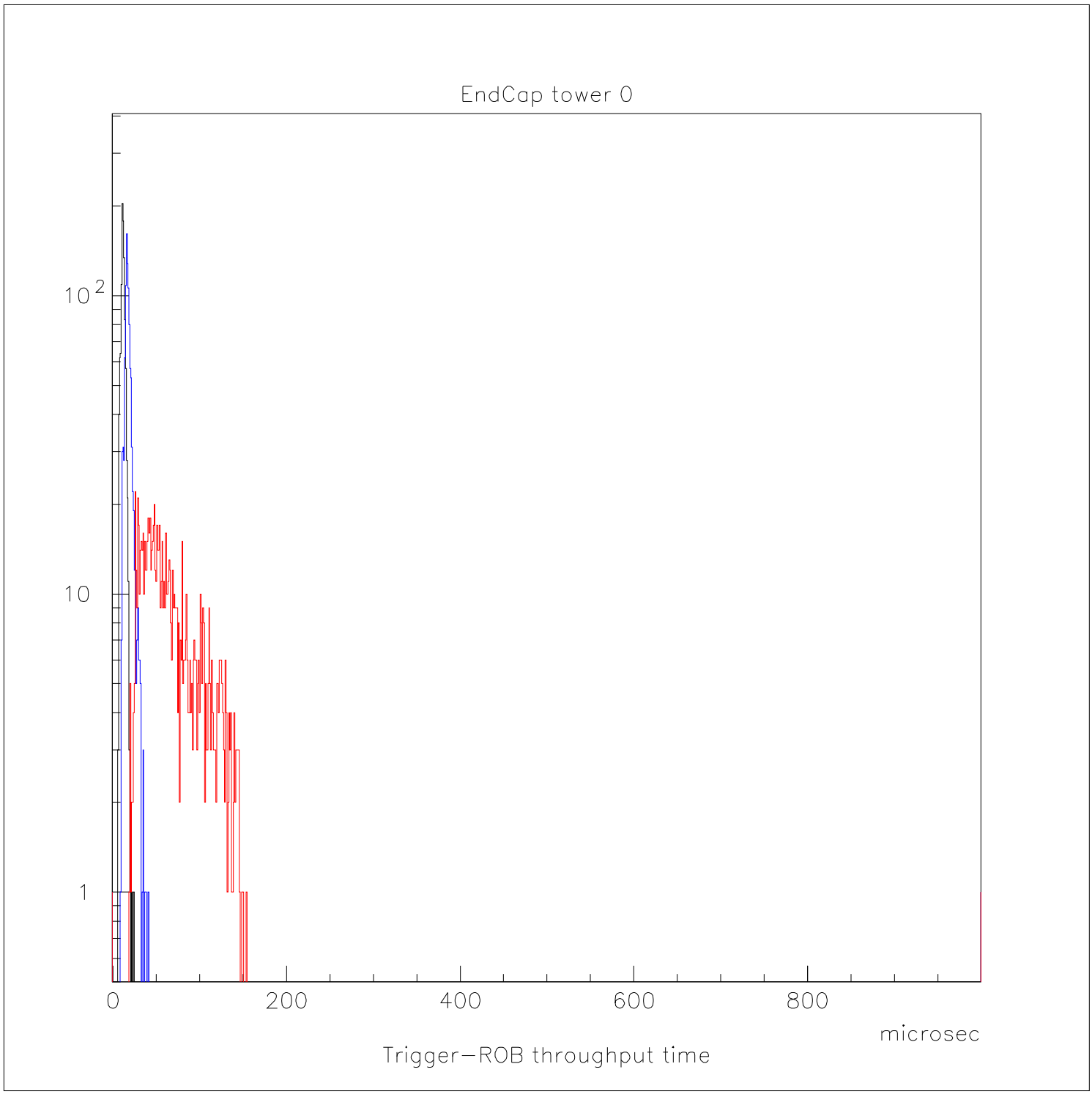

Barrel tower 47
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

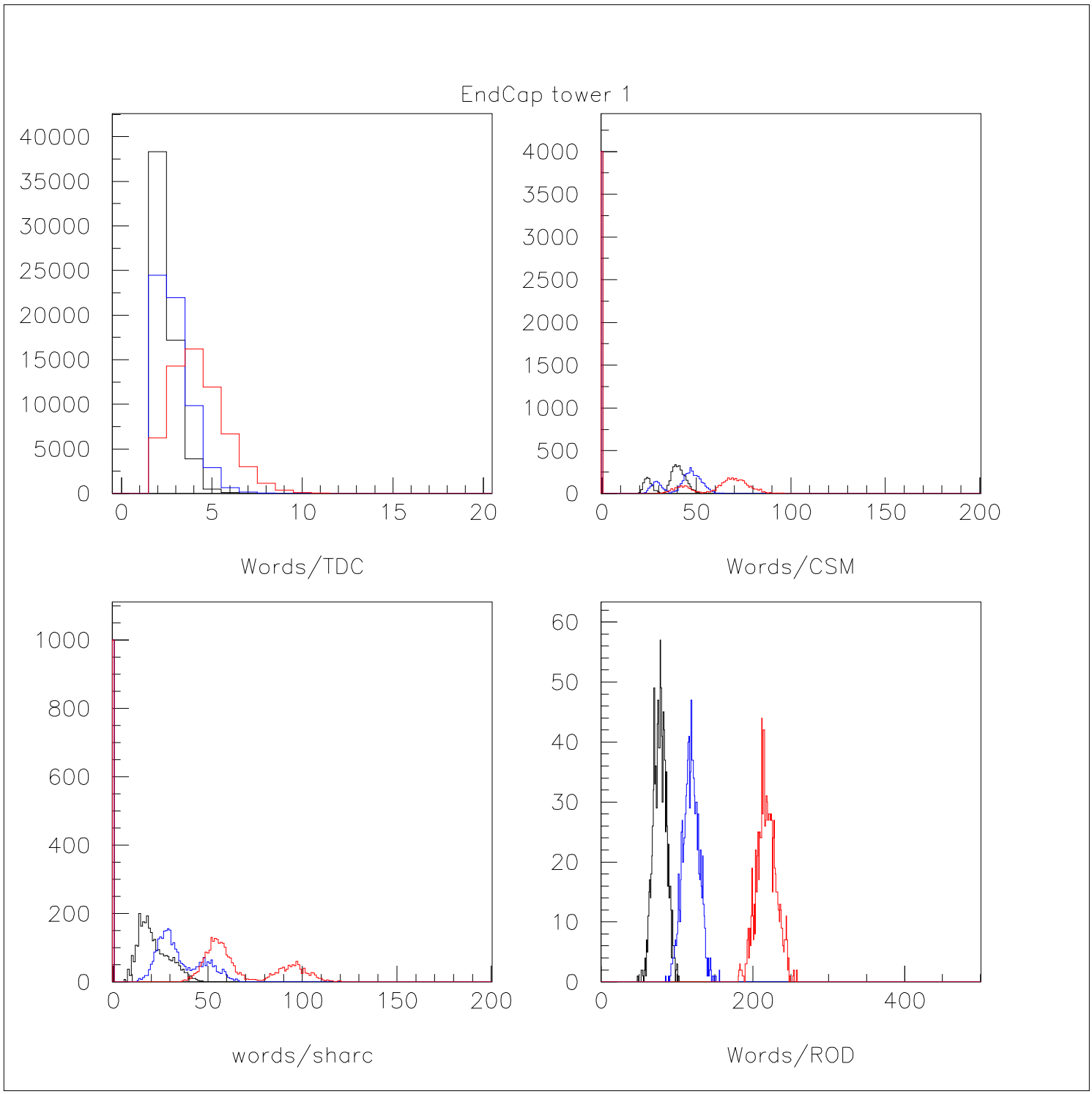

EndCap tower 0
40000
35000
30000
25000
20000
15000
10000
5000
0
0
5
10
15
20
Words/TDC
4000
3500
3000
2500
2000
1500
1000
500
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

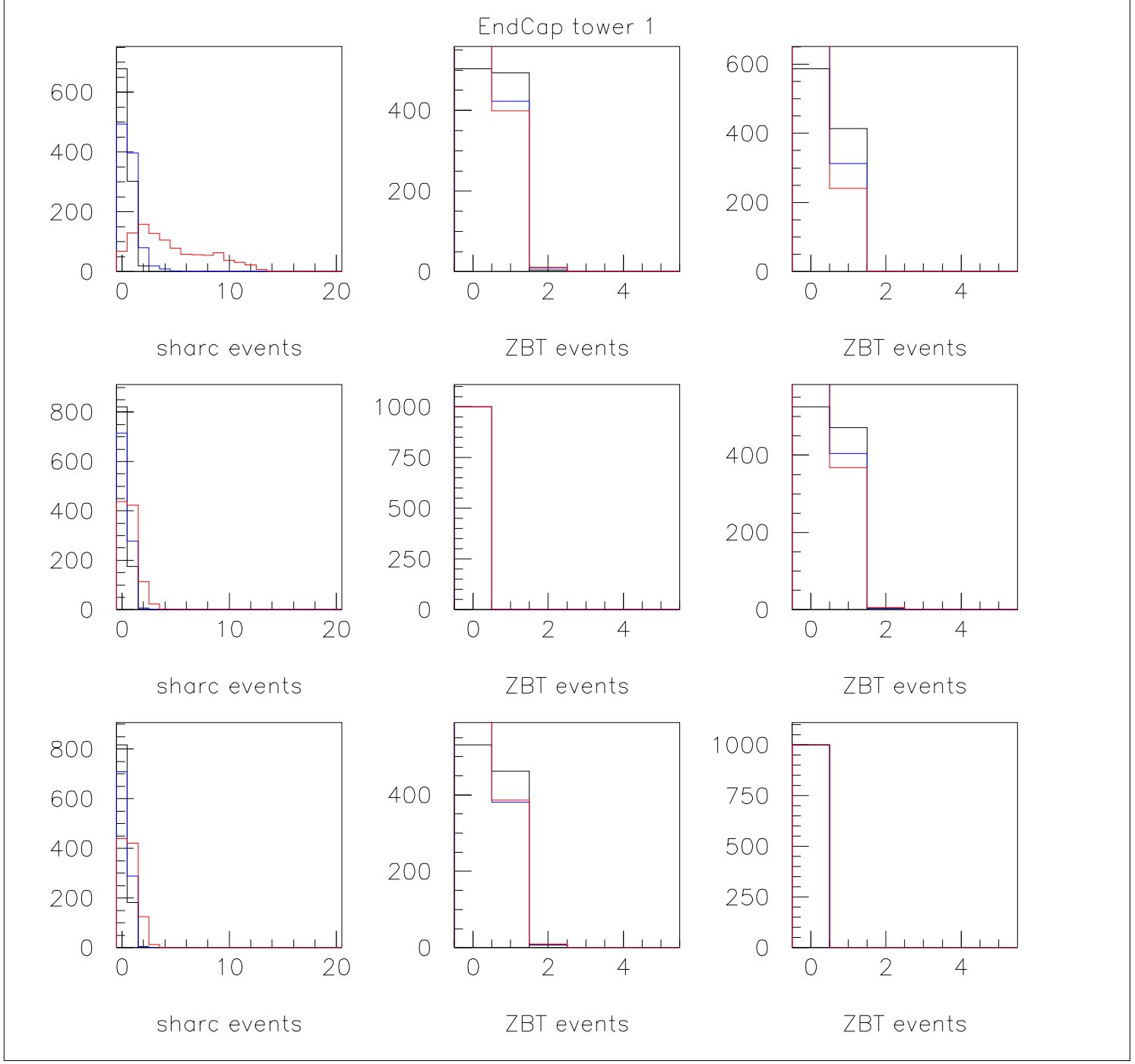

EndCap tower 0
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
1000
750
500
250
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
2
4
ZBT events

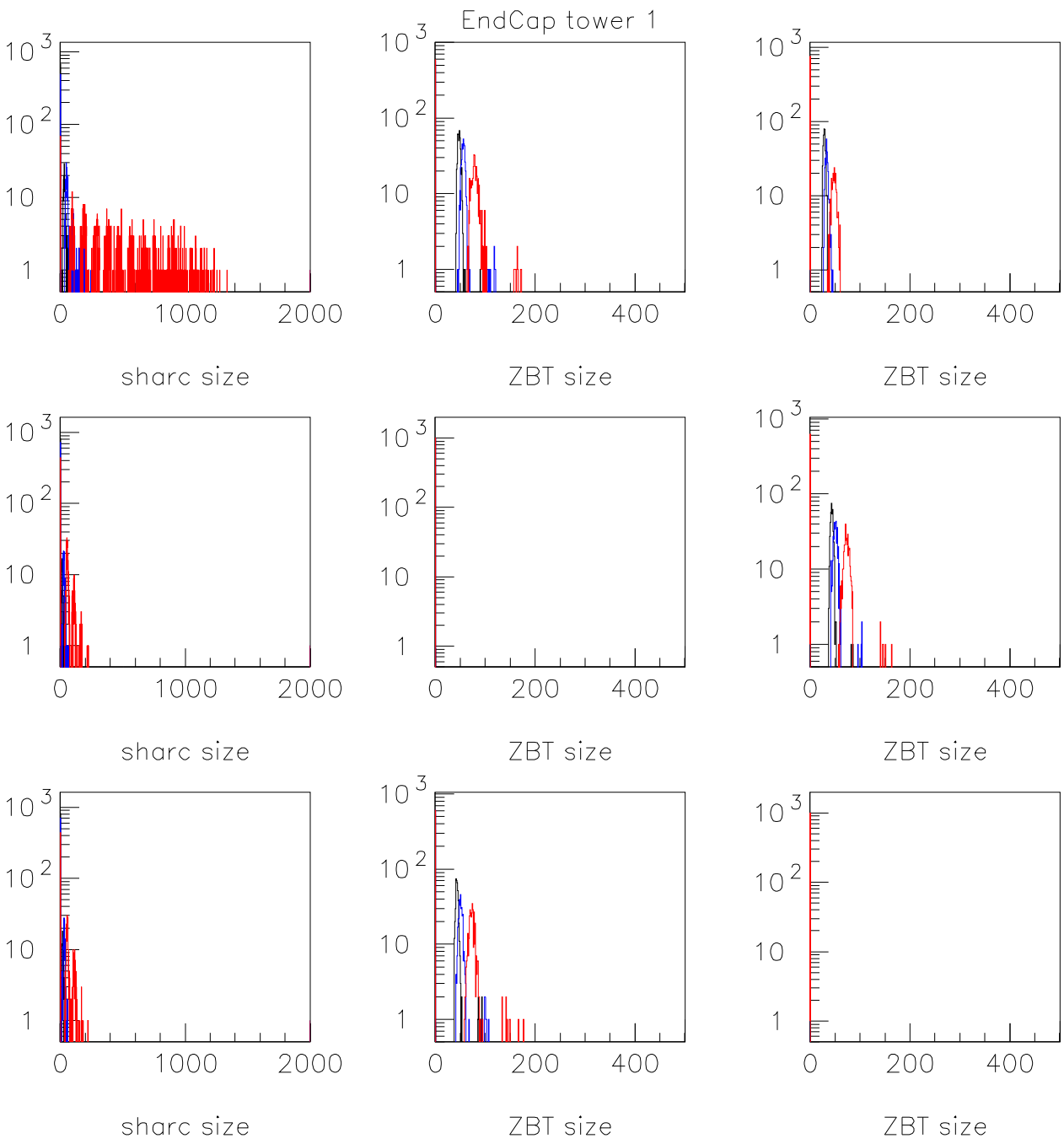

EndCap tower 0
$10^3$
$10^2$
10
1
0
1000
2000
200
400
sharc size
ZBT size

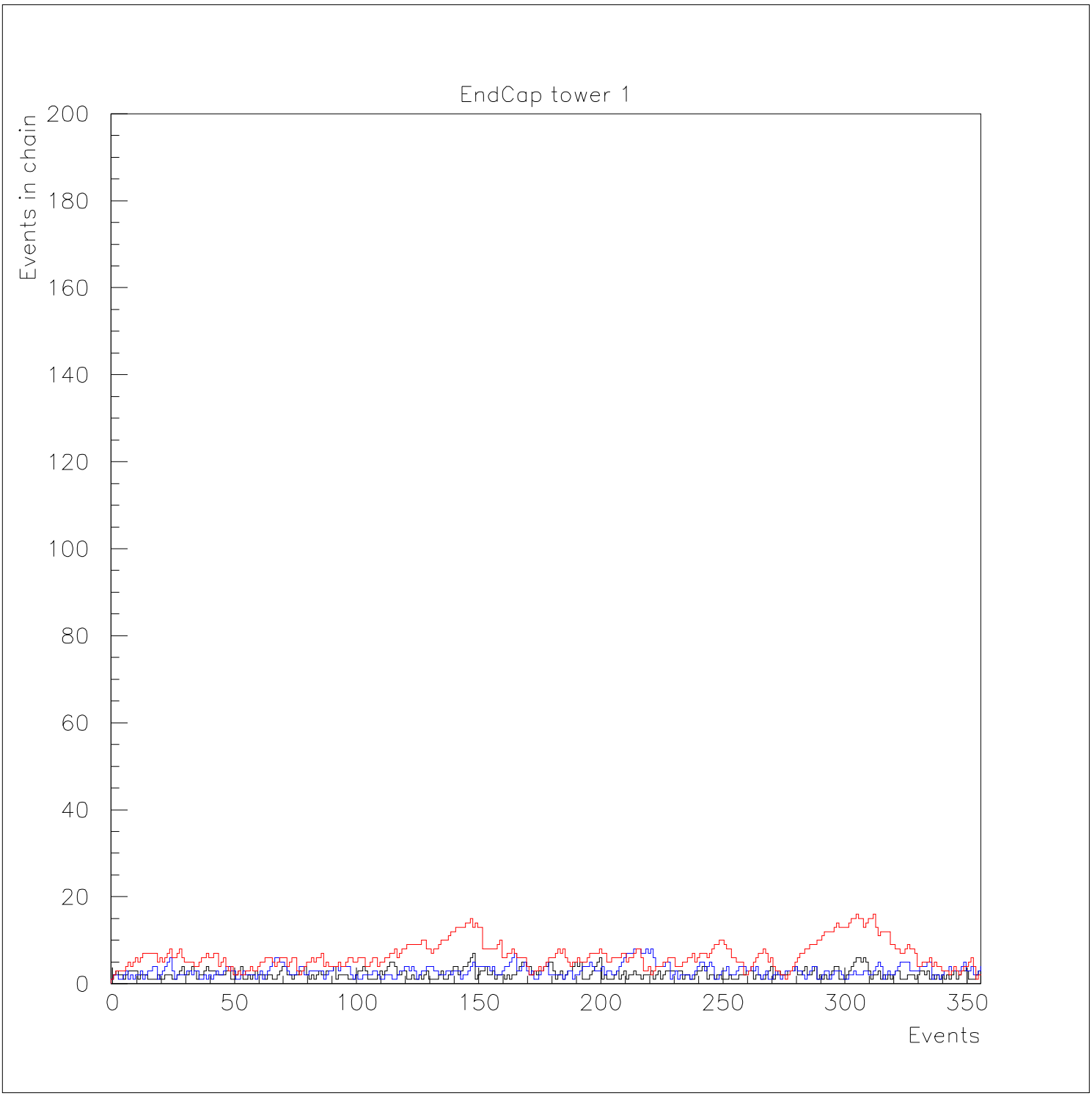

EndCap tower 0
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

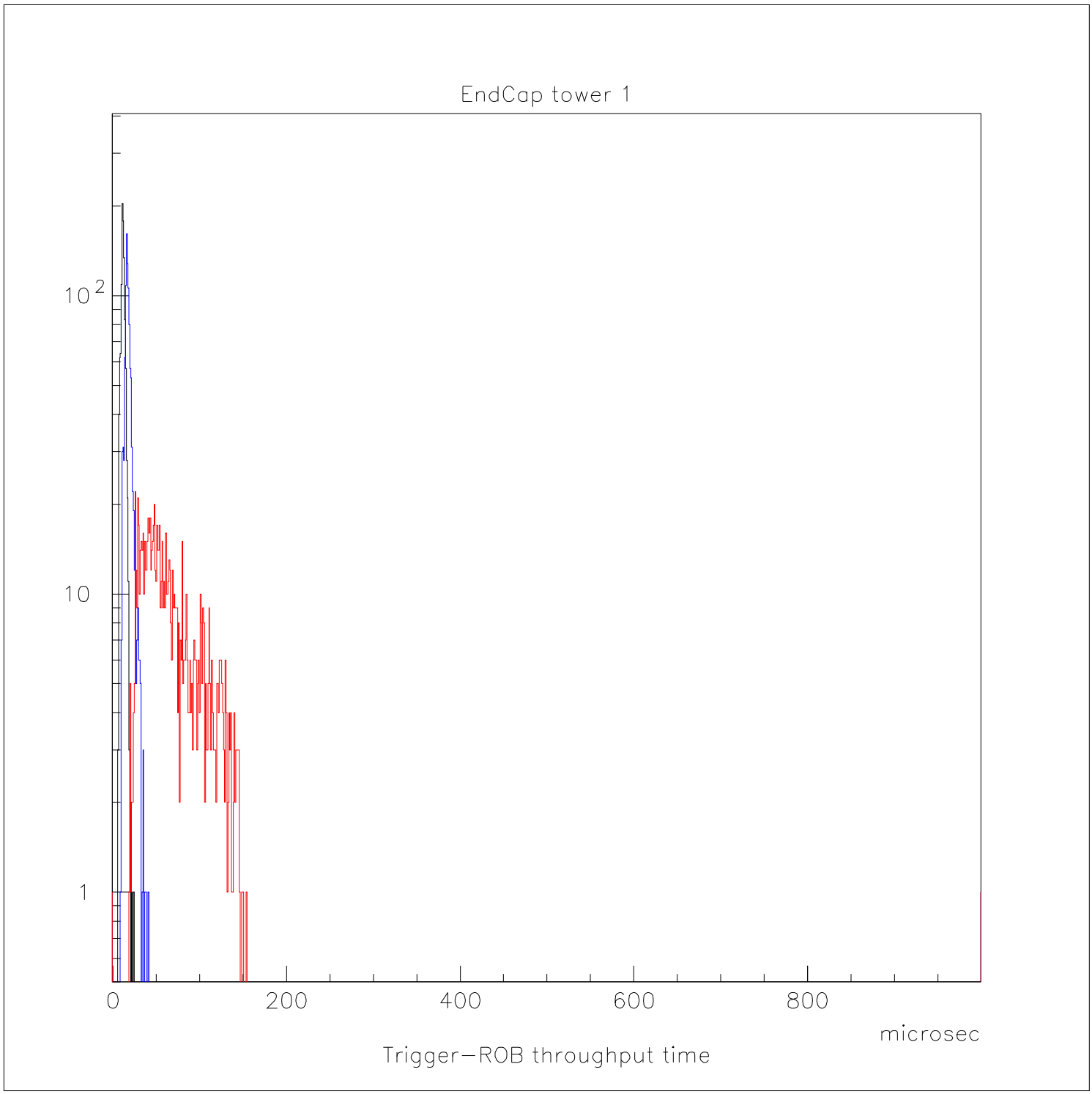

EndCap tower 0
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

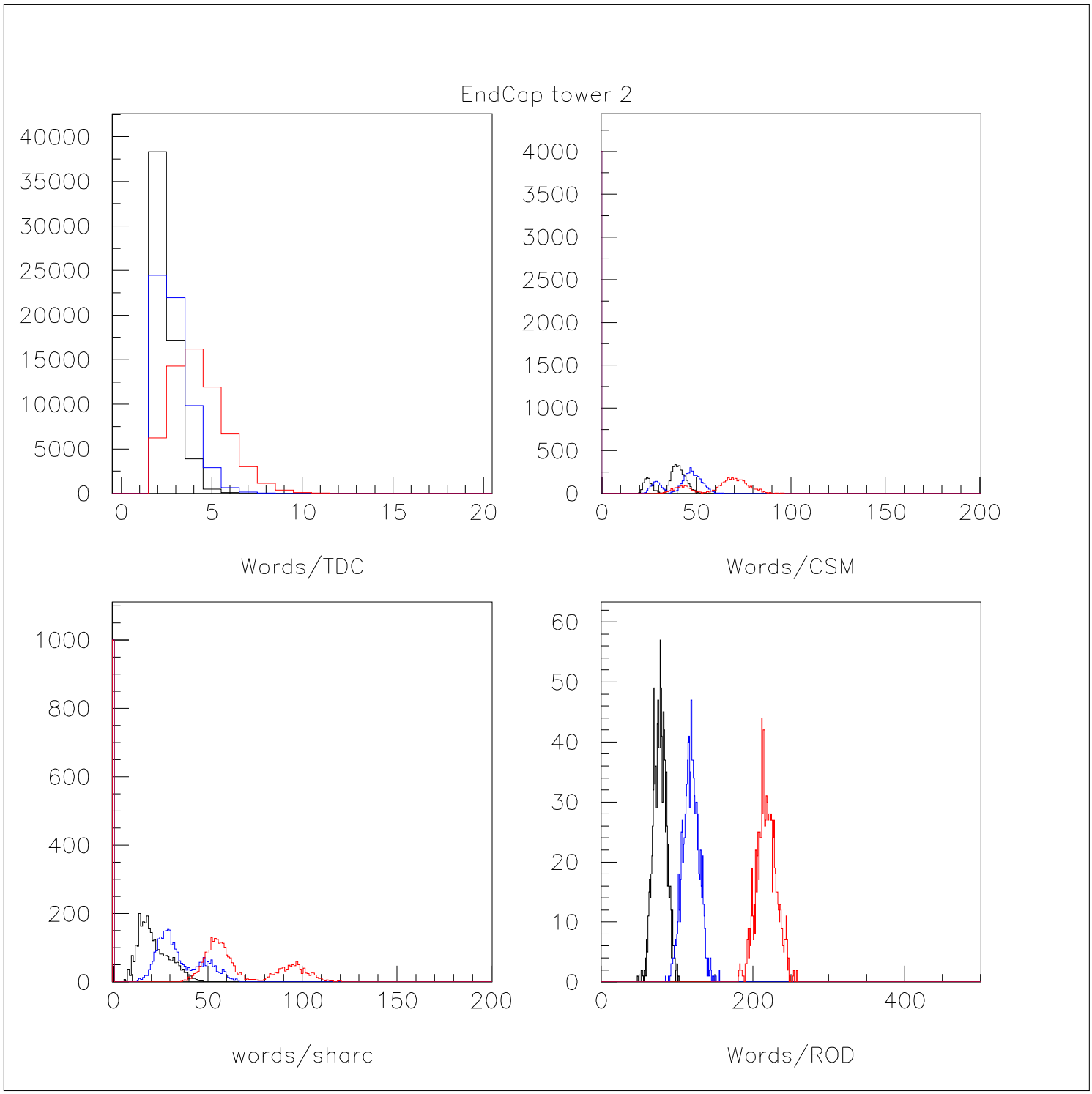

EndCap tower 1
40000
35000
30000
25000
20000
15000
10000
5000
0
0
5
10
15
20
Words/TDC
4000
3500
3000
2500
2000
1500
1000
500
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

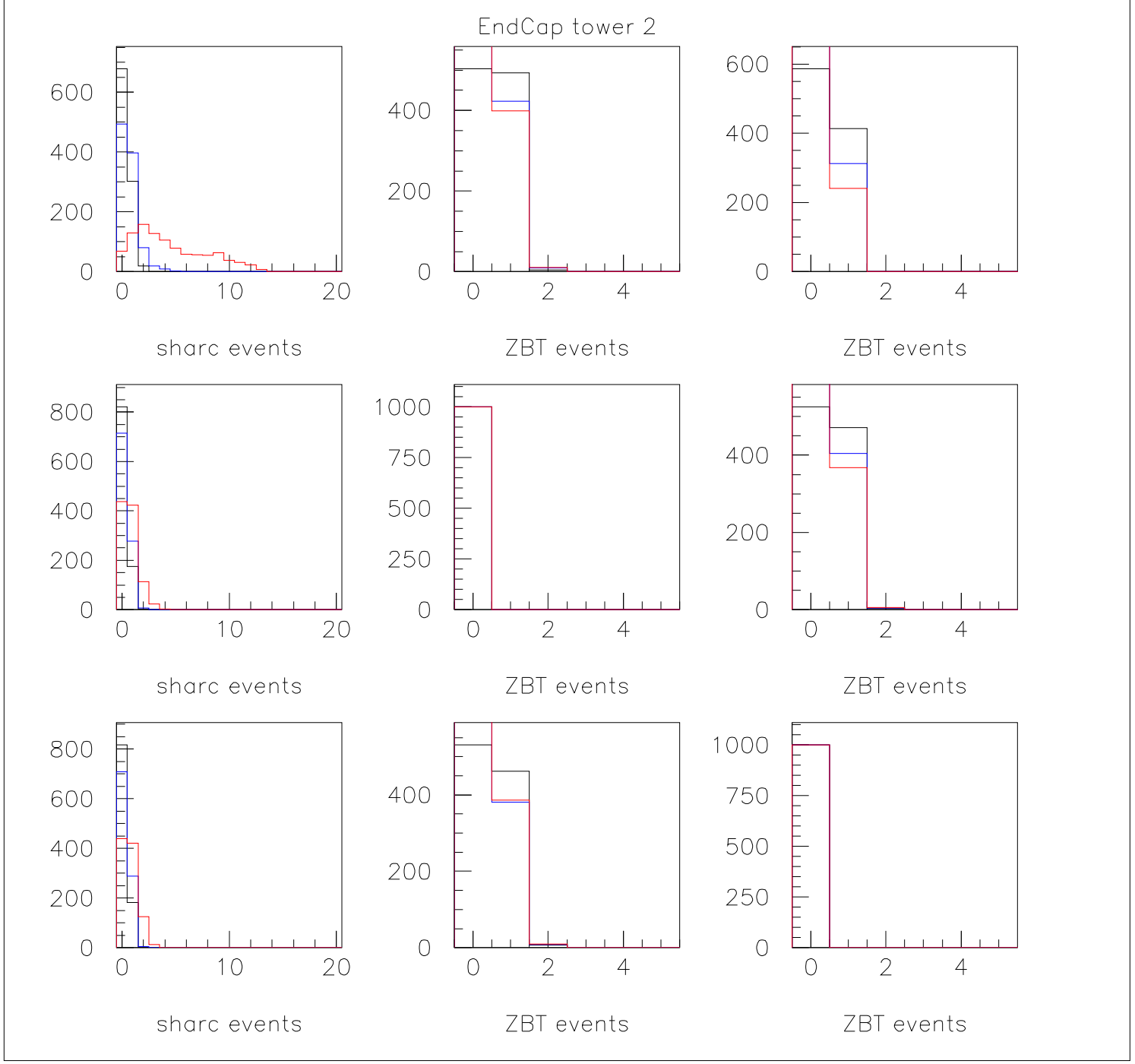

EndCap tower 1
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
1000
750
500
250
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
2
4
ZBT events

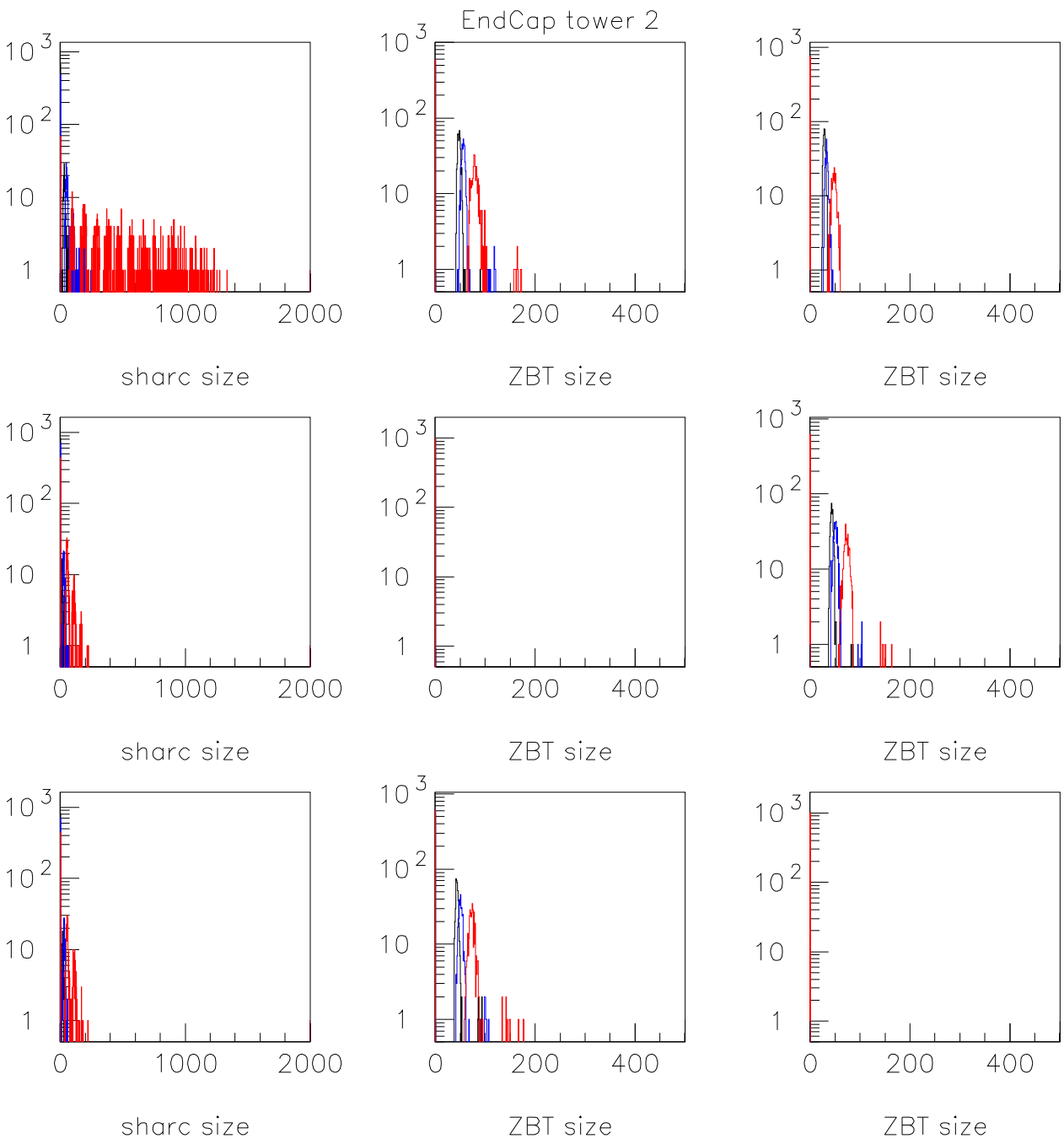

EndCap tower 1
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

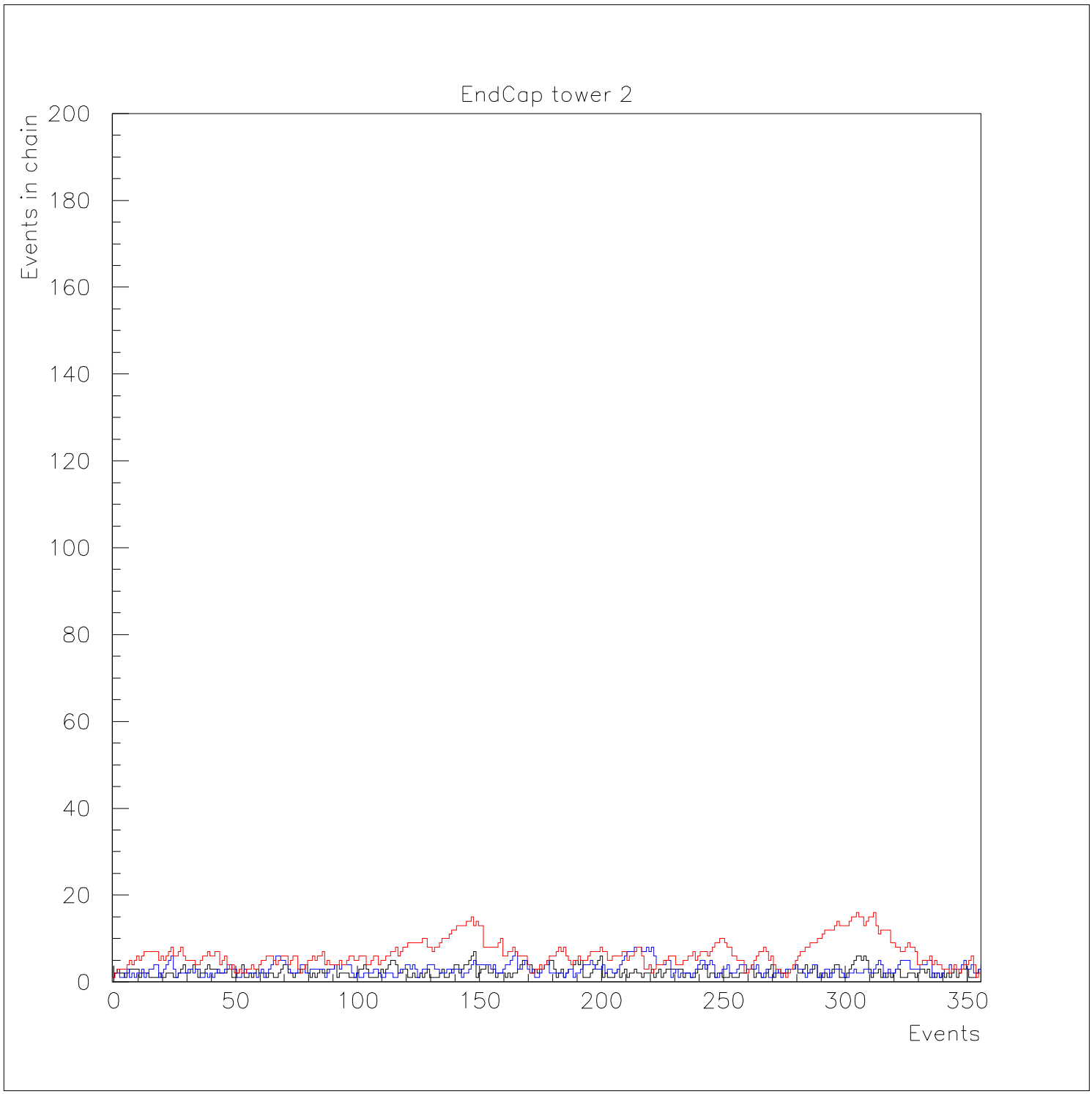

EndCap tower 1
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

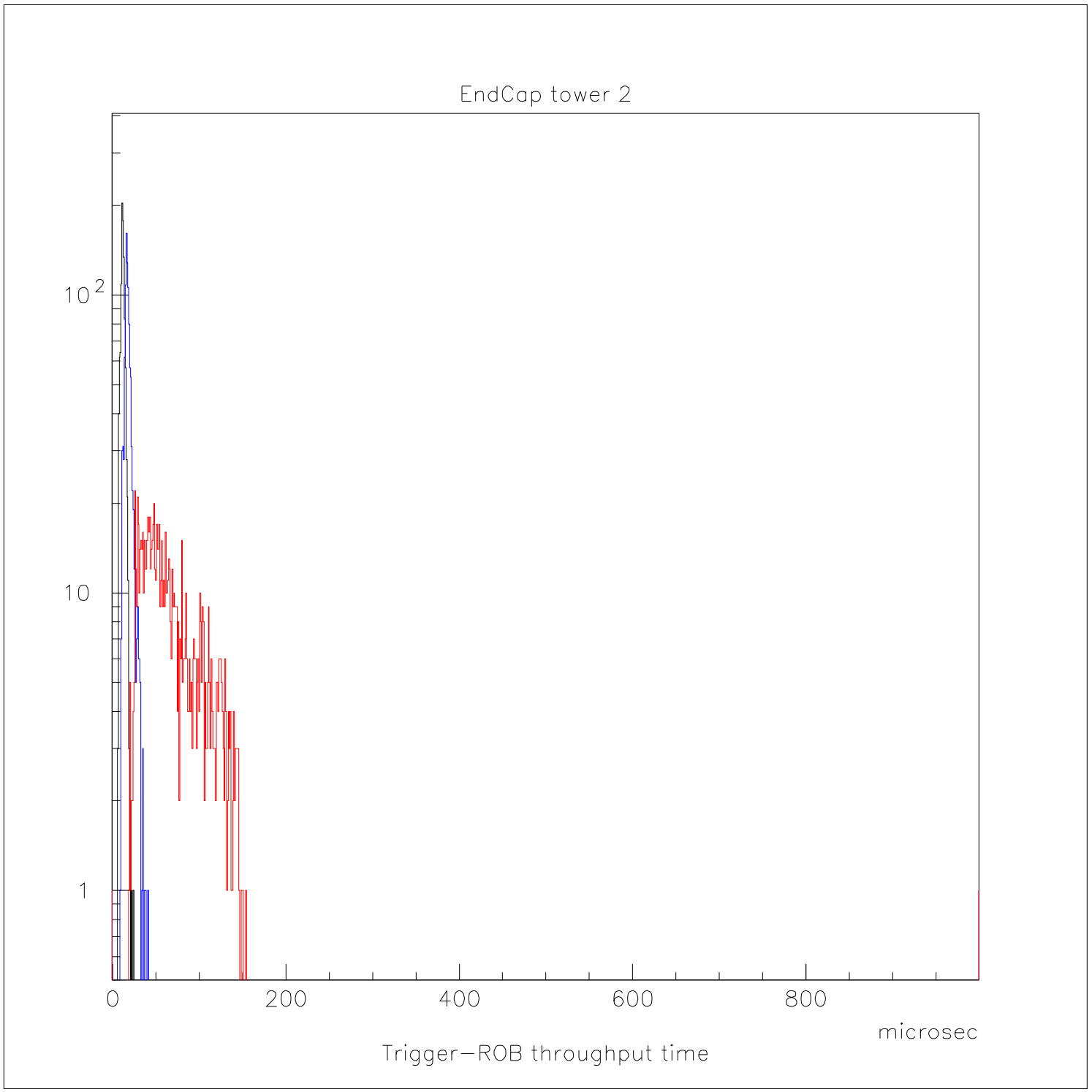

EndCap tower 1
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

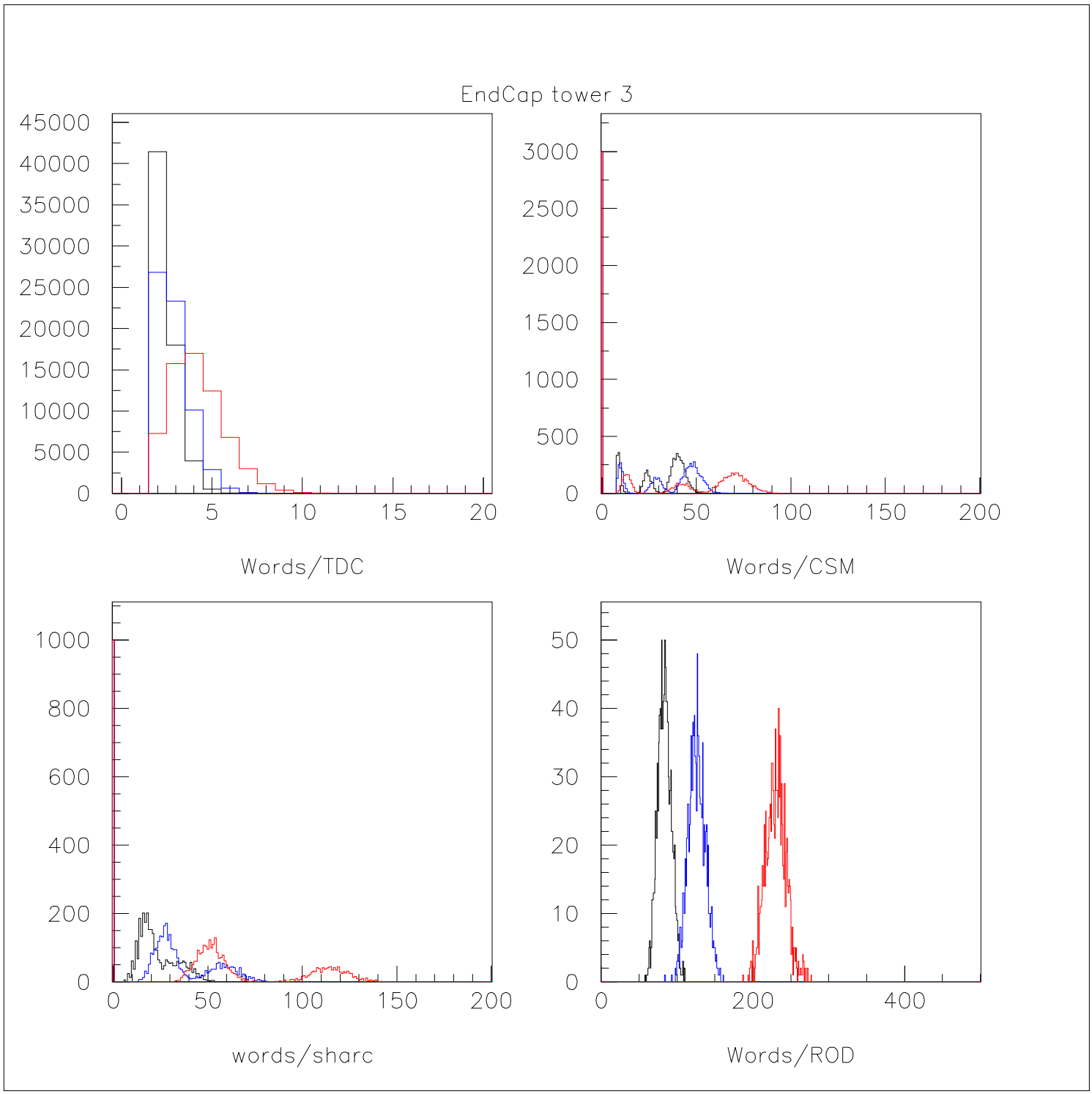

EndCap tower 2
40000
35000
30000
25000
20000
15000
10000
5000
0
0
5
10
15
20
Words/TDC
4000
3500
3000
2500
2000
1500
1000
500
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

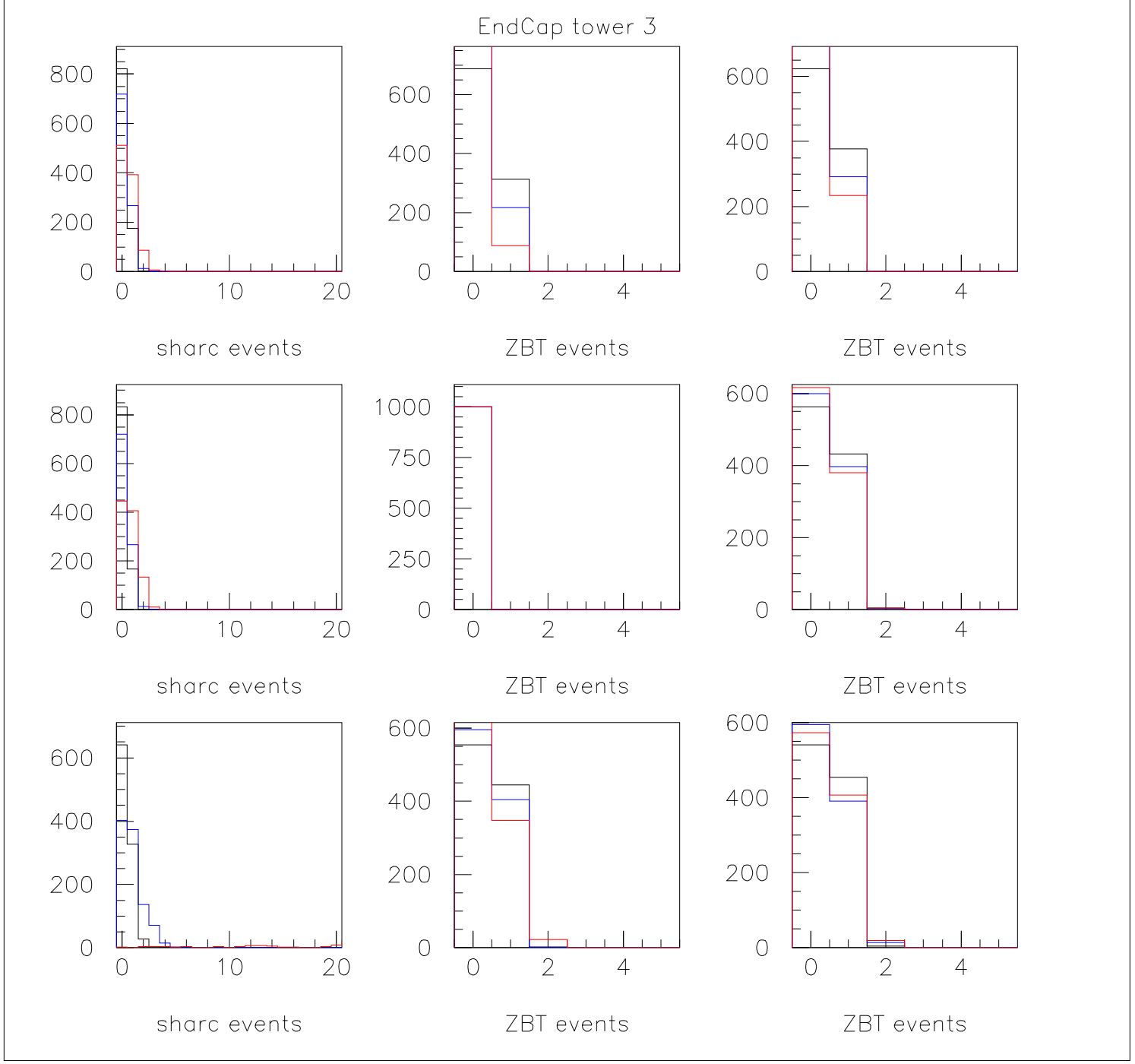

EndCap tower 2
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
1000
750
500
250
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
2
4
ZBT events

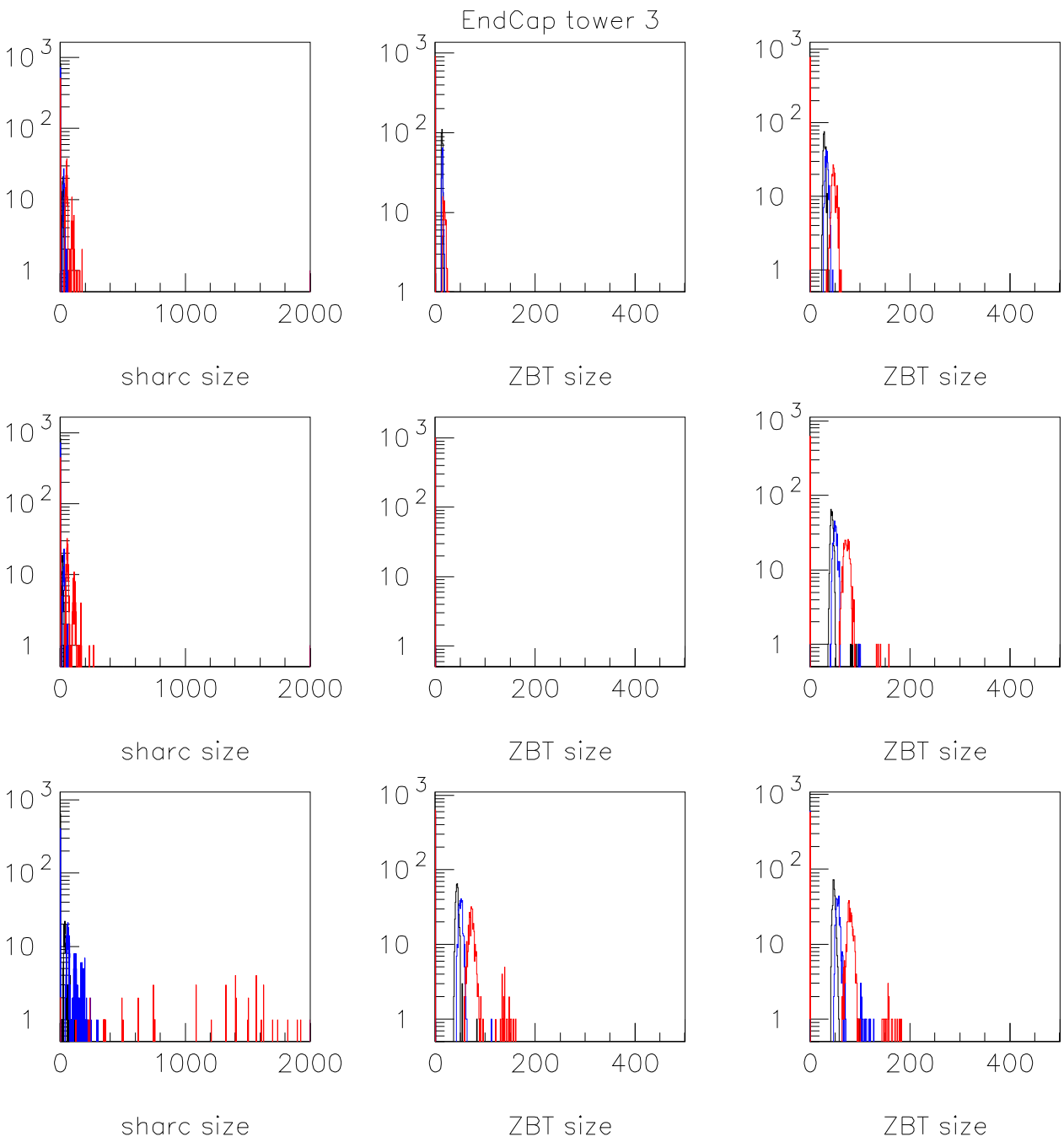

EndCap tower 2
$10^3$
$10^2$
10
1
0
1000
2000
200
400
sharc size
ZBT size

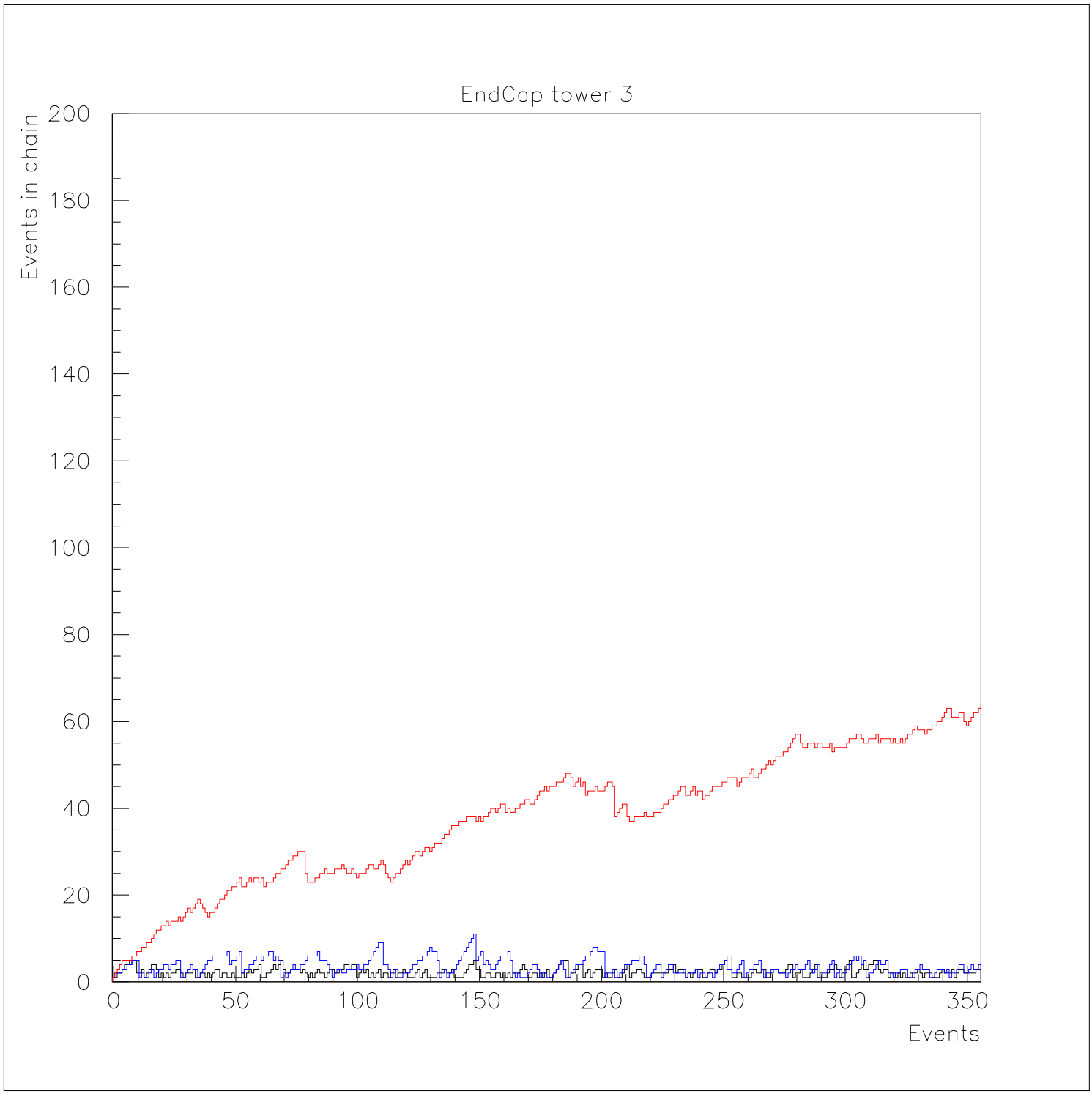

EndCap tower 2
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

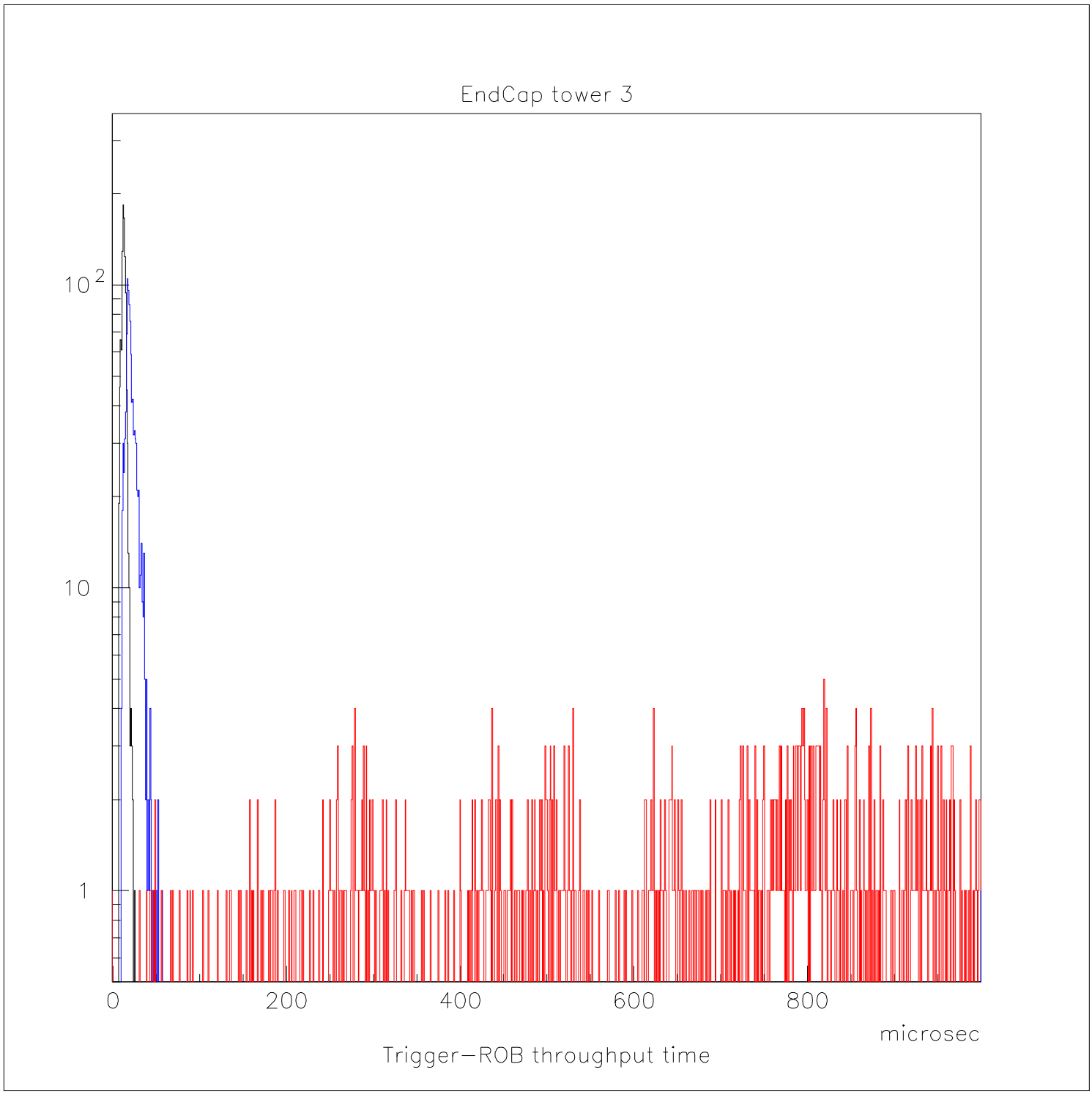

EndCap tower 2
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

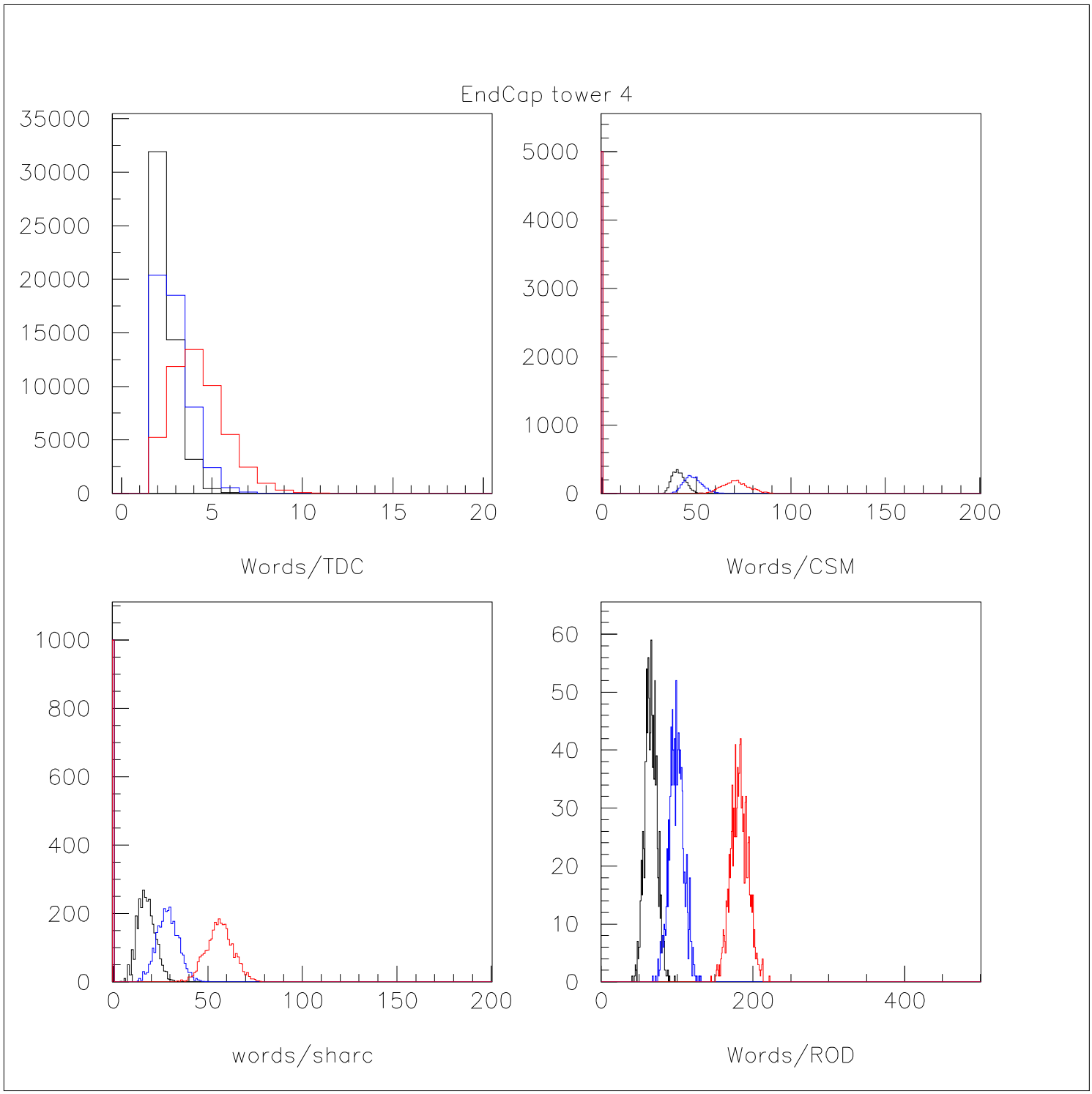

EndCap tower 3
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
0
5
10
15
20
Words/TDC
3000
2500
2000
1500
1000
500
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
50
40
30
20
10
0
0
200
400
Words/ROD

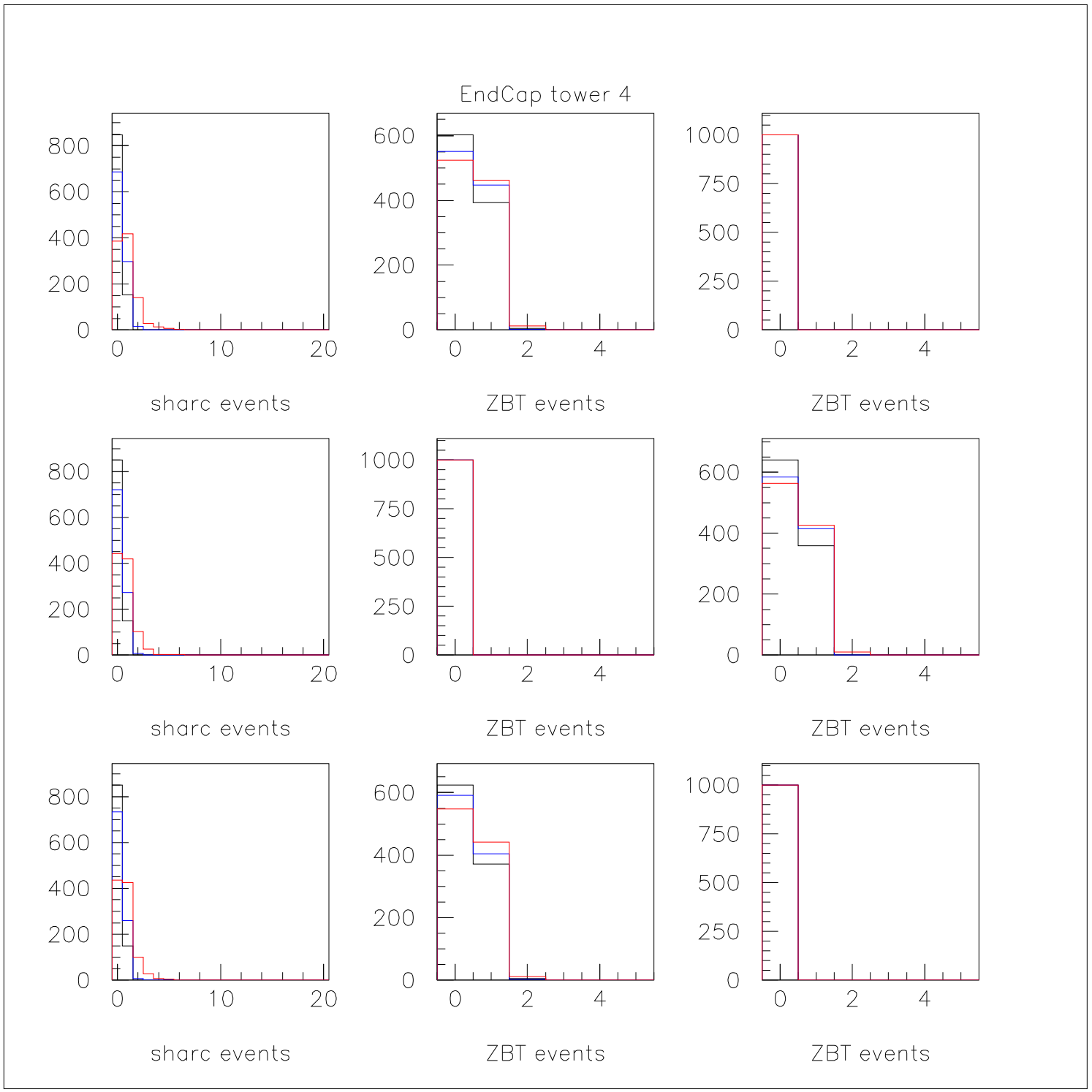

EndCap tower 3
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
1000
750
500
250
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

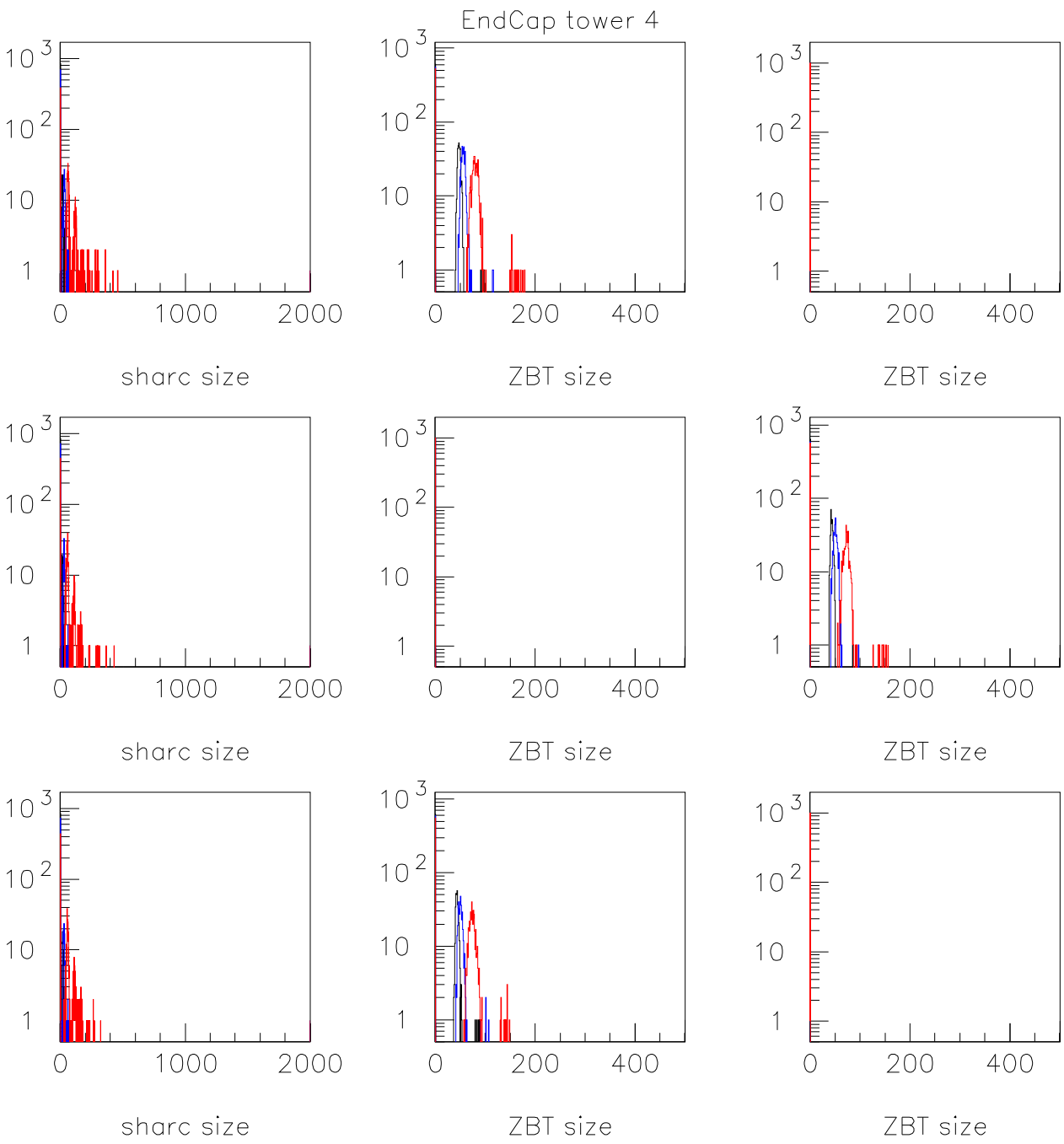

EndCap tower 3
$10^3$
$10^2$
10
1
0
1000
2000
200
400
sharc size
ZBT size

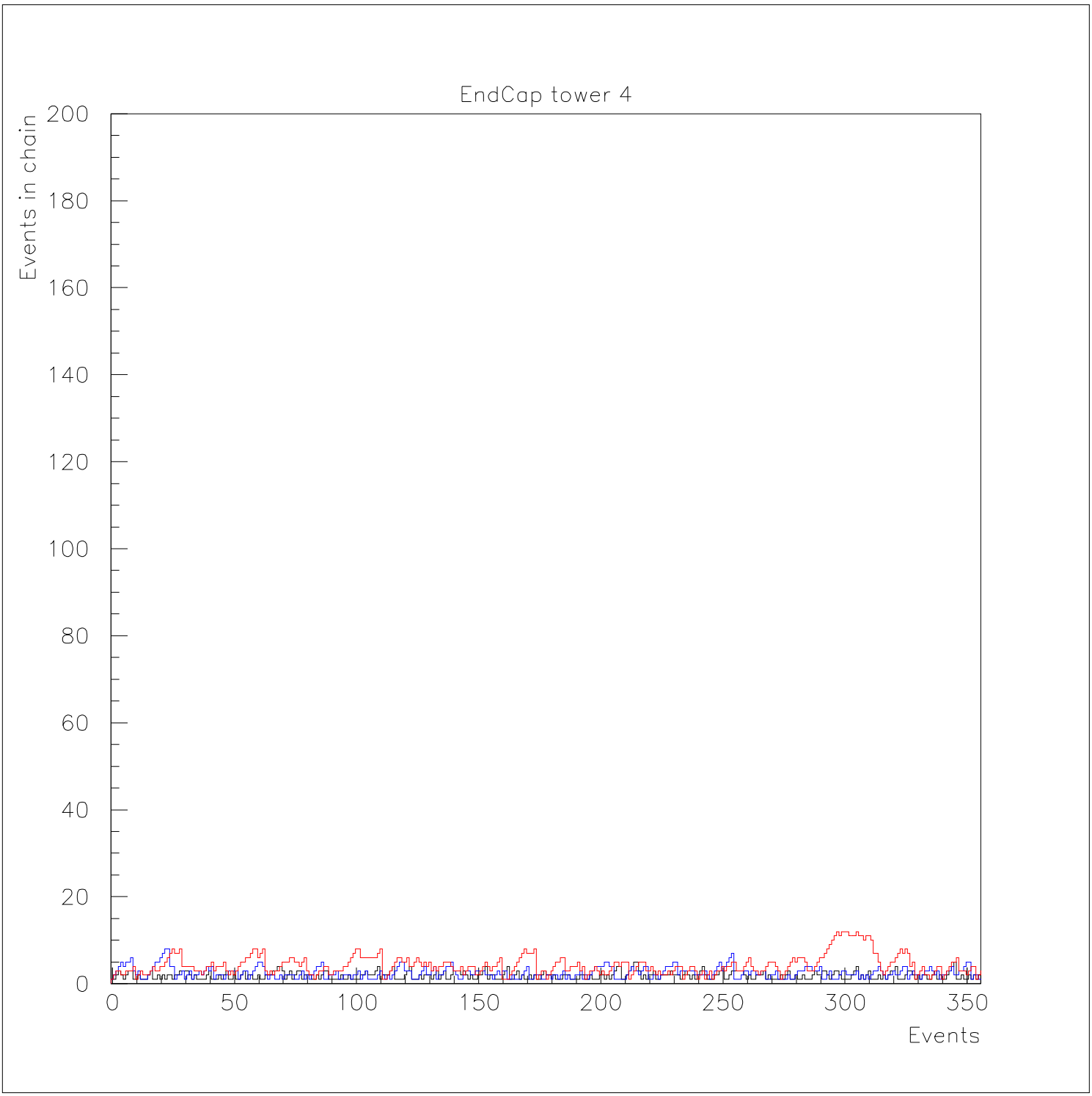

EndCap tower 3
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

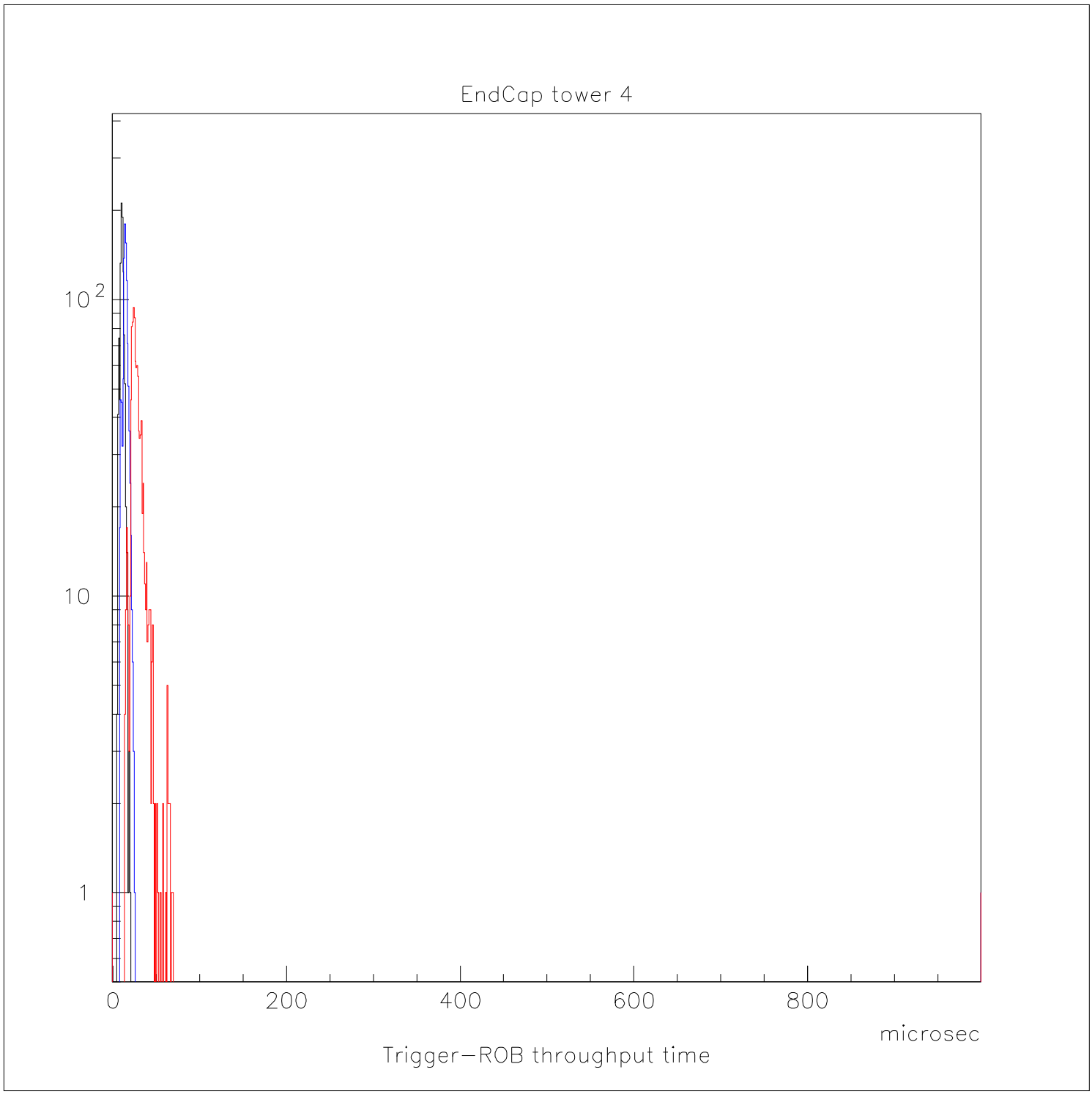

EndCap tower 3
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

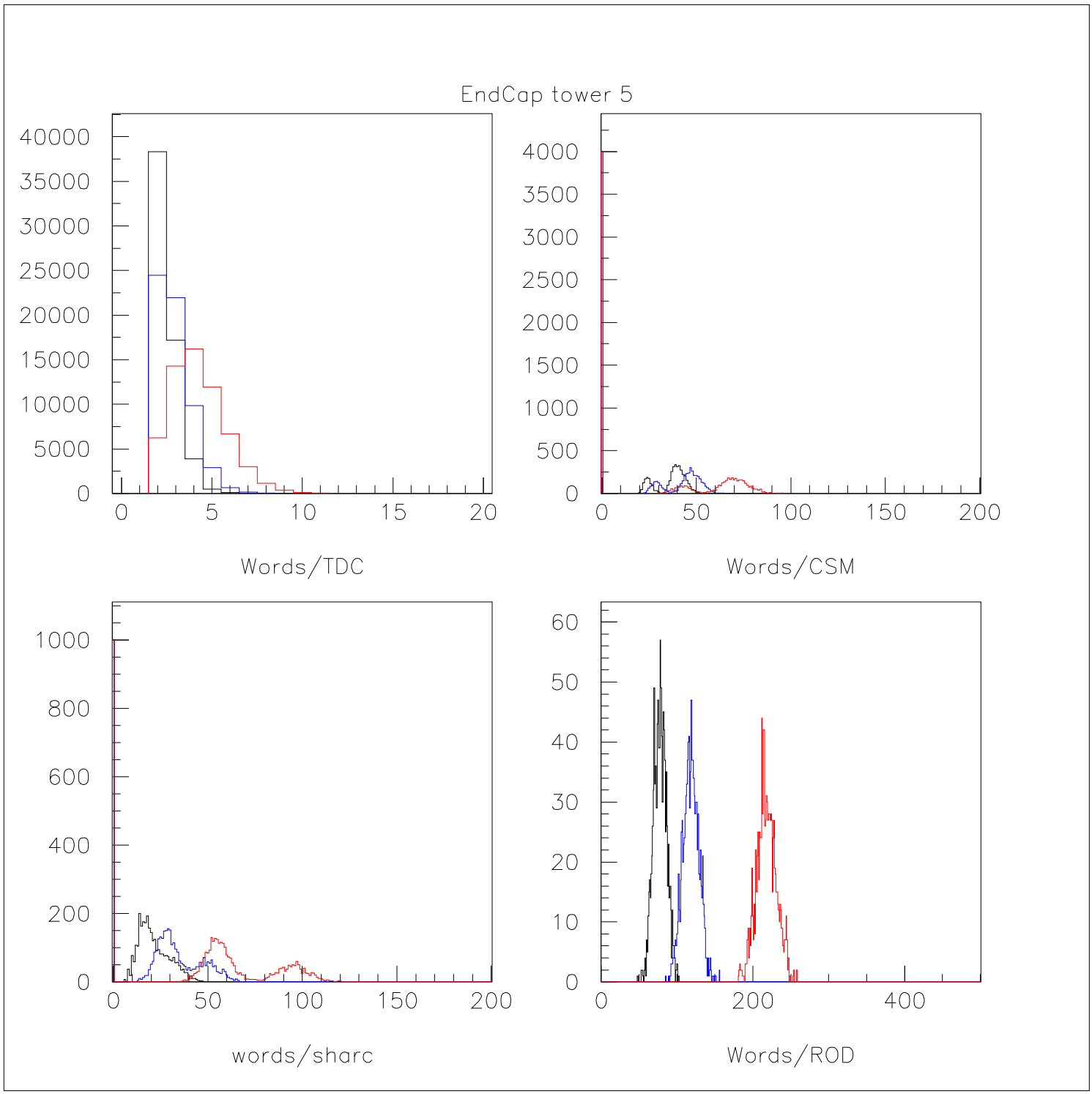

EndCap tower 4
35000
30000
25000
20000
15000
10000
5000
0
0
5
10
15
20
Words/TDC
5000
4000
3000
2000
1000
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

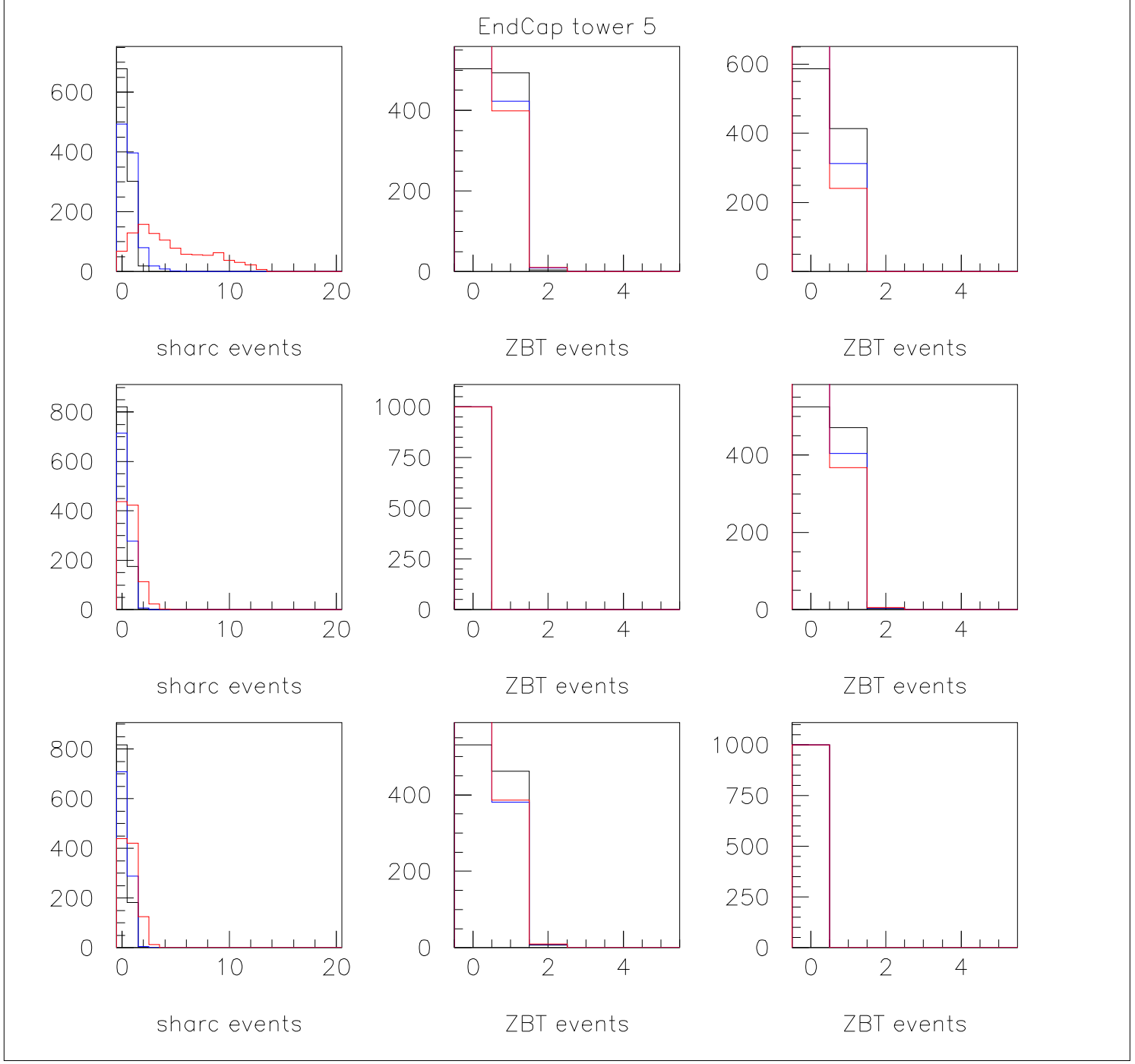

EndCap tower 4
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
1000
750
500
250
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
2
4
ZBT events

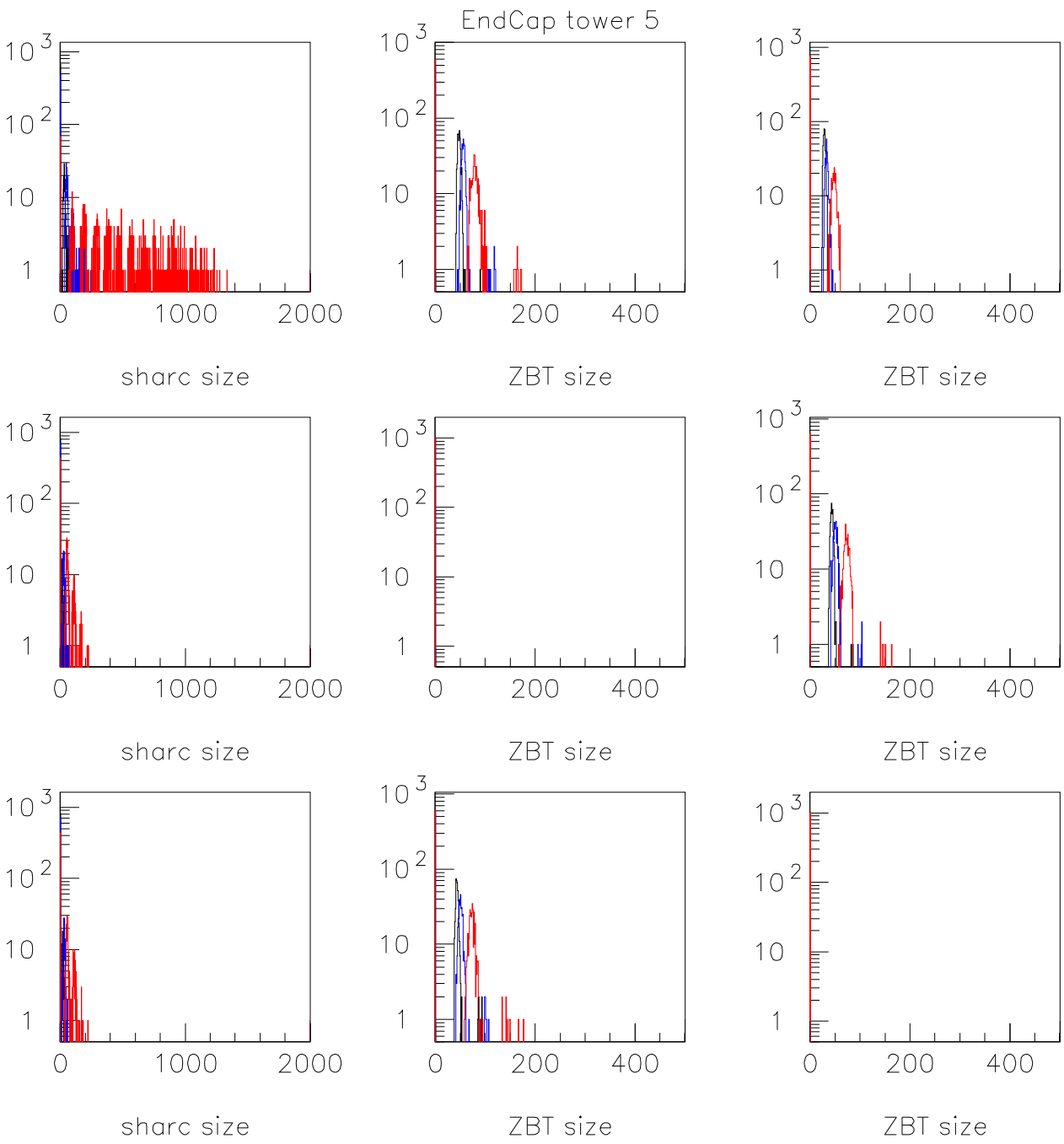

EndCap tower 4
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

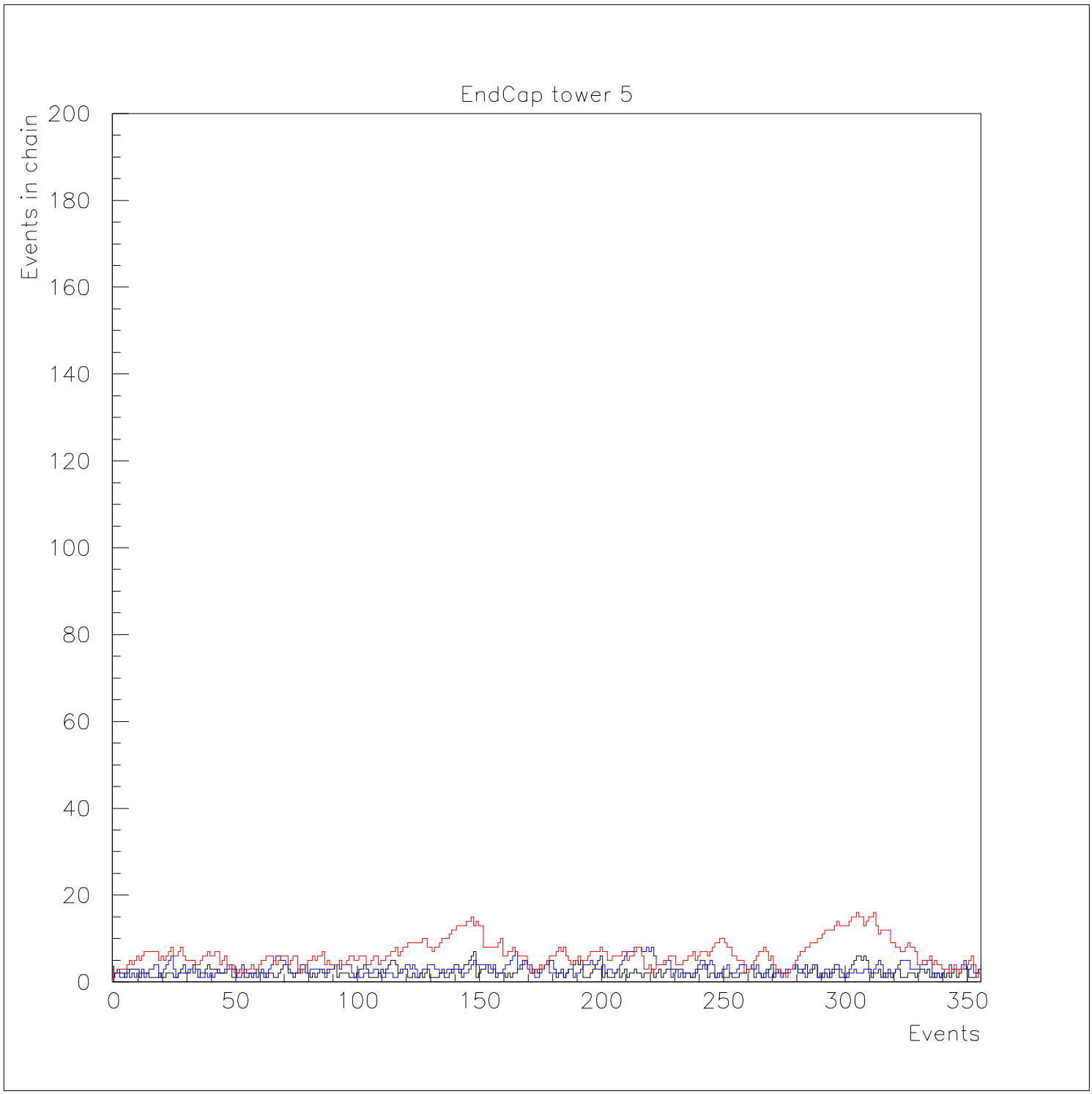

EndCap tower 4
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

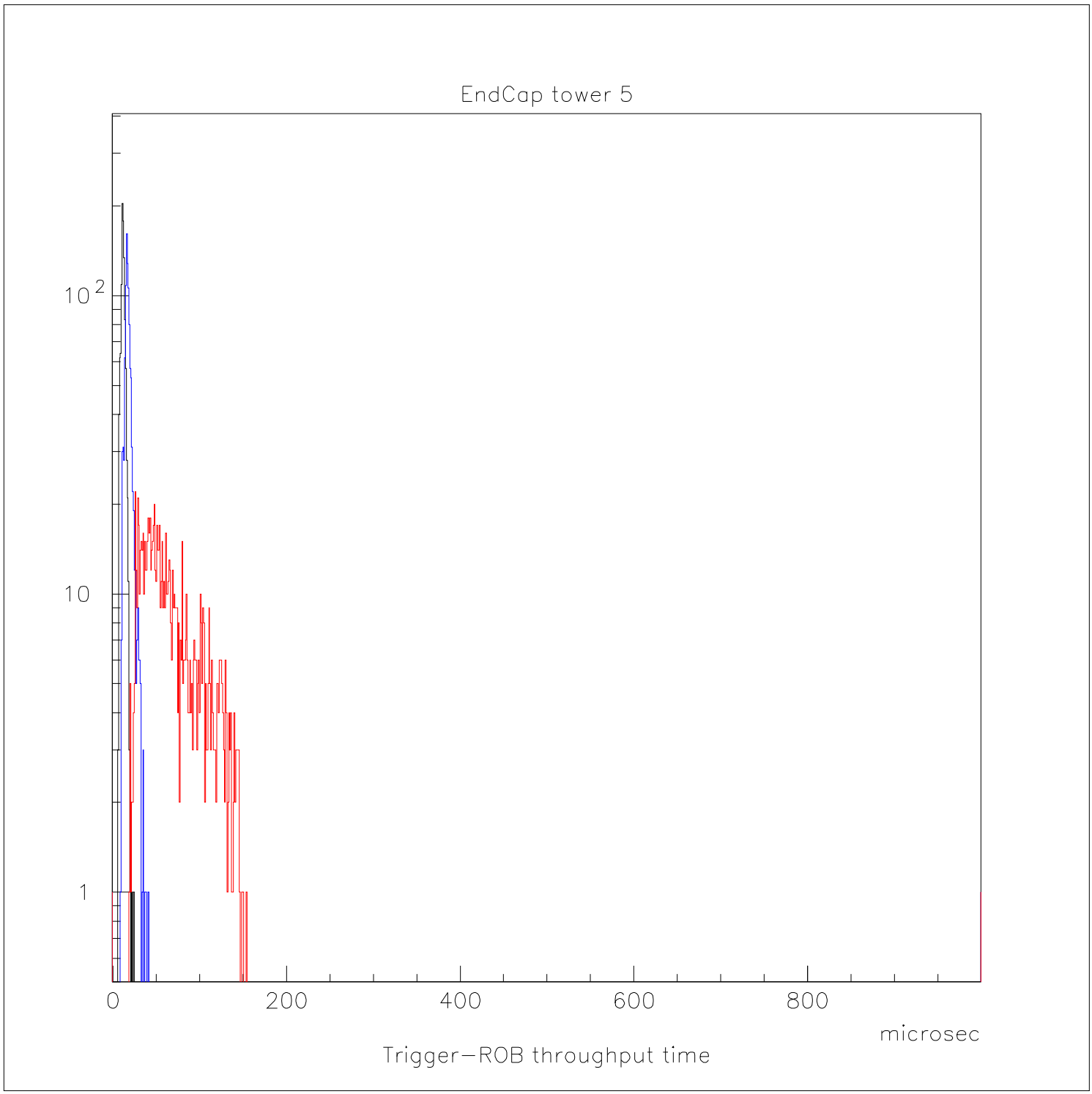

EndCap tower 4
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

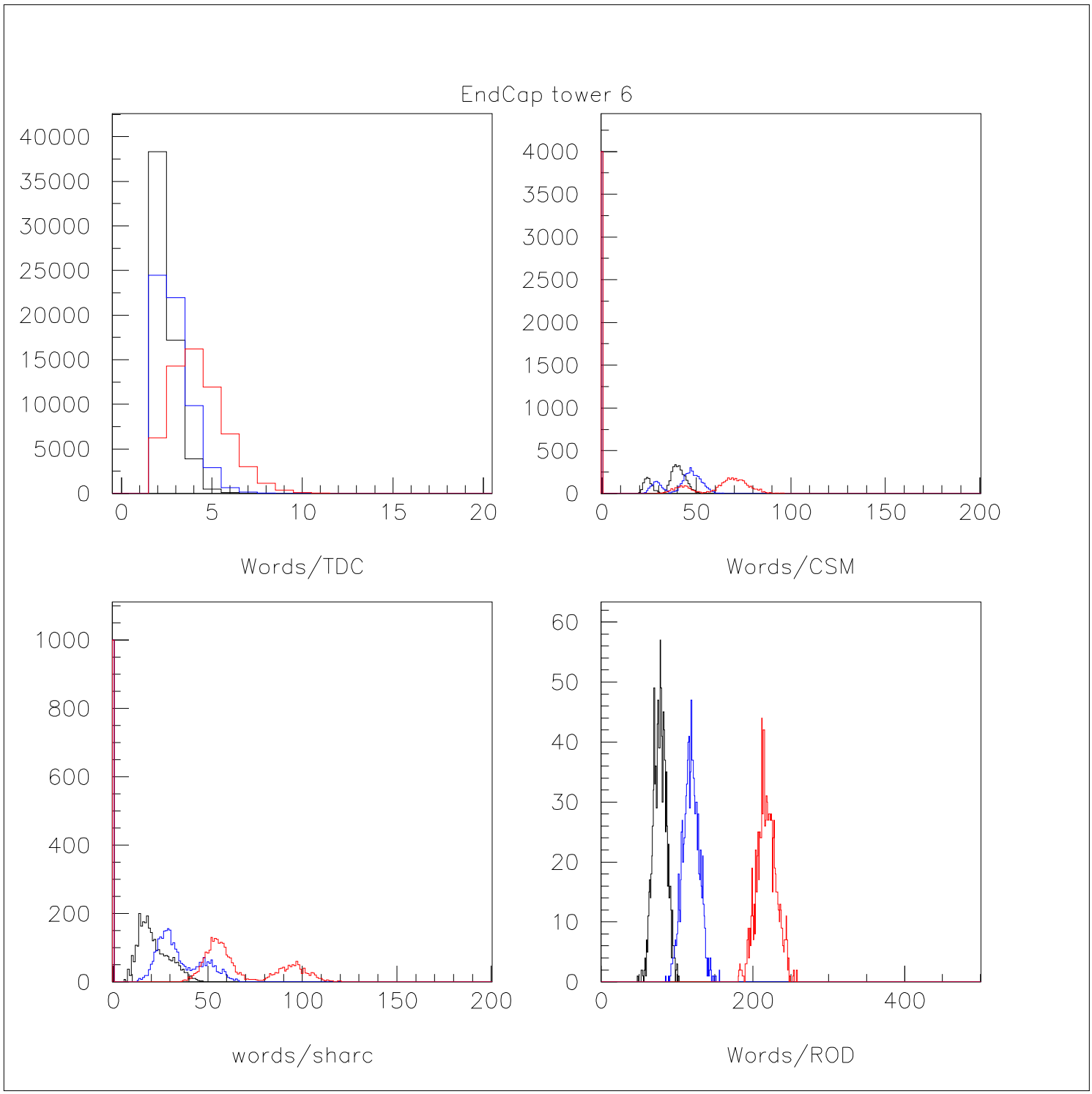

EndCap tower 5
40000
35000
30000
25000
20000
15000
10000
5000
0
0
5
10
15
20
Words/TDC
4000
3500
3000
2500
2000
1500
1000
500
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

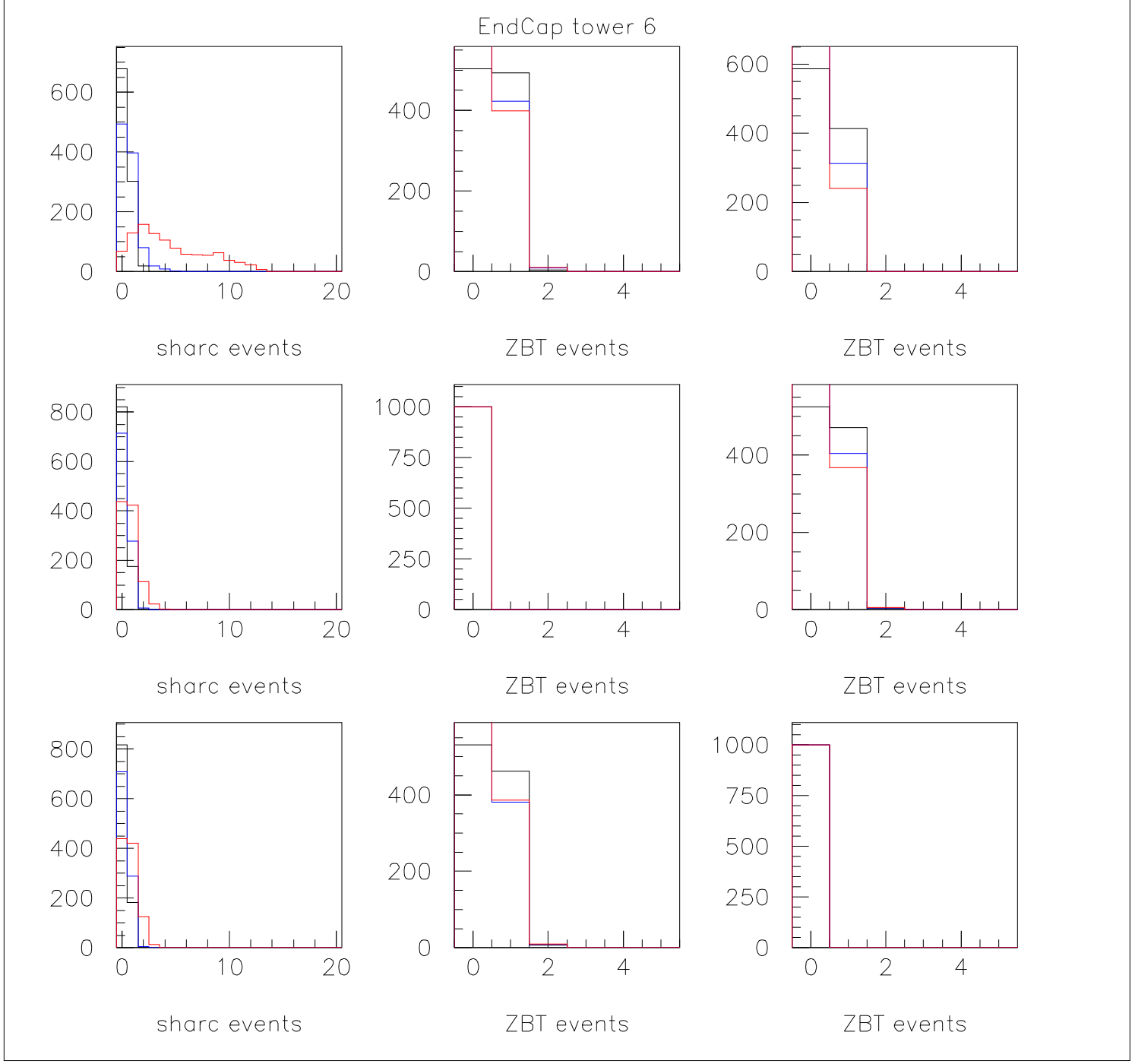

EndCap tower 5
sharc events
ZBT events
ZBT events
sharc events
ZBT events
ZBT events
sharc events
ZBT events
ZBT events

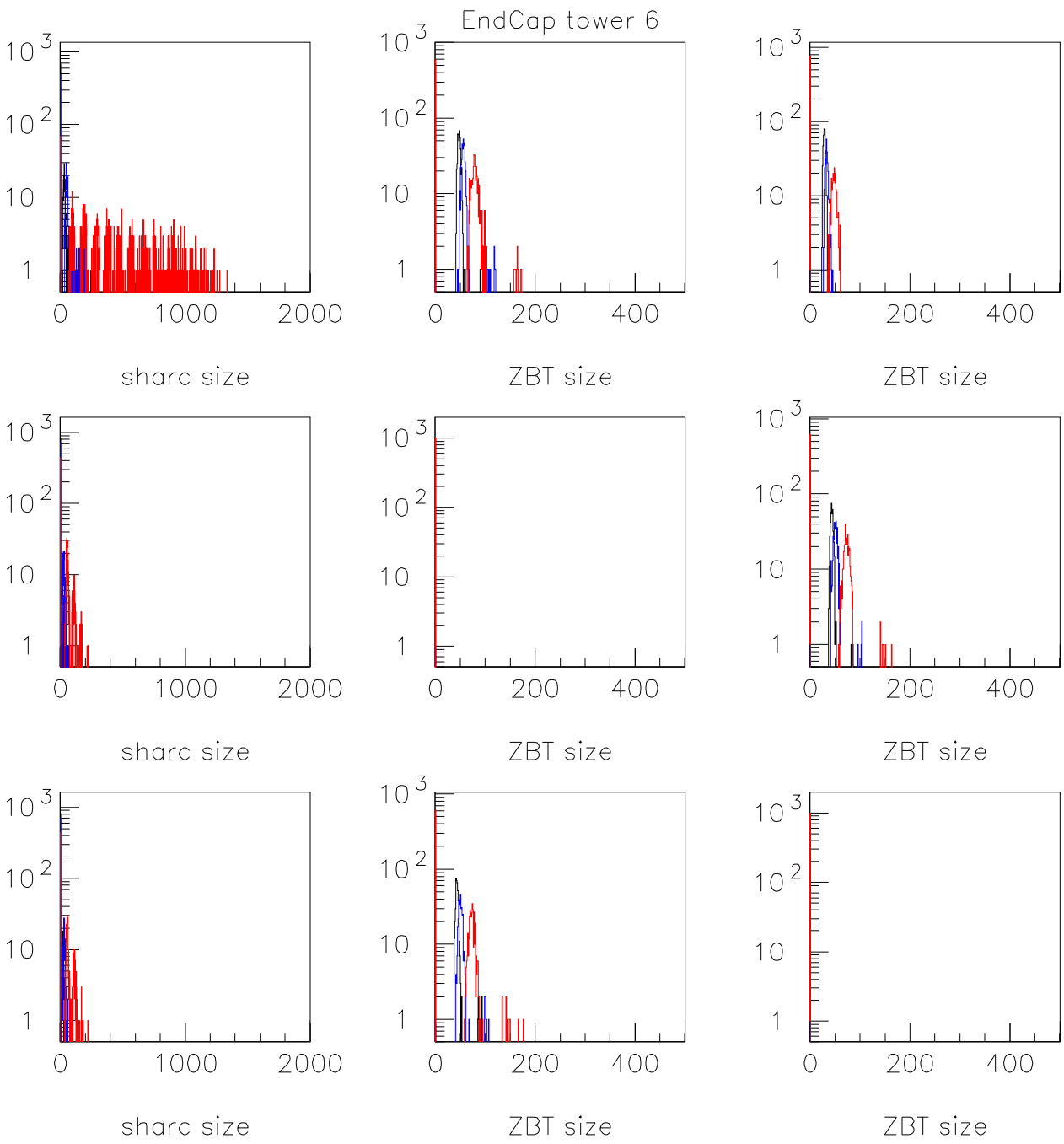

EndCap tower 5
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

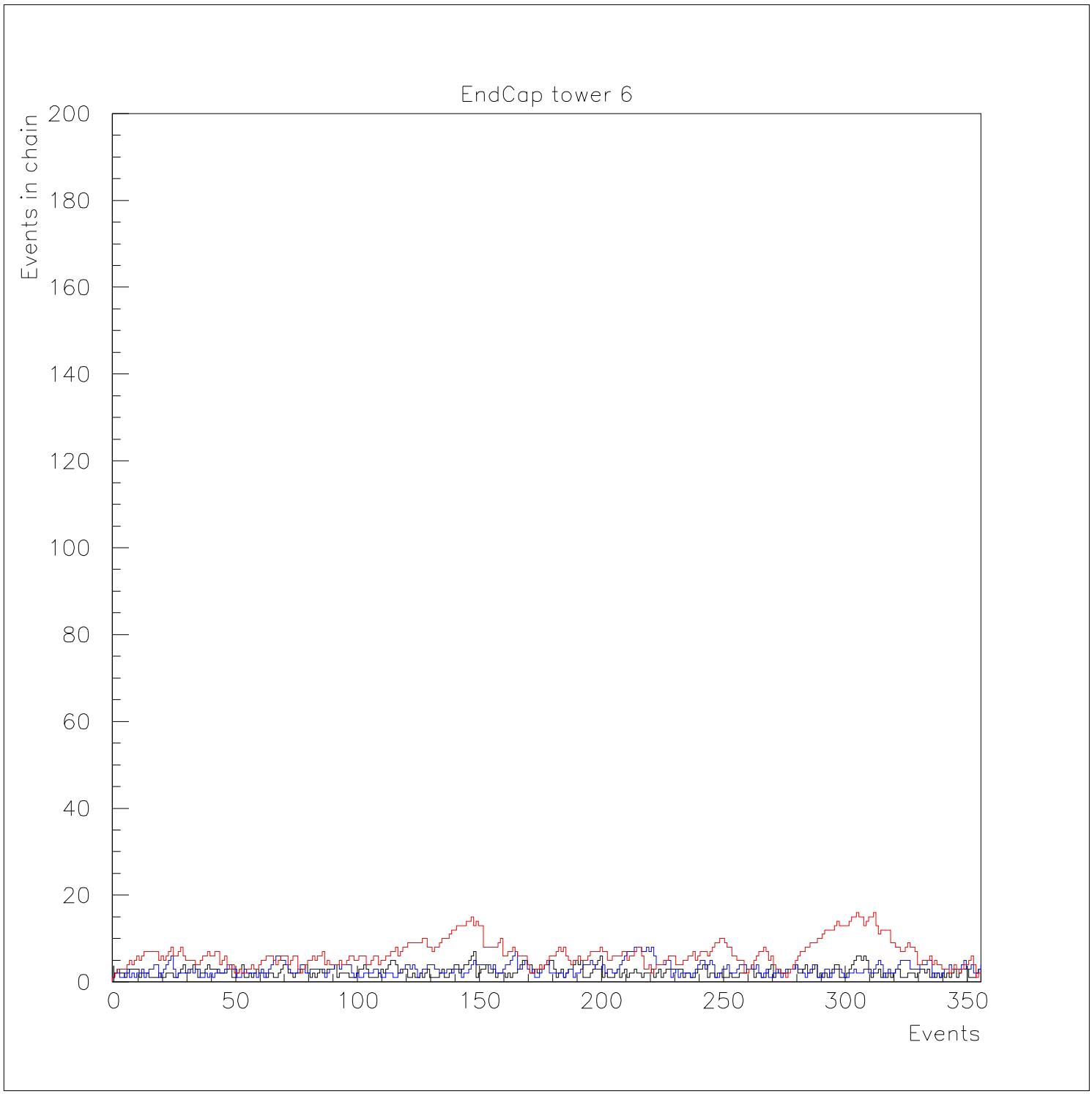

EndCap tower 5
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

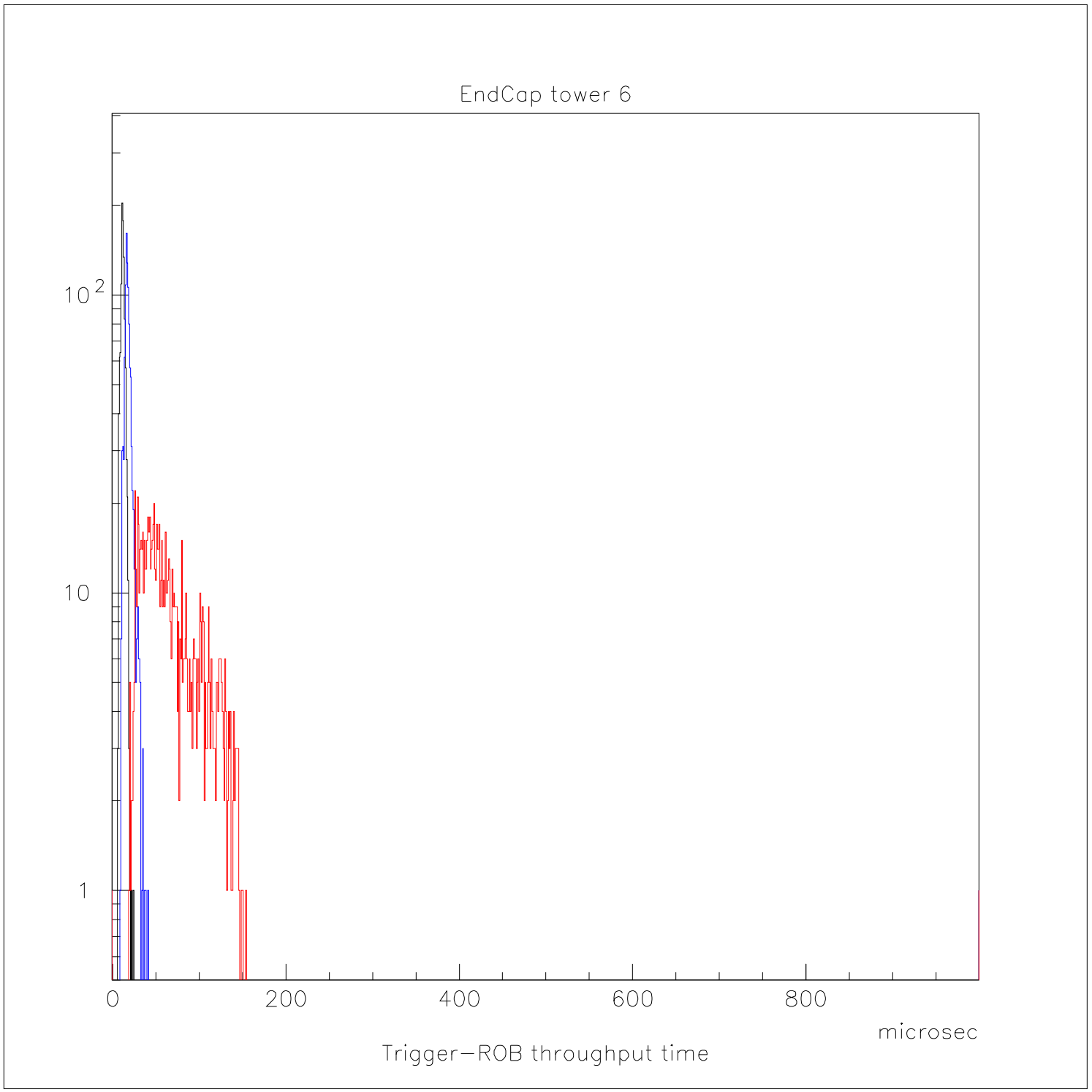

EndCap tower 5
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

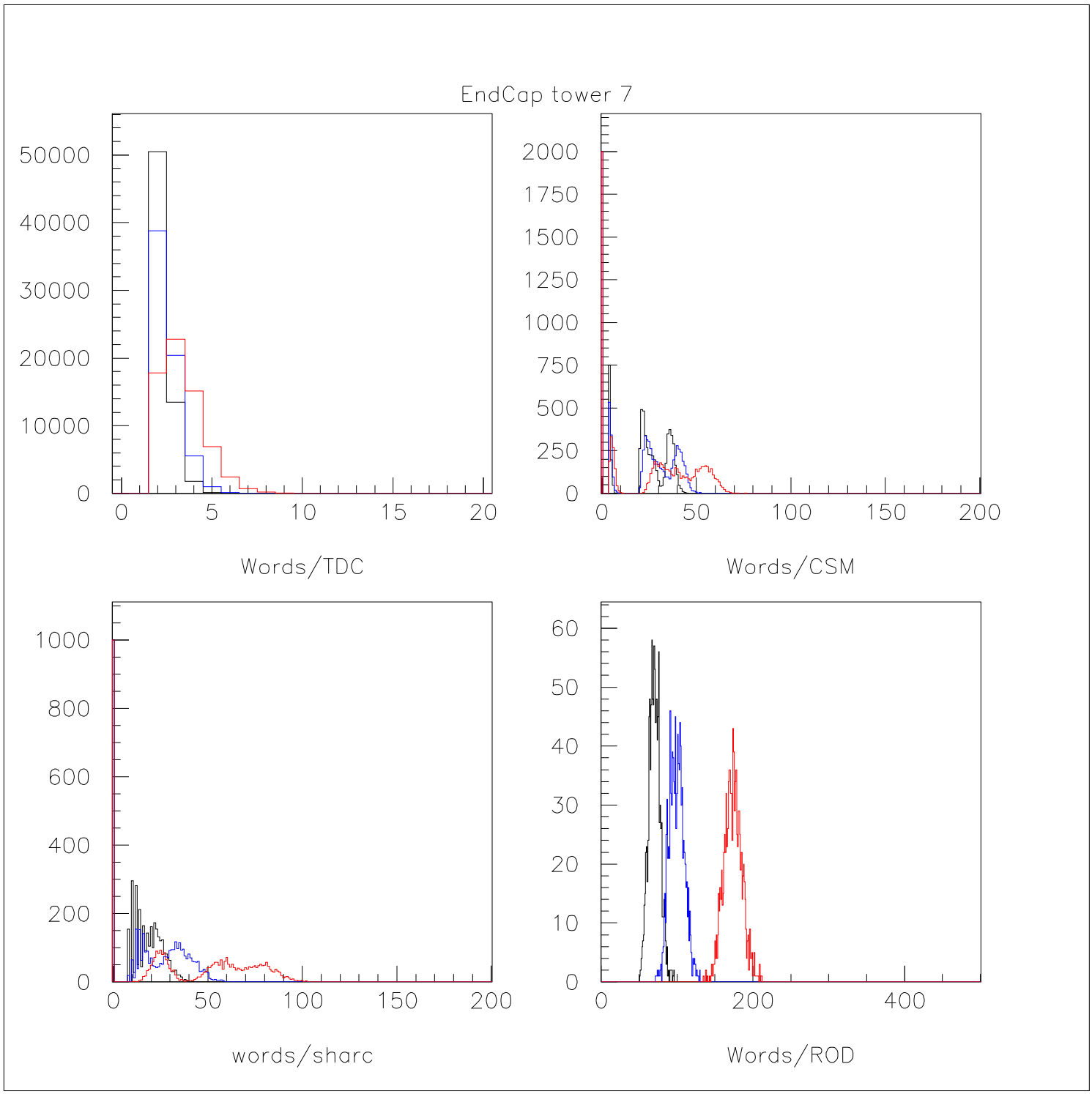

EndCap tower 6
40000
35000
30000
25000
20000
15000
10000
5000
0
0
5
10
15
20
Words/TDC
4000
3500
3000
2500
2000
1500
1000
500
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

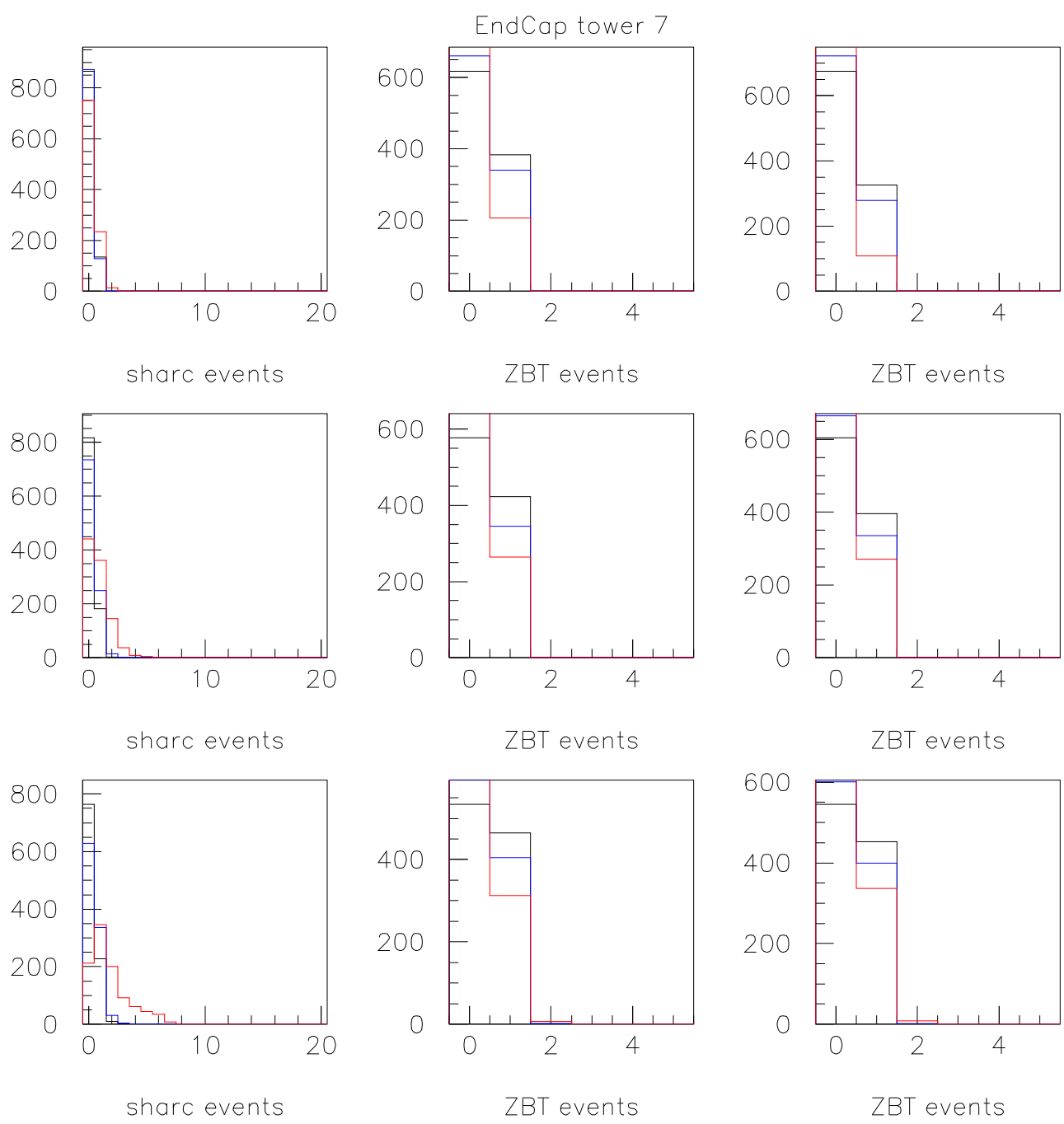

EndCap tower 6
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
1000
750
500
250
0
0
2
4
ZBT events
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
2
4
ZBT events

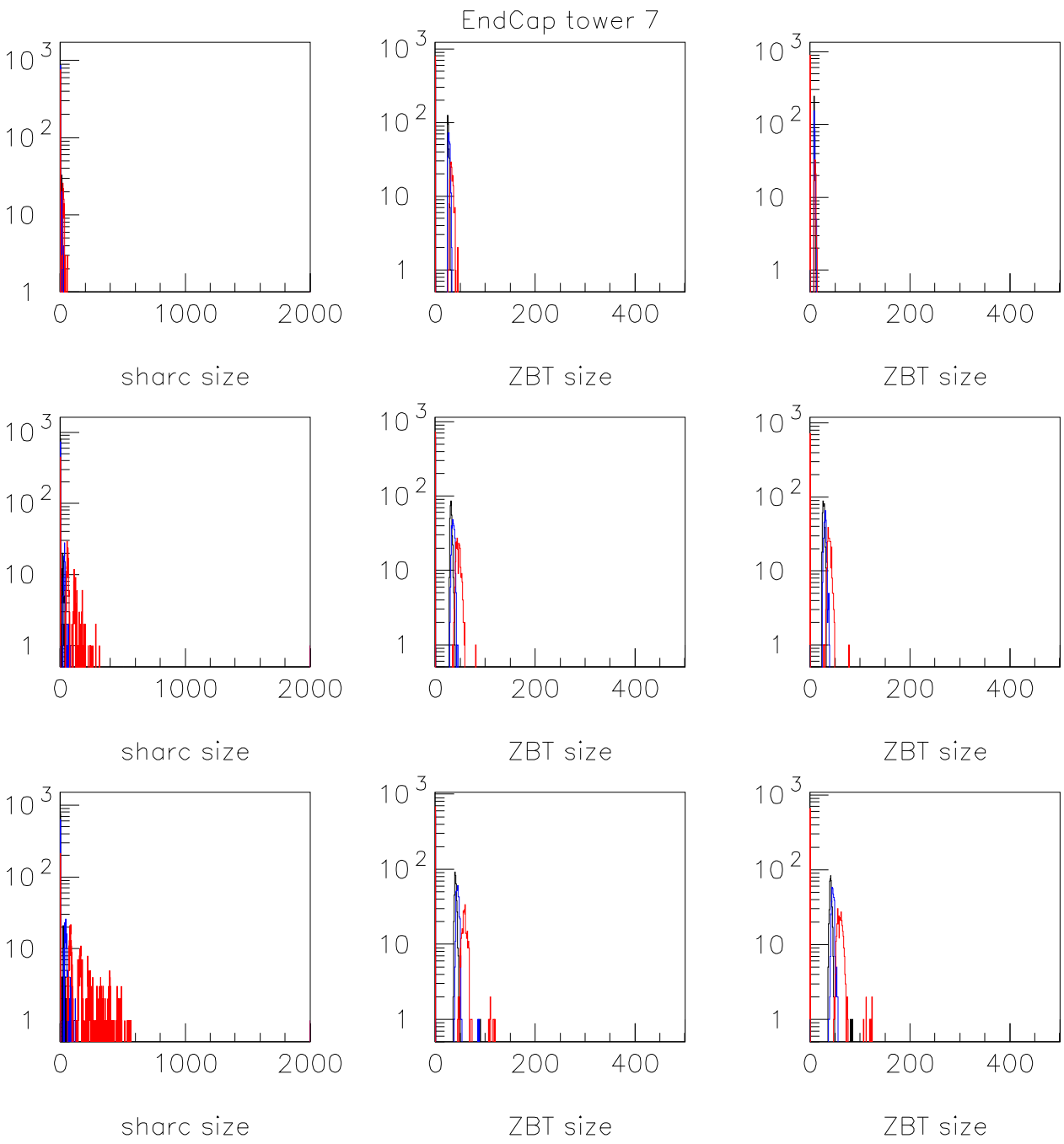

EndCap tower 6
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

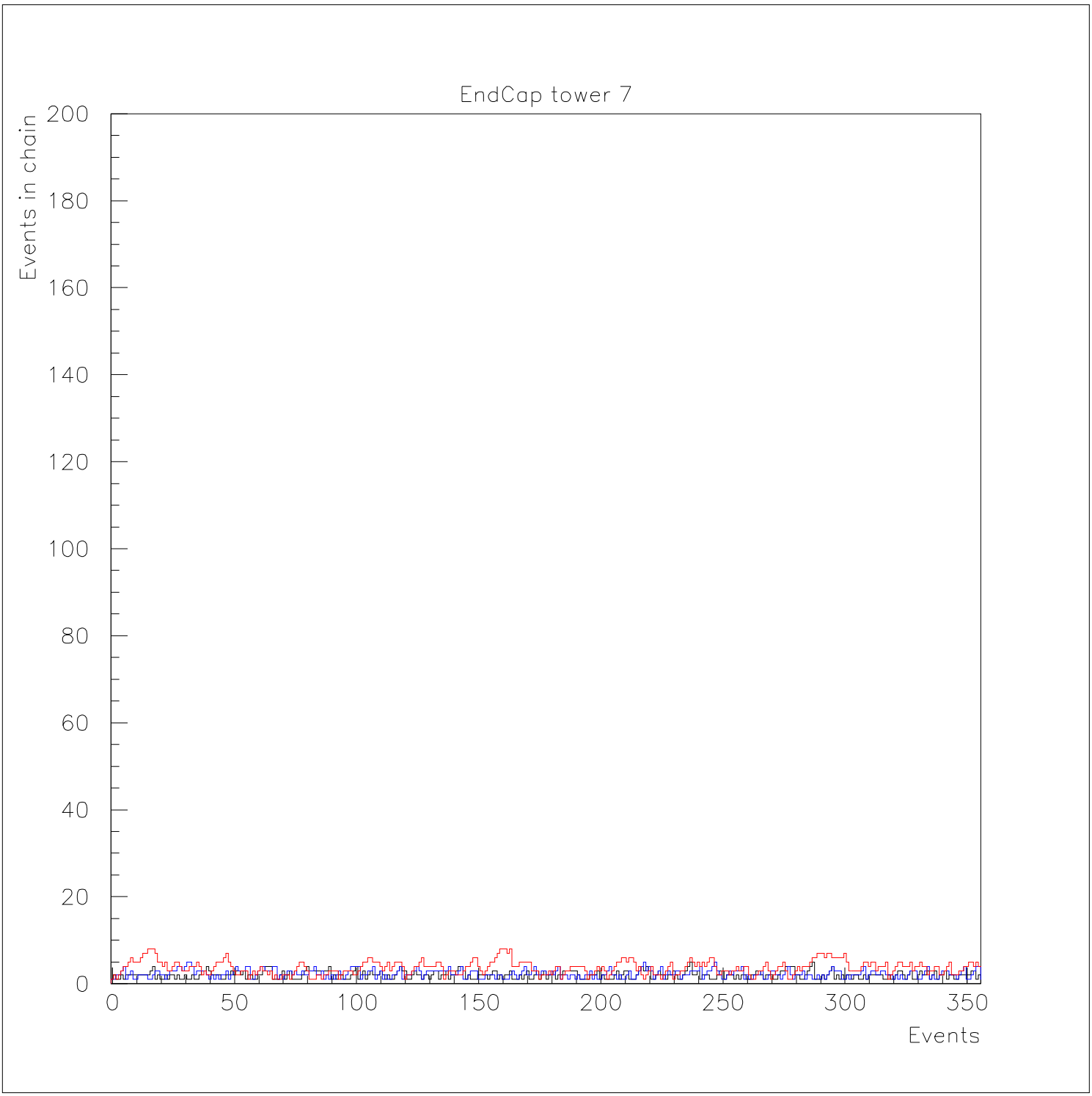

EndCap tower 6
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

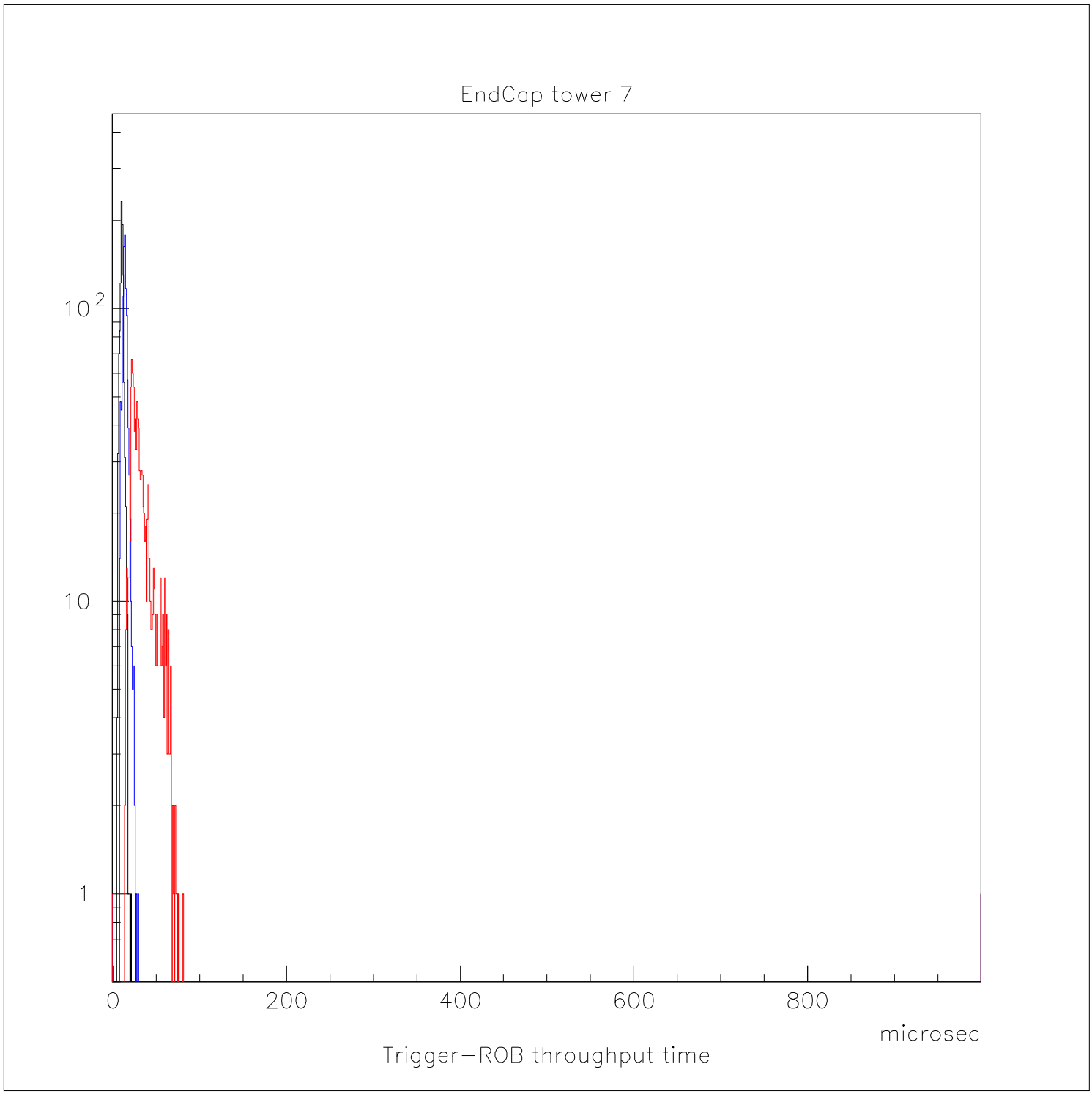

EndCap tower 6
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

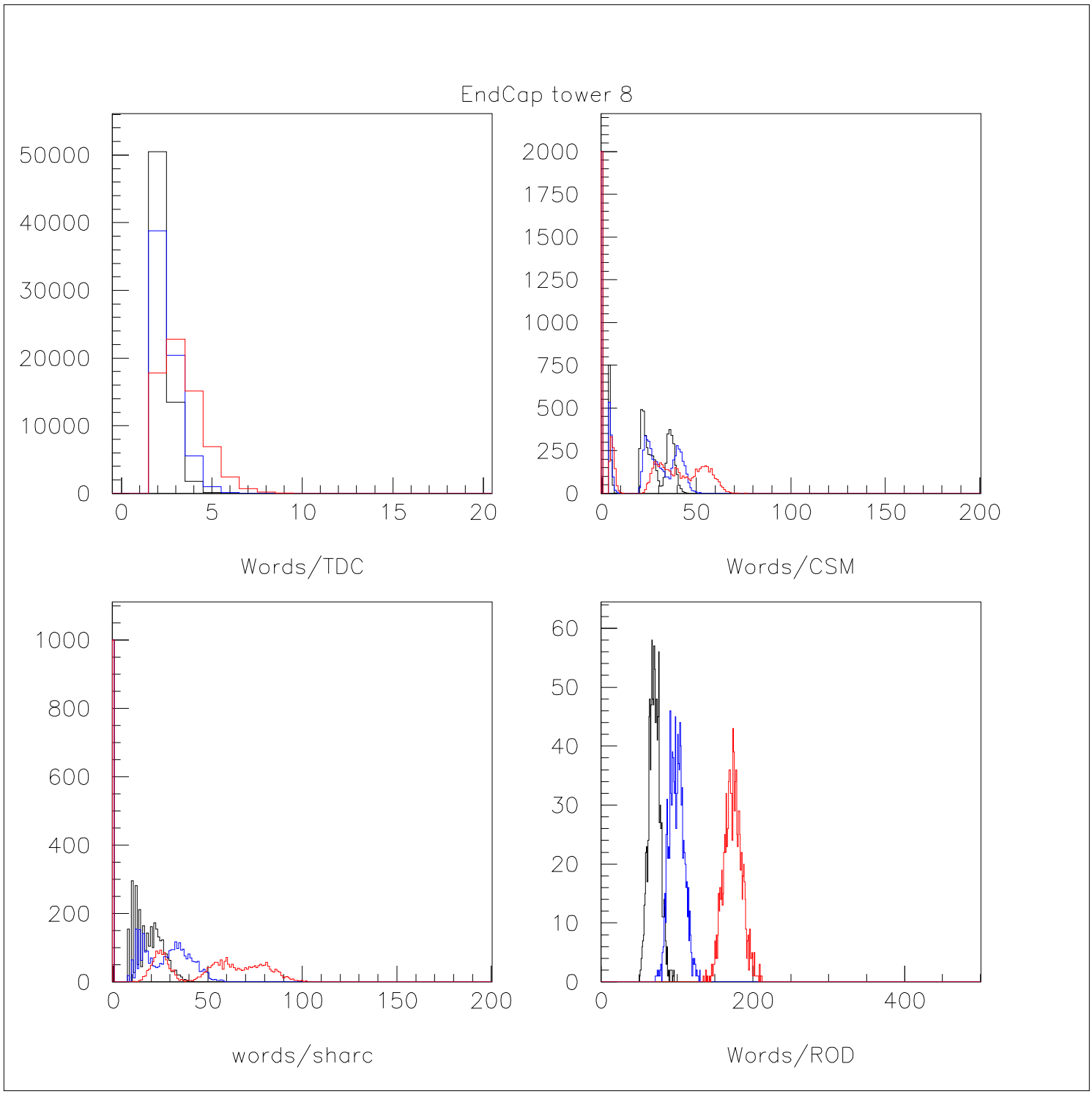

EndCap tower 7
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

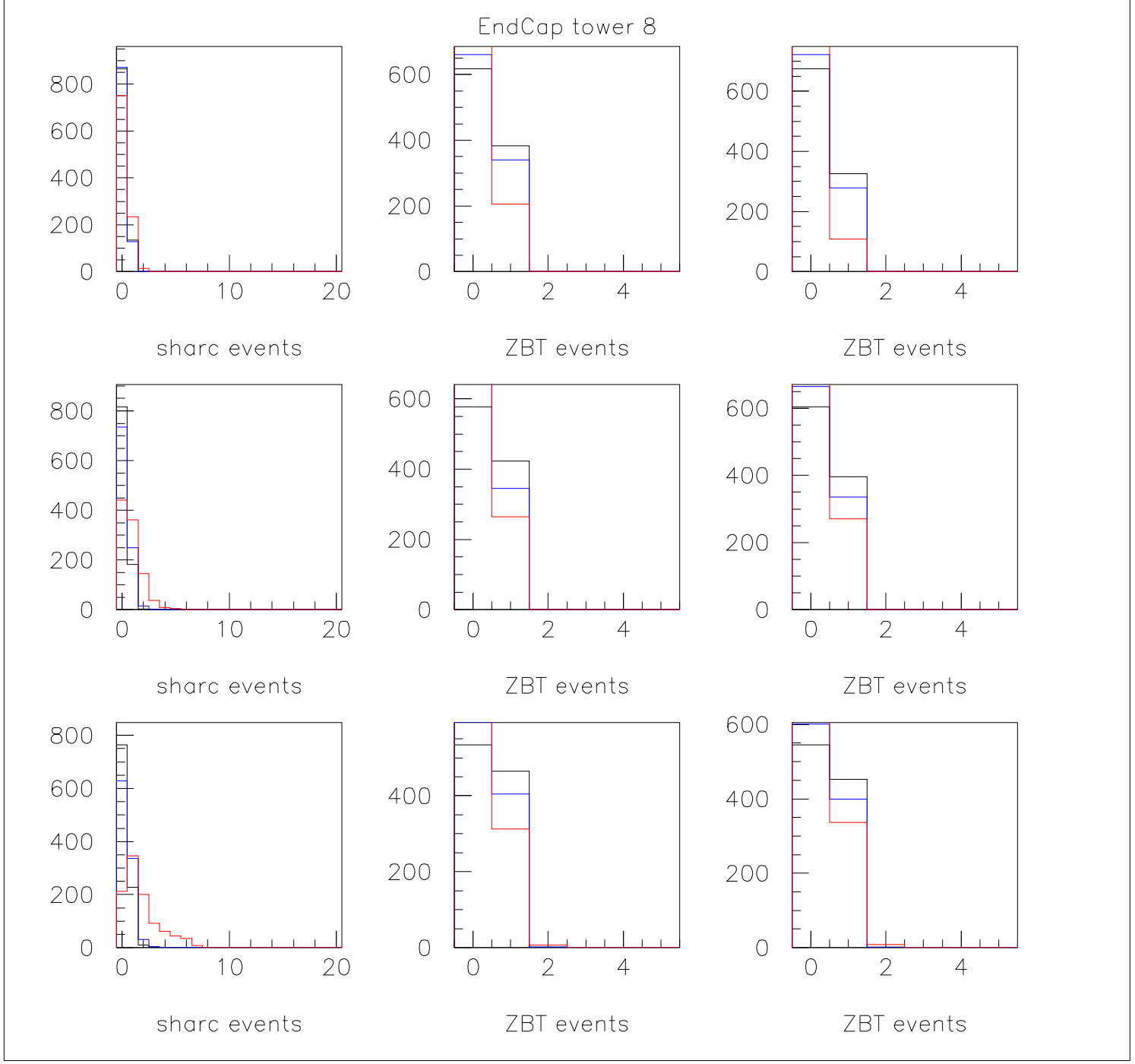

EndCap tower 7
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

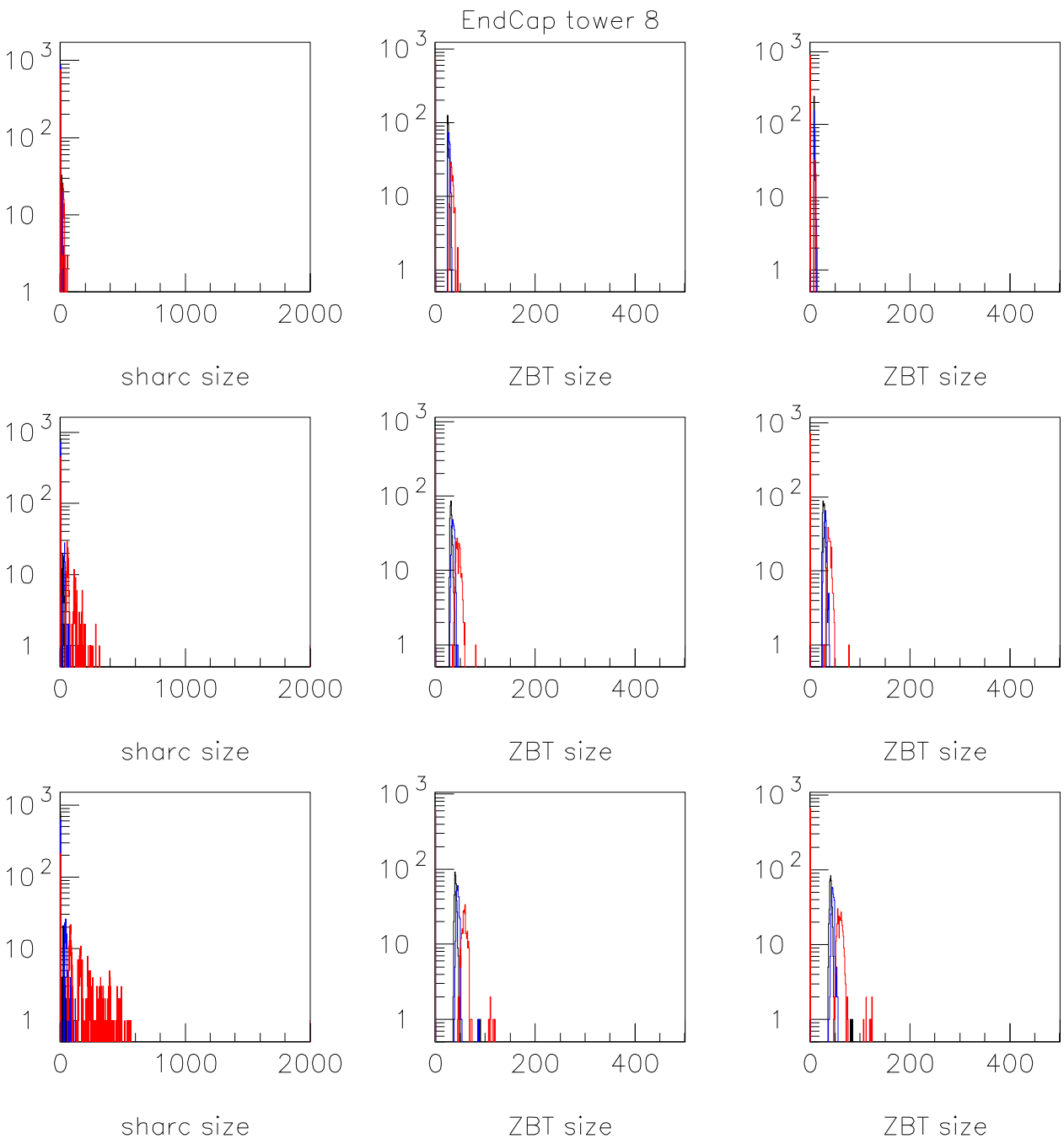

EndCap tower 7
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

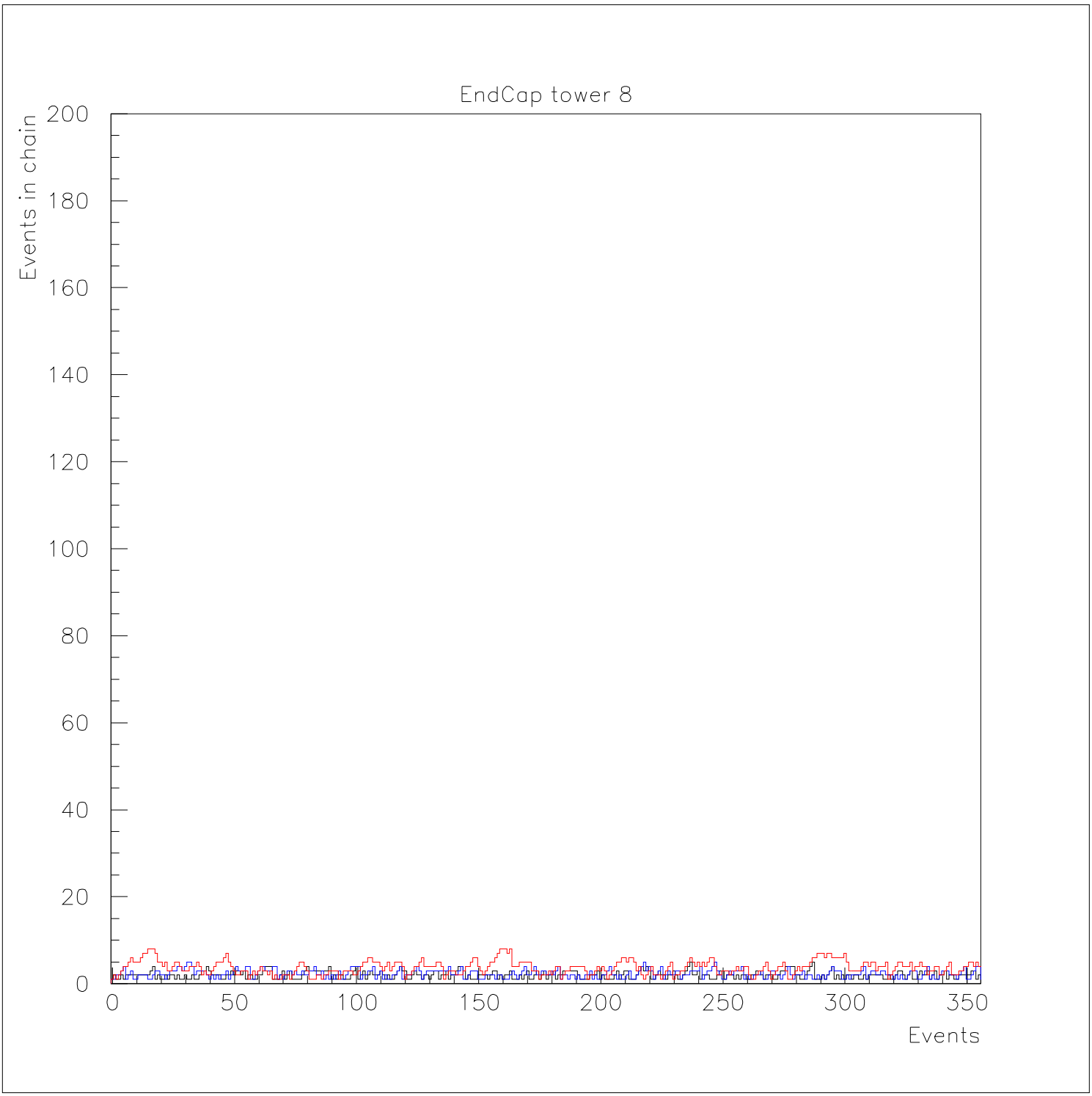

EndCap tower 7
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

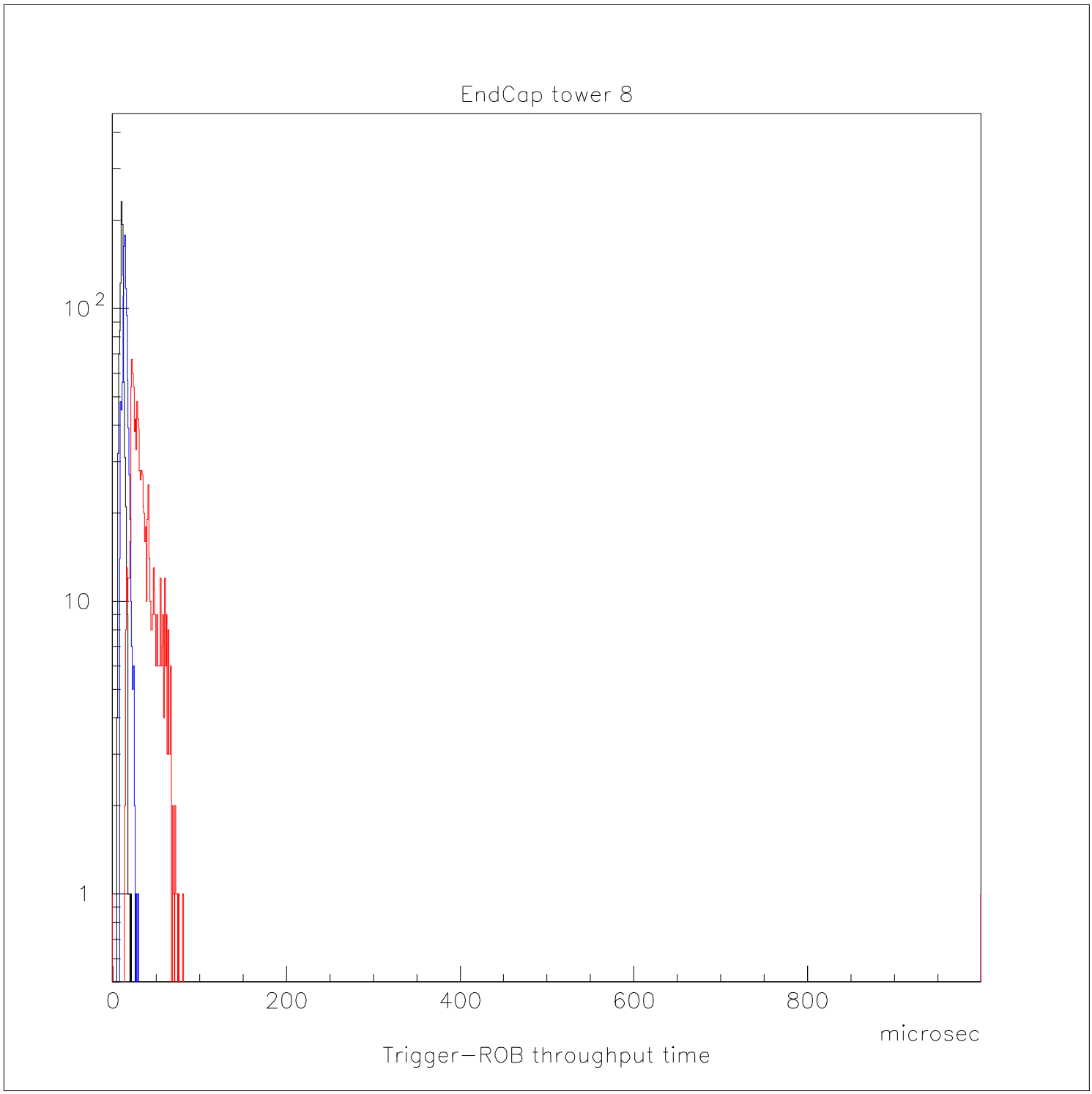

EndCap tower 7
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

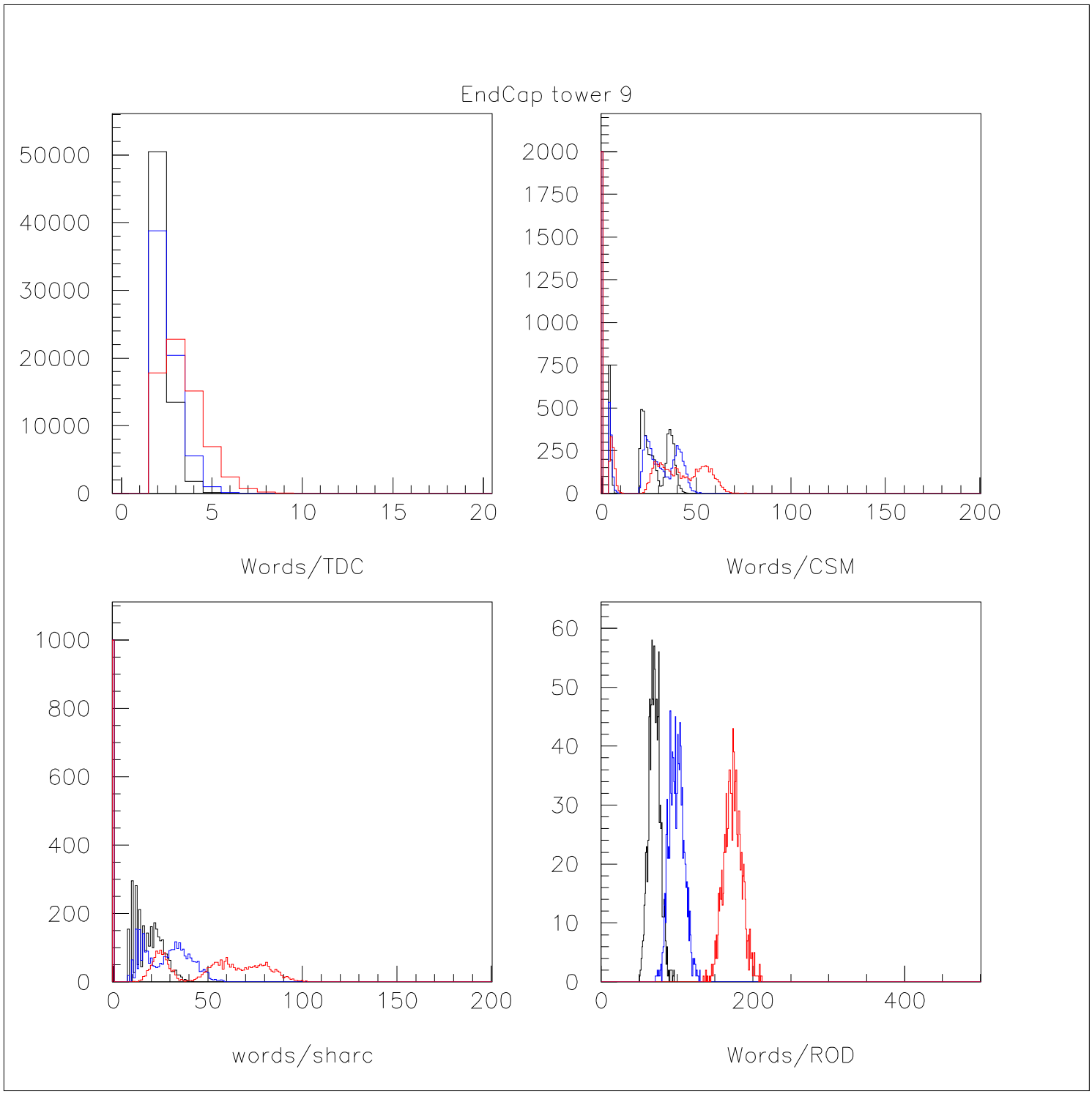

EndCap tower 8
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

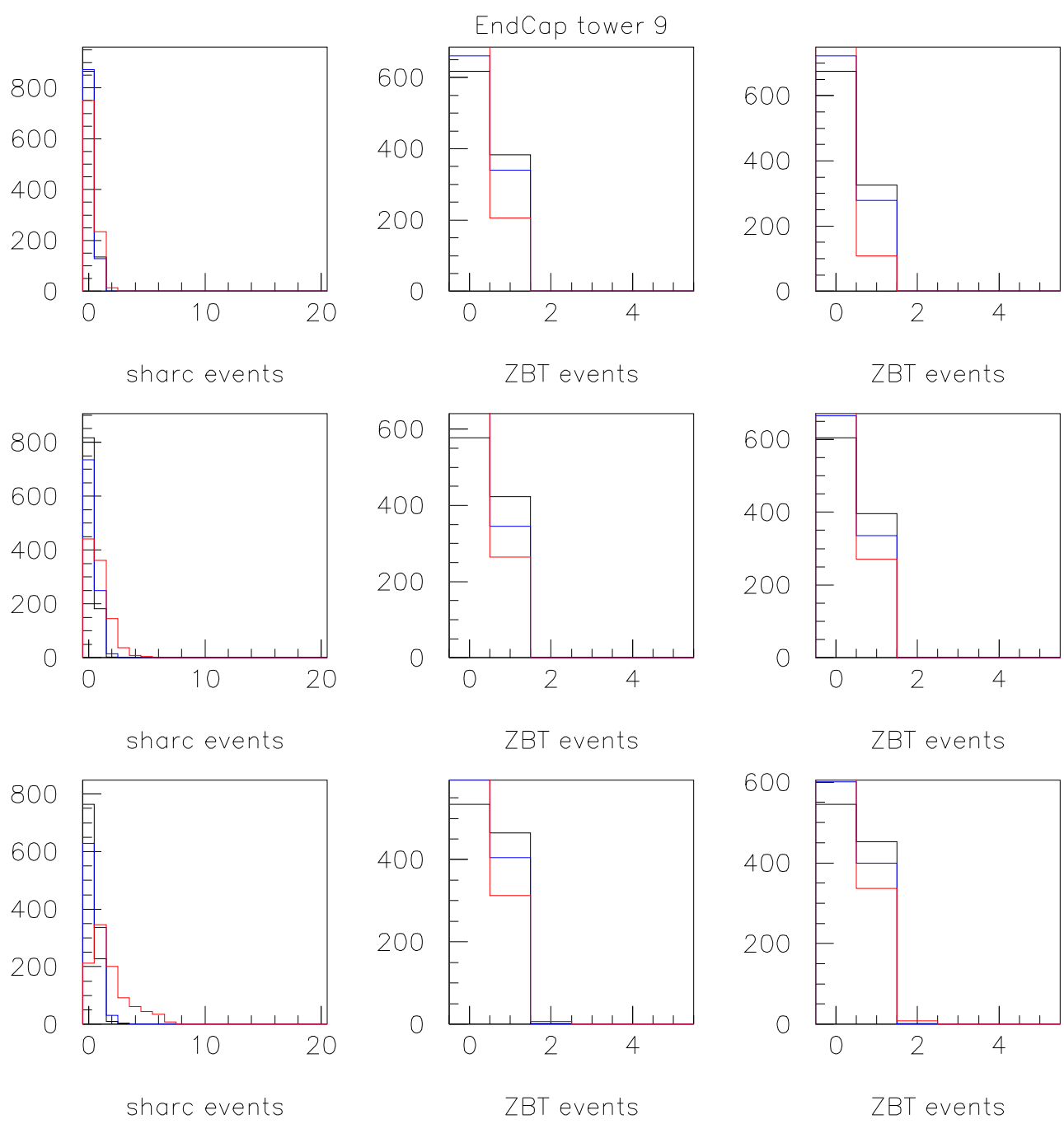

EndCap tower 8
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

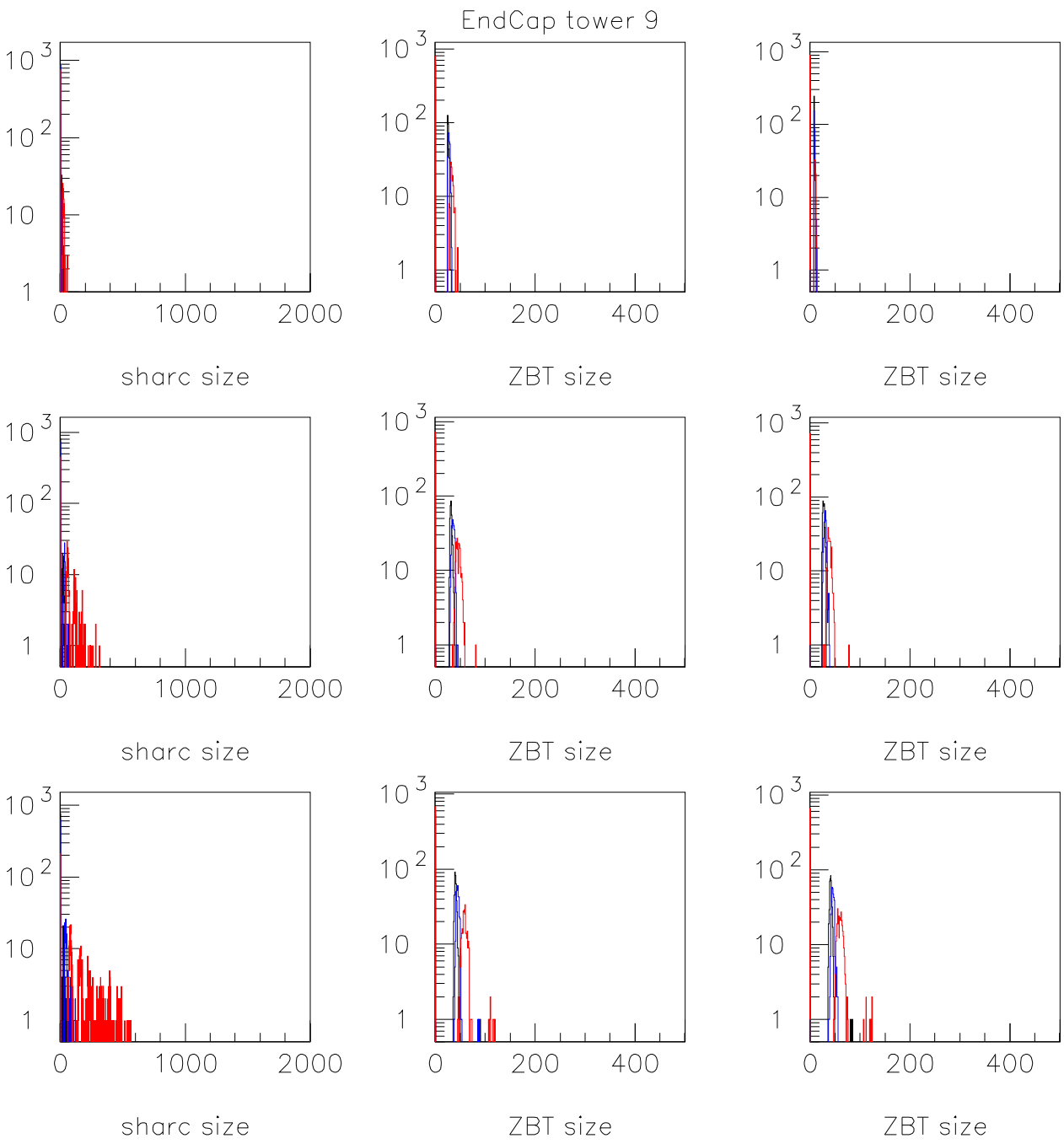

EndCap tower 8
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

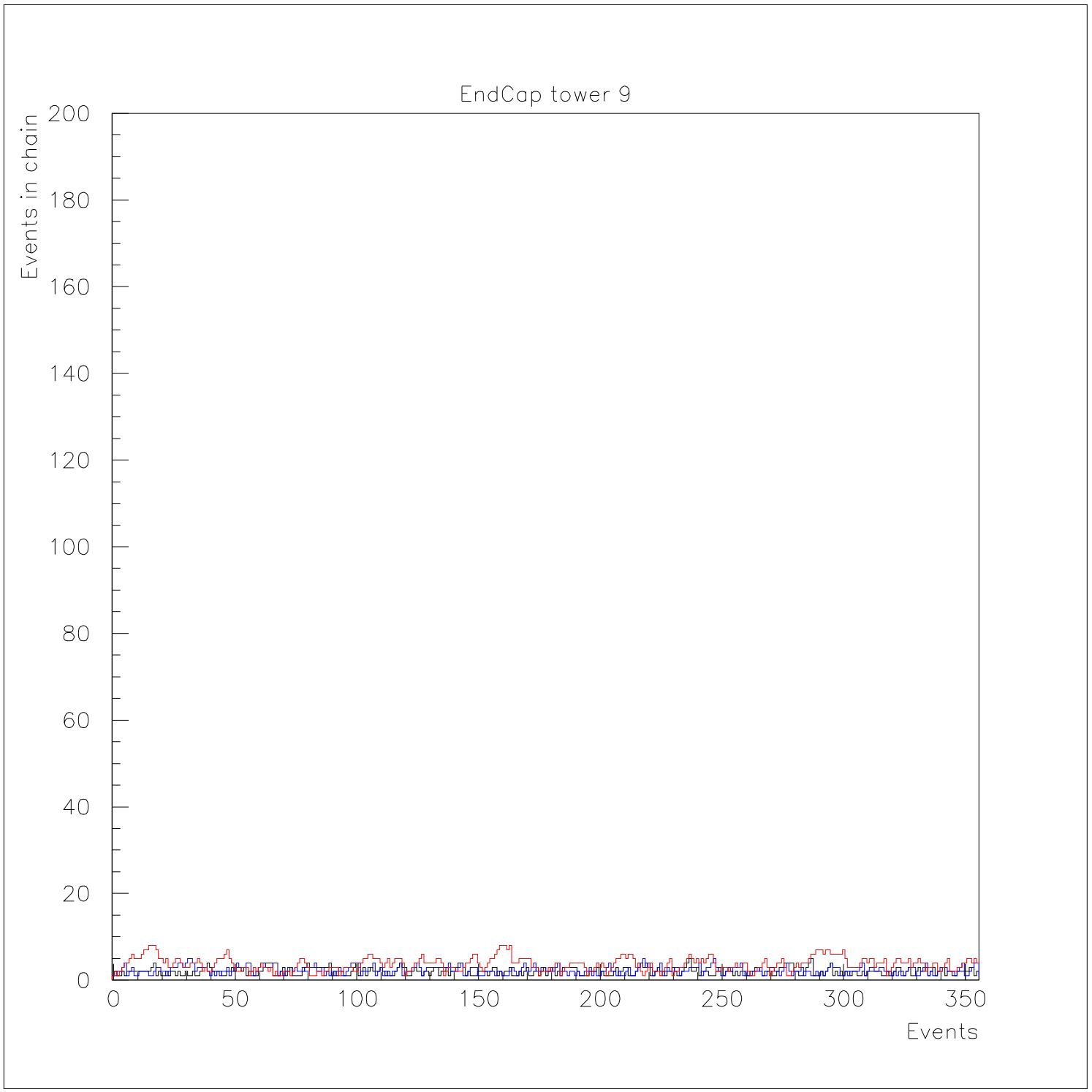

EndCap tower 8
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

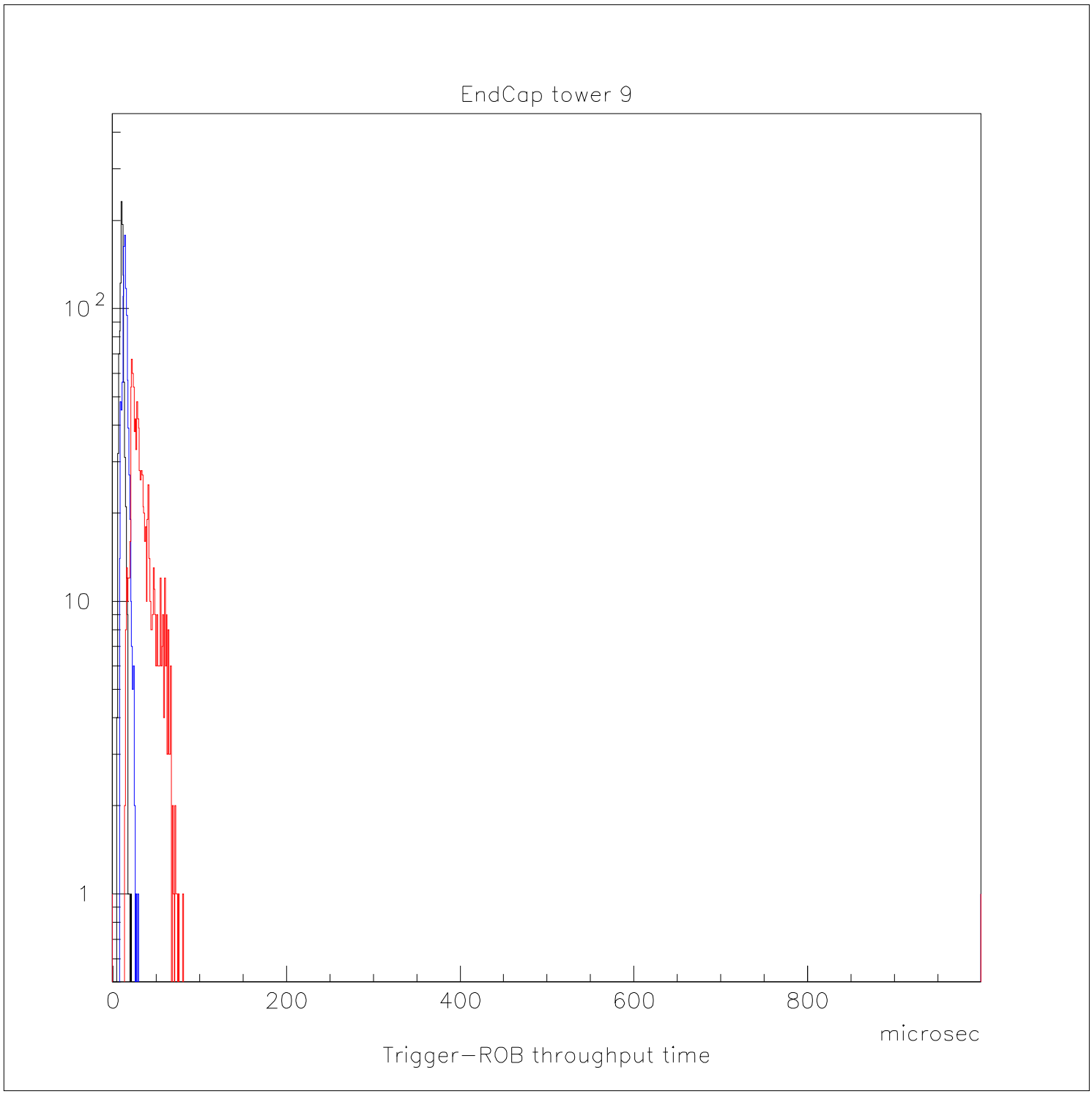

EndCap tower 8
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

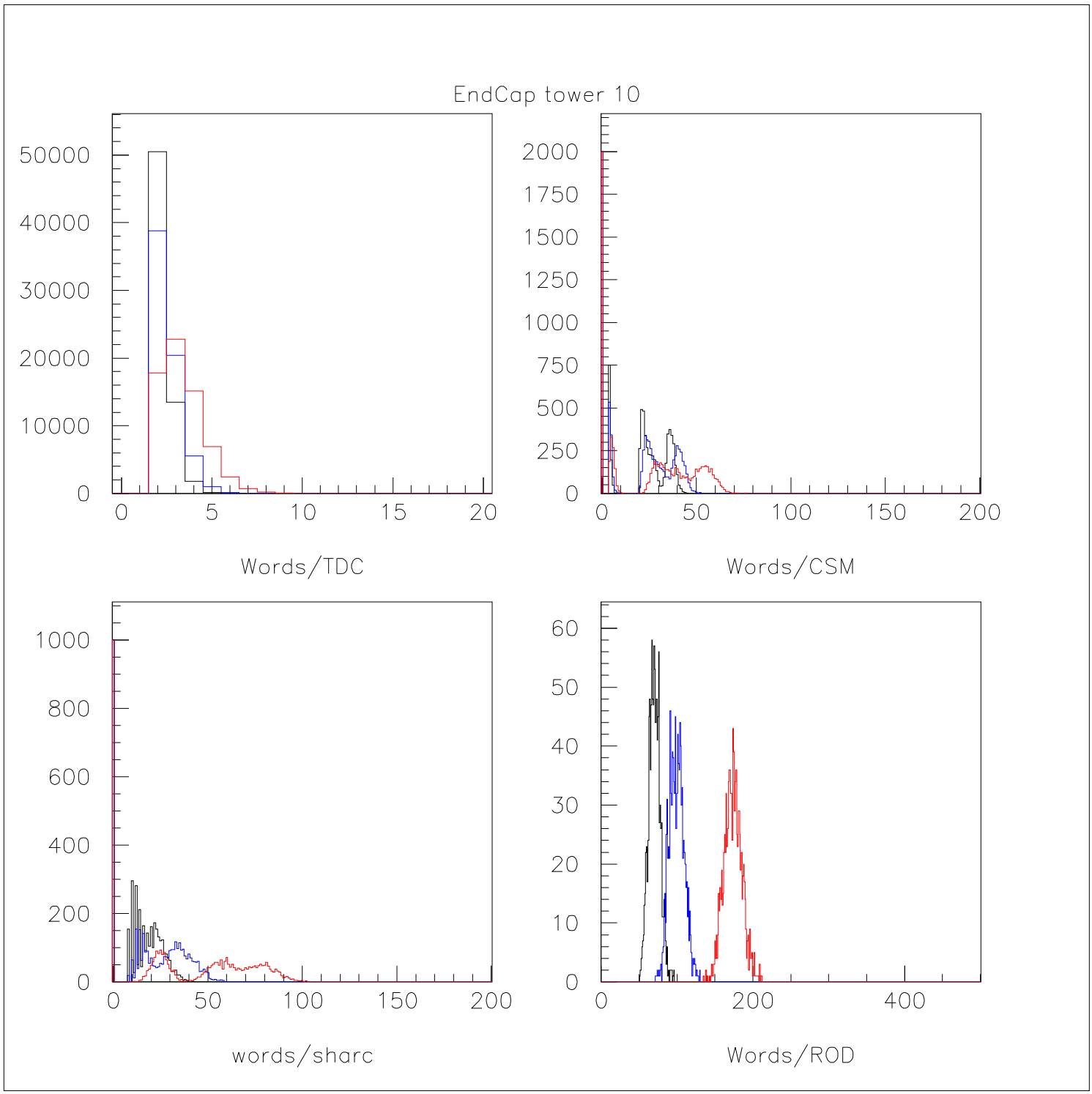

EndCap tower 9
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

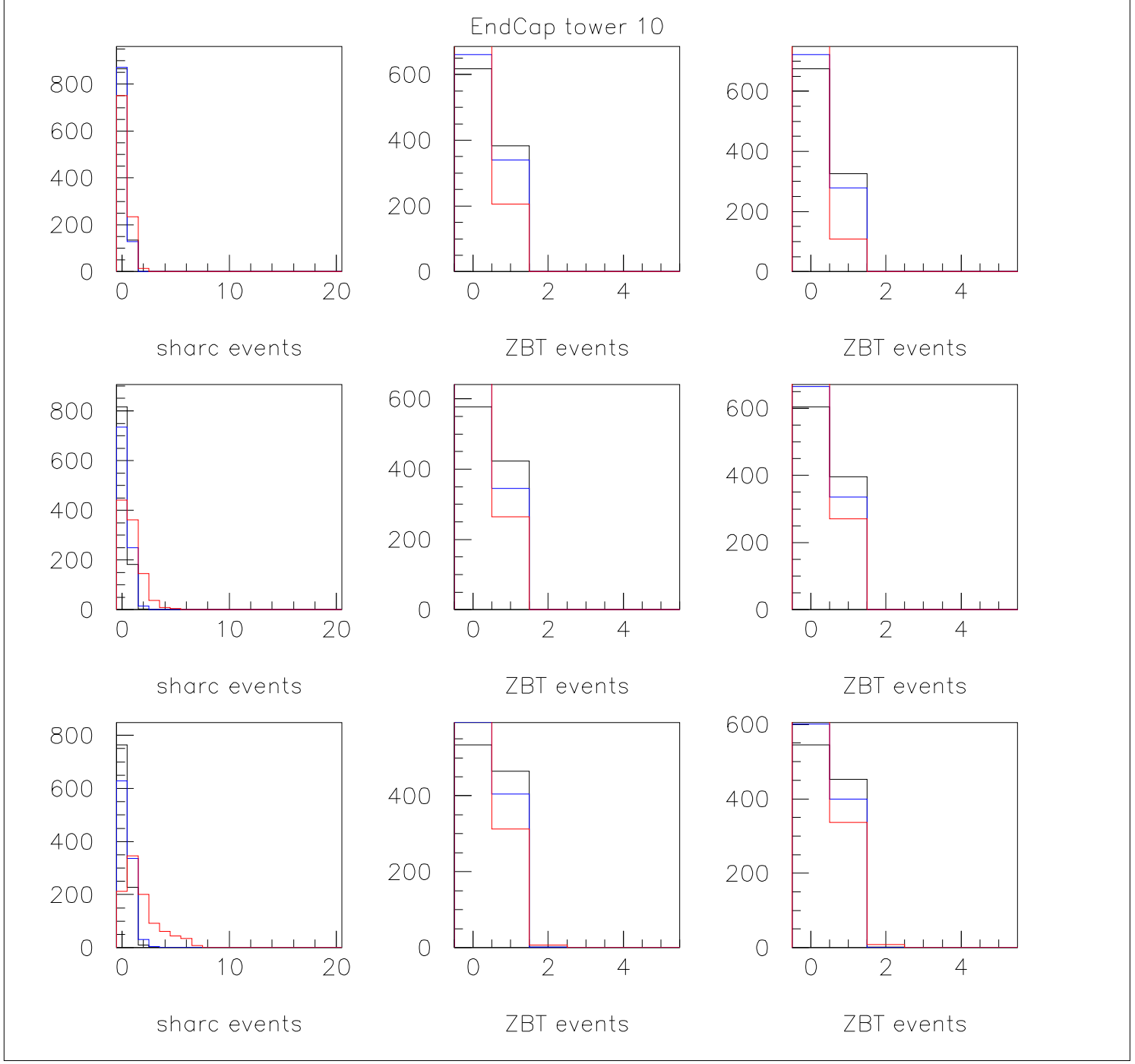

EndCap tower 9
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

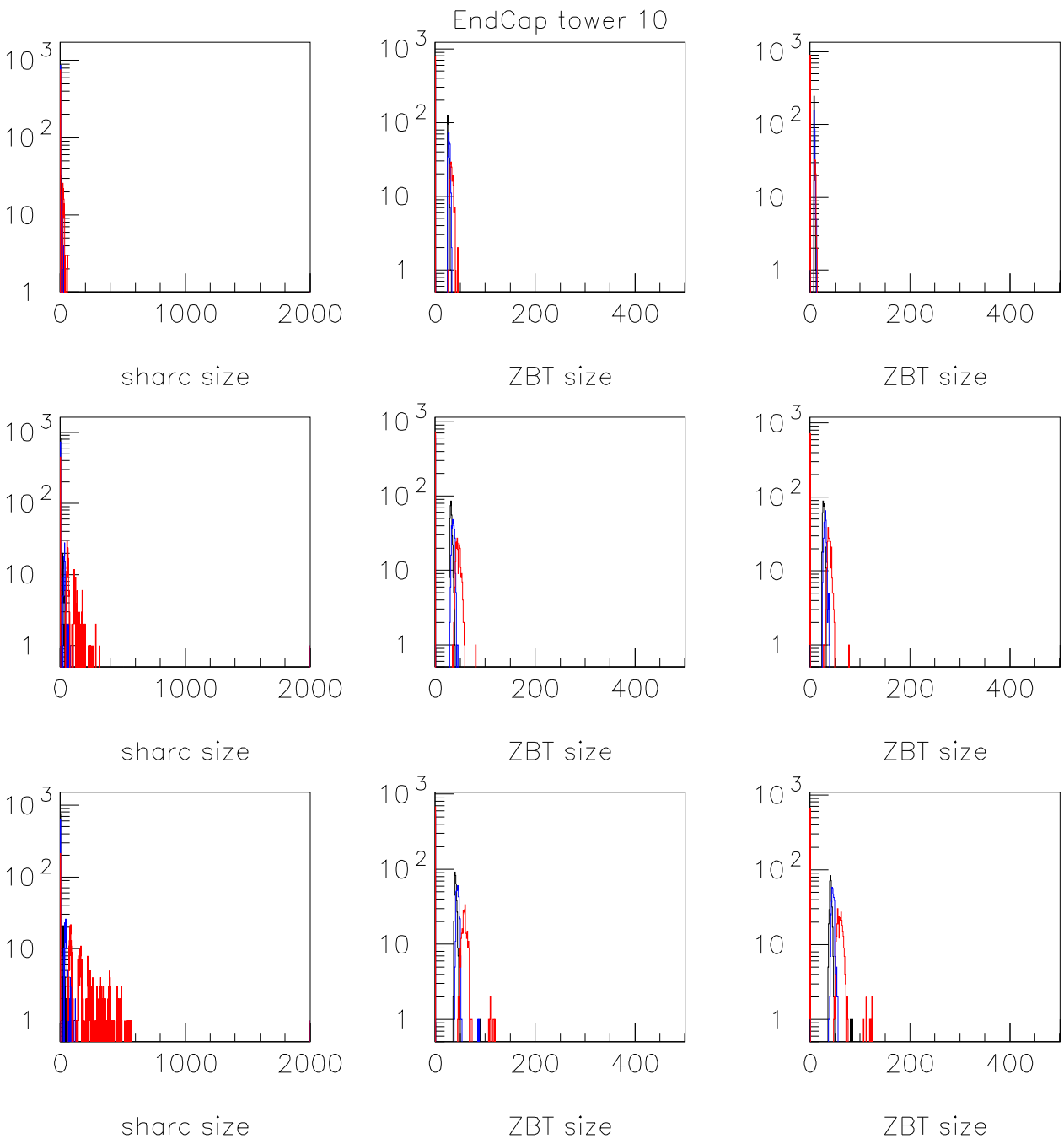

EndCap tower 9
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

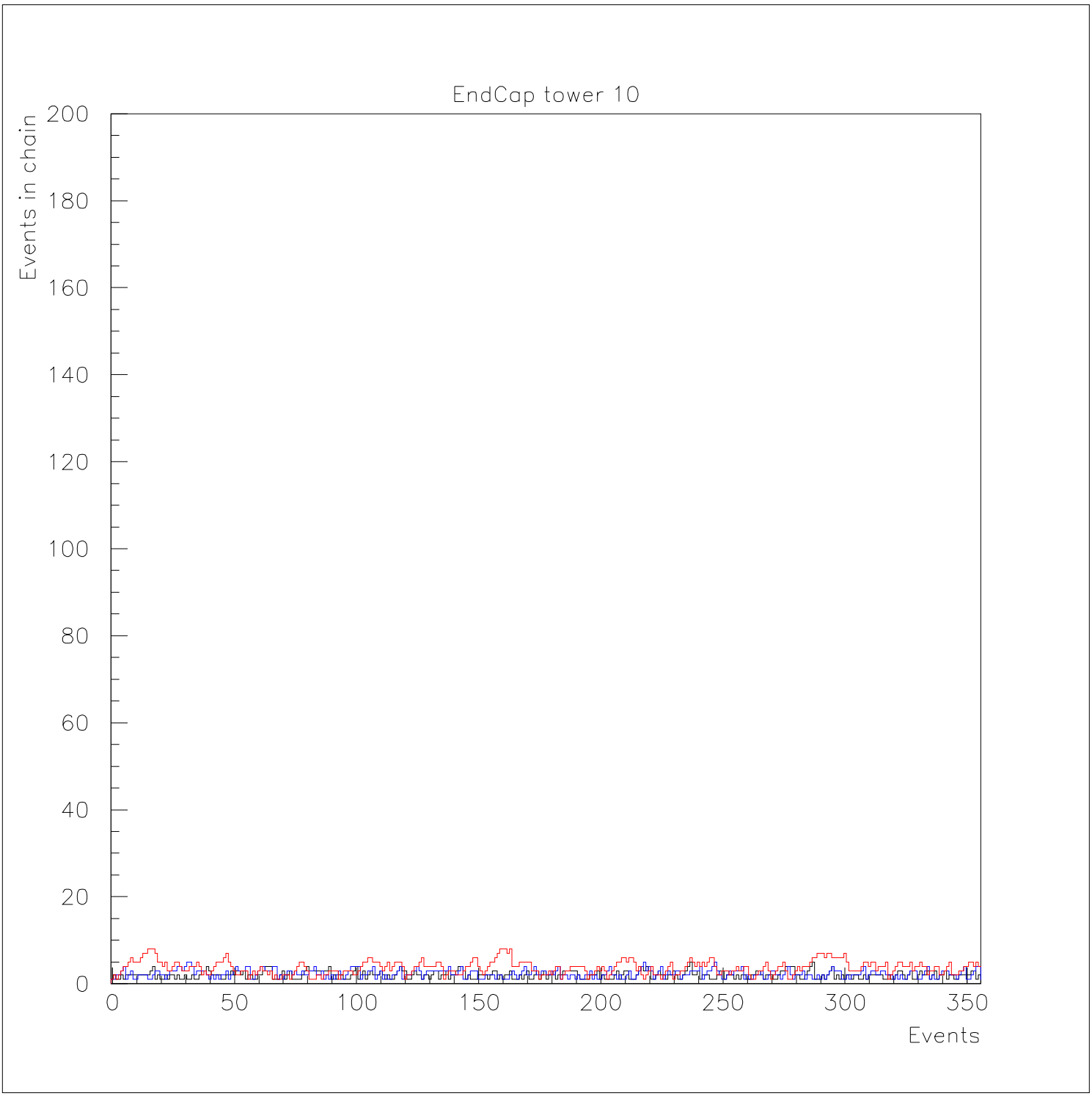

EndCap tower 9
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

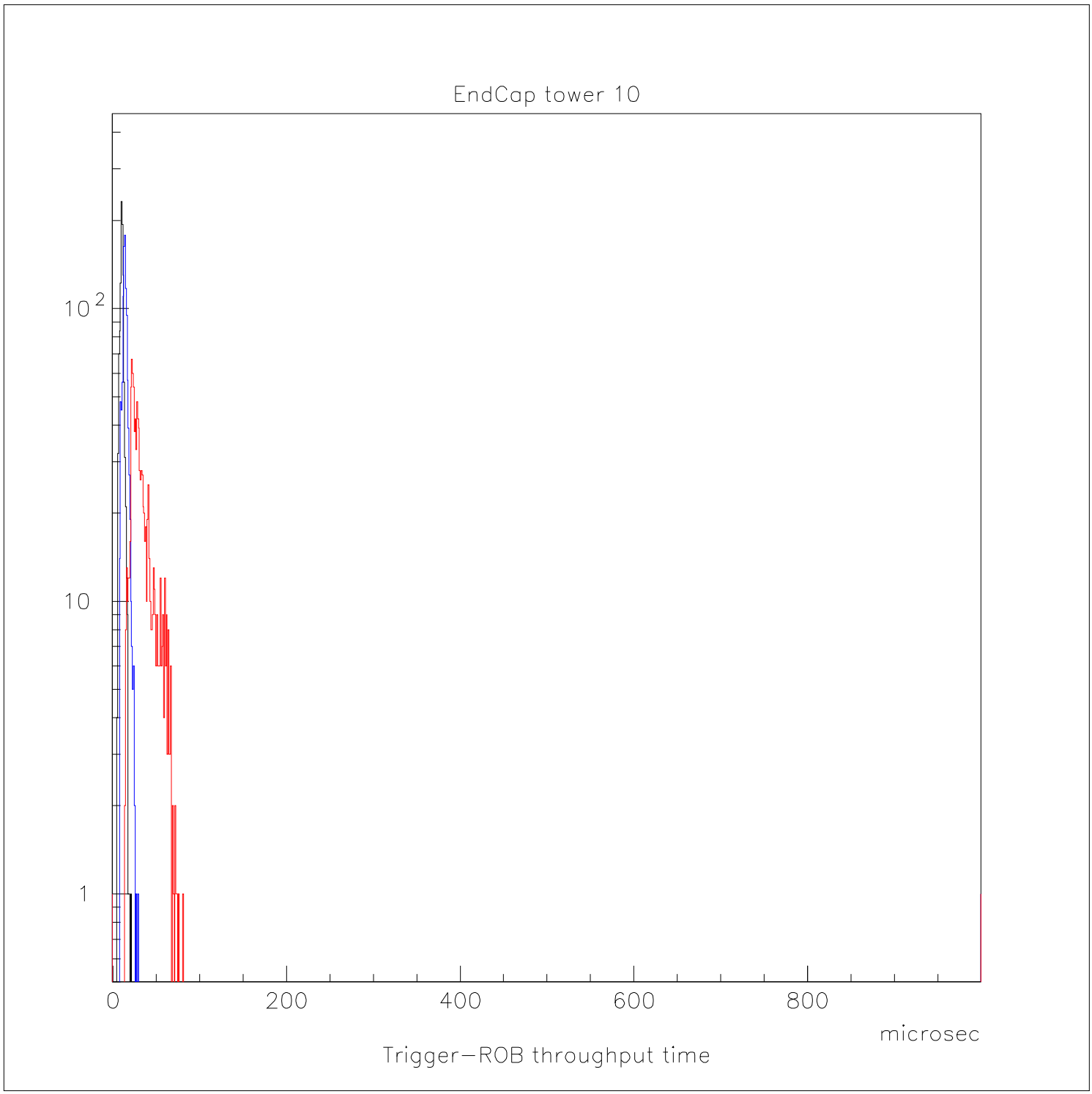

EndCap tower 9
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

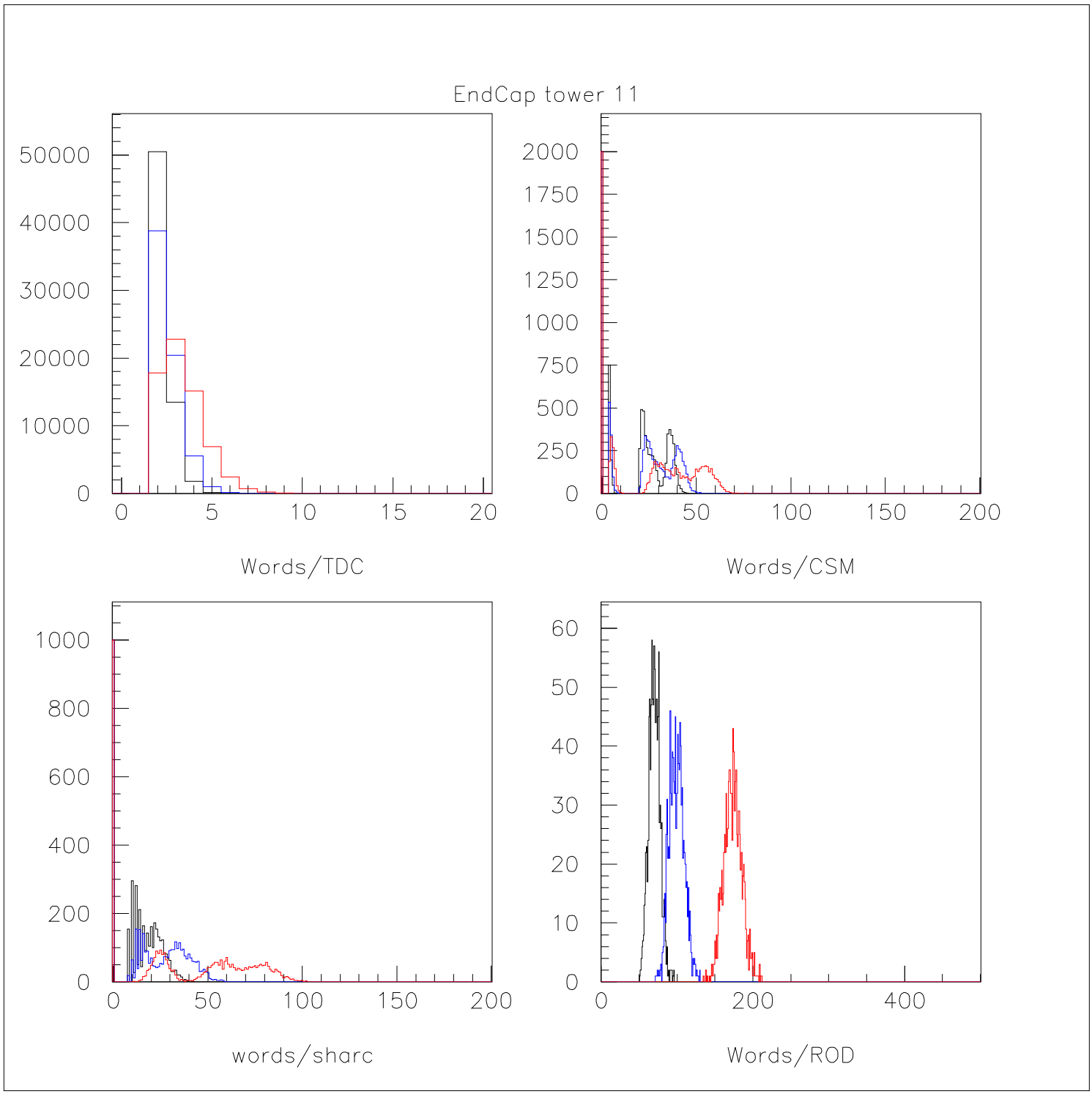

EndCap tower 10
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

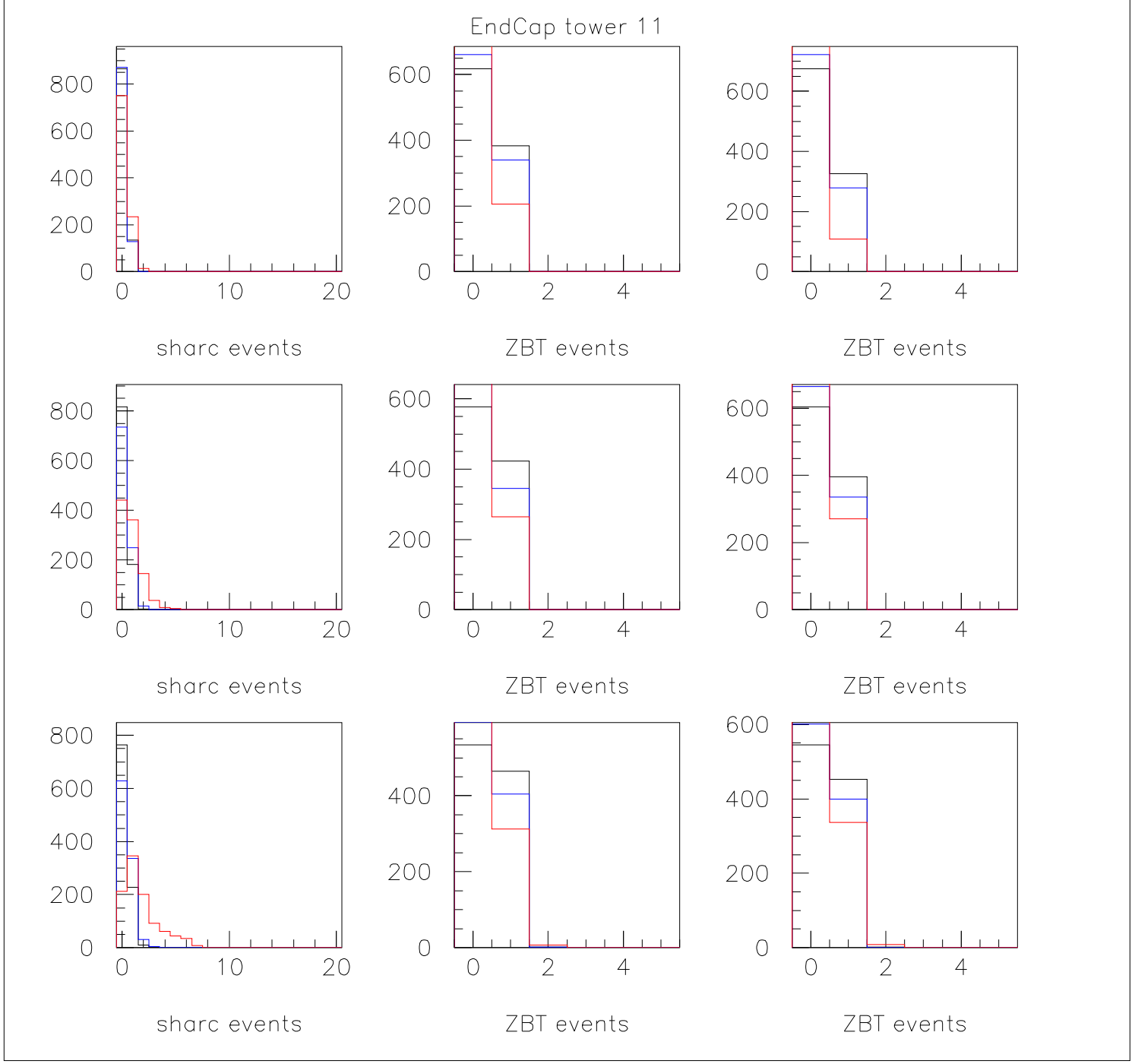

EndCap tower 10
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

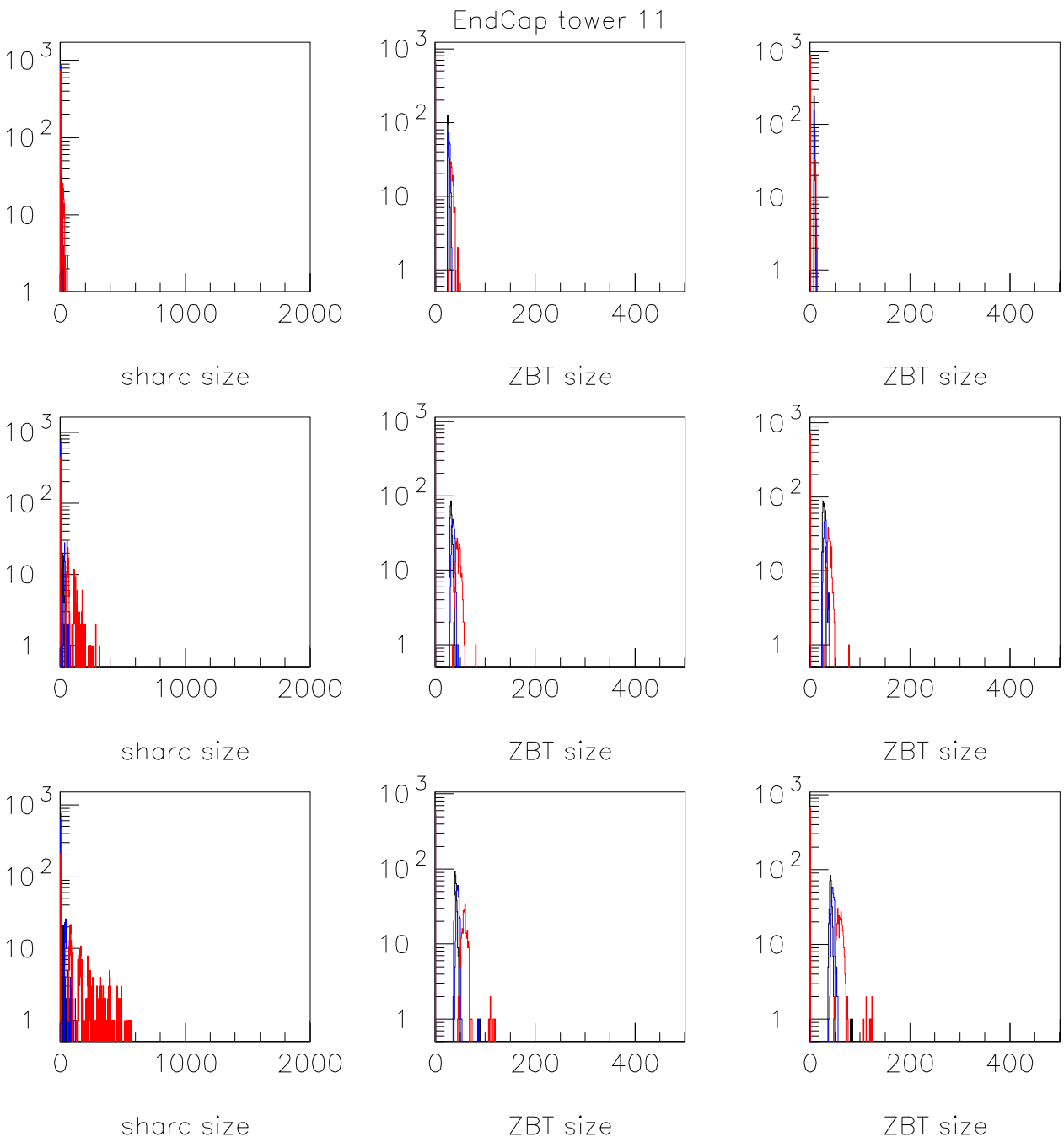

EndCap tower 10
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

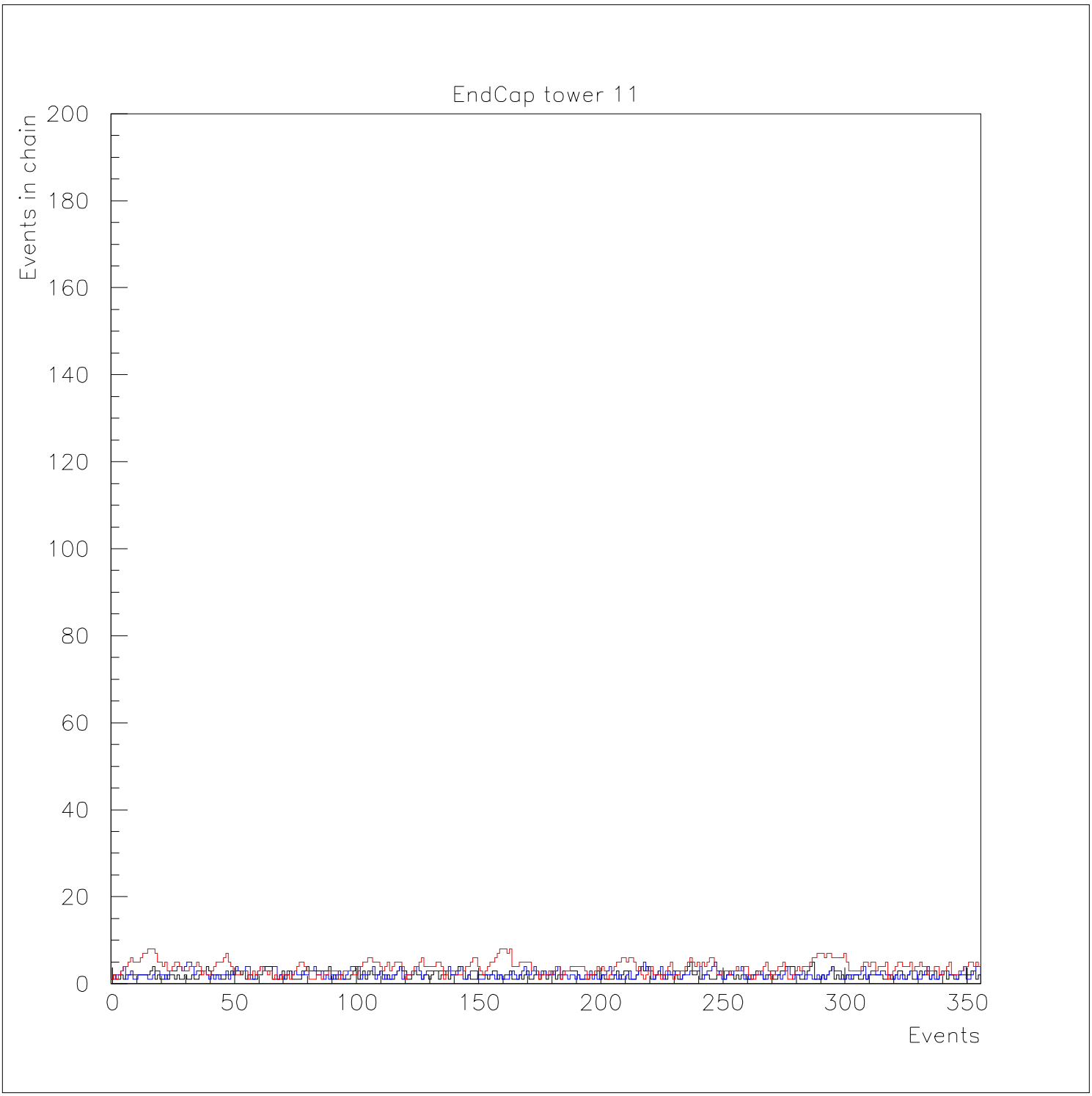

EndCap tower 10
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

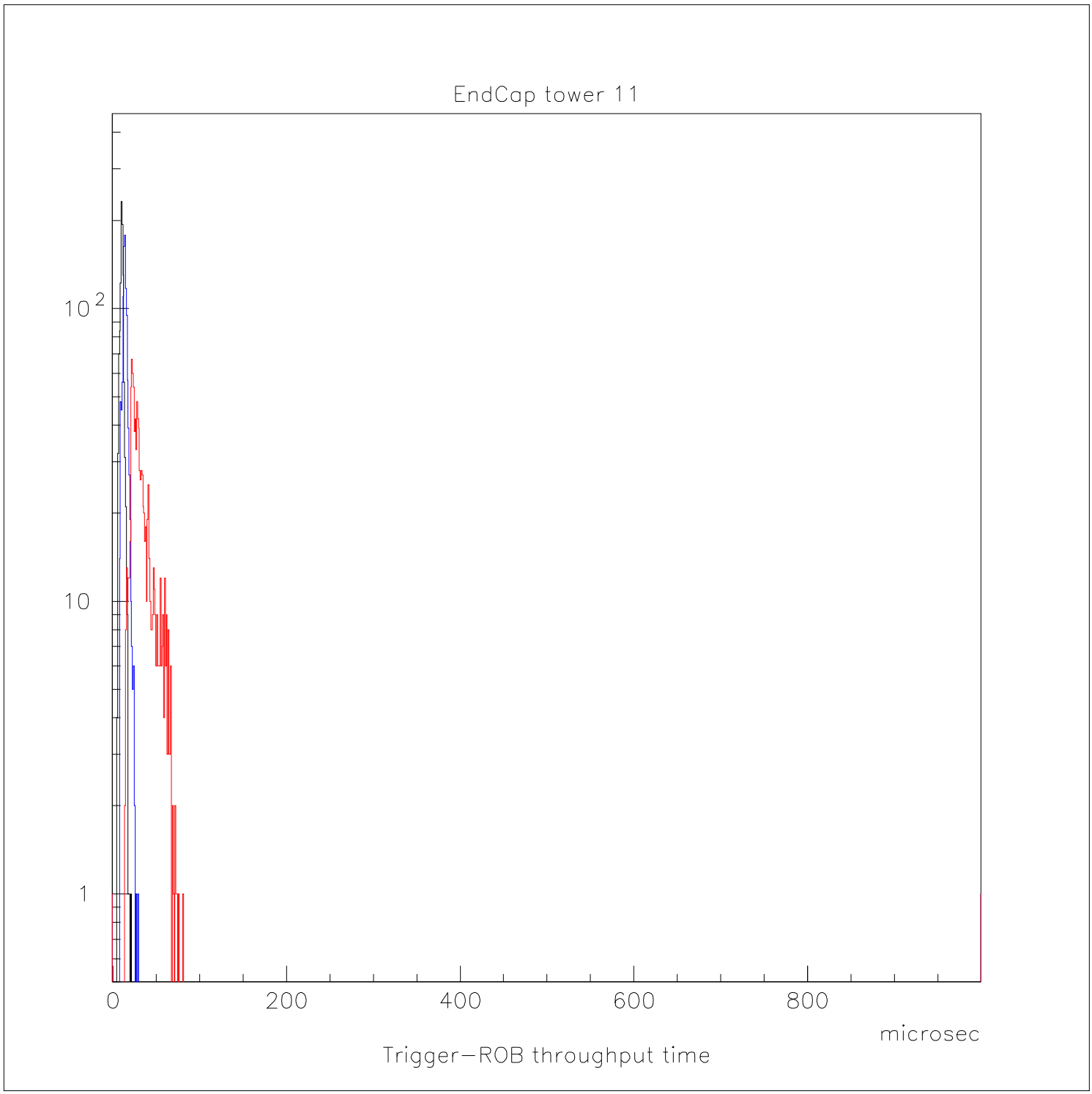

EndCap tower 10
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

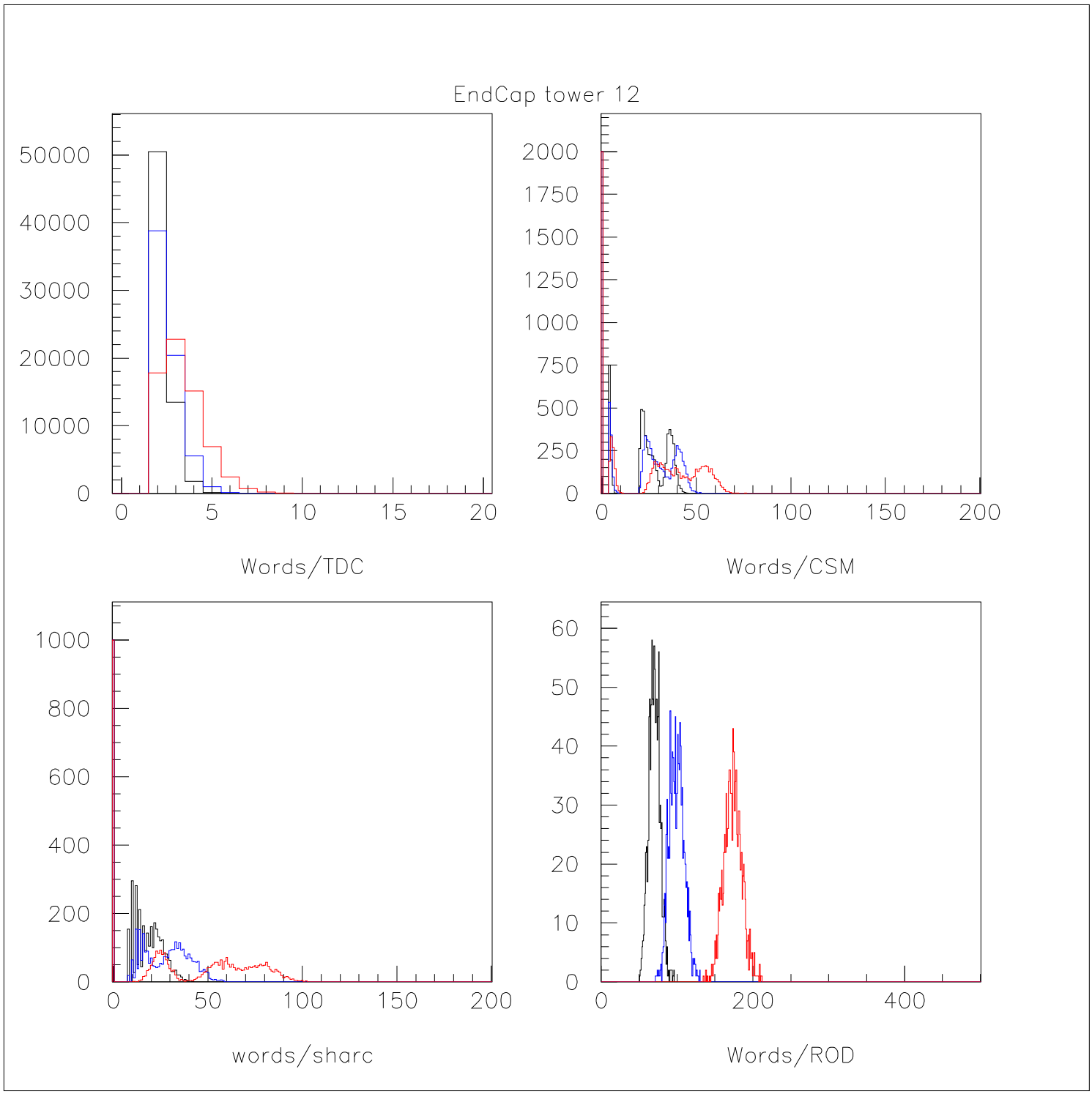

EndCap tower 11
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

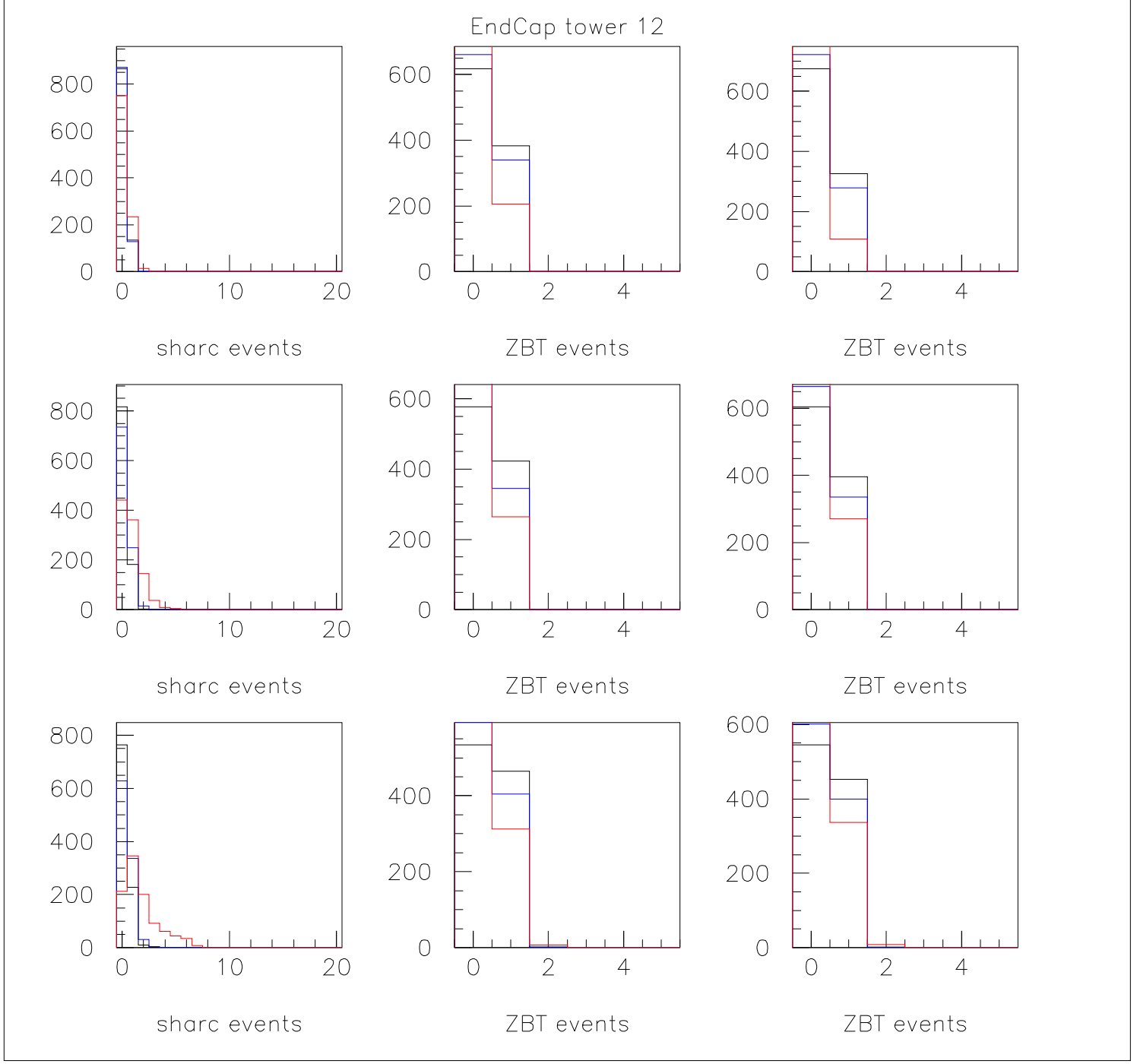

EndCap tower 11
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

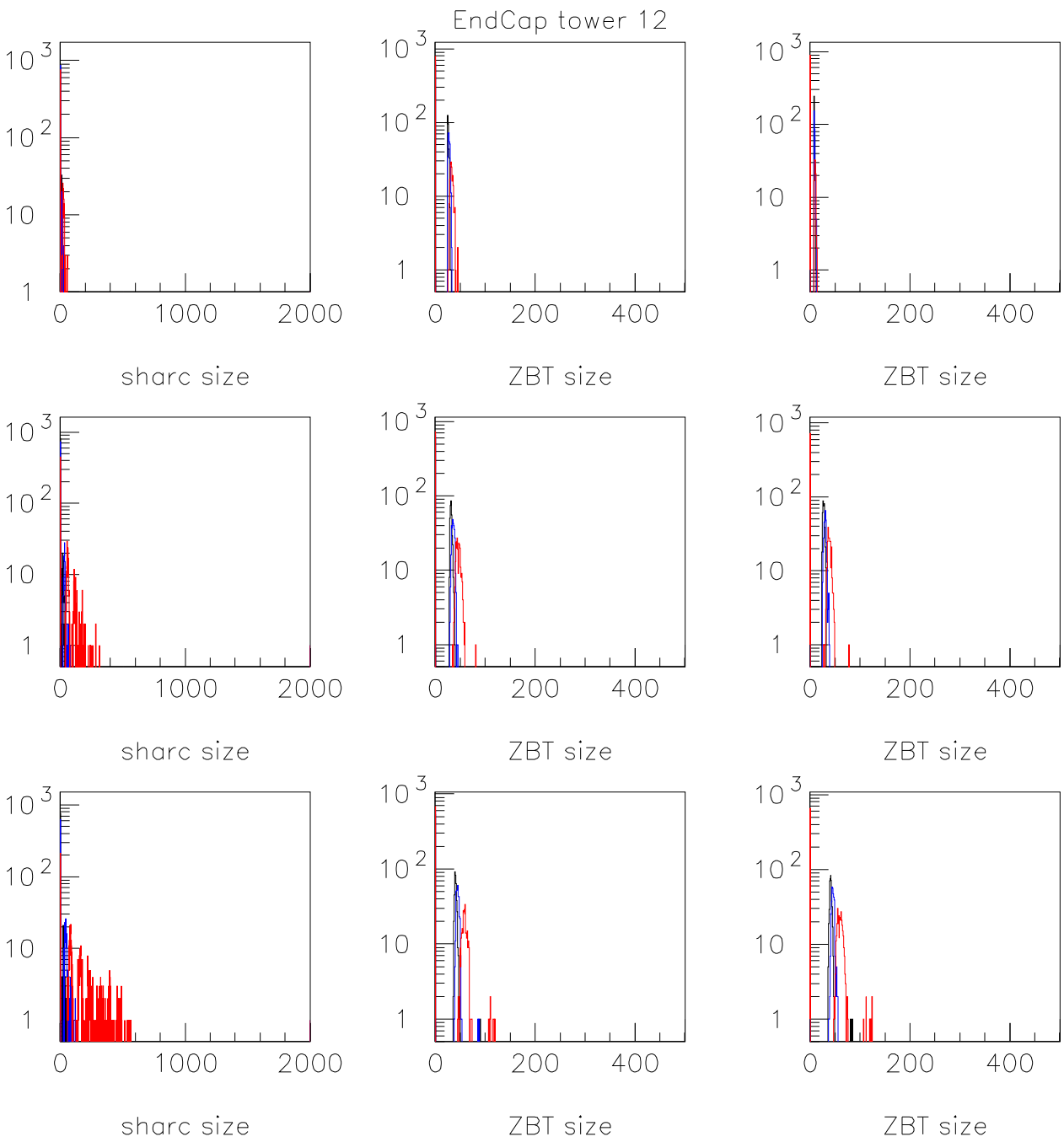

EndCap tower 11
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

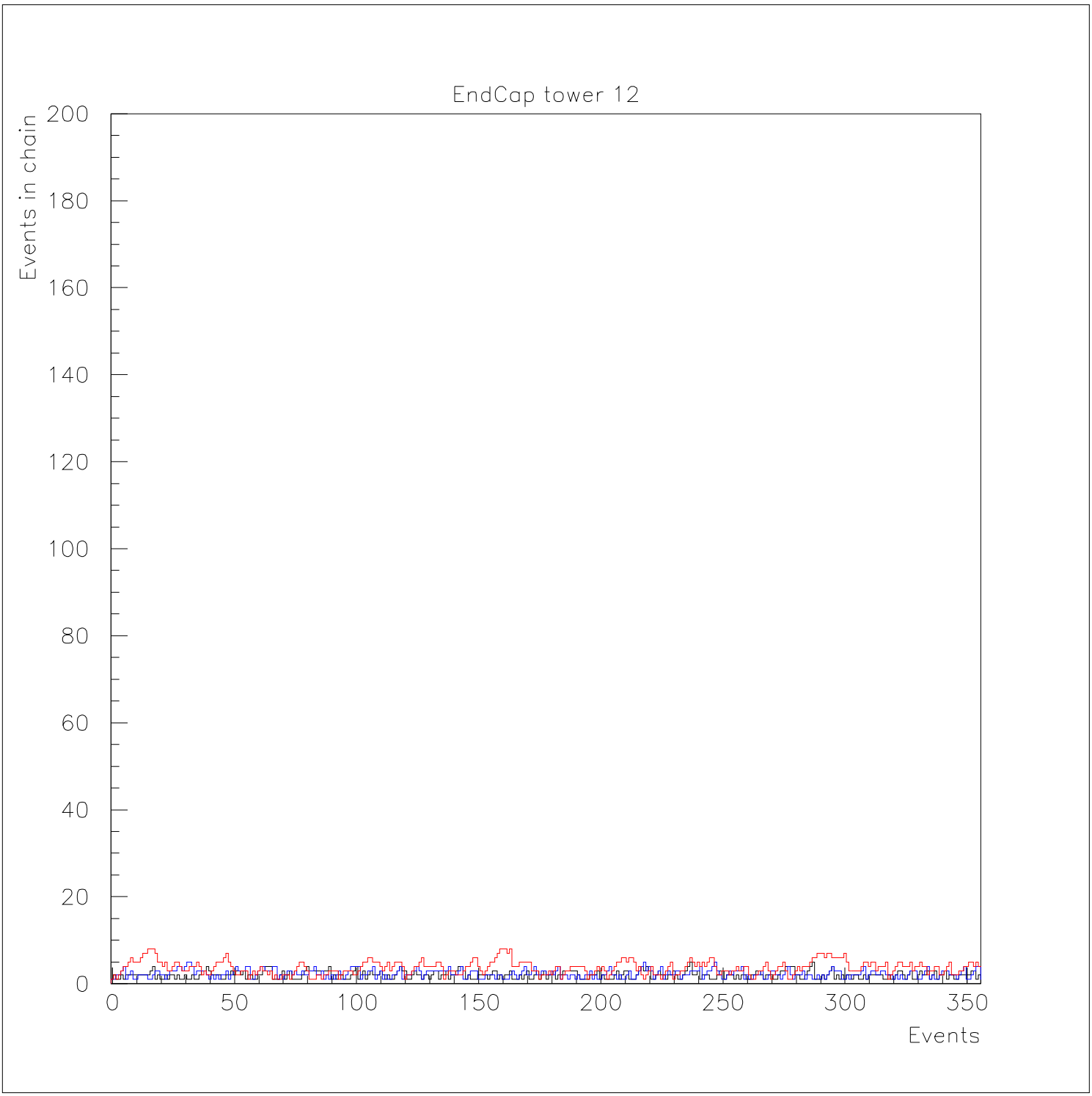

EndCap tower 11
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

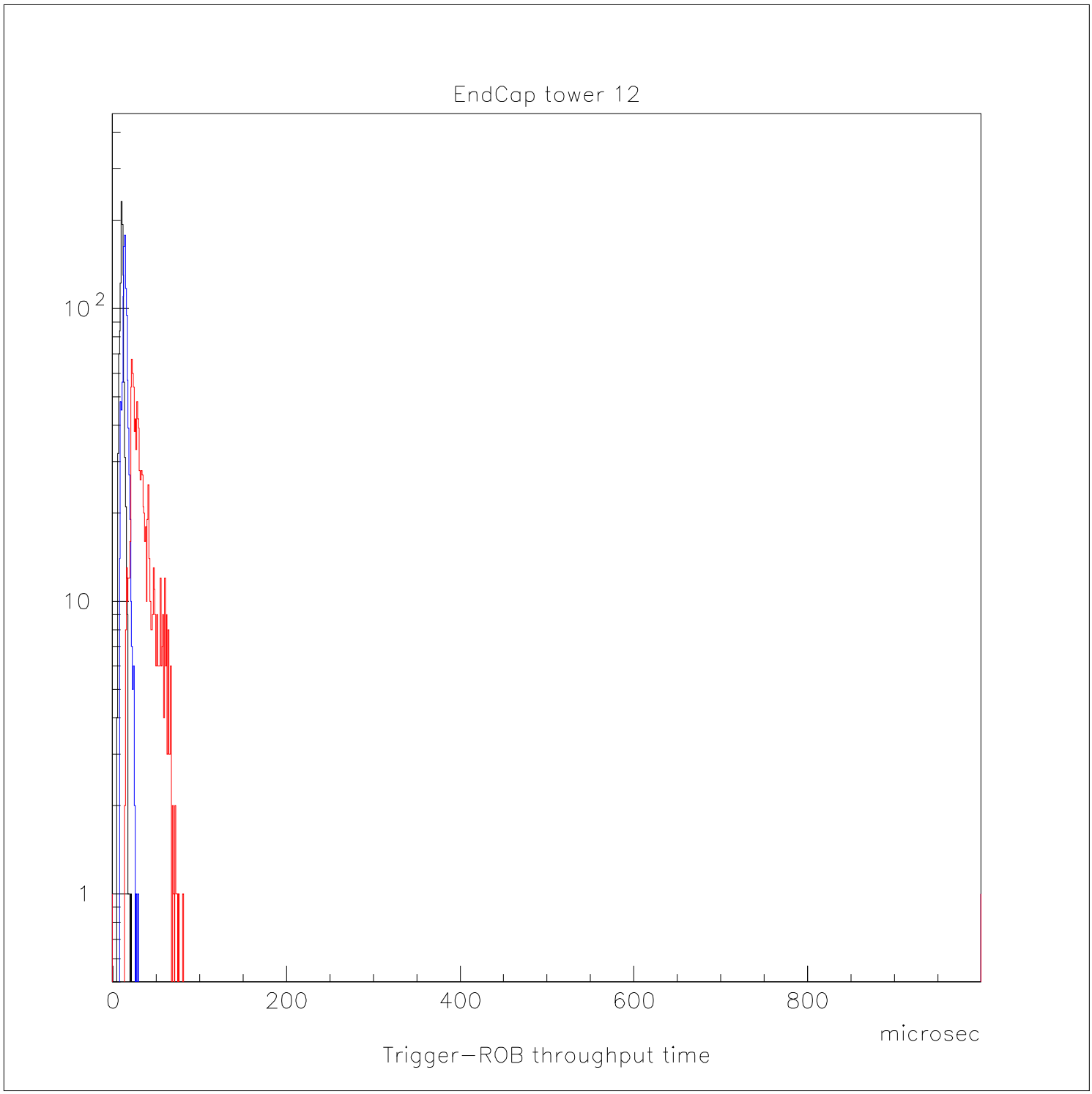

EndCap tower 11
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

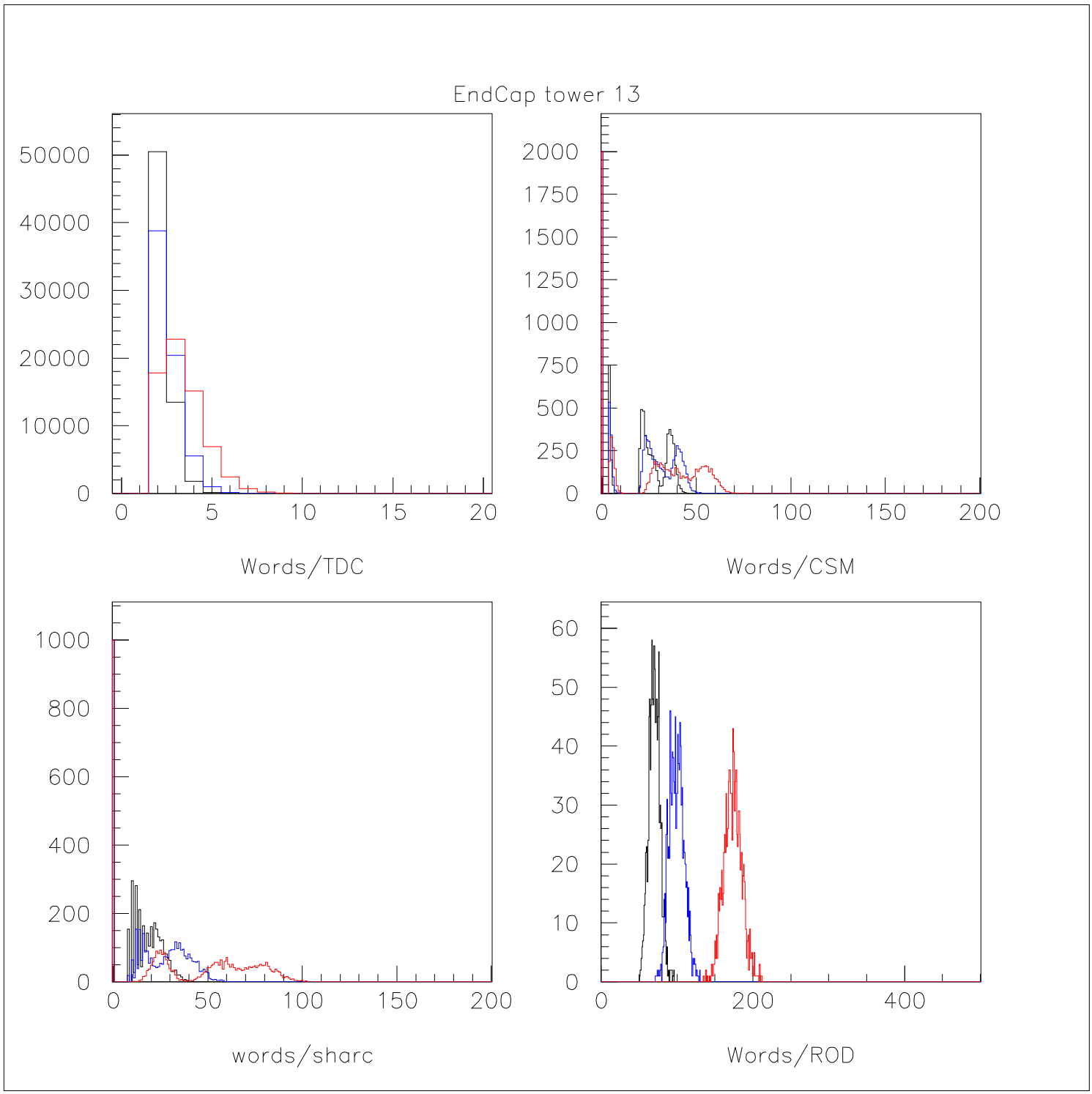

EndCap tower 12
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

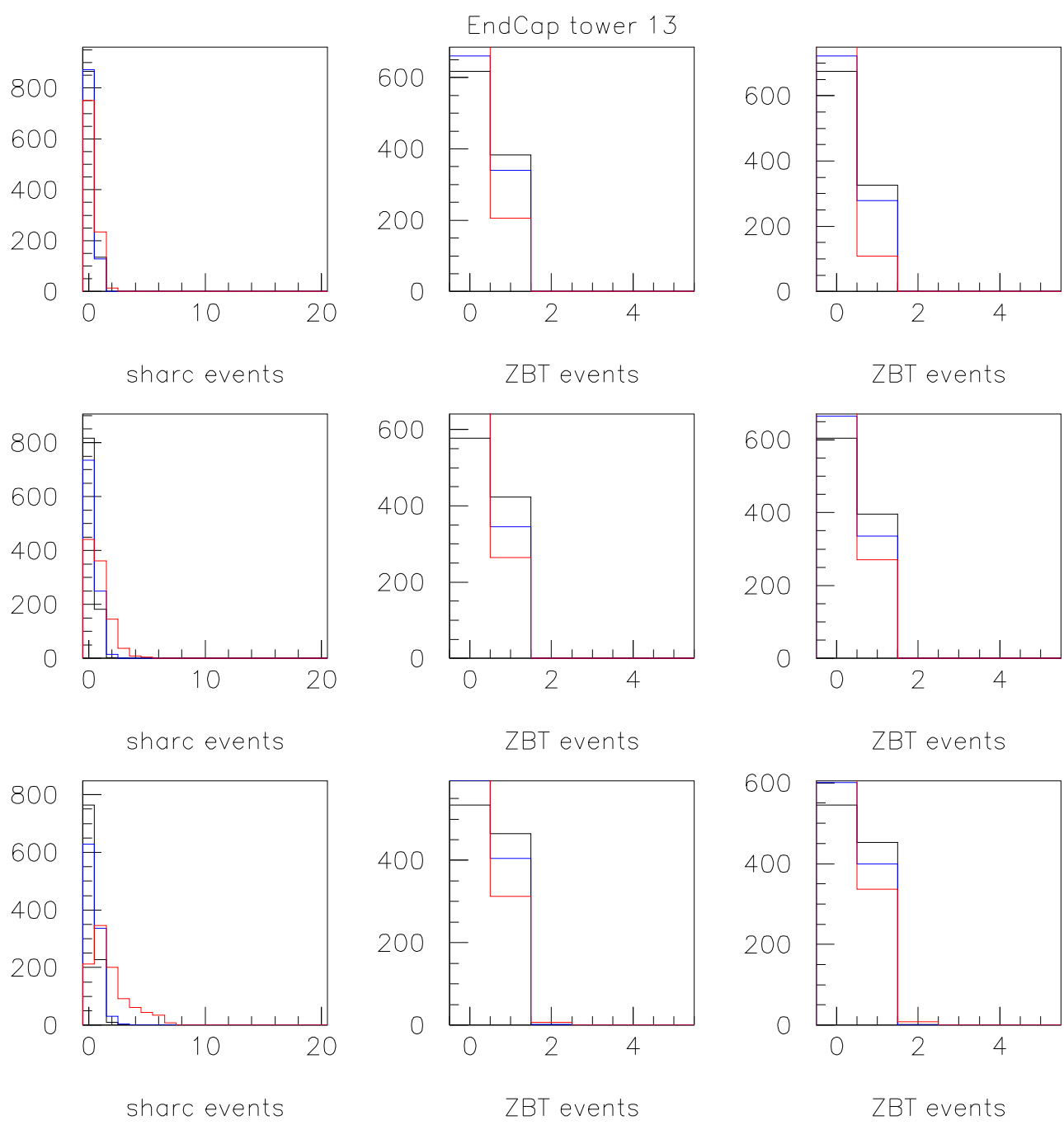

EndCap tower 12
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

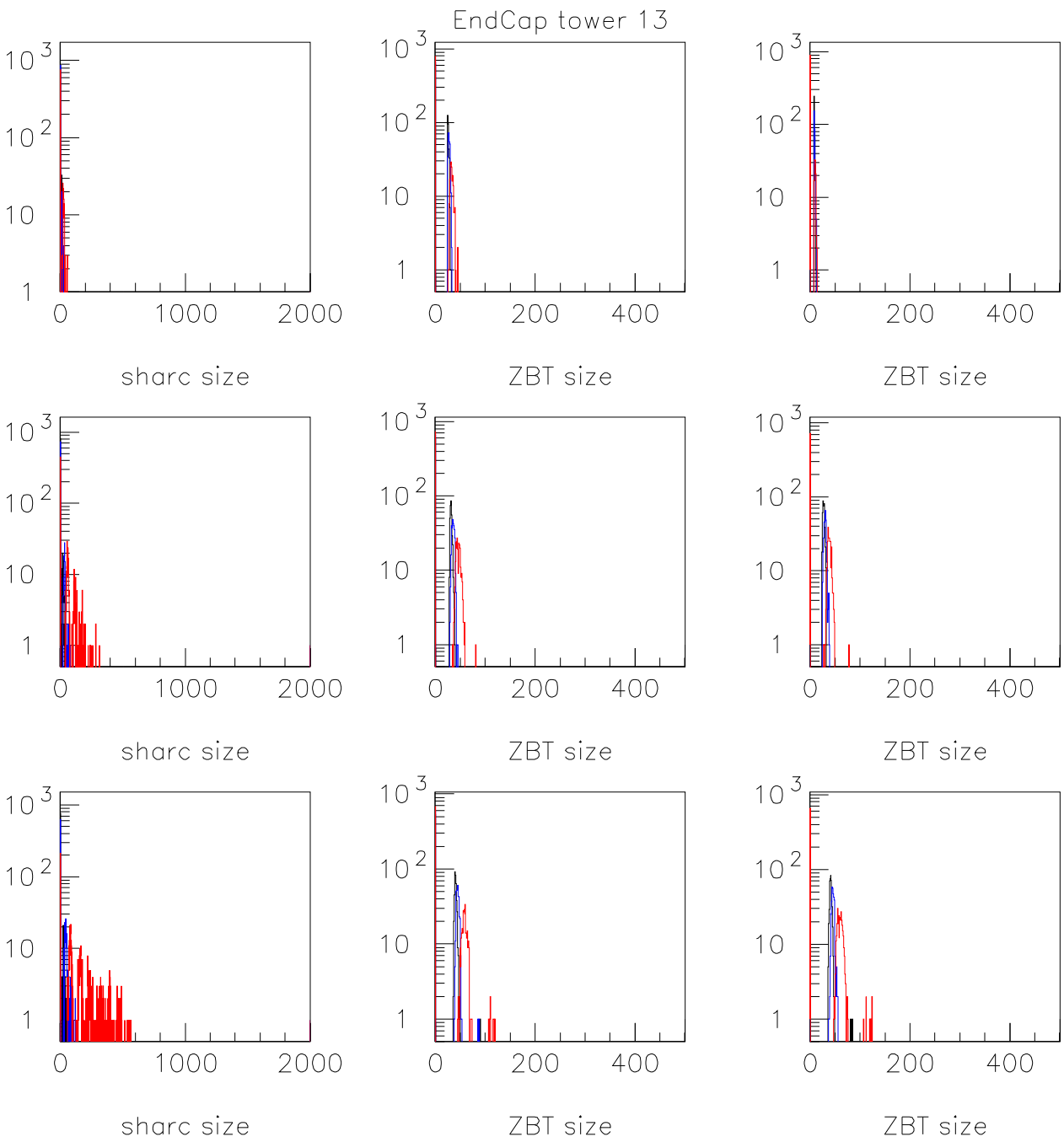

EndCap tower 12
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

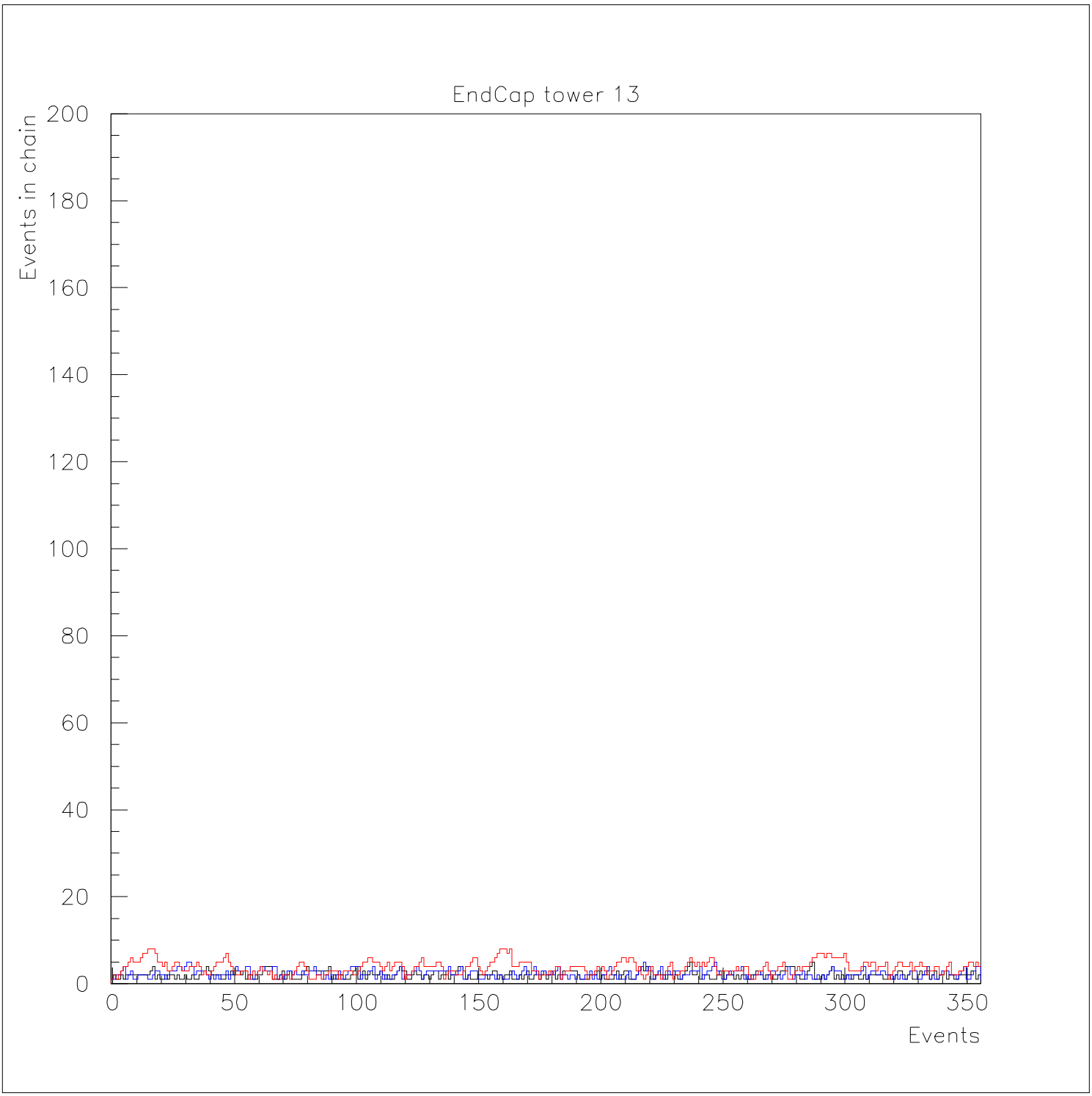

EndCap tower 12
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

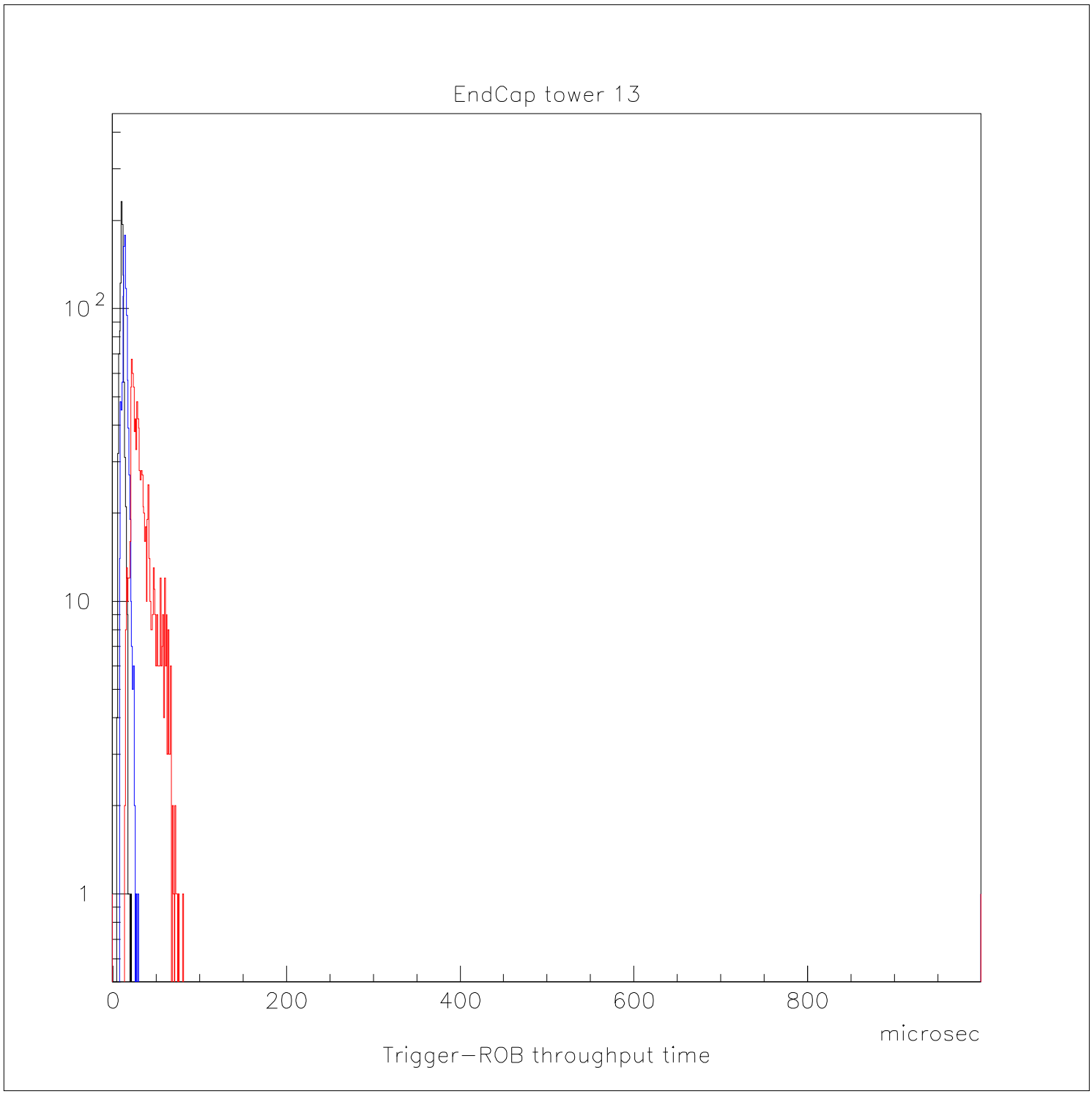

EndCap tower 12
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

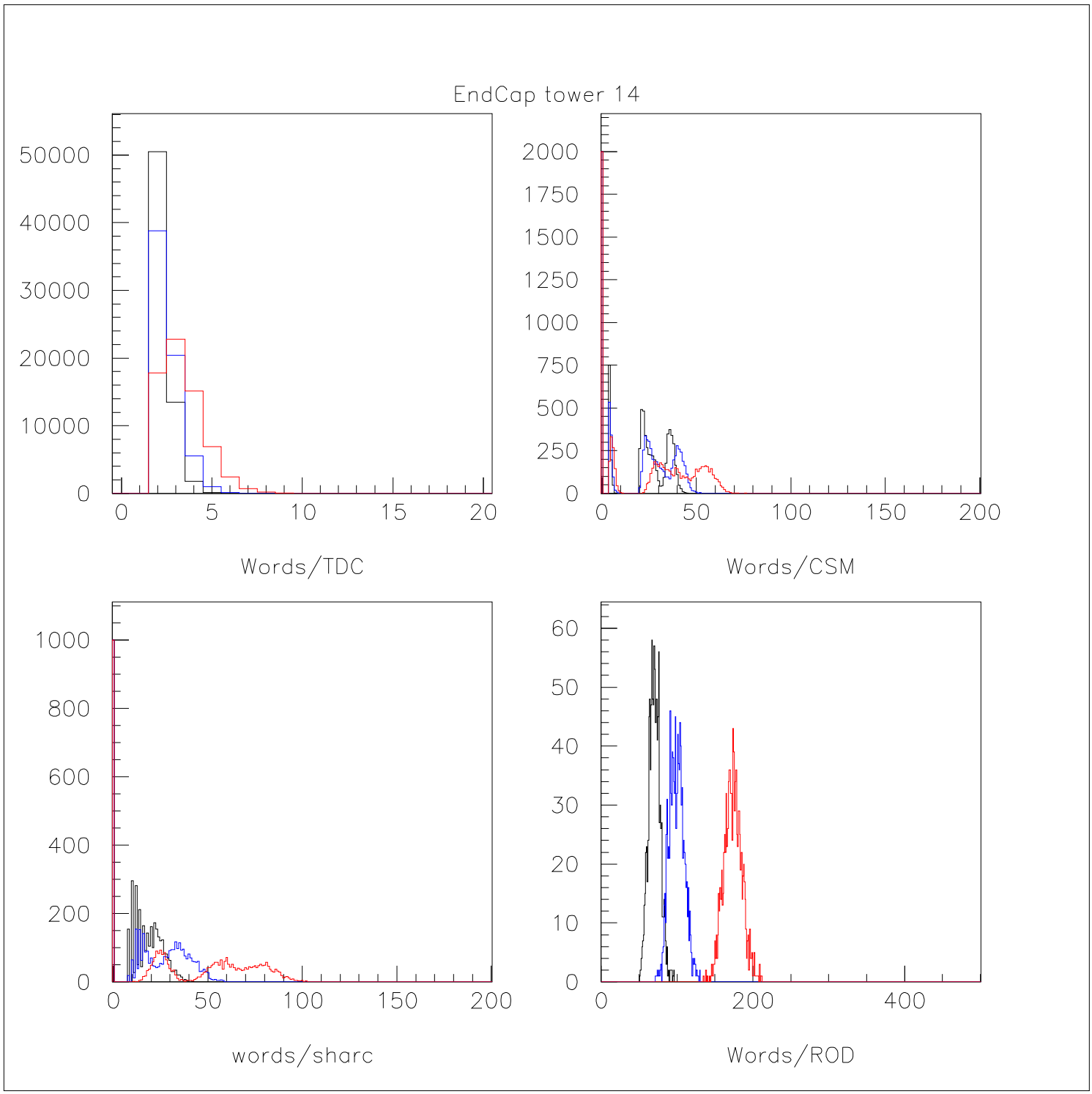

EndCap tower 13
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

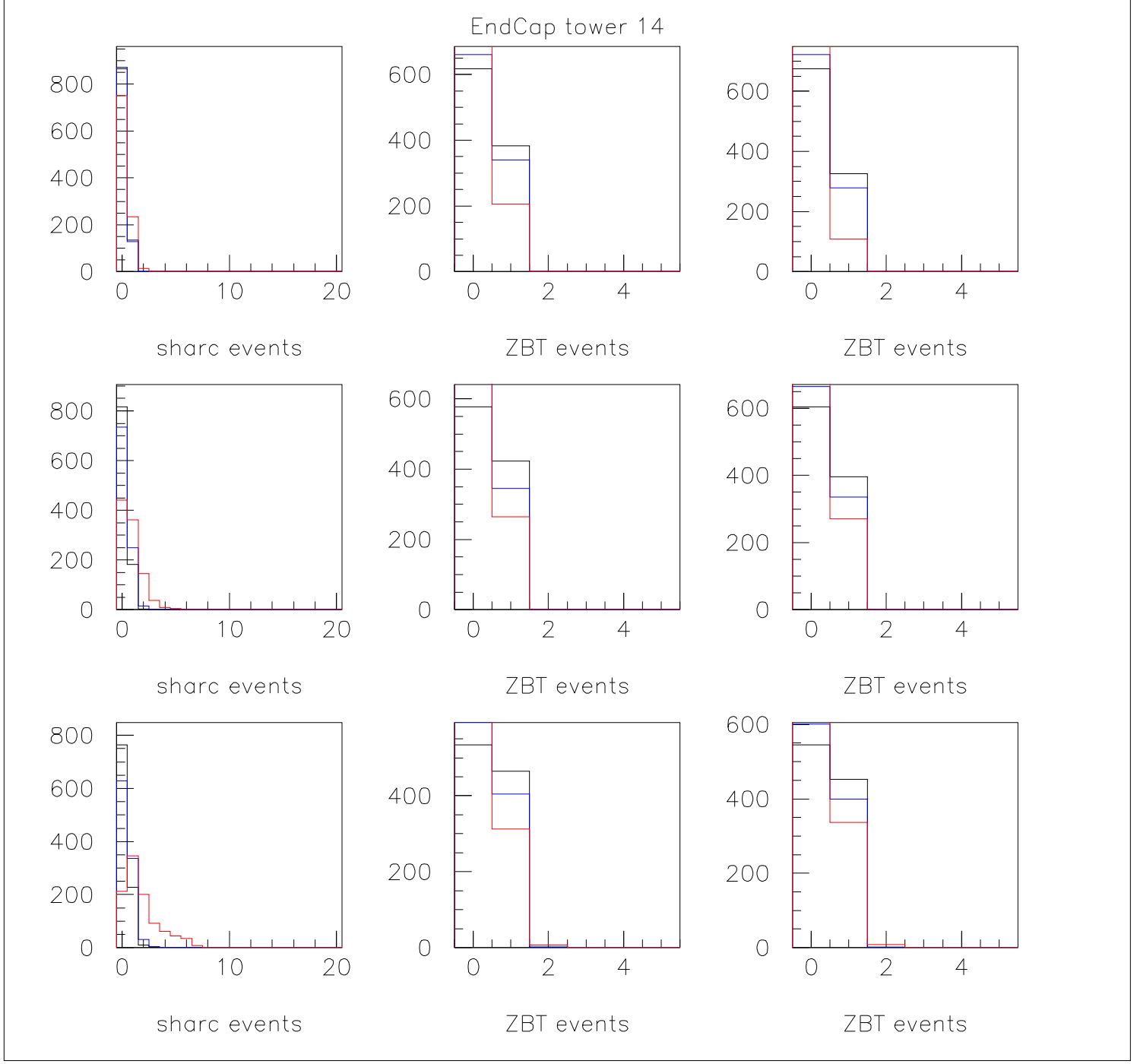

EndCap tower 13
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

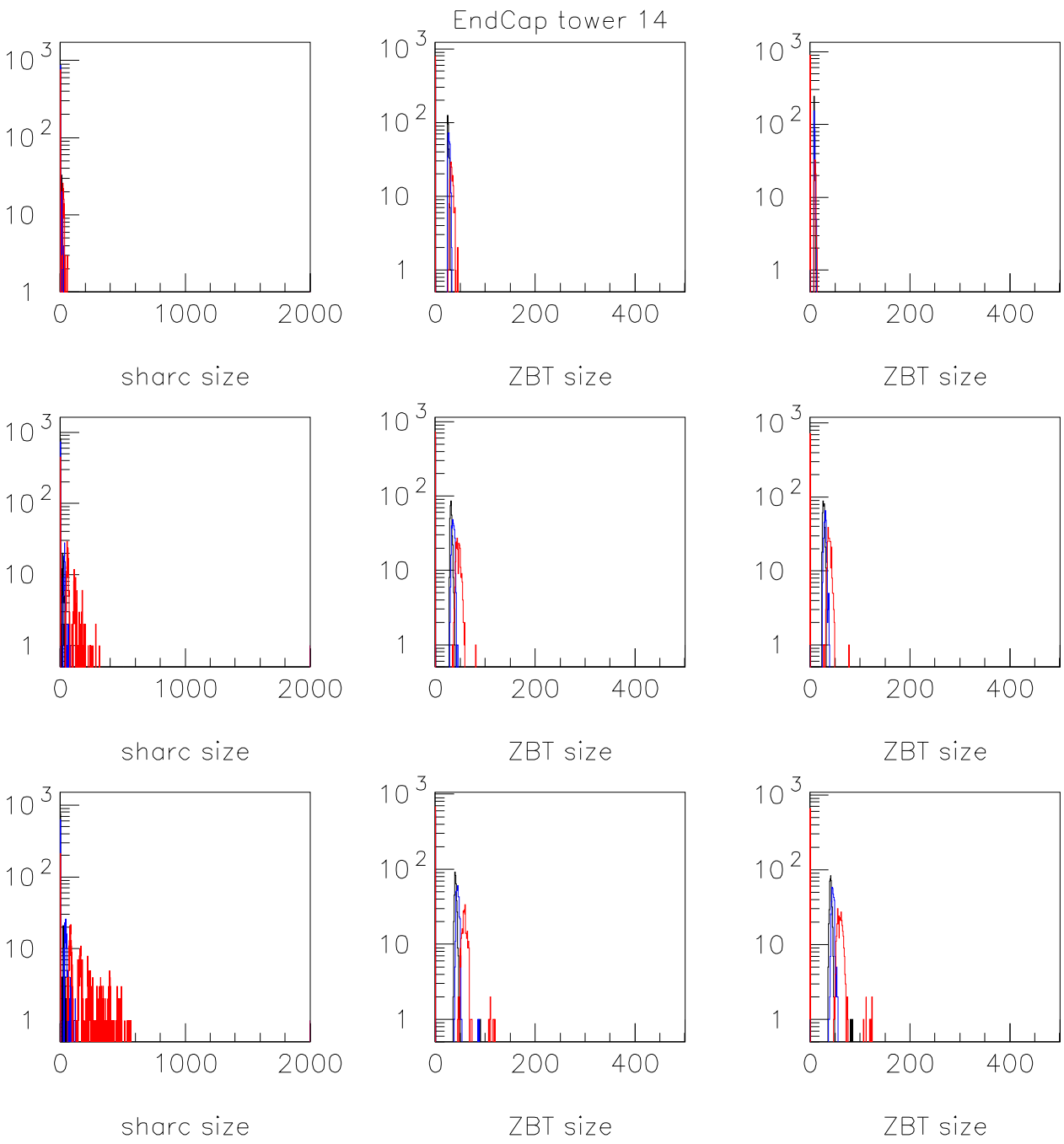

EndCap tower 13
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

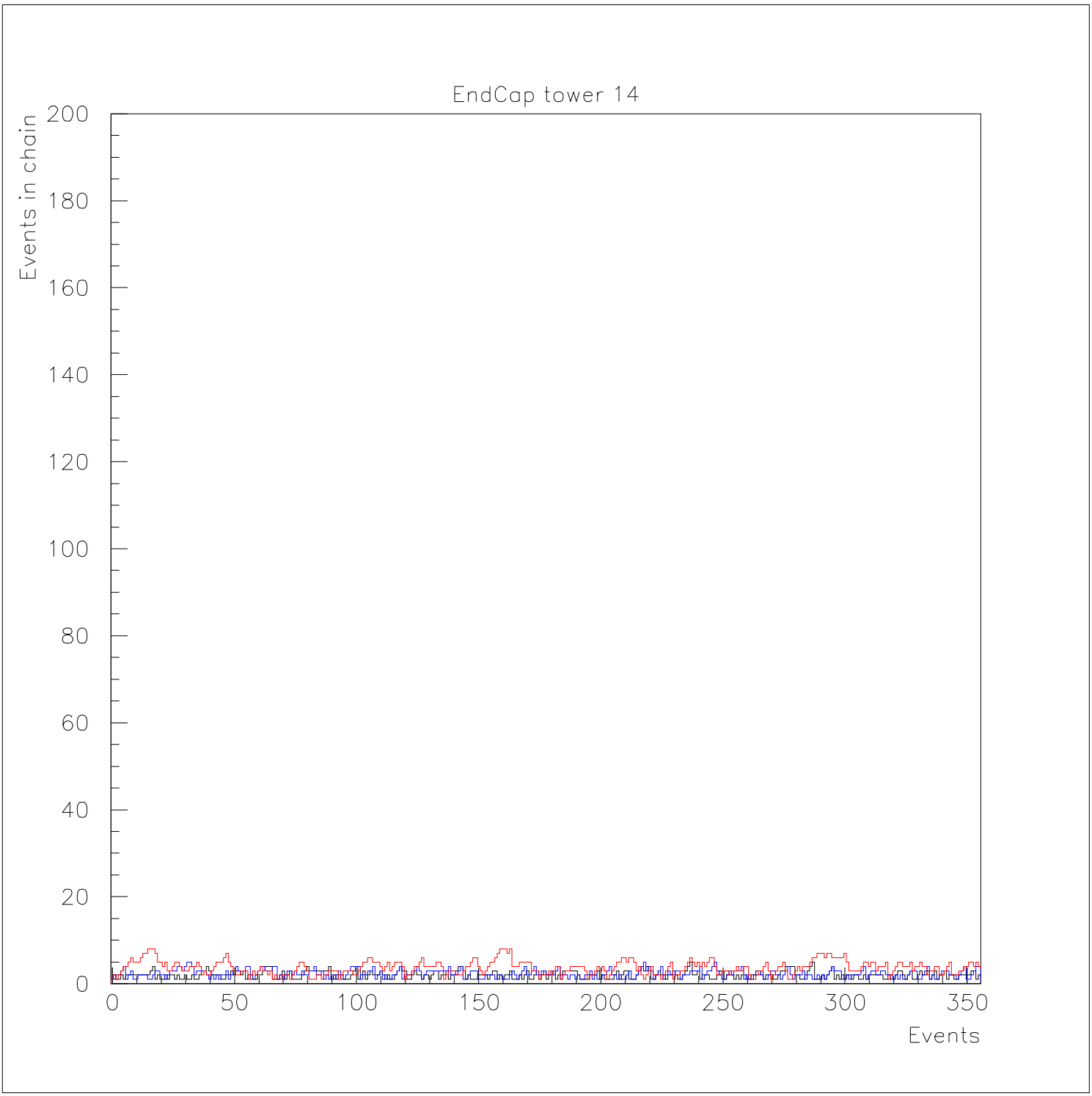

EndCap tower 13
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

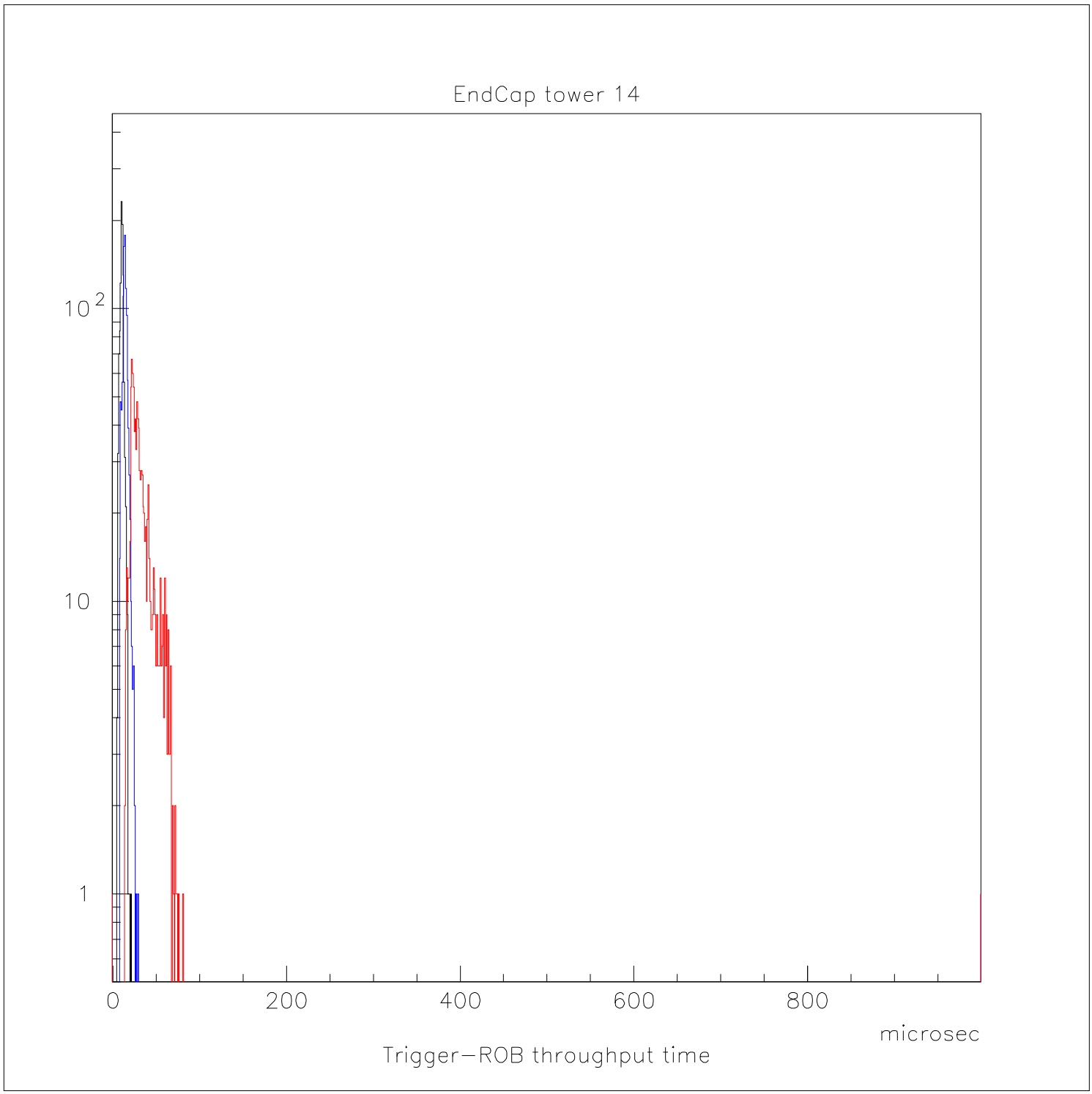

EndCap tower 13
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

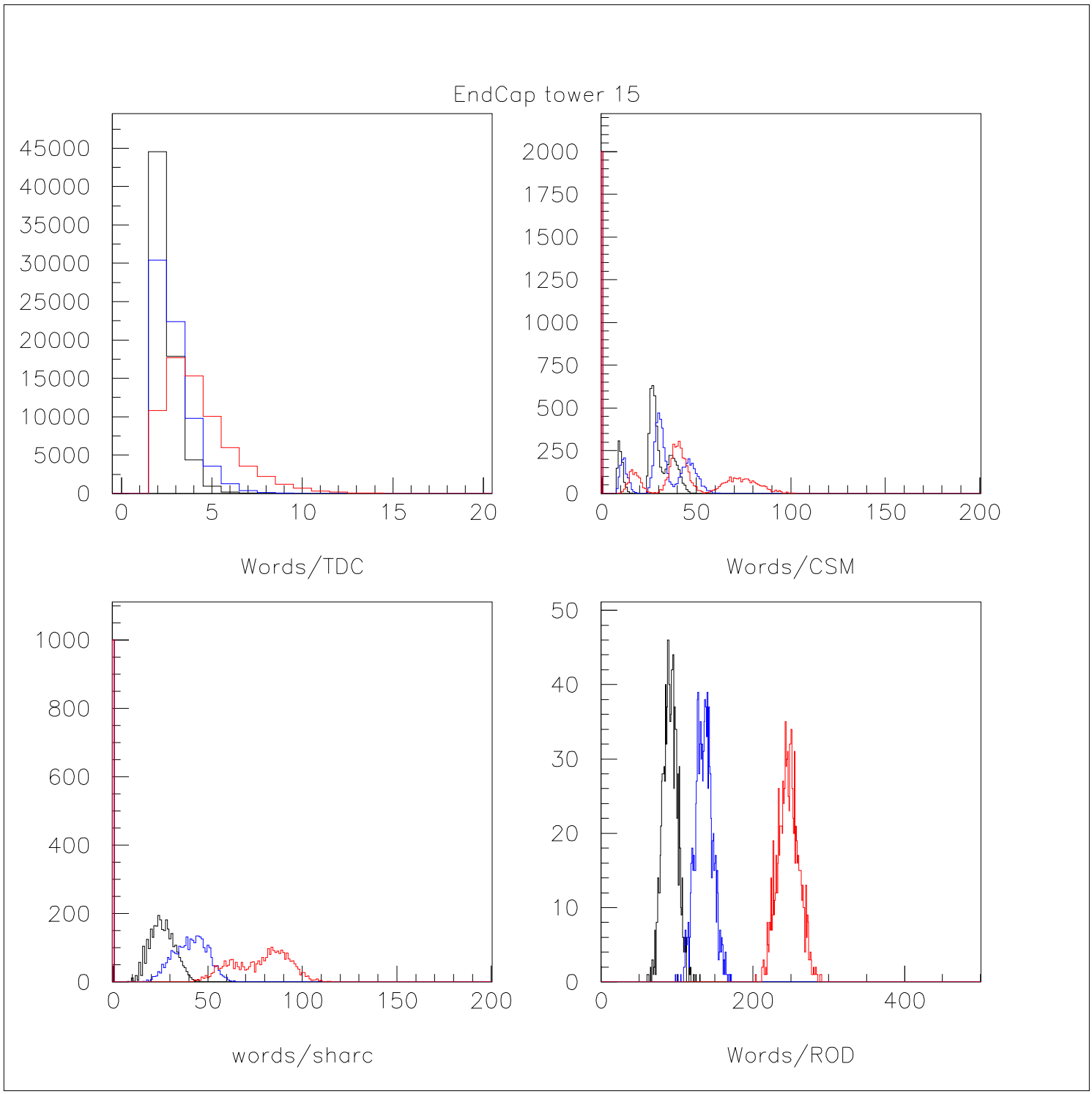

EndCap tower 14
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

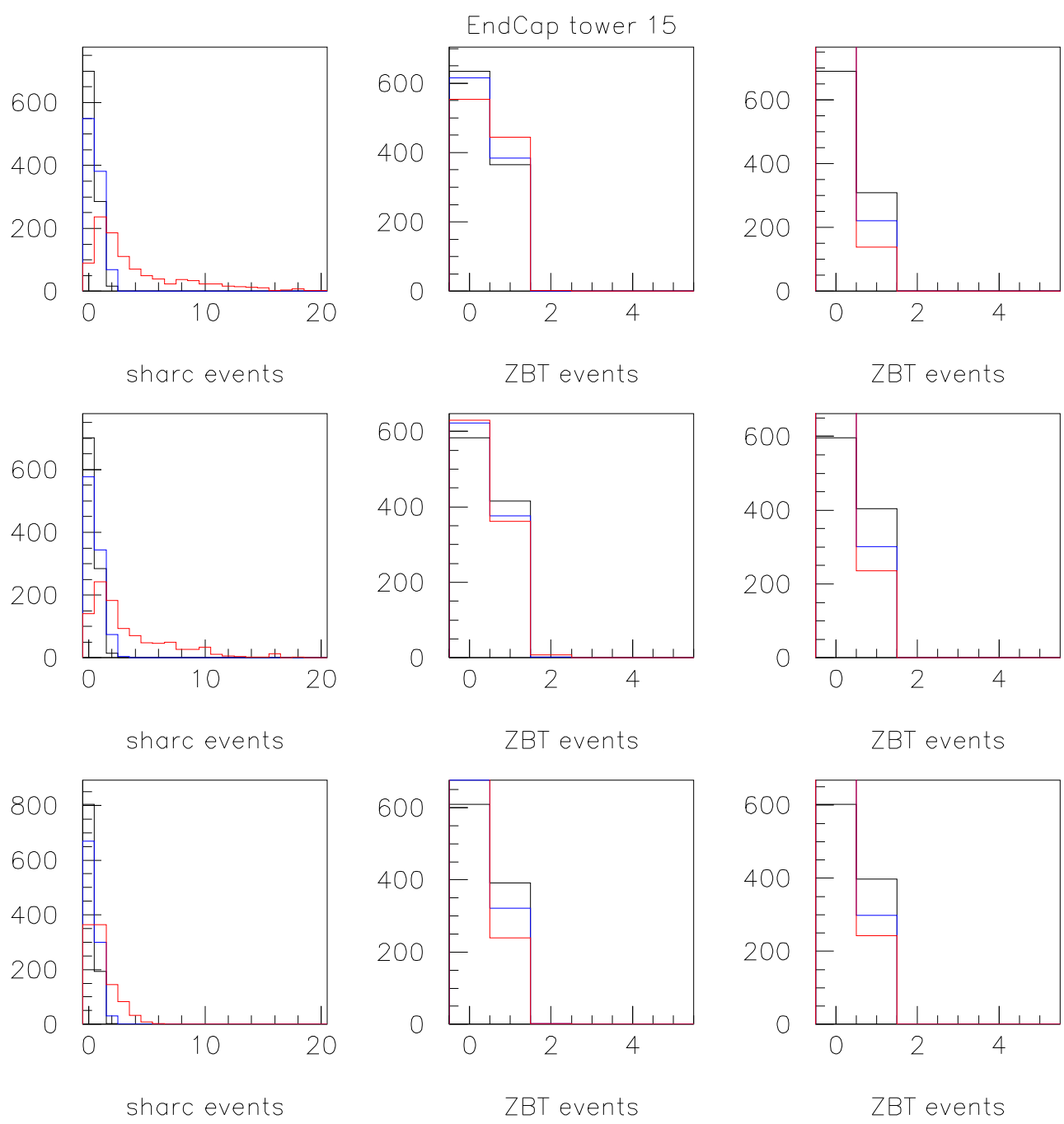

EndCap tower 14
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

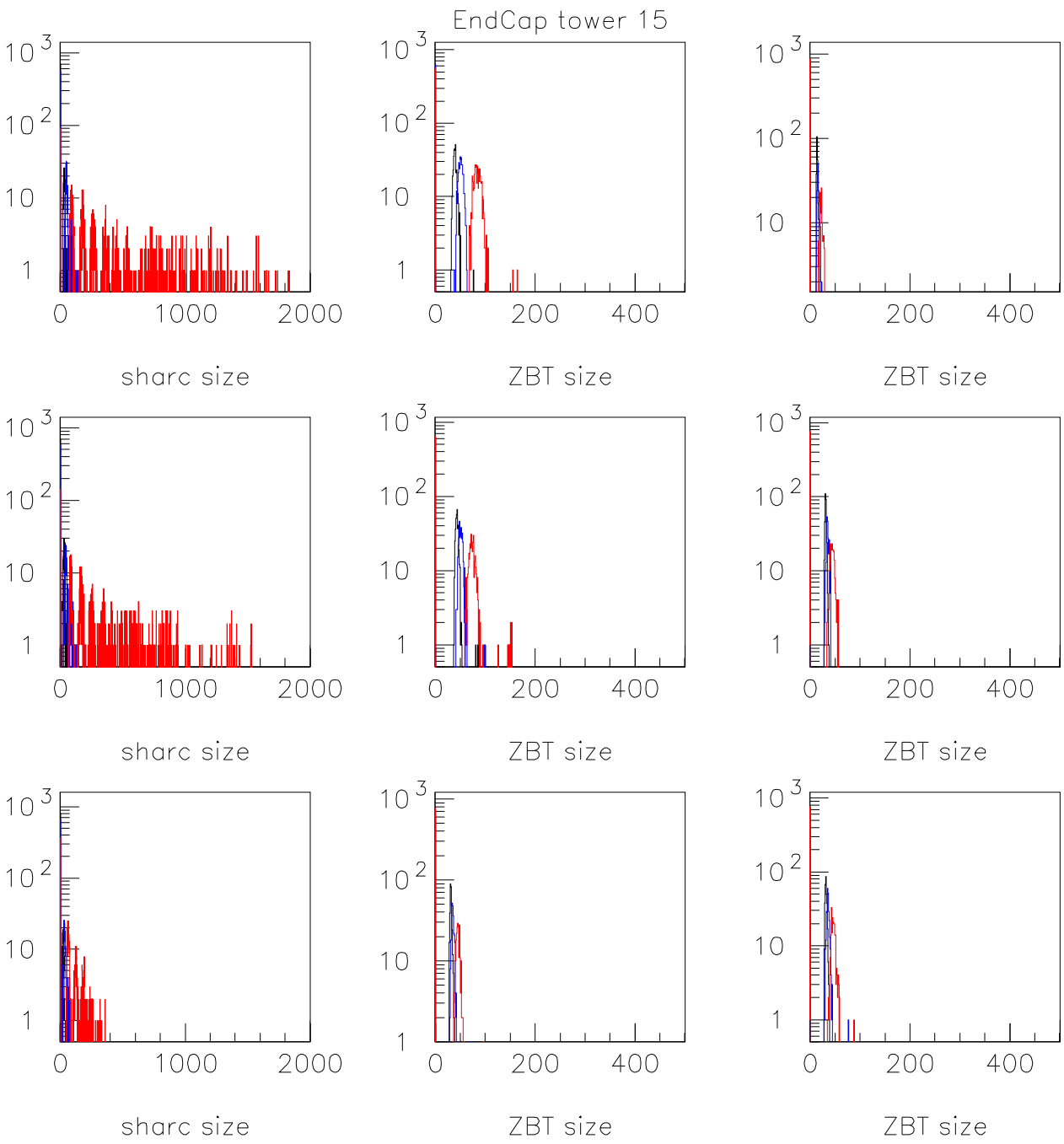

EndCap tower 14
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

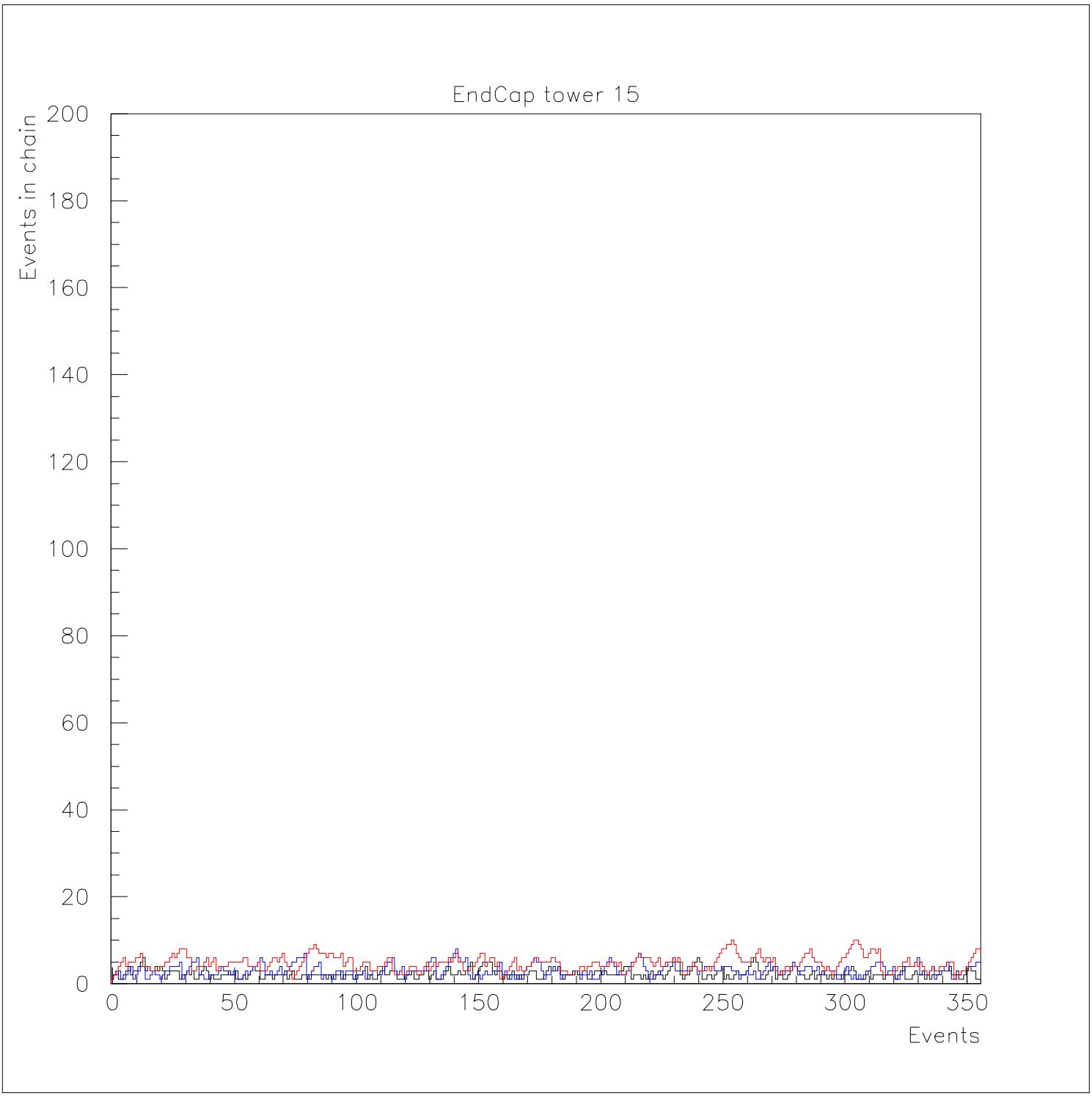

EndCap tower 14
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

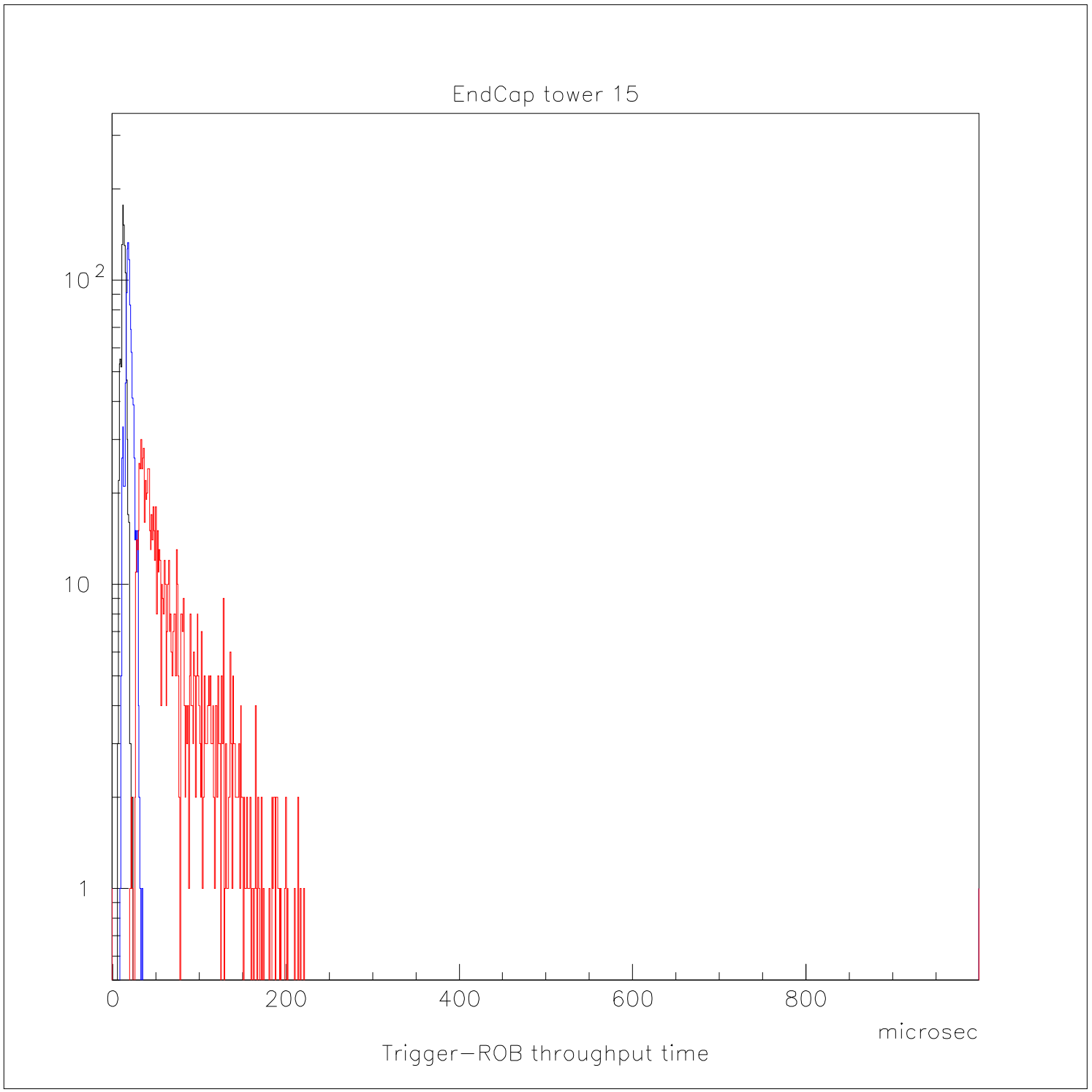

EndCap tower 14
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

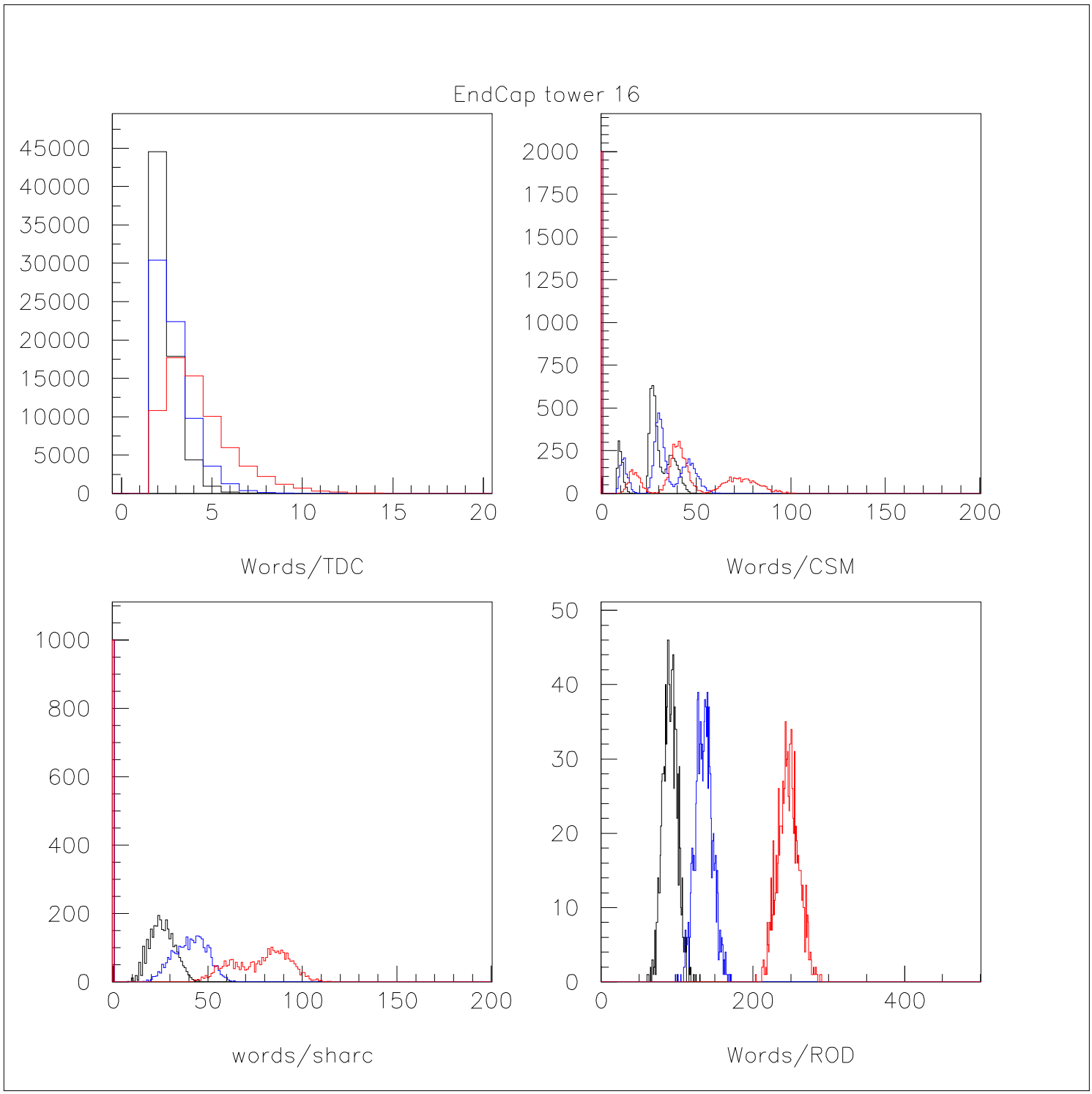

EndCap tower 15
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
50
40
30
20
10
0
0
200
400
Words/ROD

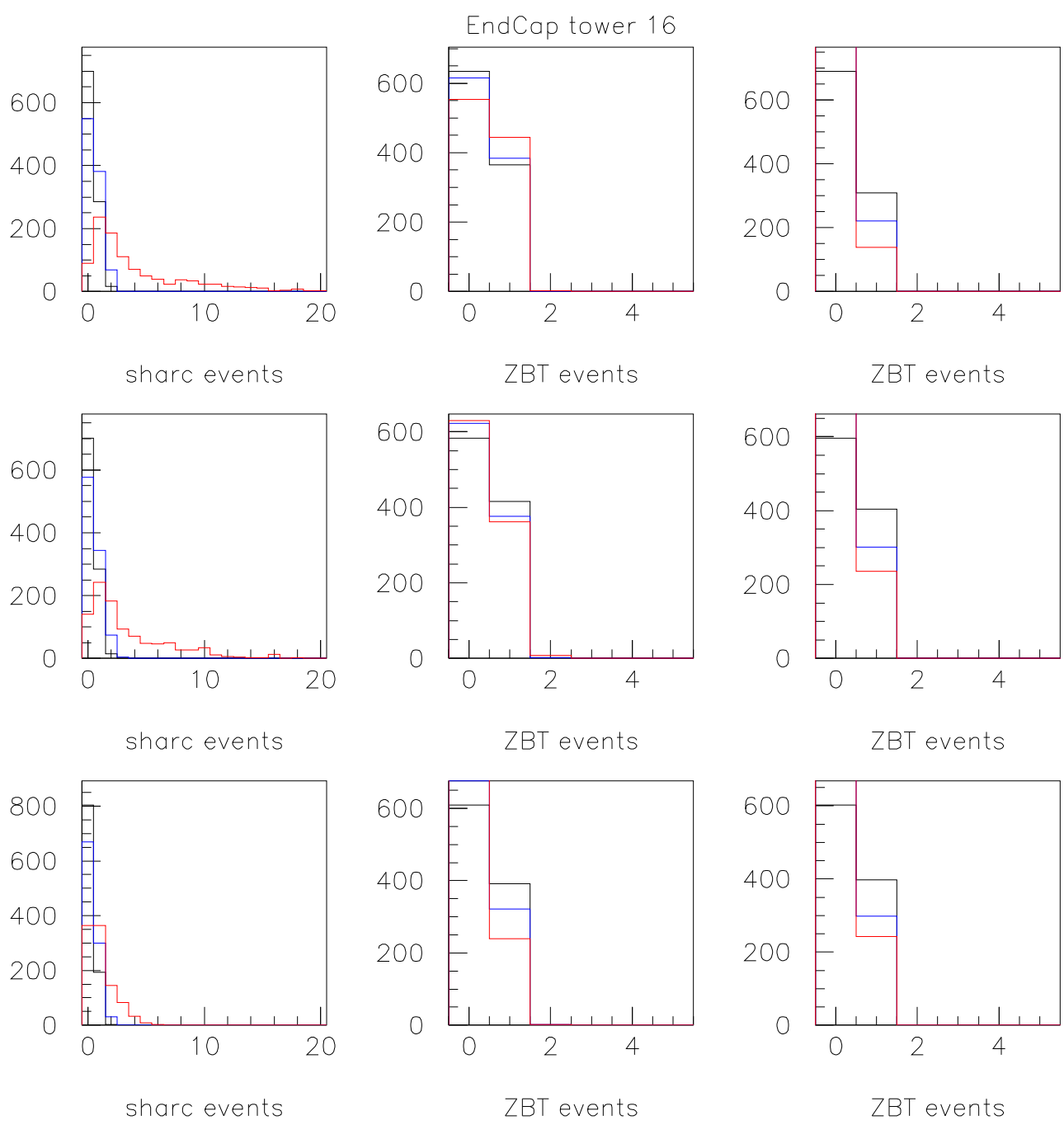

EndCap tower 15
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

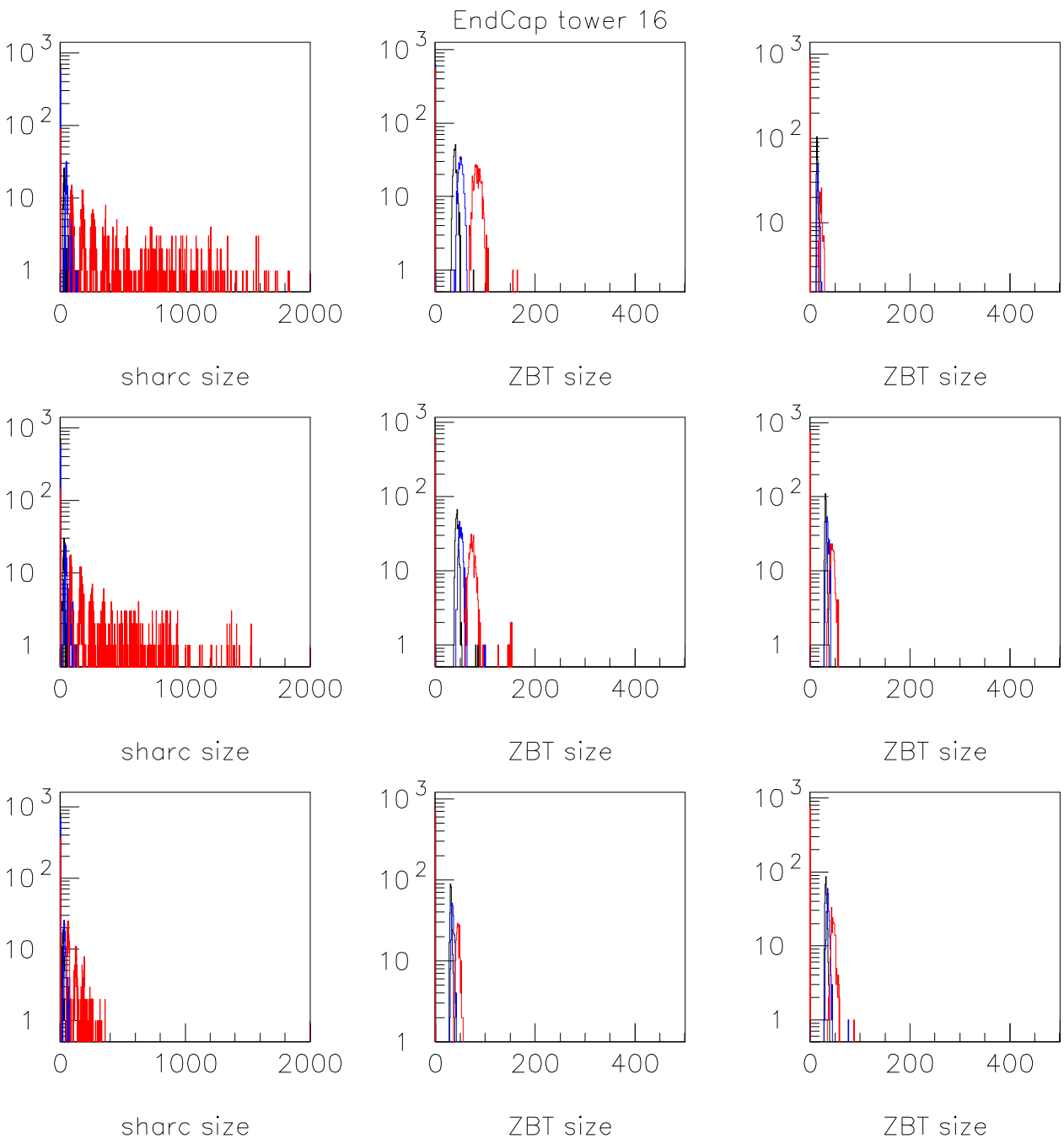

EndCap tower 15
$10^3$
$10^2$
10
1
0
1000
2000
200
400
sharc size
ZBT size

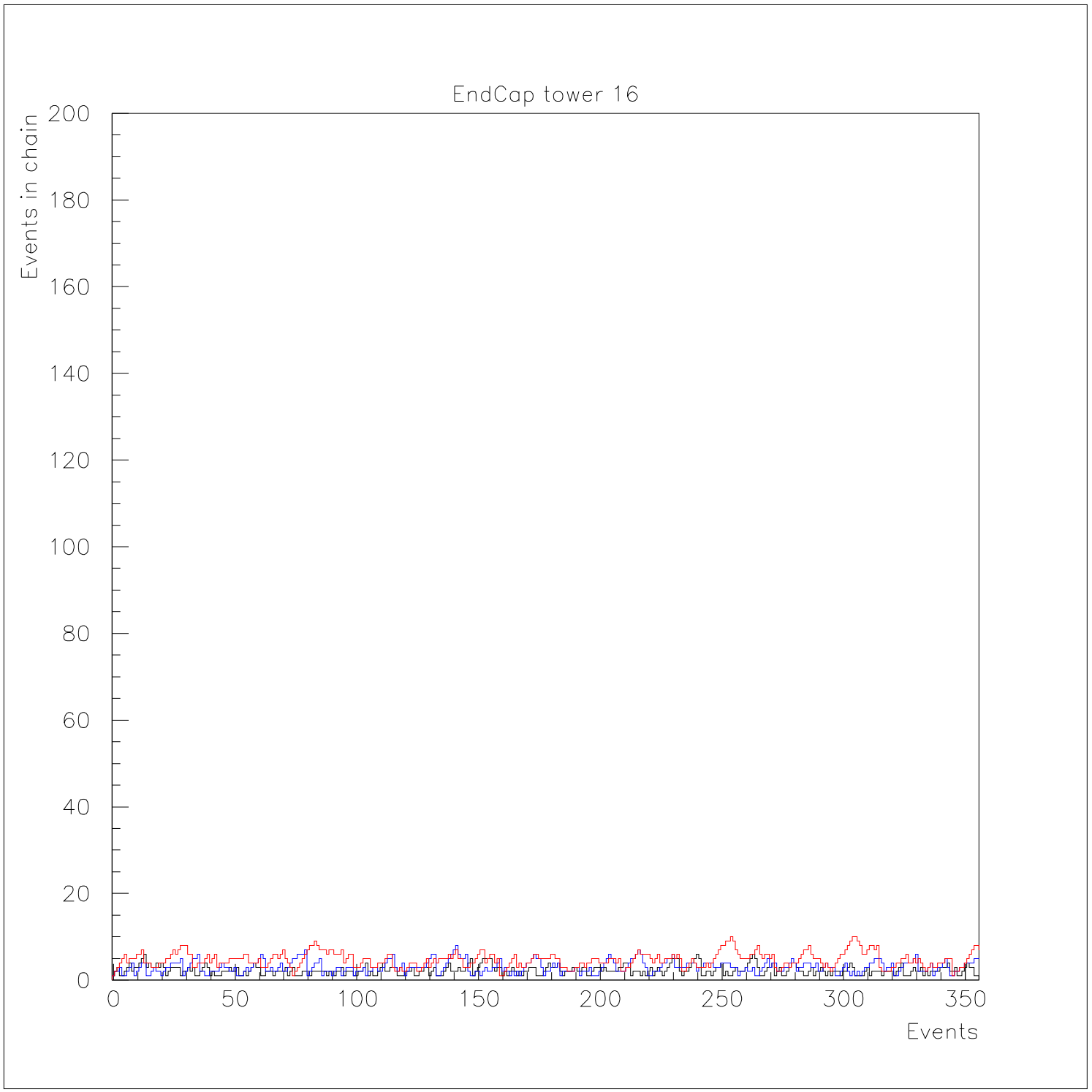

EndCap tower 15
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

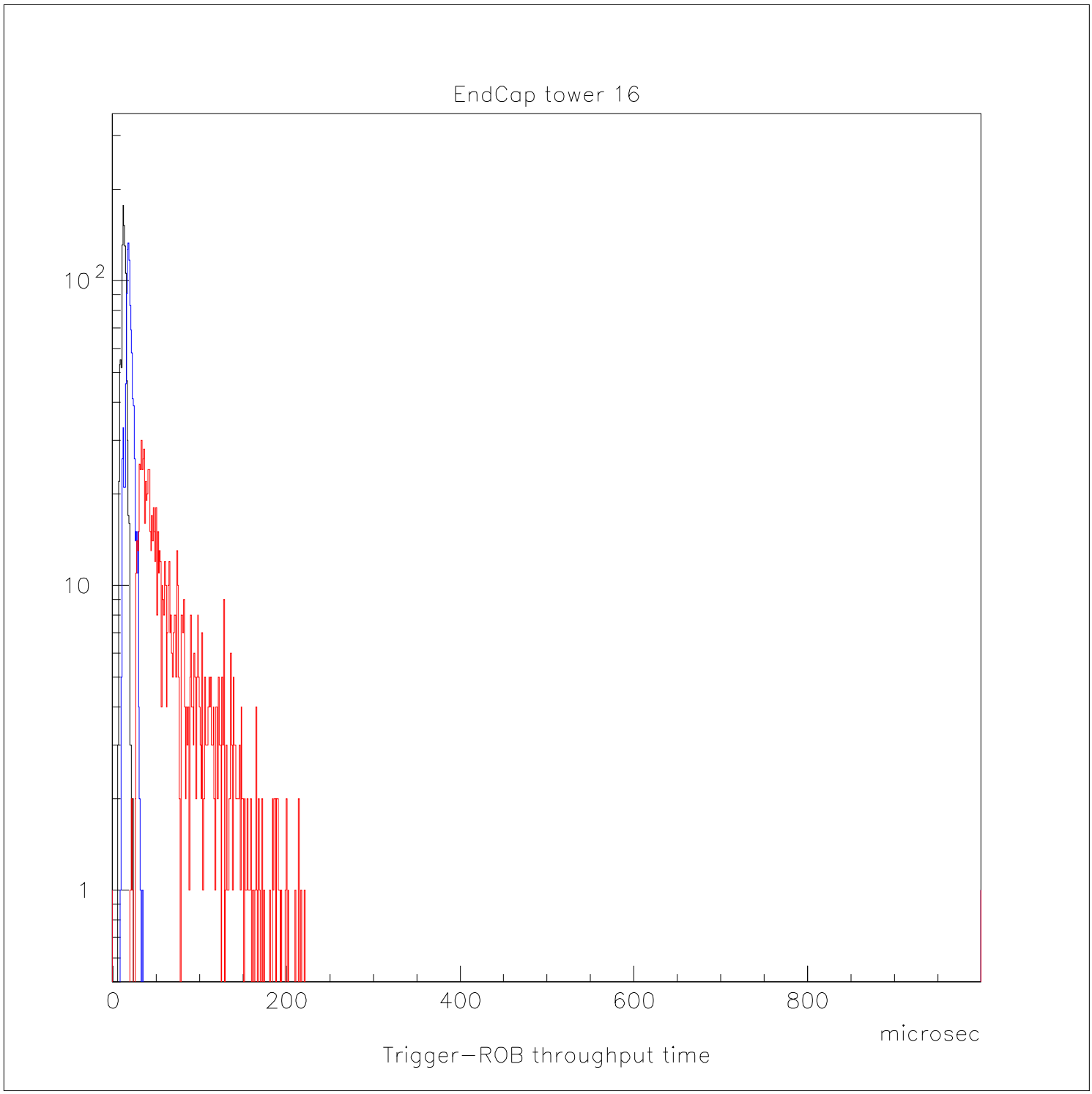

EndCap tower 15
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

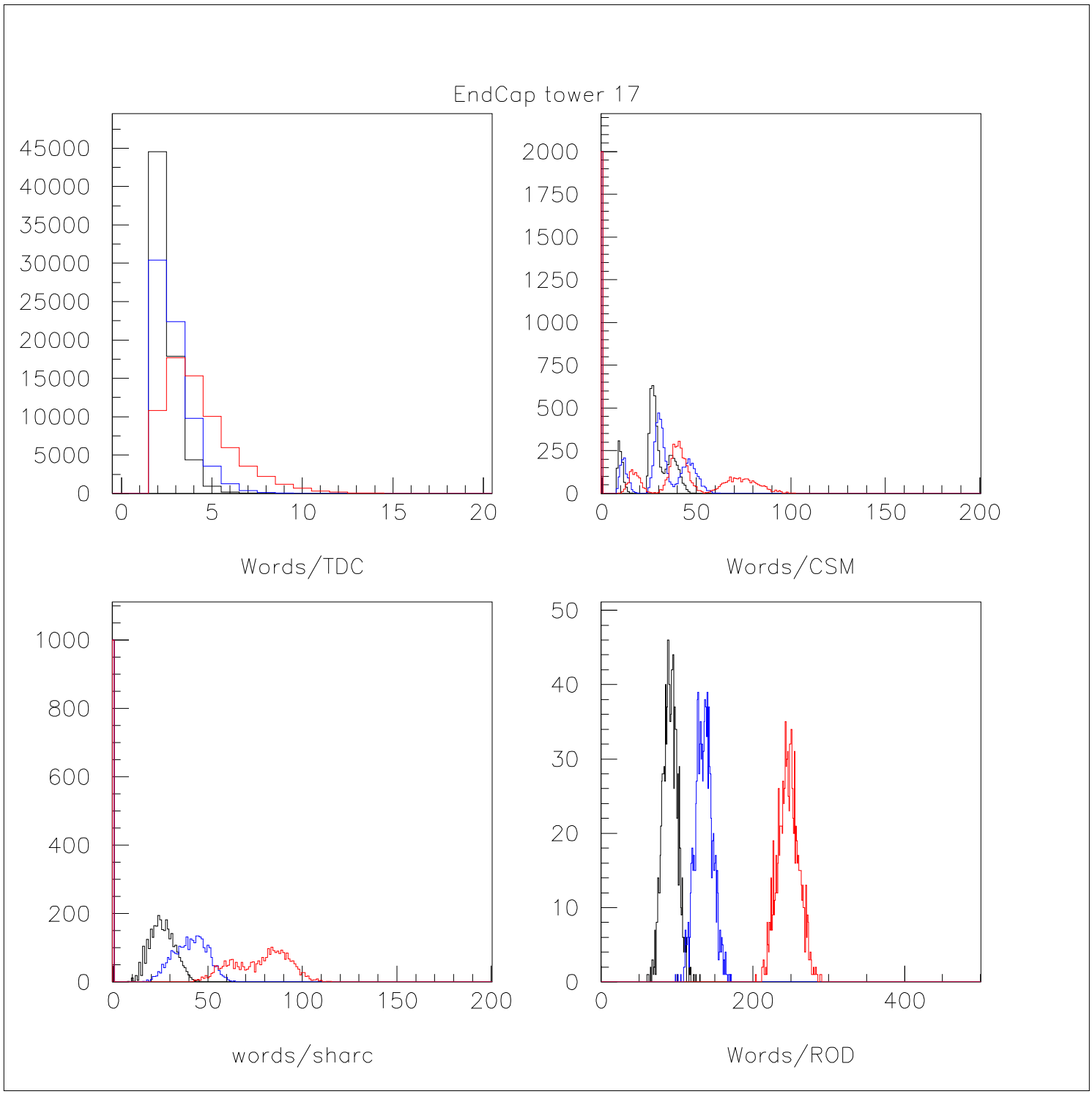

EndCap tower 16
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
50
40
30
20
10
0
0
200
400
Words/ROD

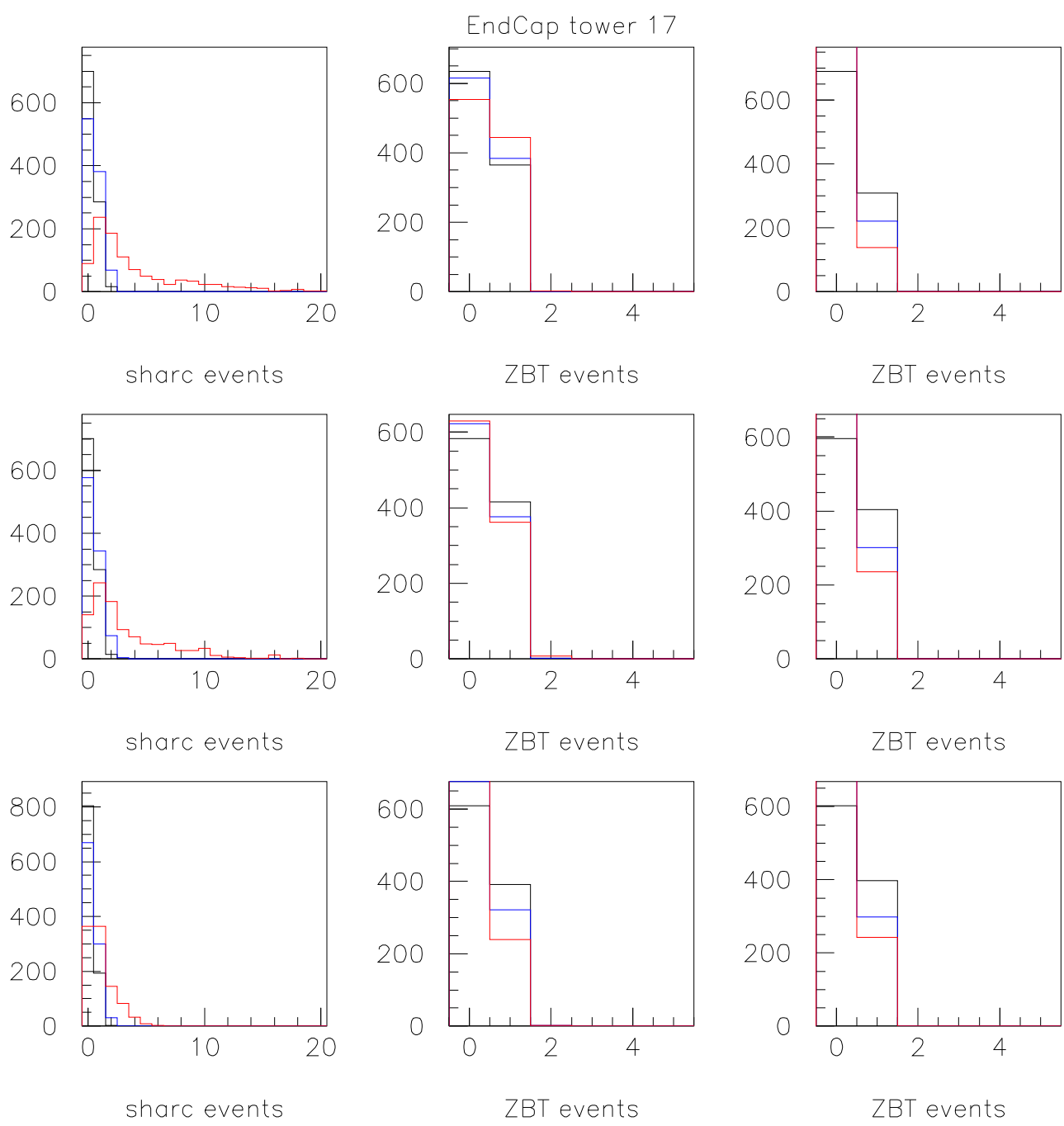

EndCap tower 16
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

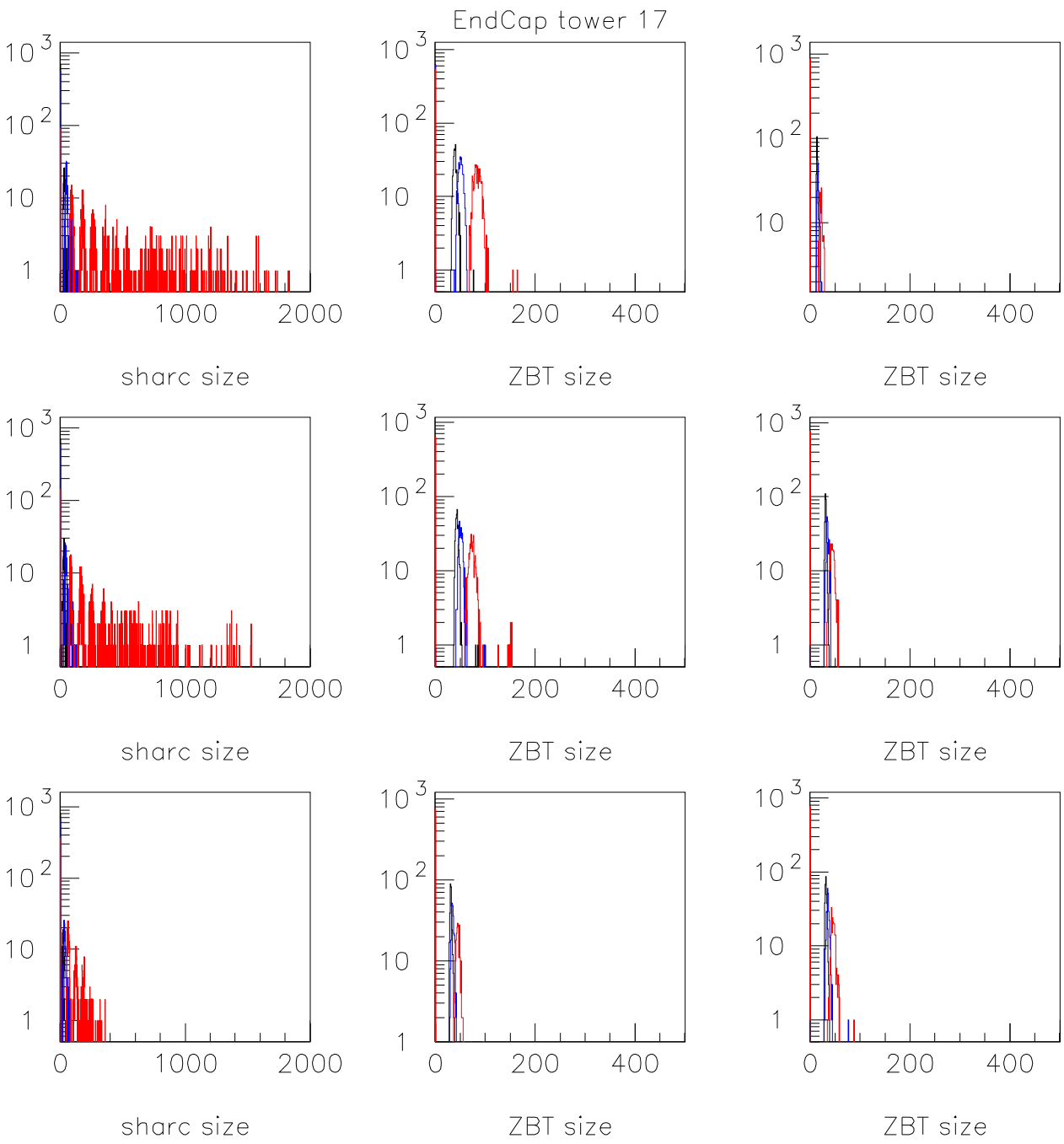

EndCap tower 16
$10^3$
$10^2$
10
1
0
1000
2000
200
400
sharc size
ZBT size

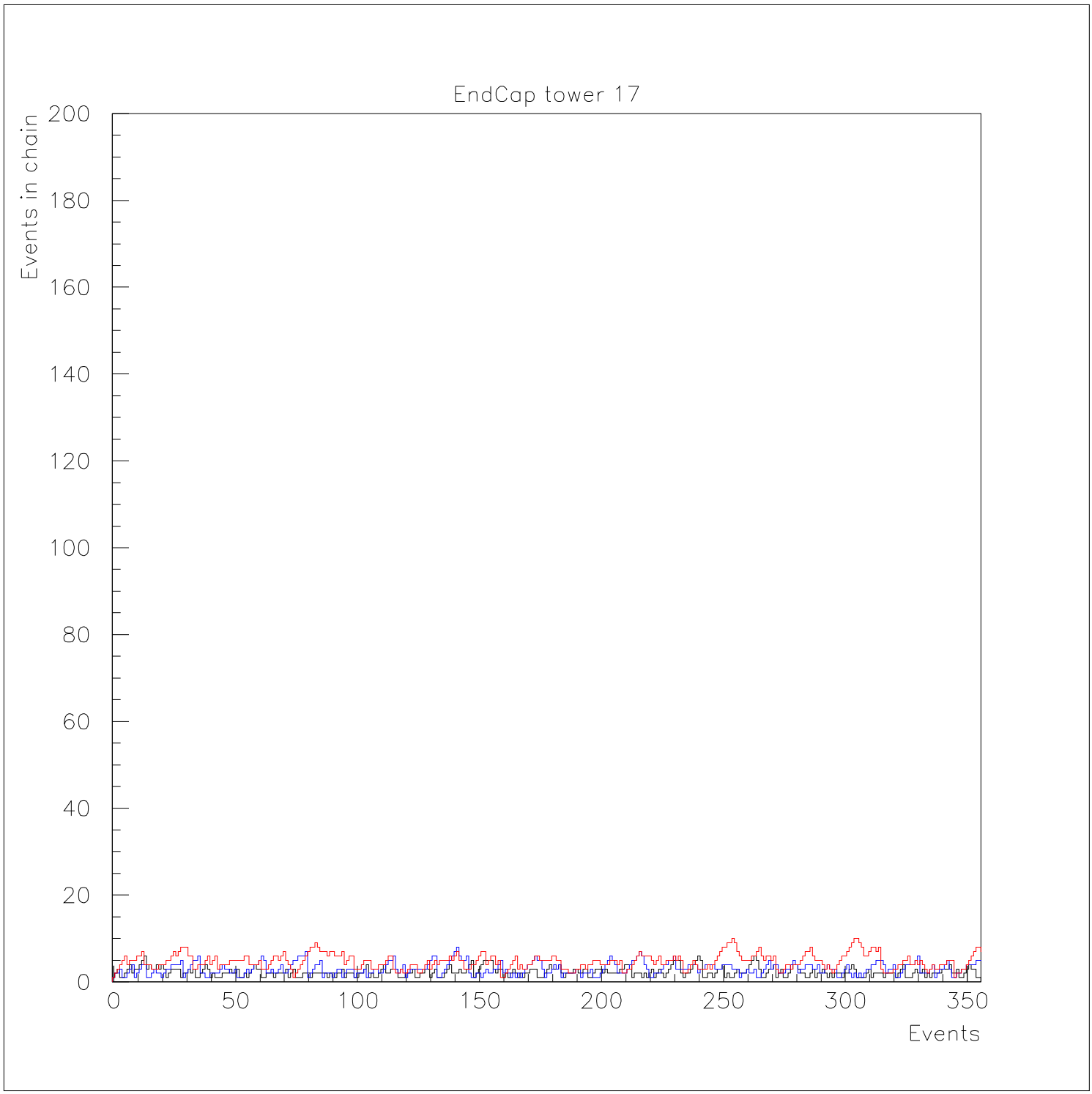

EndCap tower 16
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

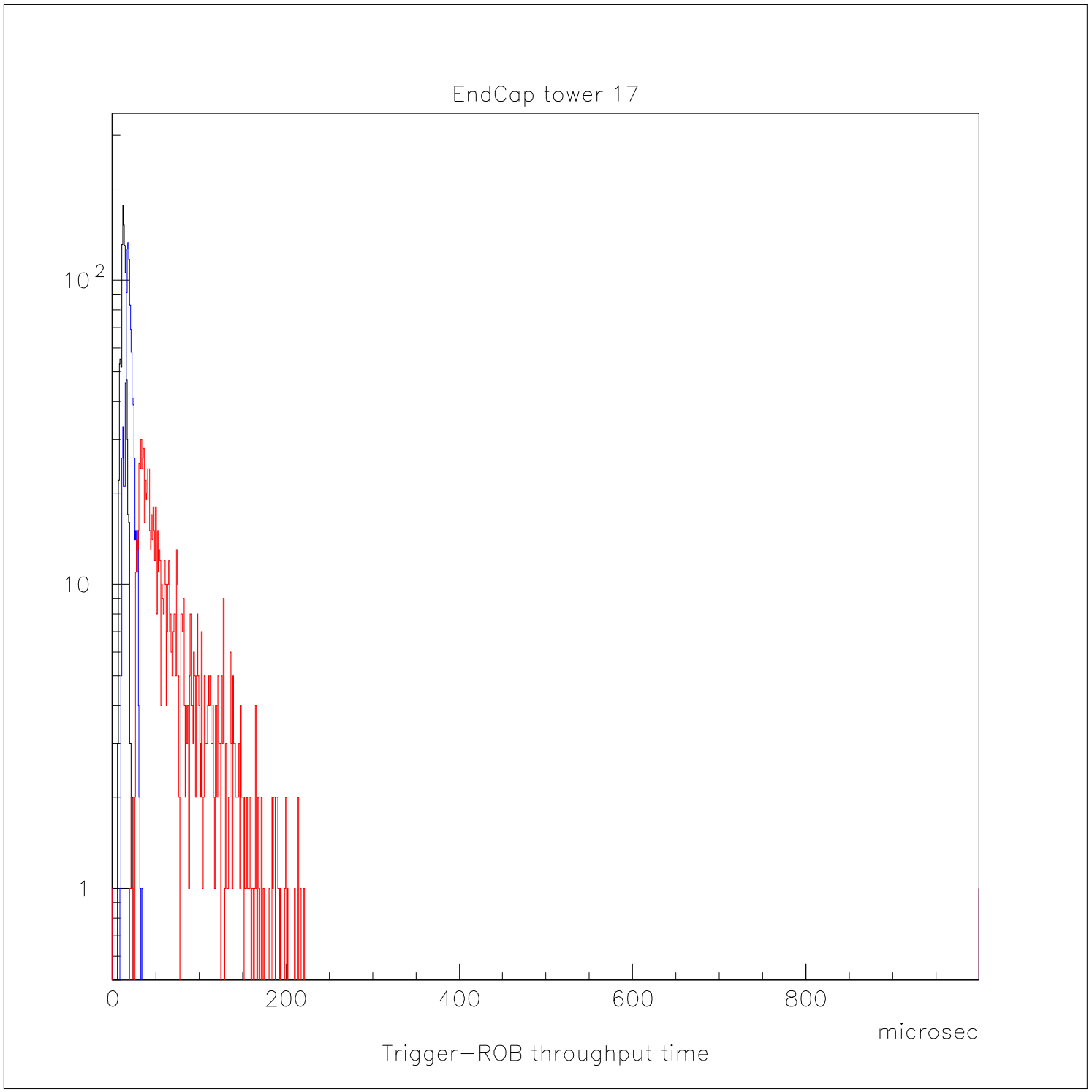

EndCap tower 16
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

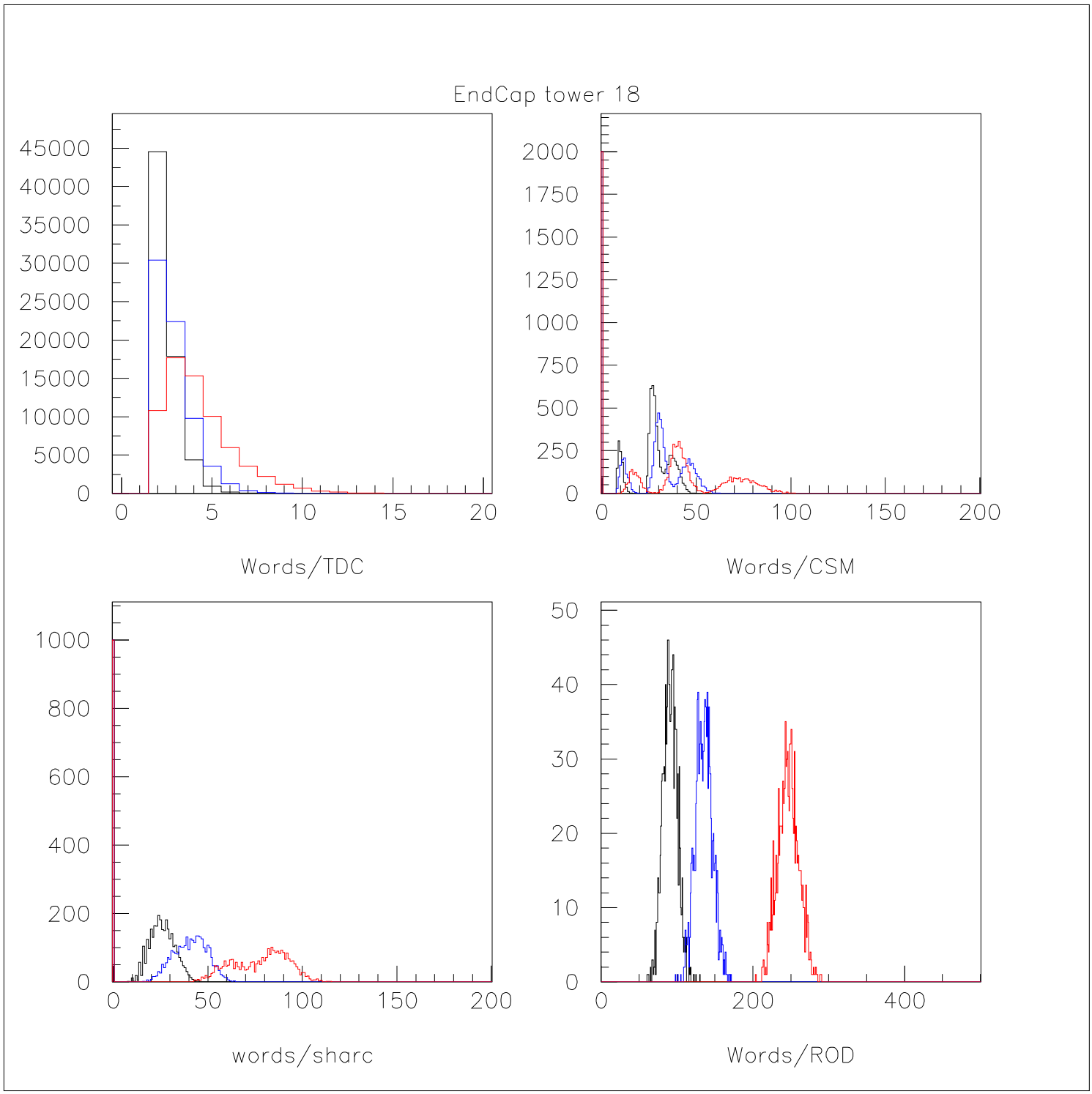

EndCap tower 17
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
50
40
30
20
10
0
0
200
400
Words/ROD

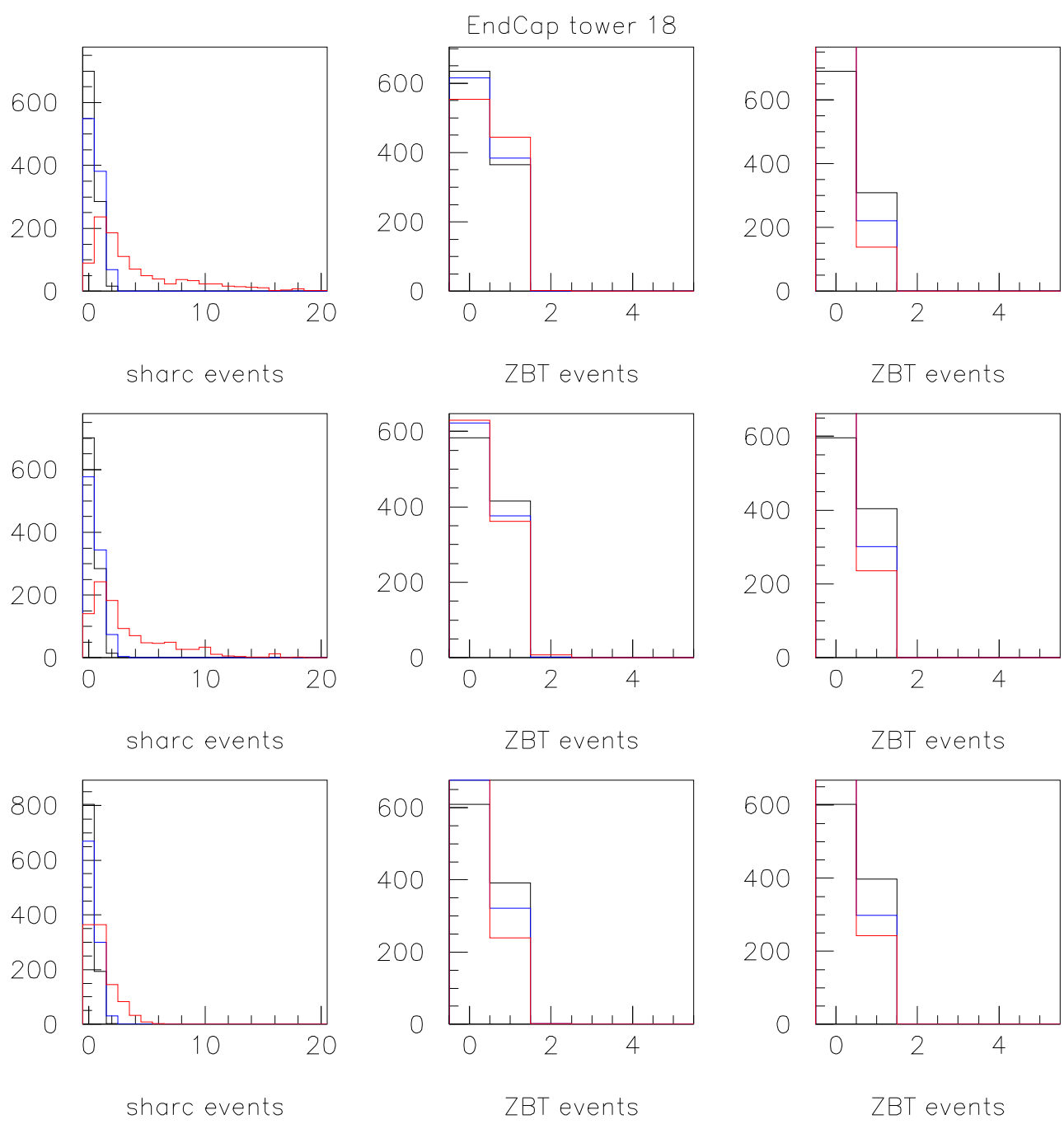

EndCap tower 17
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

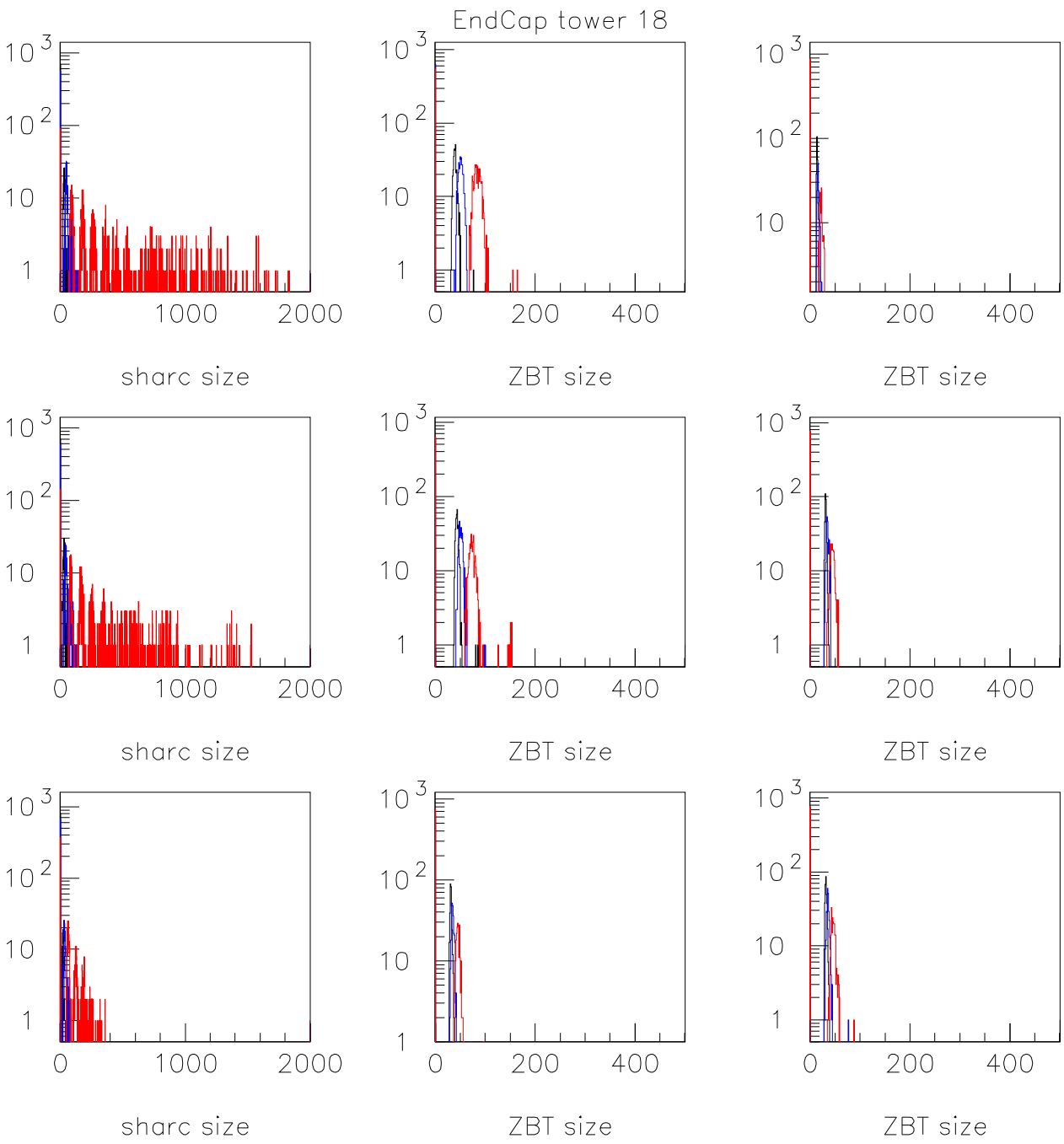

EndCap tower 17
$10^3$
$10^2$
10
1
0
1000
2000
200
400
sharc size
ZBT size

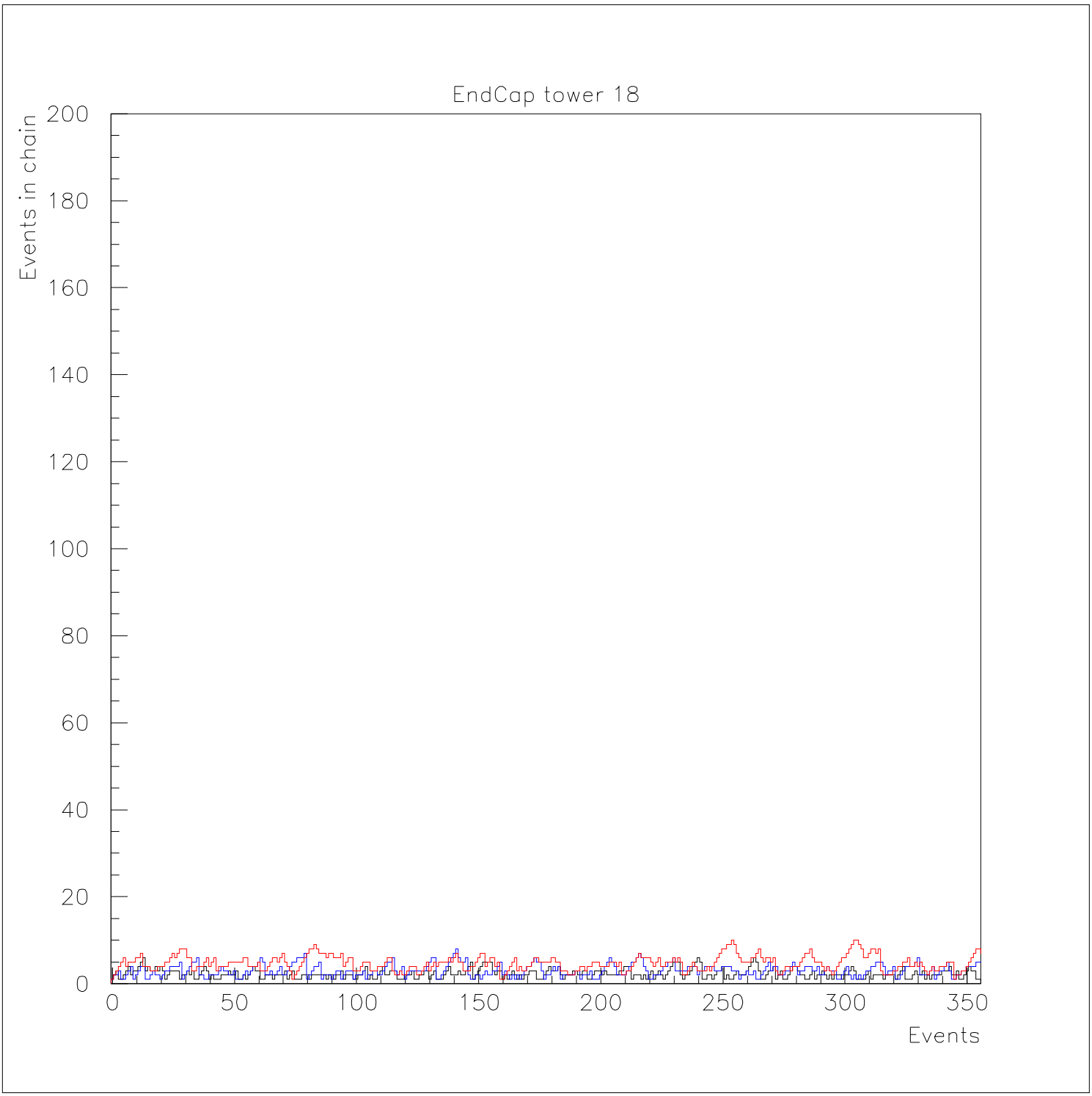

EndCap tower 17
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

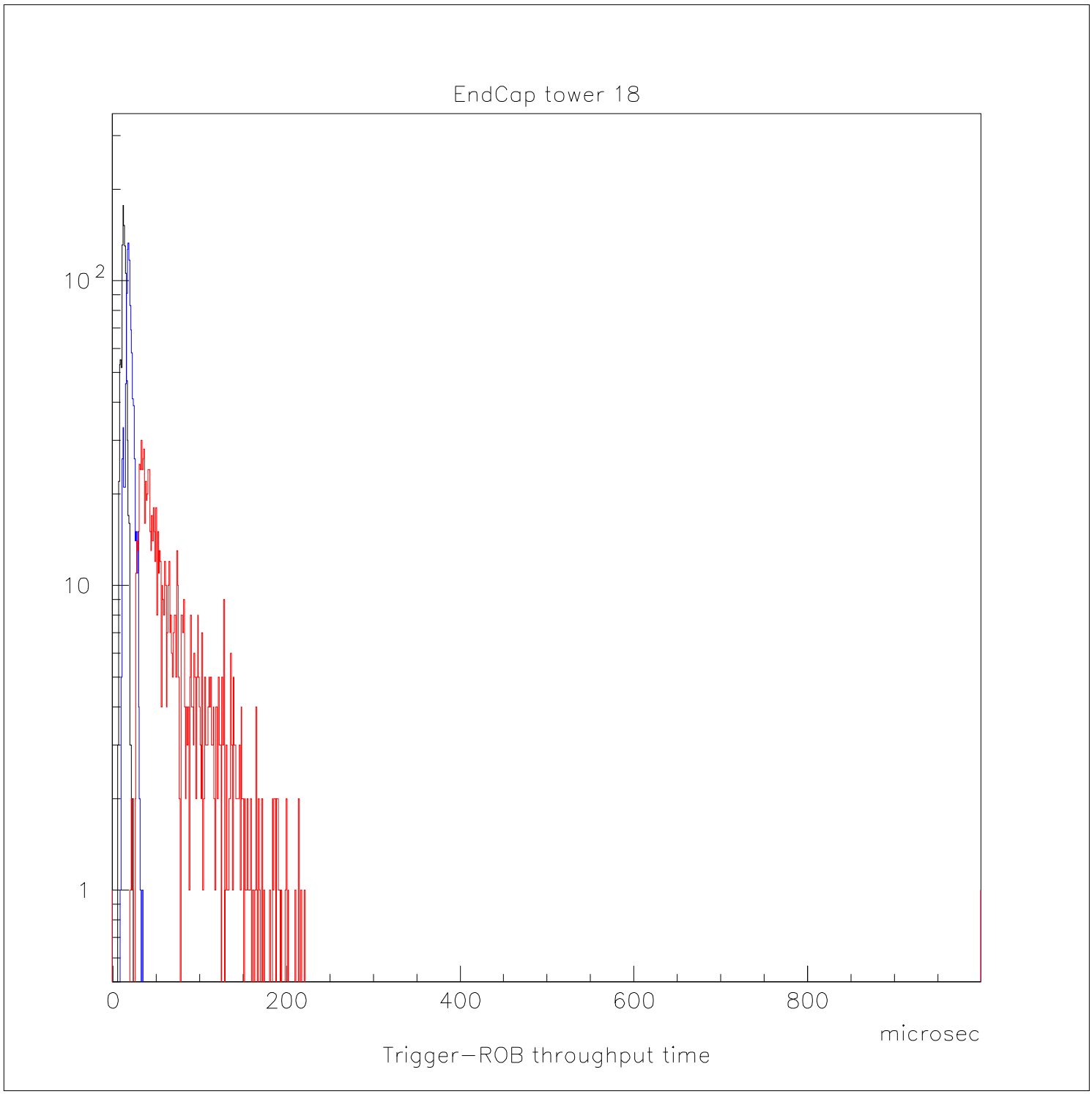

EndCap tower 17
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

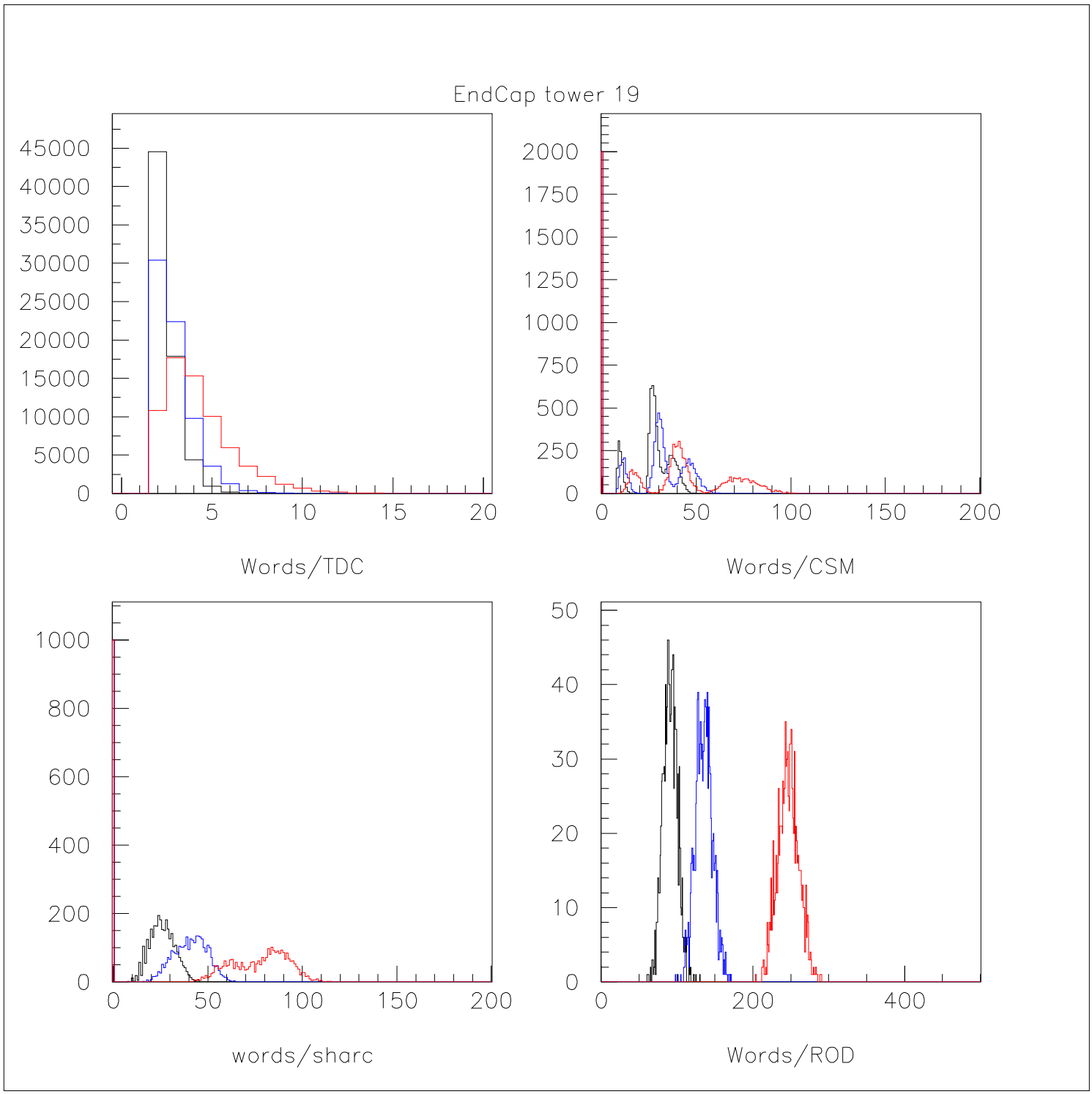

EndCap tower 18
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
50
40
30
20
10
0
0
200
400
Words/ROD

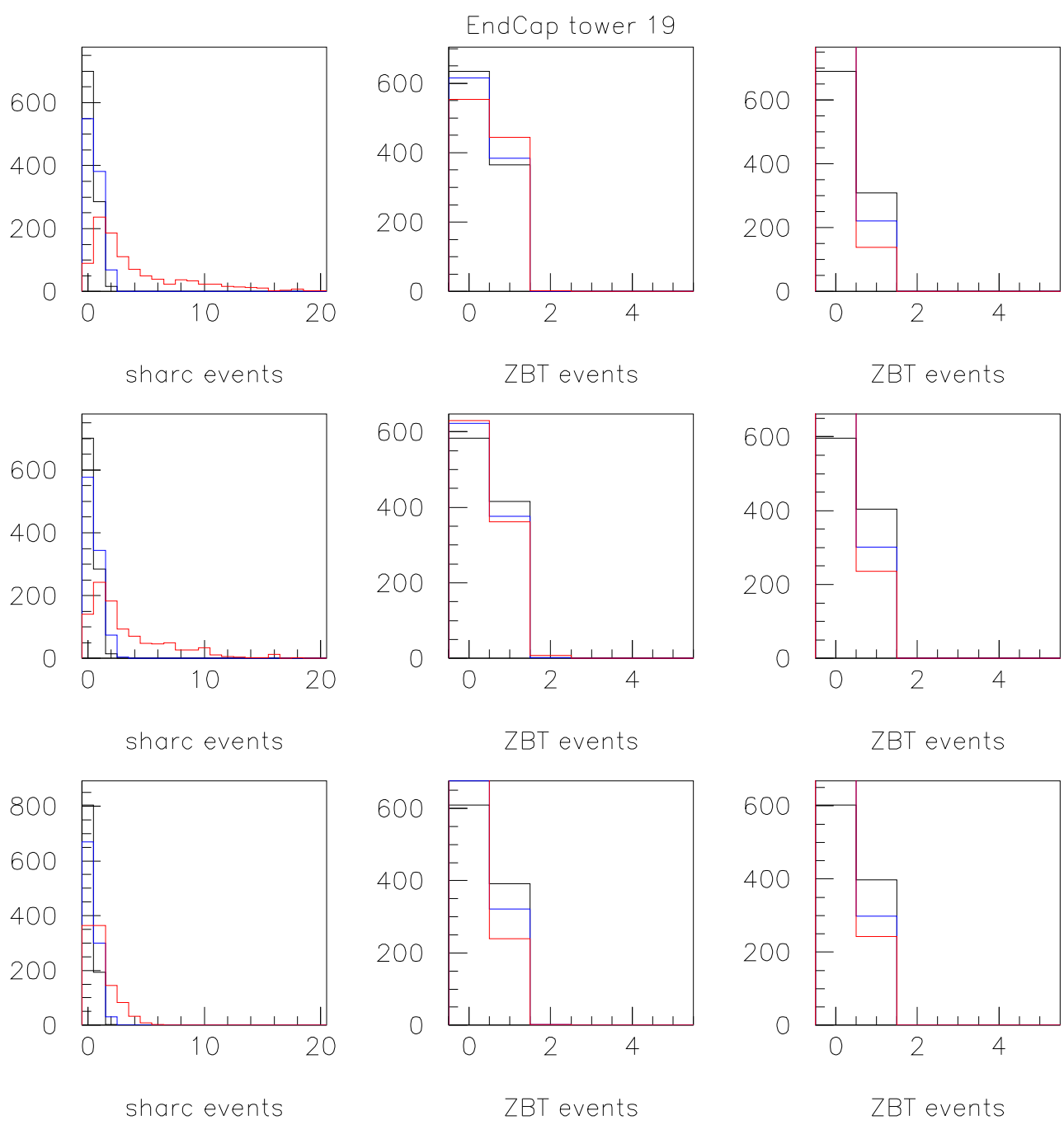

EndCap tower 18
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

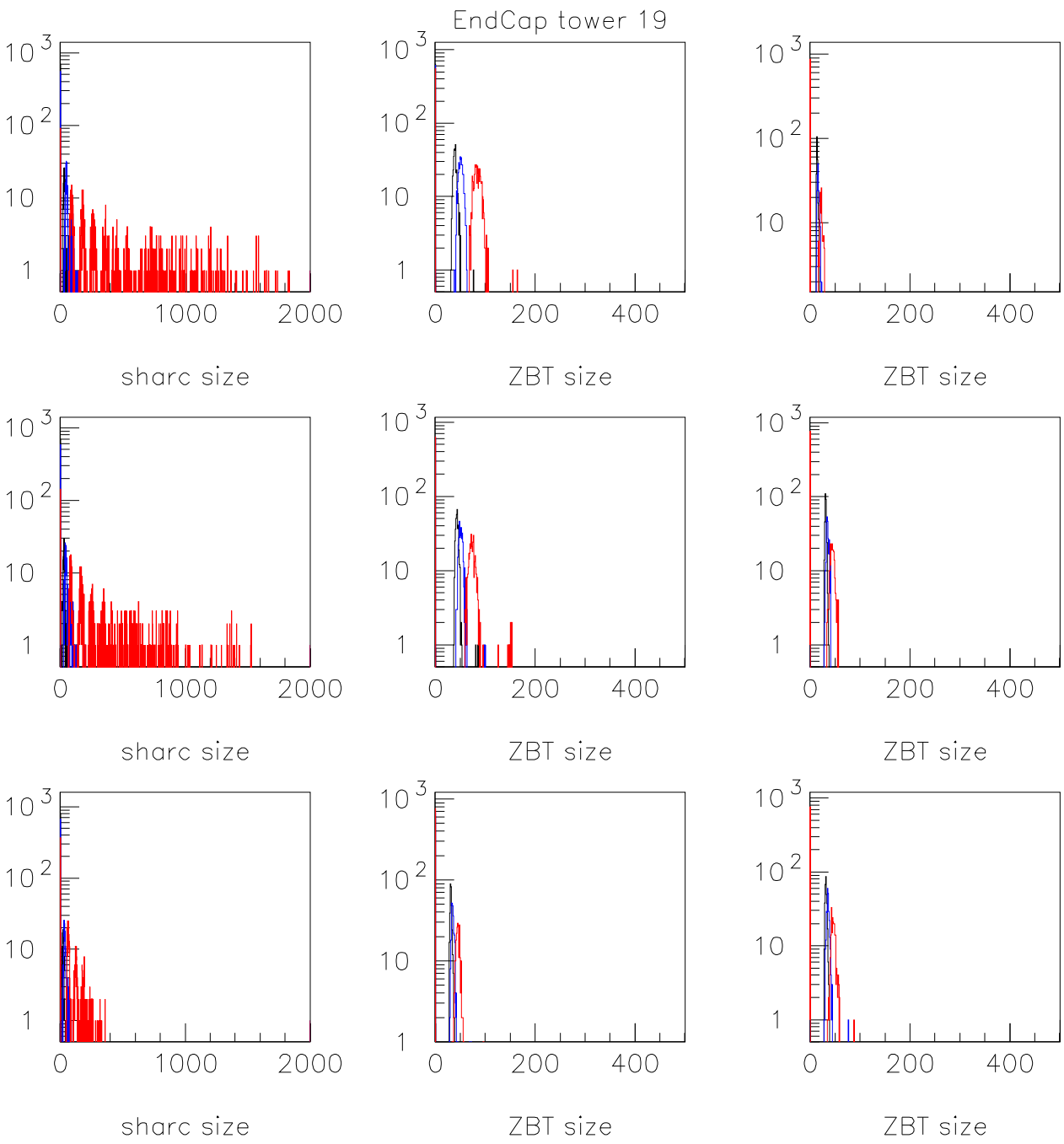

EndCap tower 18
$10^3$
$10^2$
10
1
0
1000
2000
200
400
sharc size
ZBT size

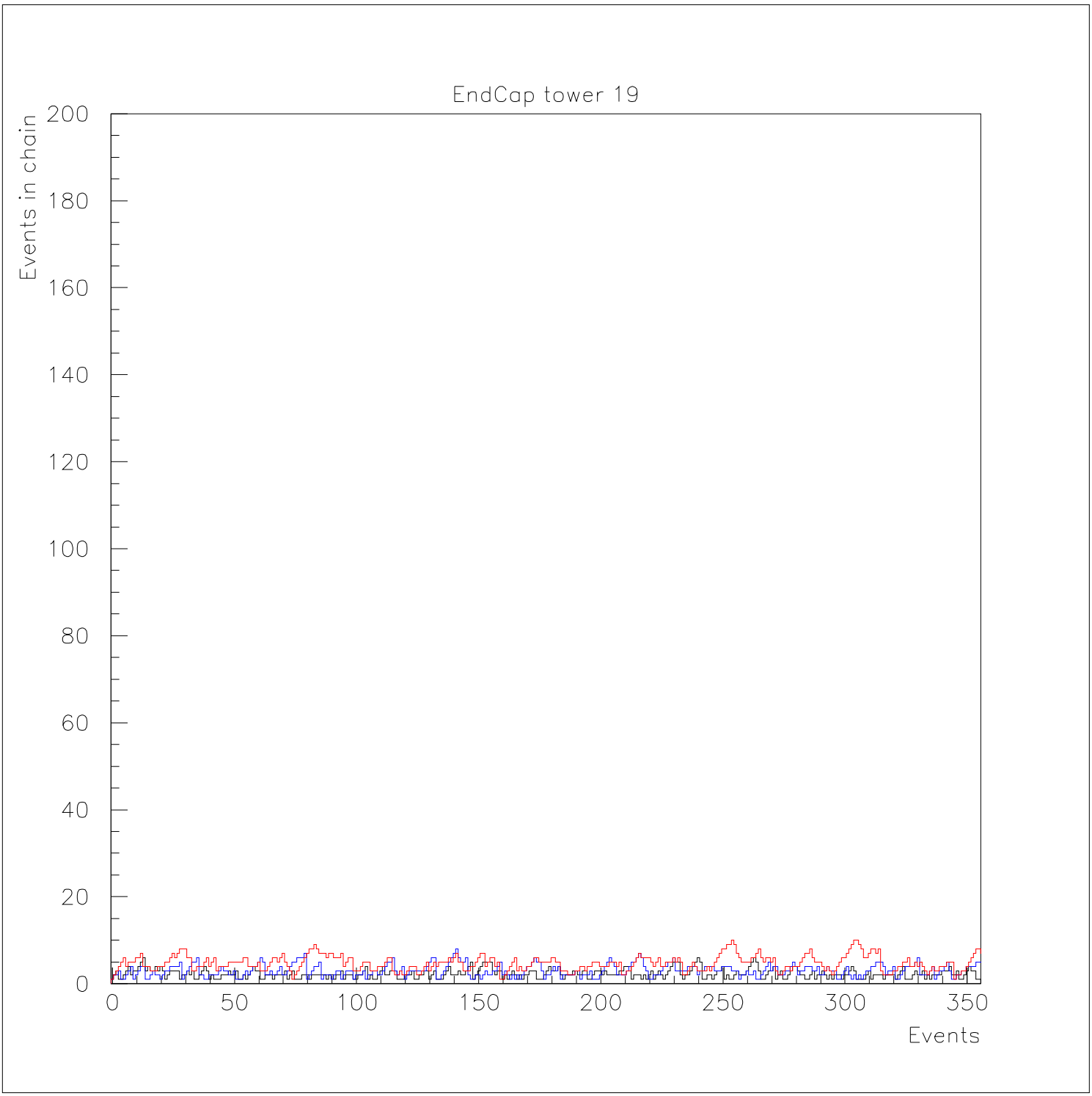

EndCap tower 18
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

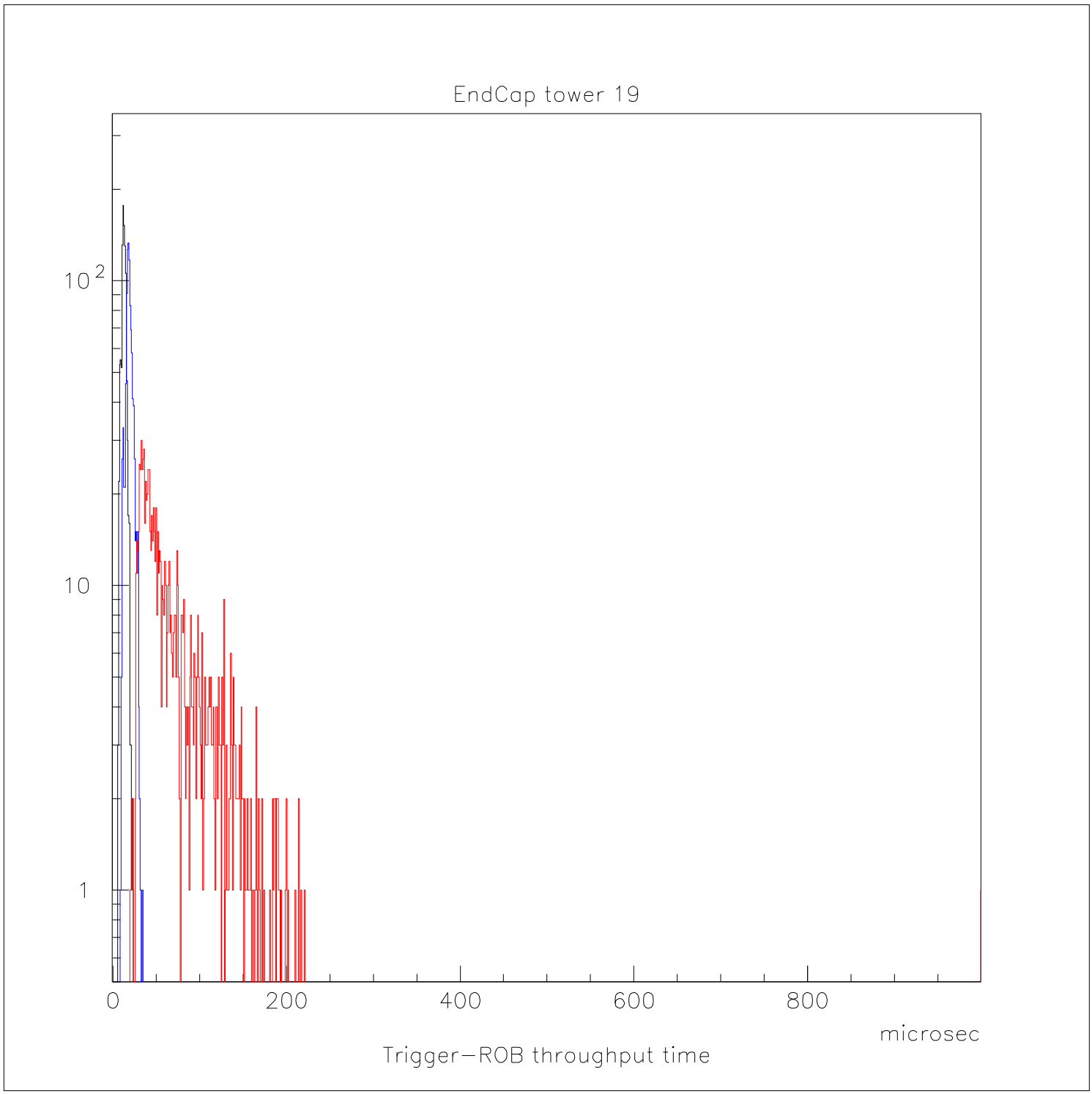

EndCap tower 18
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time


EndCap tower 19
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
50
40
30
20
10
0
0
200
400
Words/ROD

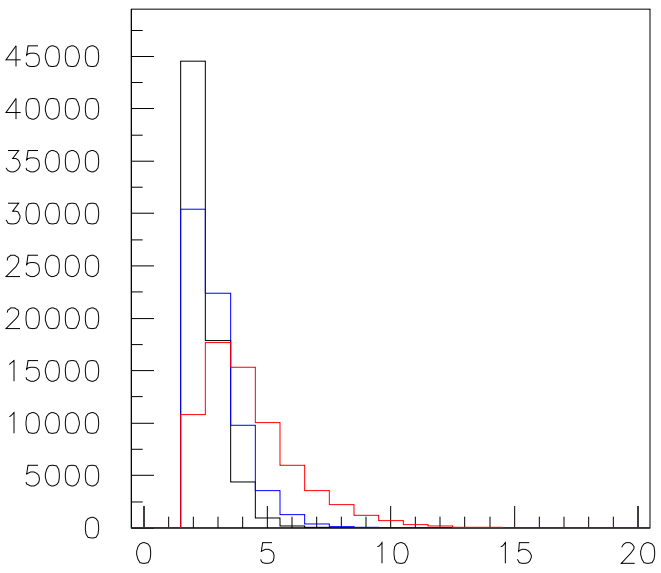

EndCap tower 19
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events


EndCap tower 19
$10^3$
$10^2$
10
1
0
1000
2000
200
400
sharc size
ZBT size

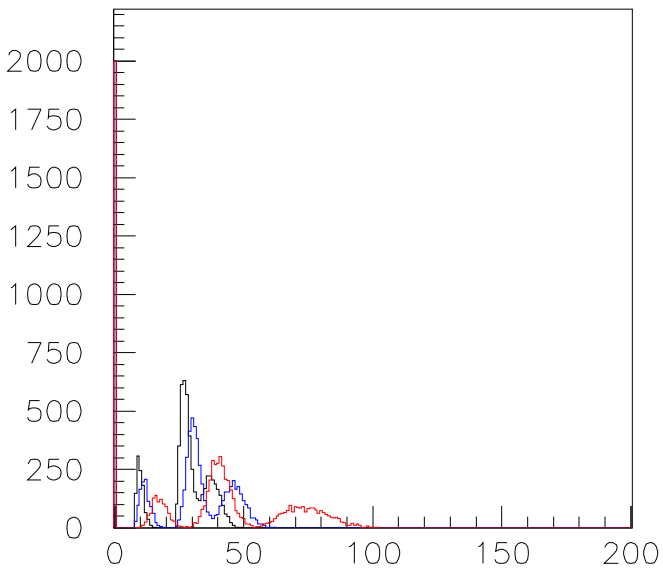

EndCap tower 19
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events


EndCap tower 19
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

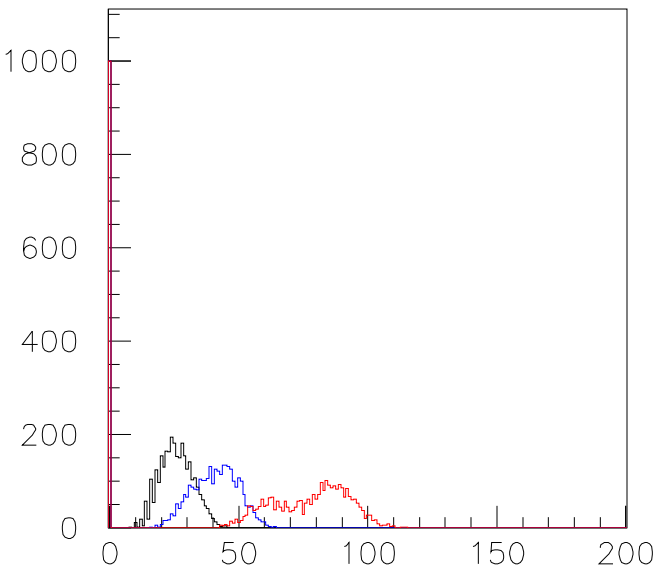
EndCap tower 20



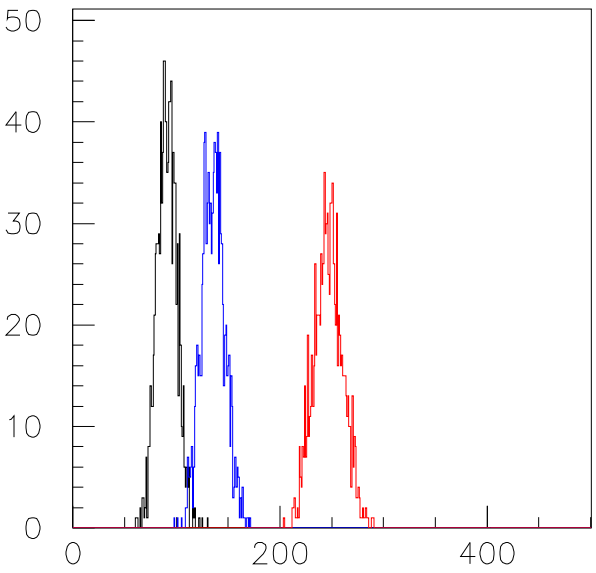

Words/TDC



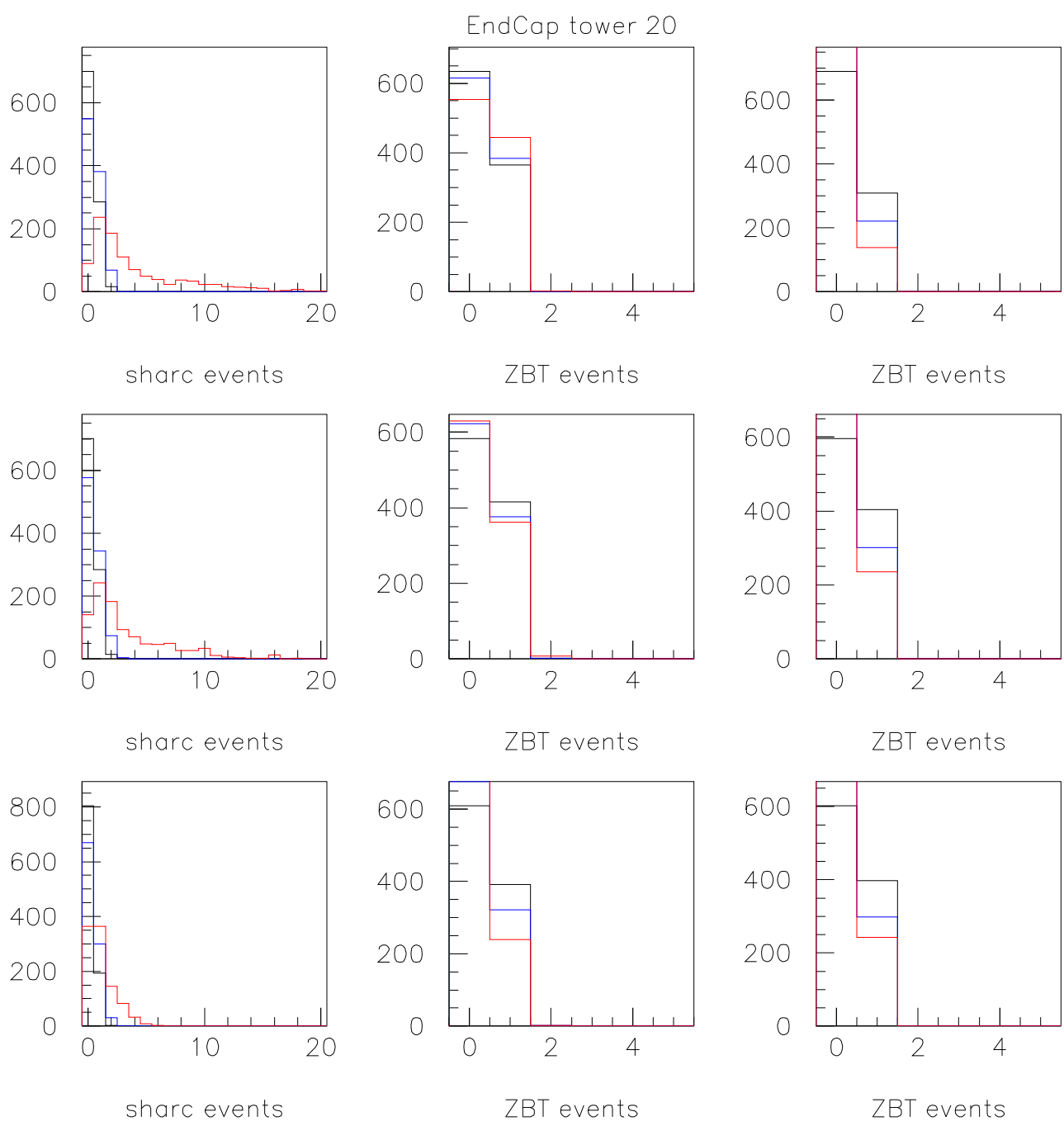

Words/CSM

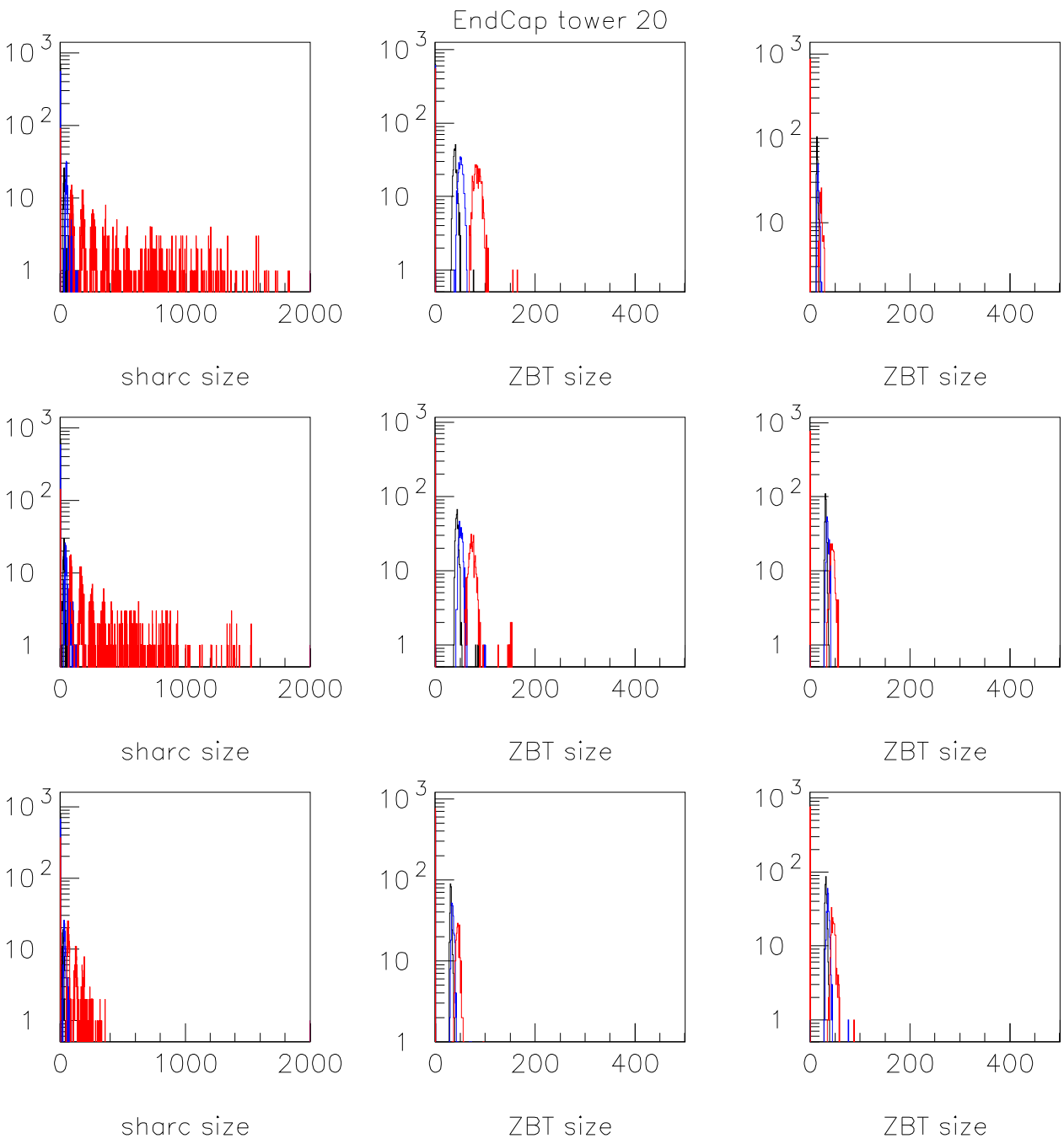


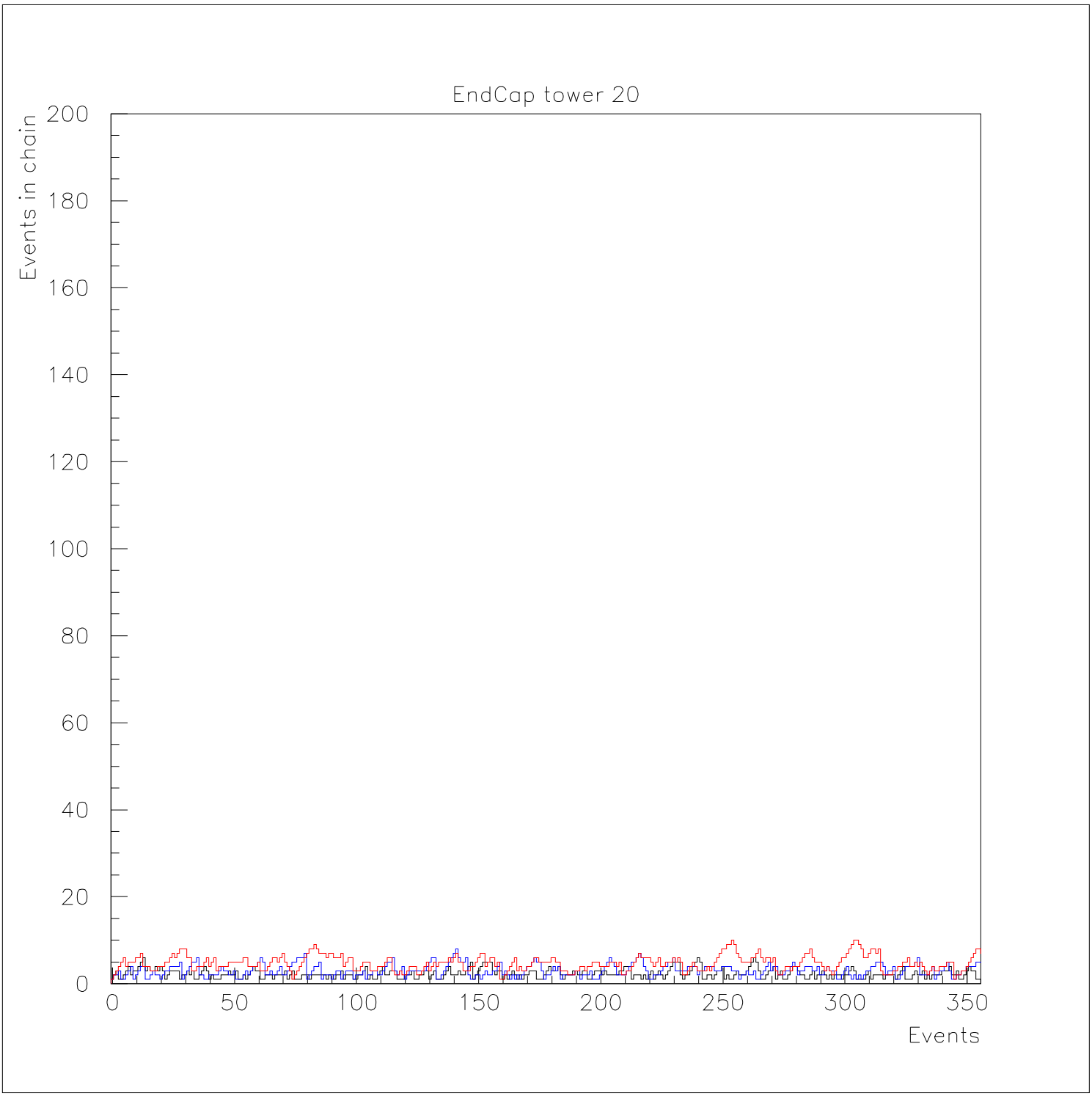

words/sharc

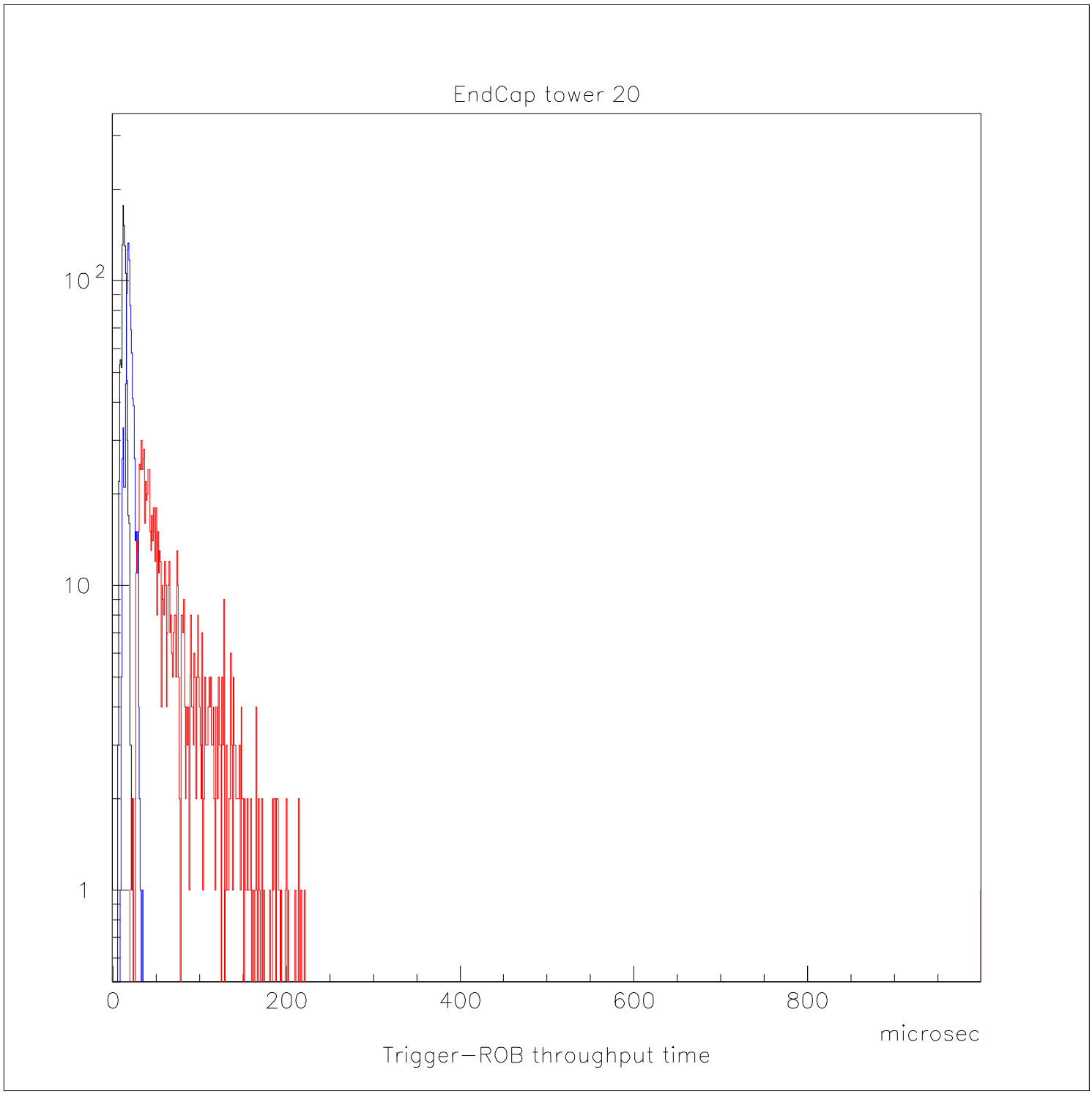


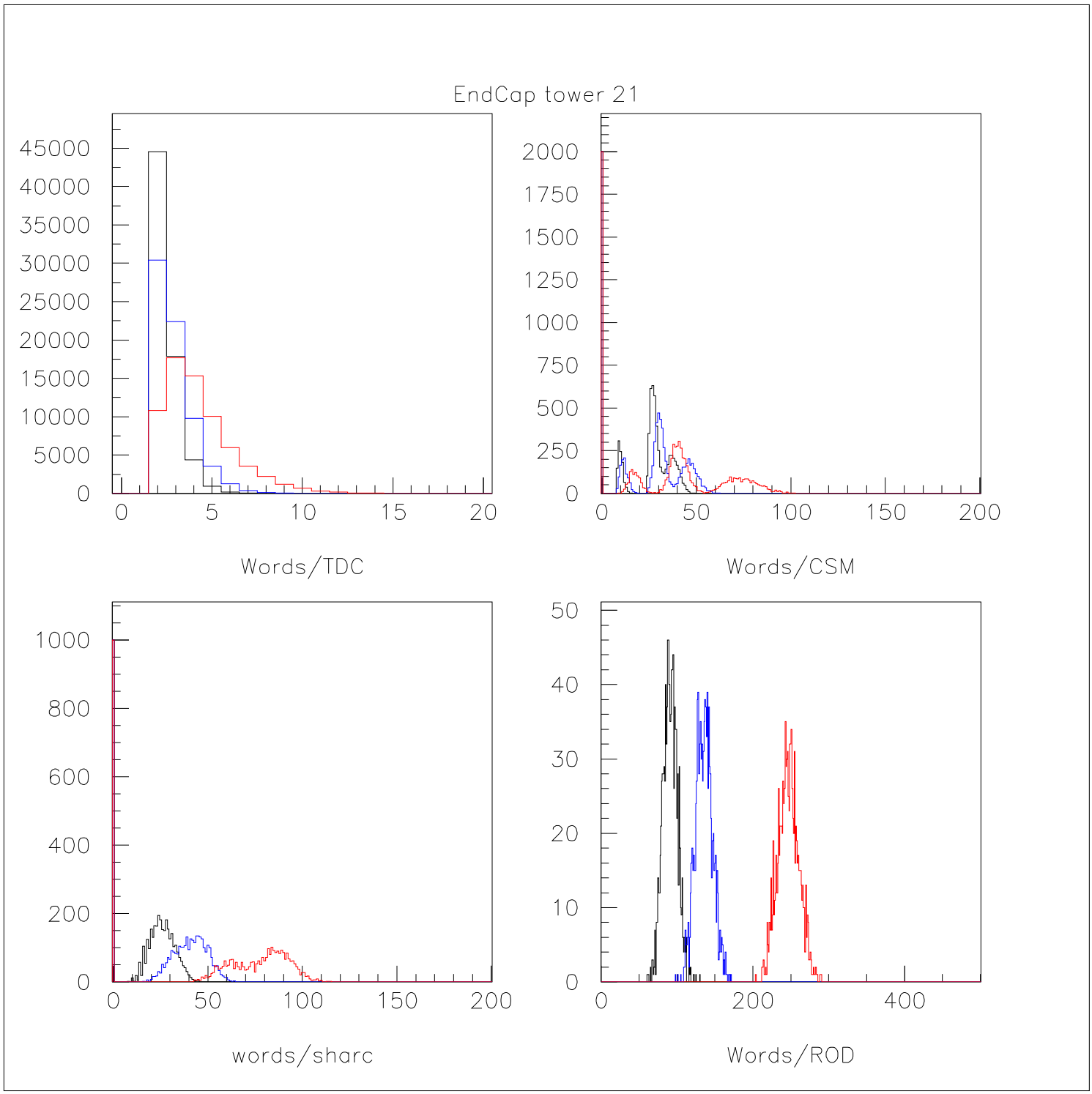

Words/ROD

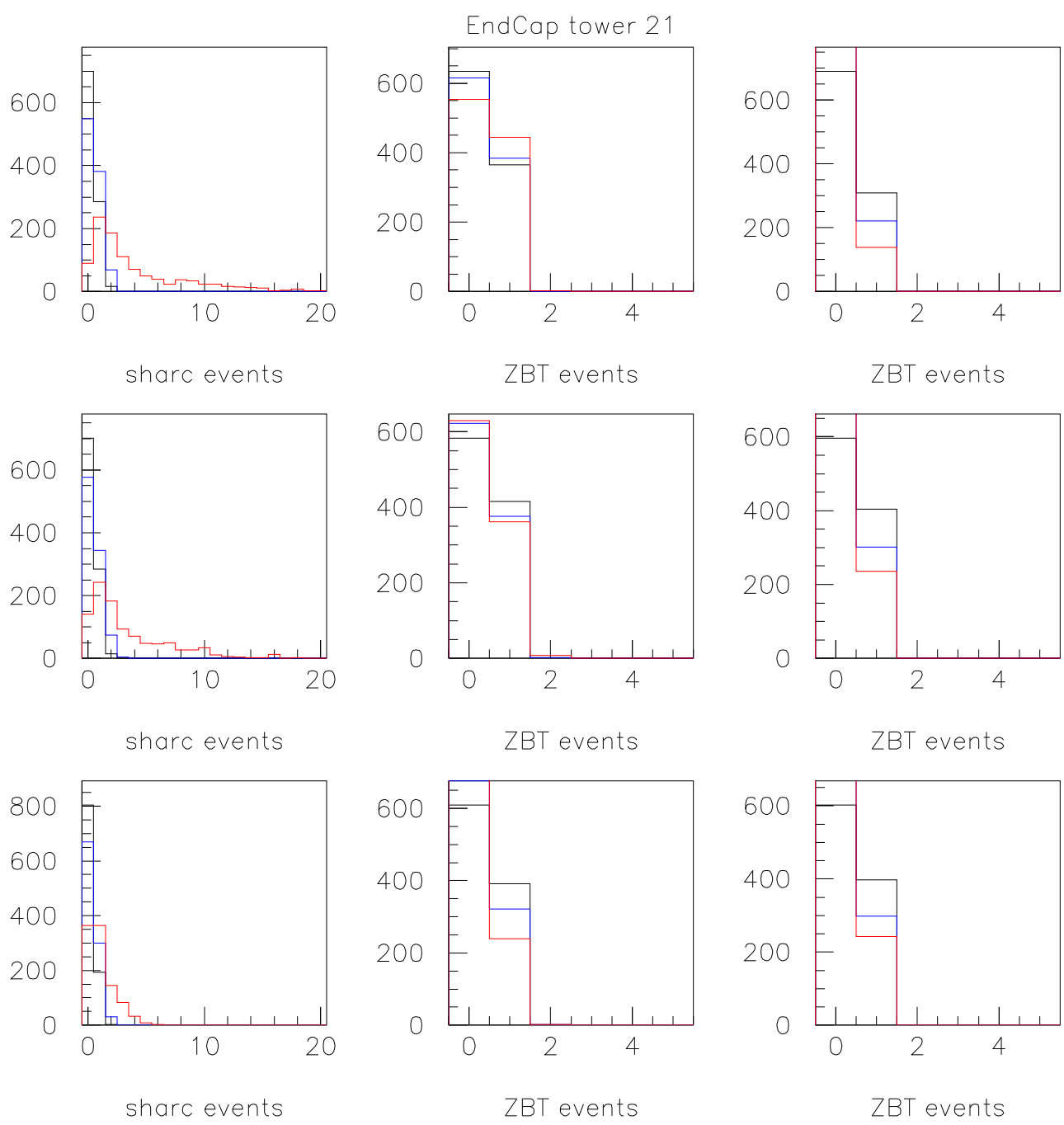

EndCap tower 20
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

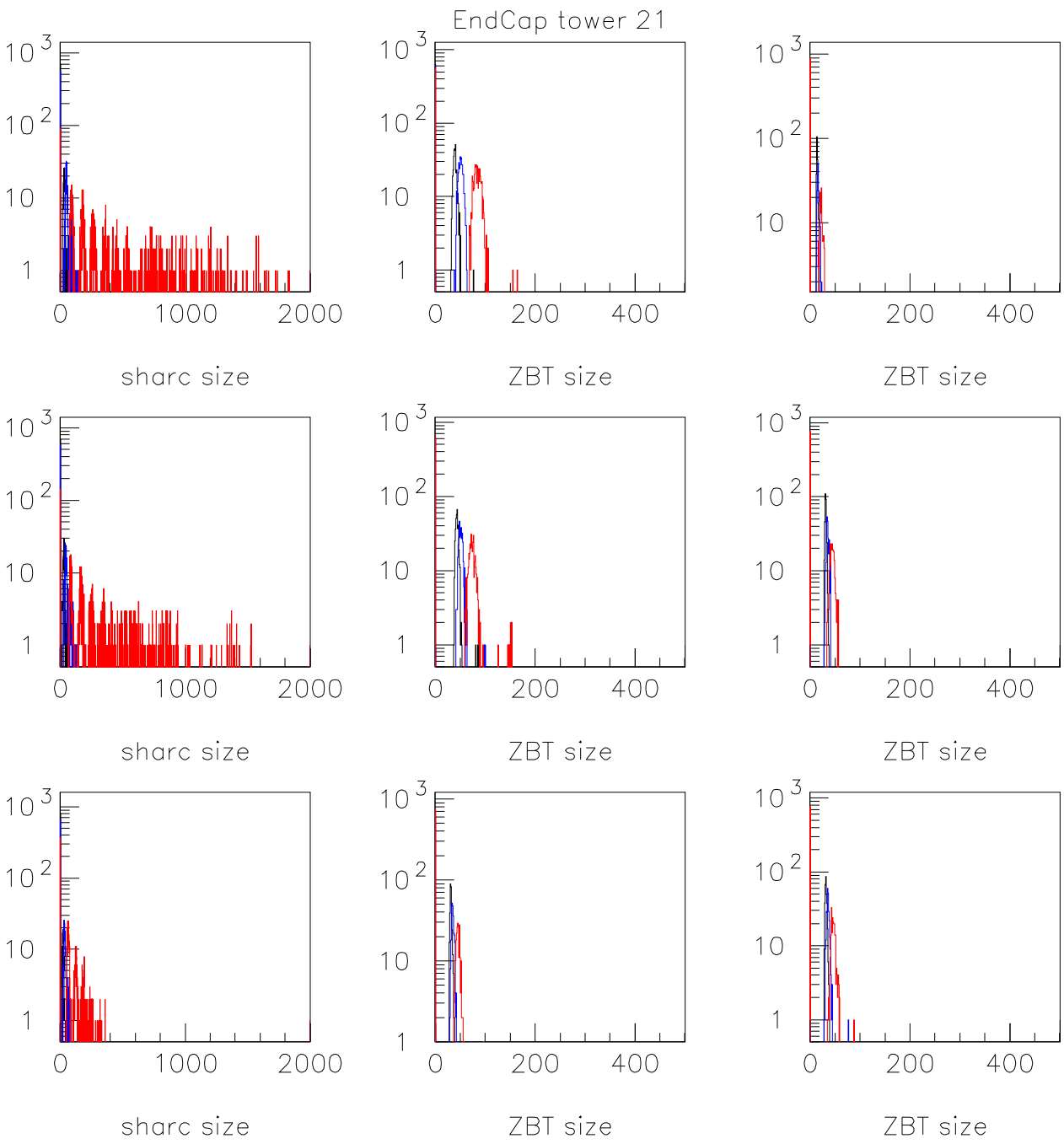

EndCap tower 20
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

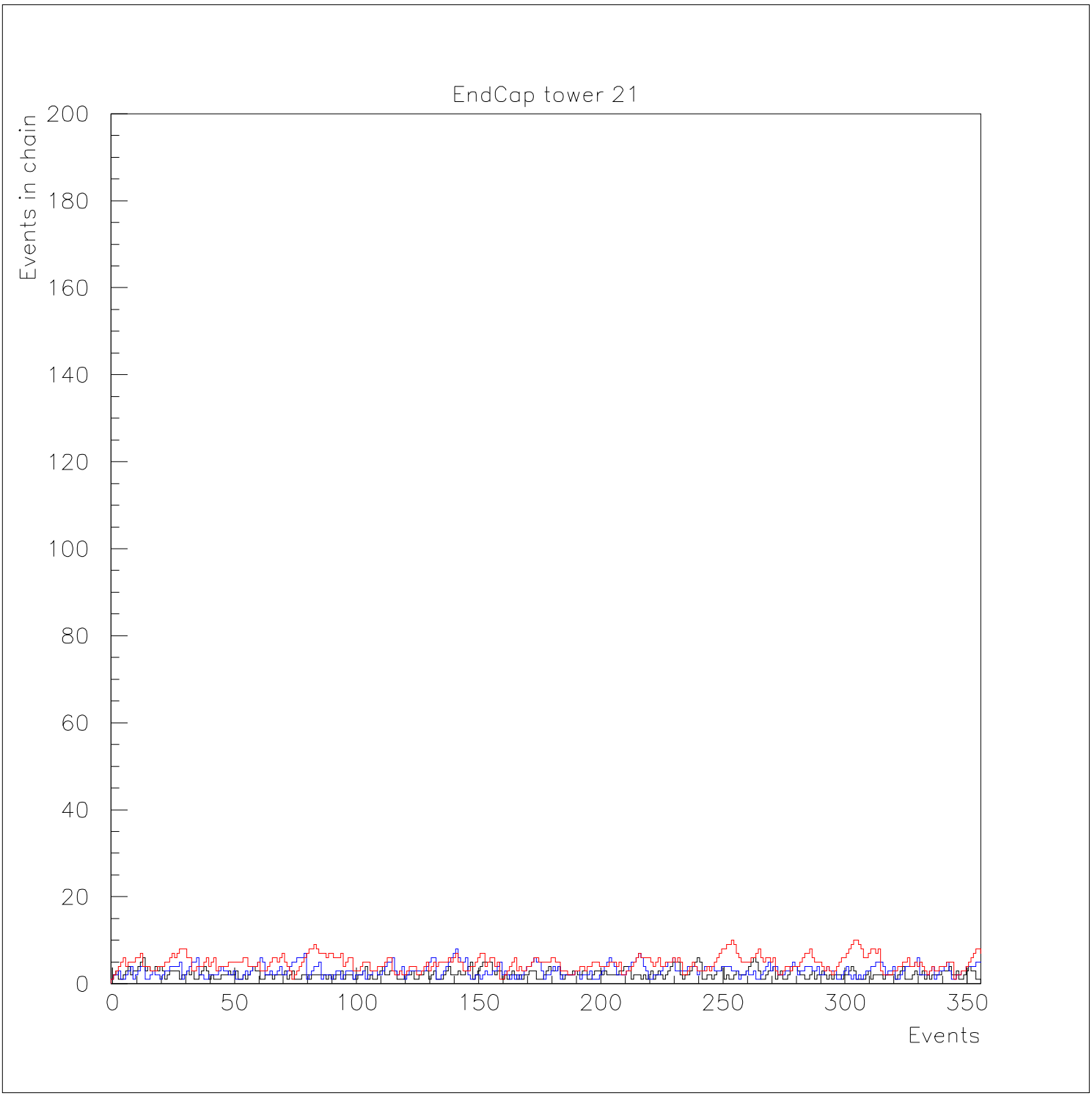

EndCap tower 20
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

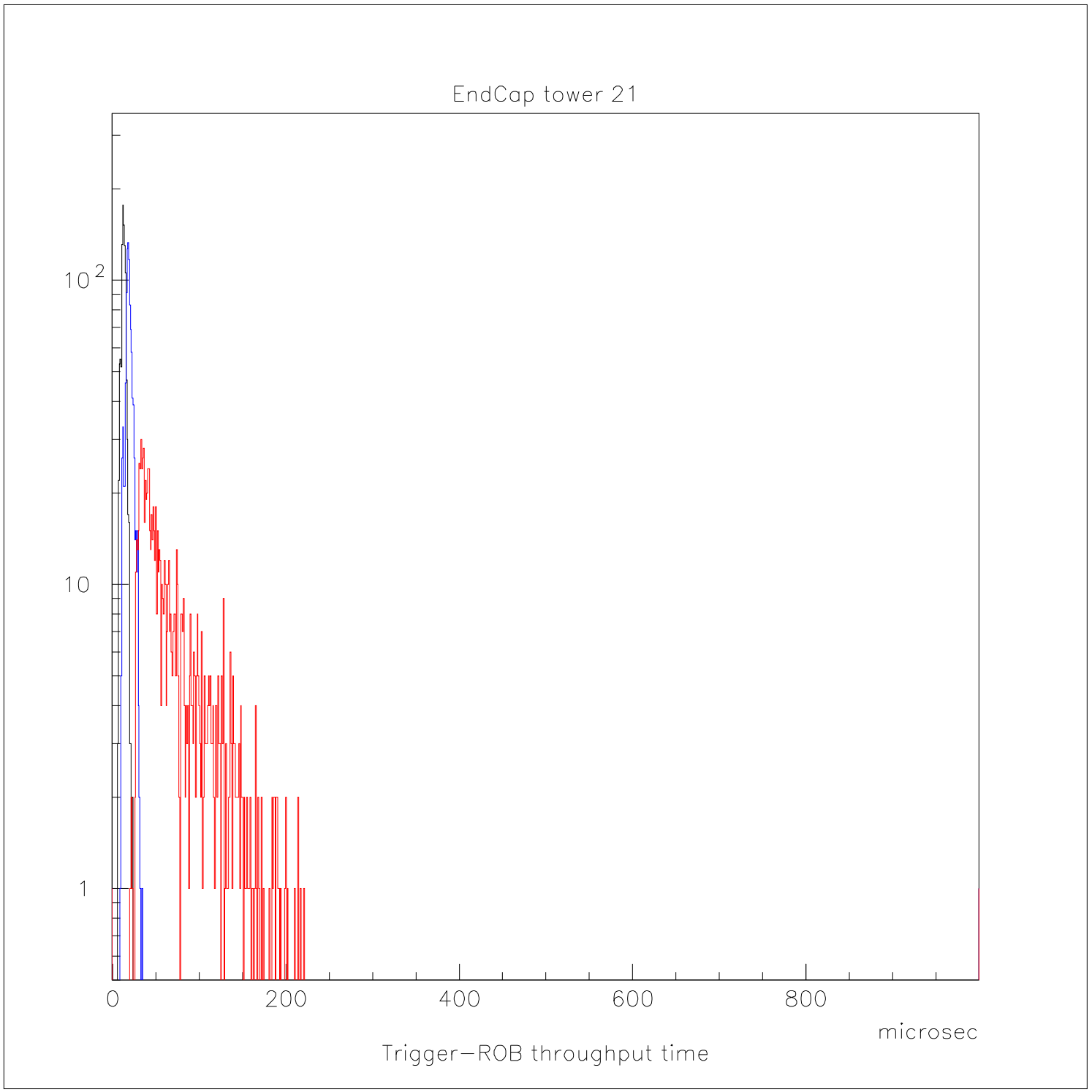

EndCap tower 20
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

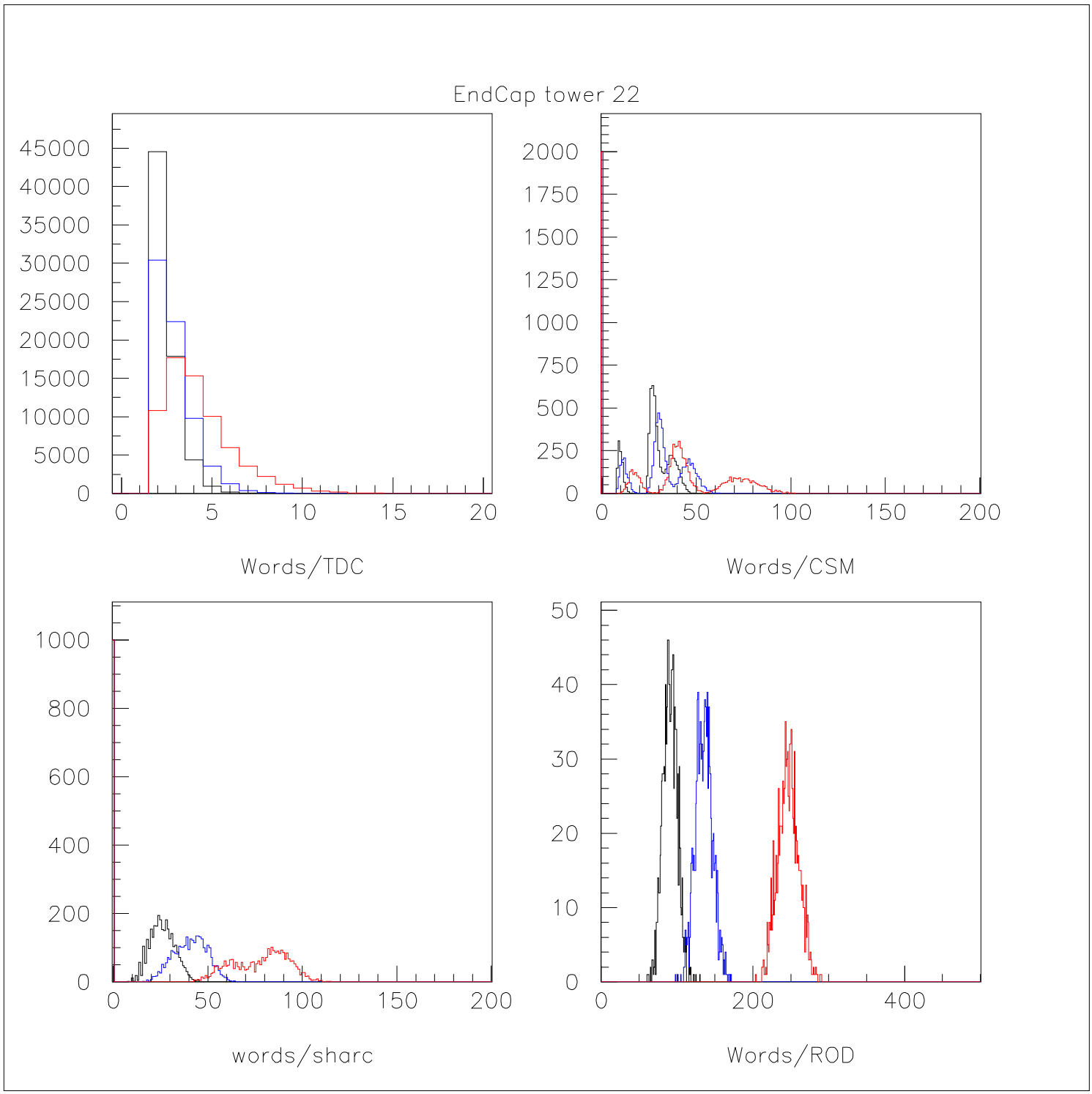

EndCap tower 21
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
50
40
30
20
10
0
0
200
400
Words/ROD

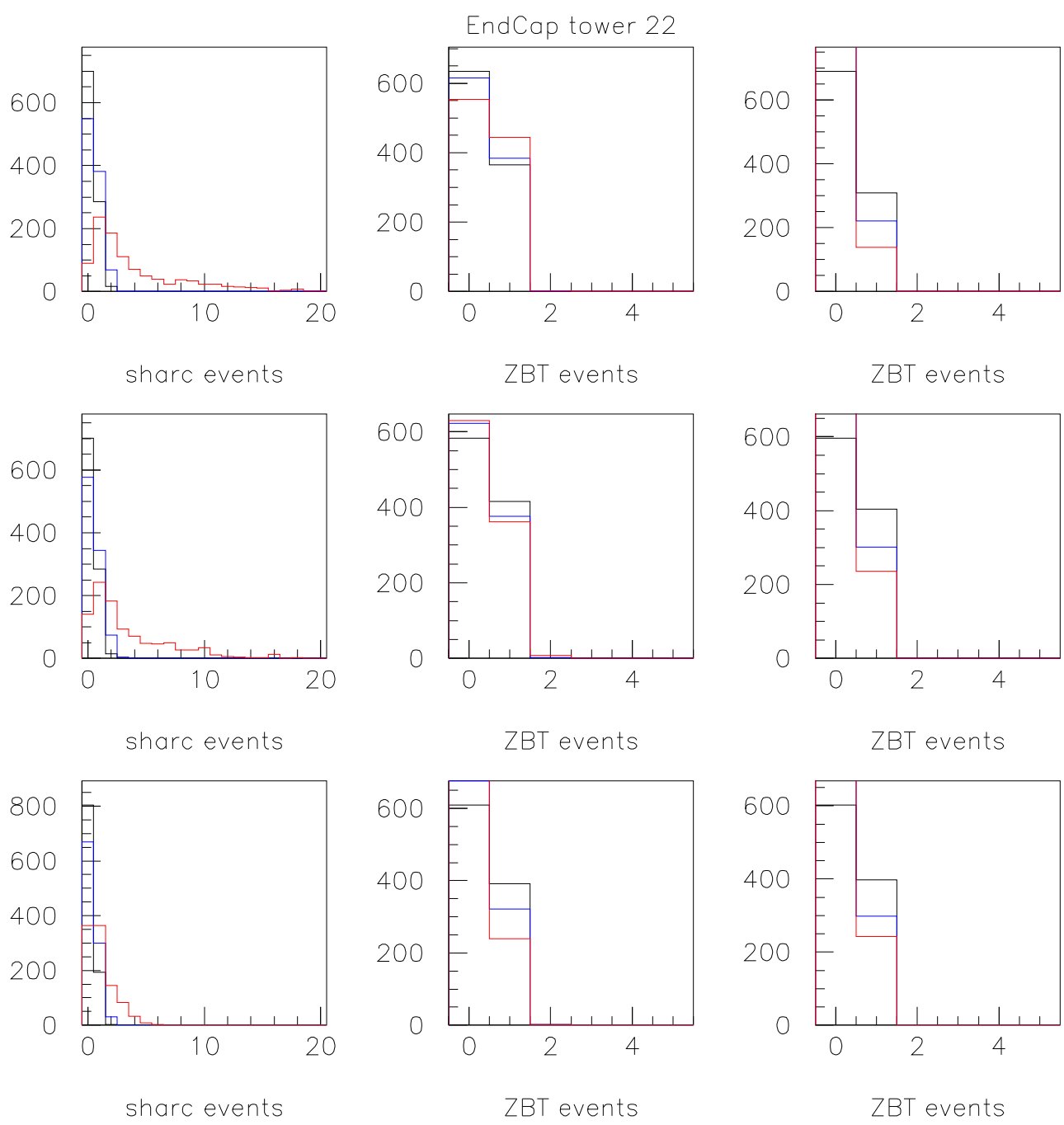

EndCap tower 21
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

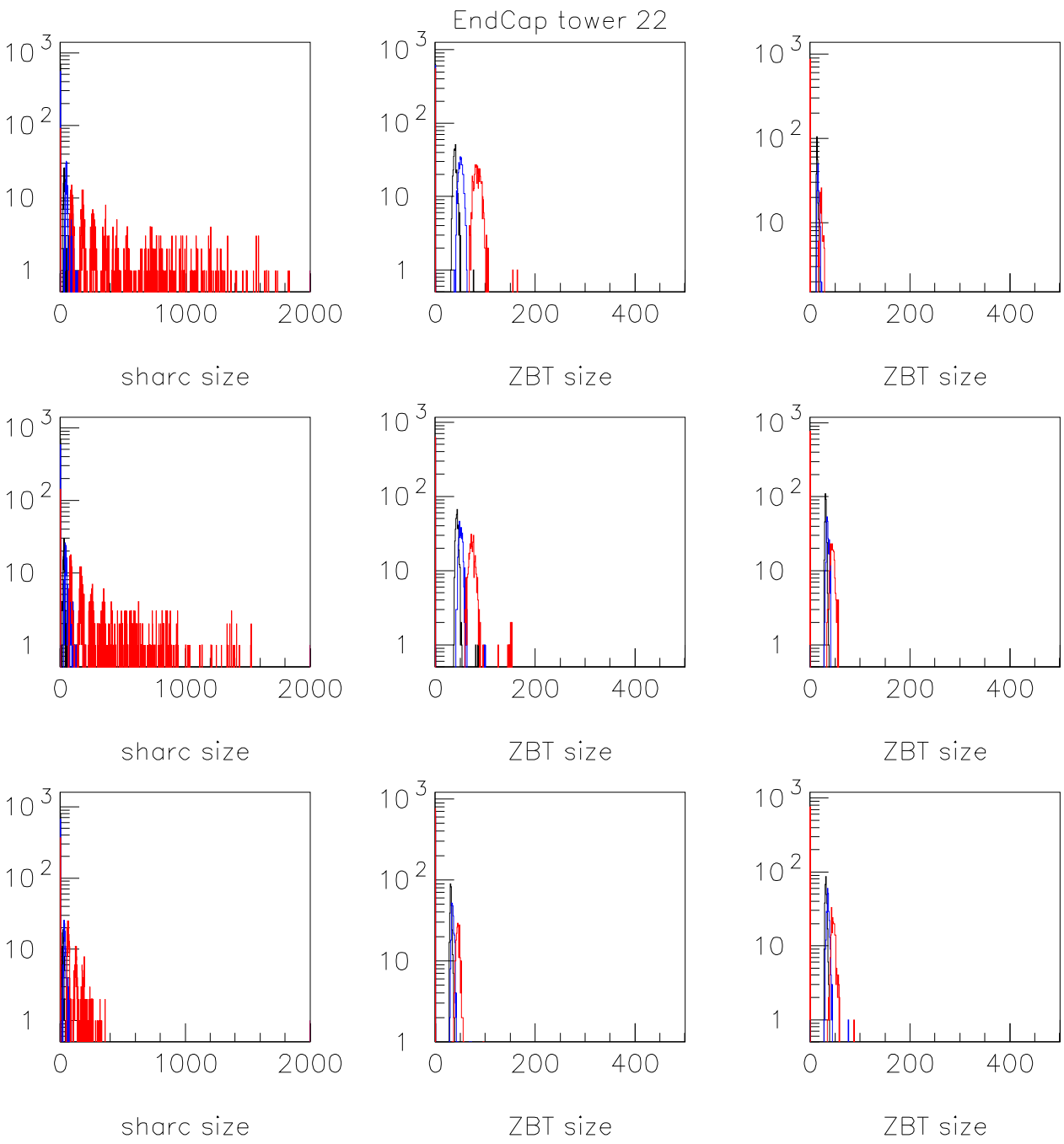

EndCap tower 21
$10^3$
$10^2$
10
1
0
1000
2000
200
400
sharc size
ZBT size

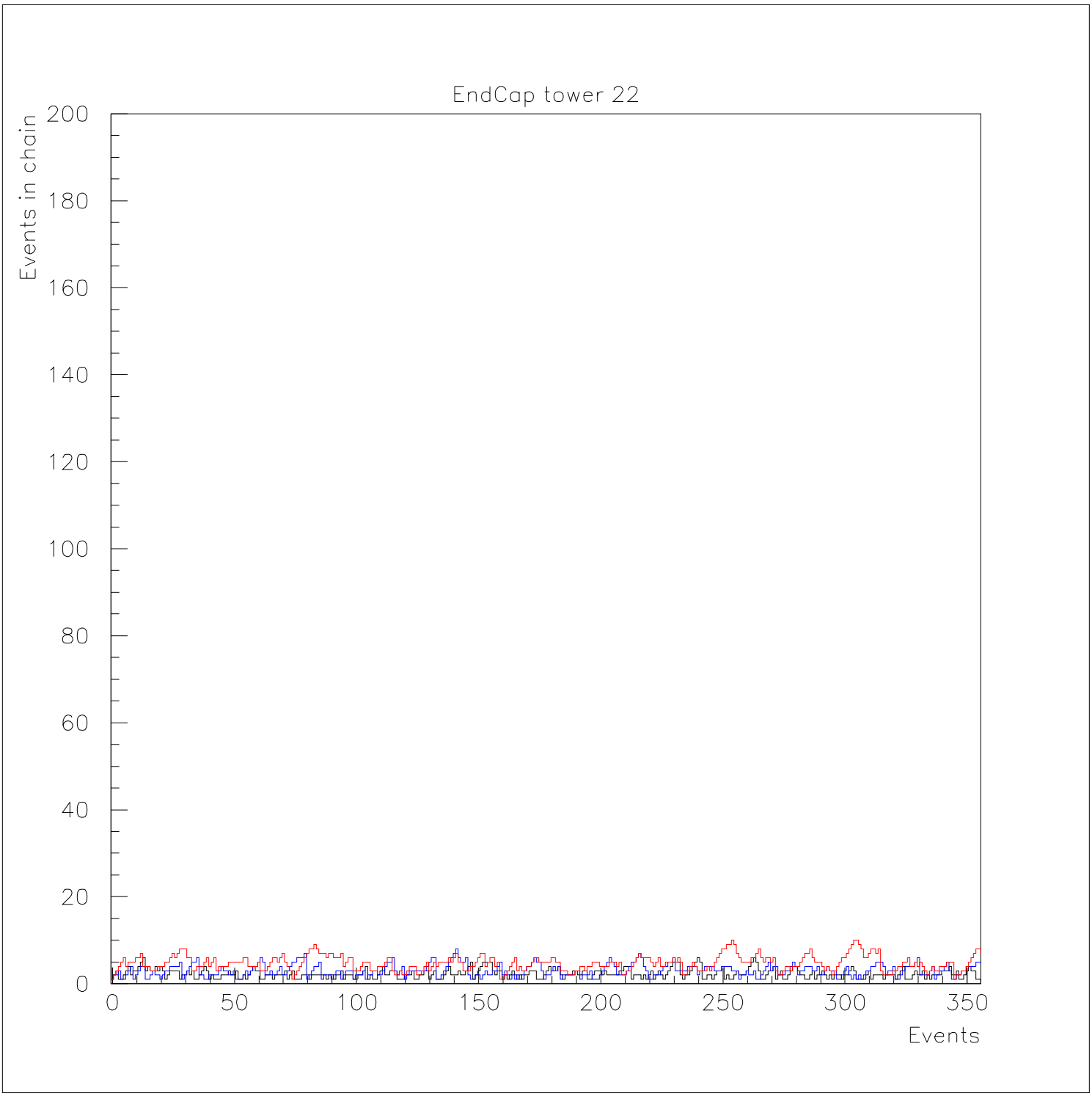

EndCap tower 21
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

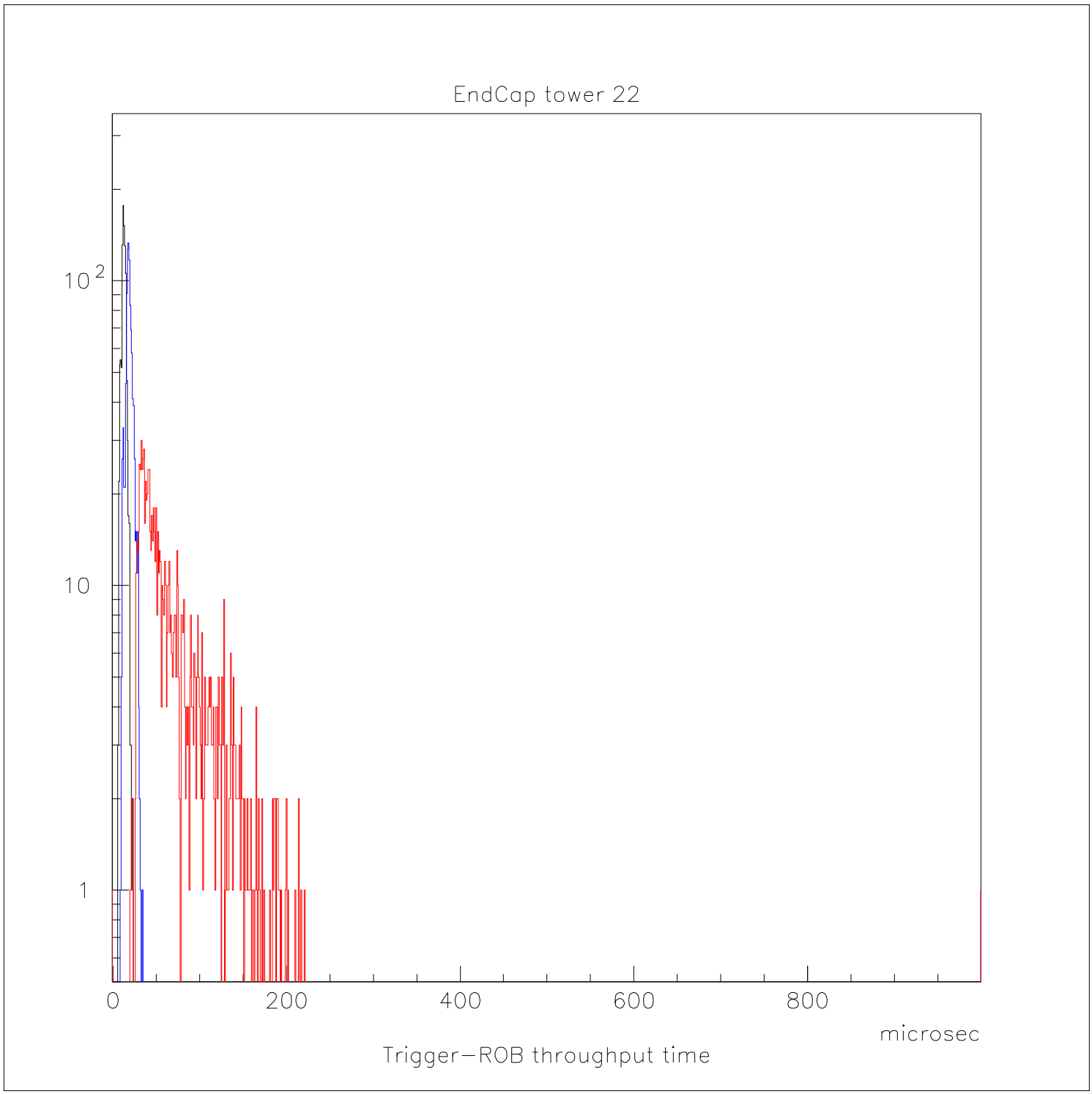

EndCap tower 21
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

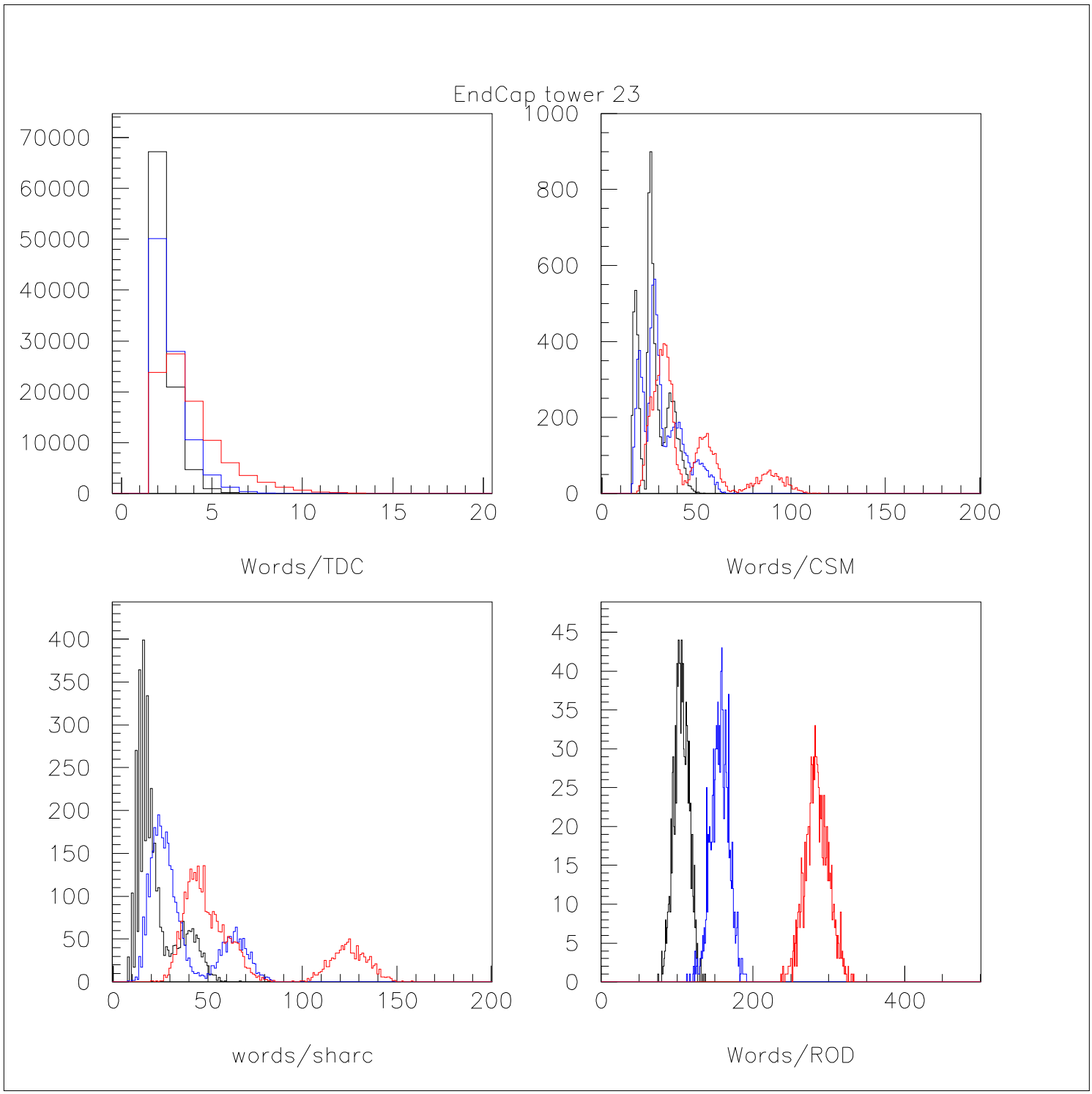

EndCap tower 22
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
50
40
30
20
10
0
0
200
400
Words/ROD

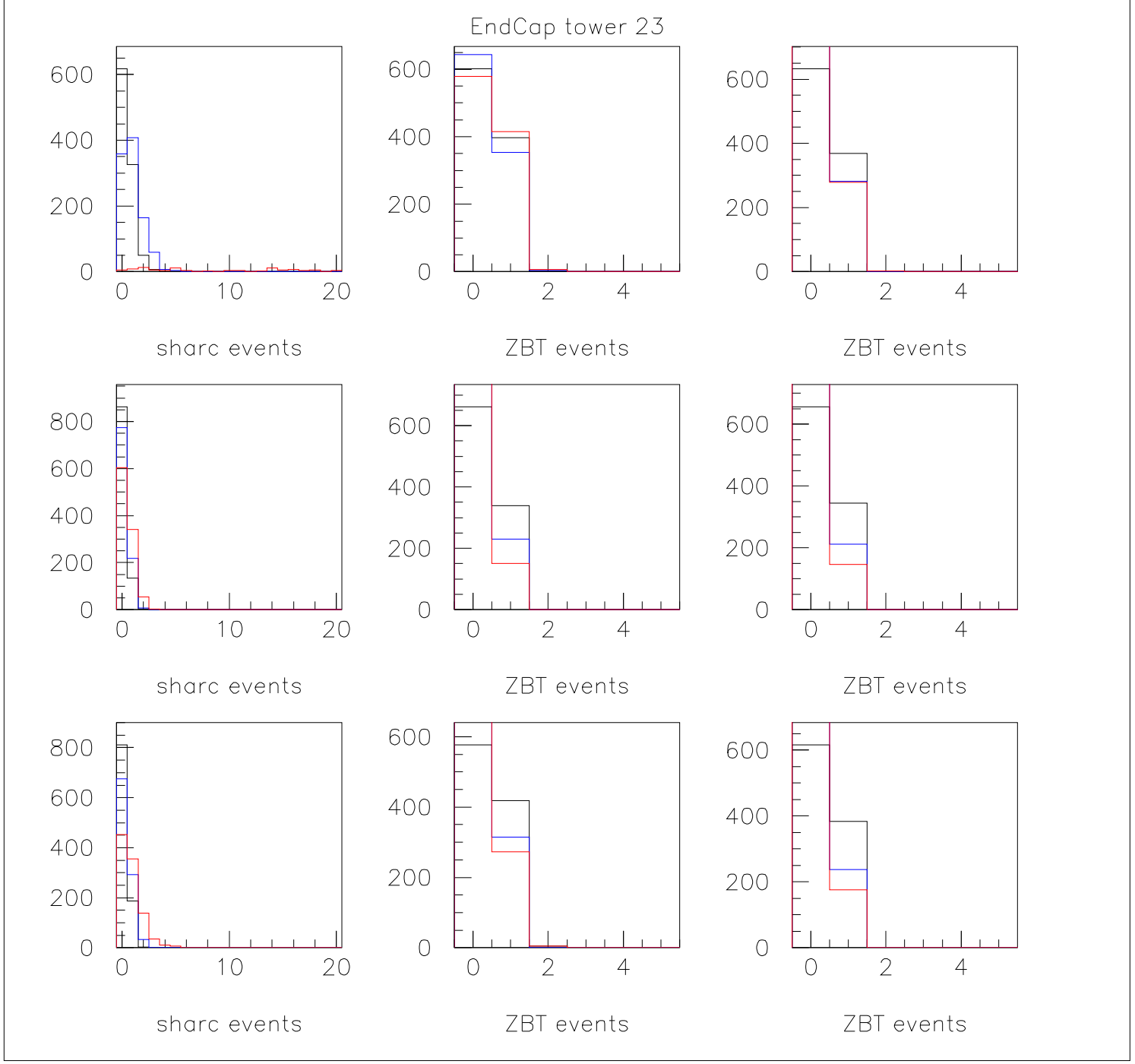

EndCap tower 22
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

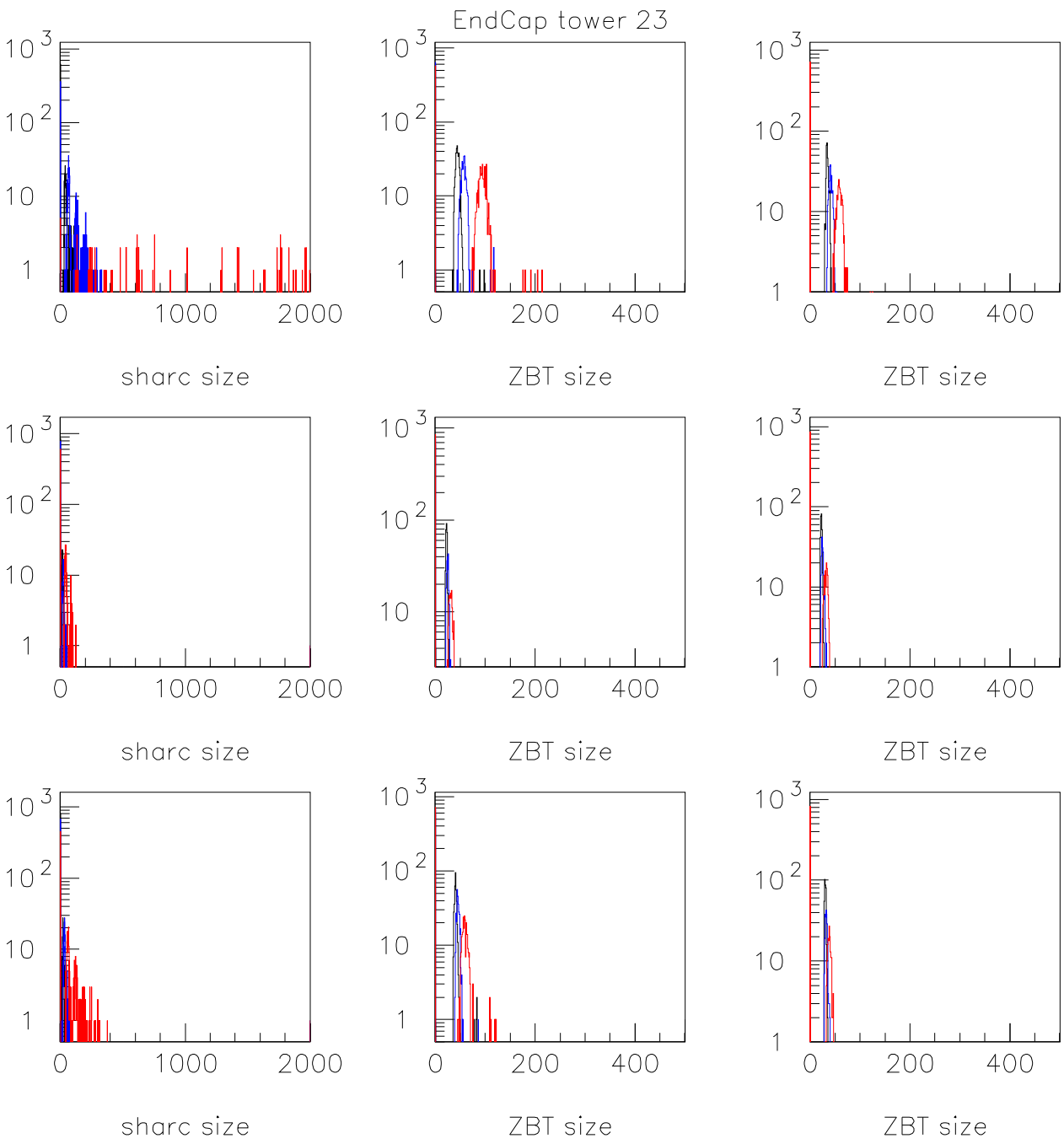

EndCap tower 22
$10^3$
$10^2$
10
1
0
1000
2000
200
400
sharc size
ZBT size

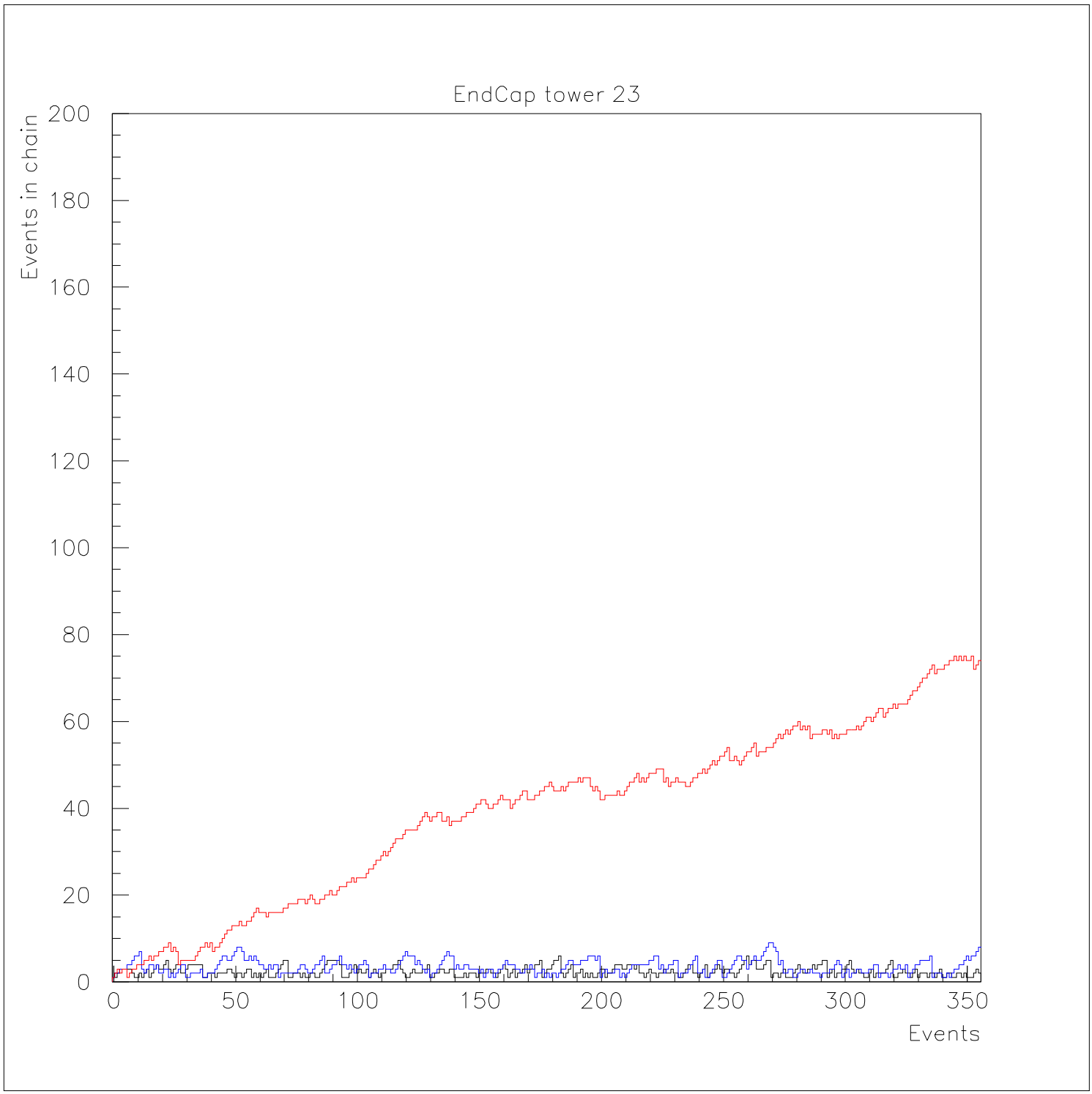

EndCap tower 22
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

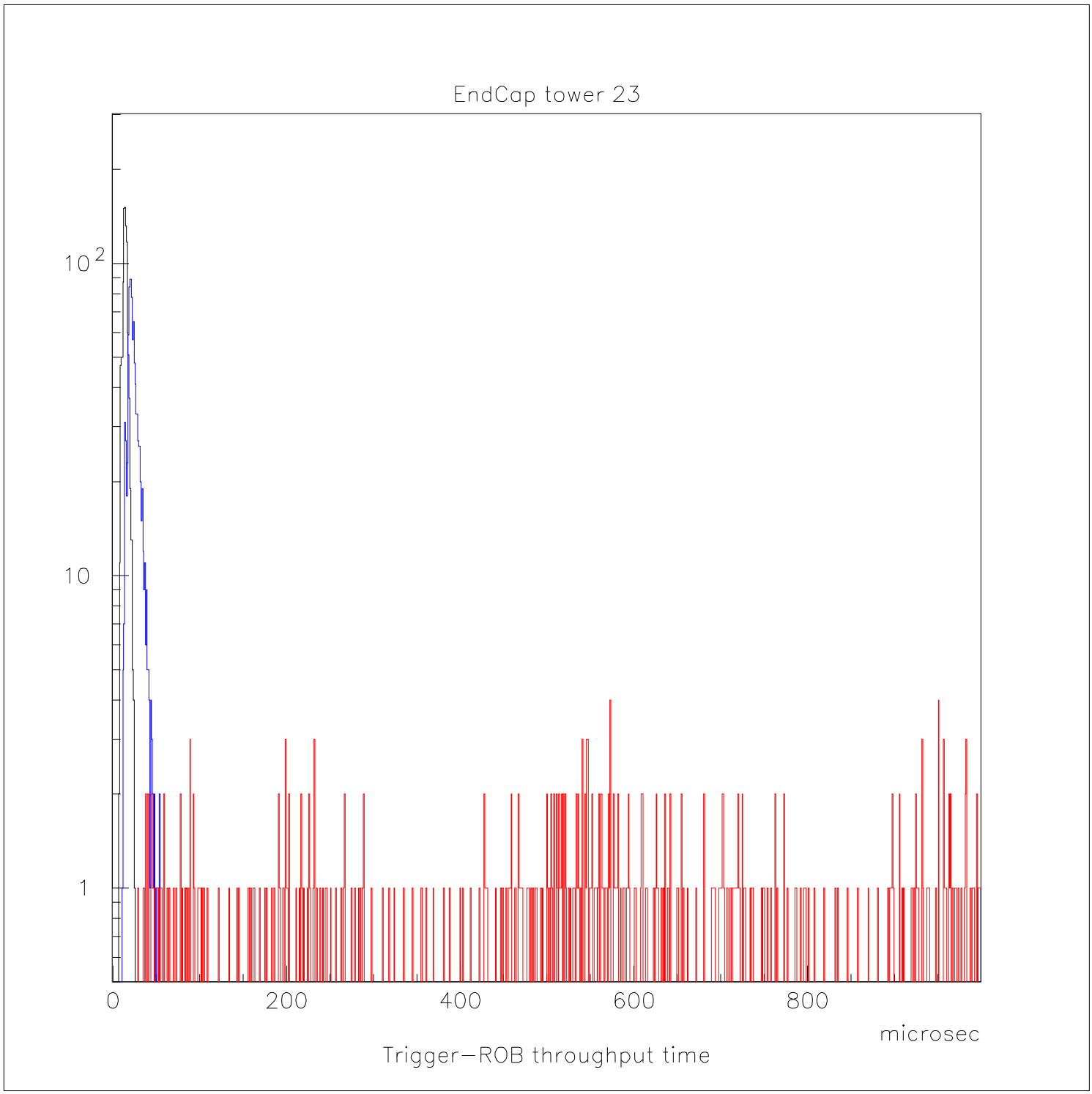

EndCap tower 22
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

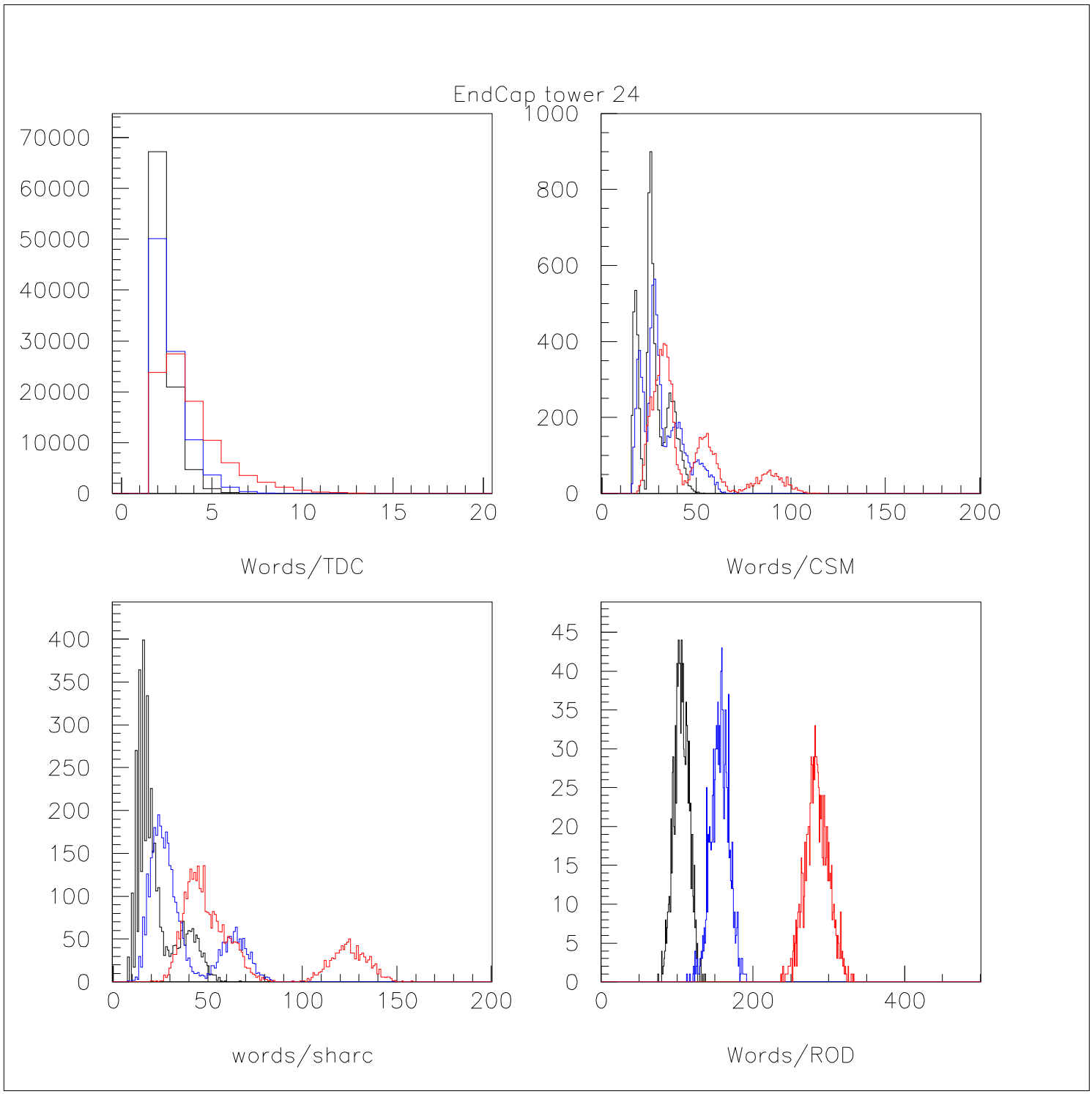

EndCap tower 23
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
1000
800
600
400
200
0
0
50
100
150
200
Words/CSM
400
350
300
250
200
150
100
50
0
0
50
100
150
200
words/sharc
45
40
35
30
25
20
15
10
5
0
0
200
400
Words/ROD

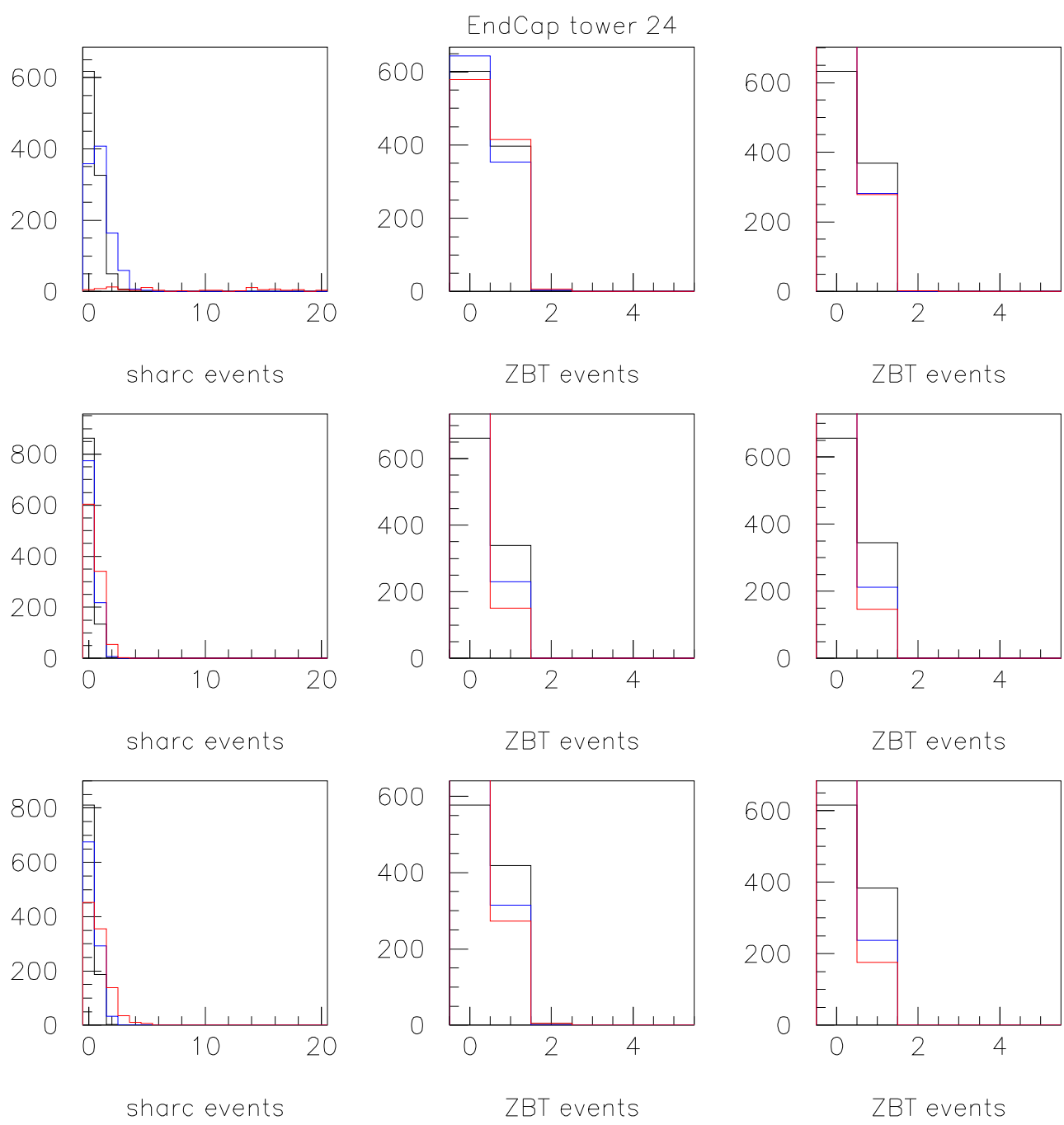

EndCap tower 23
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

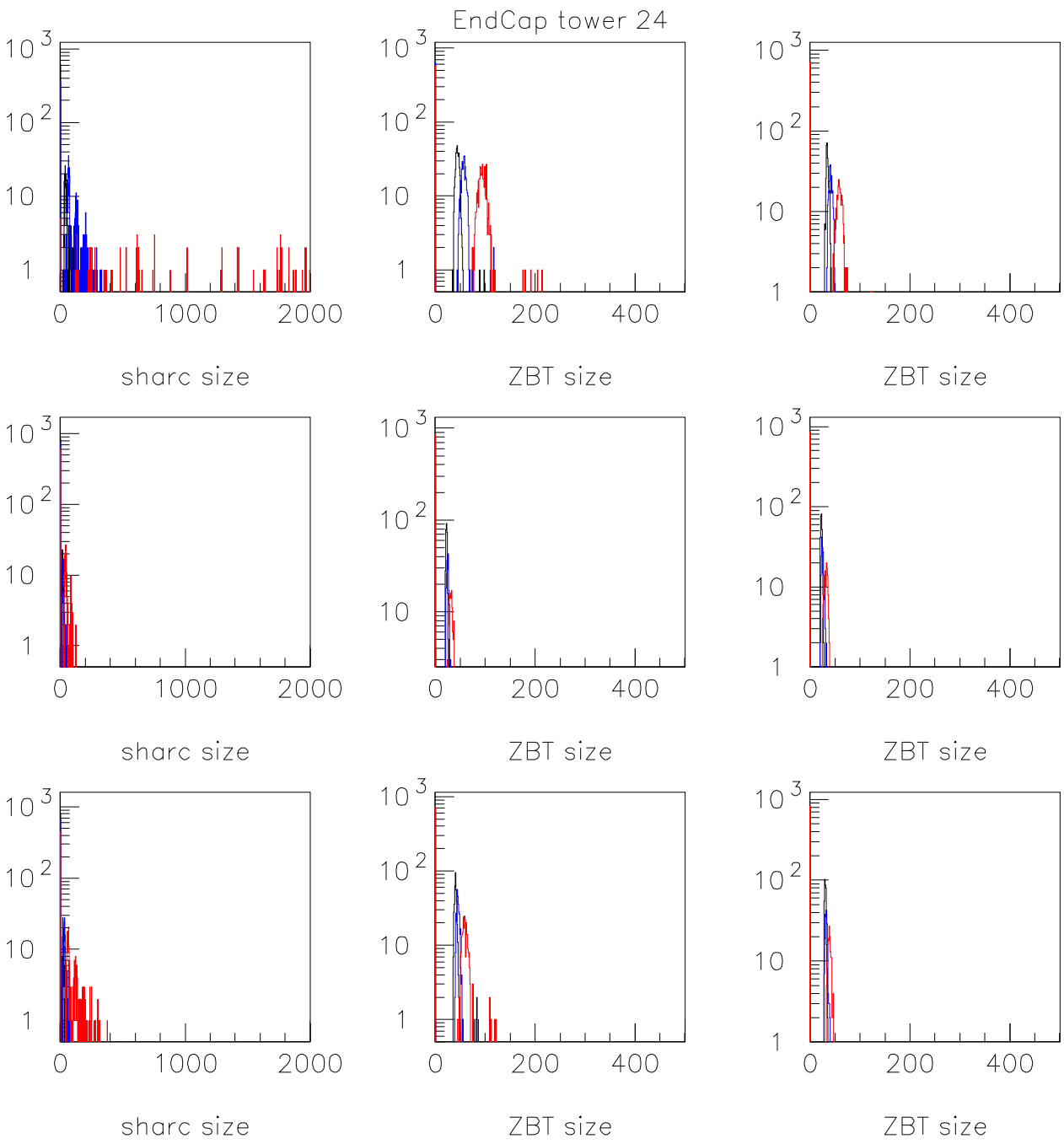

EndCap tower 23
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

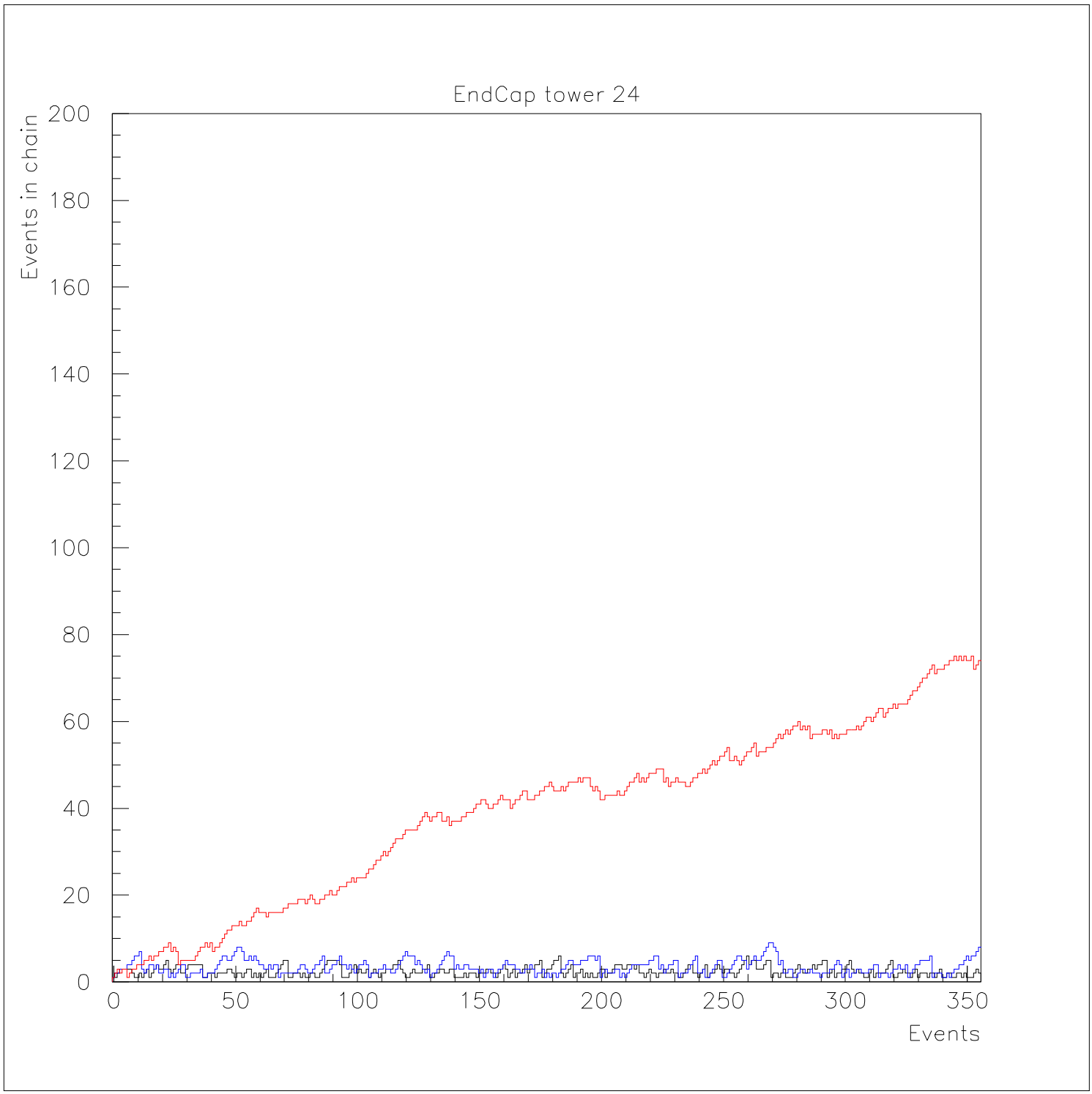

EndCap tower 23
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

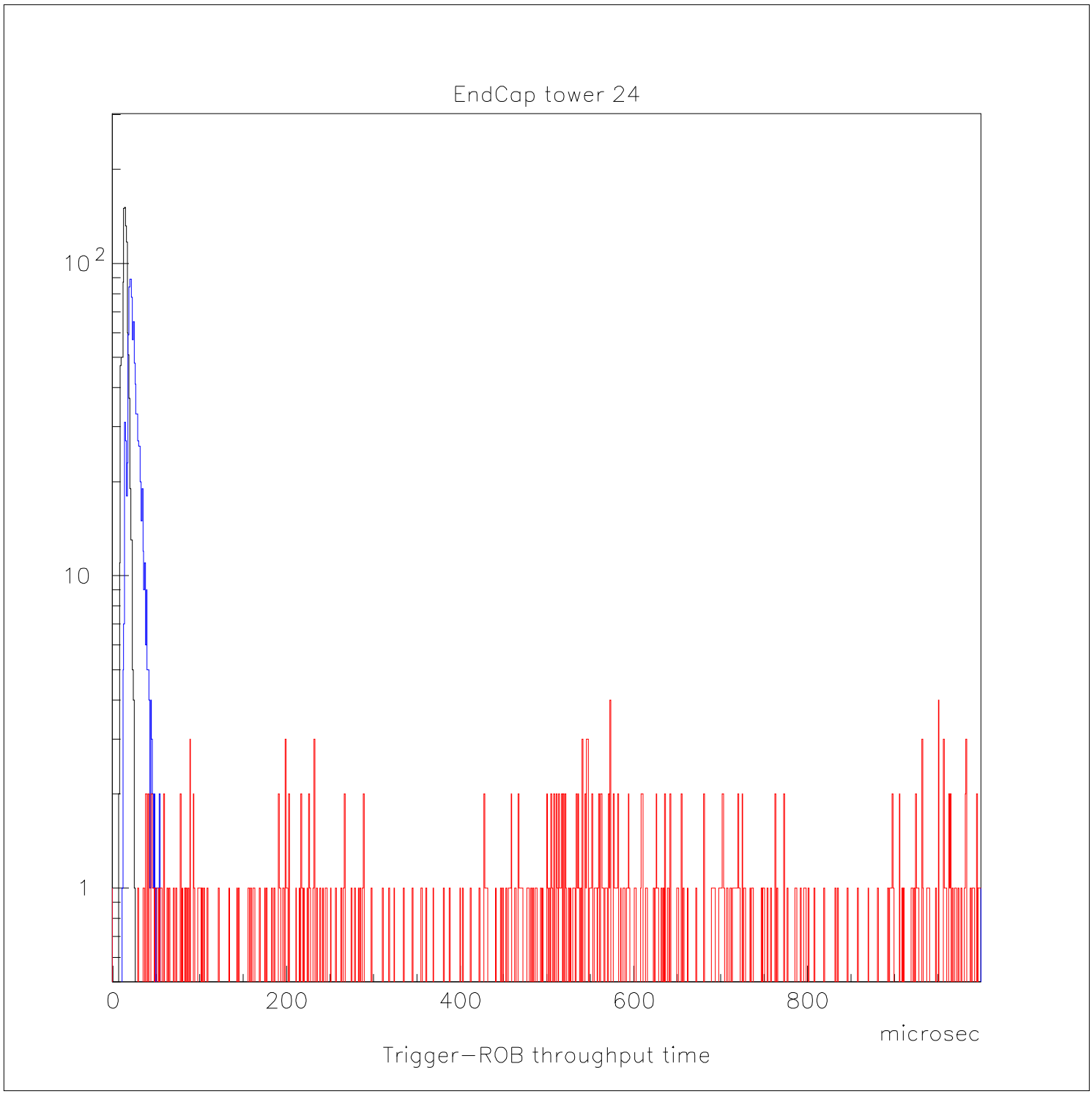

EndCap tower 23
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

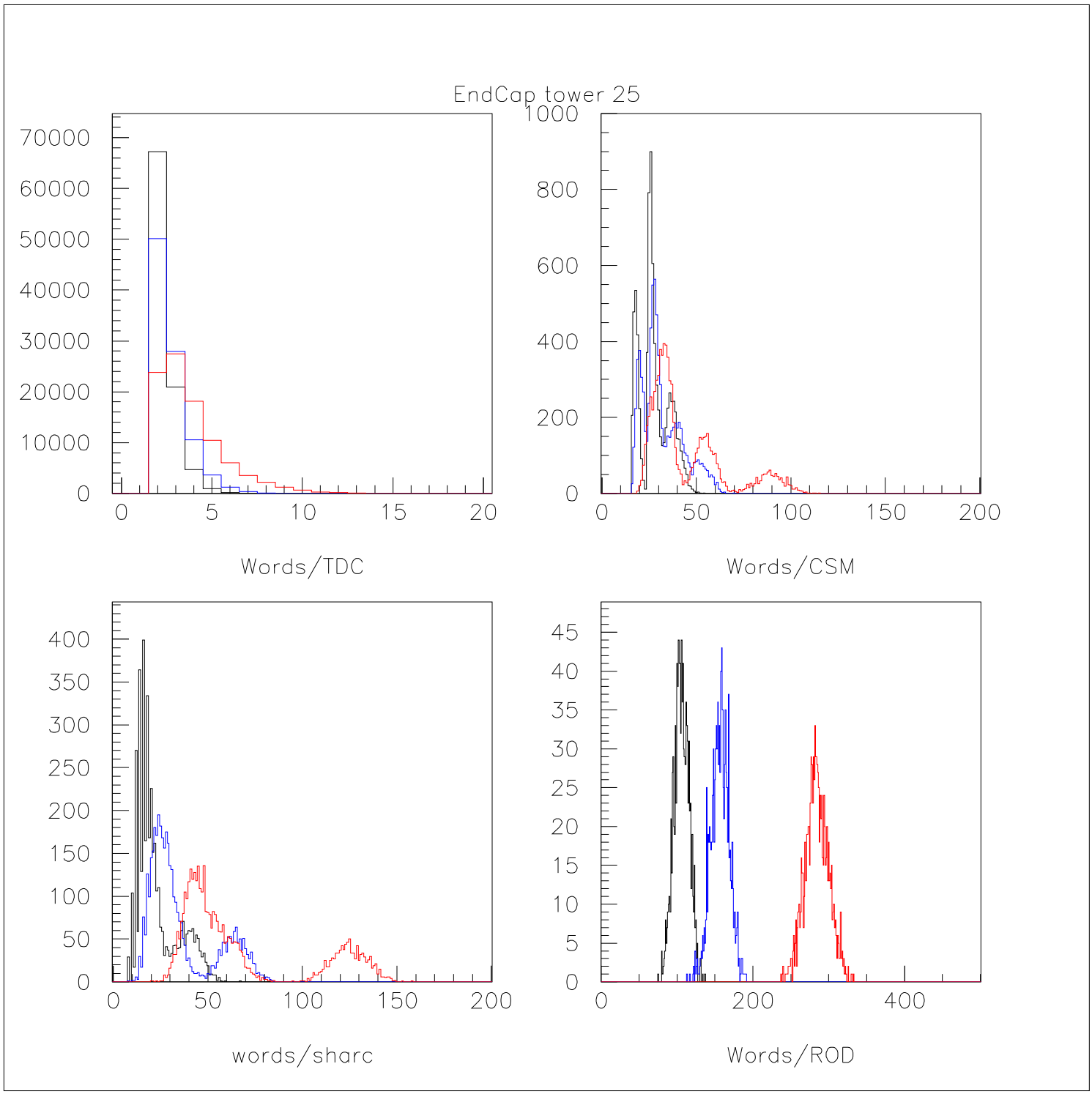

EndCap tower 24
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
1000
800
600
400
200
0
0
50
100
150
200
Words/CSM
400
350
300
250
200
150
100
50
0
0
50
100
150
200
words/sharc
45
40
35
30
25
20
15
10
5
0
0
200
400
Words/ROD

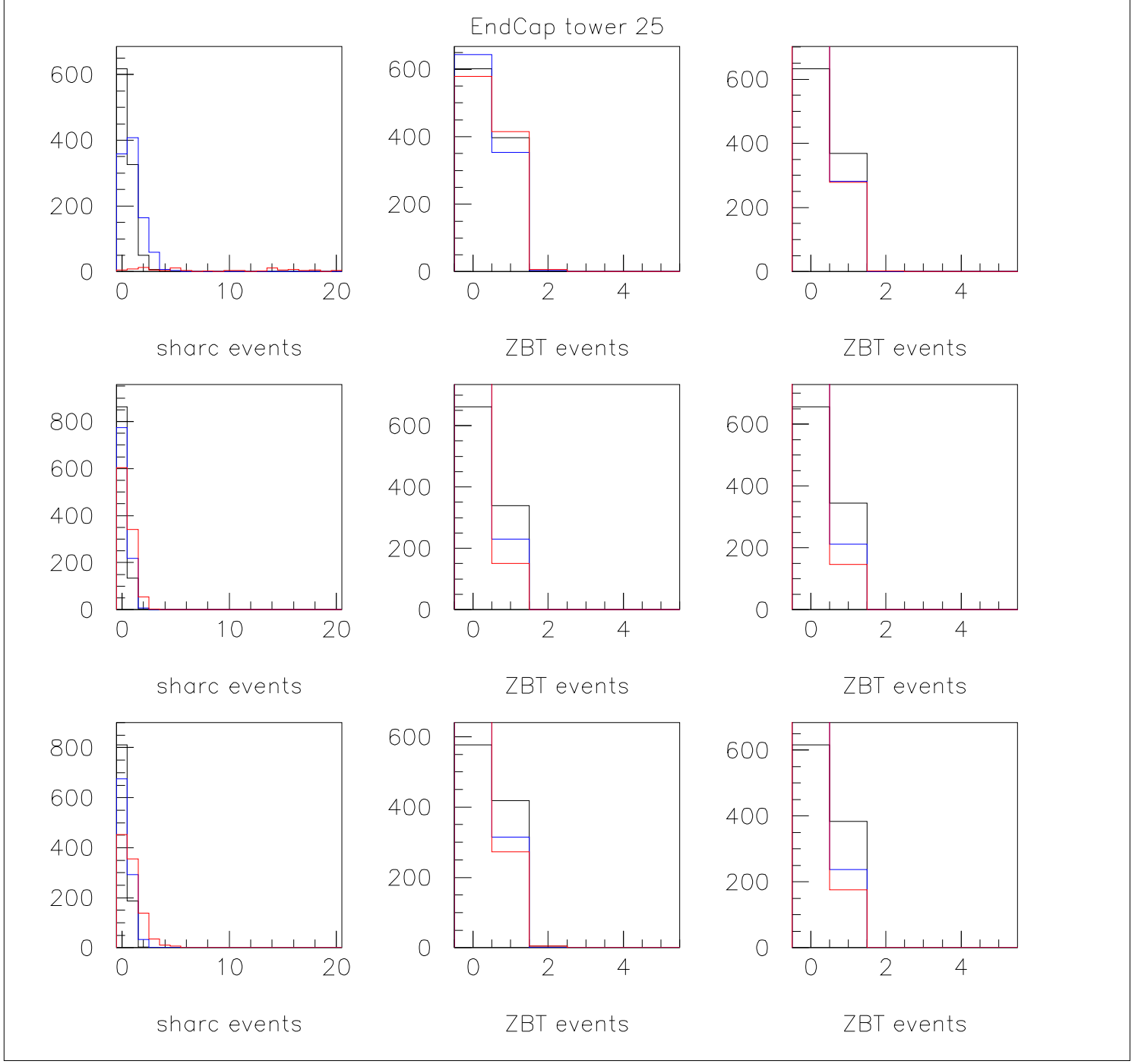

EndCap tower 24
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

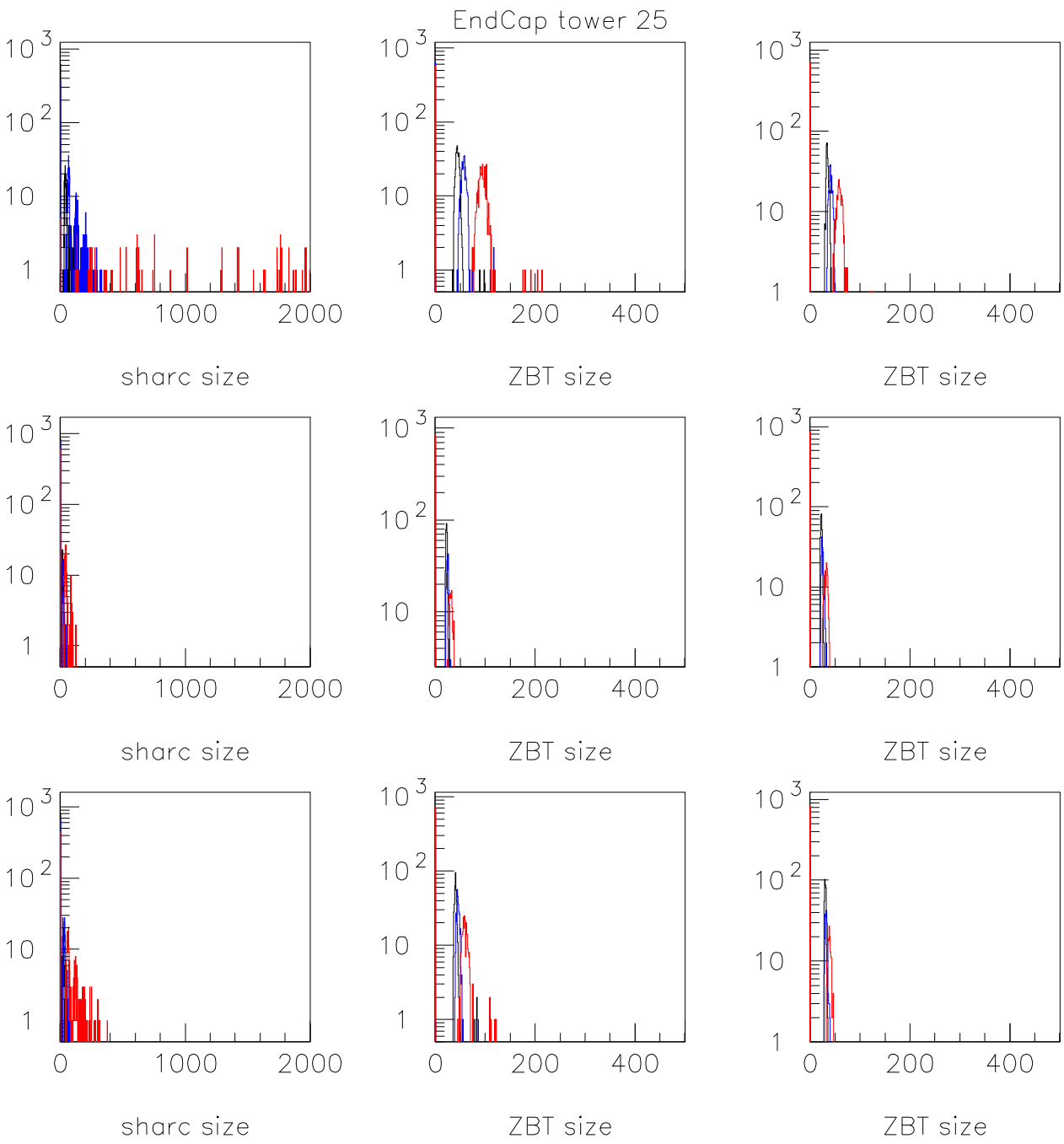

EndCap tower 24
$10^3$
$10^2$
10
1
0
1000
2000
200
400
sharc size
ZBT size

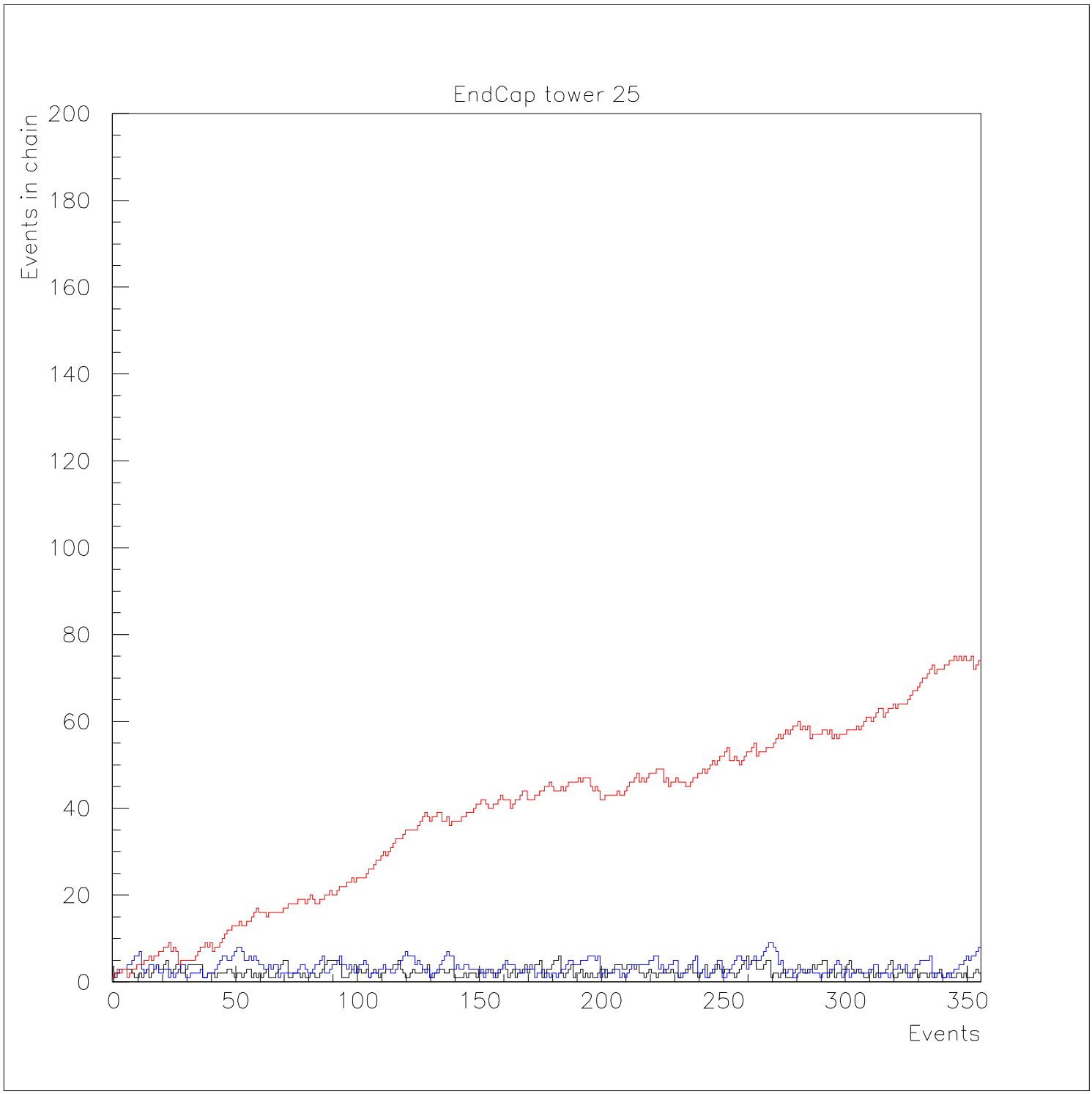

EndCap tower 24
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

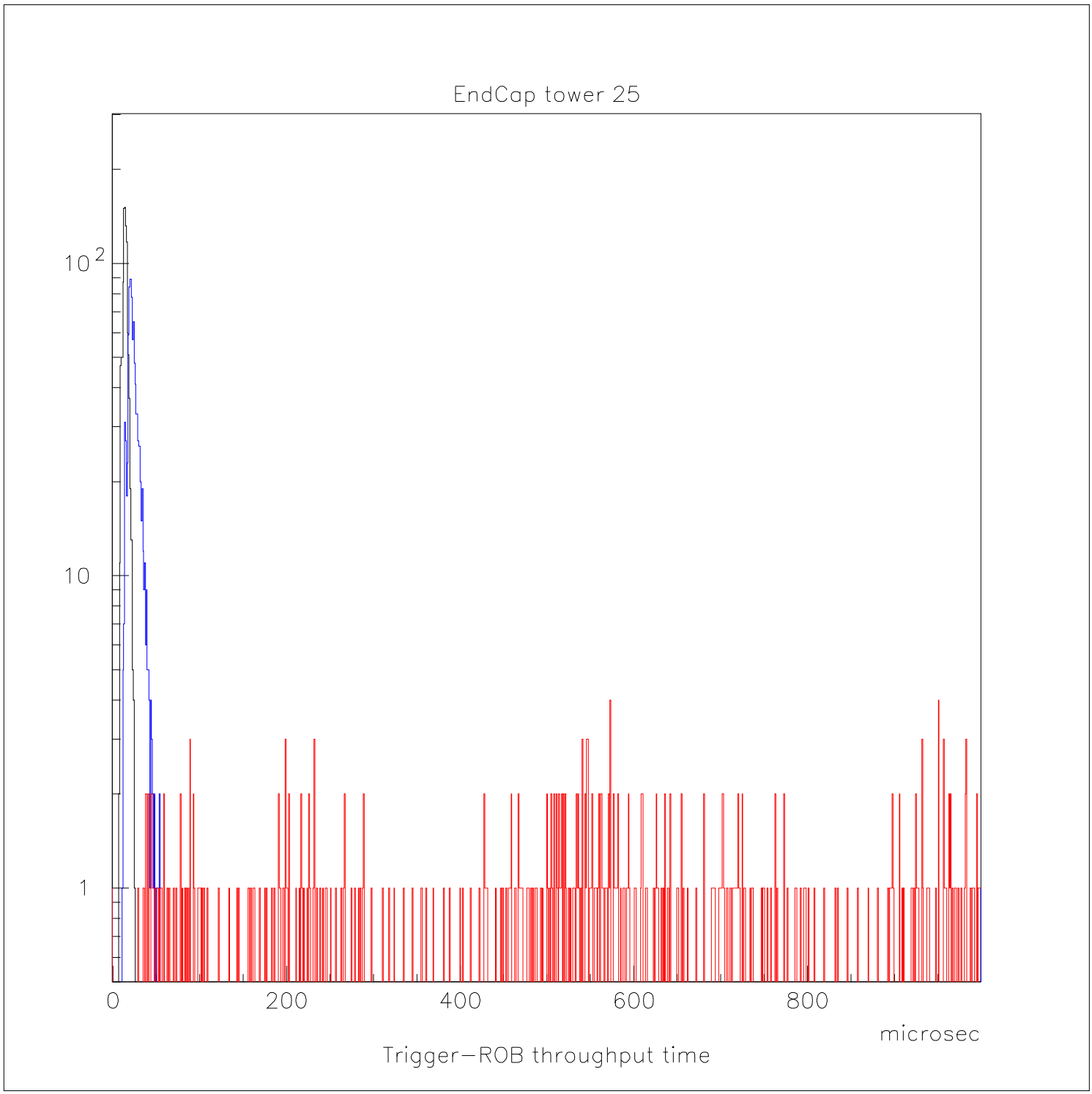

EndCap tower 24
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

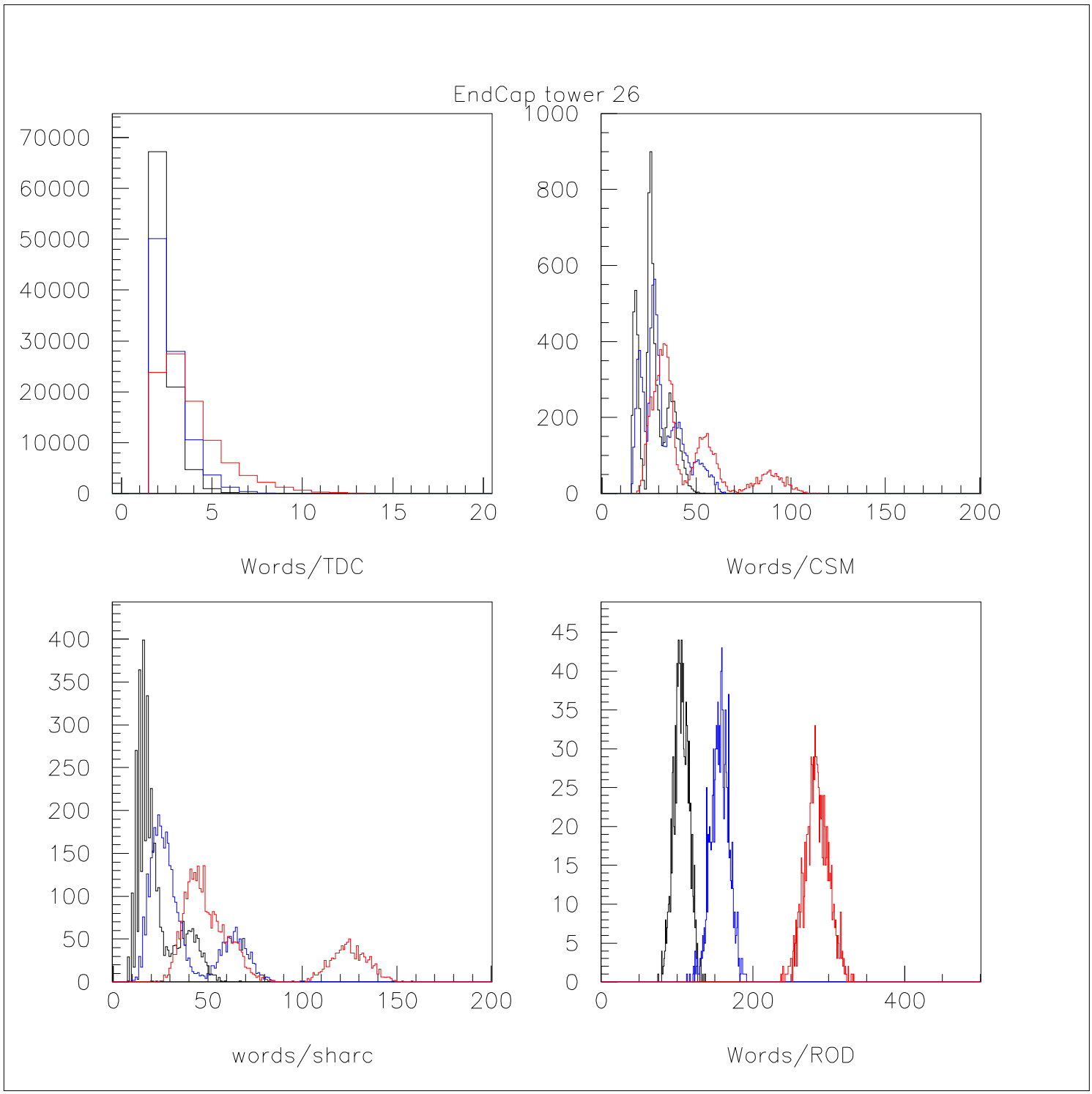

EndCap tower 25
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
1000
800
600
400
200
0
0
50
100
150
200
Words/CSM
400
350
300
250
200
150
100
50
0
0
50
100
150
200
words/sharc
45
40
35
30
25
20
15
10
5
0
0
200
400
Words/ROD

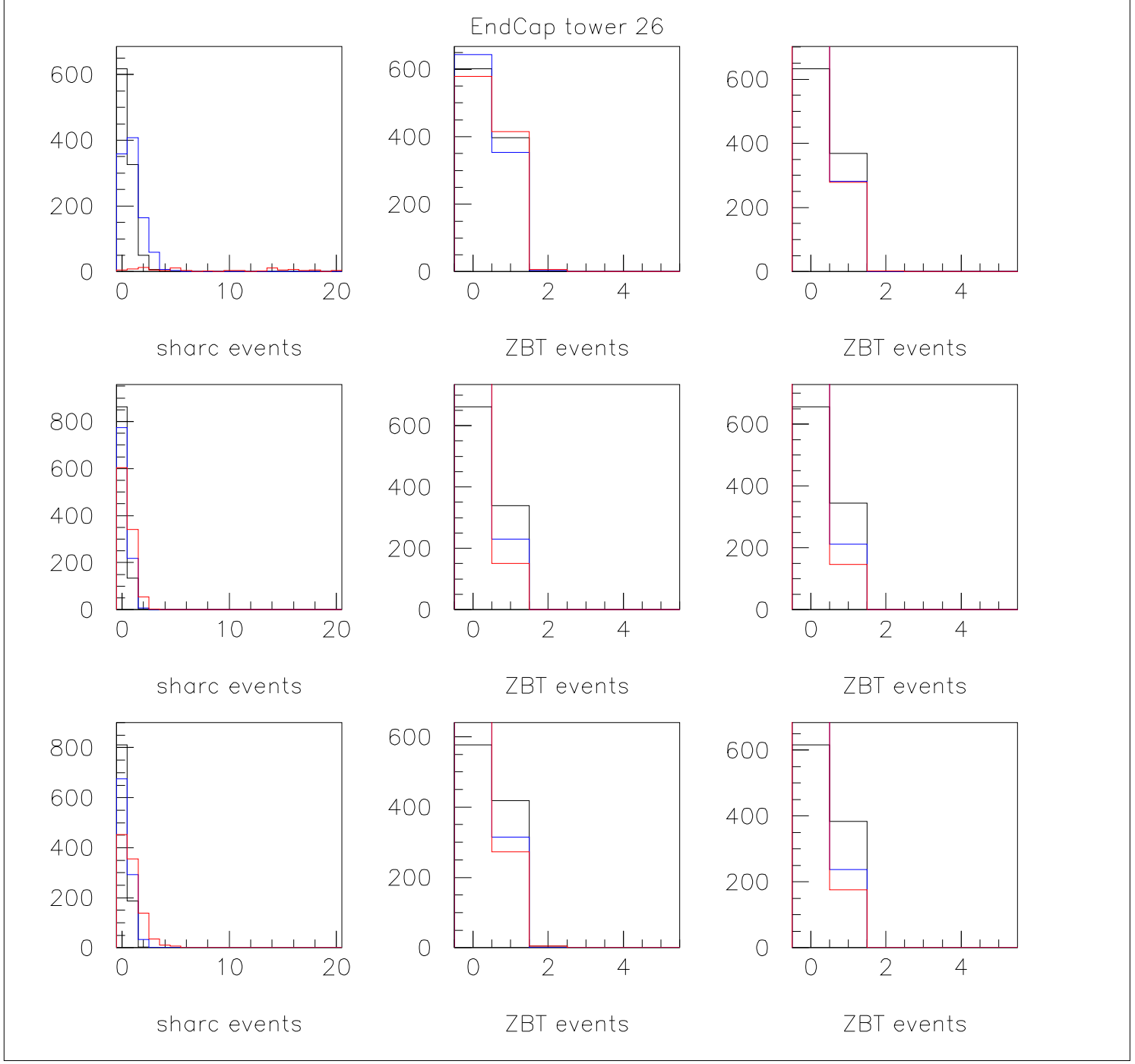

EndCap tower 25
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

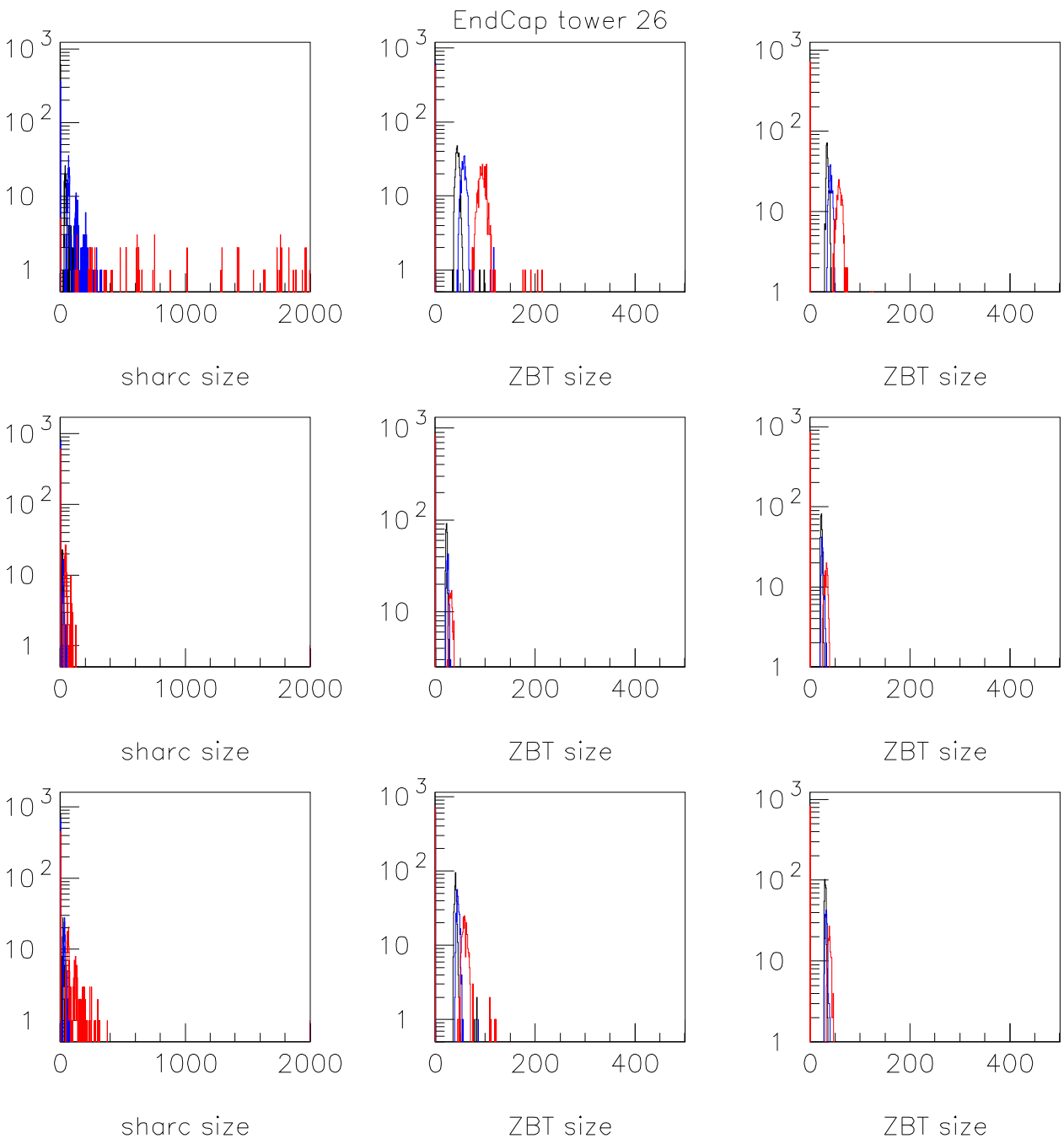

EndCap tower 25
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

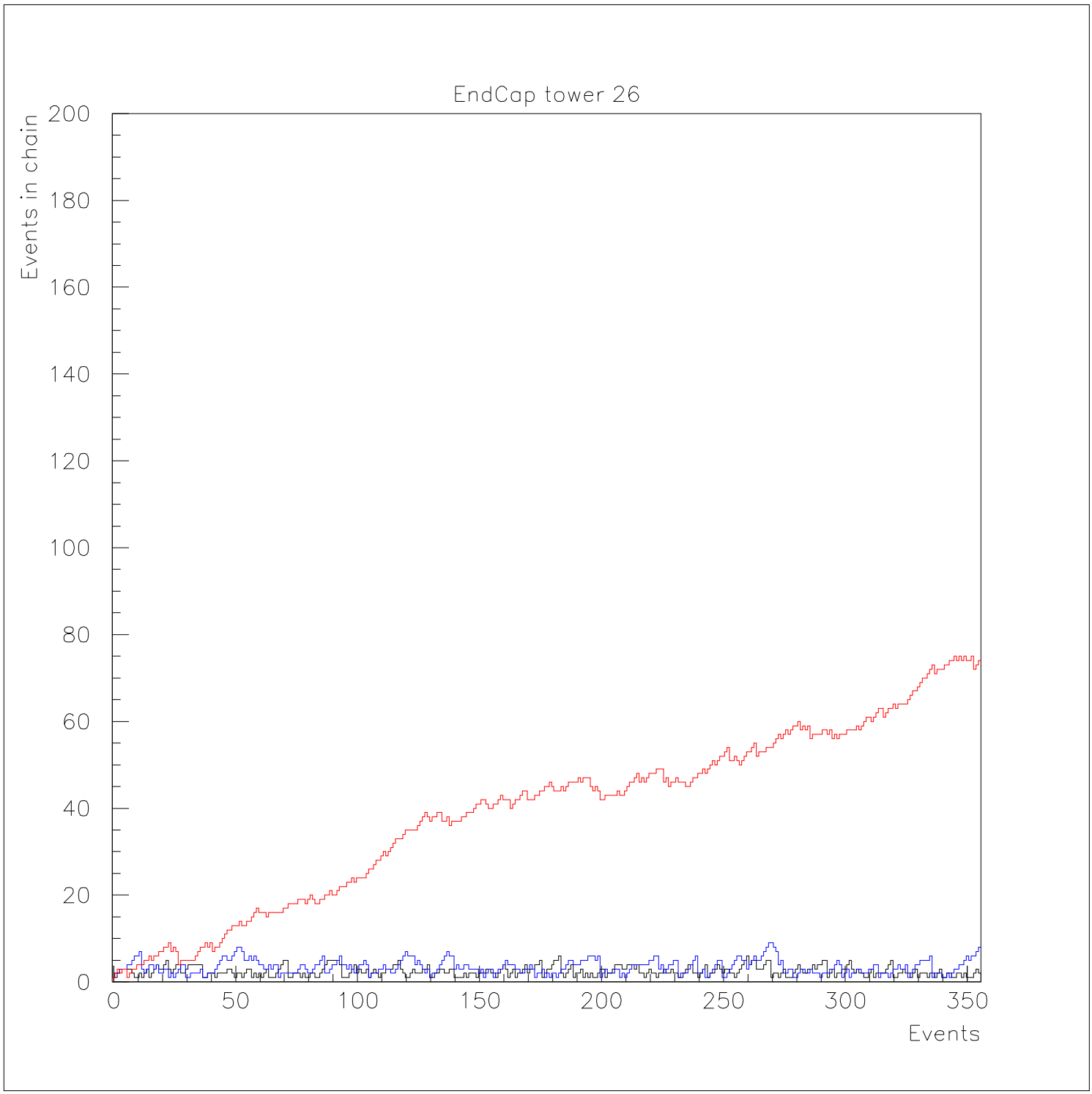

EndCap tower 25
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

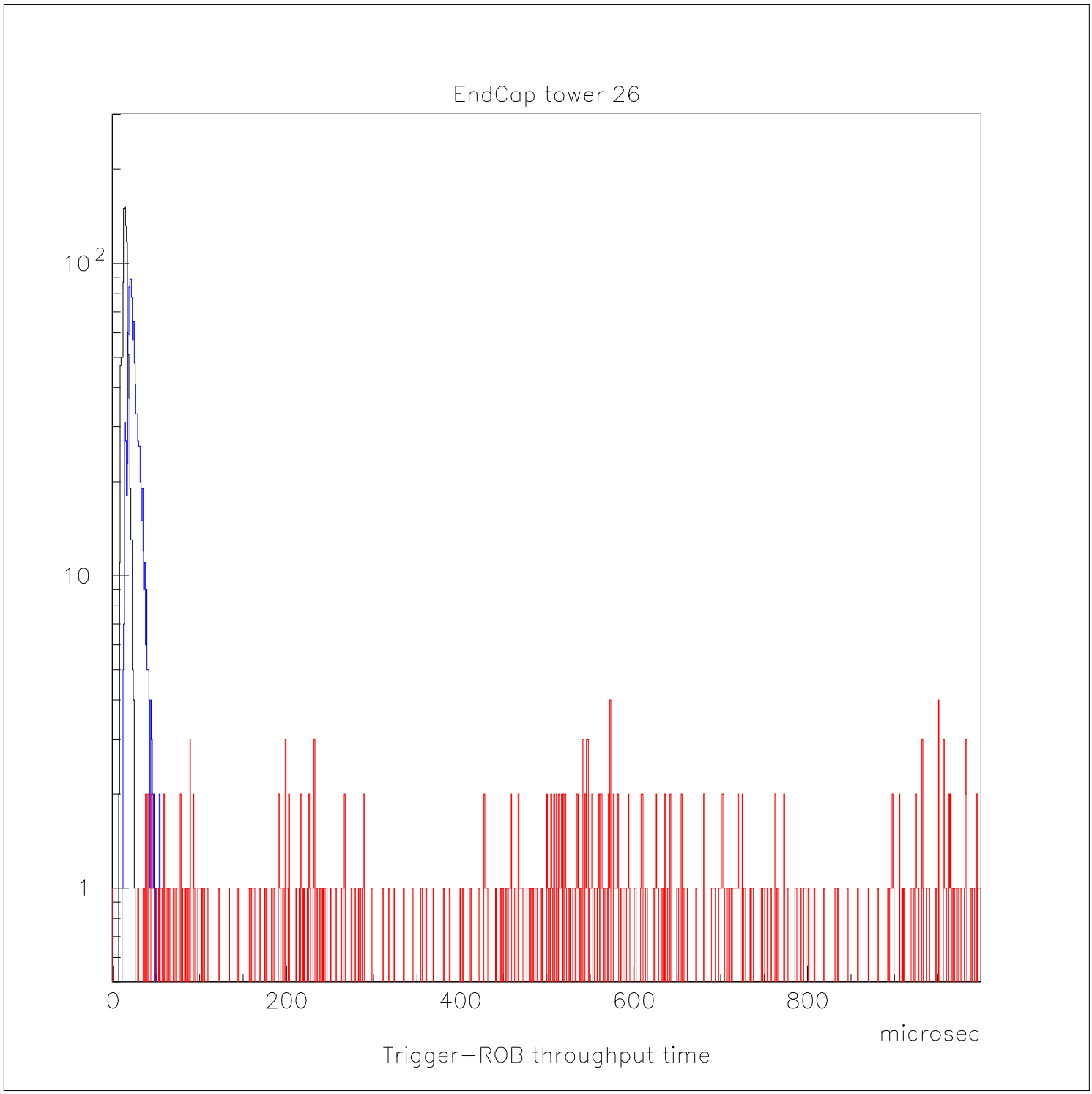

EndCap tower 25
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

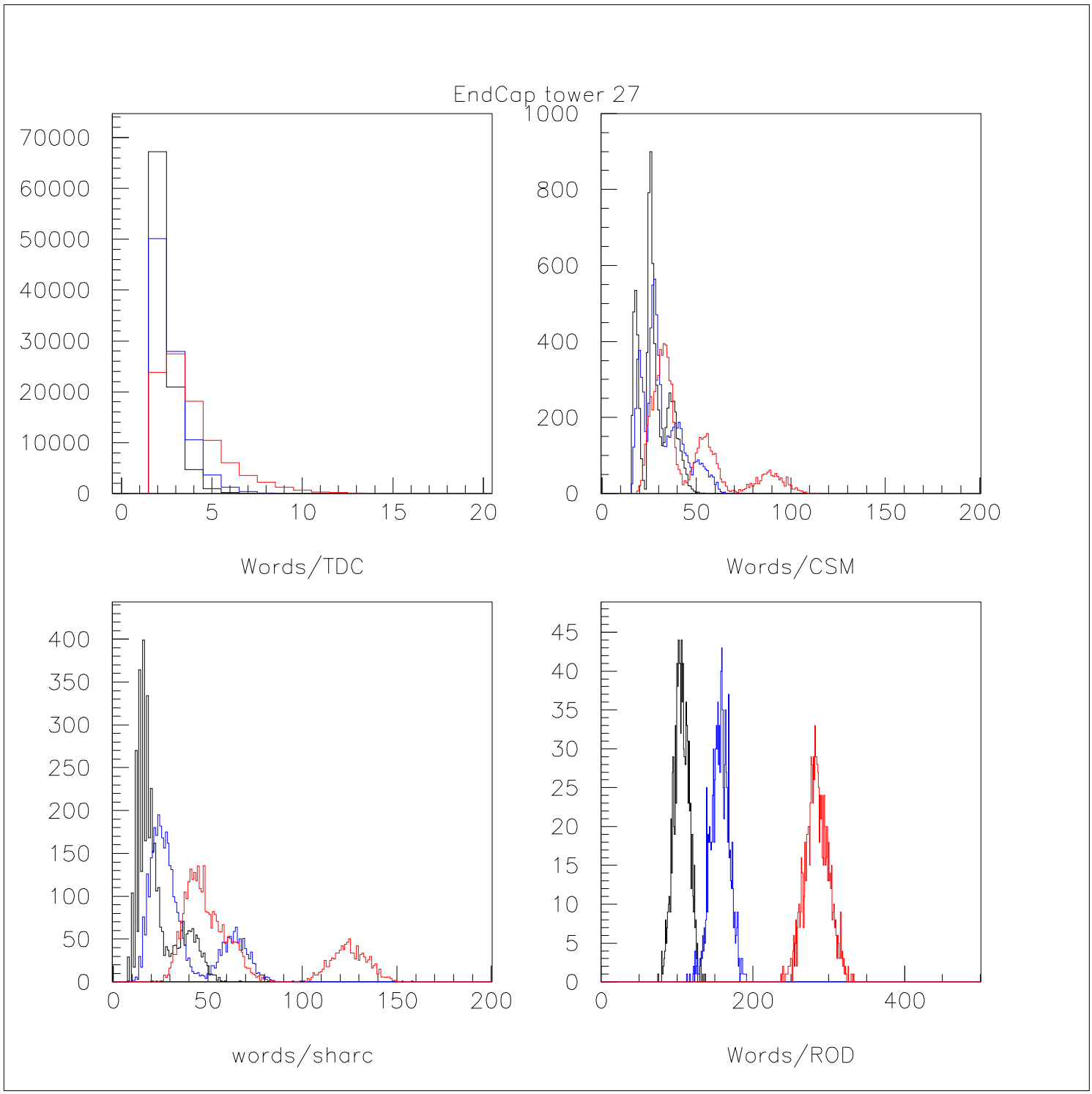

EndCap tower 26
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
1000
800
600
400
200
0
0
50
100
150
200
Words/CSM
400
350
300
250
200
150
100
50
0
0
50
100
150
200
words/sharc
45
40
35
30
25
20
15
10
5
0
0
200
400
Words/ROD

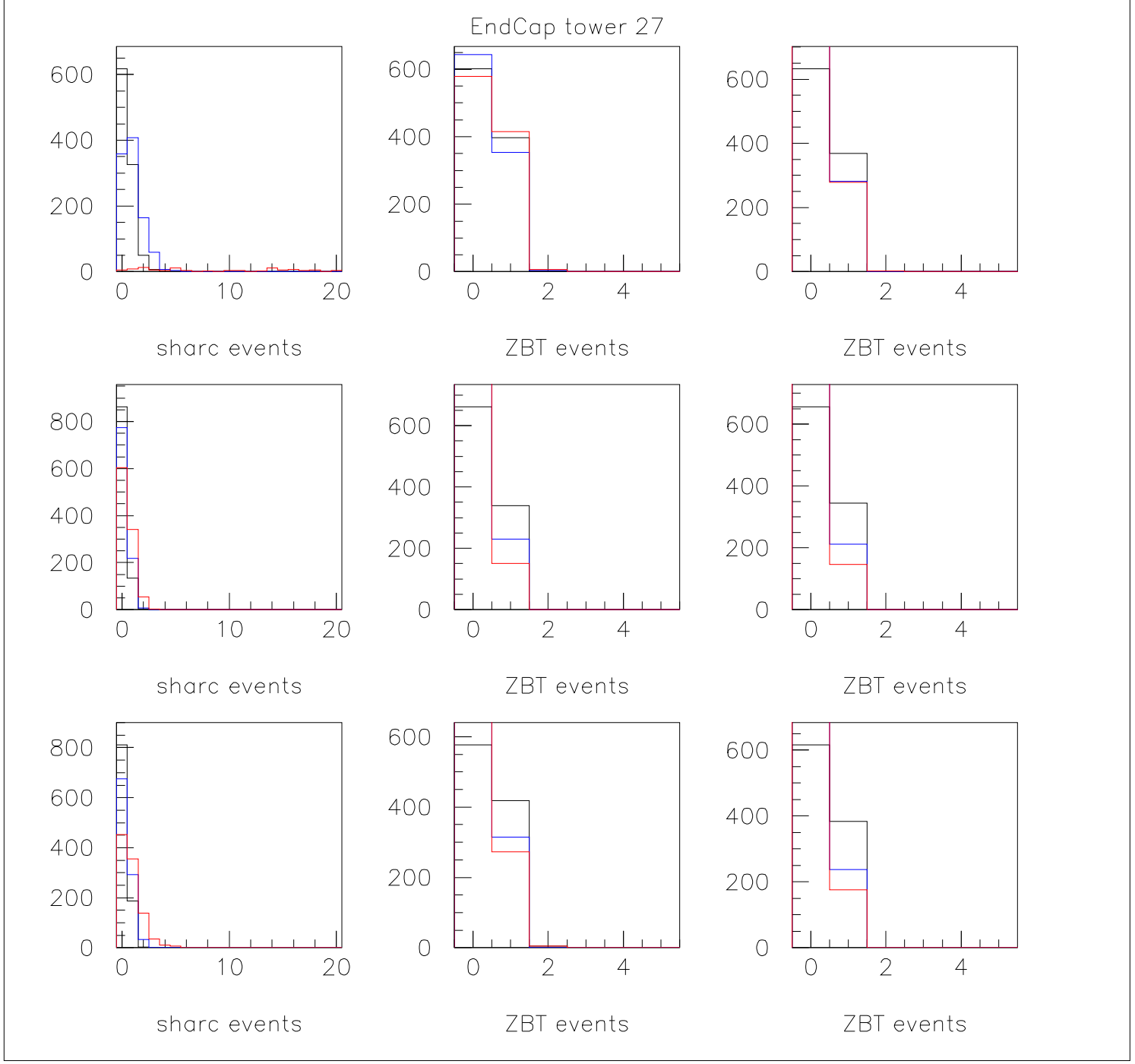

EndCap tower 26
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

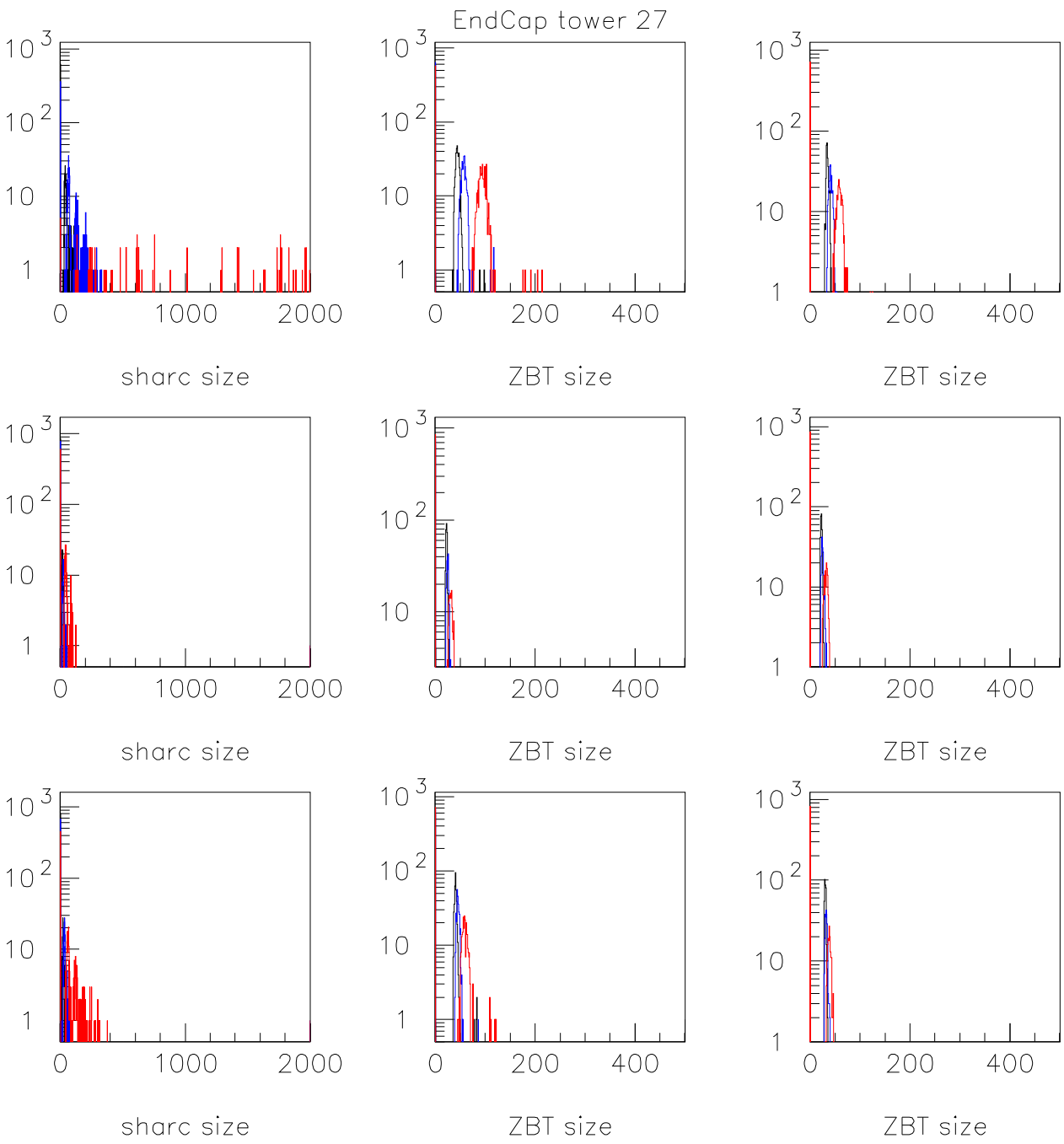

EndCap tower 26
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

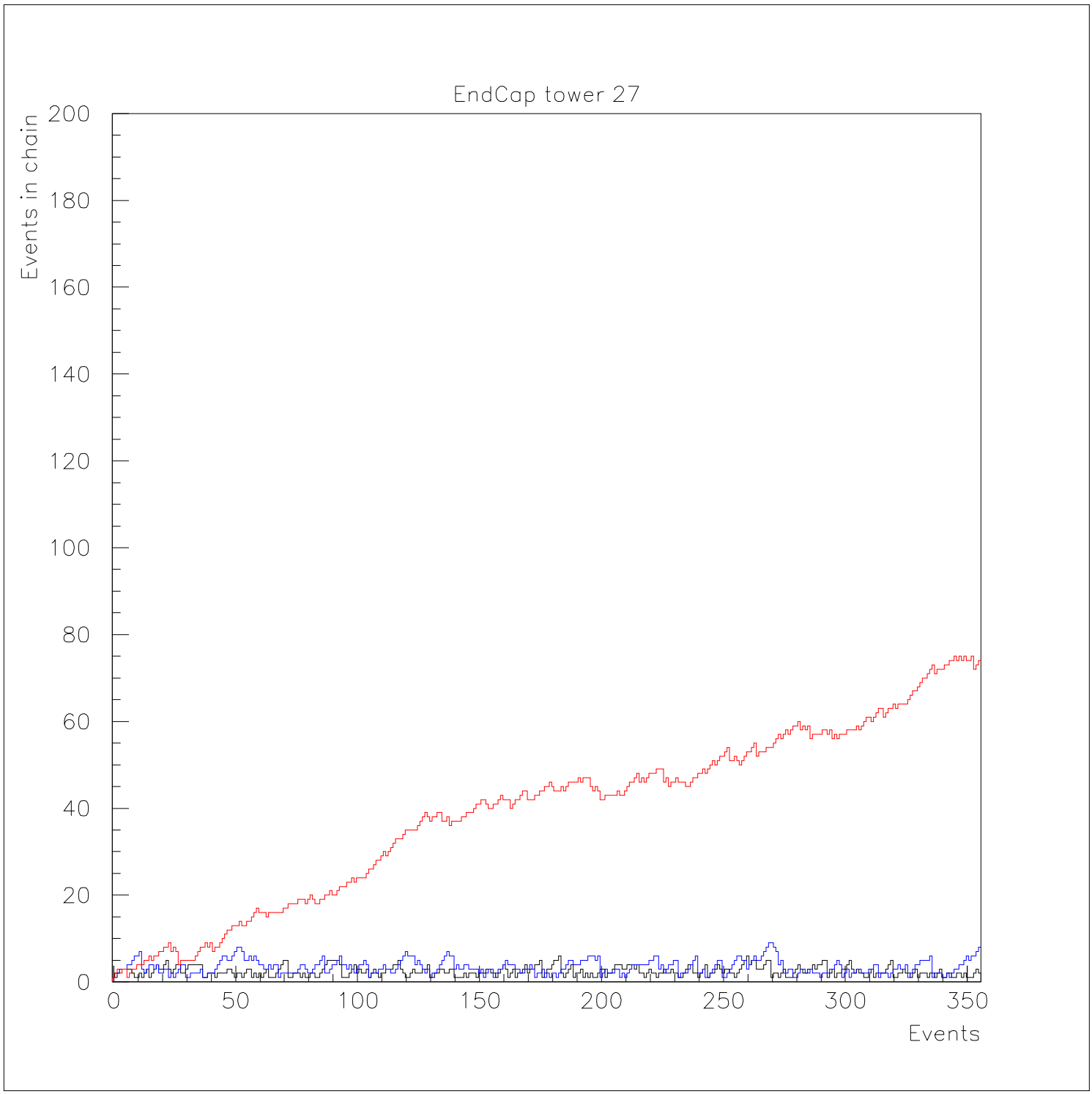

EndCap tower 26
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

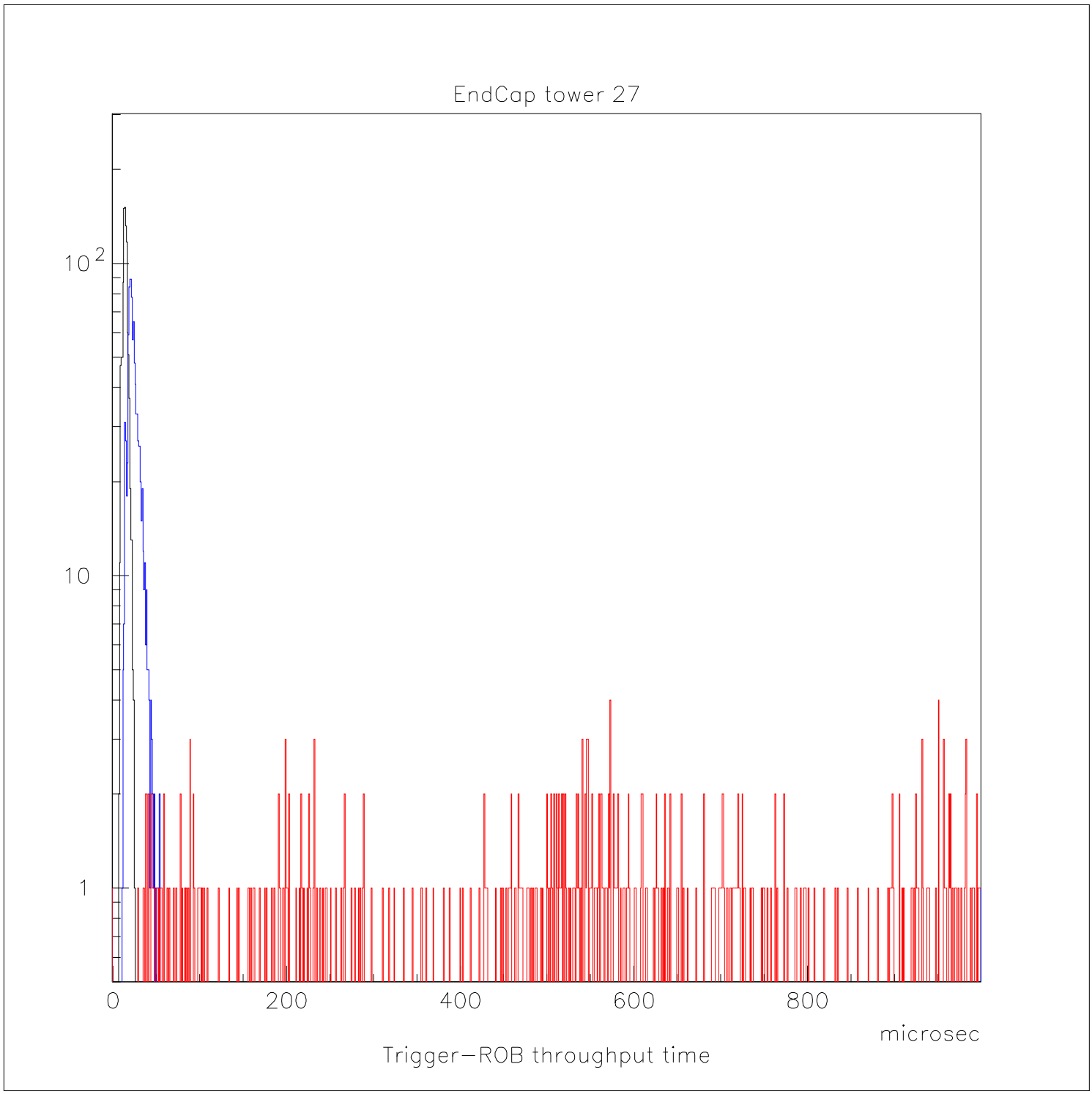

EndCap tower 26
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

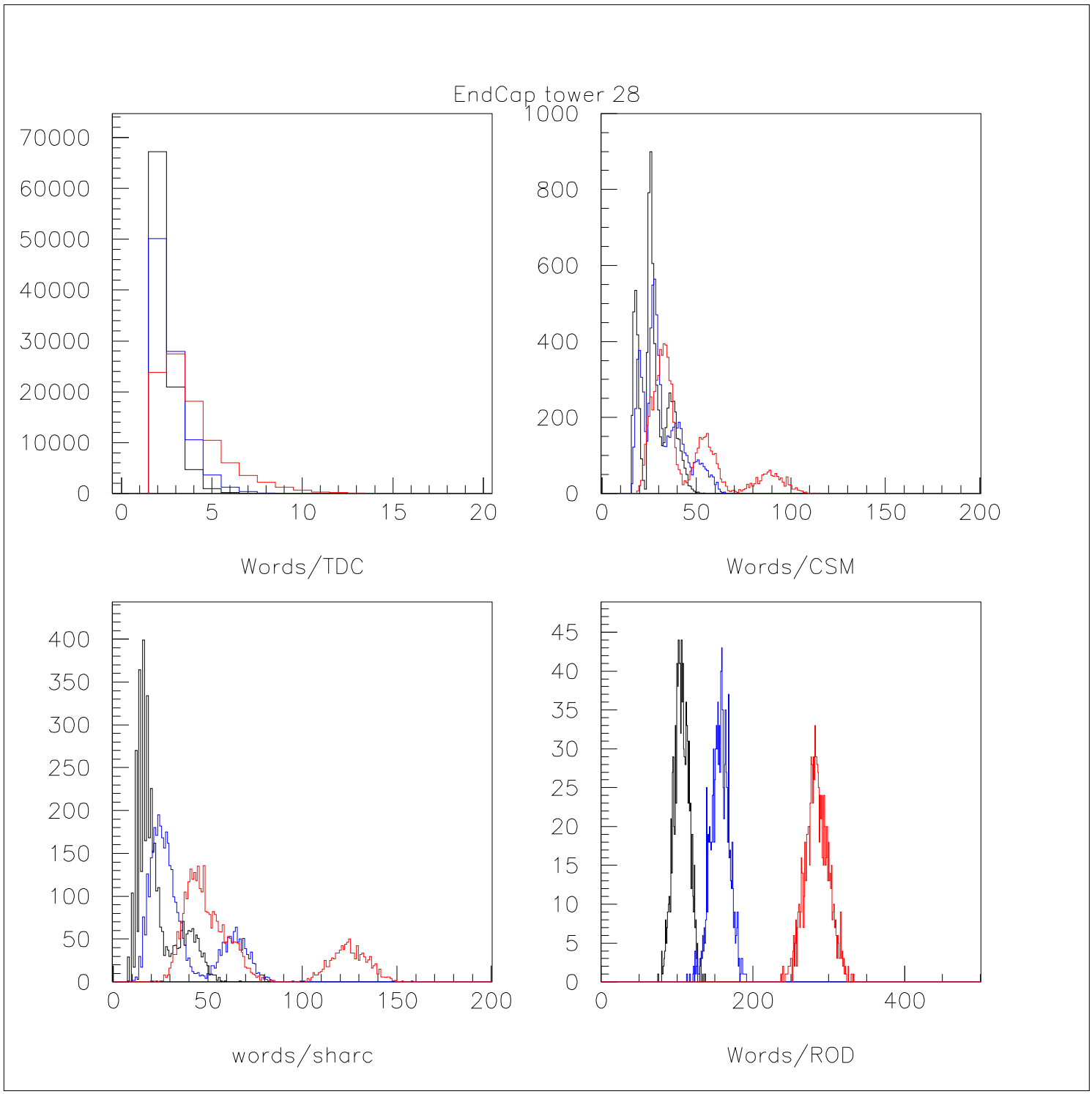

EndCap tower 27
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
1000
800
600
400
200
0
0
50
100
150
200
Words/CSM
400
350
300
250
200
150
100
50
0
0
50
100
150
200
words/sharc
45
40
35
30
25
20
15
10
5
0
0
200
400
Words/ROD

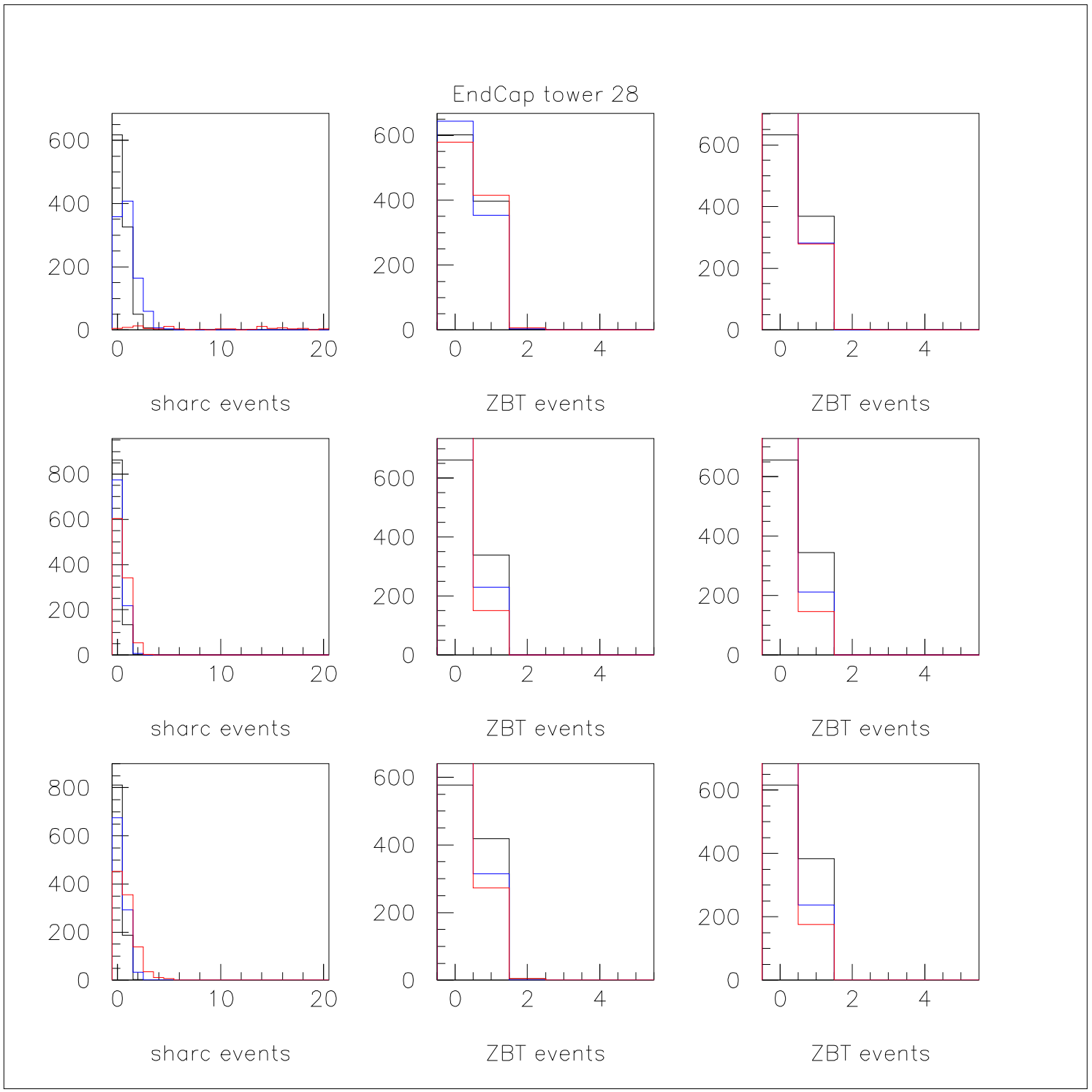

EndCap tower 27
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

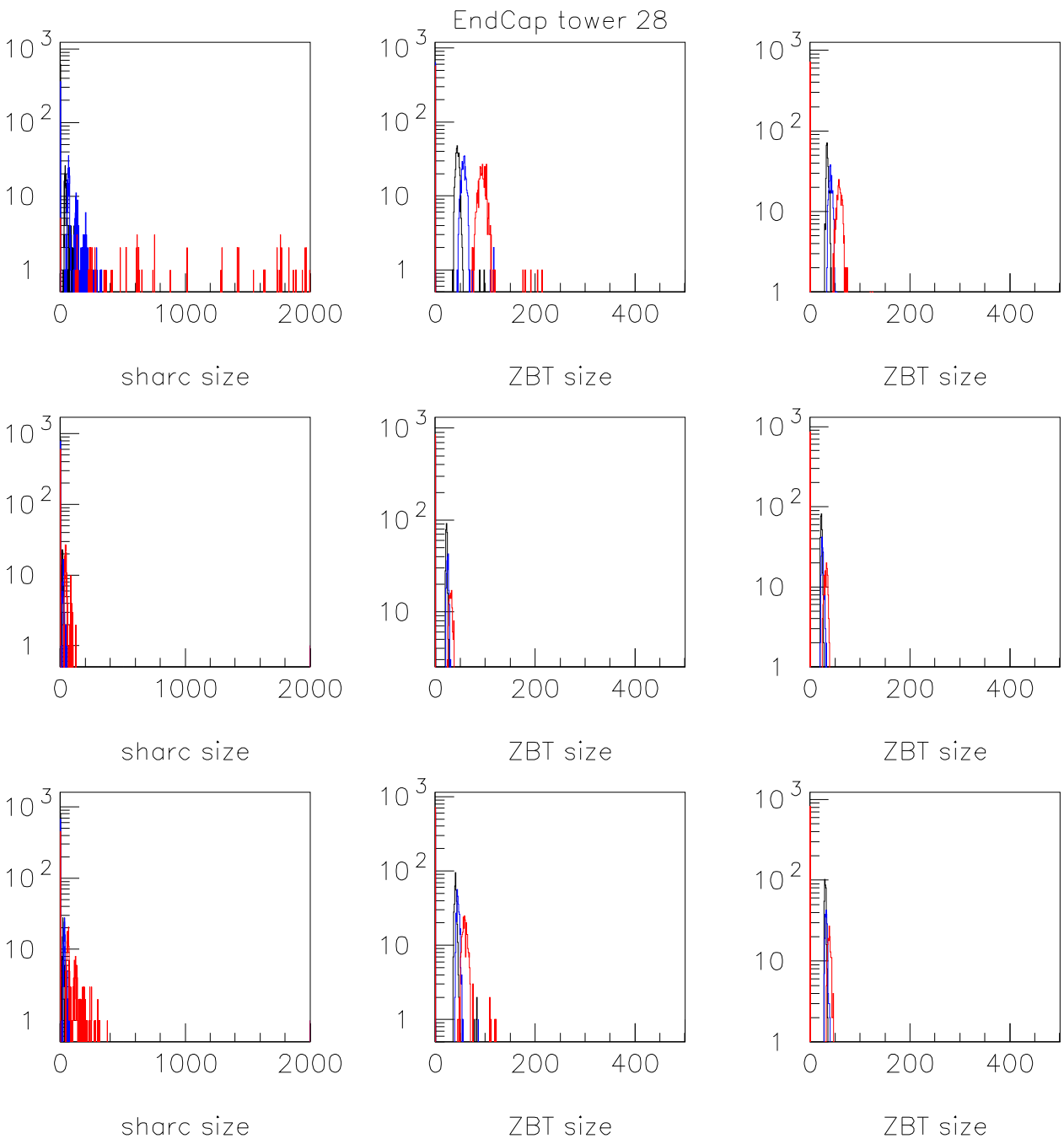

EndCap tower 27
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

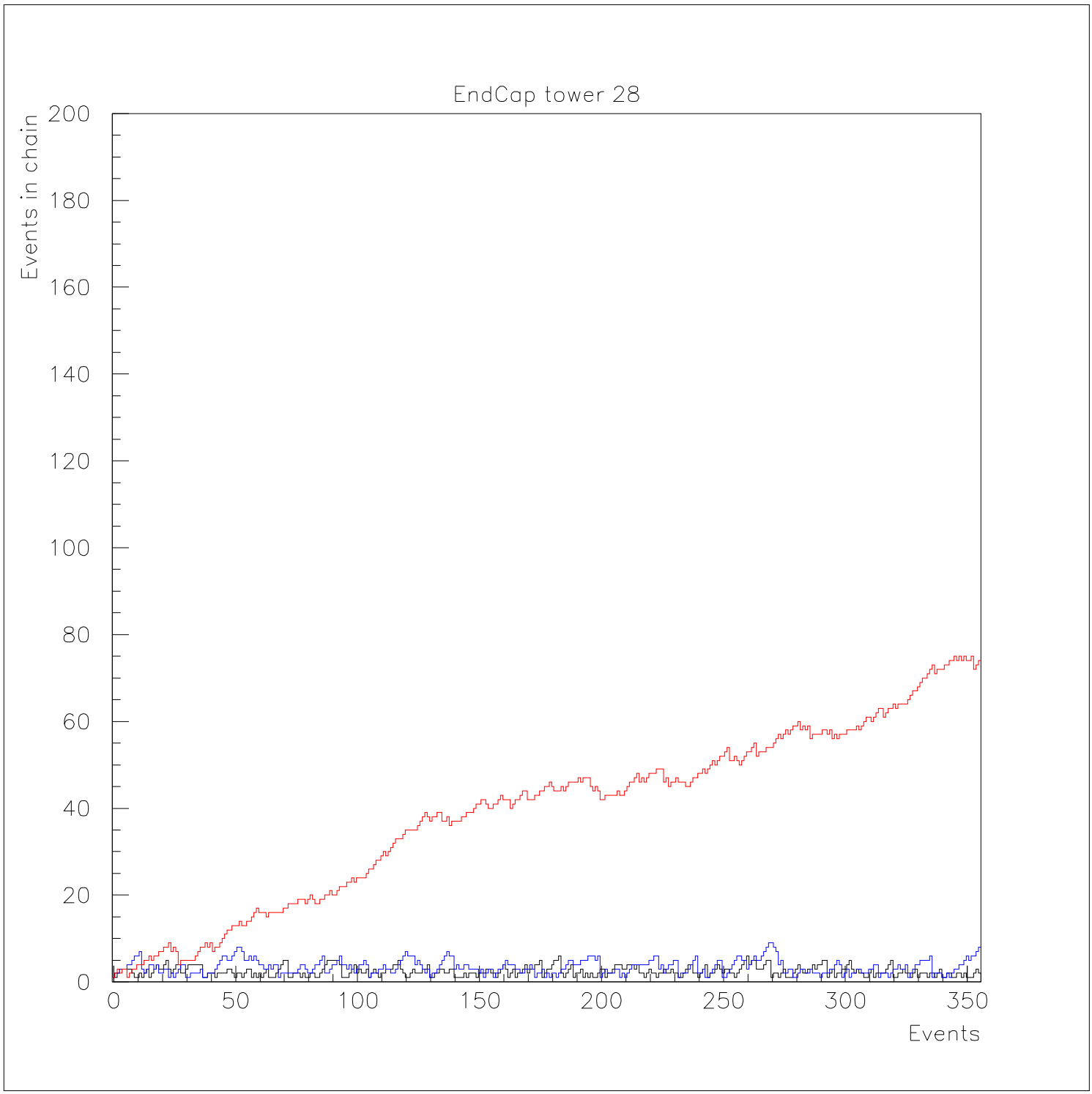

EndCap tower 27
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

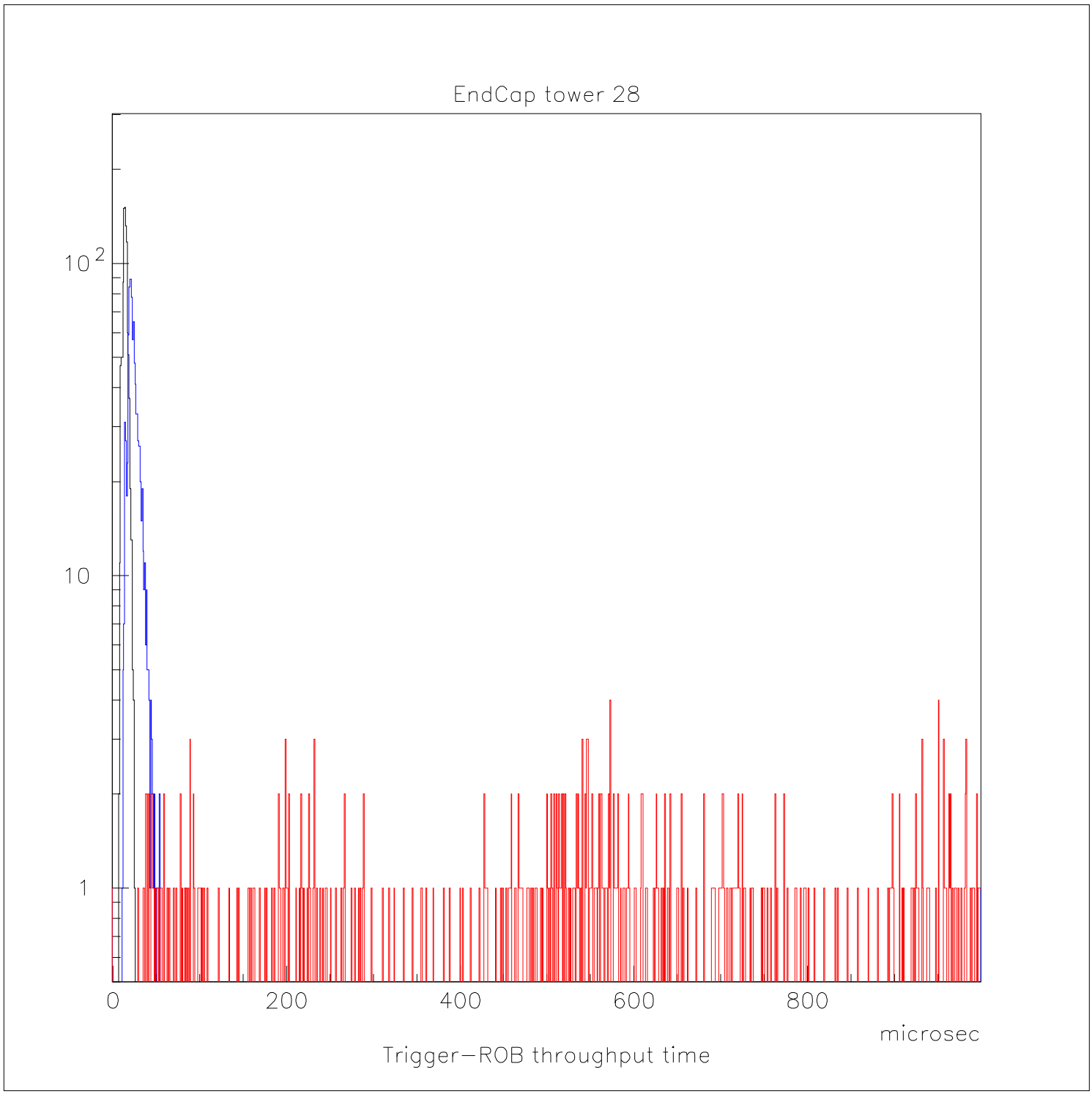

EndCap tower 27
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

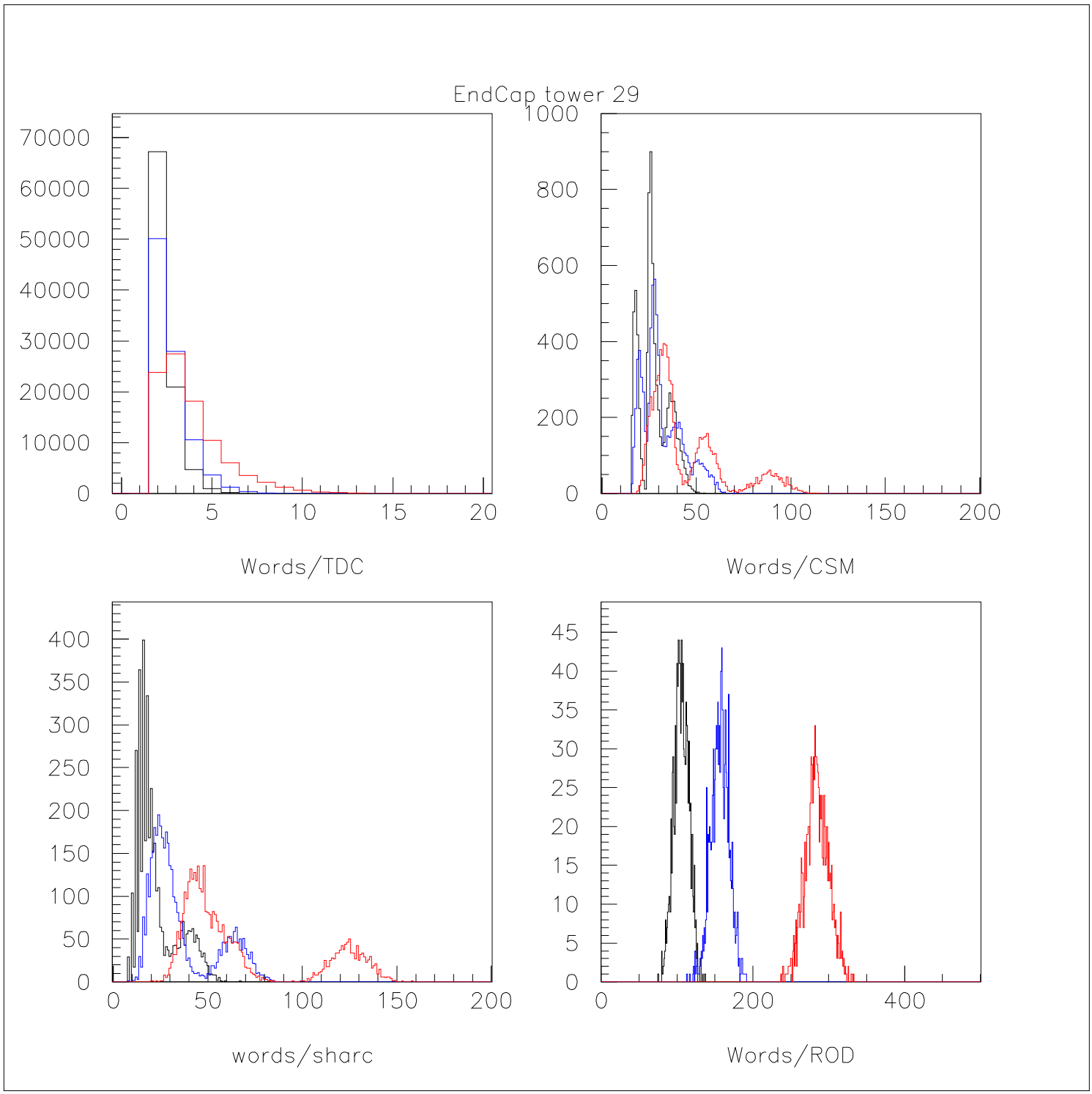

EndCap tower 28
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
1000
800
600
400
200
0
0
50
100
150
200
Words/CSM
400
350
300
250
200
150
100
50
0
0
50
100
150
200
words/sharc
45
40
35
30
25
20
15
10
5
0
0
200
400
Words/ROD

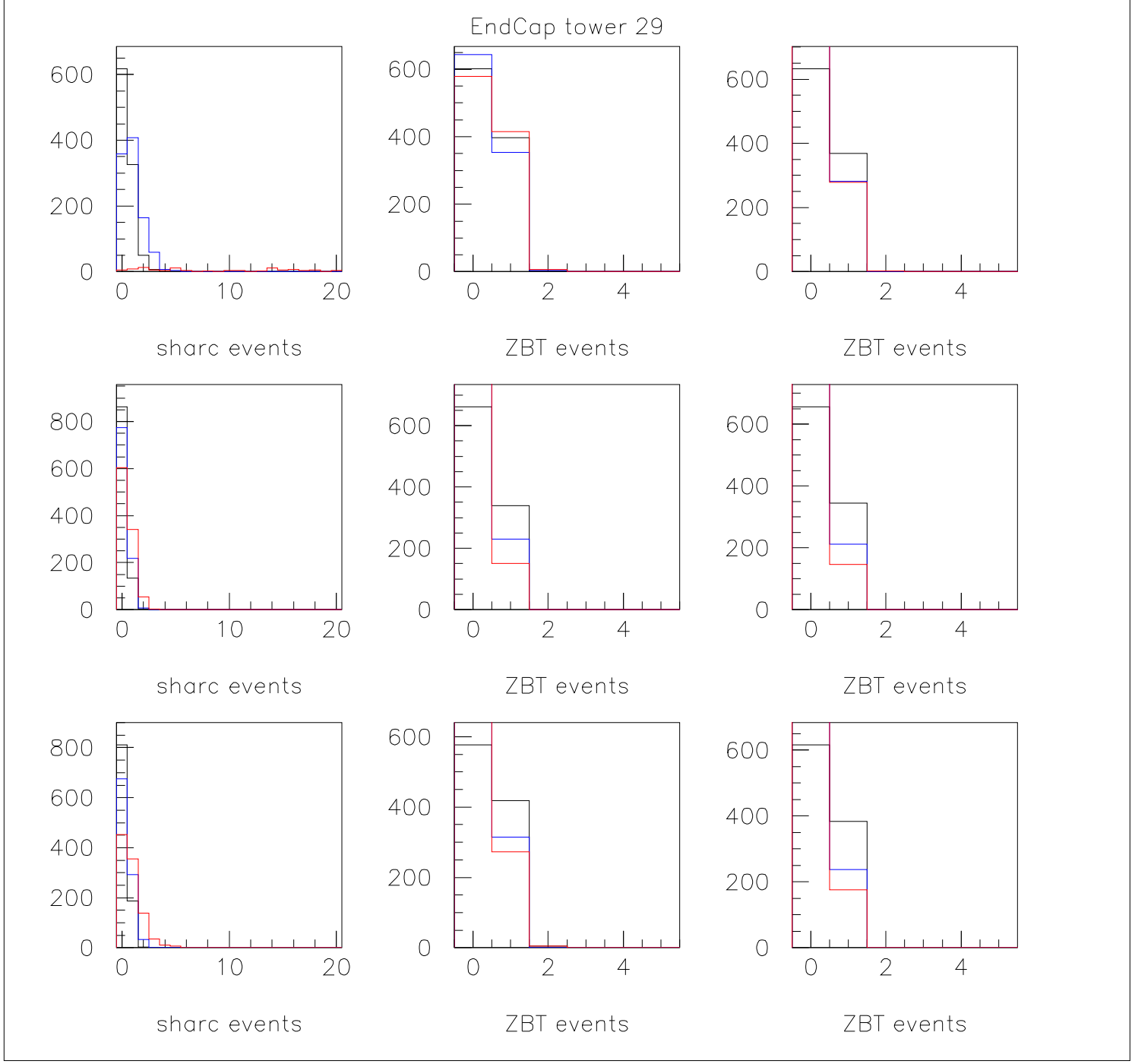

EndCap tower 28
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

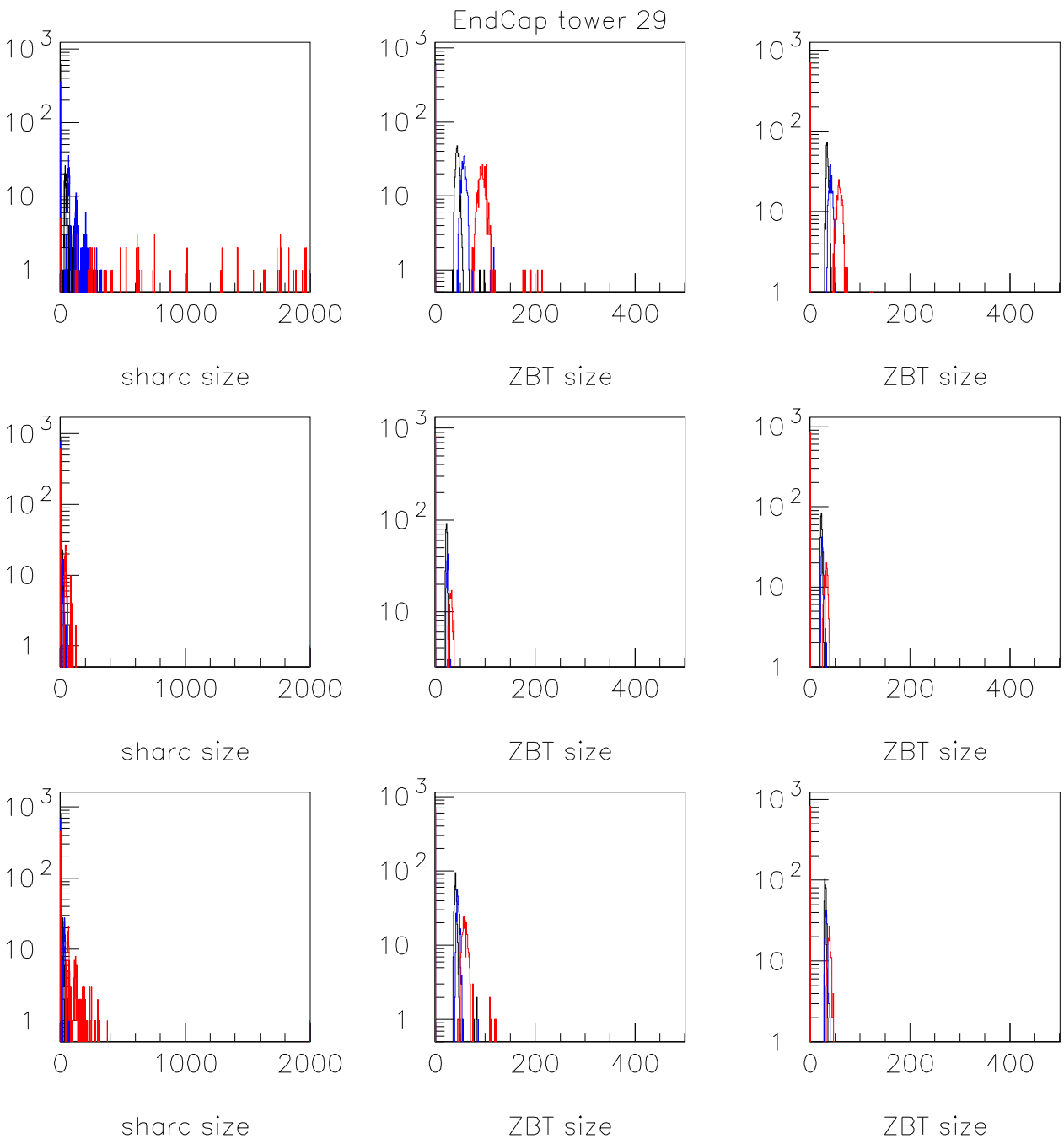

EndCap tower 28
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

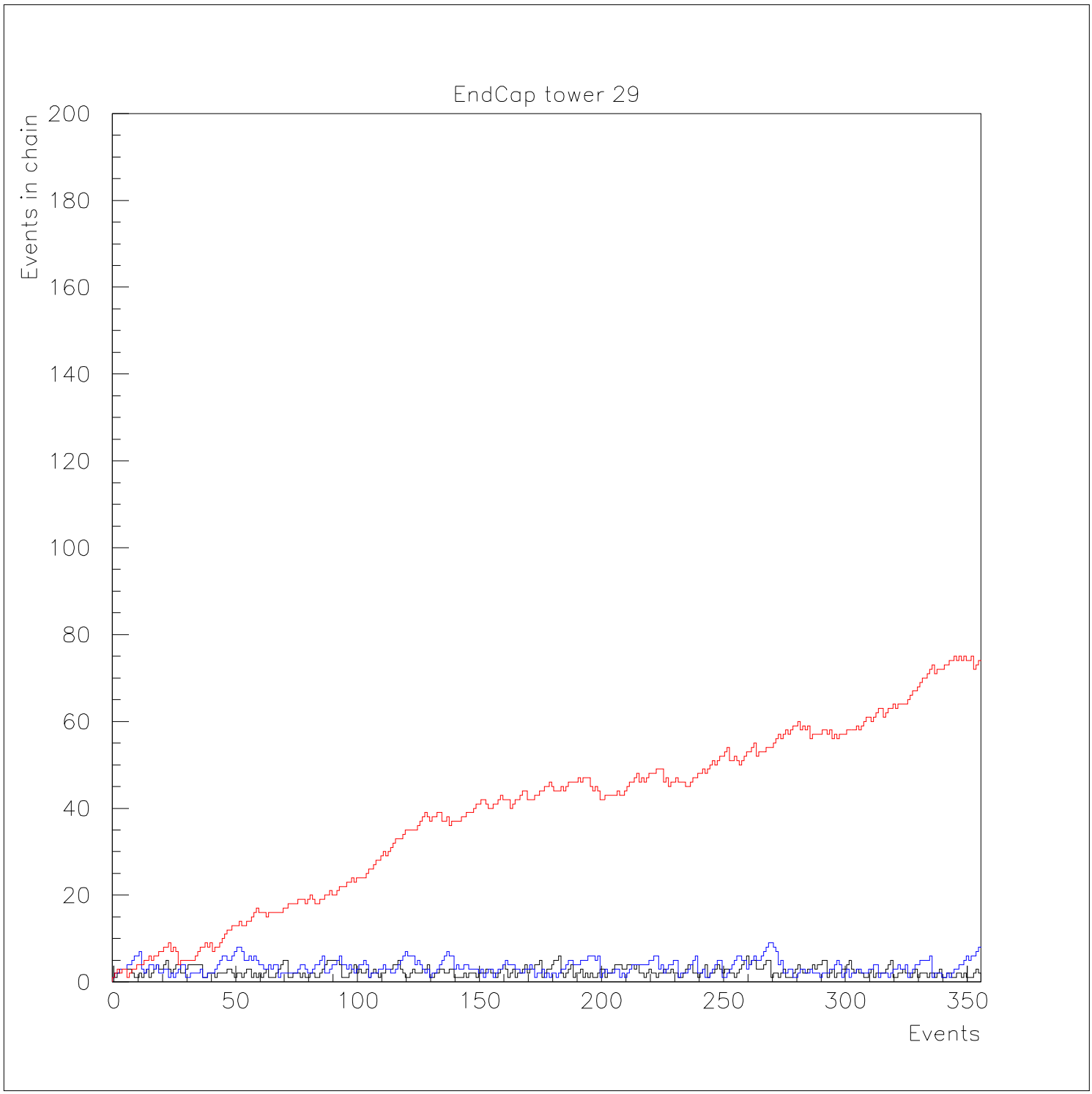

EndCap tower 28
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

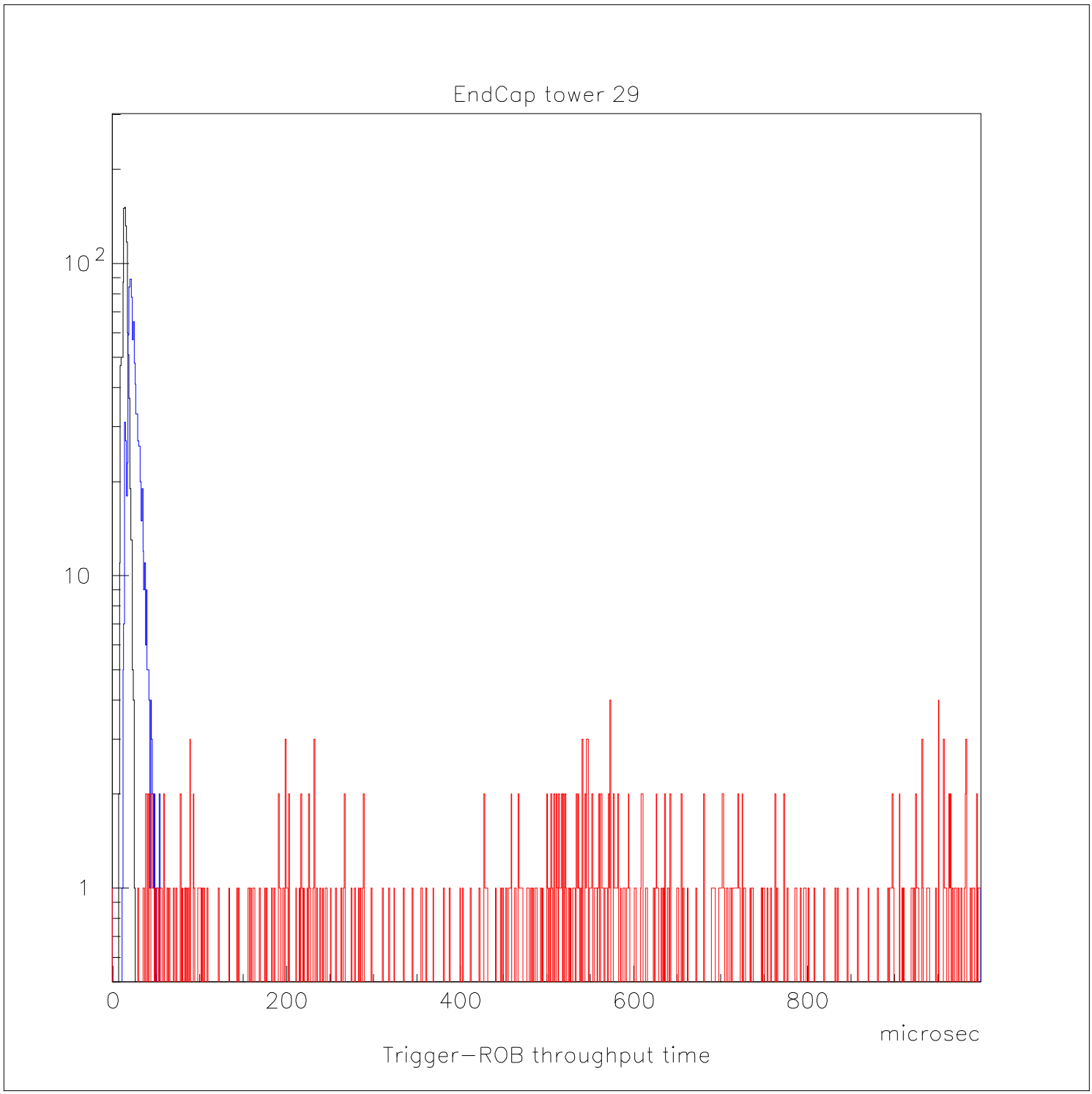

EndCap tower 28
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

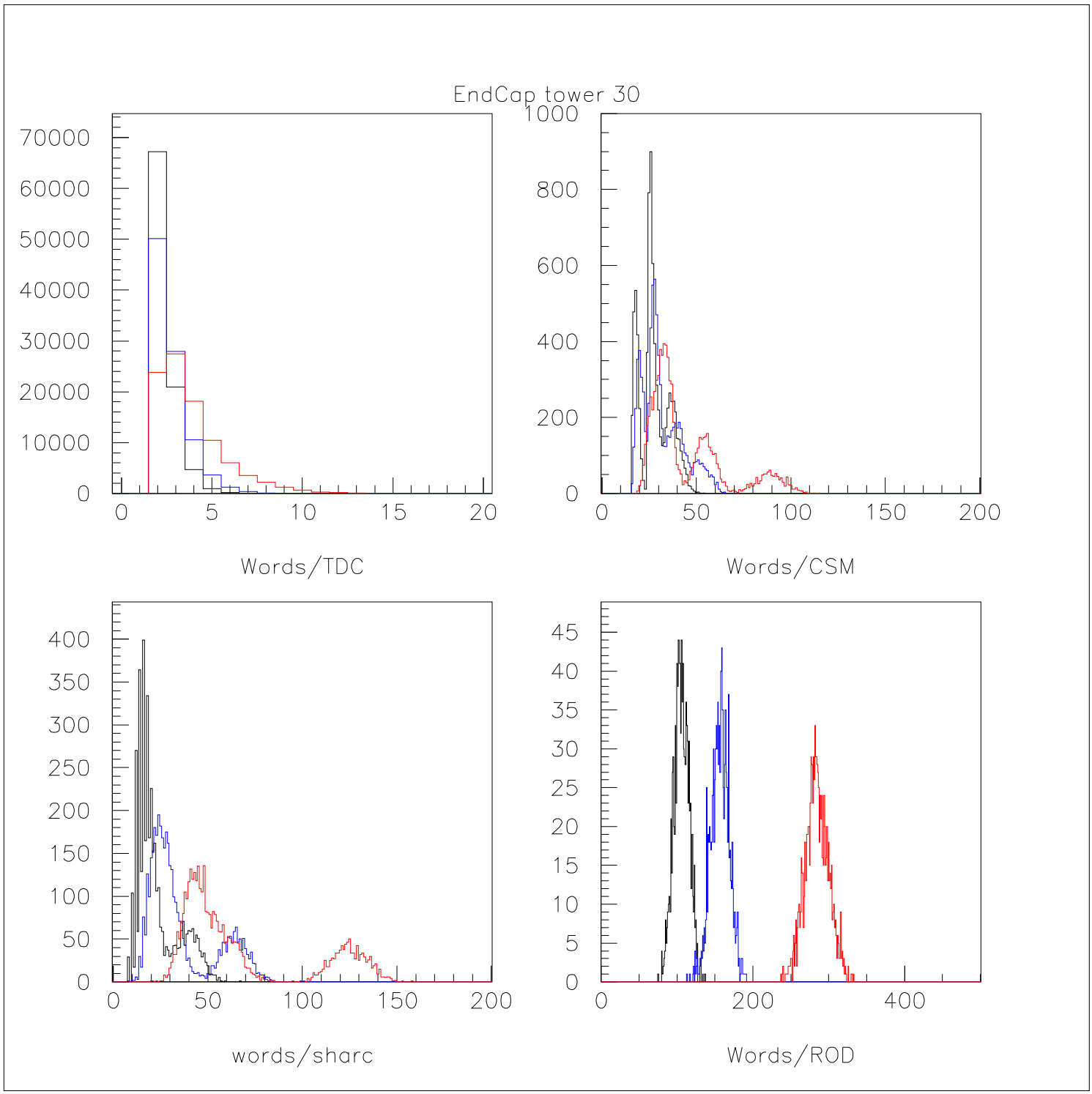

EndCap tower 29
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
1000
800
600
400
200
0
0
50
100
150
200
Words/CSM
400
350
300
250
200
150
100
50
0
0
50
100
150
200
words/sharc
45
40
35
30
25
20
15
10
5
0
0
200
400
Words/ROD

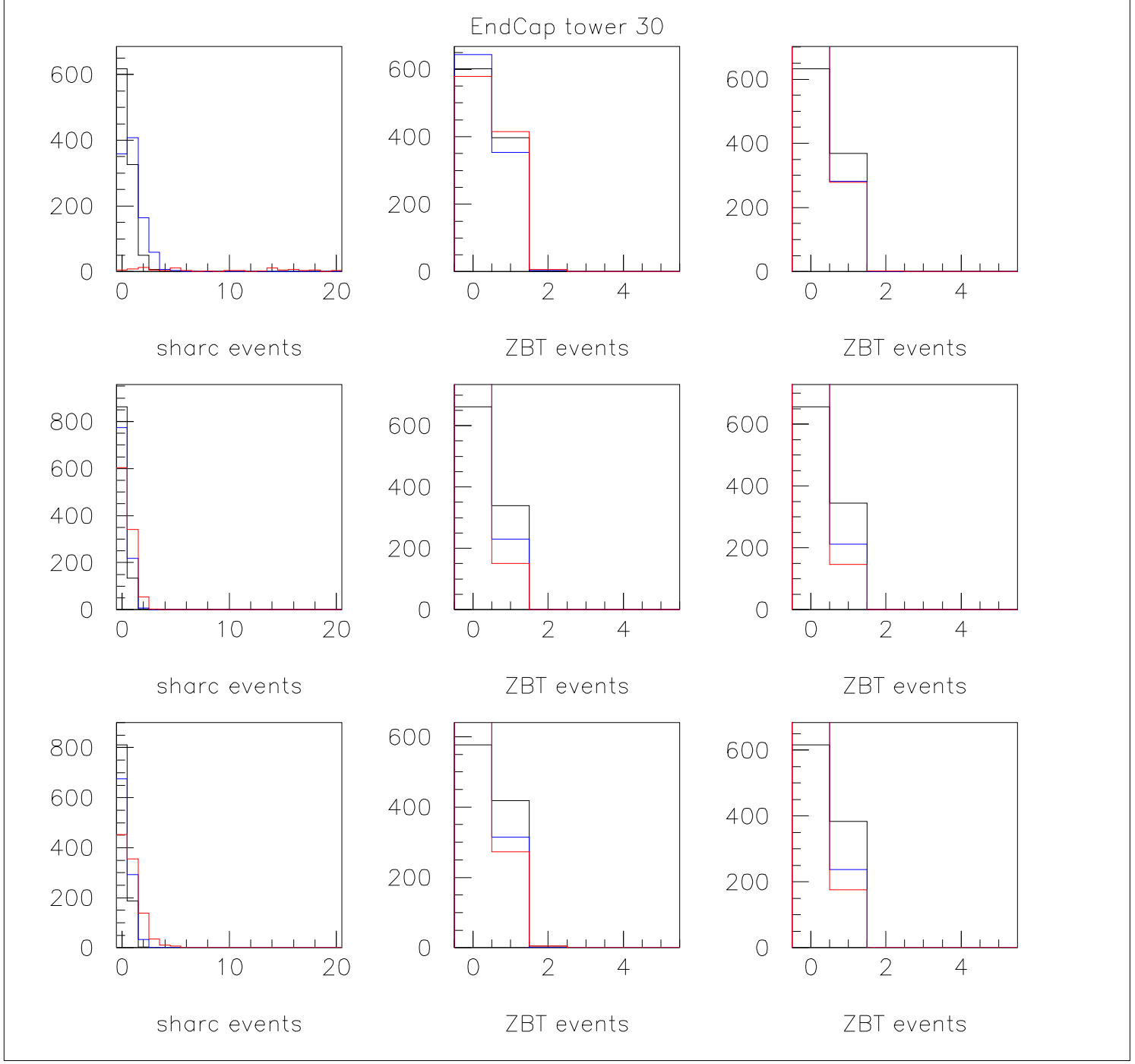

EndCap tower 29
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

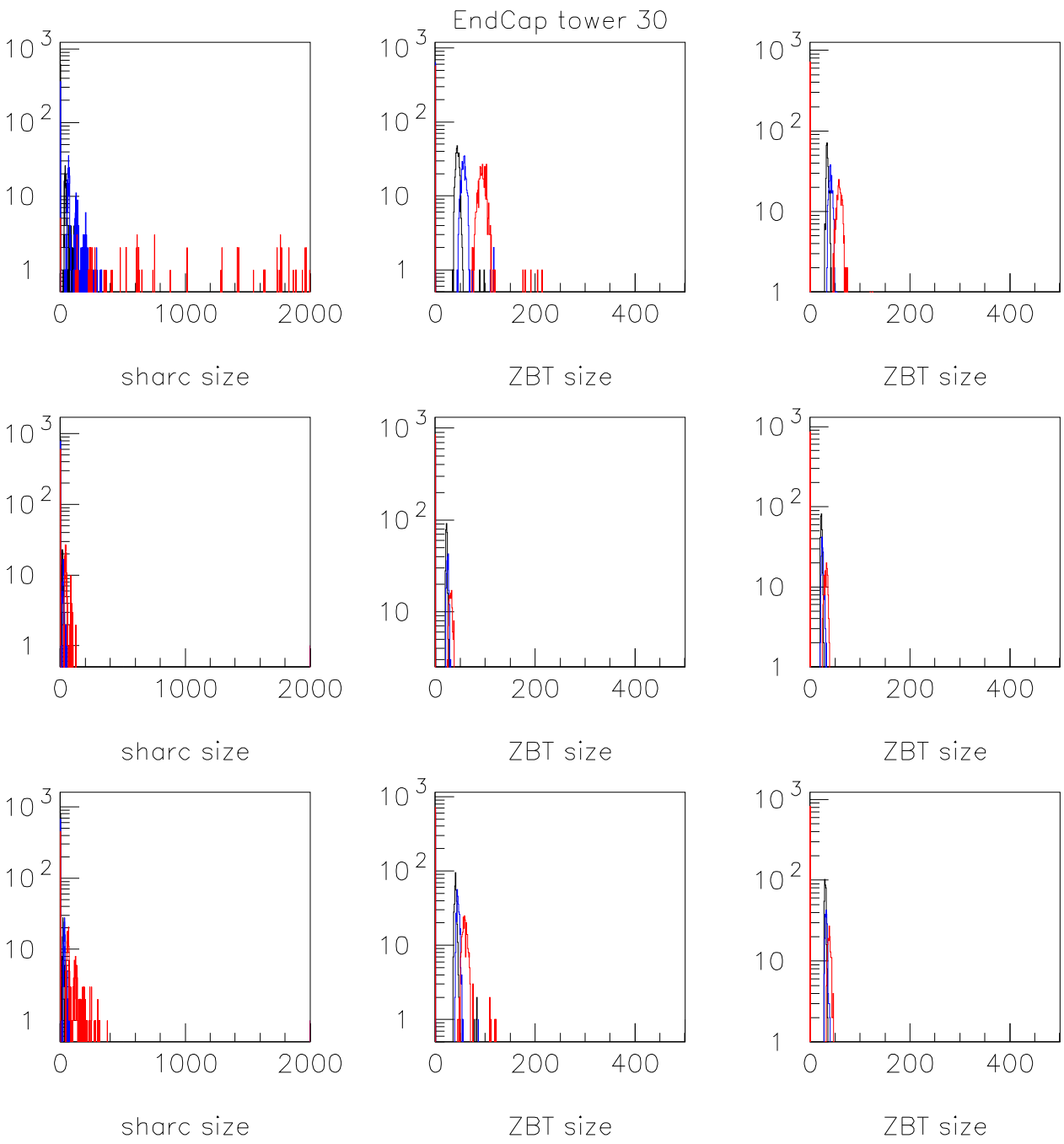

EndCap tower 29
$10^3$
$10^2$
10
1
0
1000
2000
200
400
sharc size
ZBT size

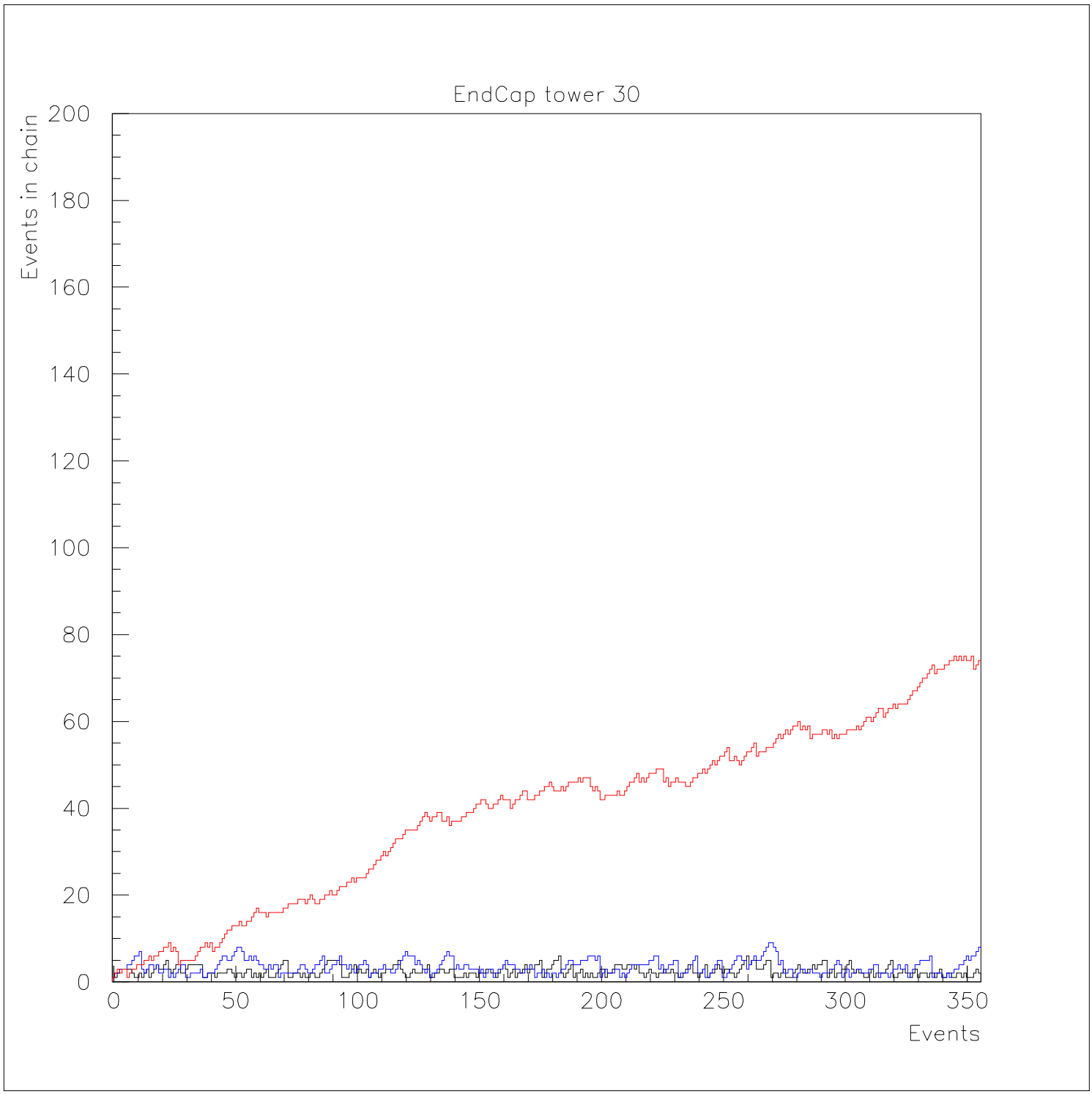

EndCap tower 29
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

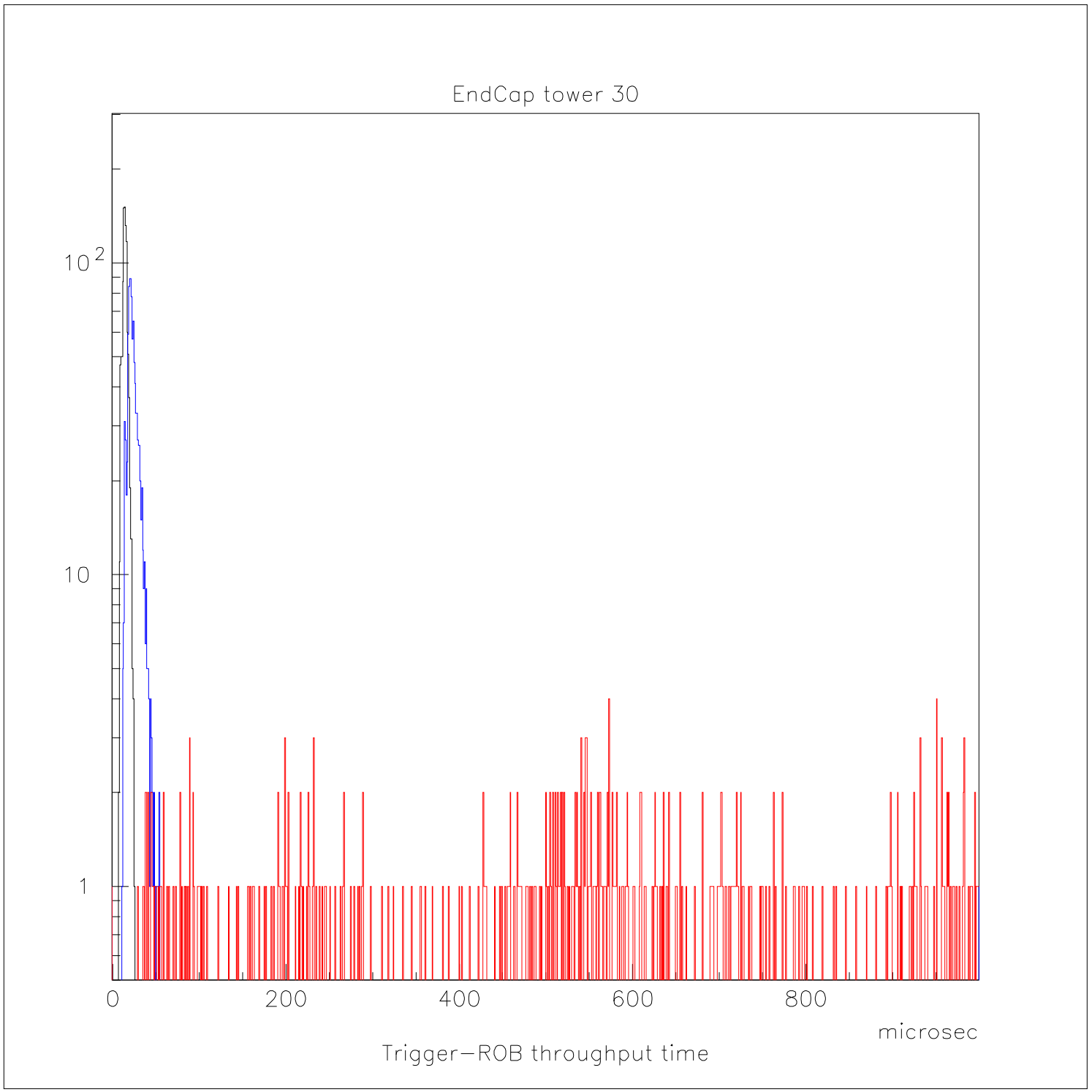

EndCap tower 29
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

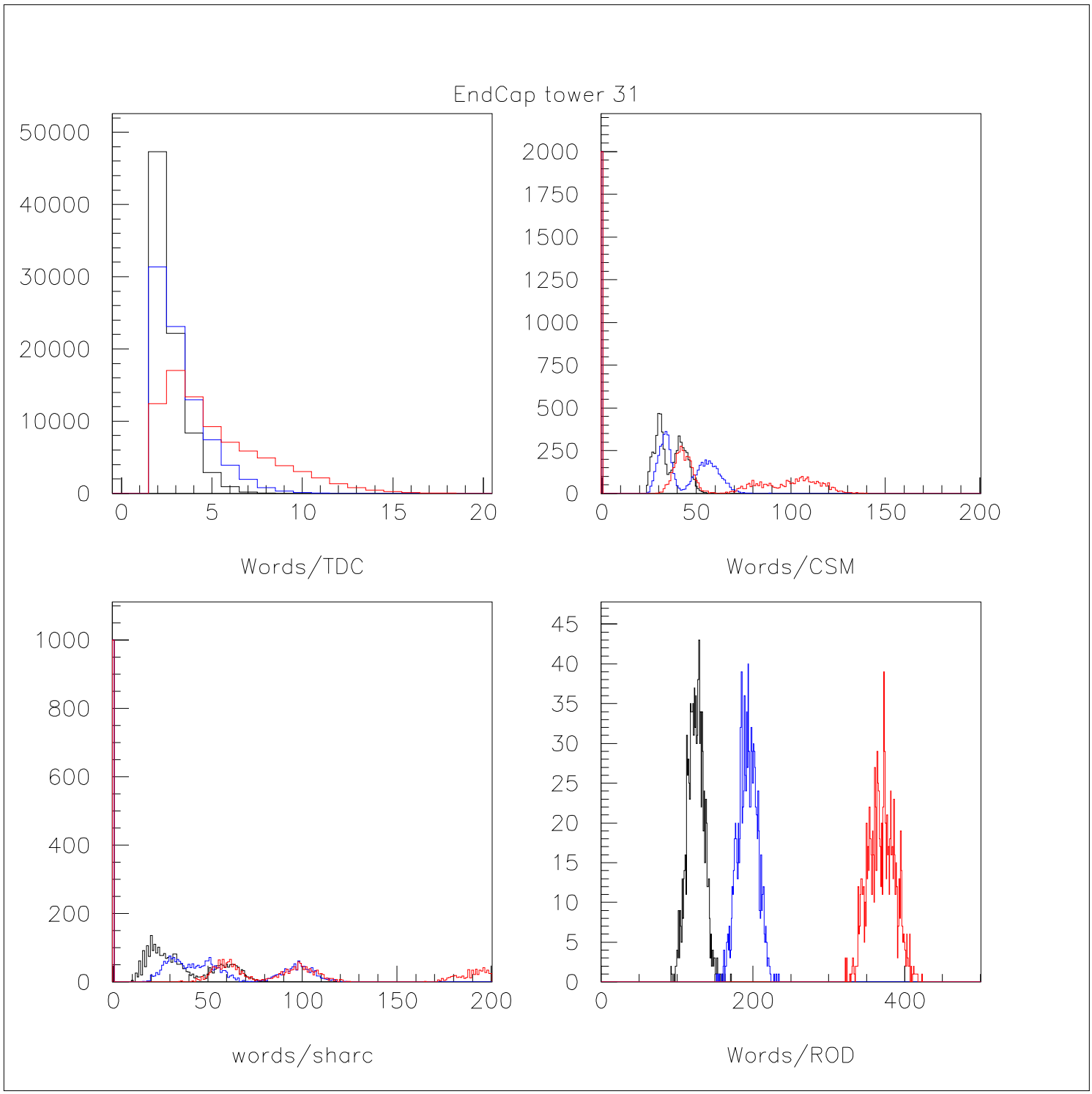

EndCap tower 30
70000
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
1000
800
600
400
200
0
0
50
100
150
200
Words/CSM
400
350
300
250
200
150
100
50
0
0
50
100
150
200
words/sharc
45
40
35
30
25
20
15
10
5
0
0
200
400
Words/ROD

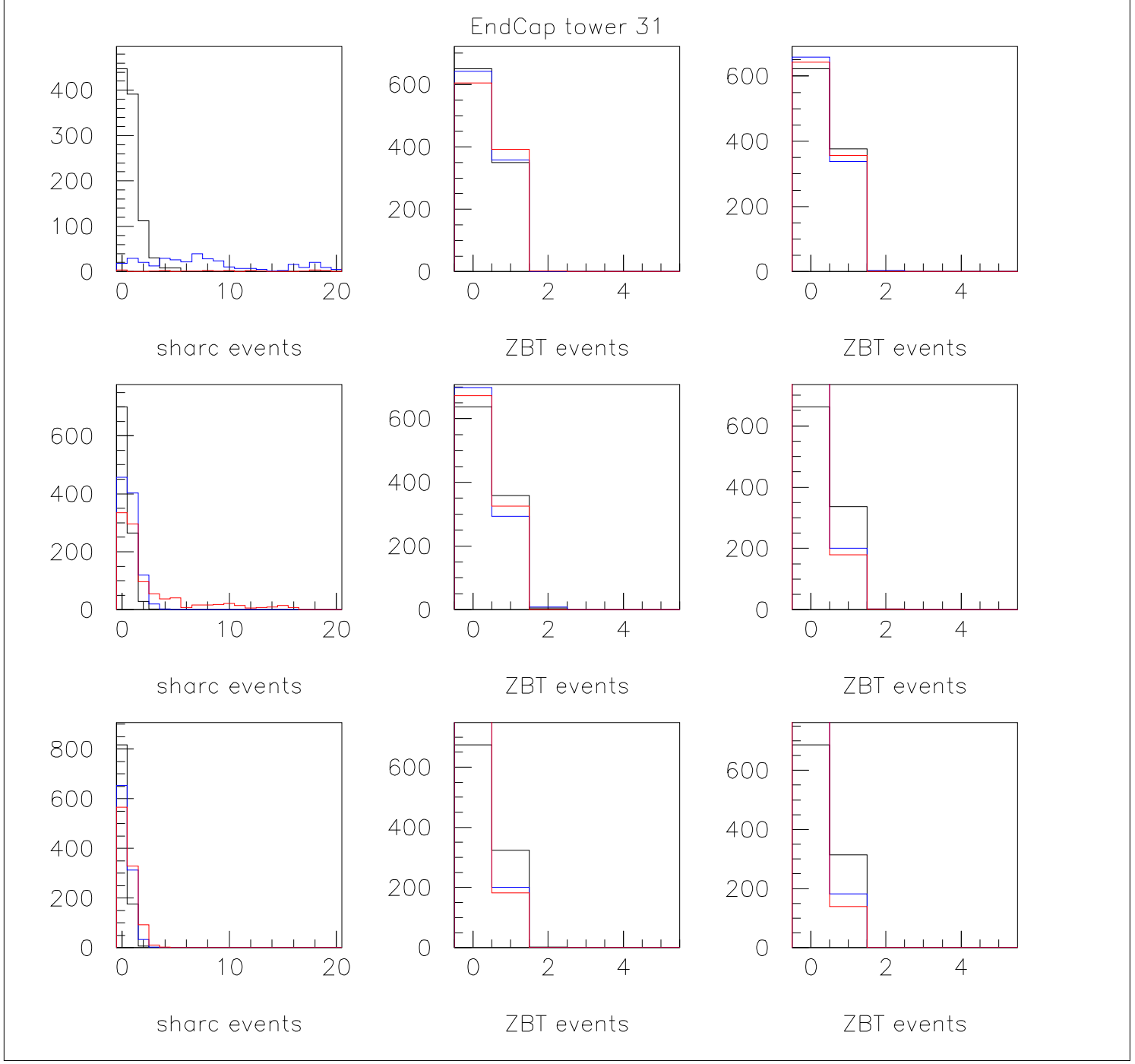

EndCap tower 30
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

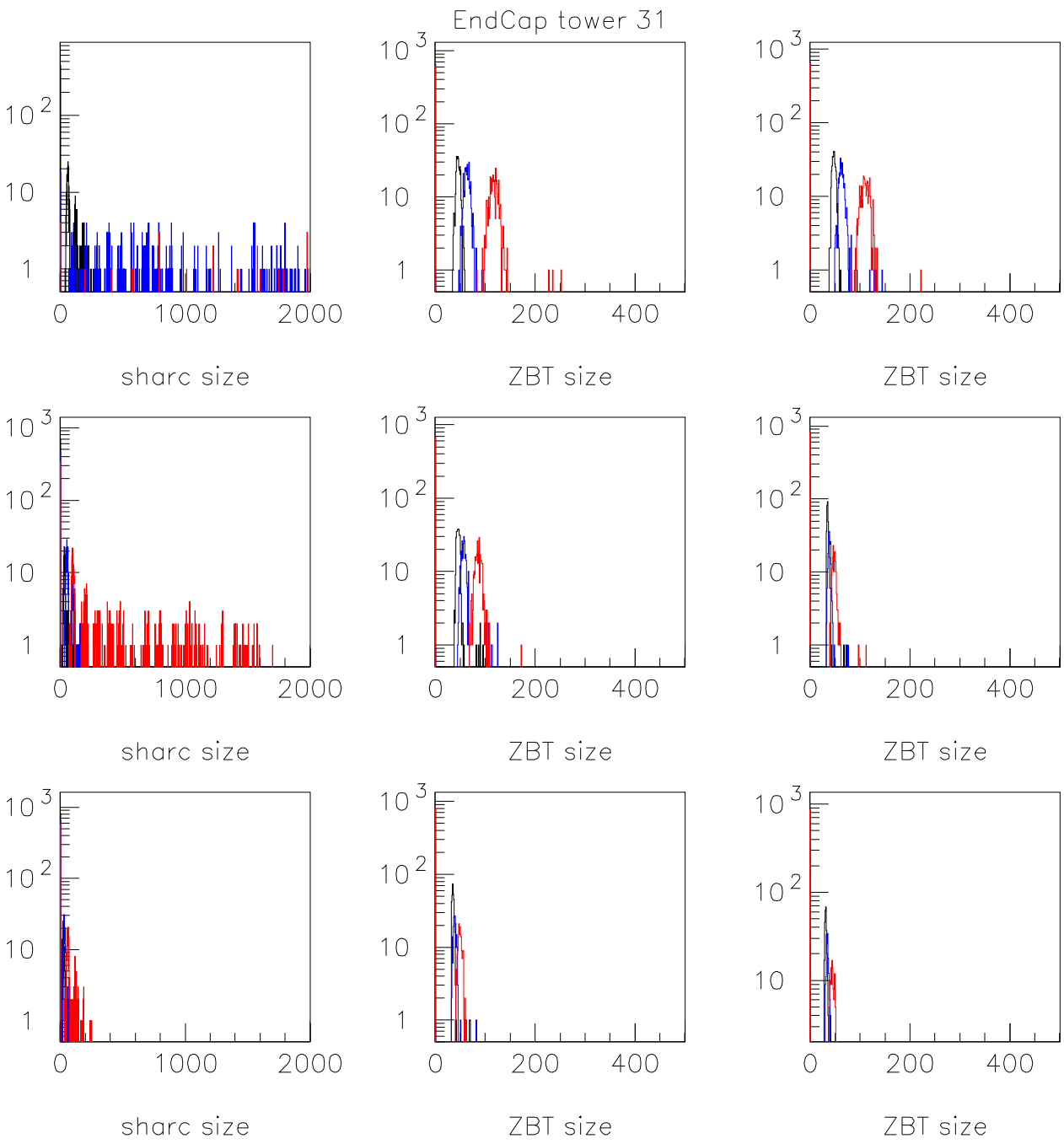

EndCap tower 30
$10^3$
$10^2$
10
1
0
1000
2000
200
400
sharc size
ZBT size

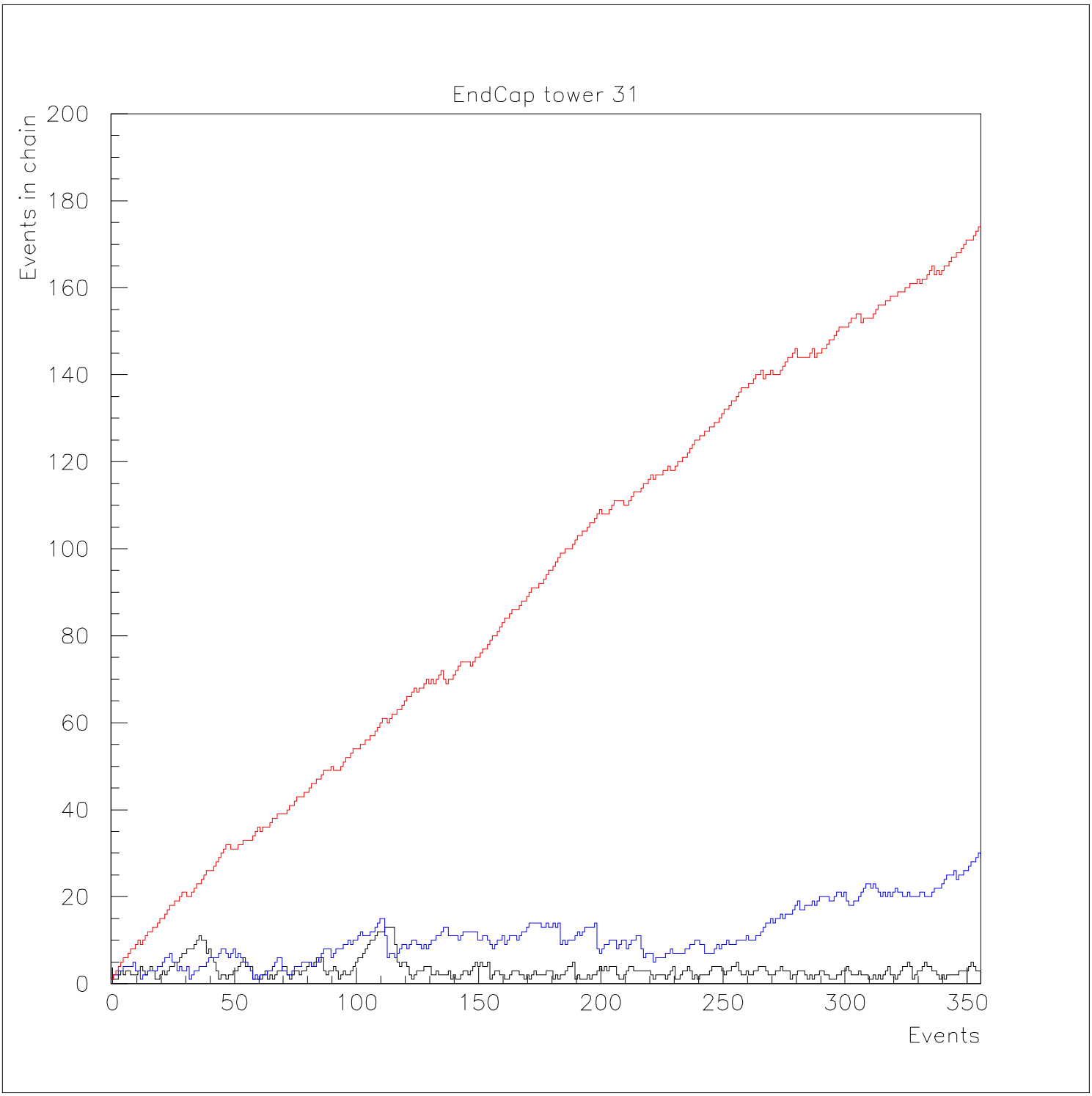

EndCap tower 30
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

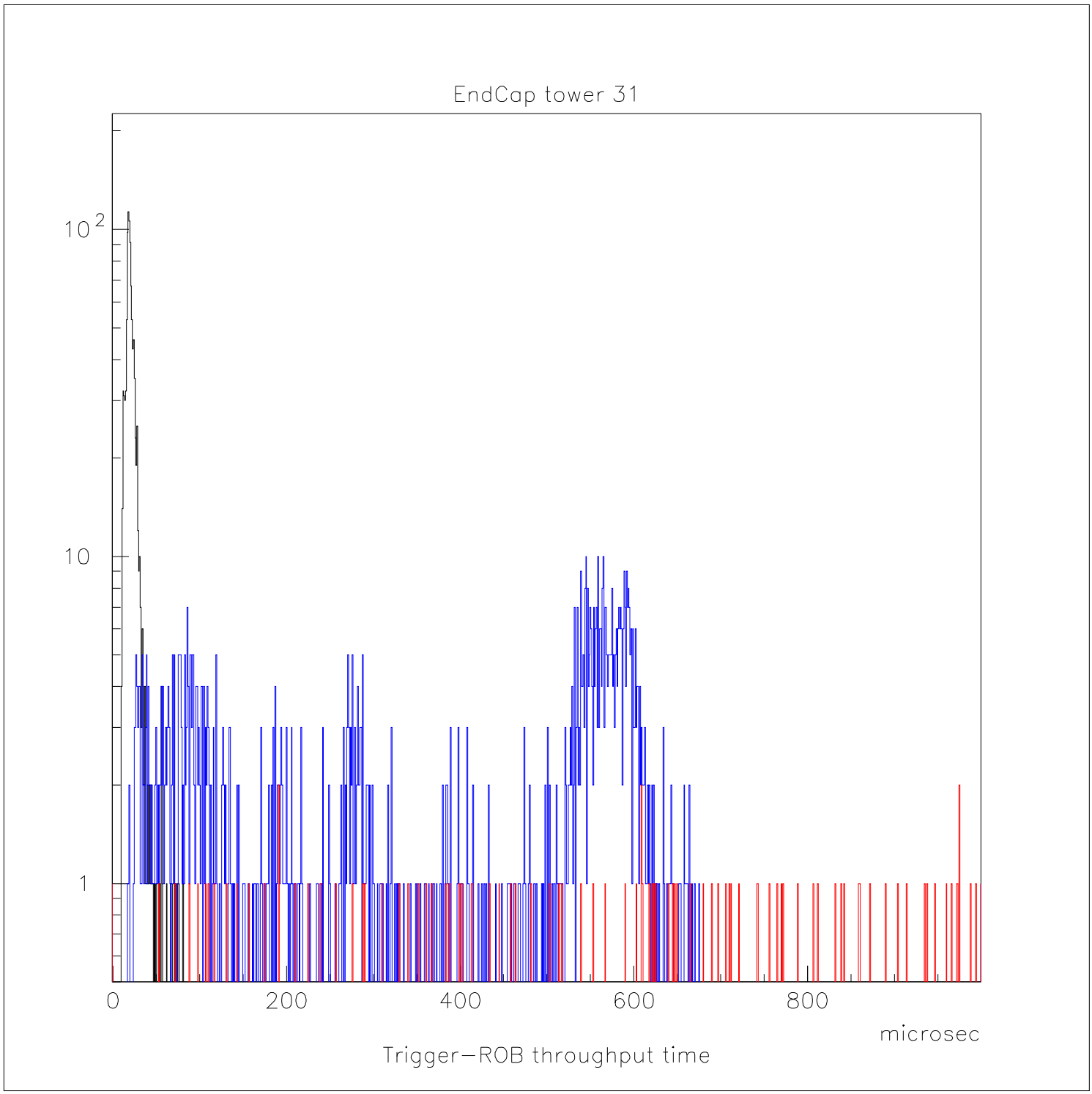

EndCap tower 30
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

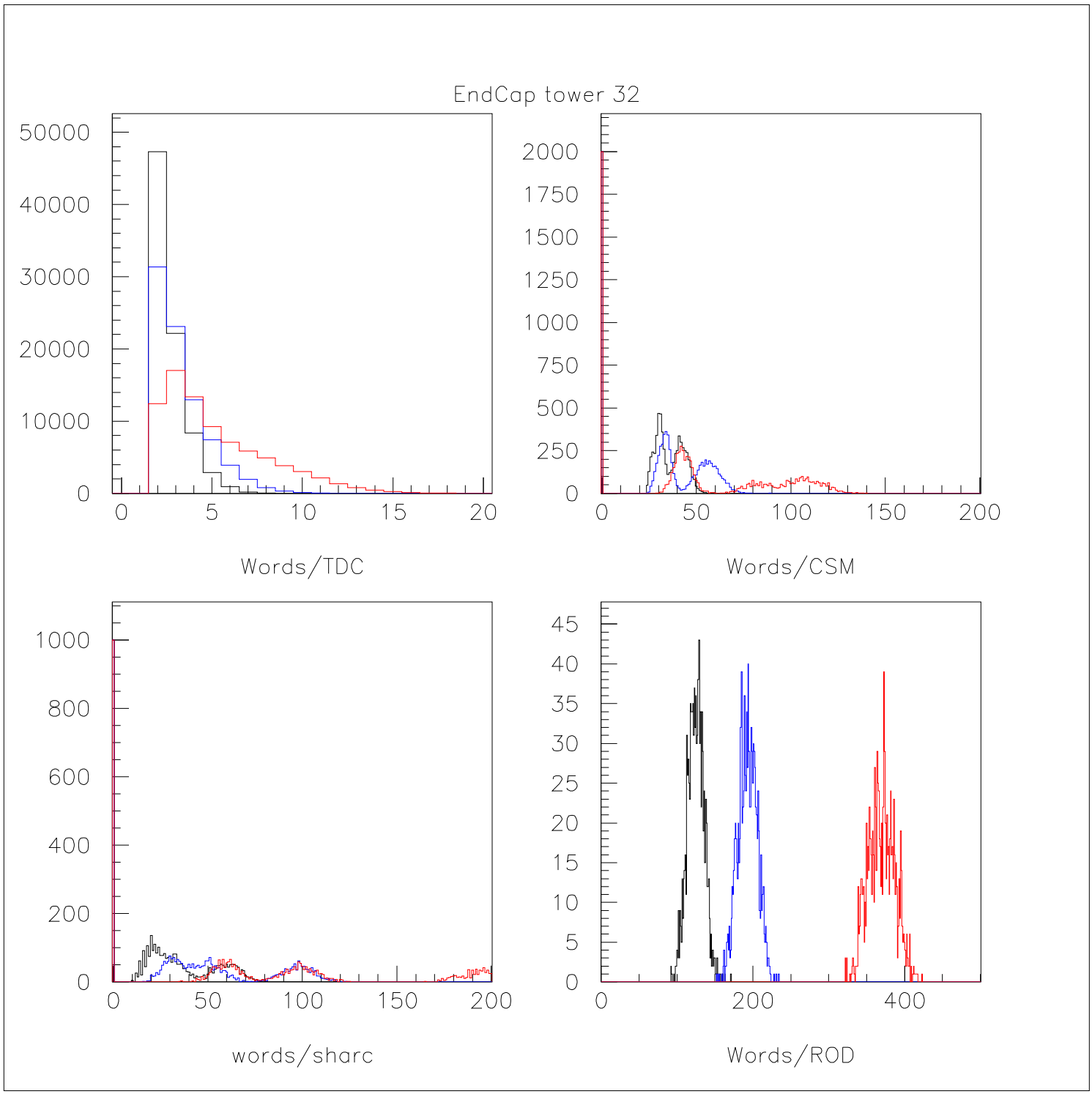

EndCap tower 31
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
45
40
35
30
25
20
15
10
5
0
0
200
400
Words/ROD

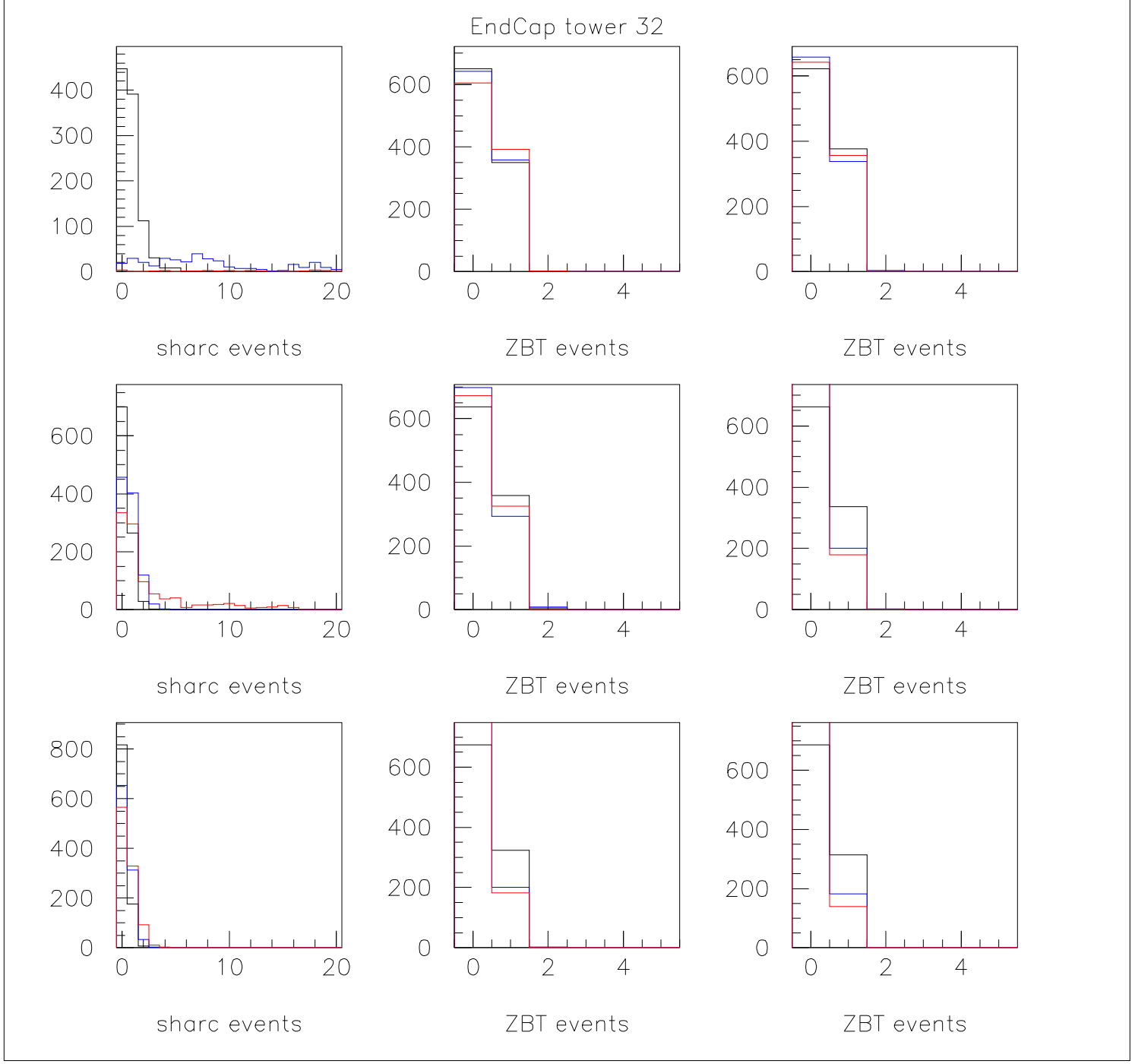

EndCap tower 31
400
300
200
100
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

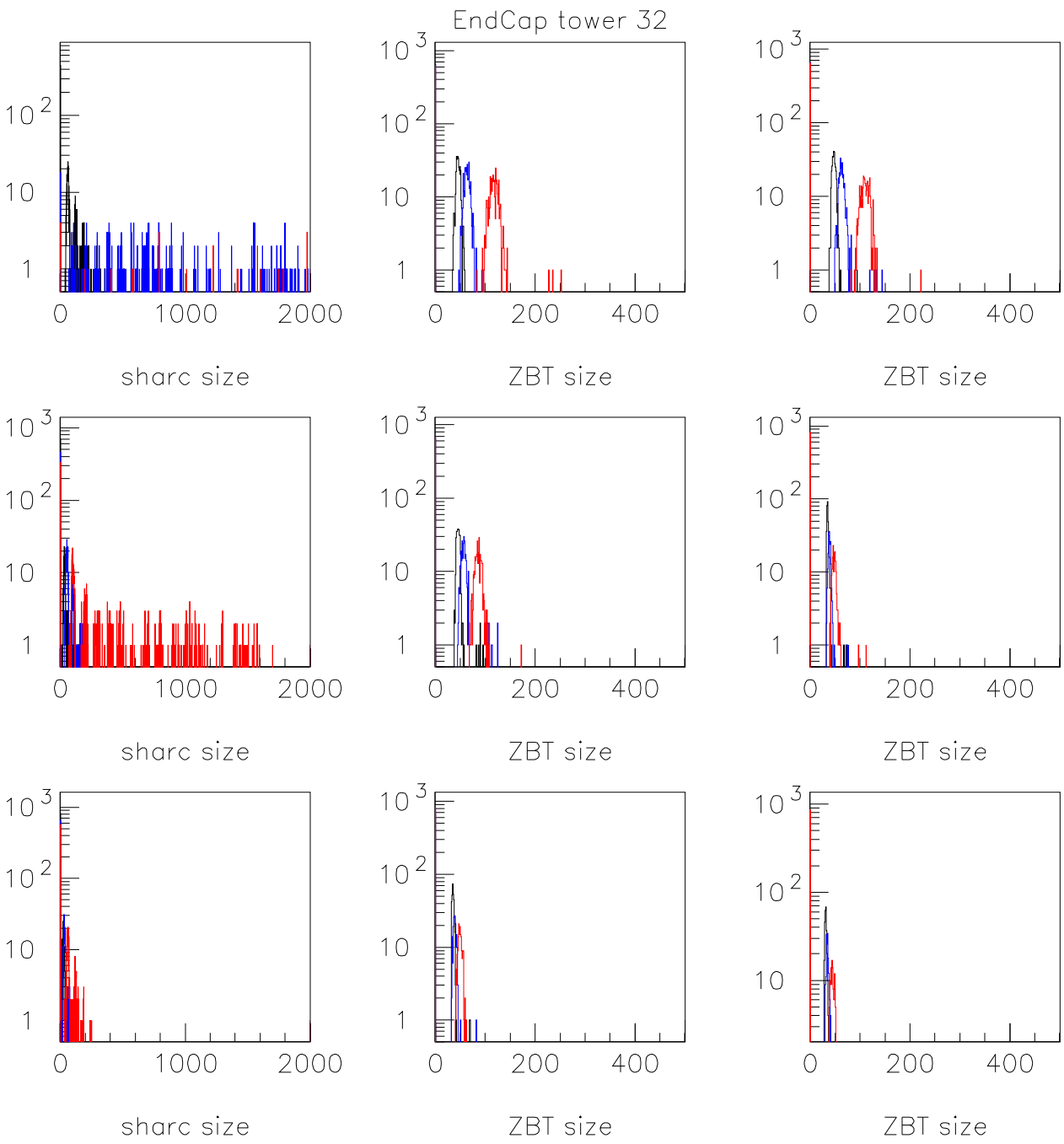

EndCap tower 31
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

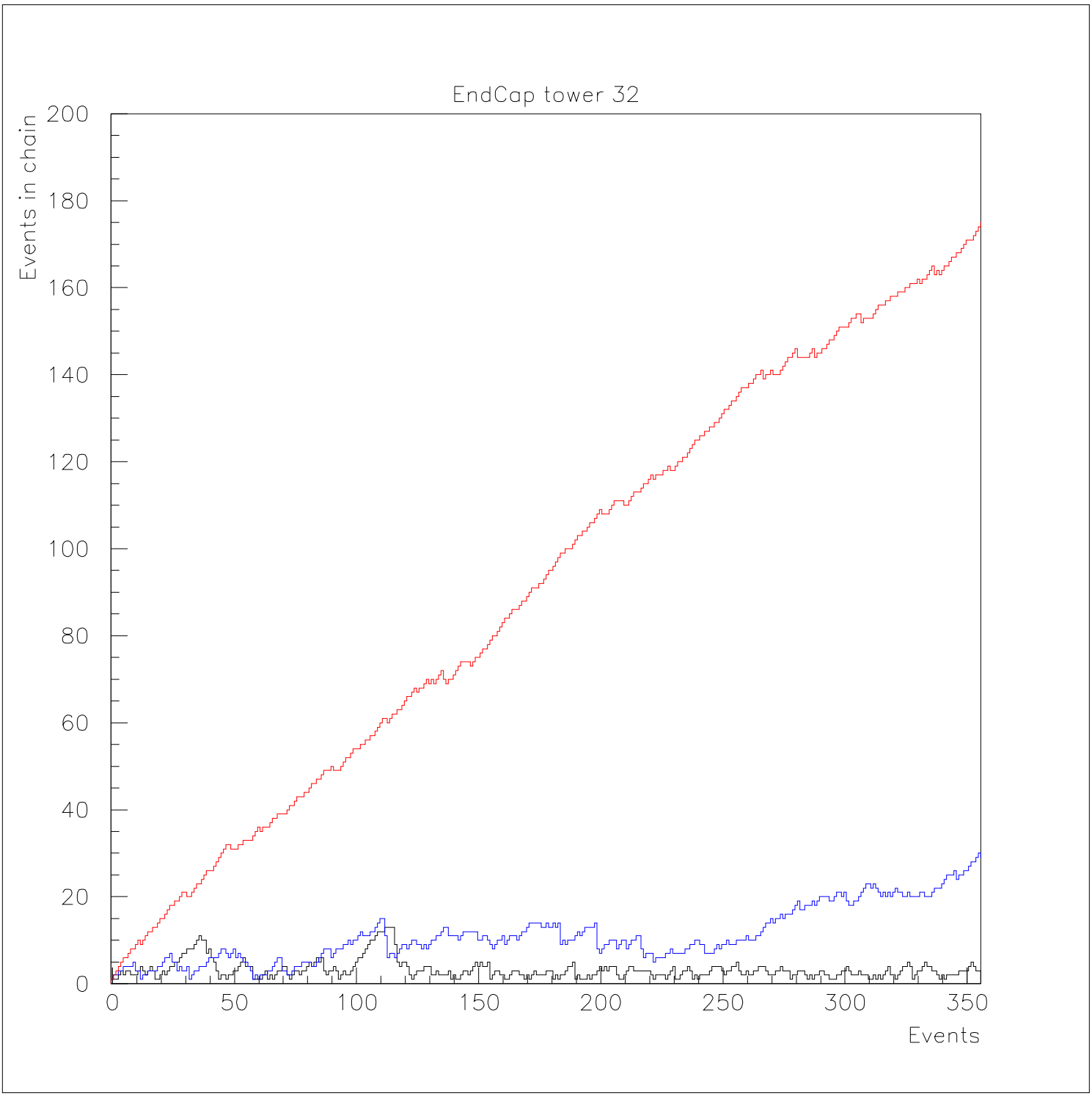

EndCap tower 31
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

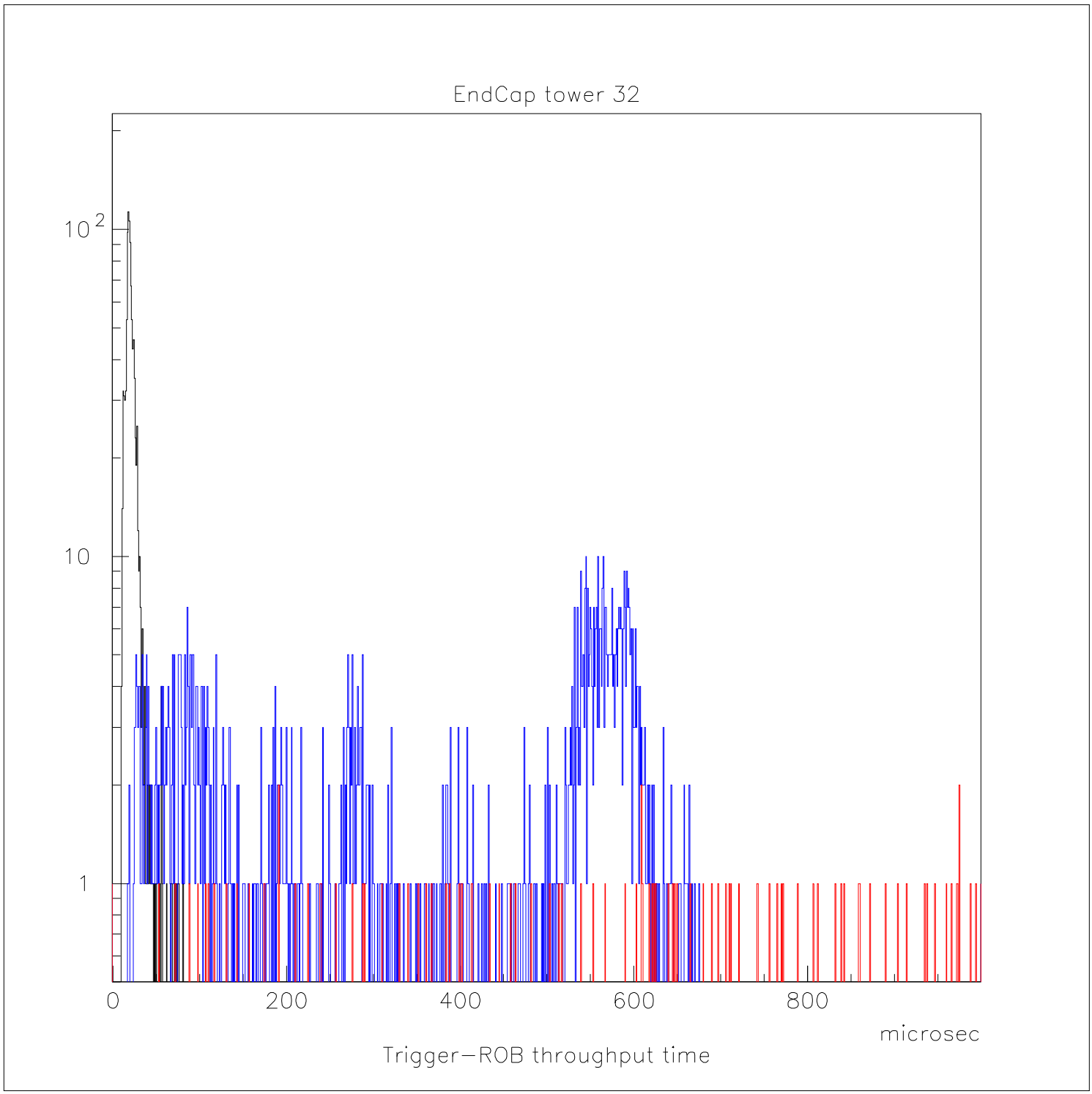

EndCap tower 31
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

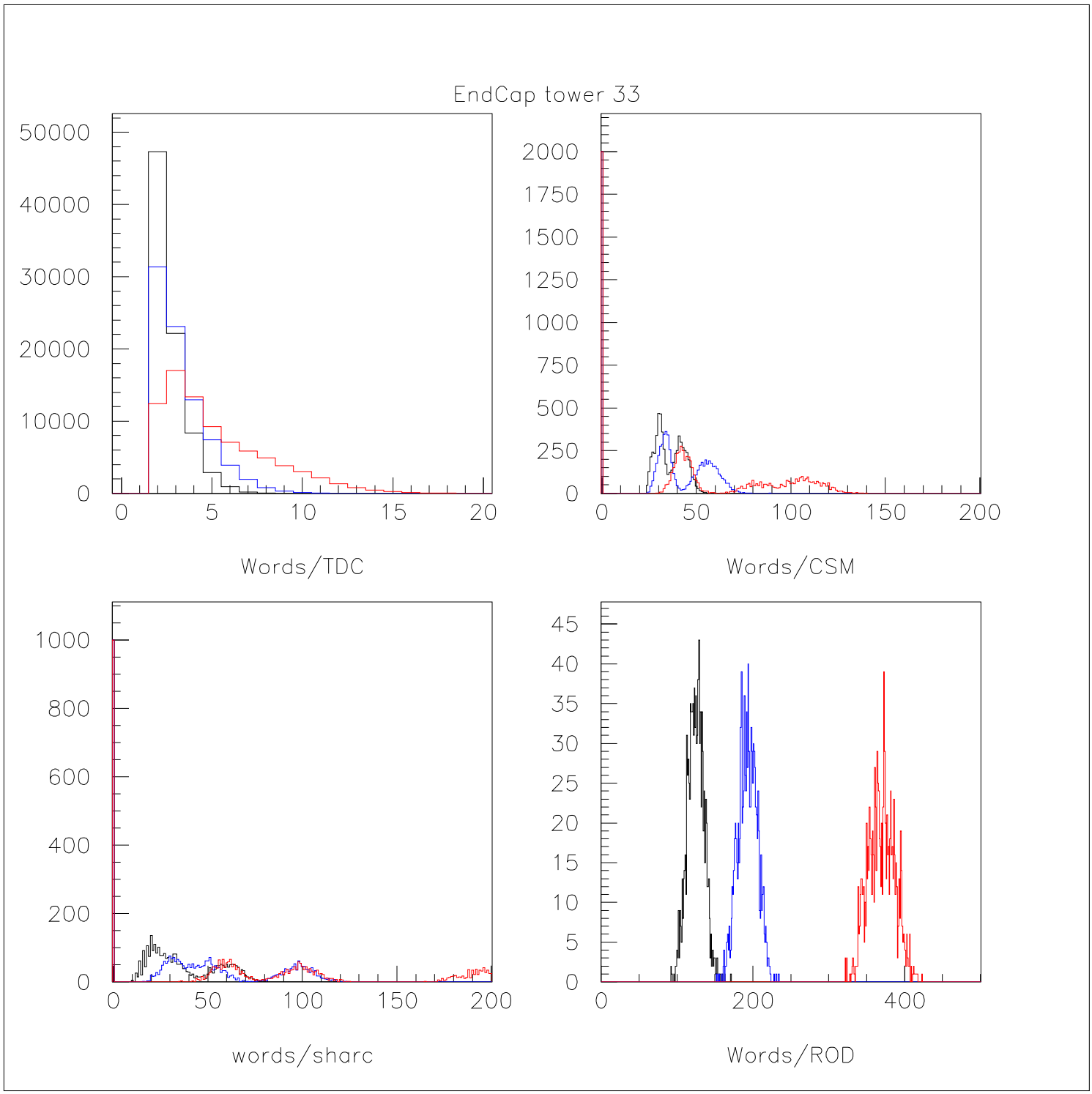

EndCap tower 32
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
45
40
35
30
25
20
15
10
5
0
0
200
400
Words/ROD

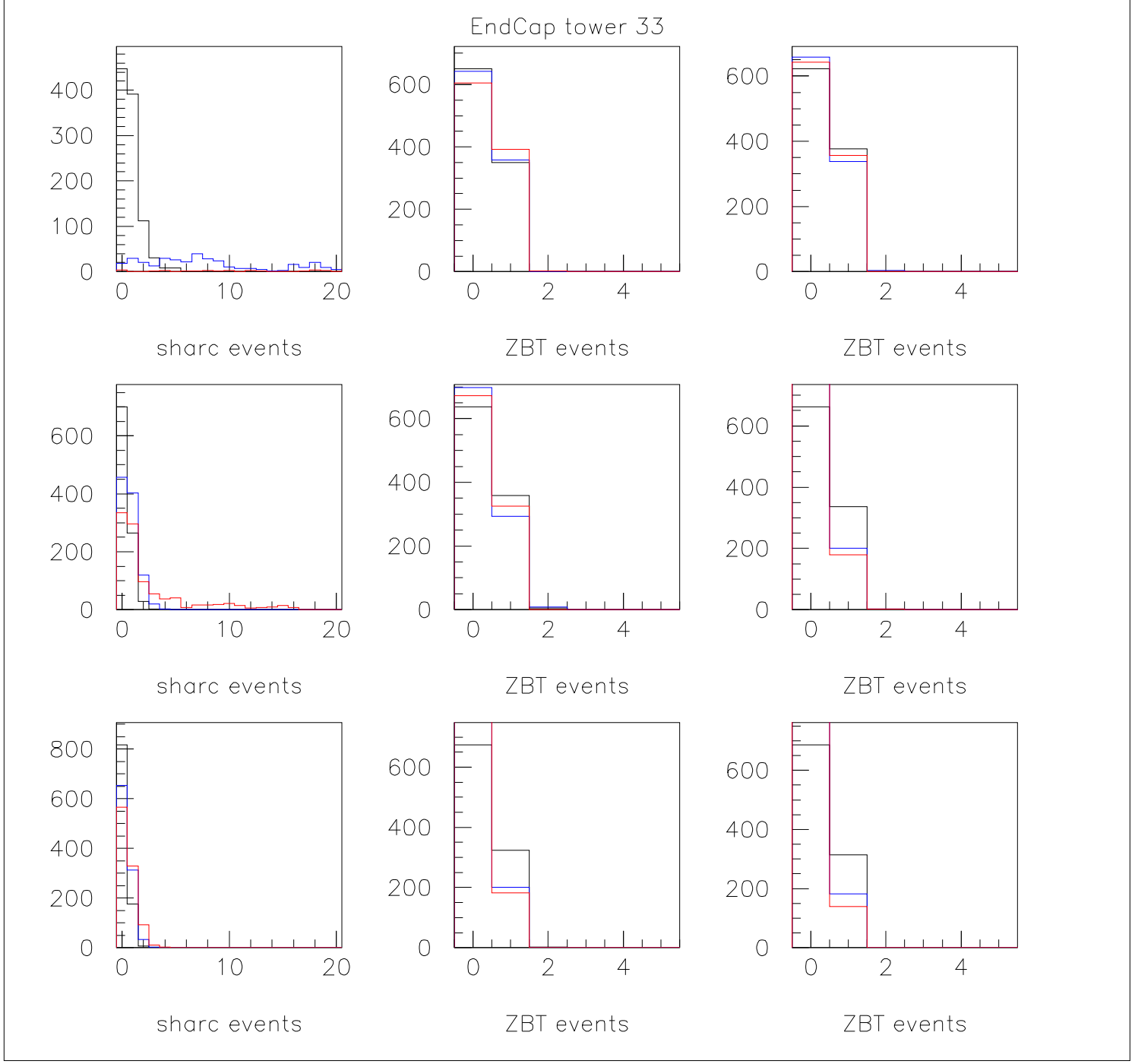

EndCap tower 32
400
300
200
100
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

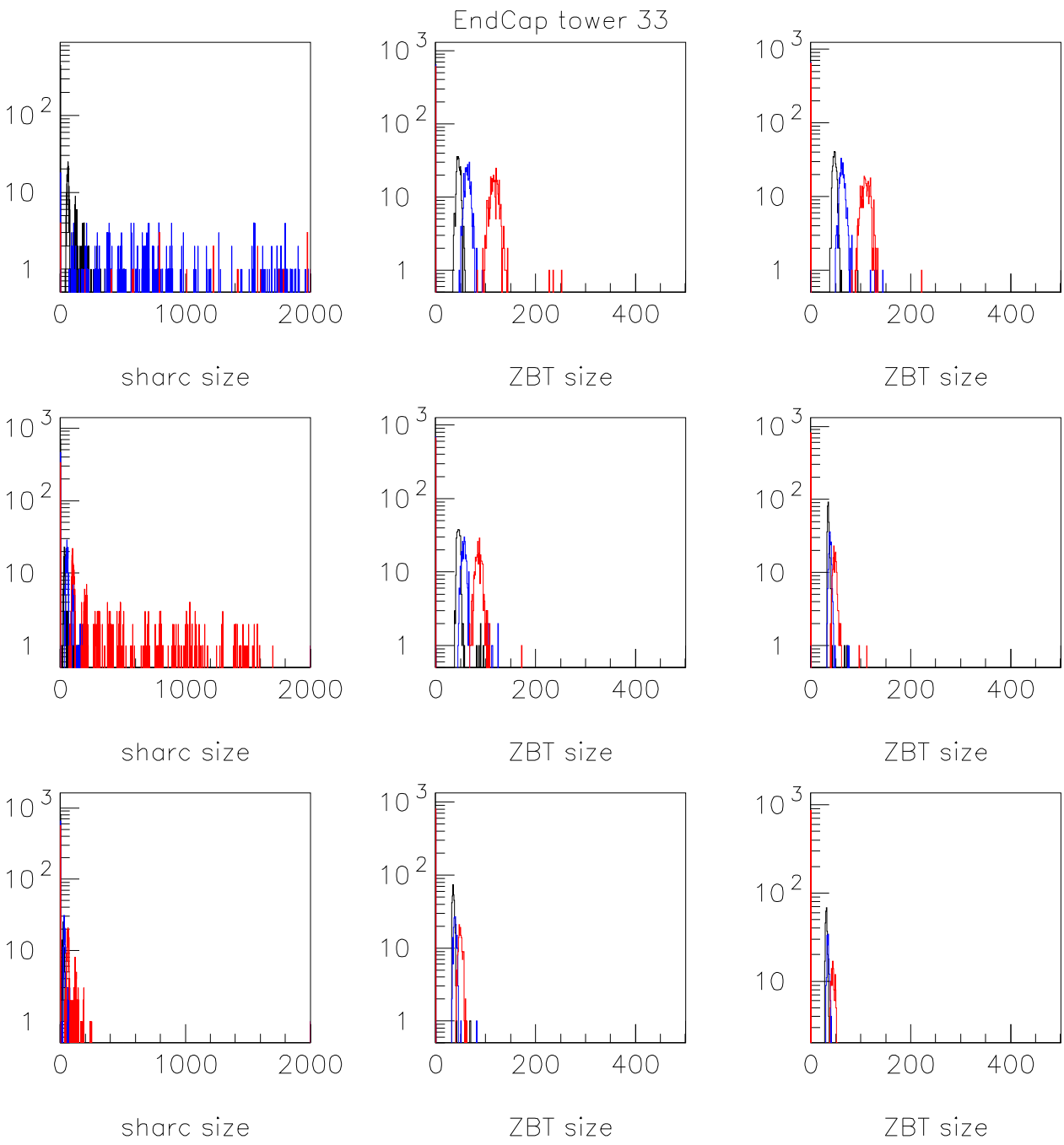

EndCap tower 32
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

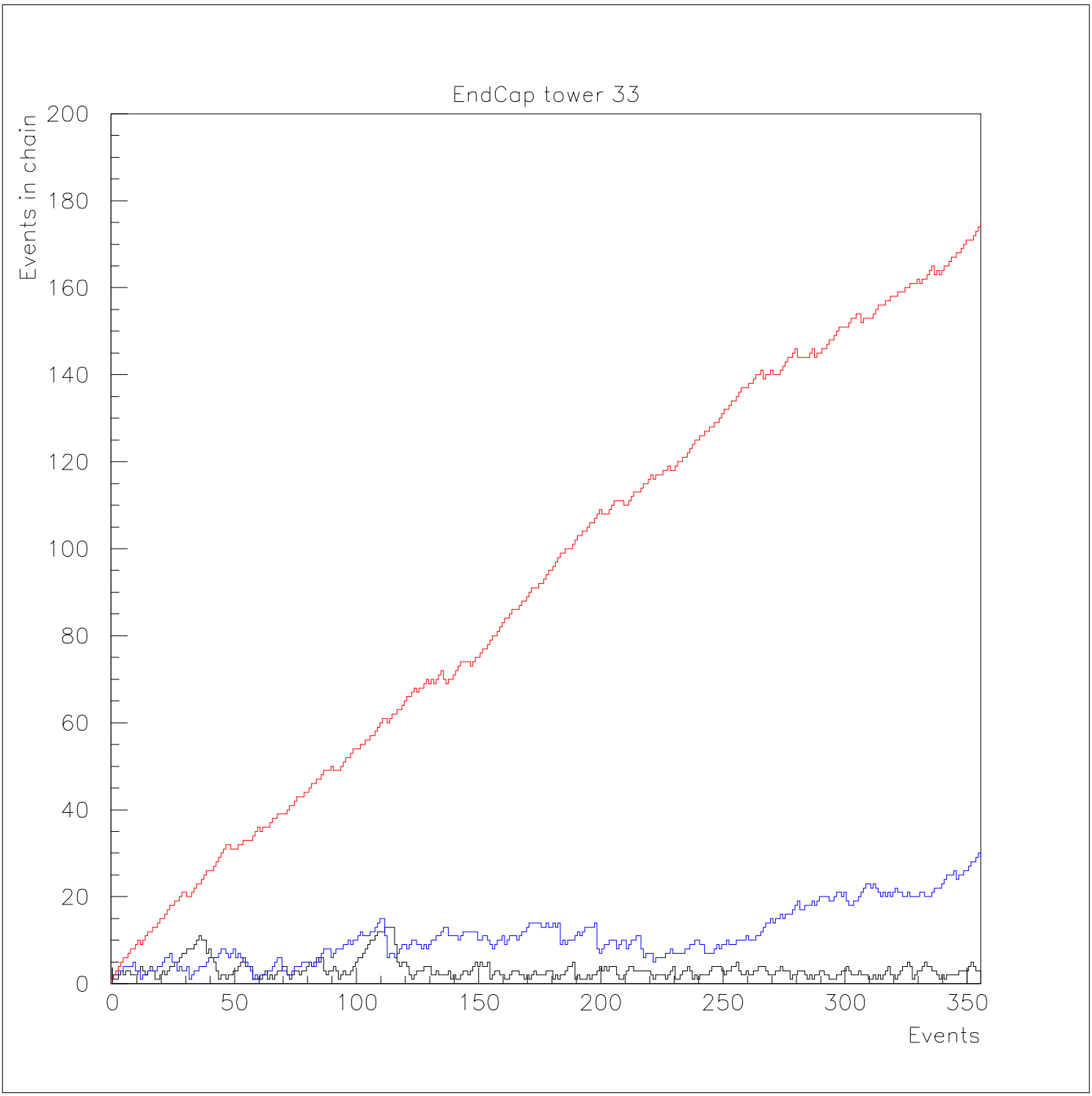

EndCap tower 32
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

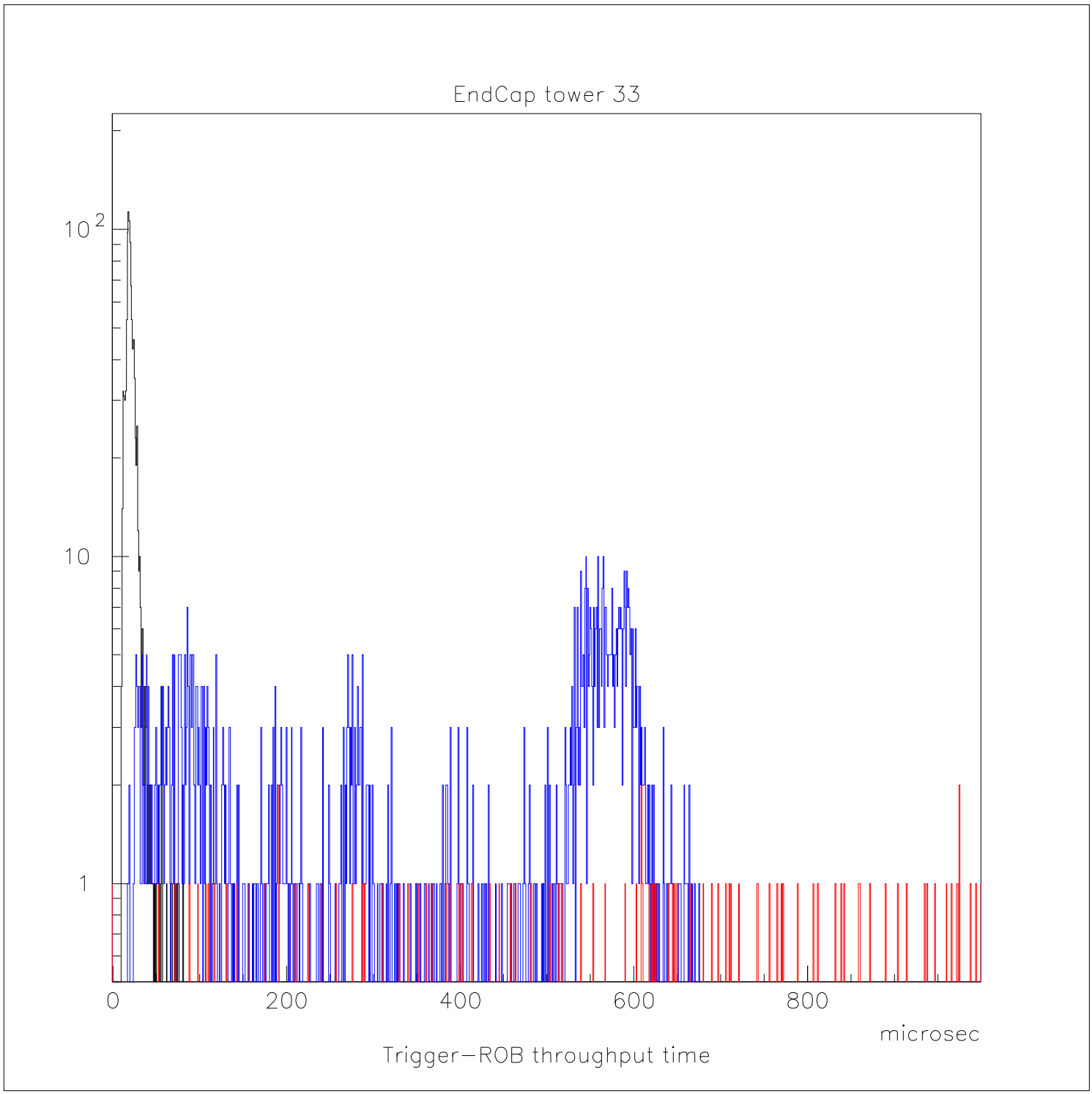

EndCap tower 32
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

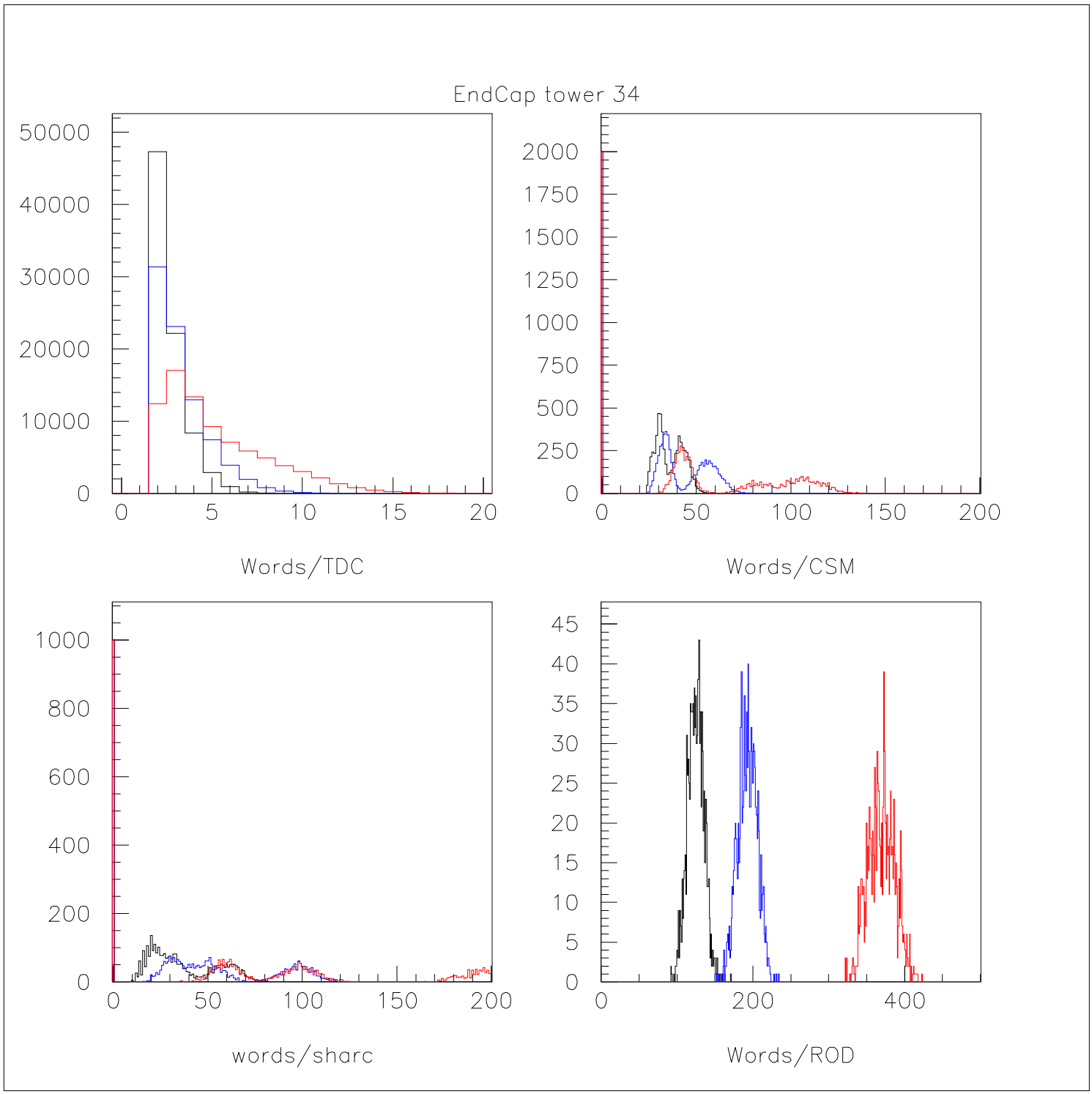

EndCap tower 33
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
45
40
35
30
25
20
15
10
5
0
0
200
400
Words/ROD

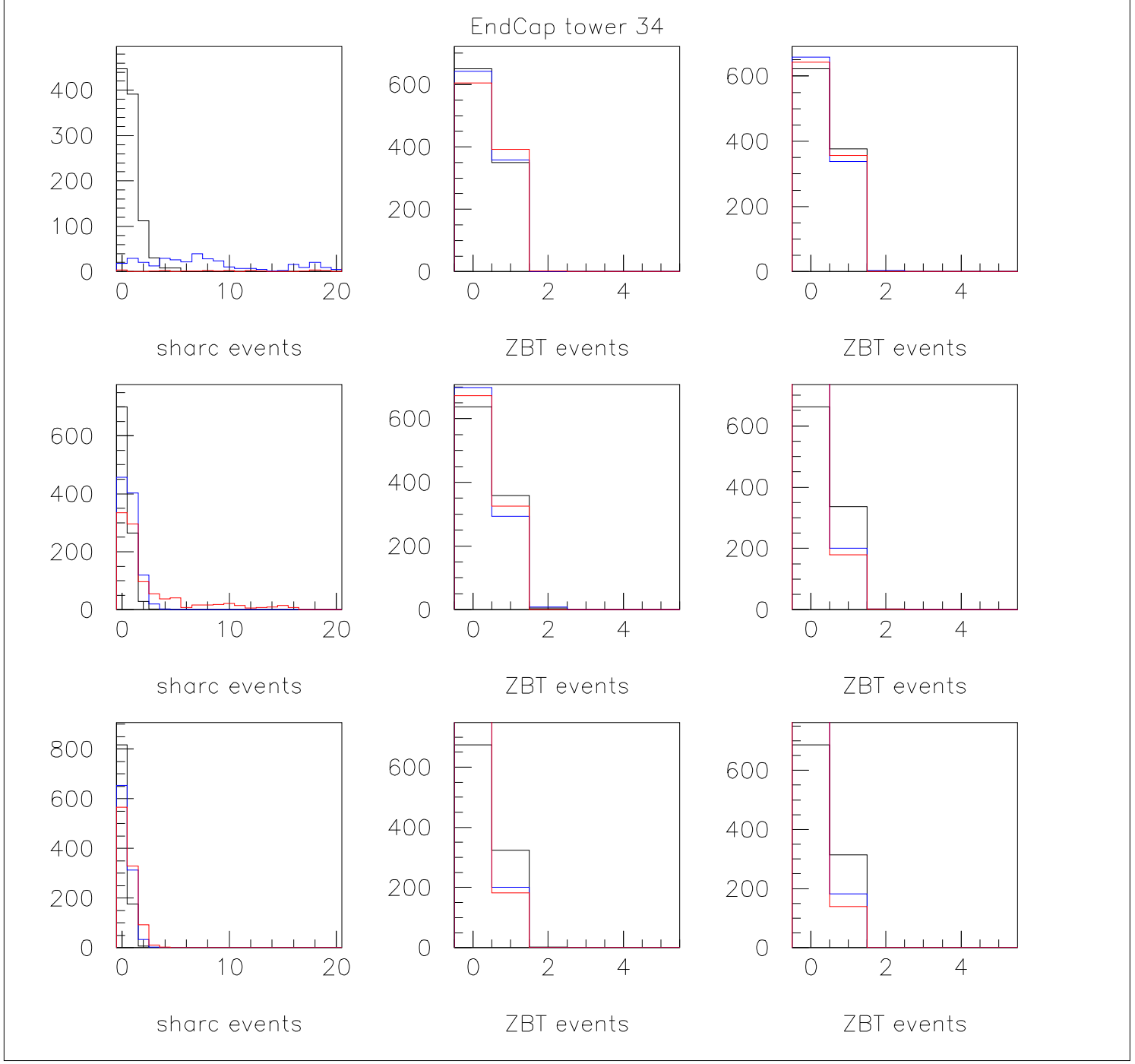

EndCap tower 33
400
300
200
100
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

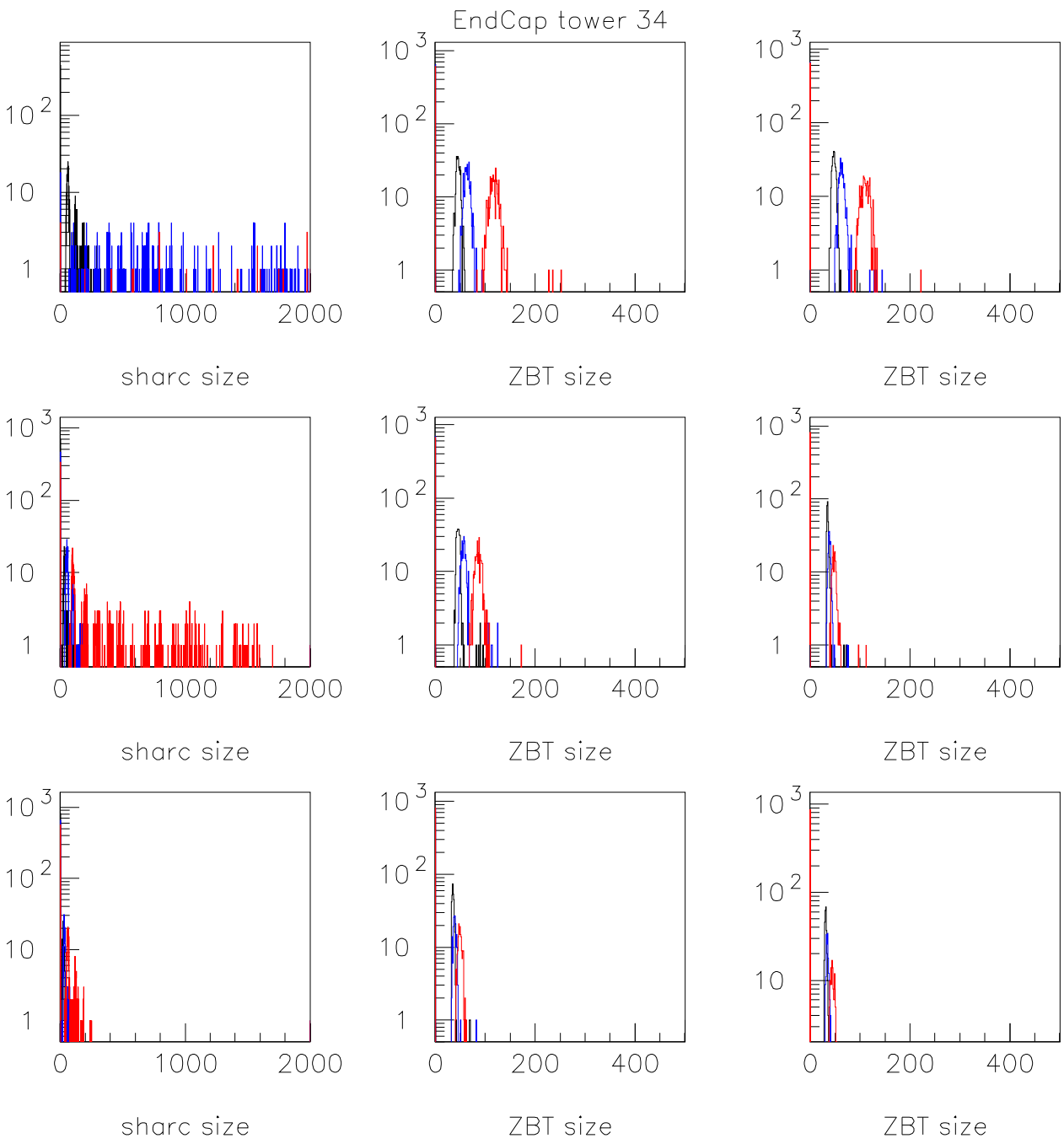

EndCap tower 33
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

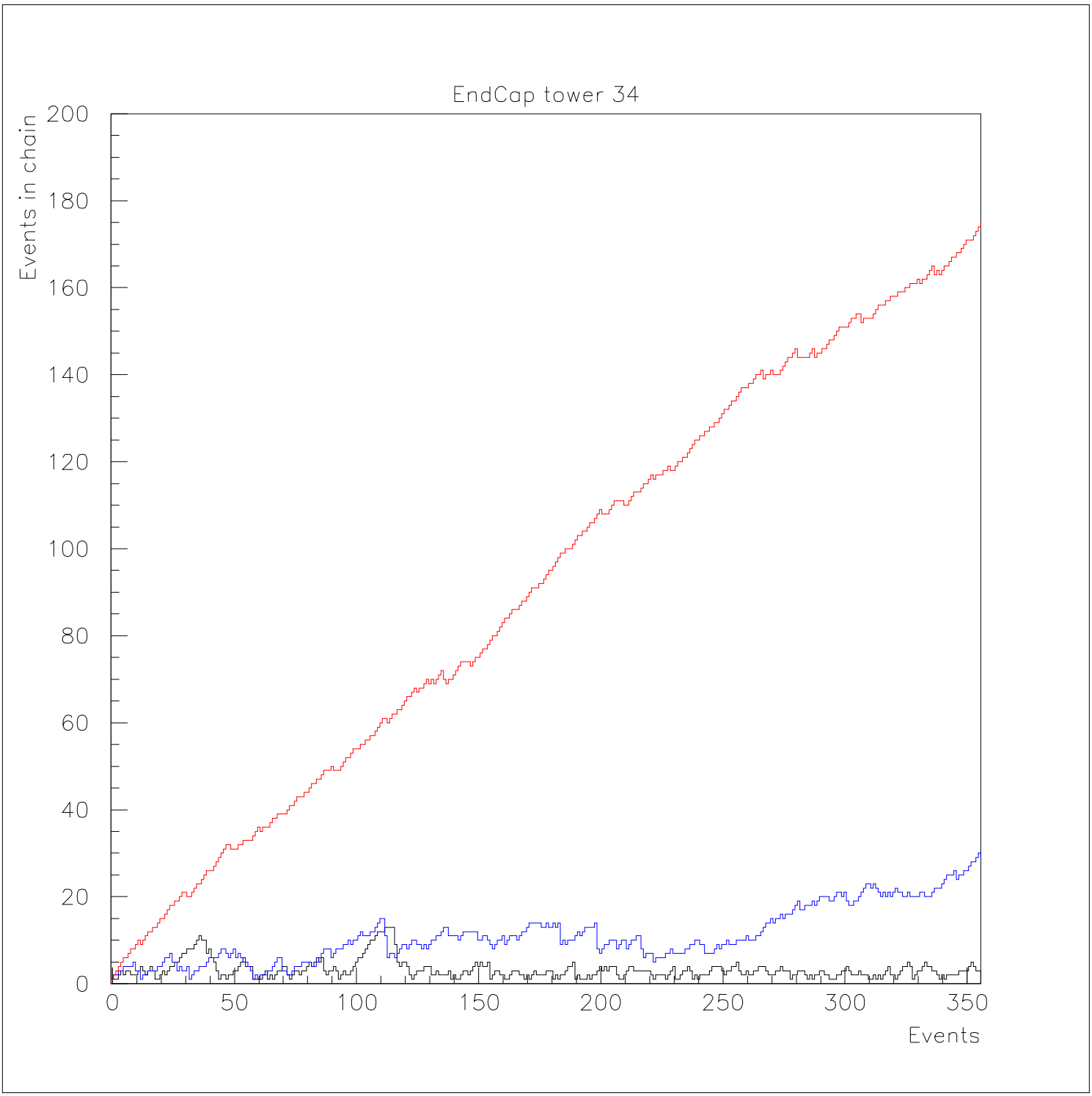

EndCap tower 33
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

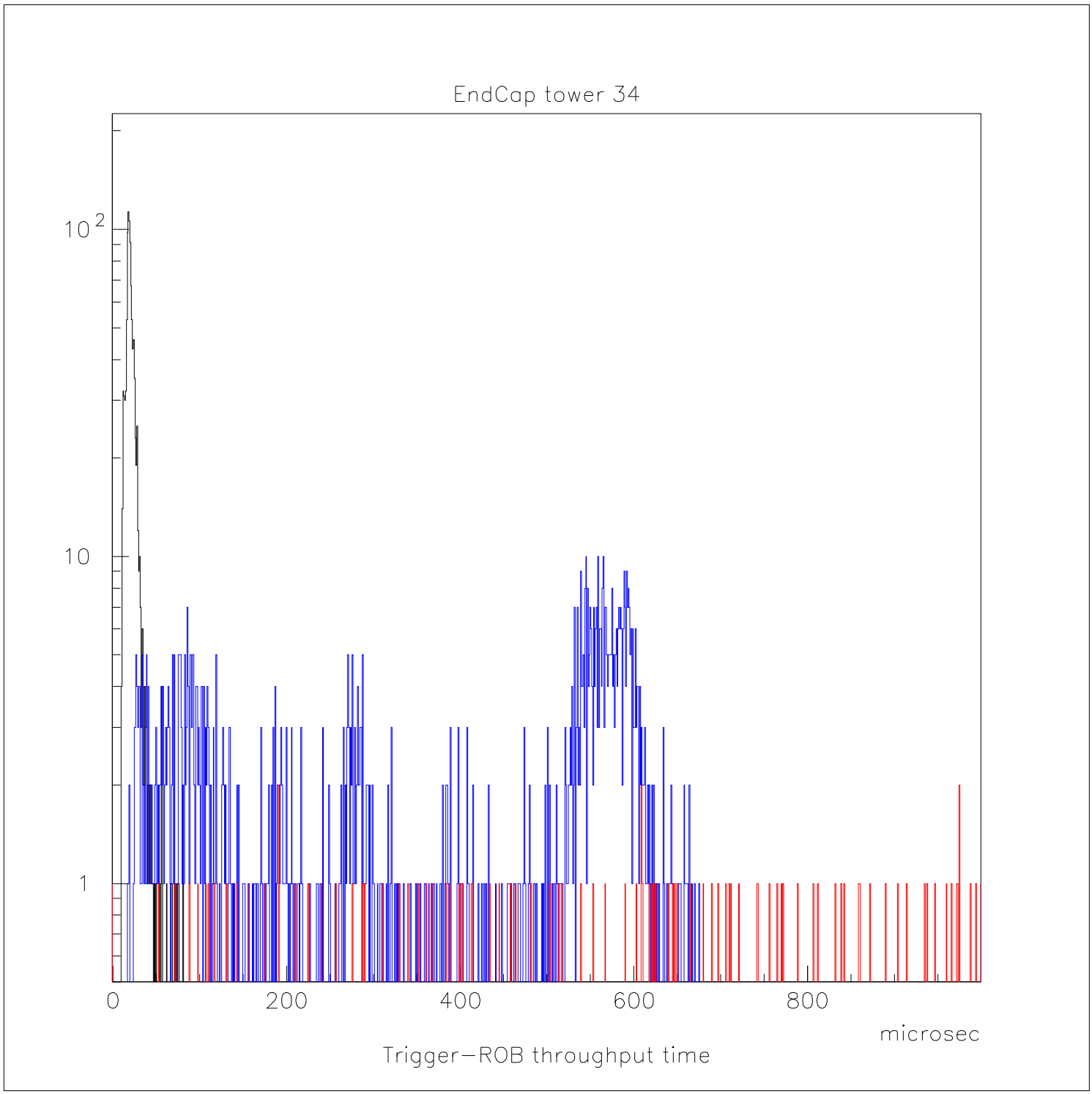

EndCap tower 33
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

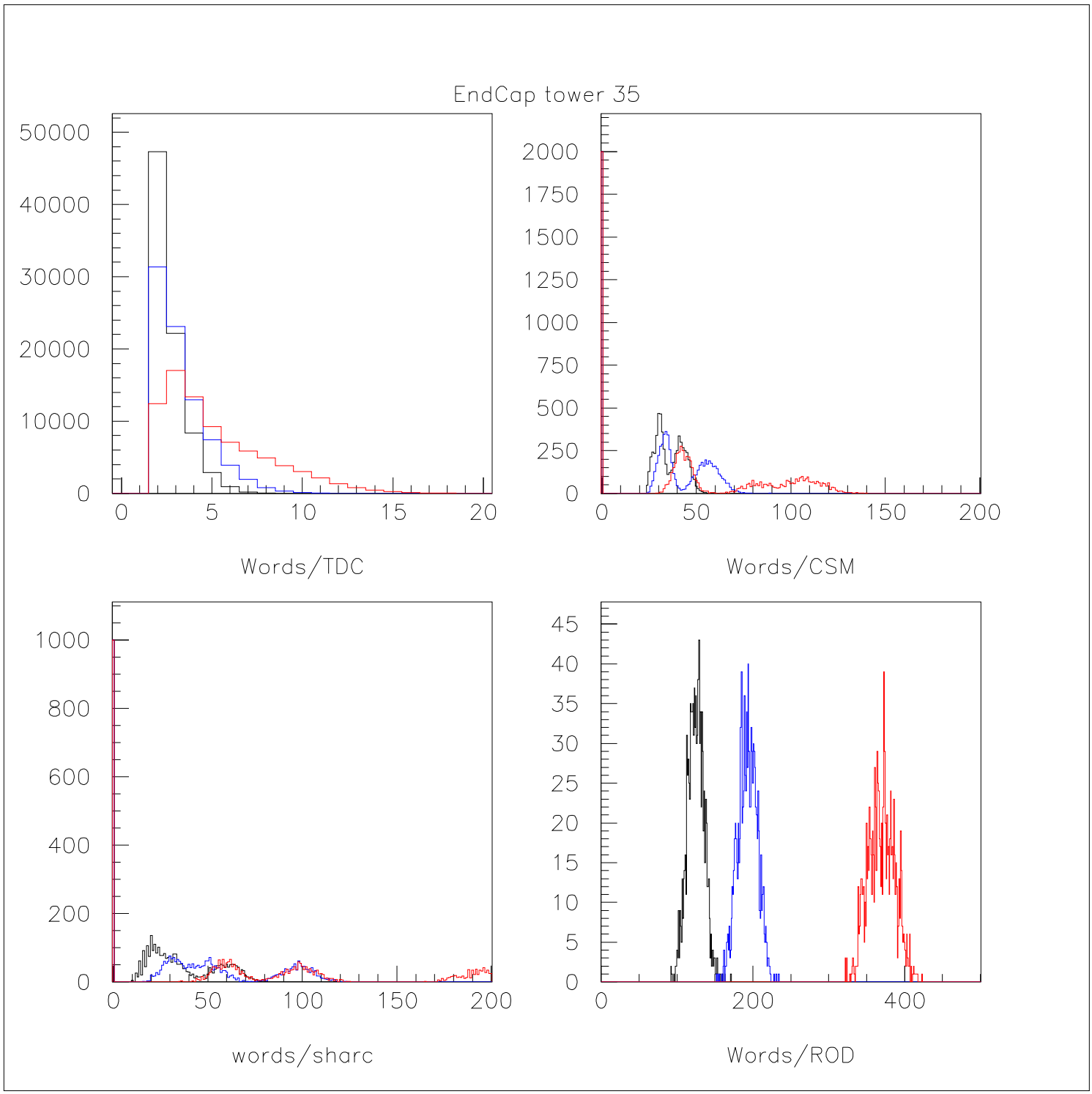

EndCap tower 34
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
45
40
35
30
25
20
15
10
5
0
0
200
400
Words/ROD

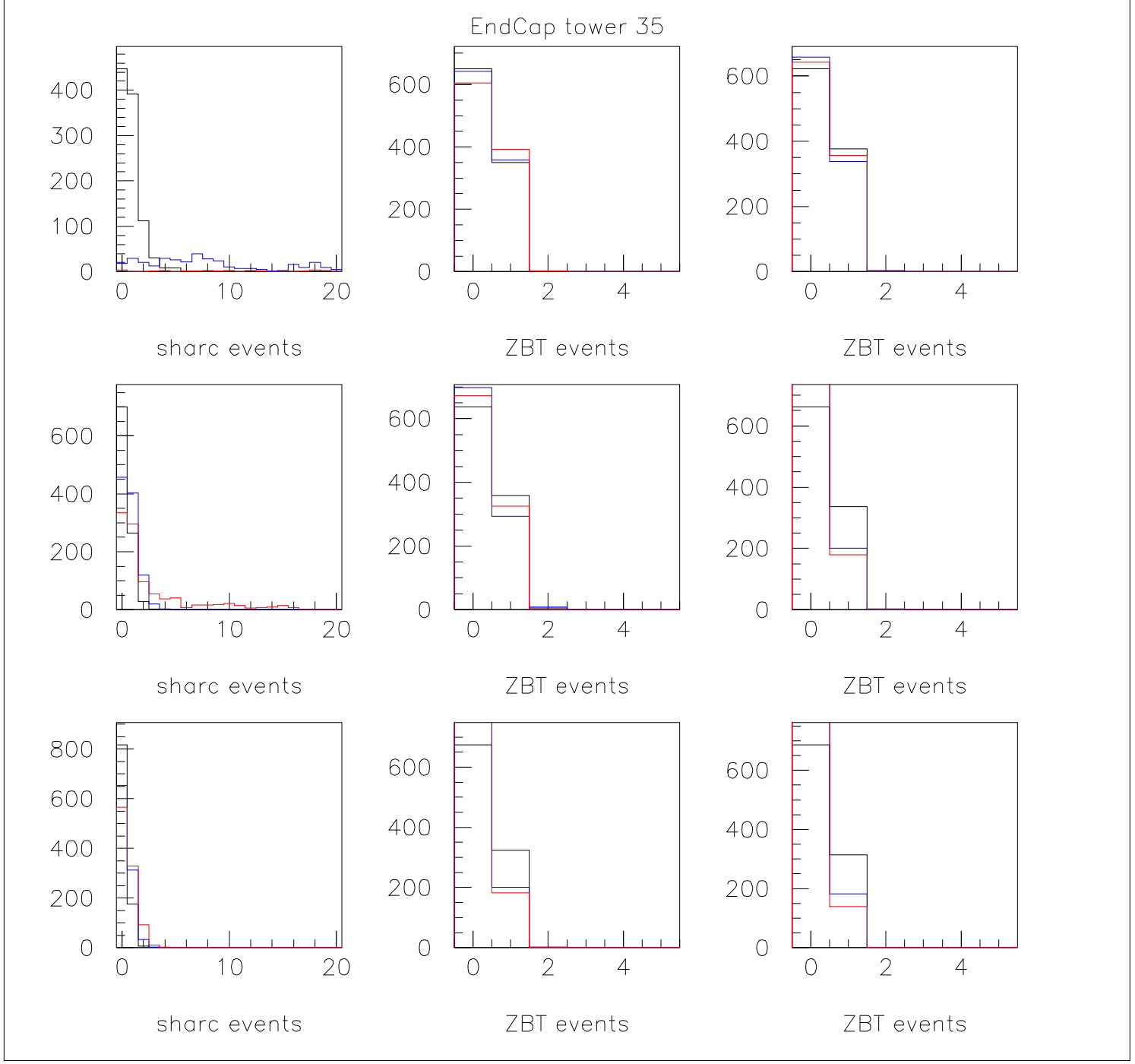

EndCap tower 34
400
300
200
100
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

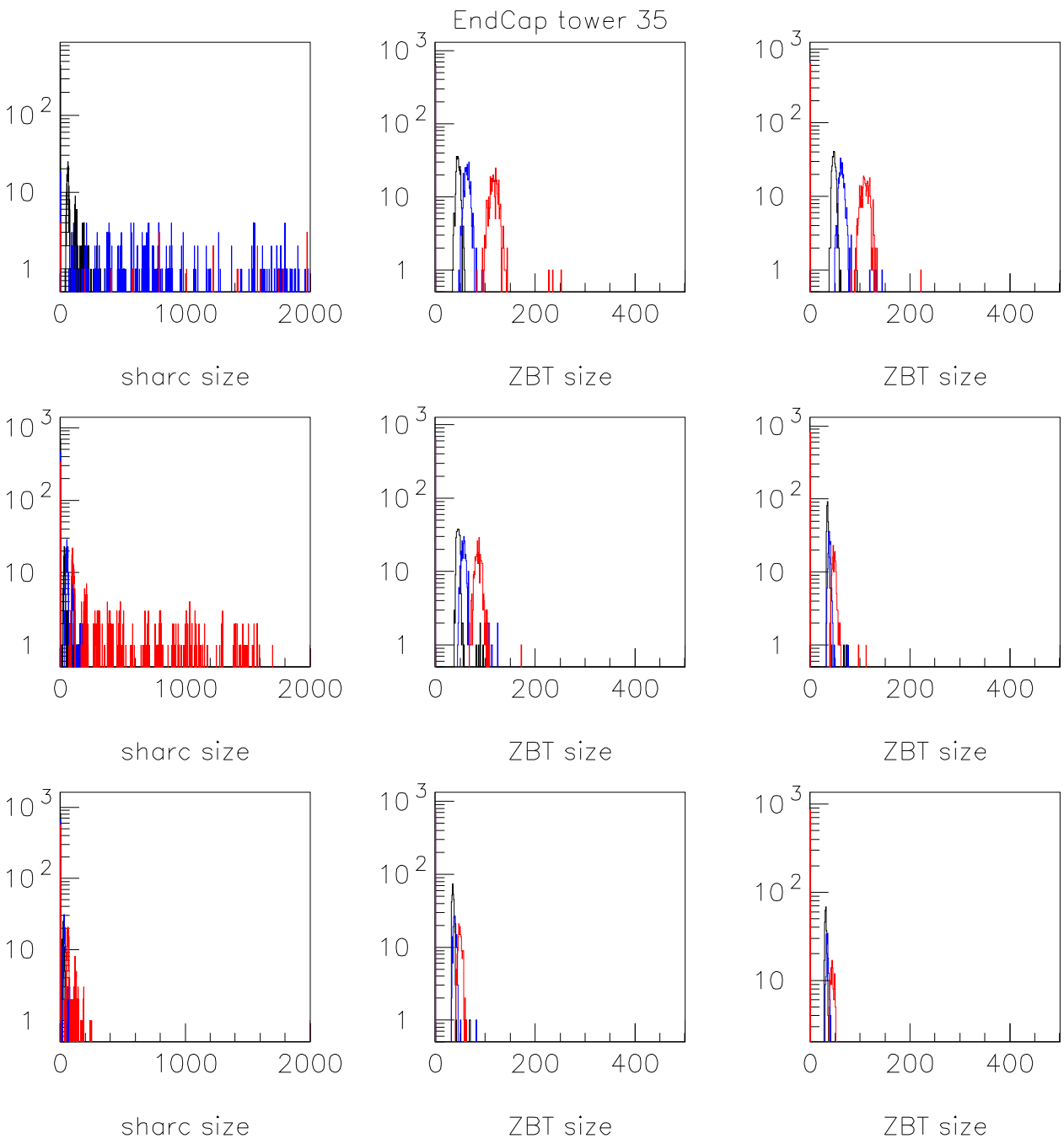

EndCap tower 34
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

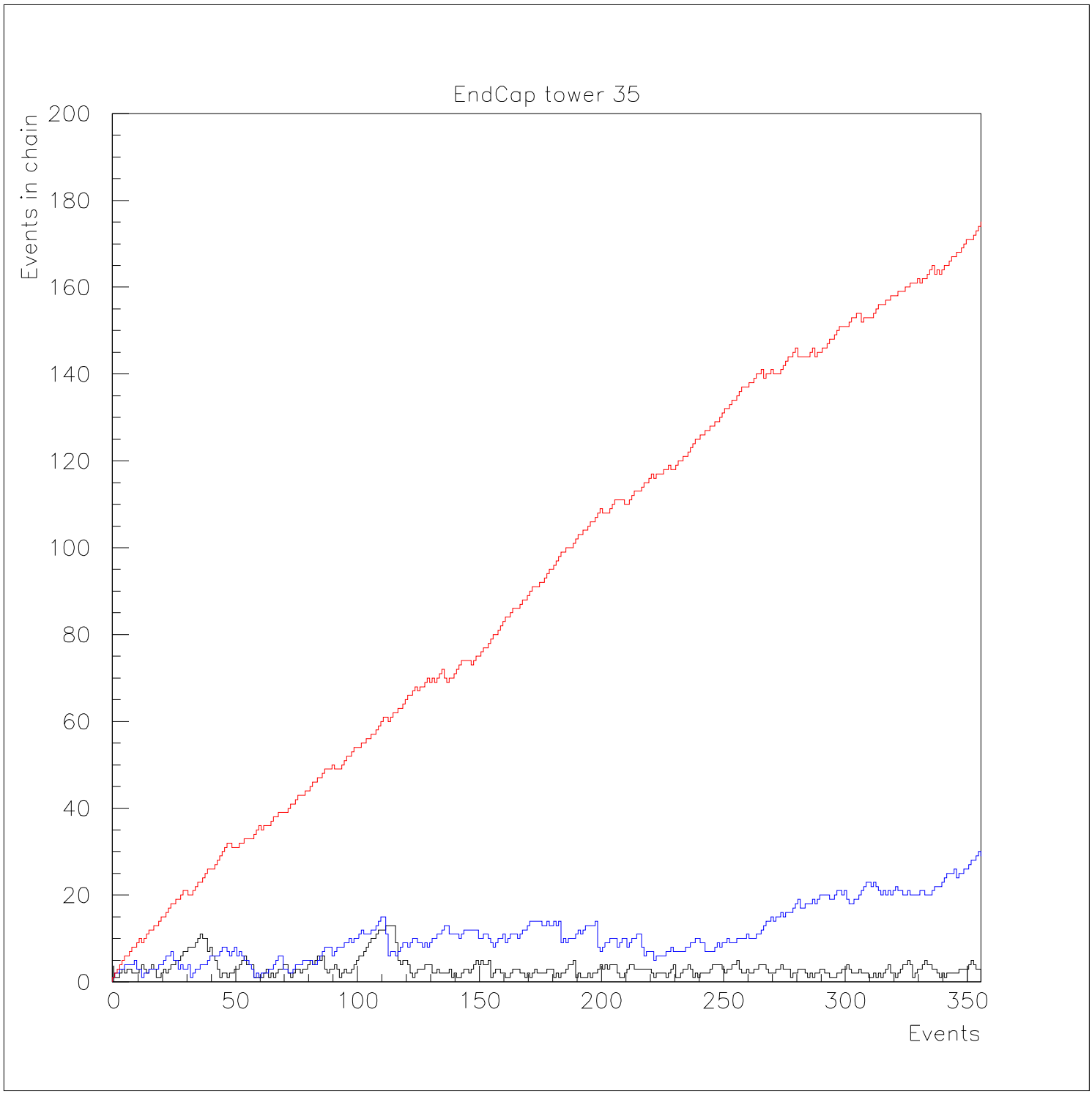

EndCap tower 34
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

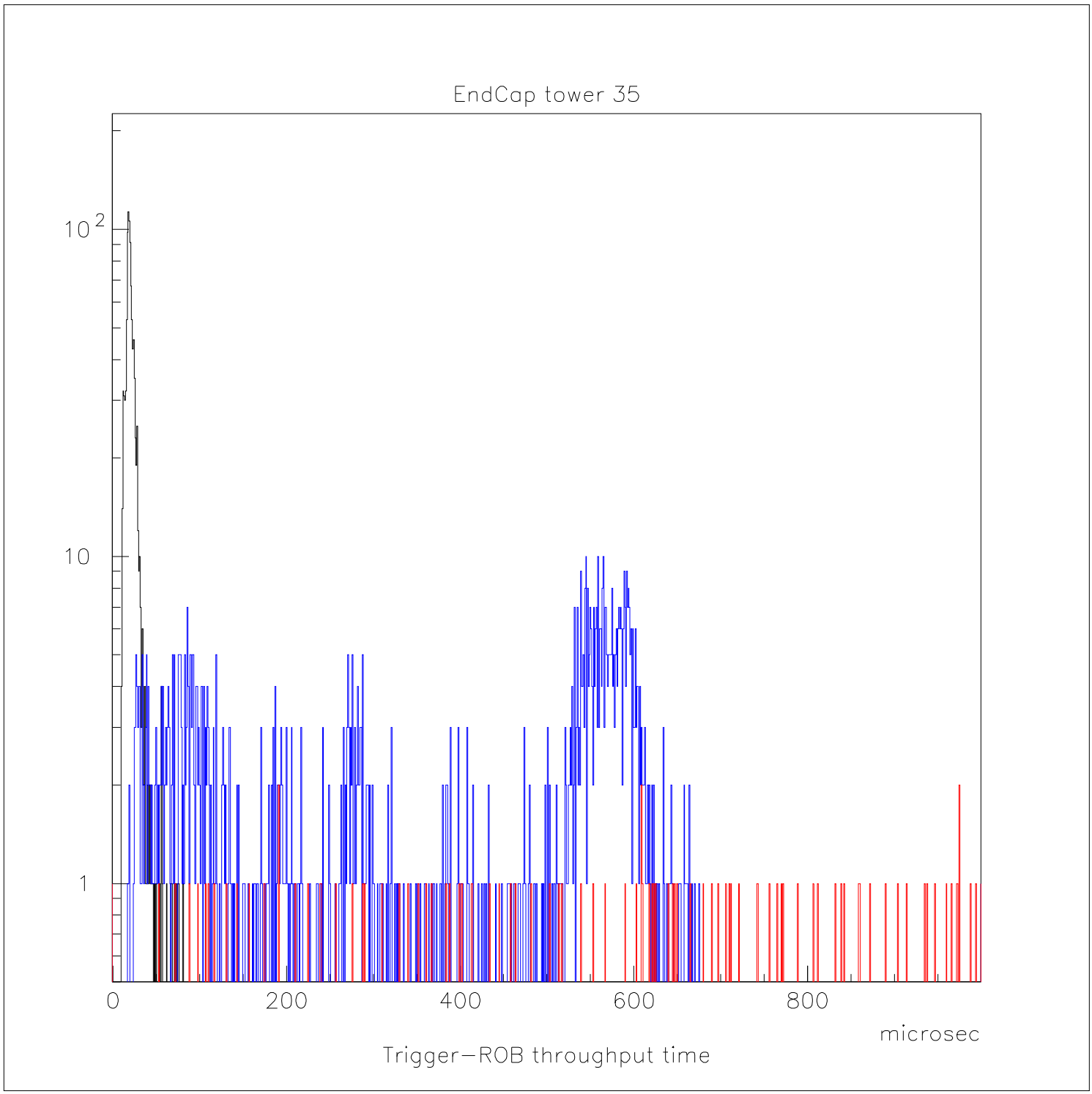

EndCap tower 34
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

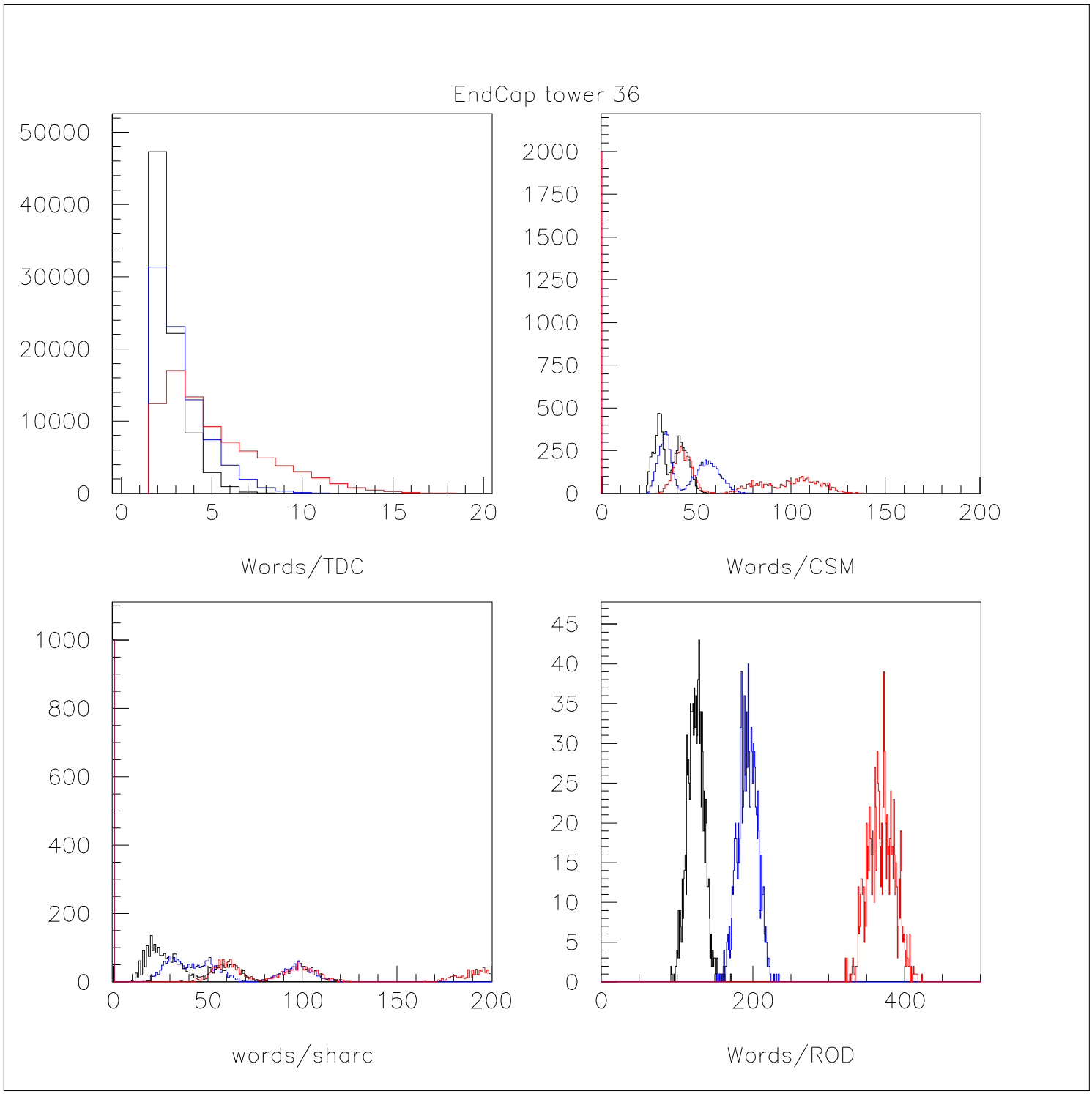

EndCap tower 35
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
45
40
35
30
25
20
15
10
5
0
0
200
400
Words/ROD

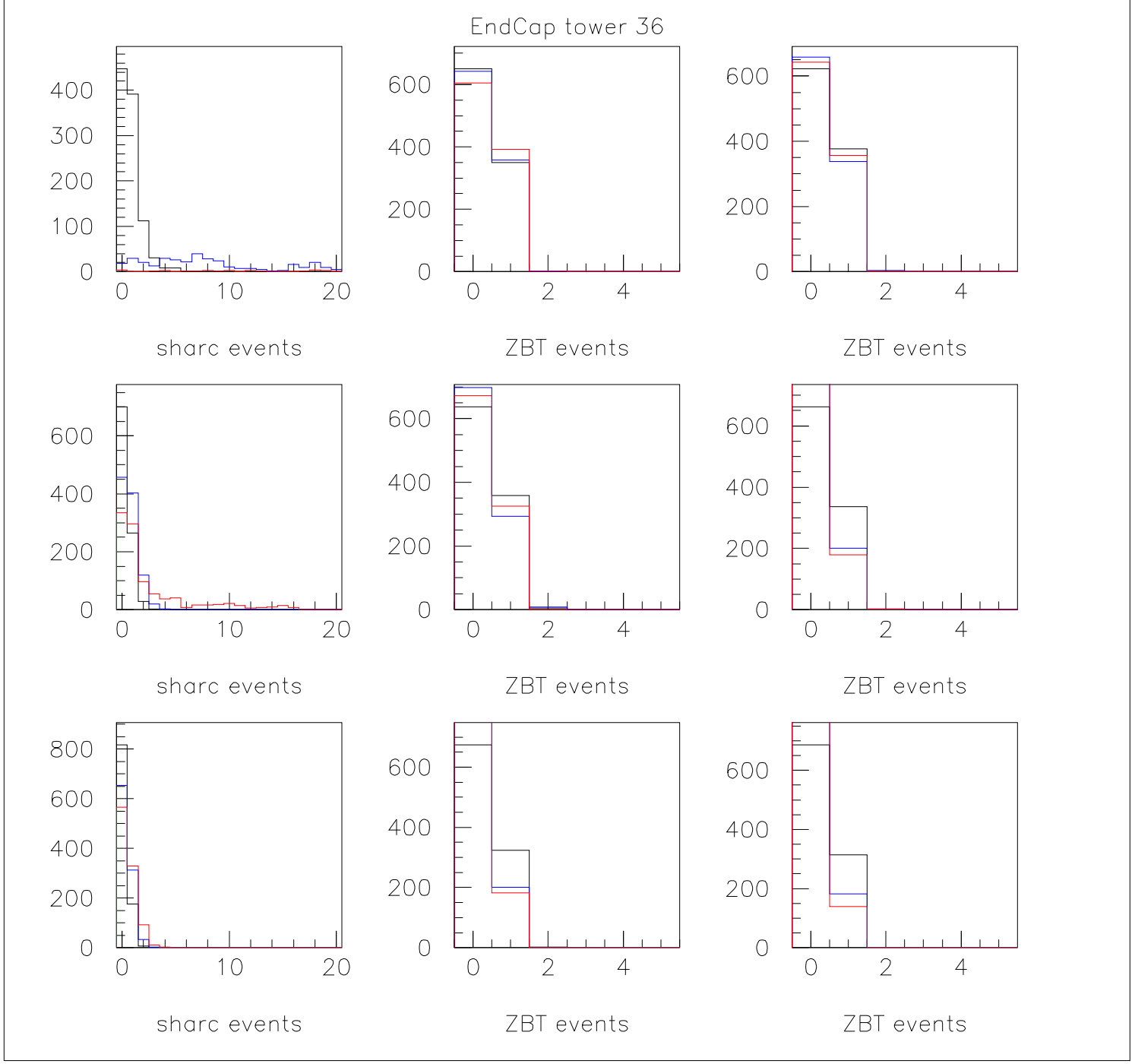

EndCap tower 35
400
300
200
100
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

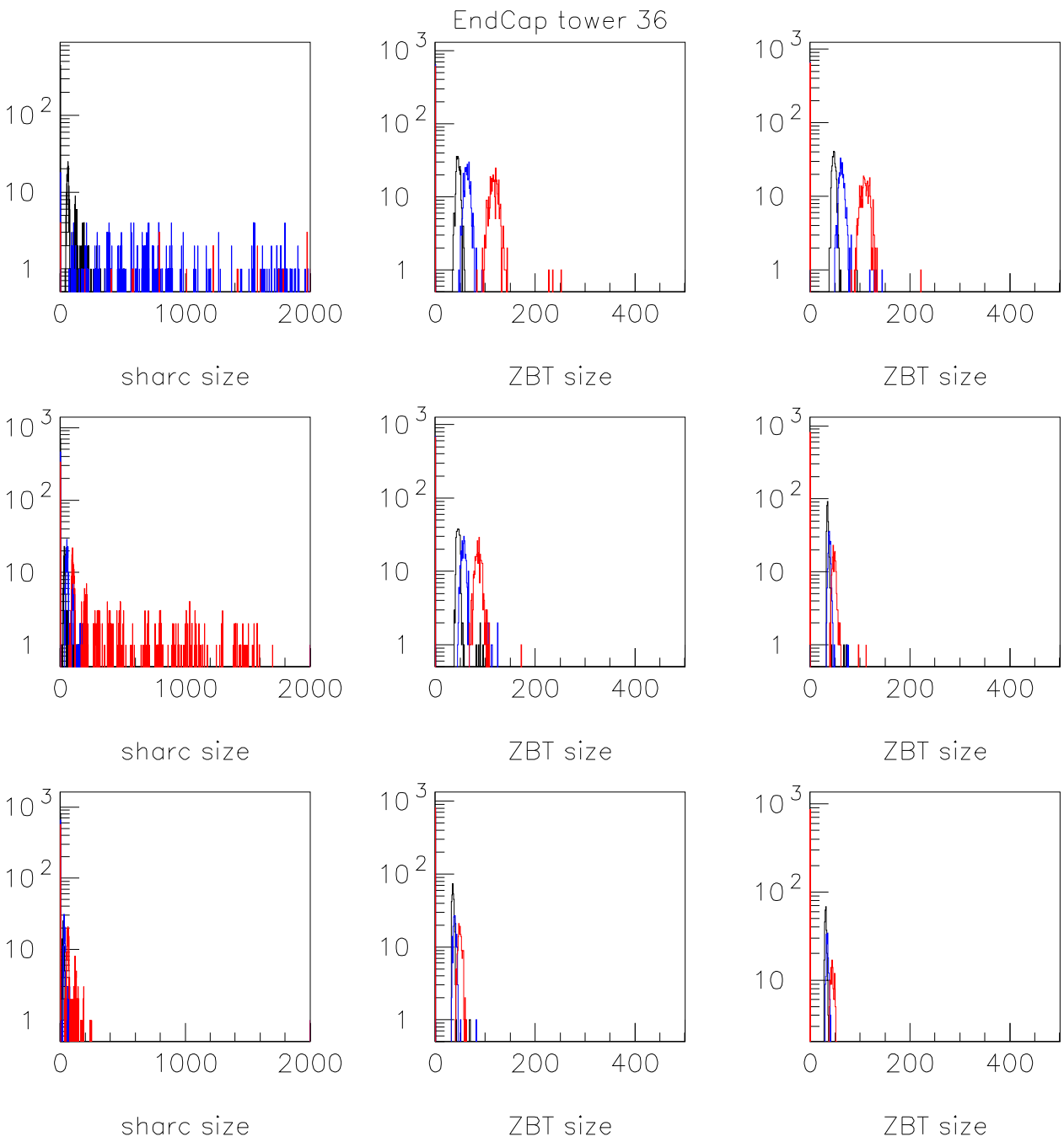

EndCap tower 35
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

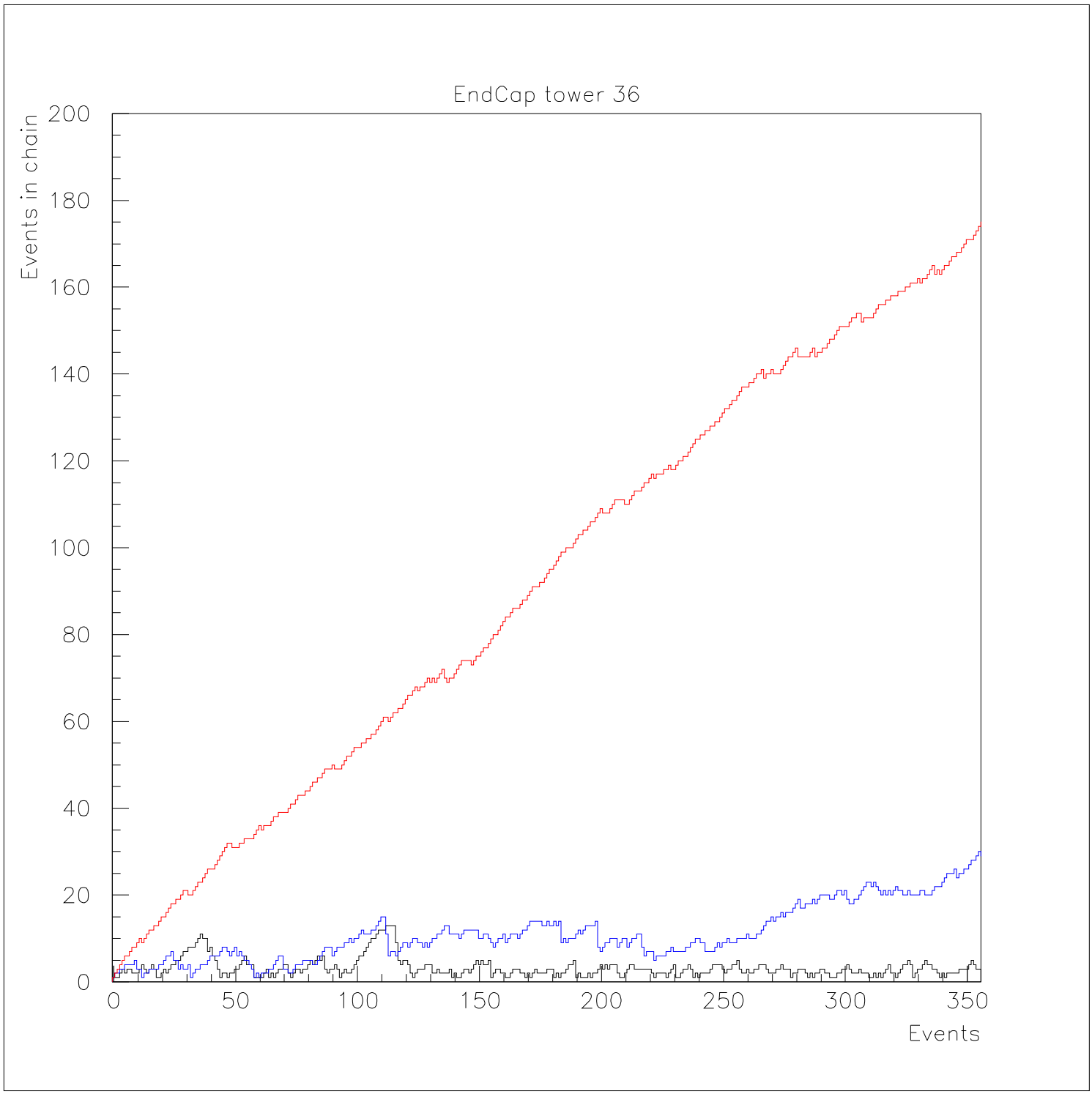

EndCap tower 35
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

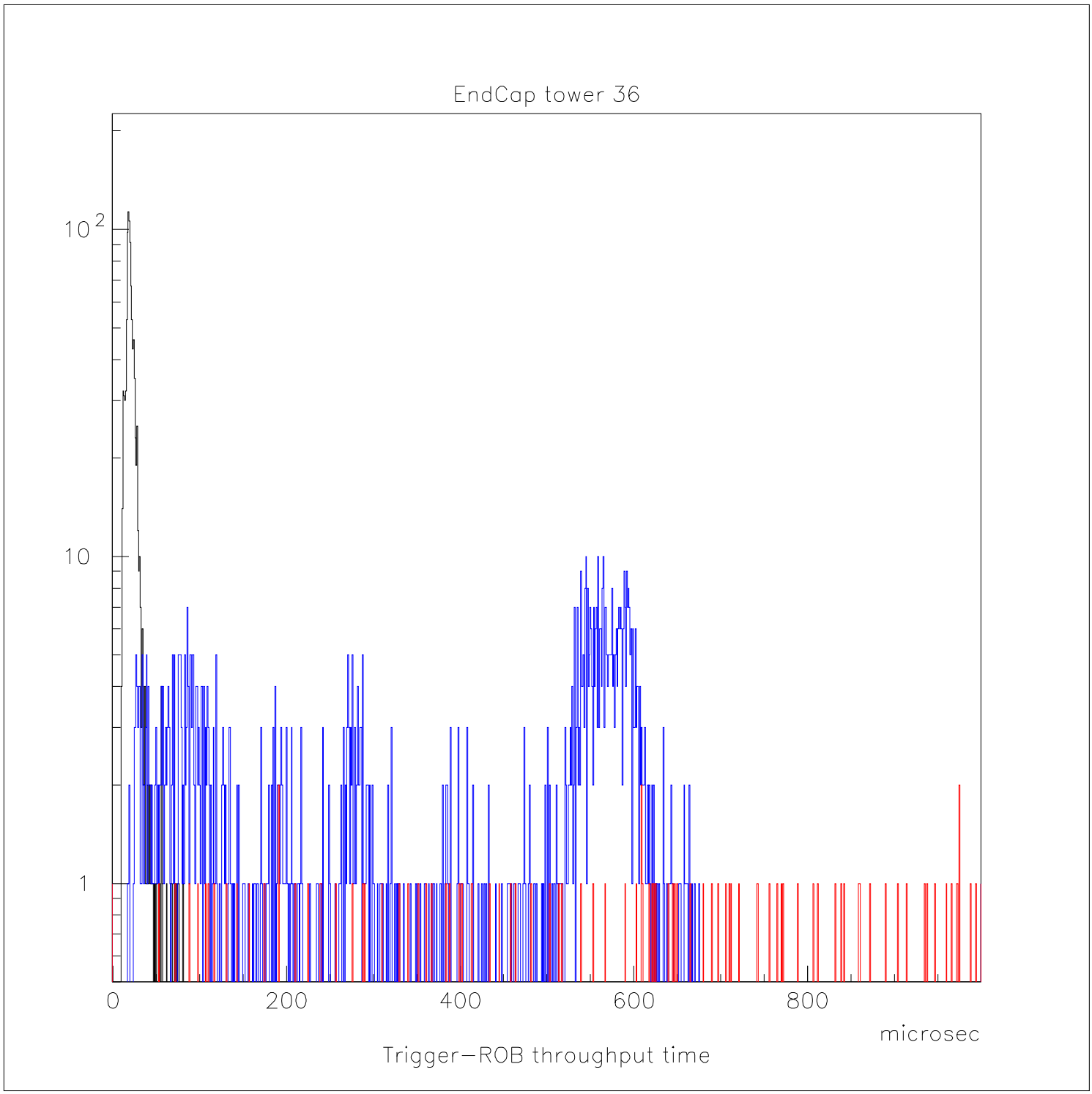

EndCap tower 35
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

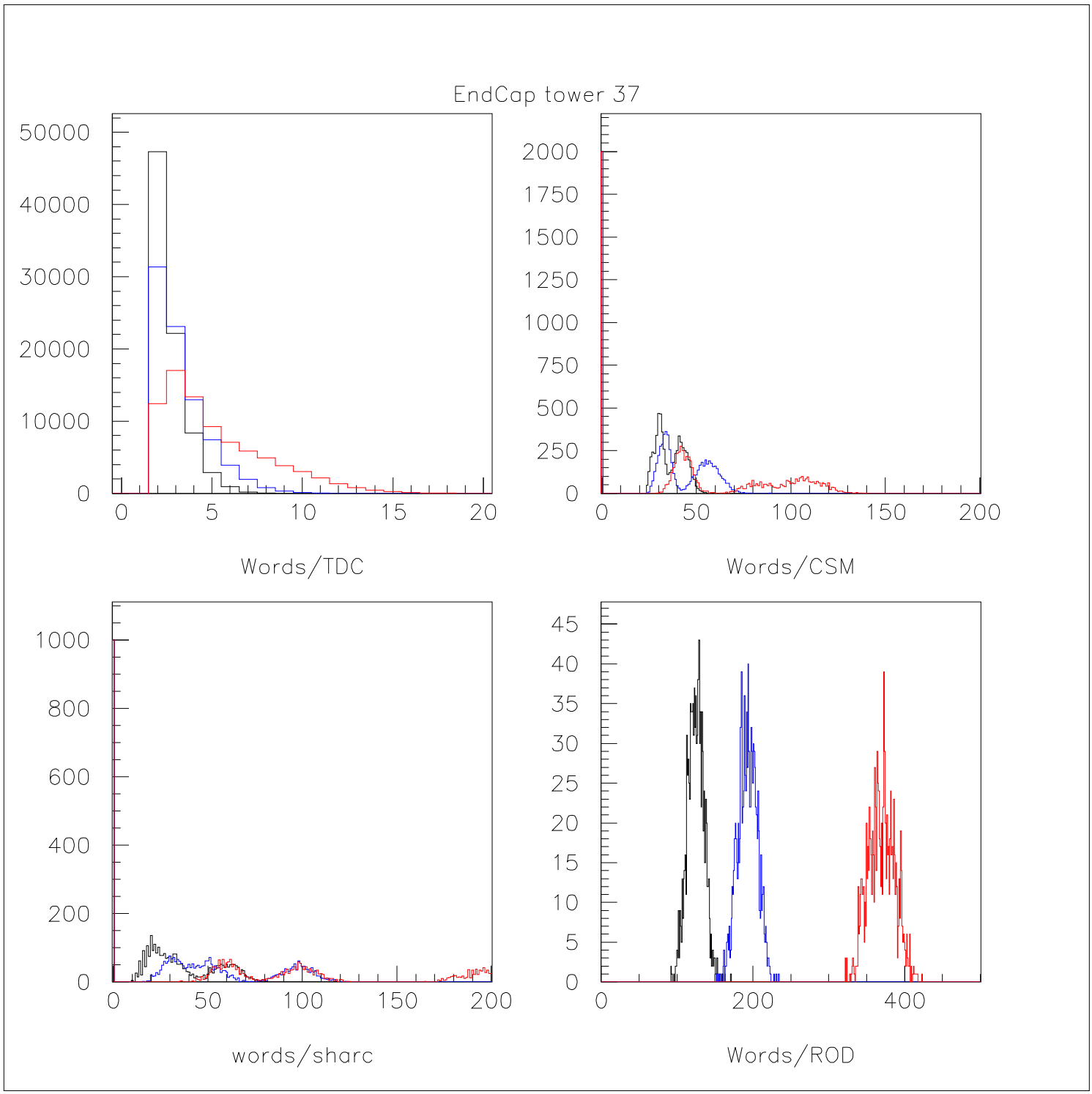

EndCap tower 36
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
45
40
35
30
25
20
15
10
5
0
0
200
400
Words/ROD

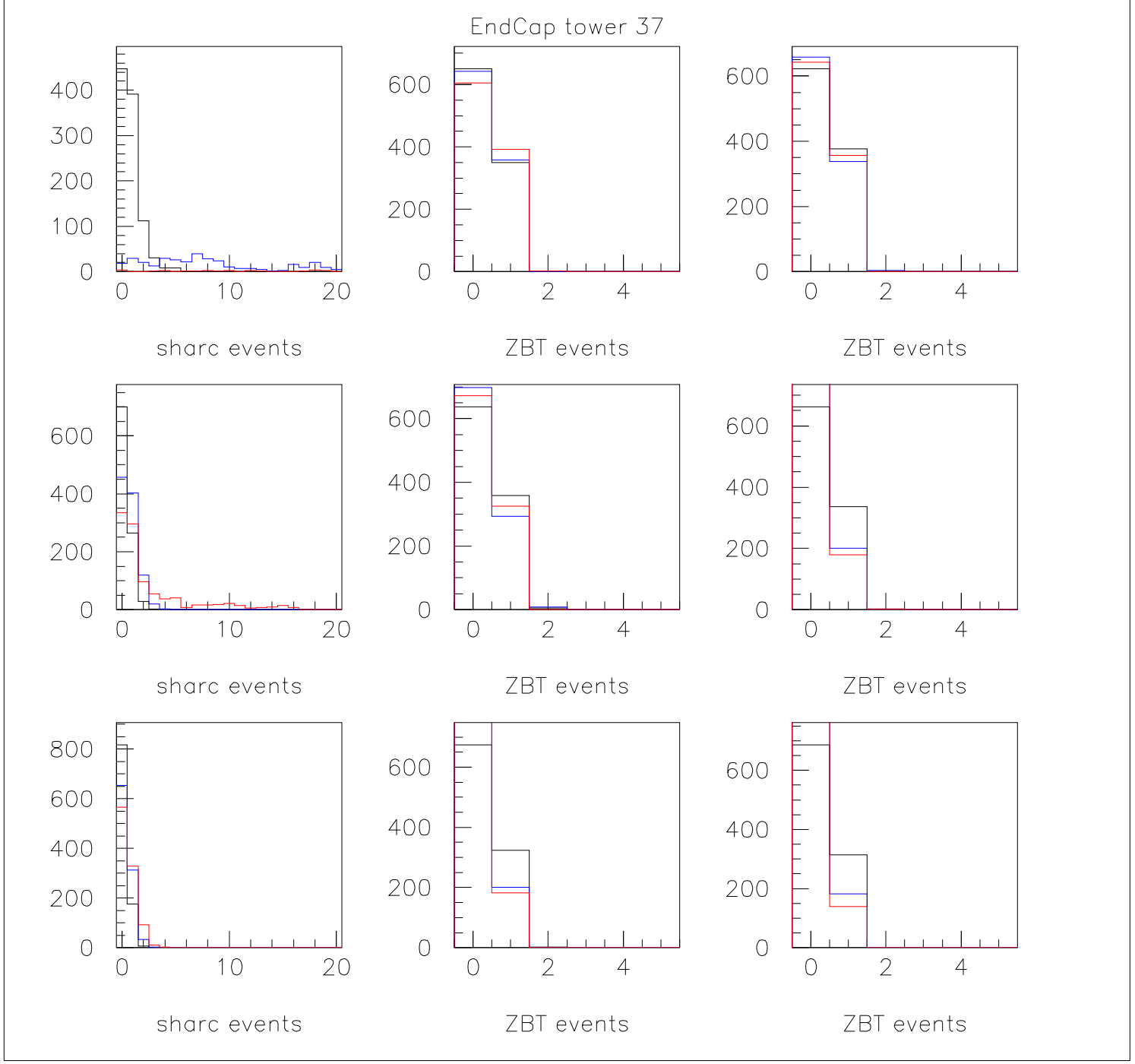

EndCap tower 36
400
300
200
100
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

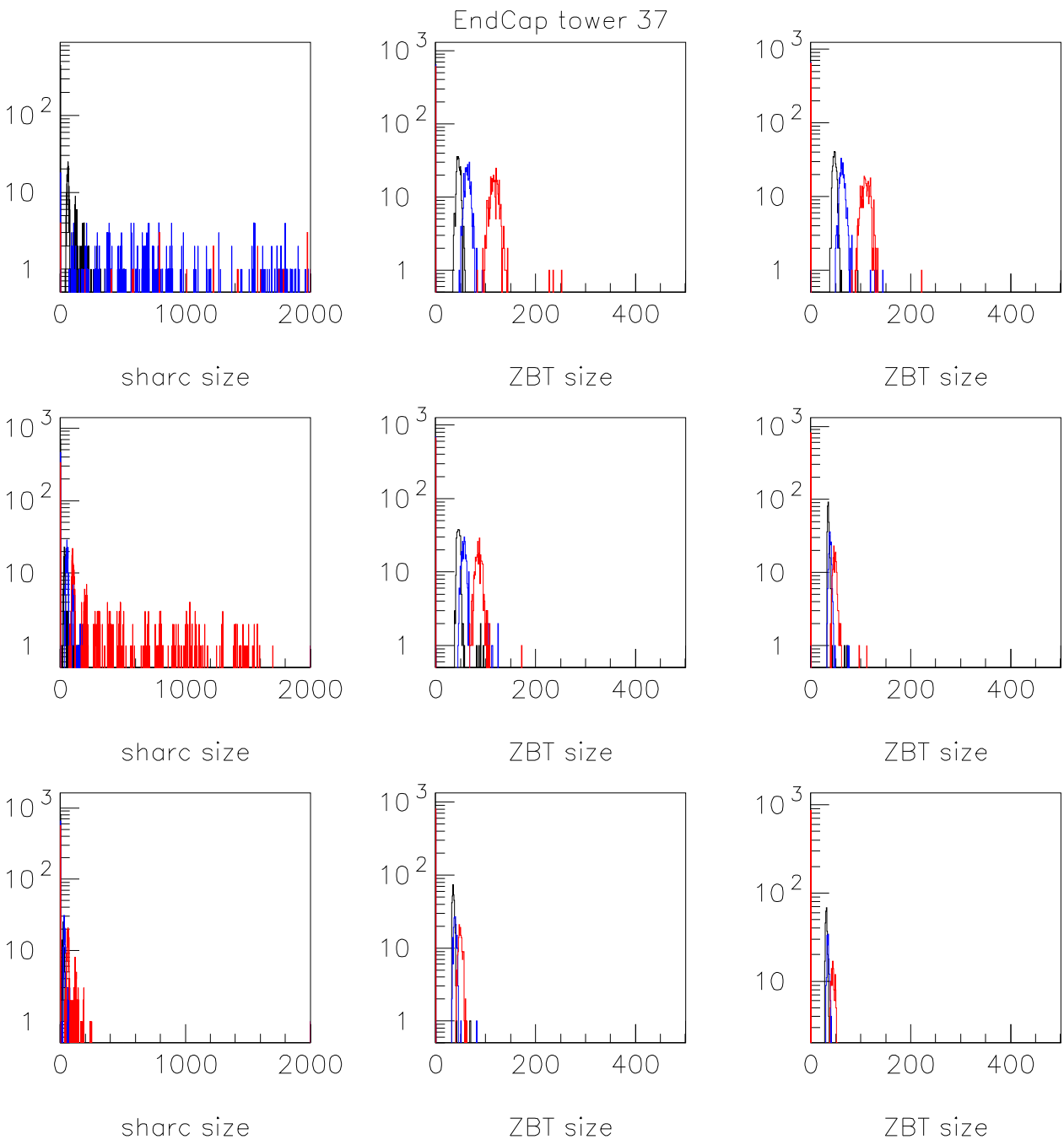

EndCap tower 36
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

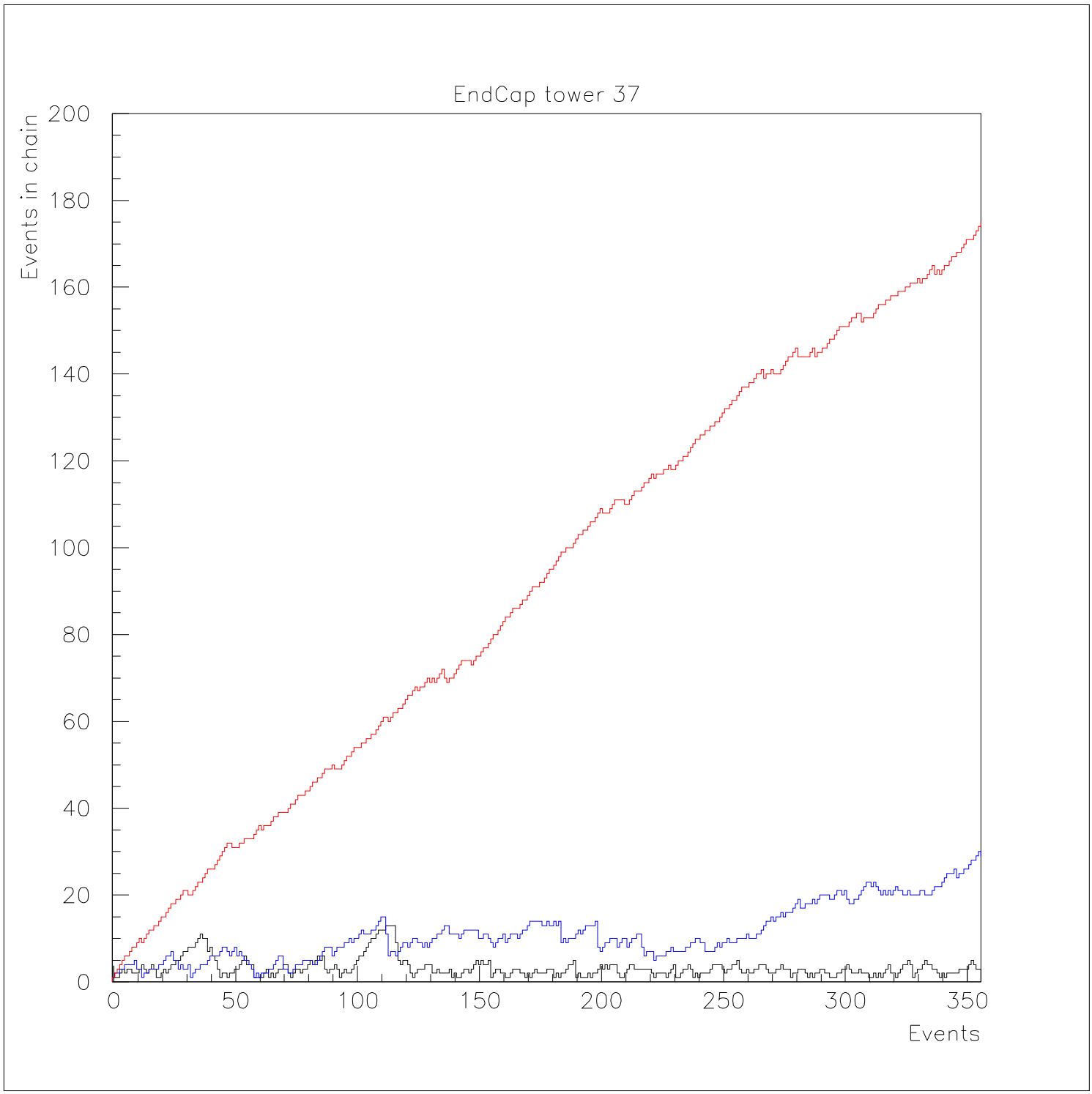

EndCap tower 36
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

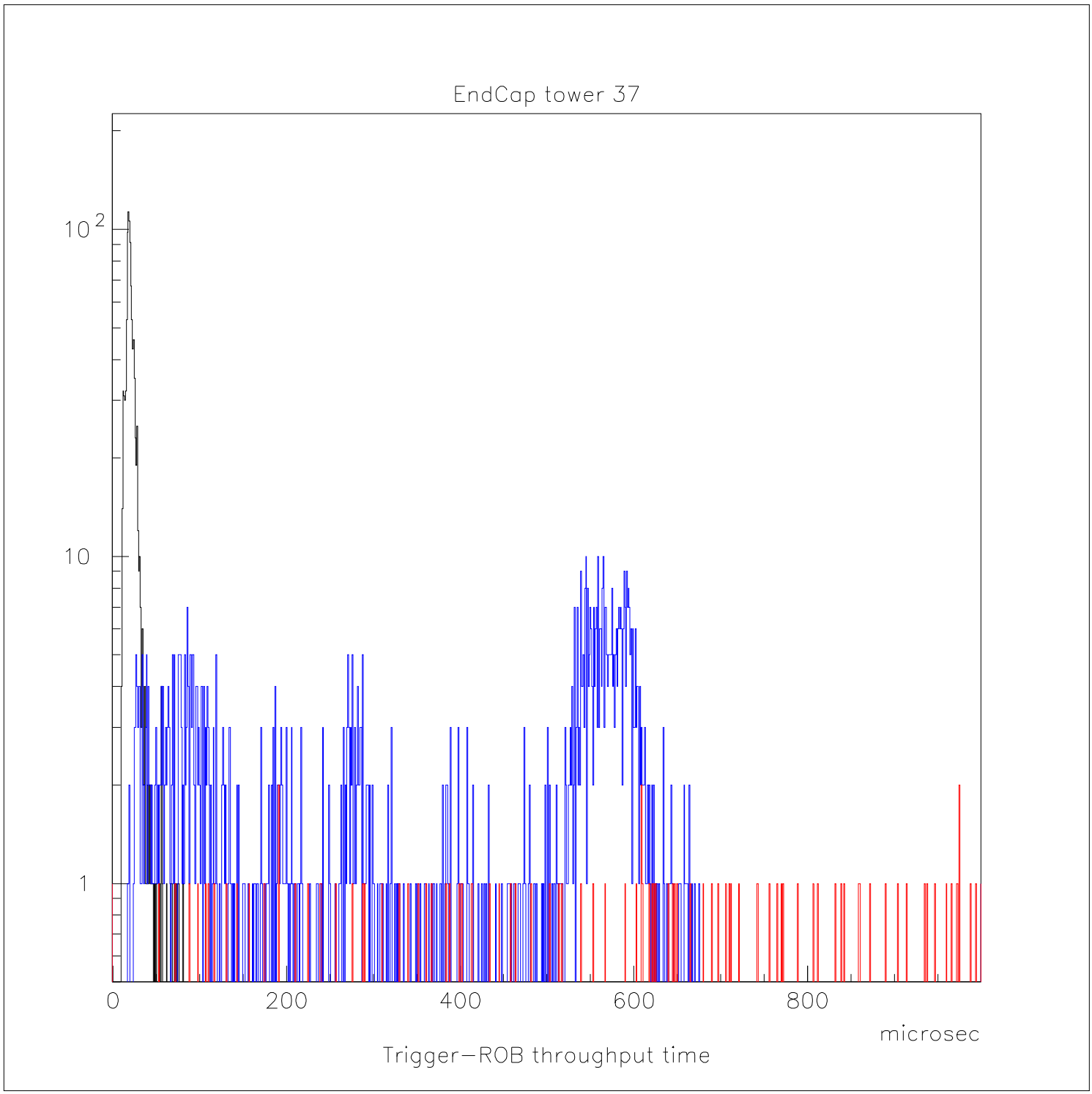

EndCap tower 36
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

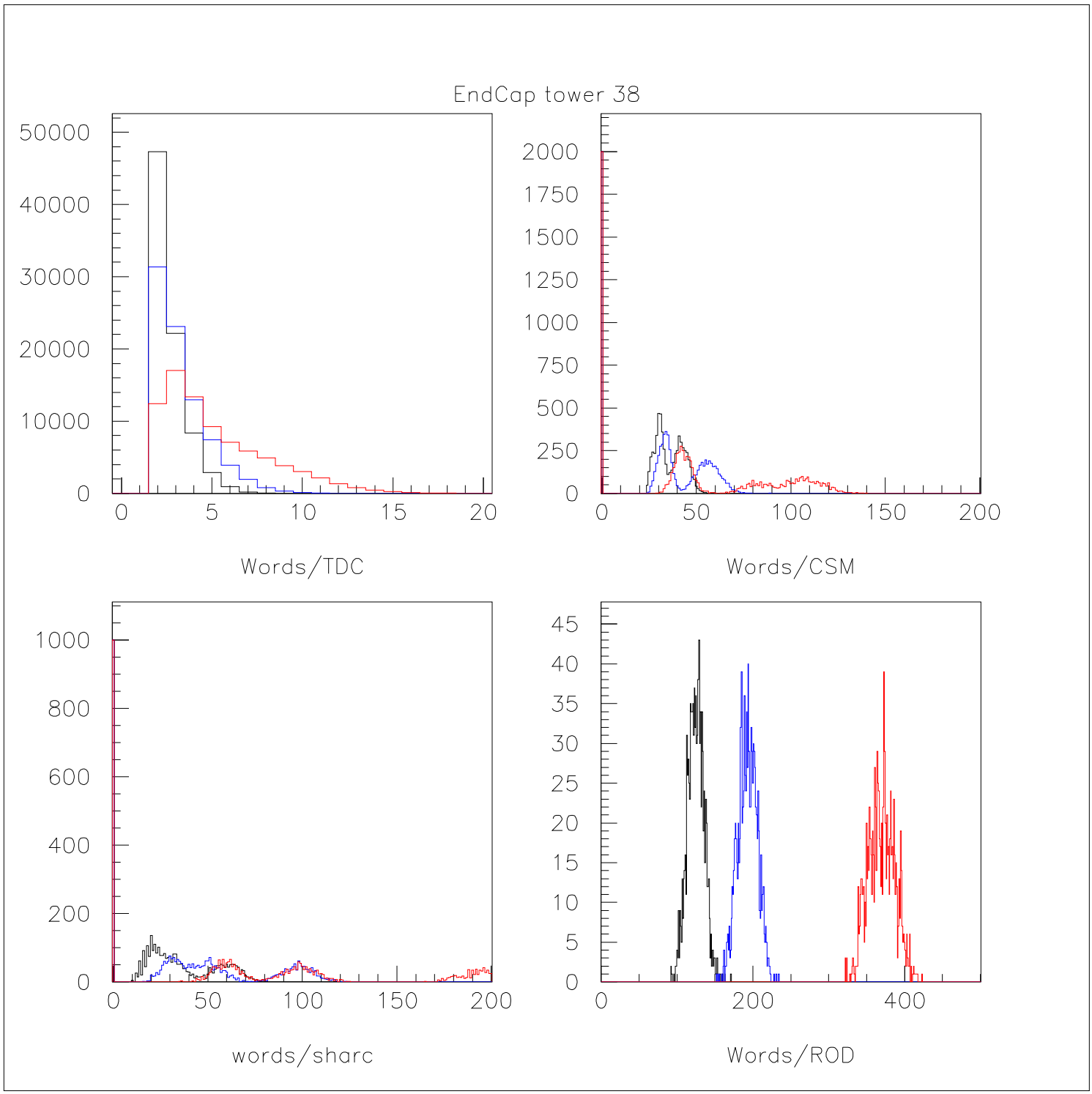

EndCap tower 37
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
45
40
35
30
25
20
15
10
5
0
0
200
400
Words/ROD

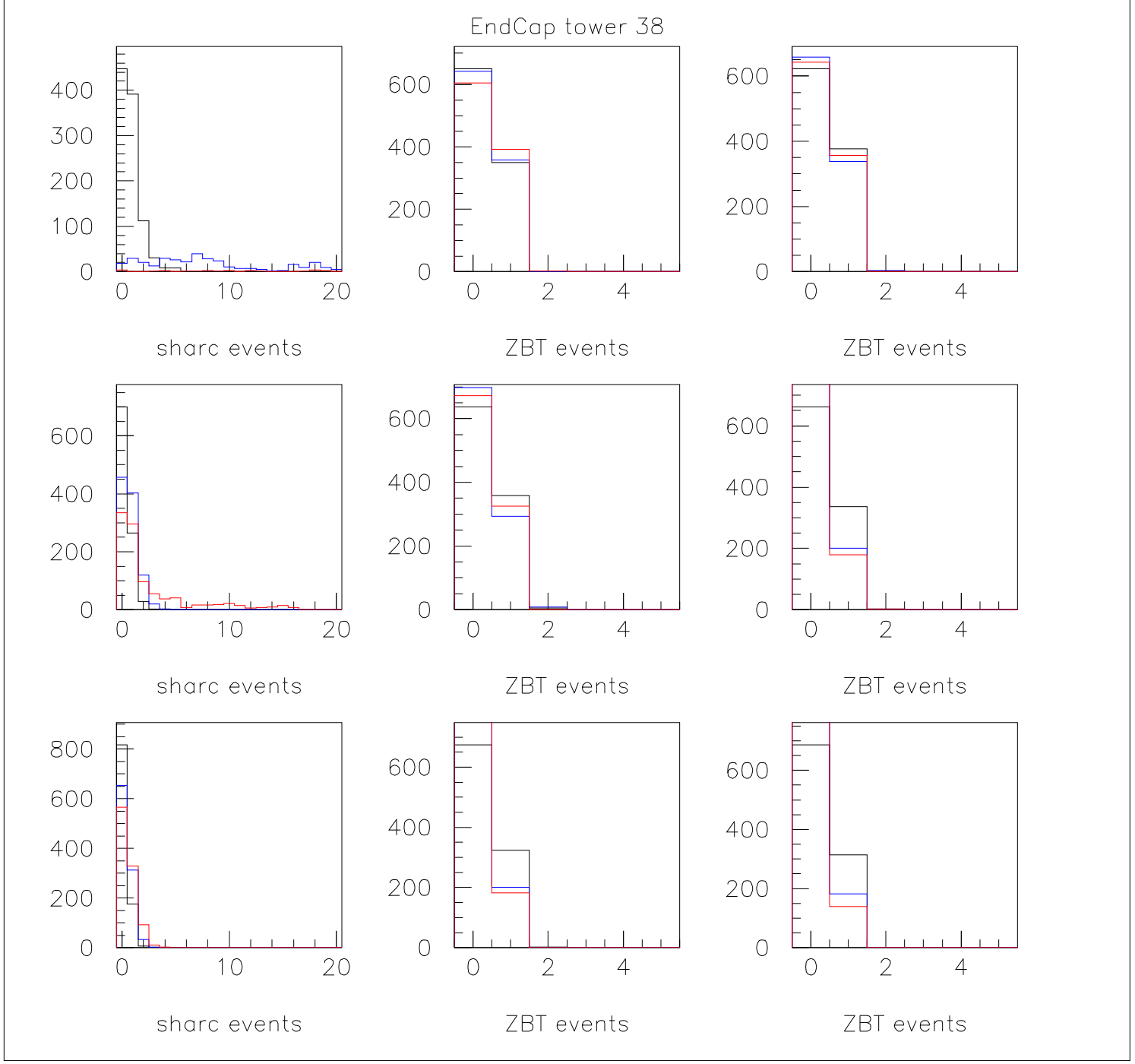

EndCap tower 37
400
300
200
100
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

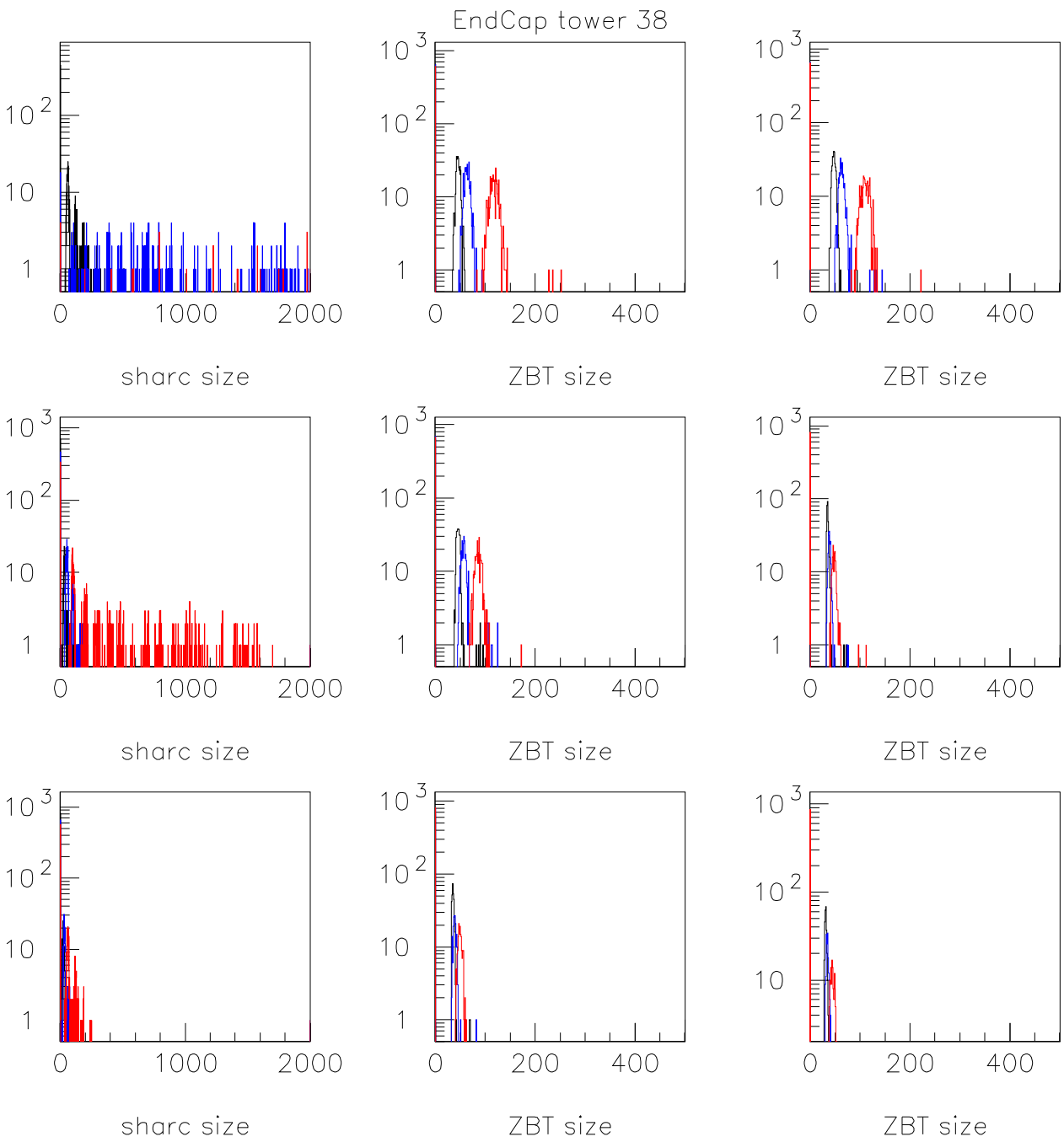

EndCap tower 37
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

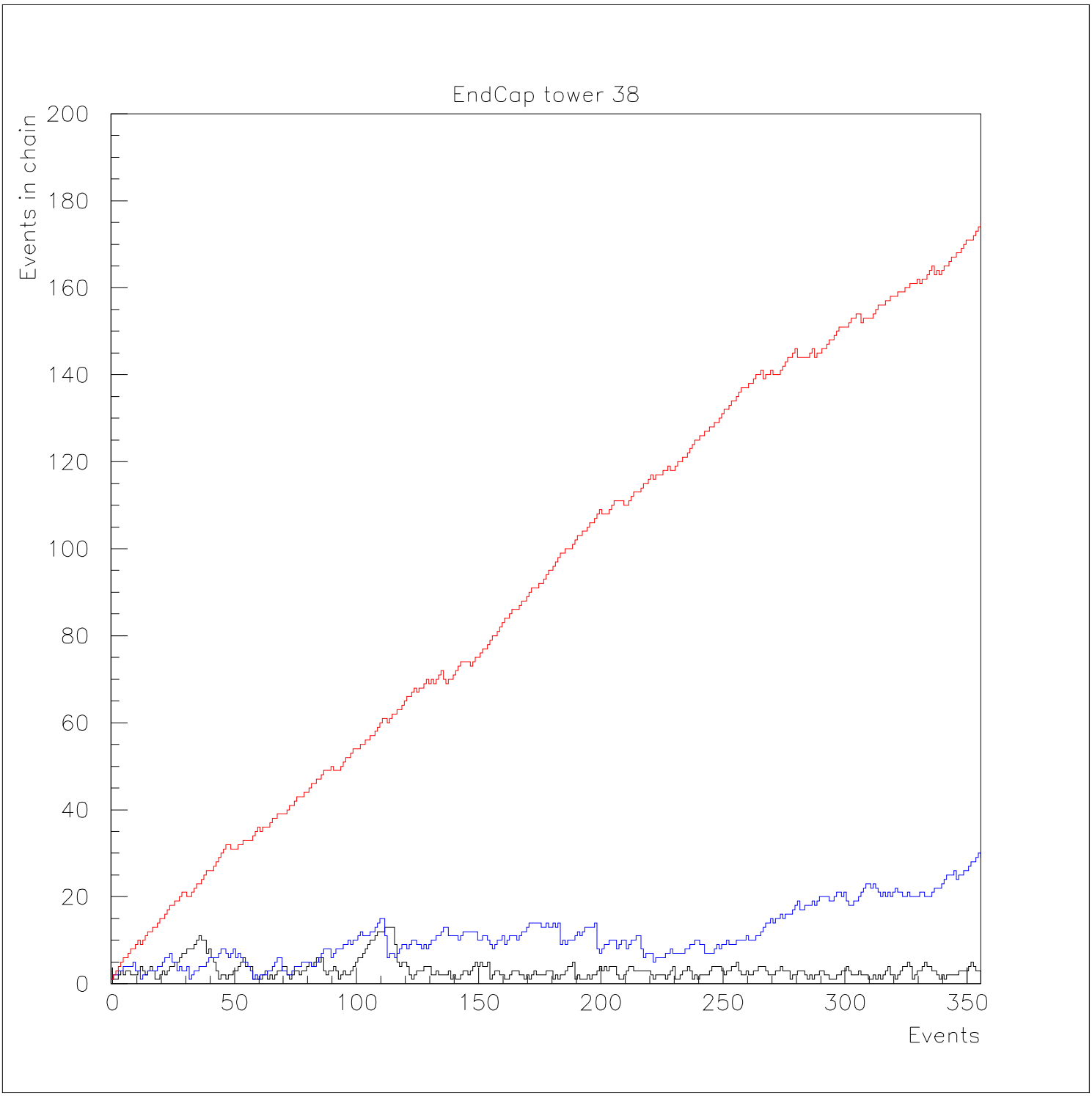

EndCap tower 37
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

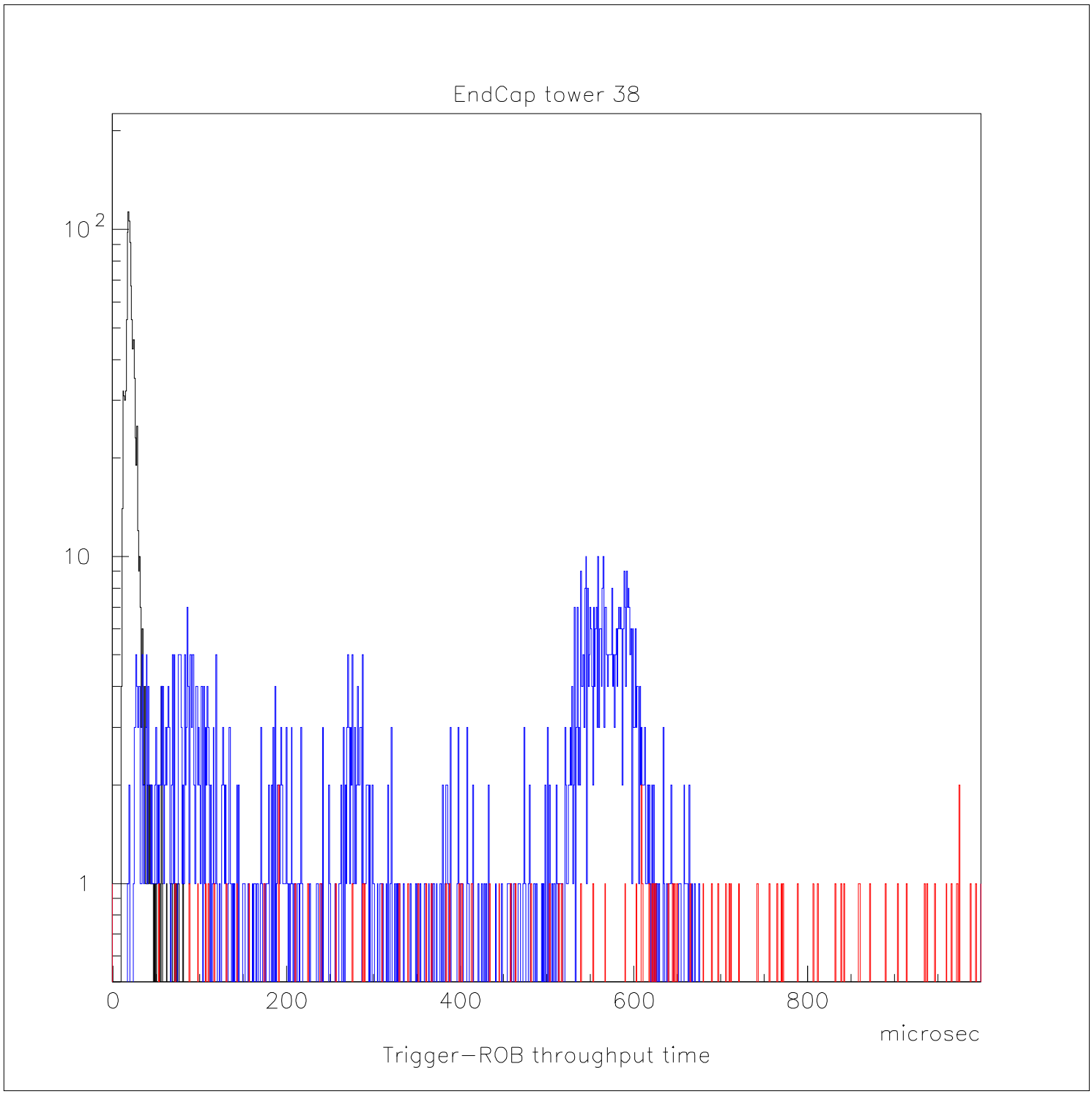

EndCap tower 37
$10^2$
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

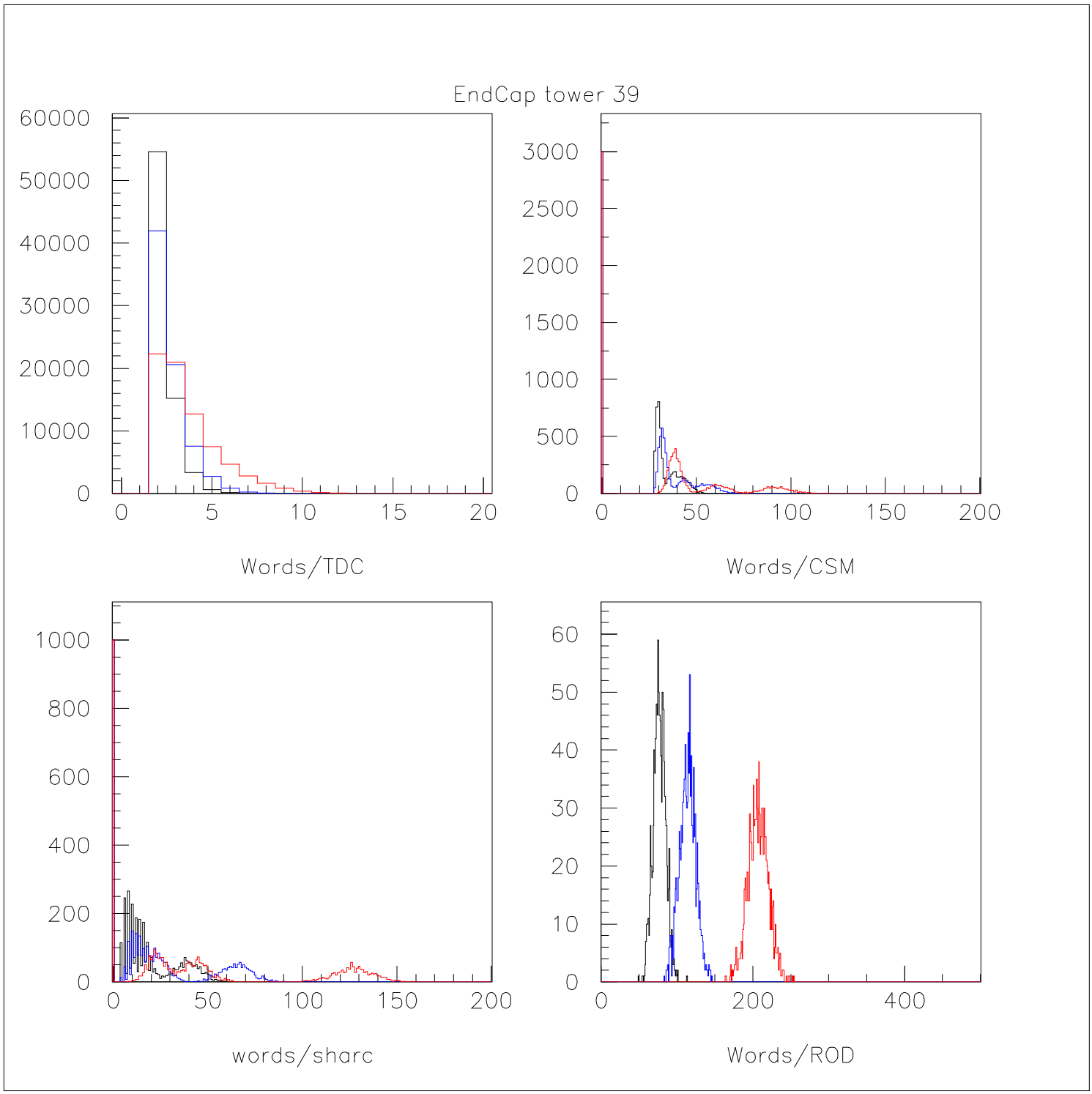

EndCap tower 38
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
45
40
35
30
25
20
15
10
5
0
0
200
400
Words/ROD

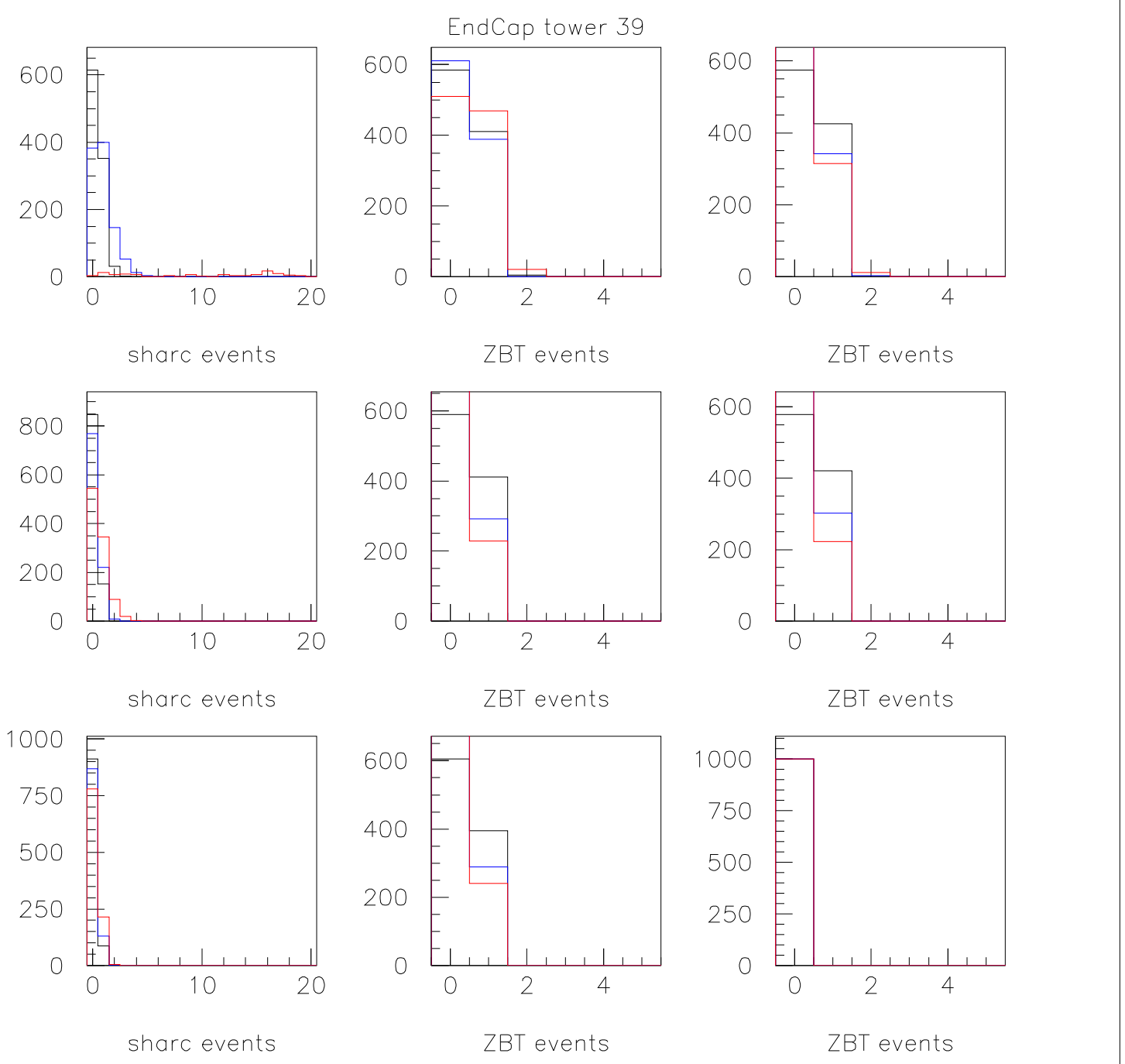

EndCap tower 38
400
300
200
100
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events

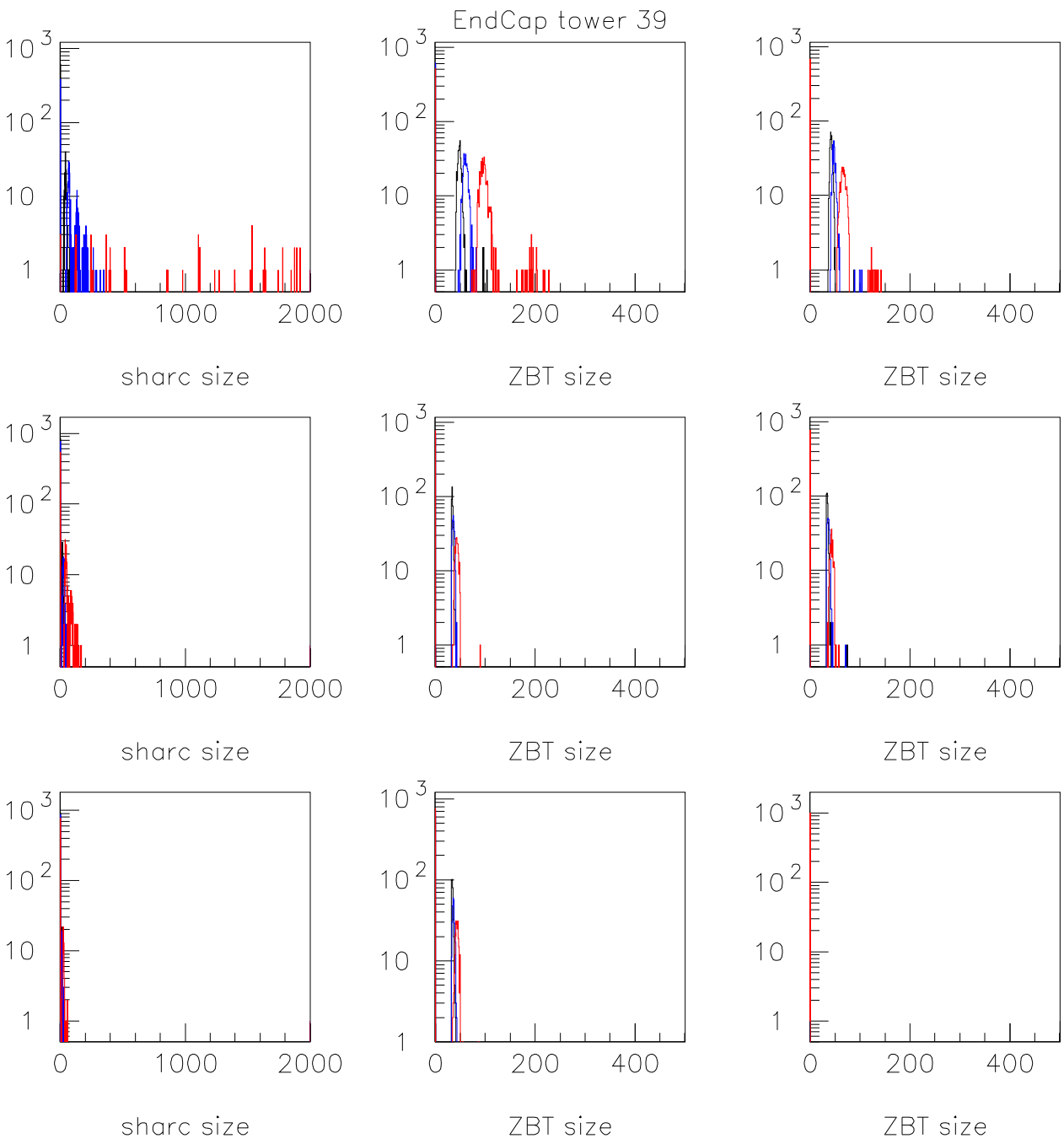

EndCap tower 38
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size
sharc size
ZBT size
ZBT size

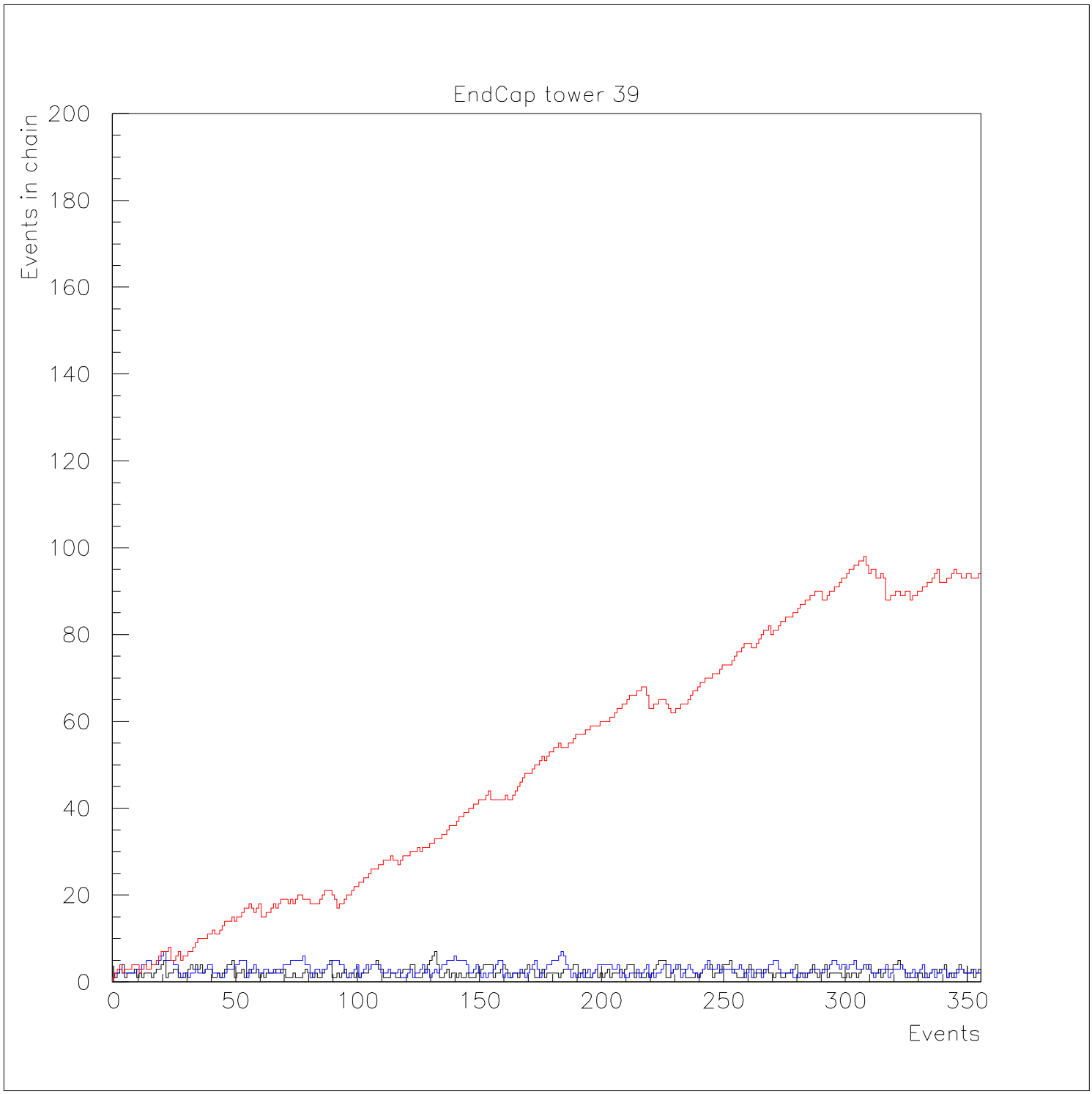

EndCap tower 38
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

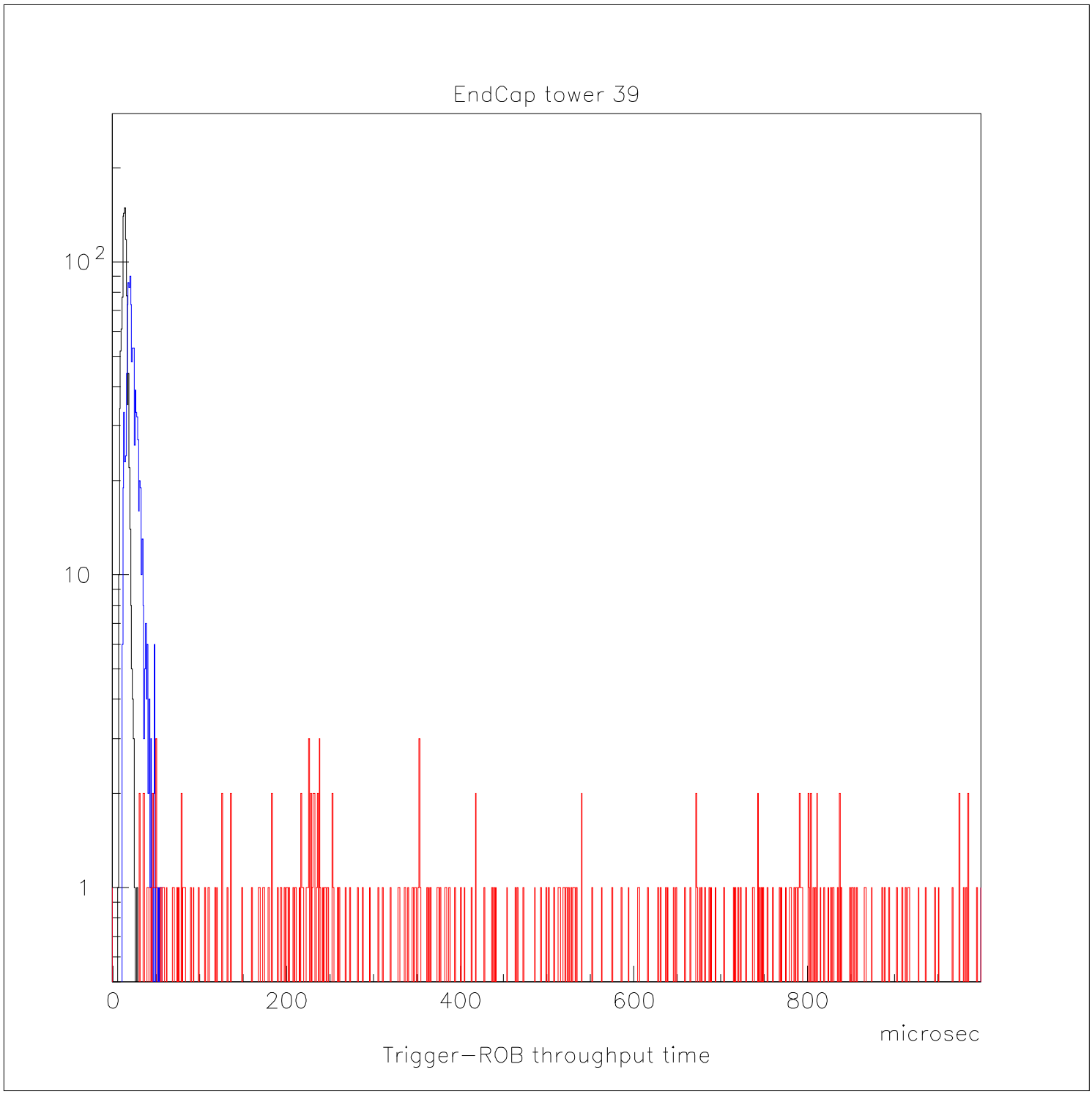

EndCap tower 38
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

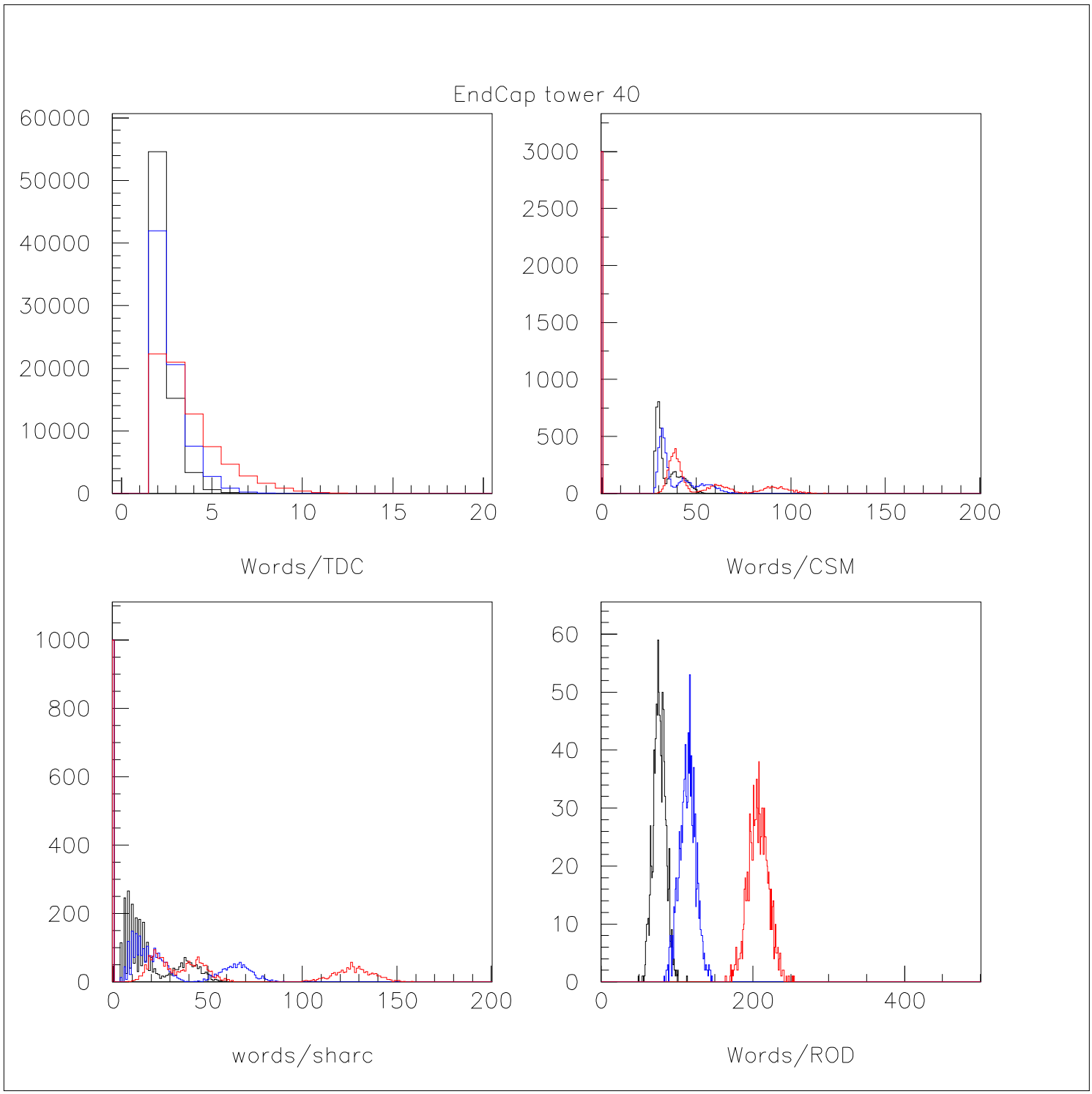

EndCap tower 39
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
3000
2500
2000
1500
1000
500
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

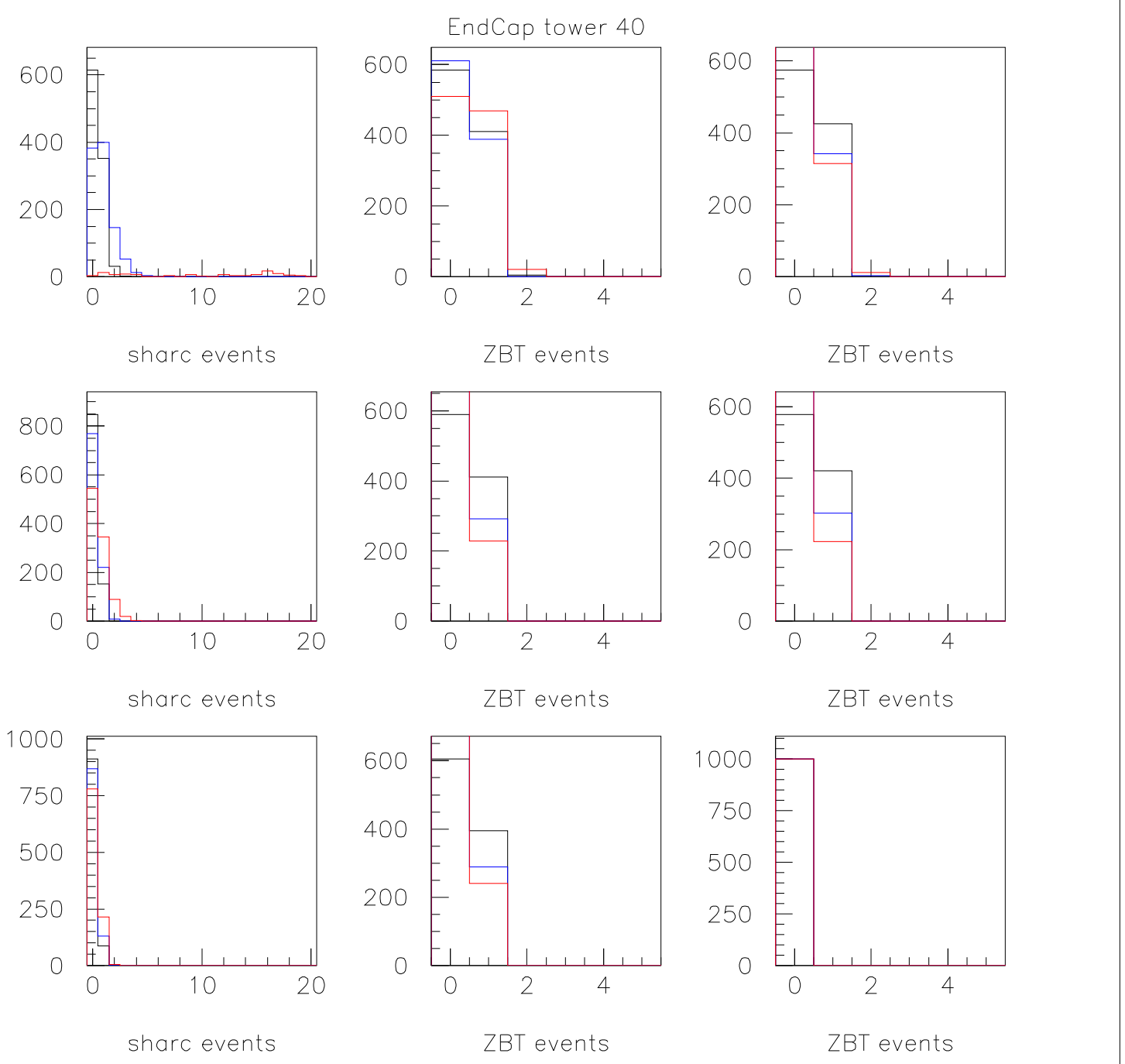

EndCap tower 39
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
2
4
ZBT events

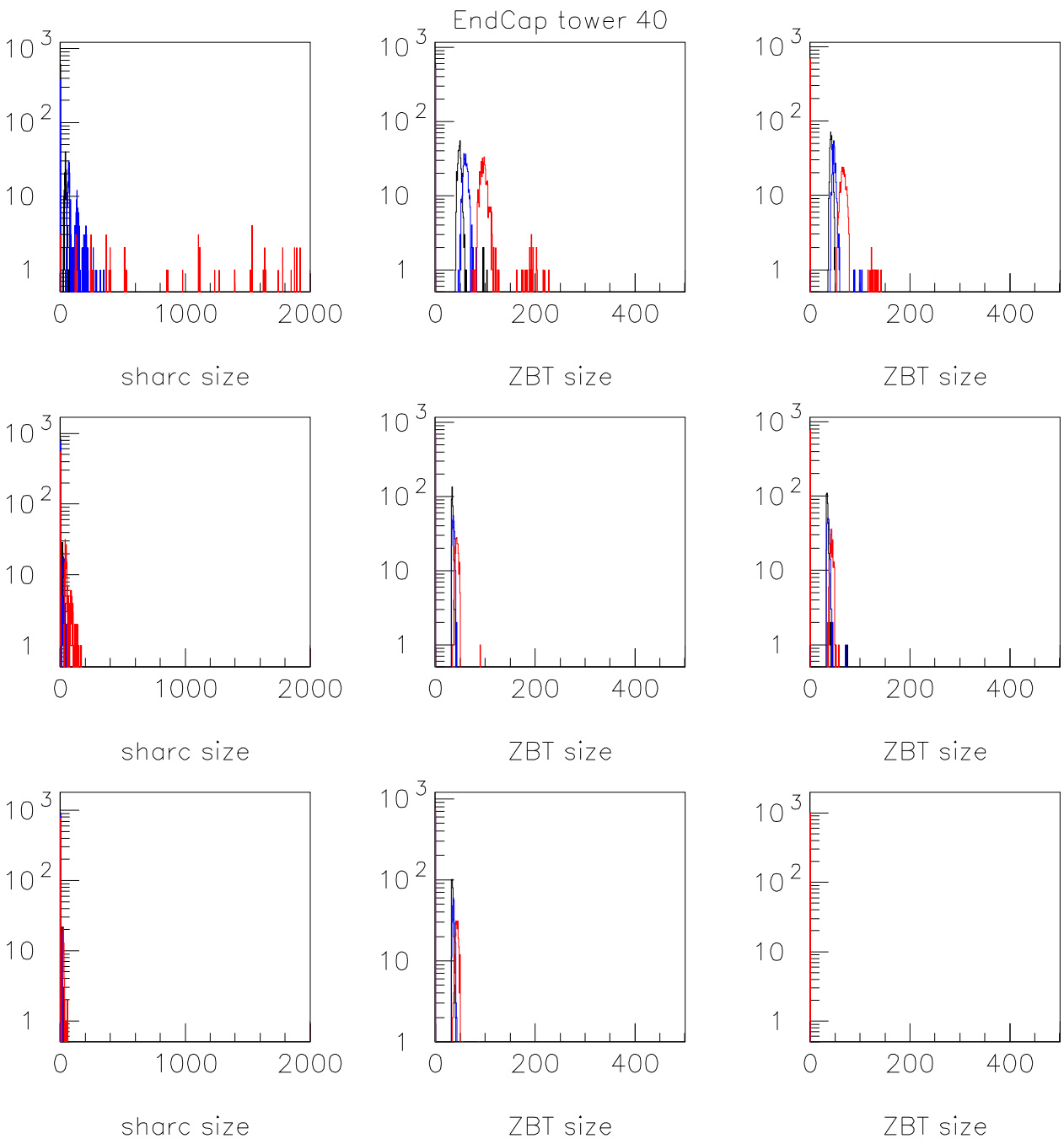

EndCap tower 39
$10^3$
$10^2$
10
1
0
1000
2000
200
400
sharc size
ZBT size

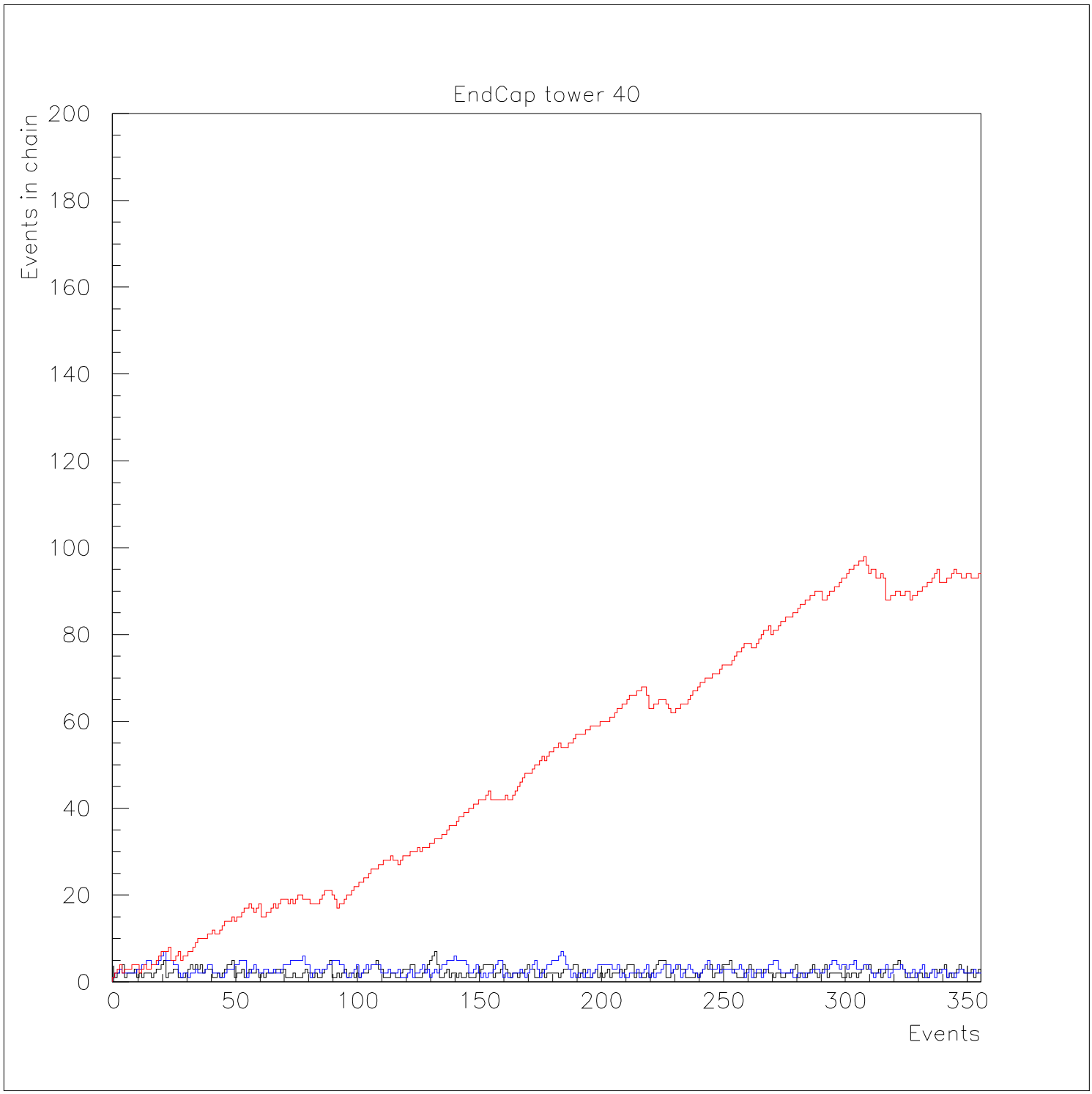

EndCap tower 39
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

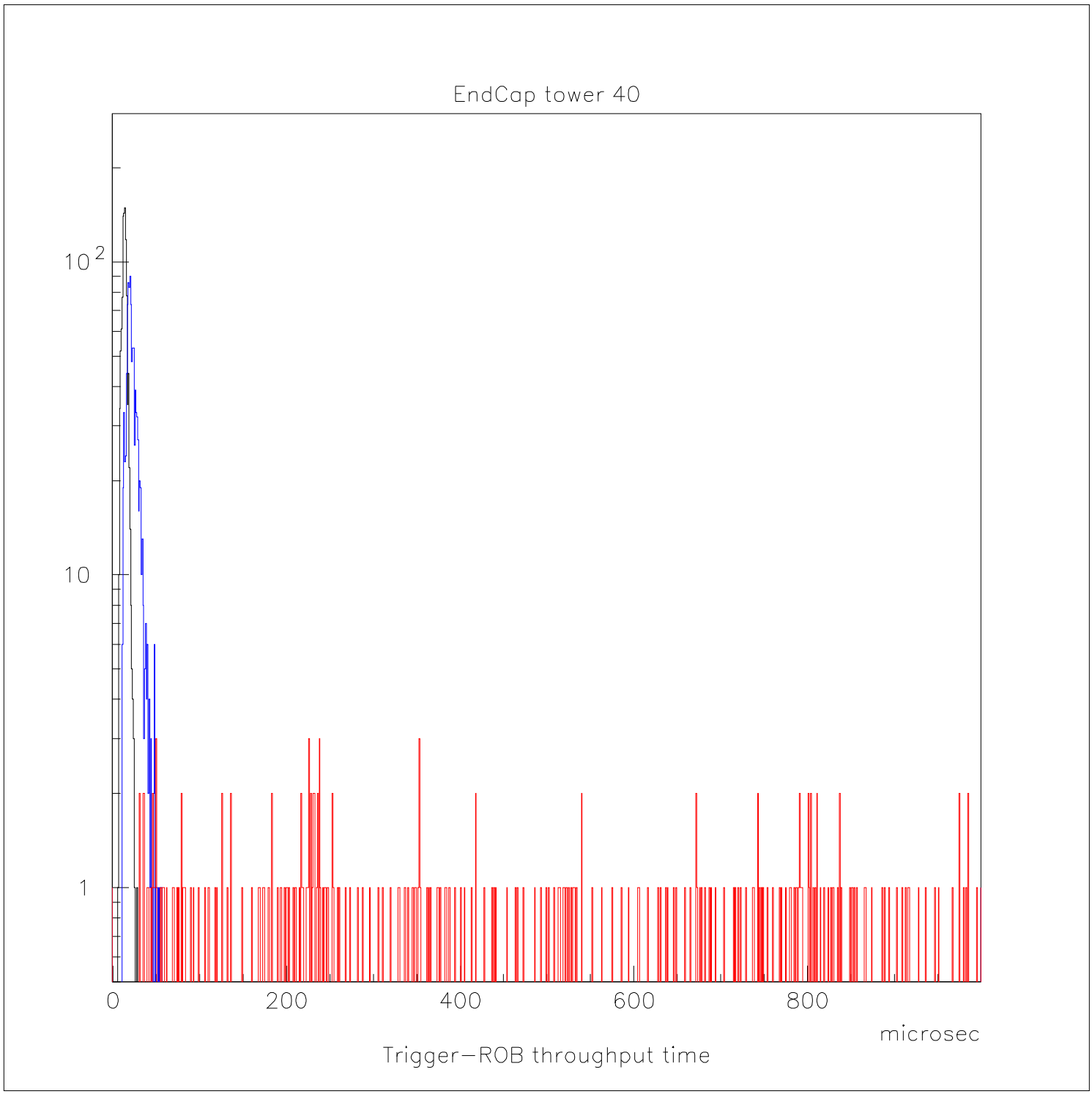

EndCap tower 39
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

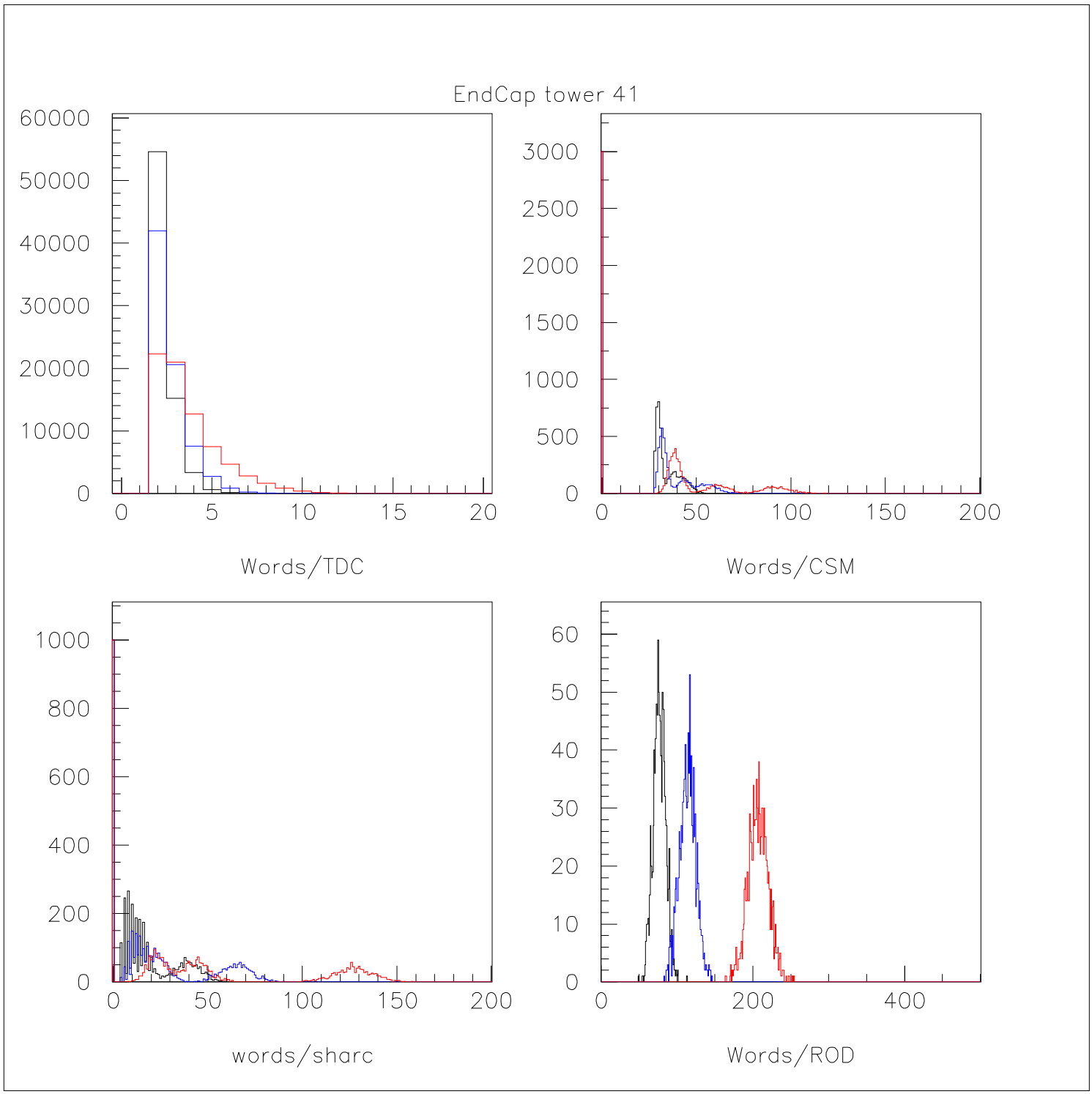

EndCap tower 40
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
3000
2500
2000
1500
1000
500
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

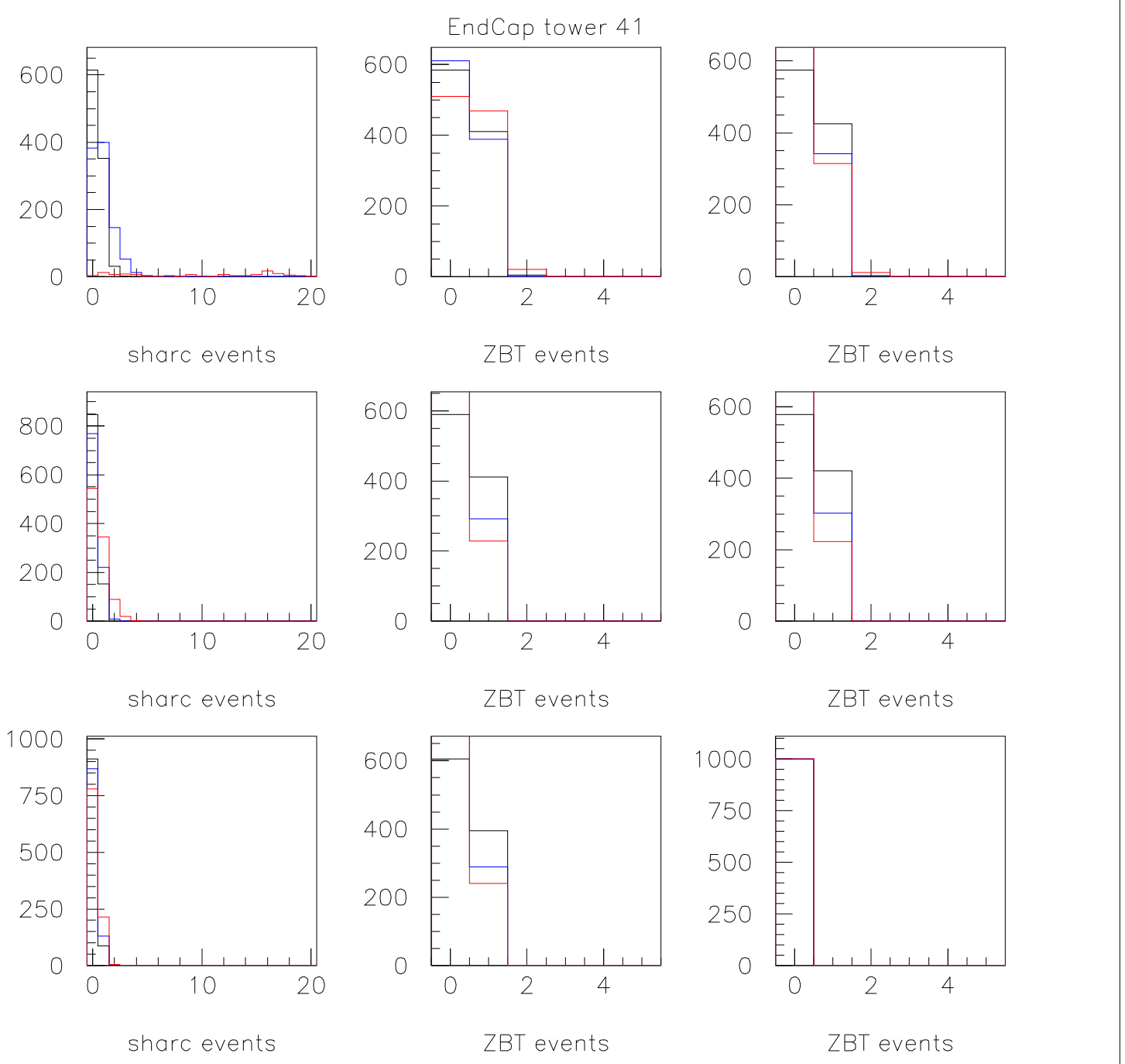

EndCap tower 40
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
2
4
ZBT events

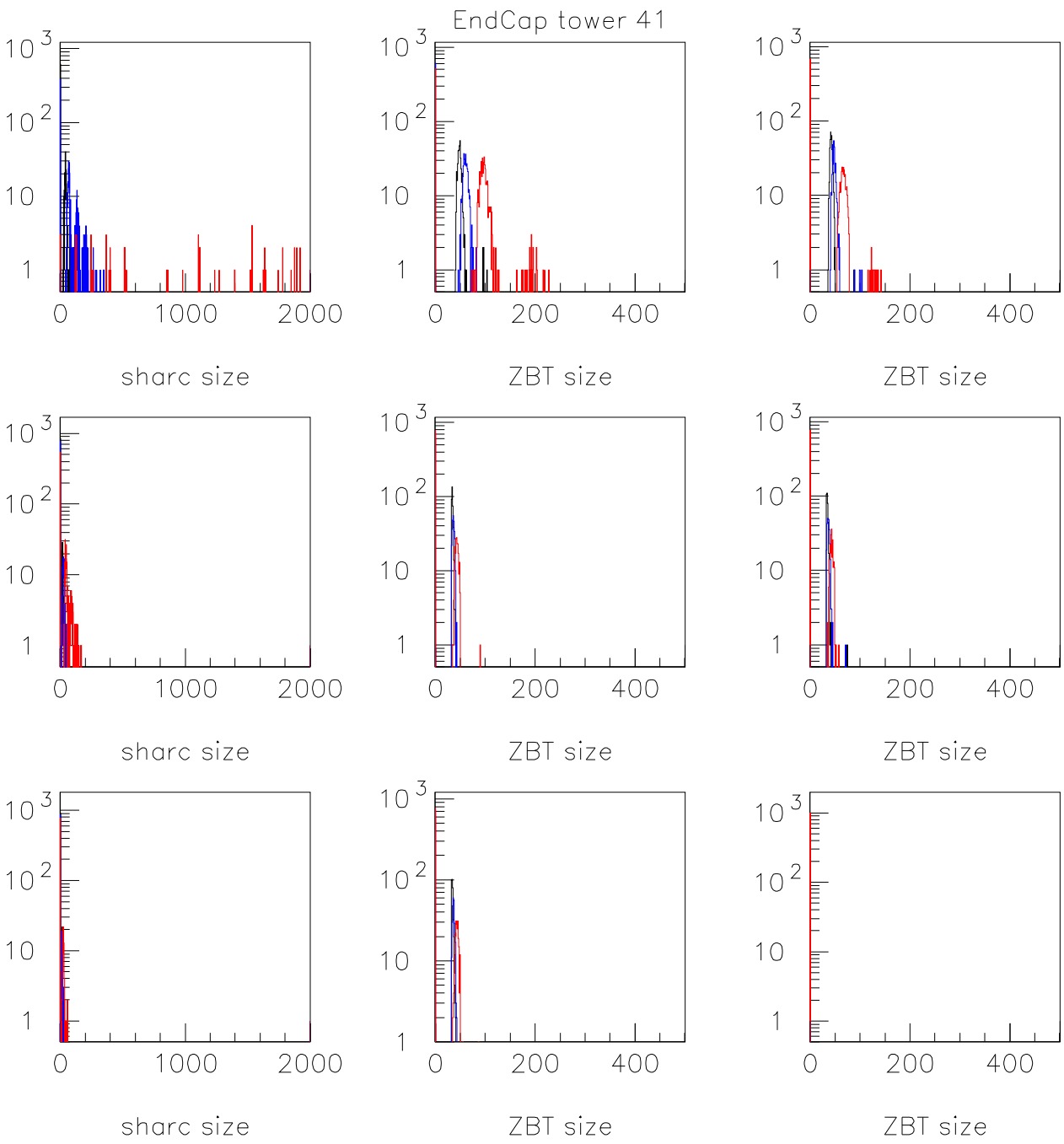

EndCap tower 40
$10^3$
$10^2$
10
1
0
1000
2000
200
400
sharc size
ZBT size

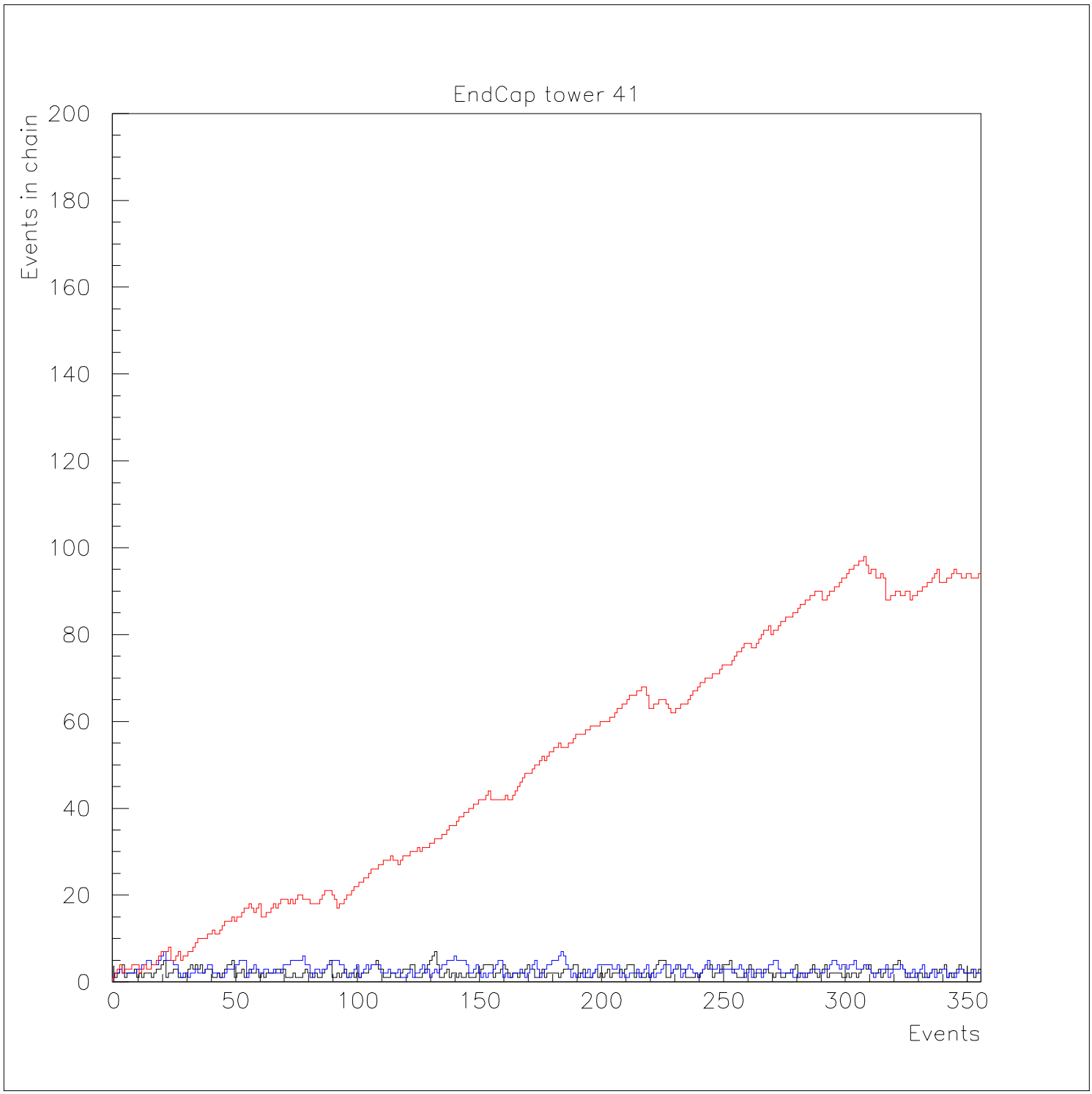

EndCap tower 40
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

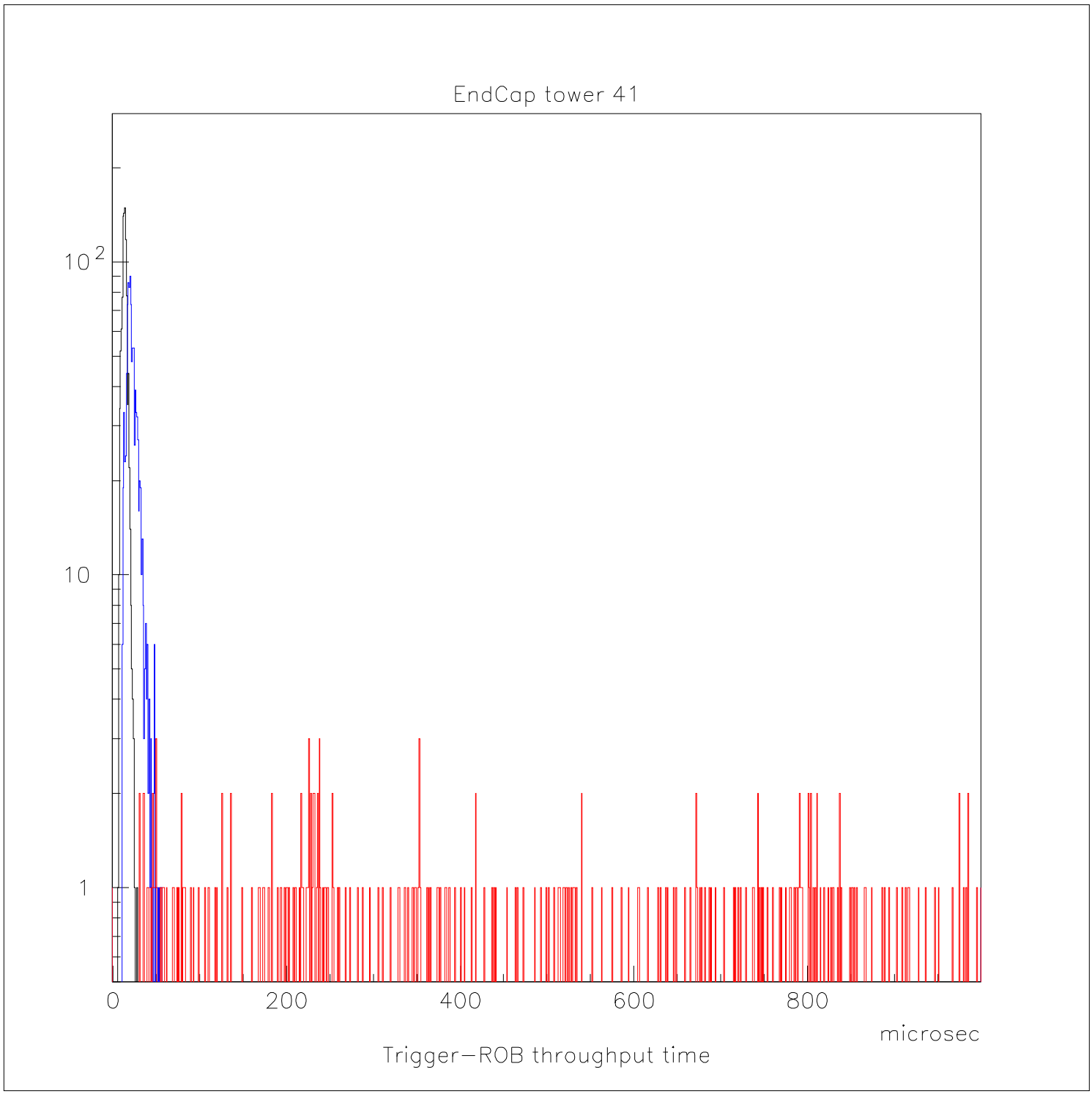

EndCap tower 40
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

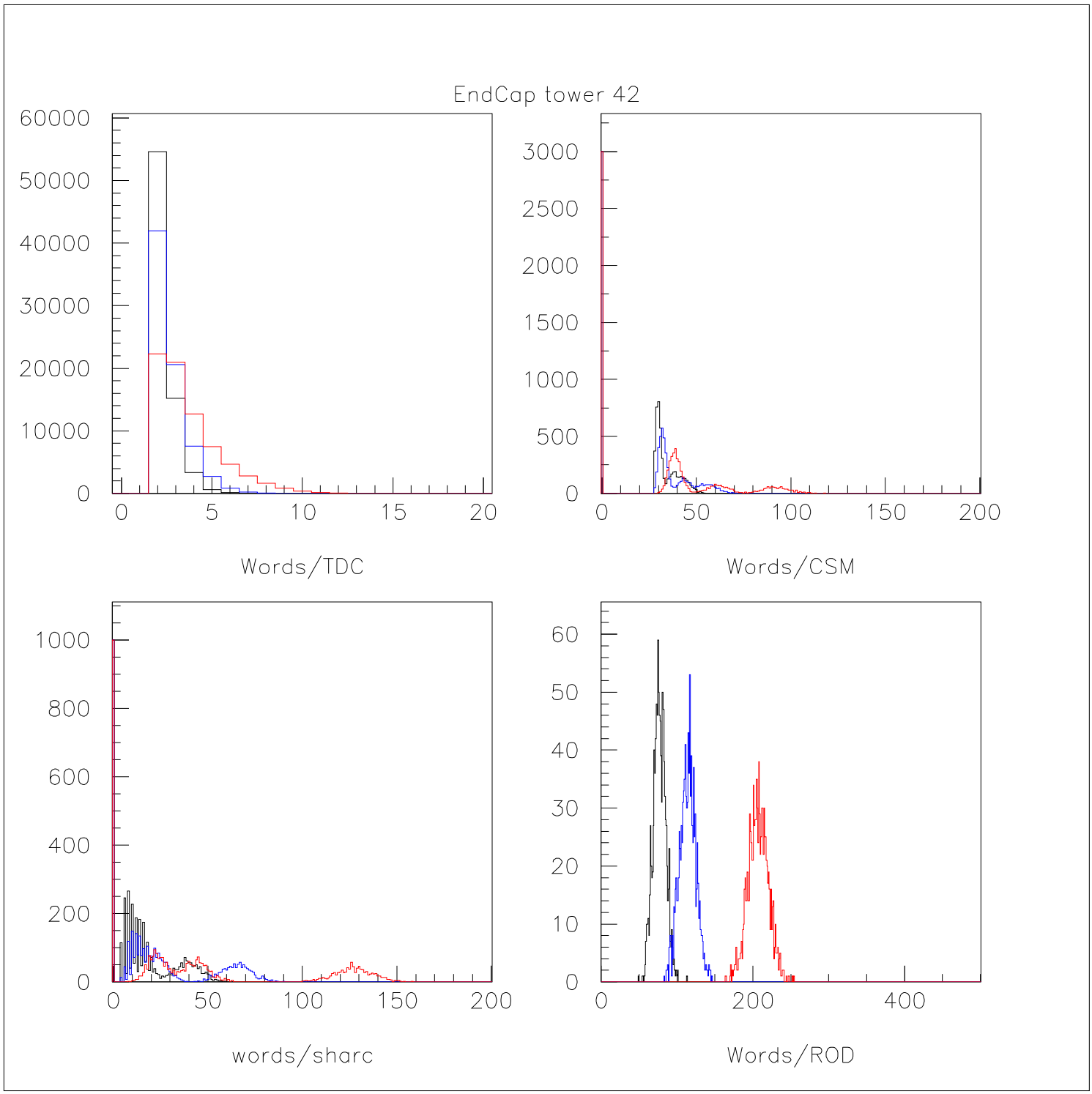

EndCap tower 41
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
3000
2500
2000
1500
1000
500
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

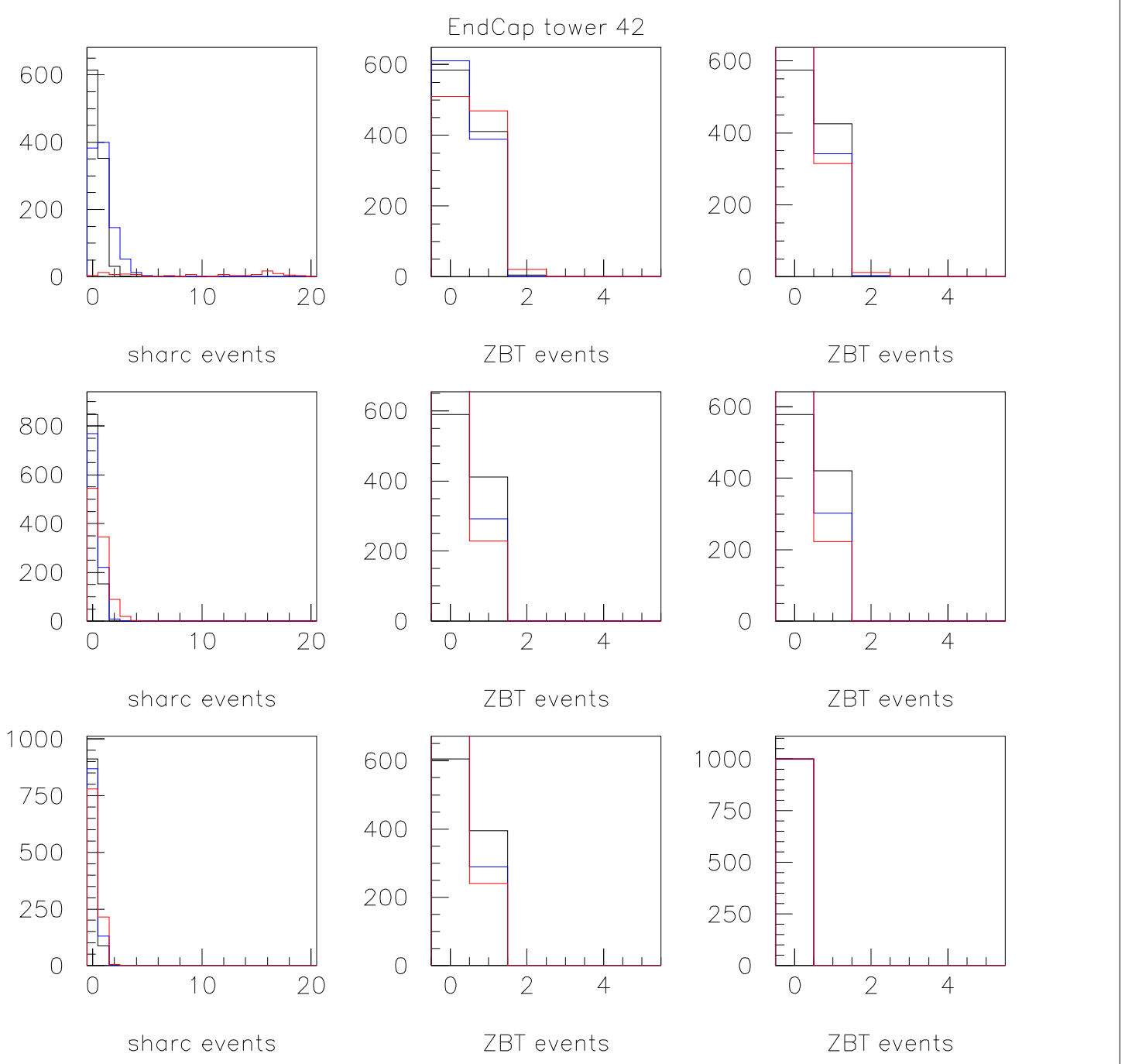

EndCap tower 41
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
2
4
ZBT events

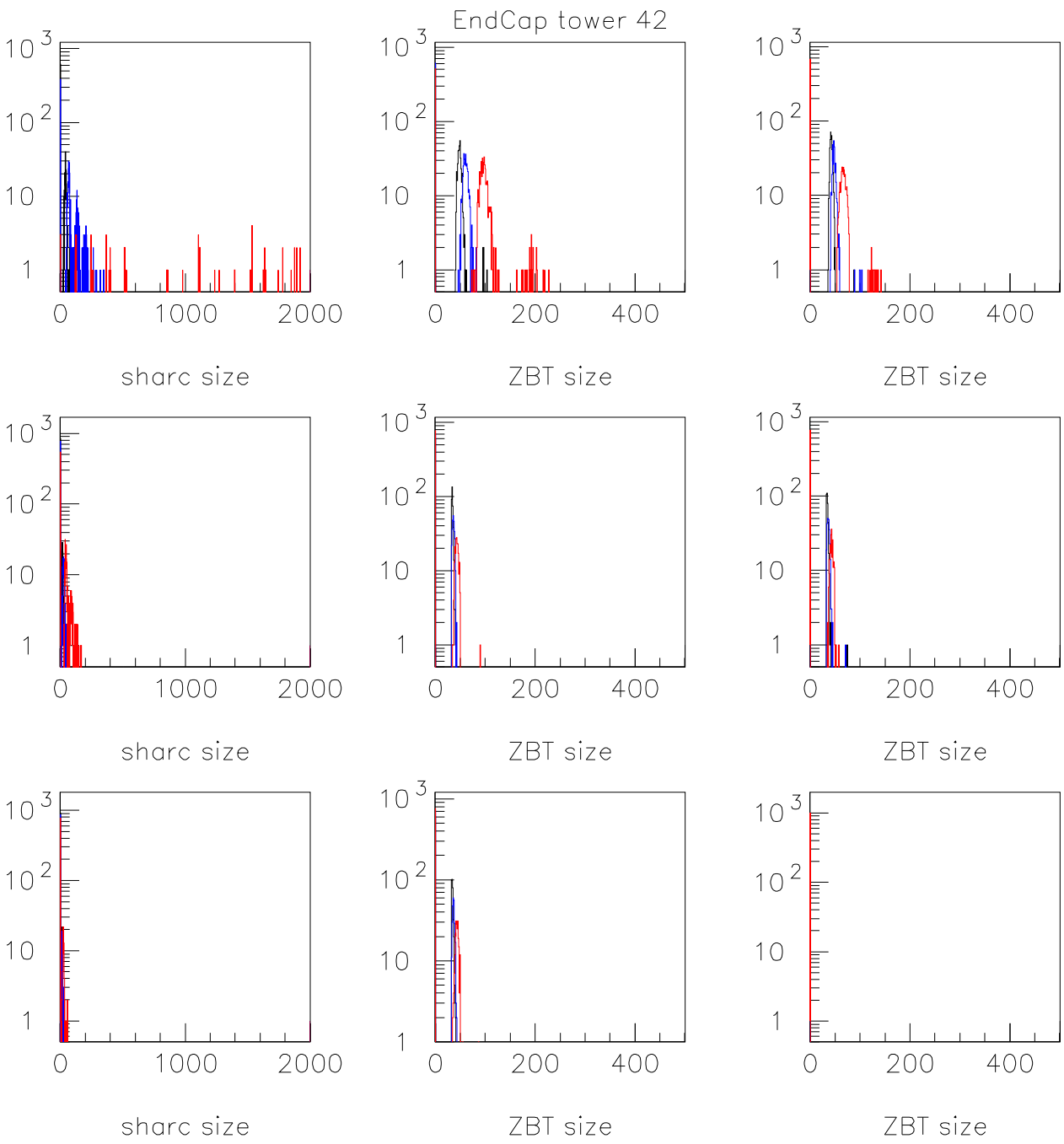

EndCap tower 41
$10^3$
$10^2$
10
1
0
1000
2000
200
400
sharc size
ZBT size

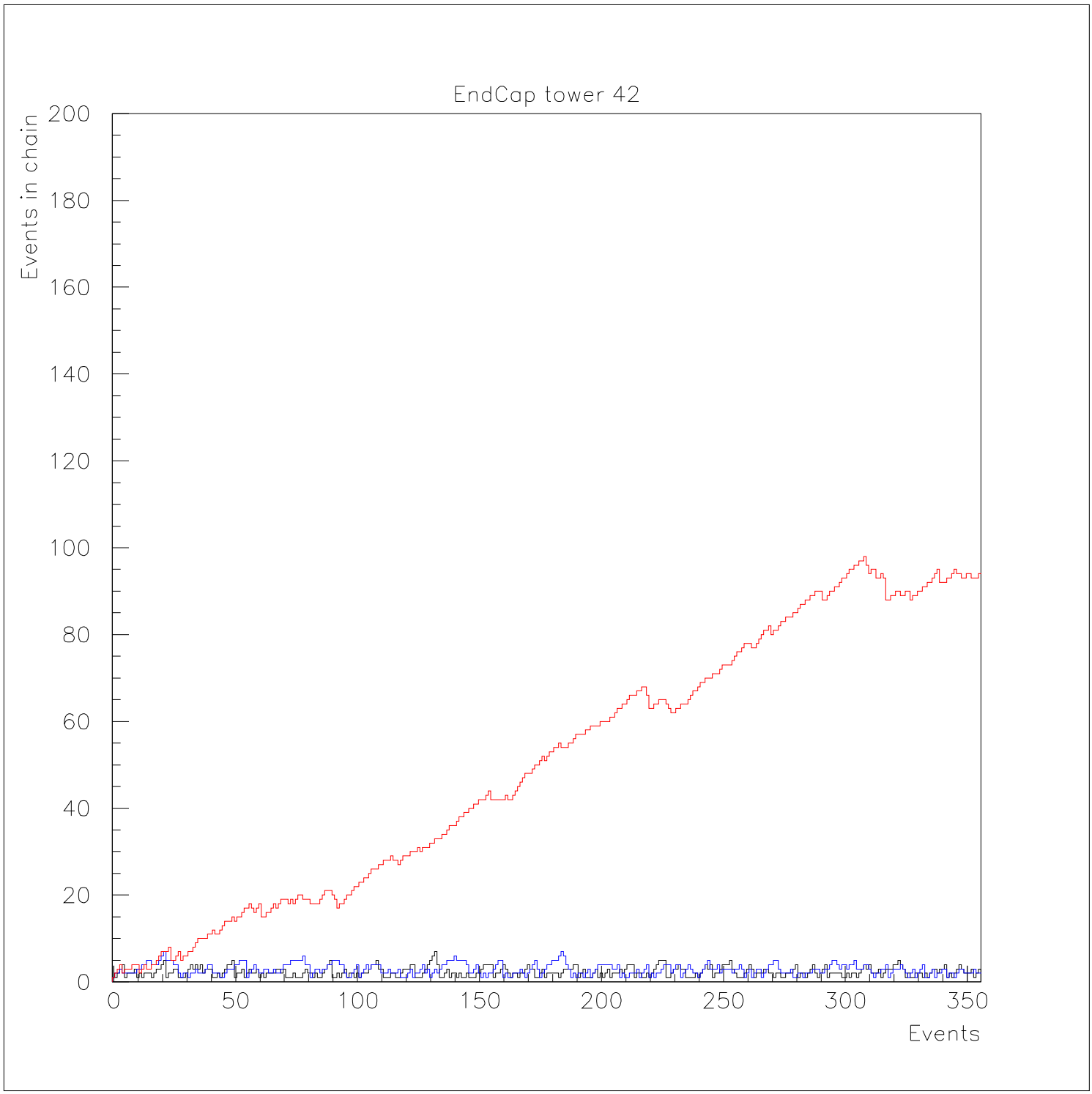

EndCap tower 41
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

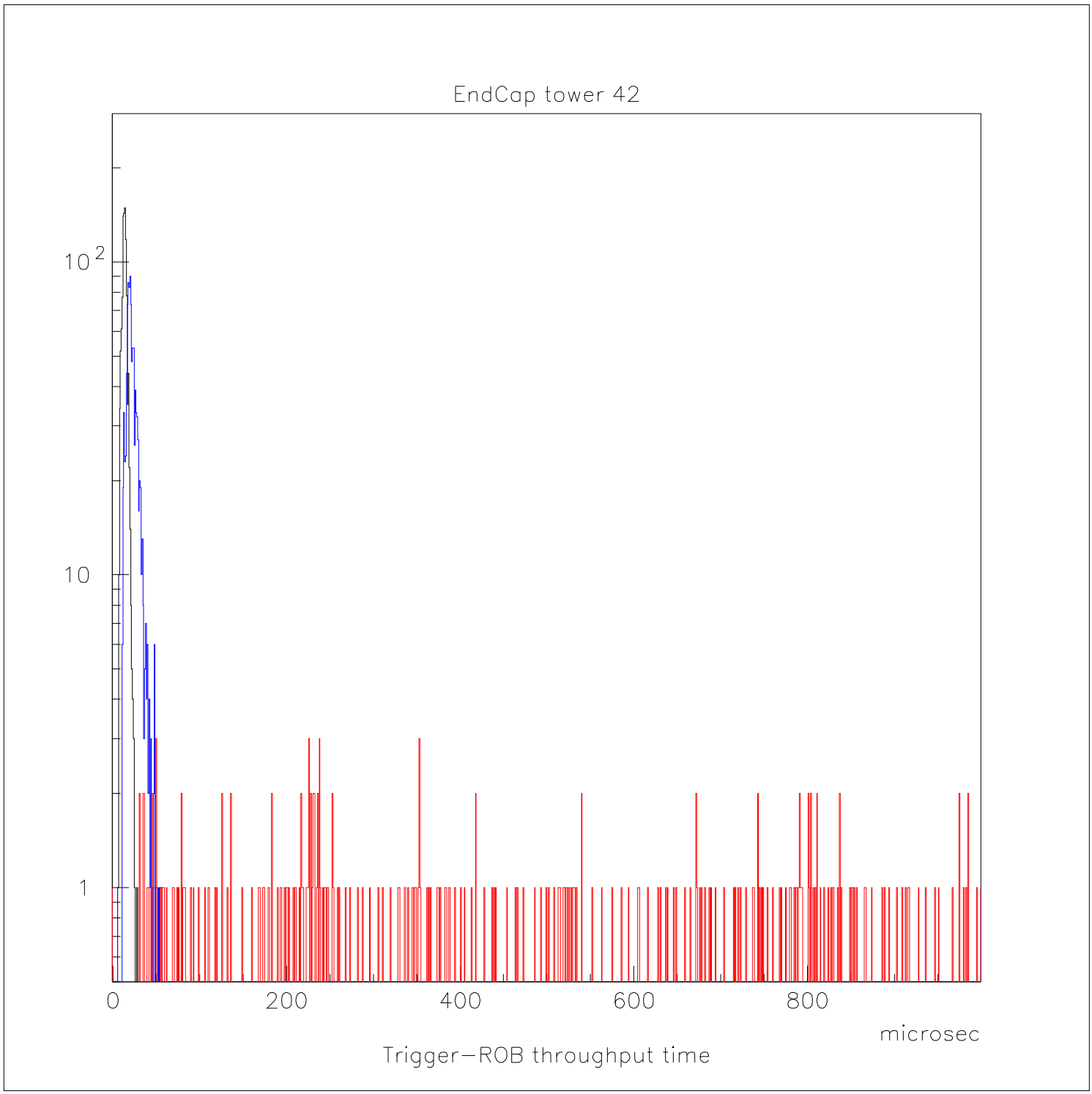

EndCap tower 41
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

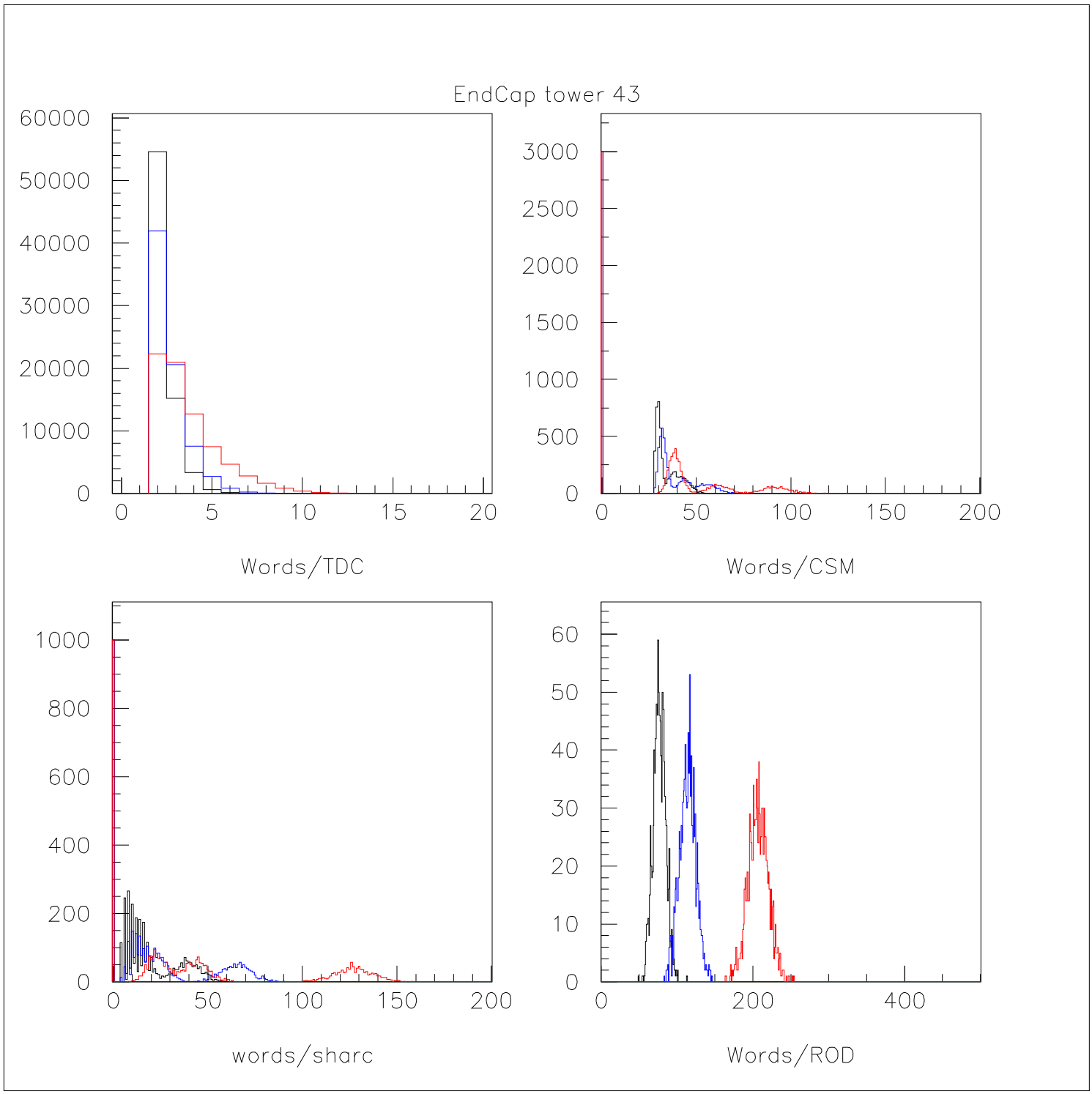

EndCap tower 42
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
3000
2500
2000
1500
1000
500
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

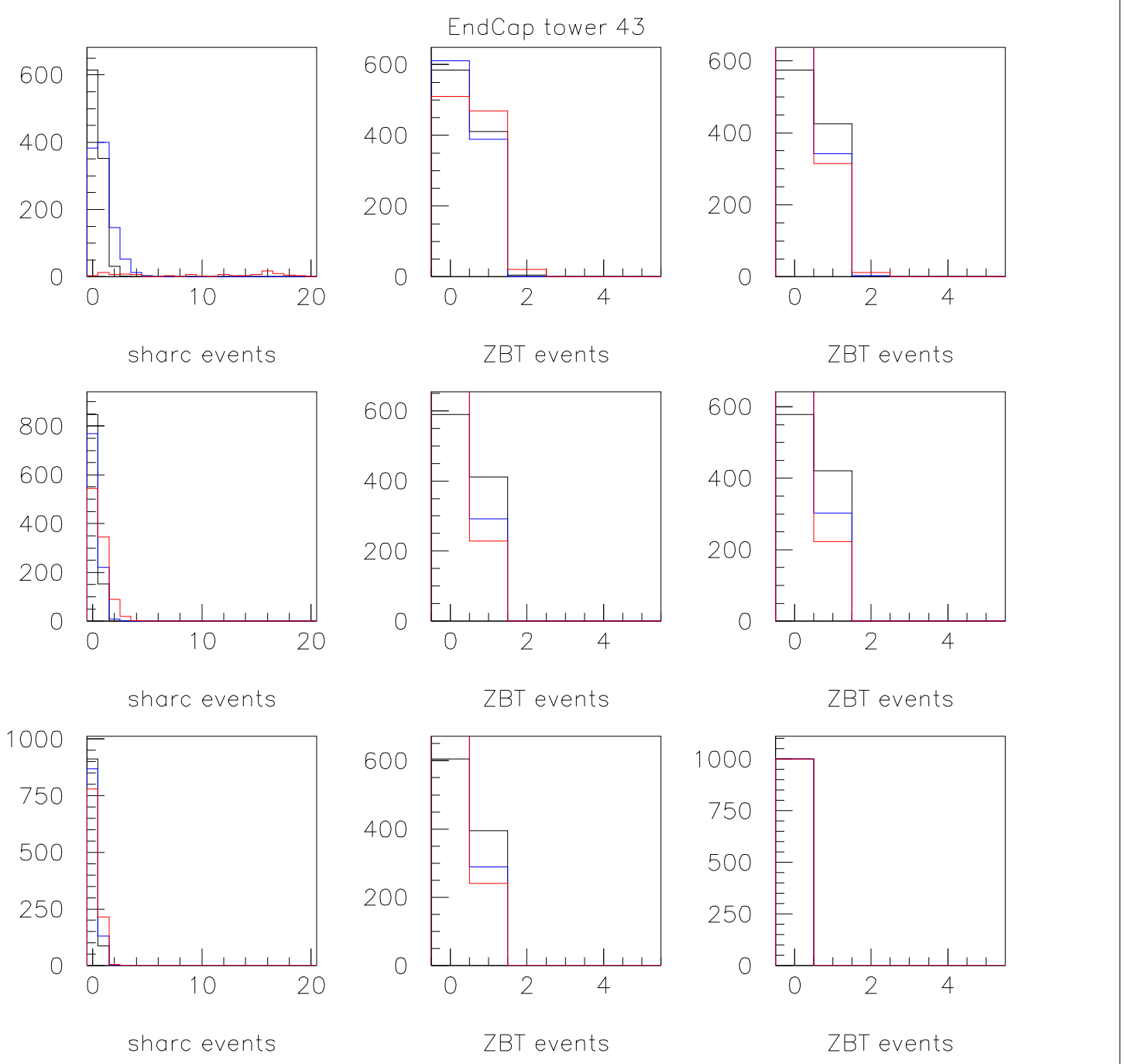

EndCap tower 42
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
2
4
ZBT events

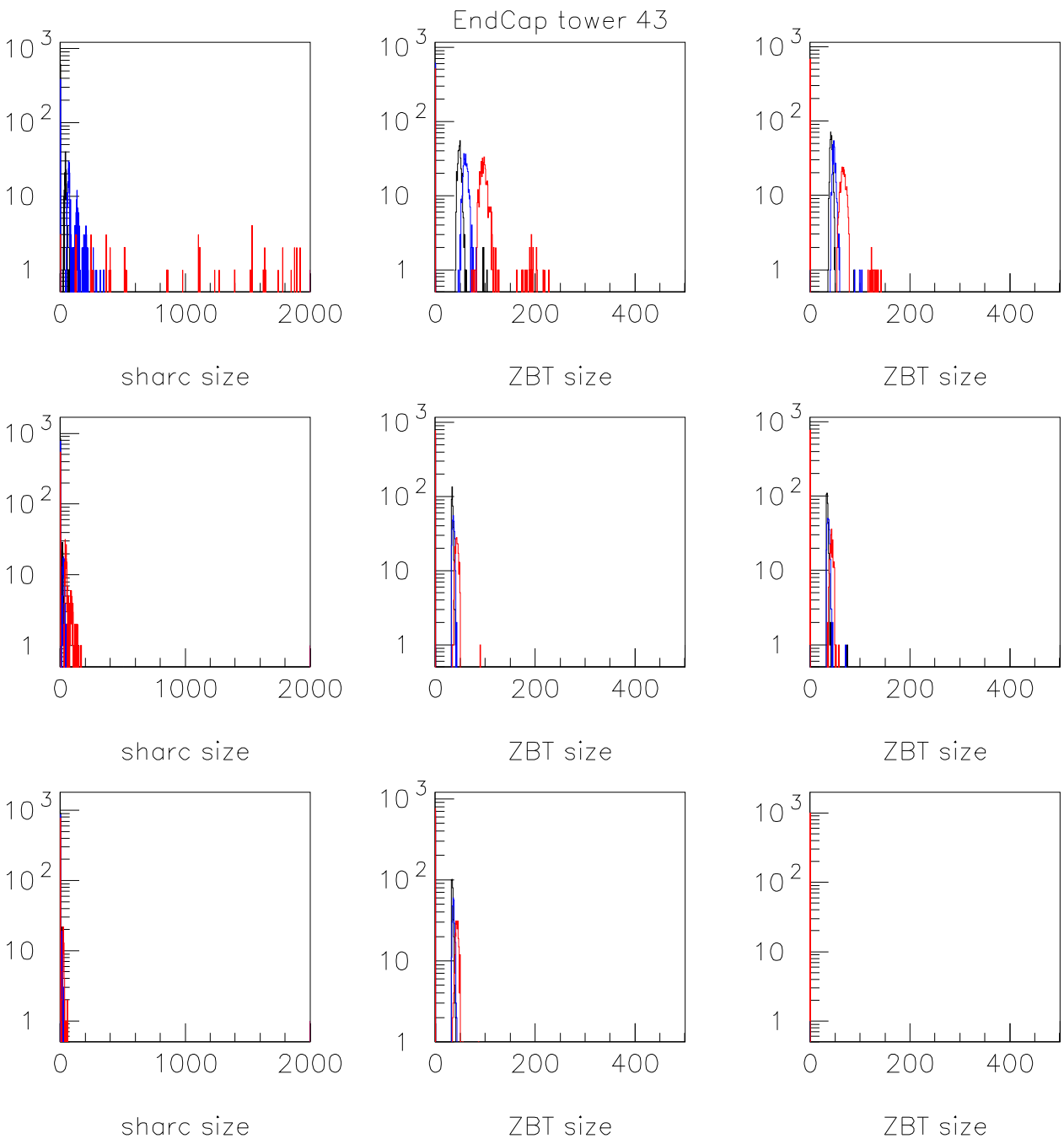

EndCap tower 42
$10^3$
$10^2$
10
1
0
1000
2000
200
400
sharc size
ZBT size

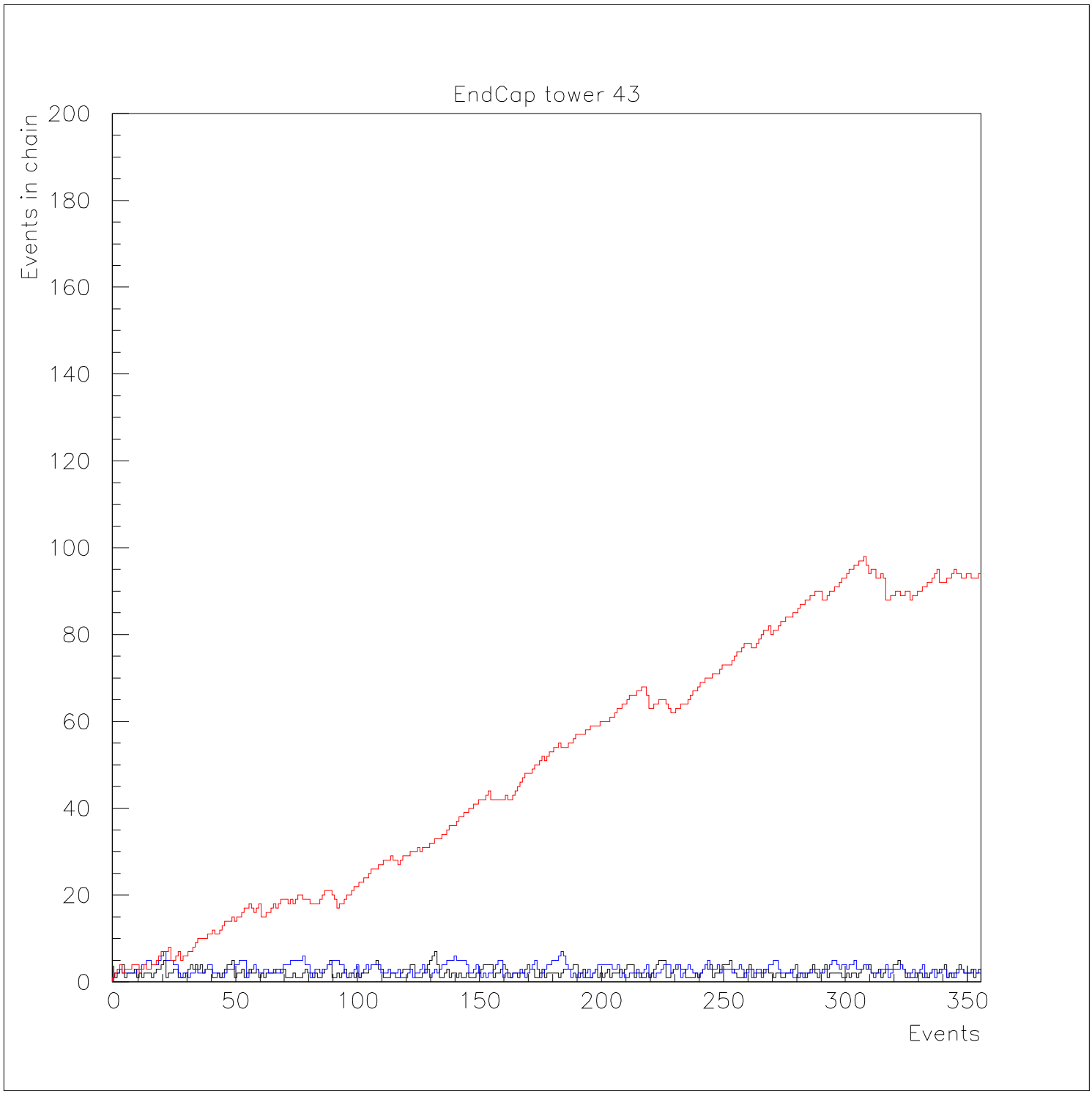

EndCap tower 42
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

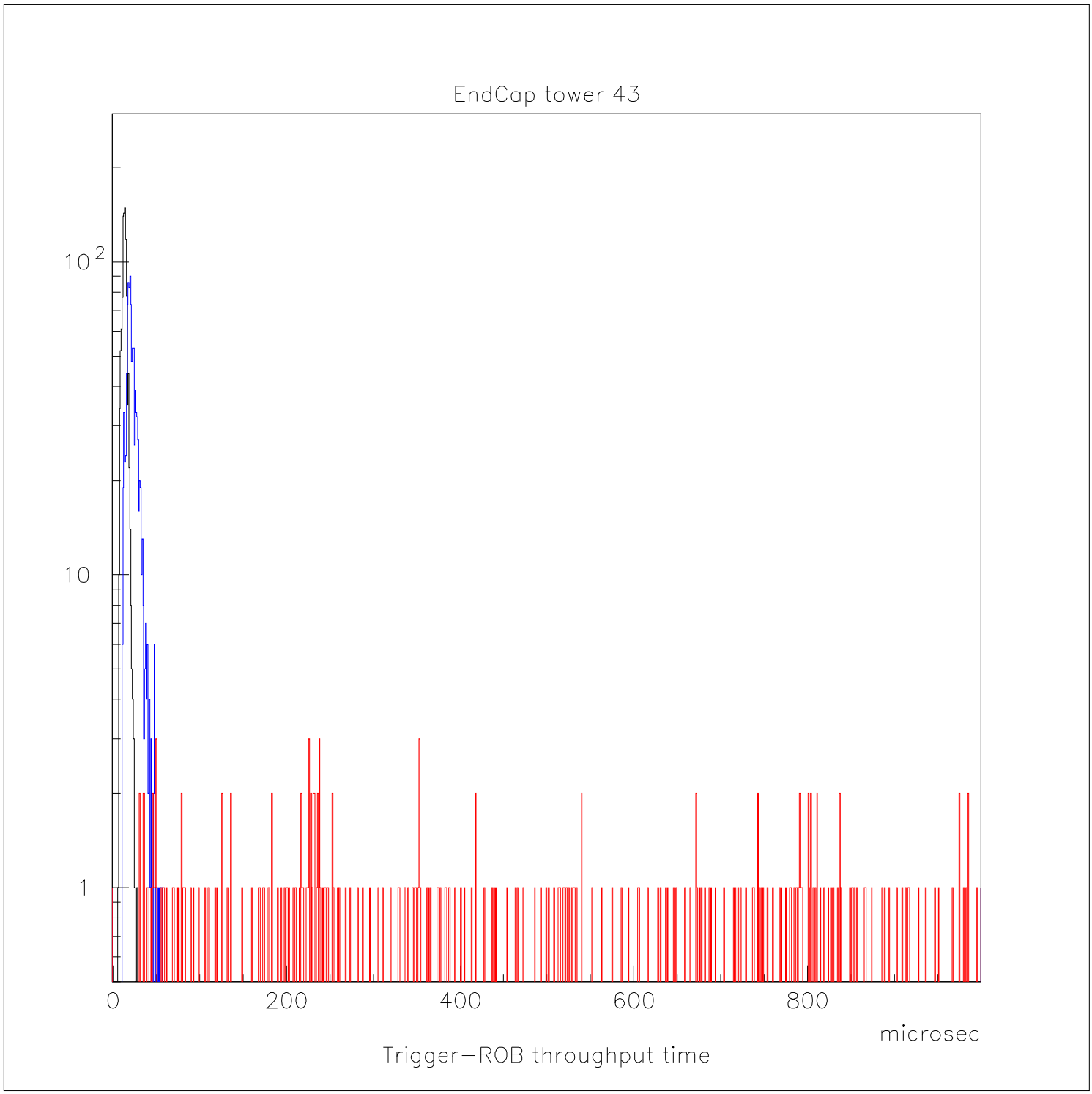

EndCap tower 42
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

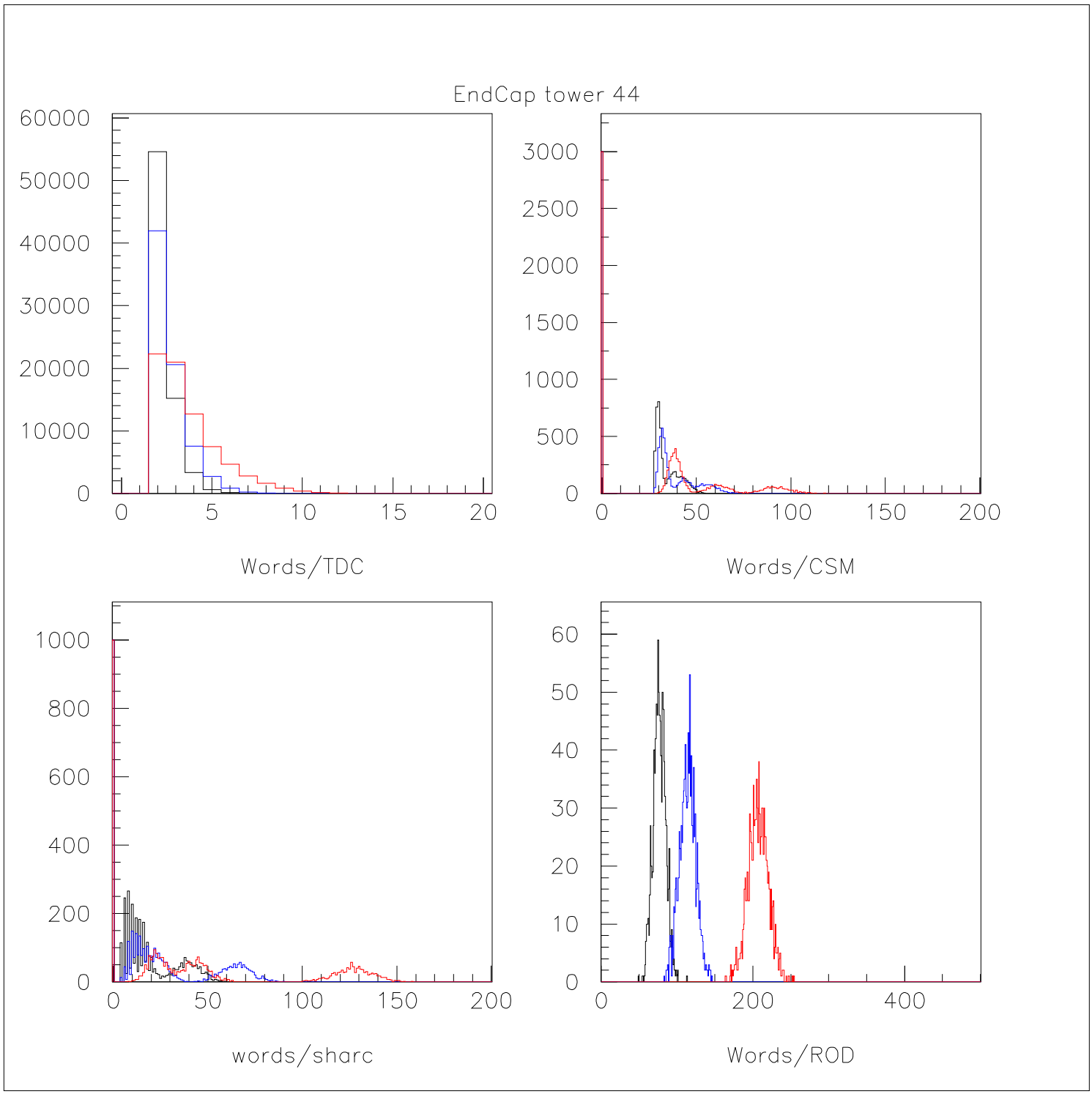

EndCap tower 43
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
3000
2500
2000
1500
1000
500
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

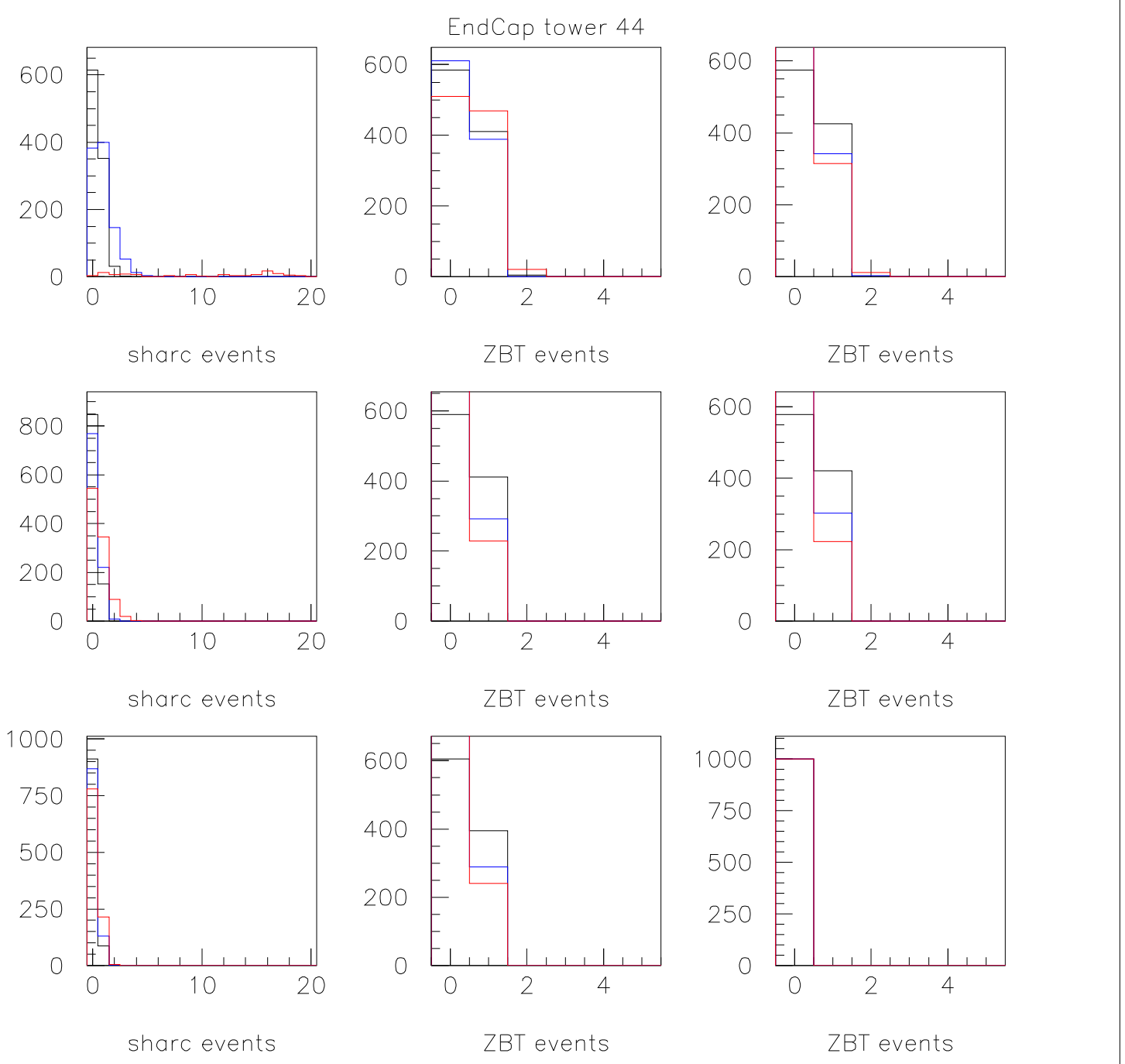

EndCap tower 43
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
2
4
ZBT events

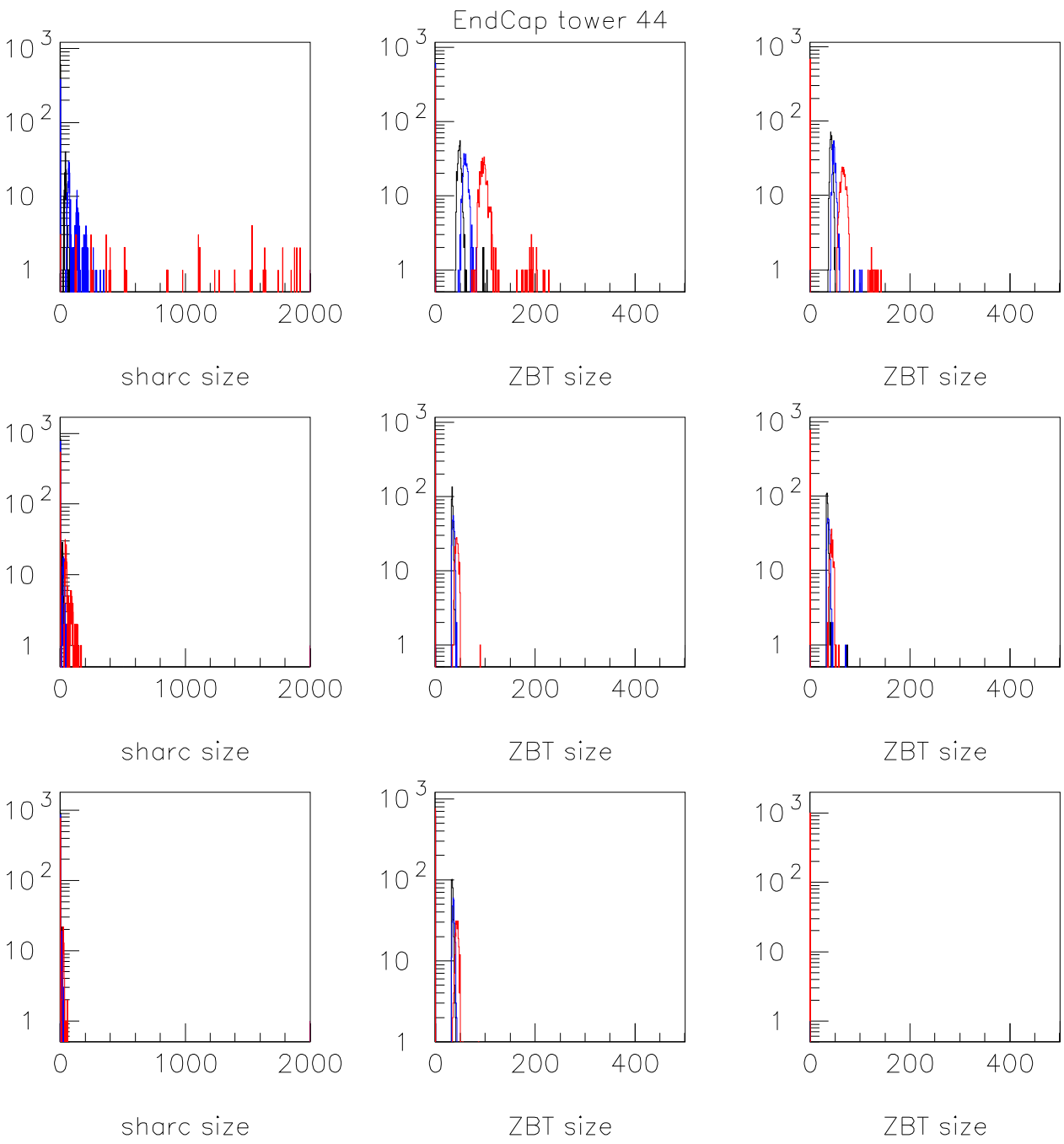

EndCap tower 43
$10^3$
$10^2$
10
1
0
1000
2000
200
400
sharc size
ZBT size

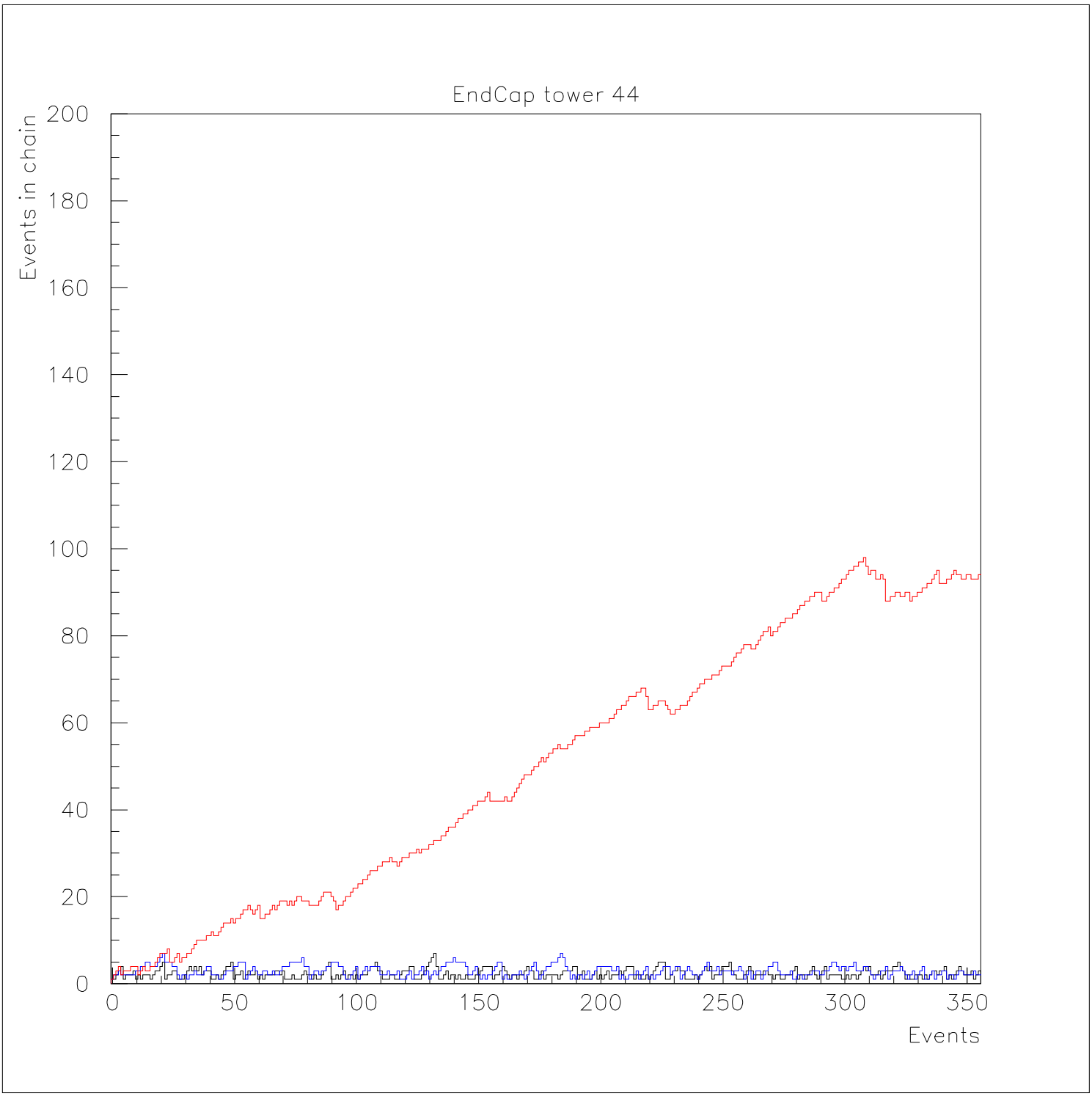

EndCap tower 43
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

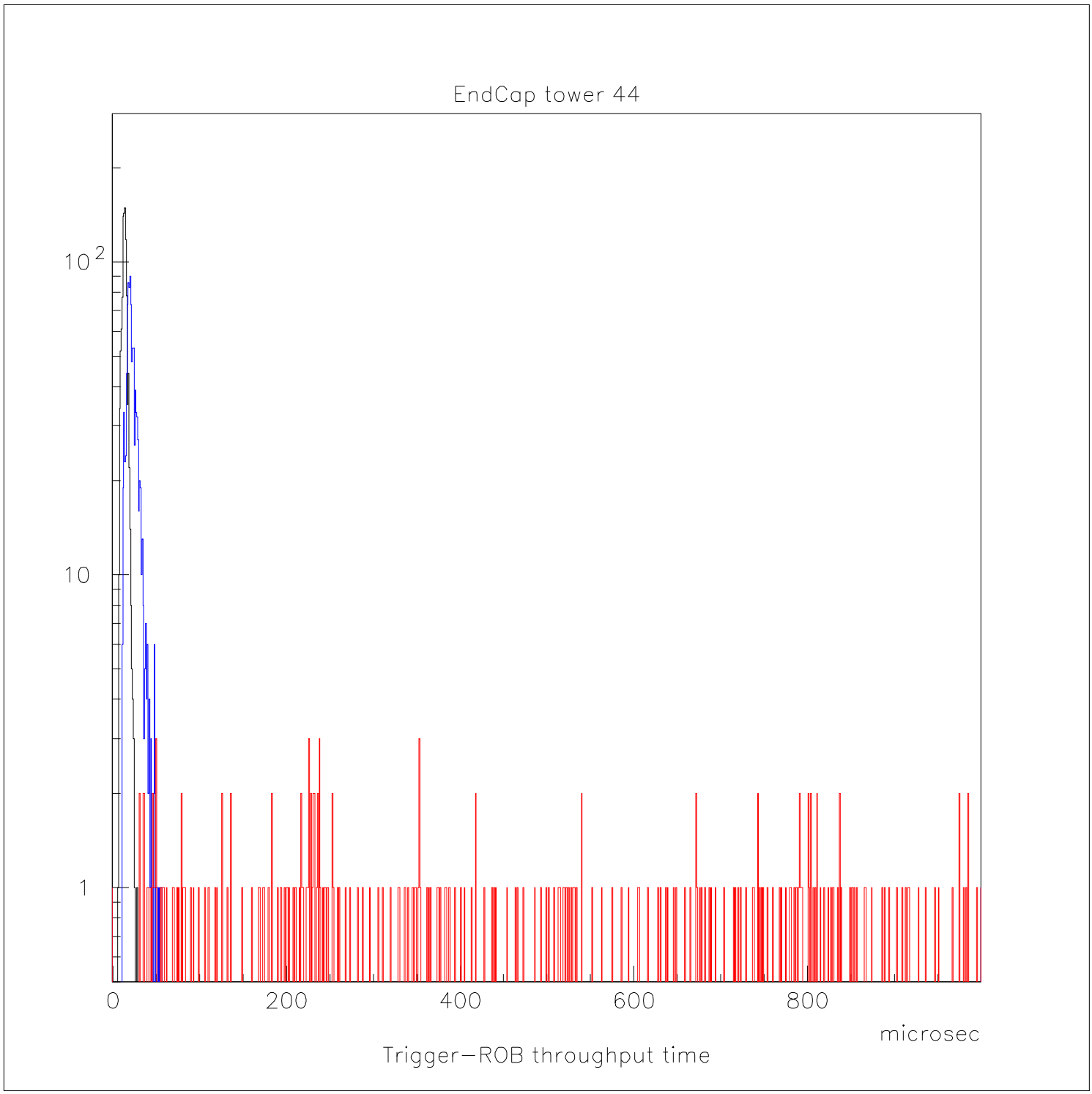

EndCap tower 43
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

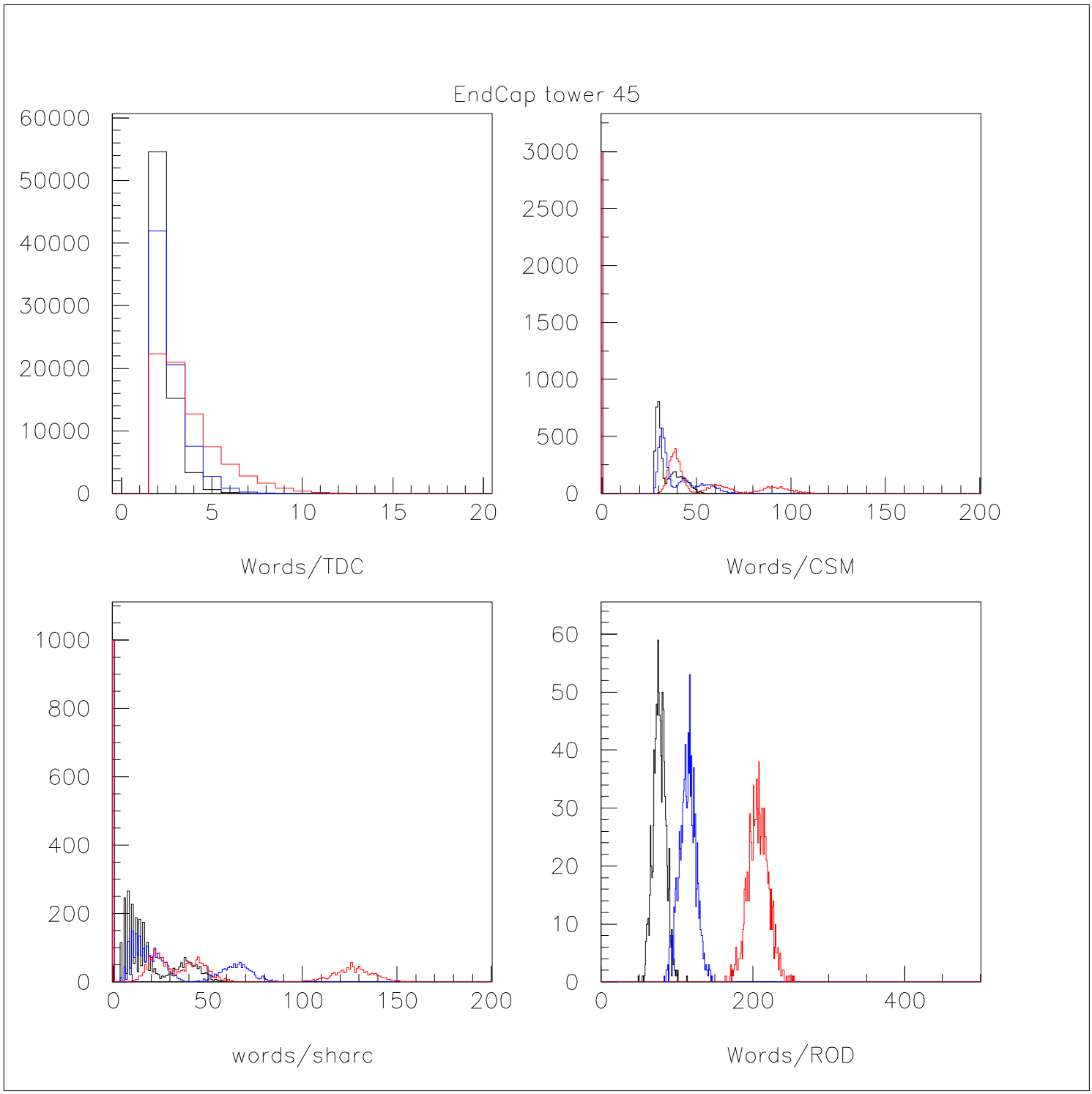

EndCap tower 44
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
3000
2500
2000
1500
1000
500
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

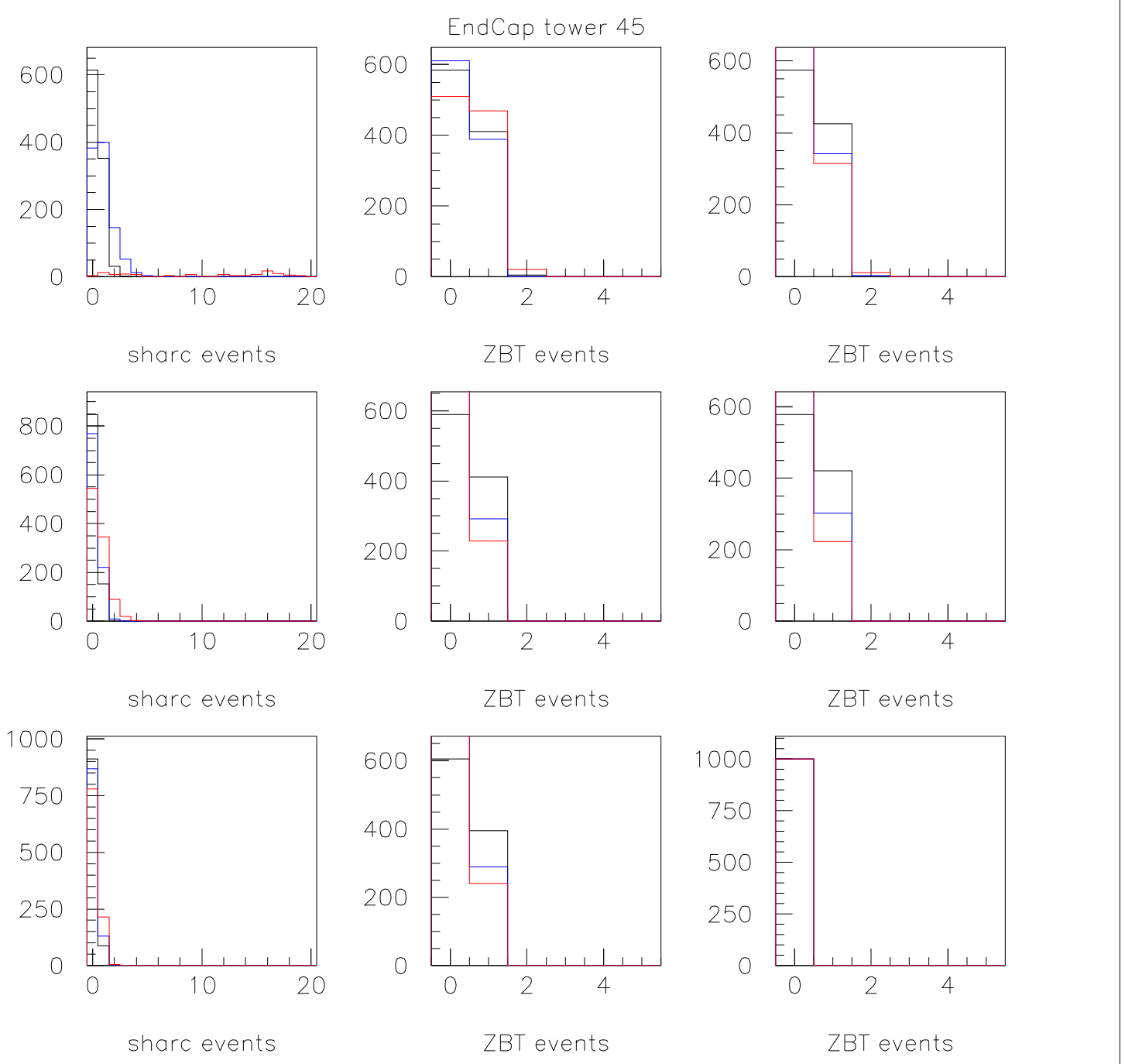

EndCap tower 44
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
2
4
ZBT events

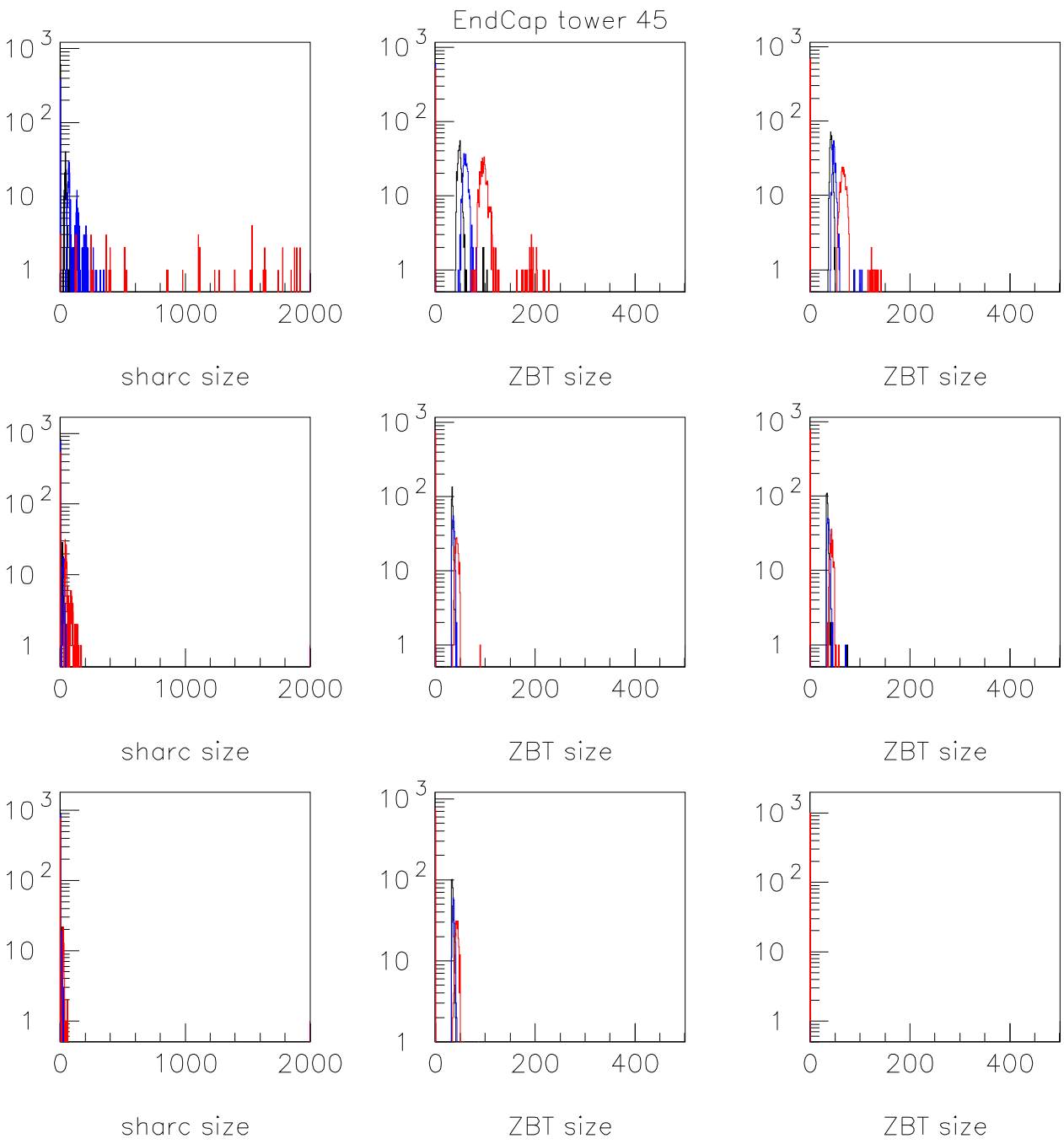

EndCap tower 44
$10^3$
$10^2$
10
1
0
1000
2000
200
400
sharc size
ZBT size

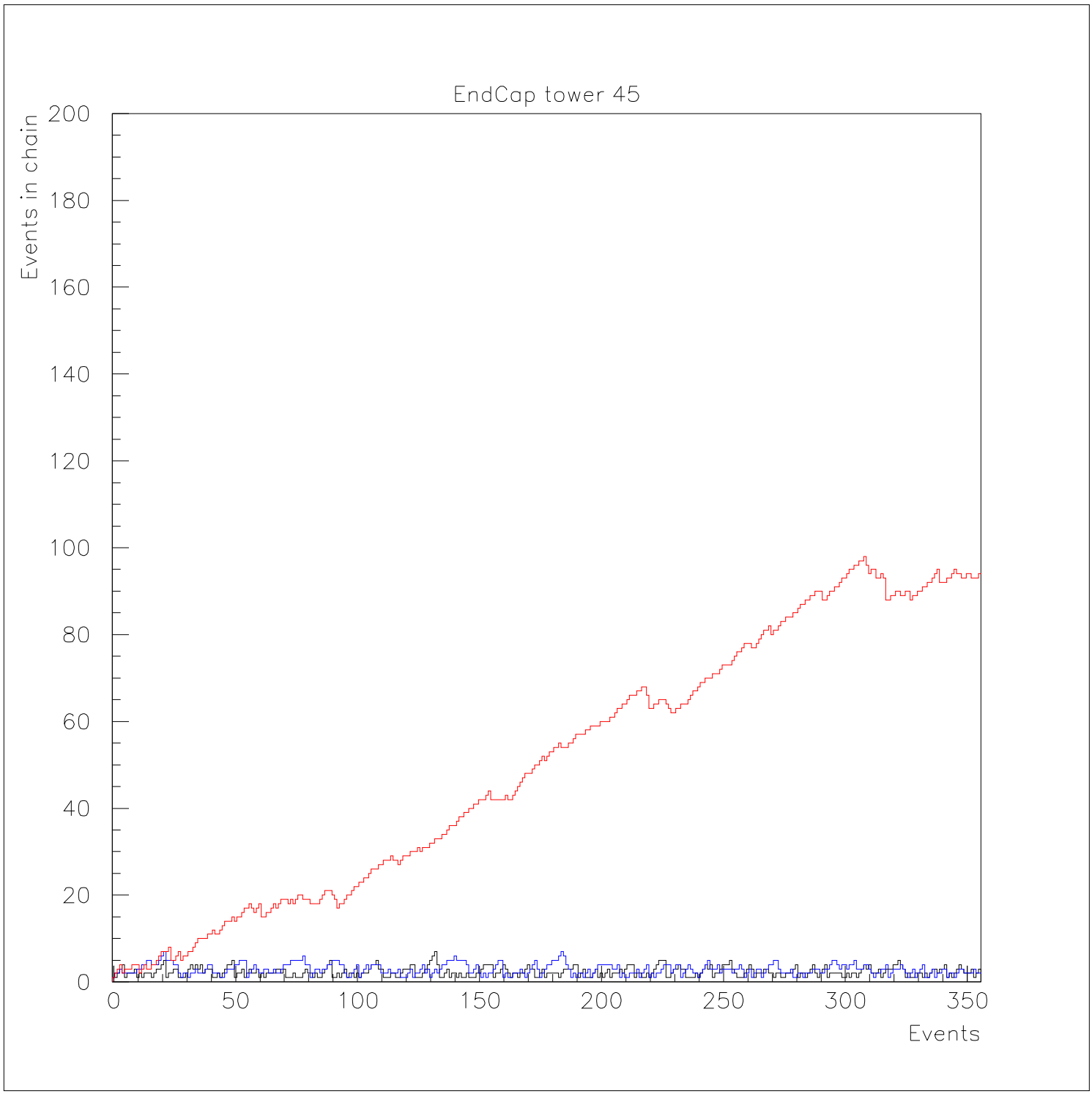

EndCap tower 44
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

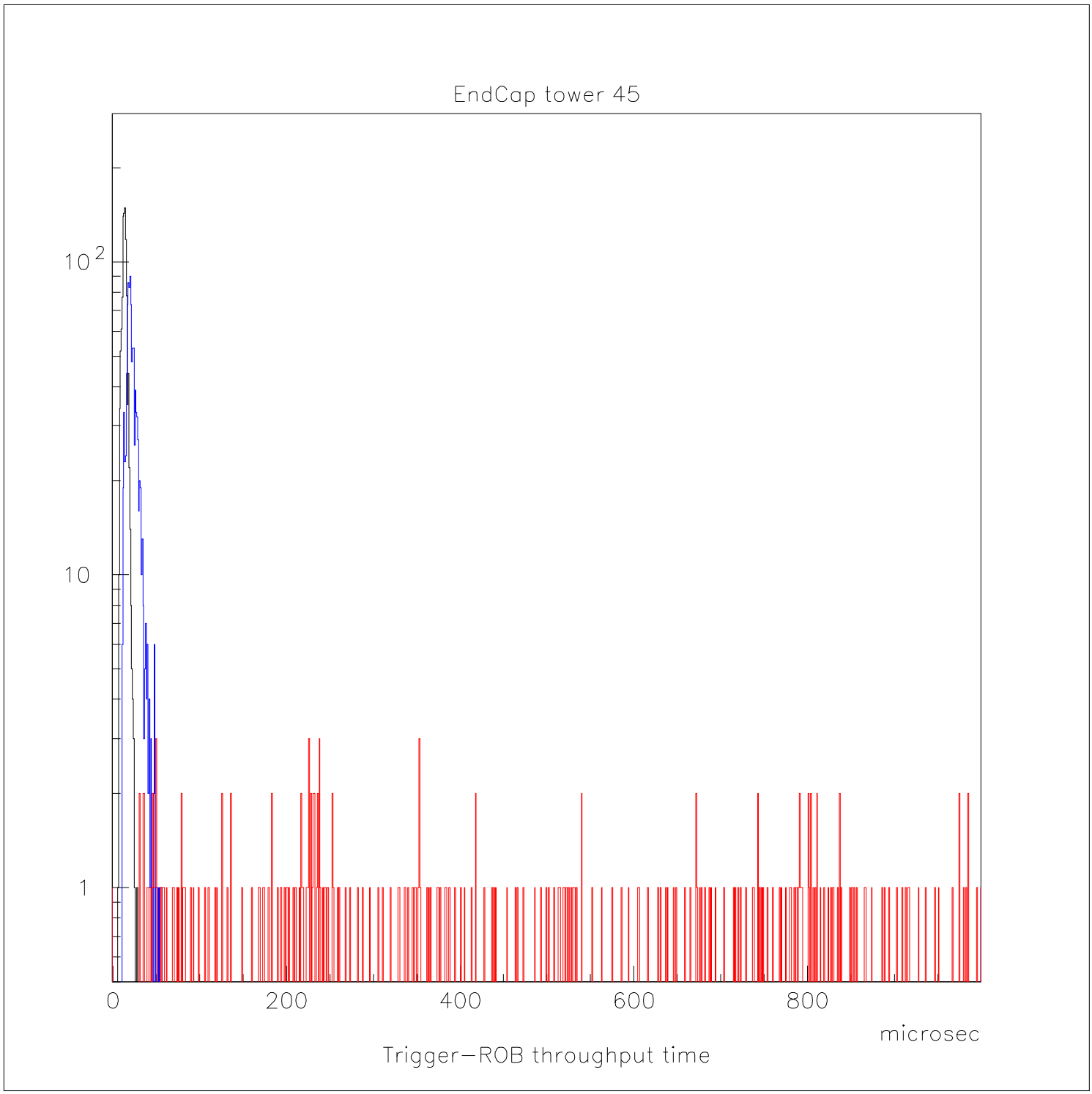

EndCap tower 44
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time

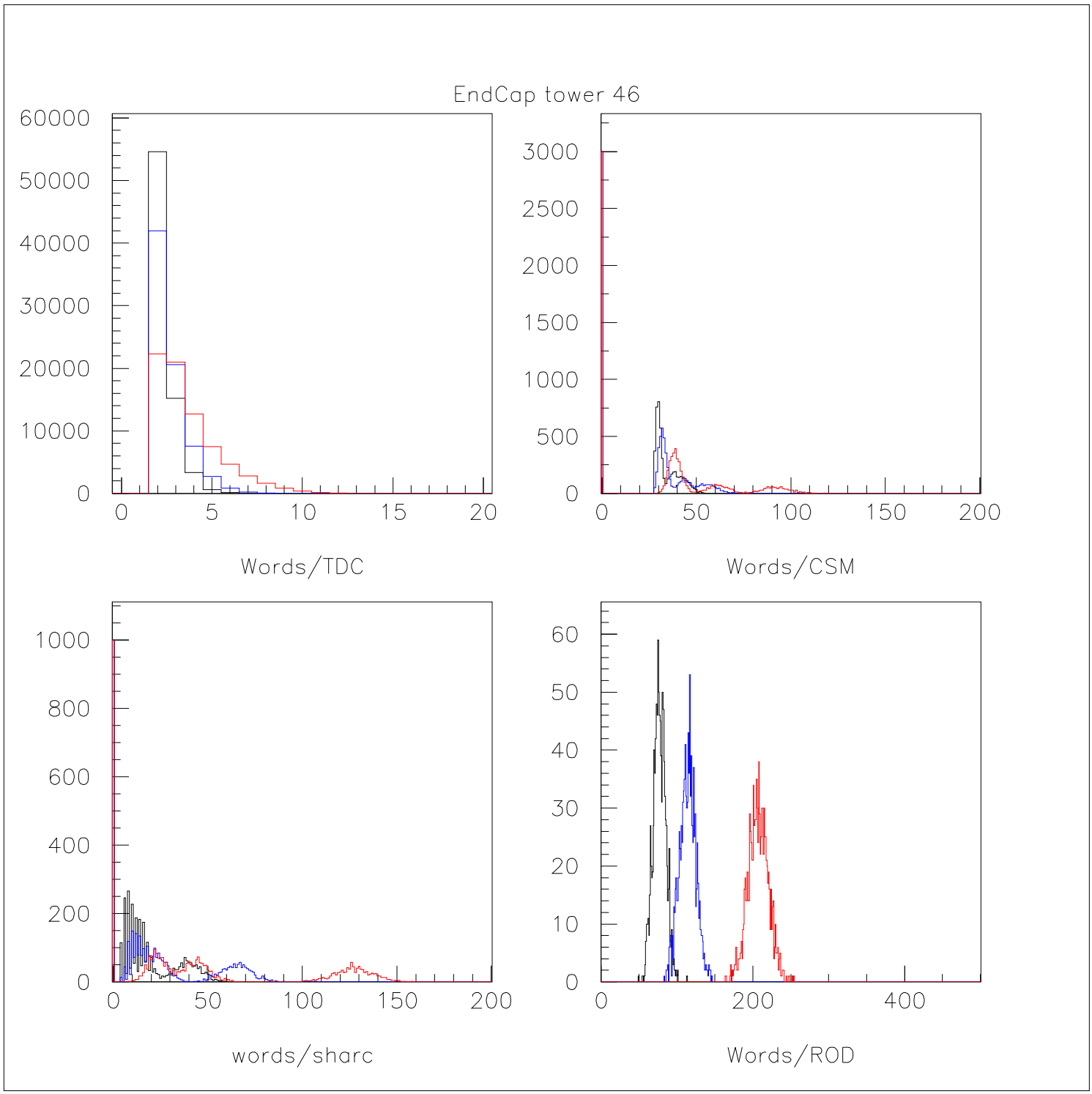

EndCap tower 45
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
3000
2500
2000
1500
1000
500
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD

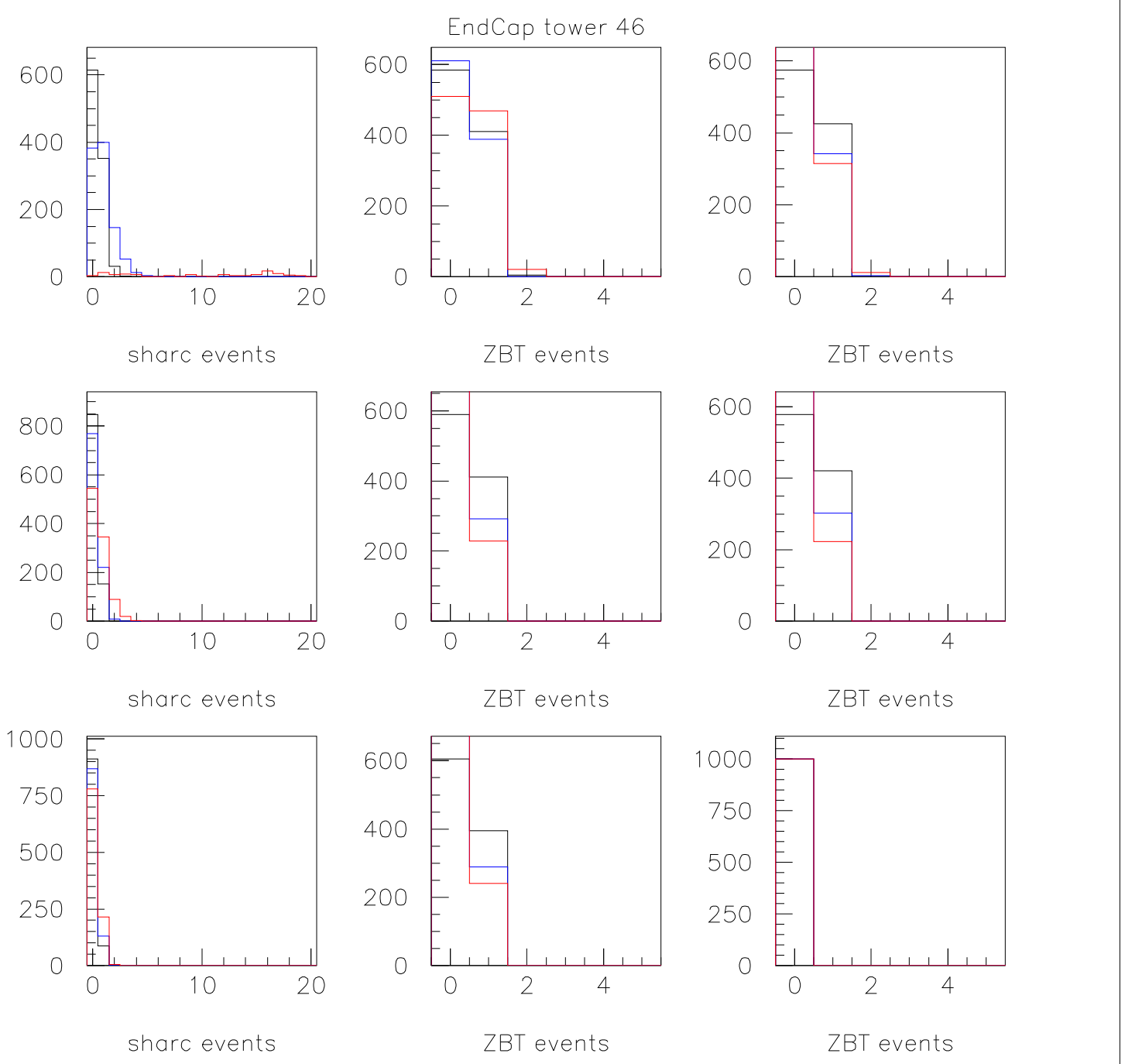

EndCap tower 45
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
2
4
ZBT events

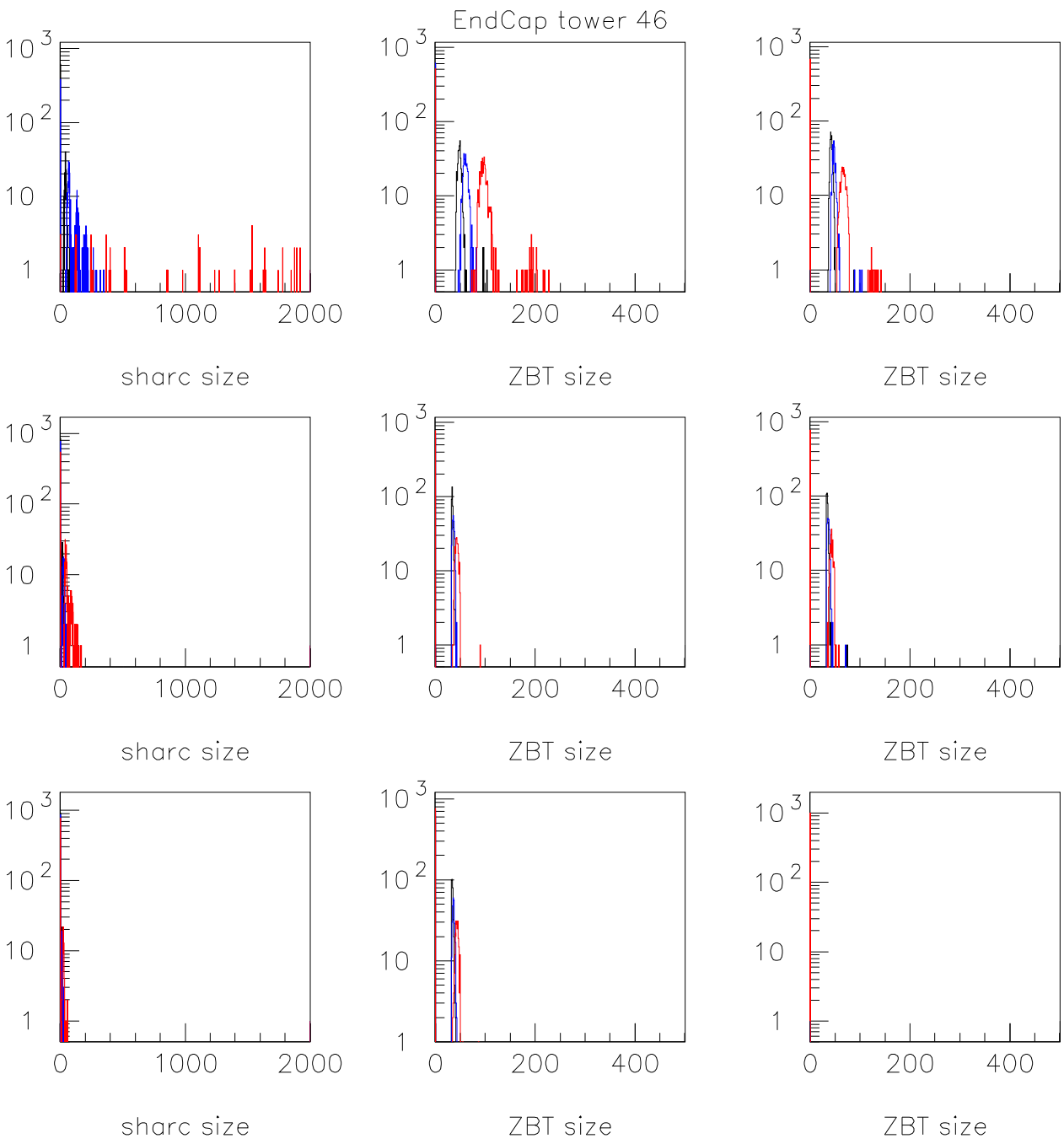

EndCap tower 45
$10^3$
$10^2$
10
1
0
1000
2000
200
400
sharc size
ZBT size

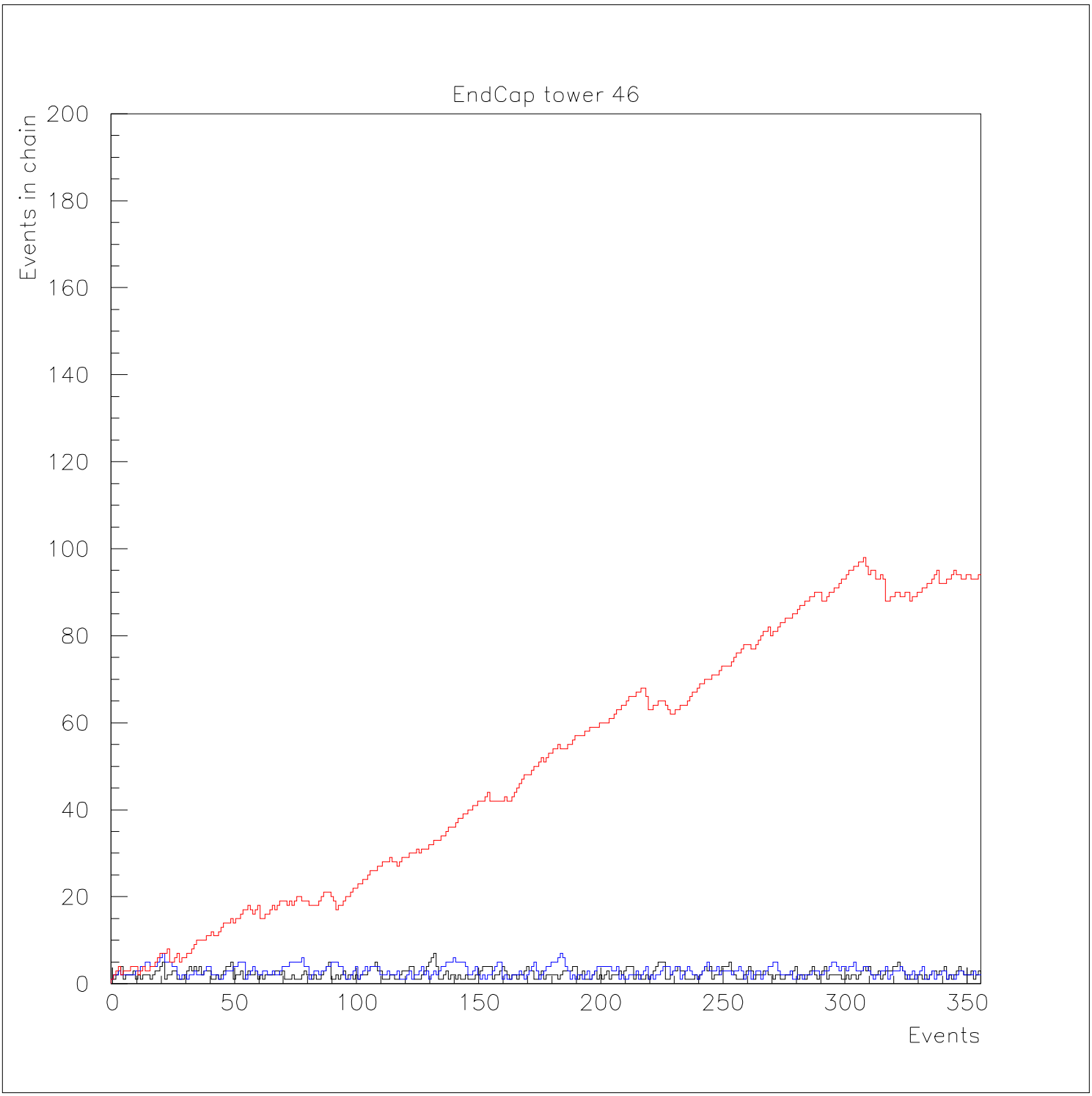

EndCap tower 45
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events

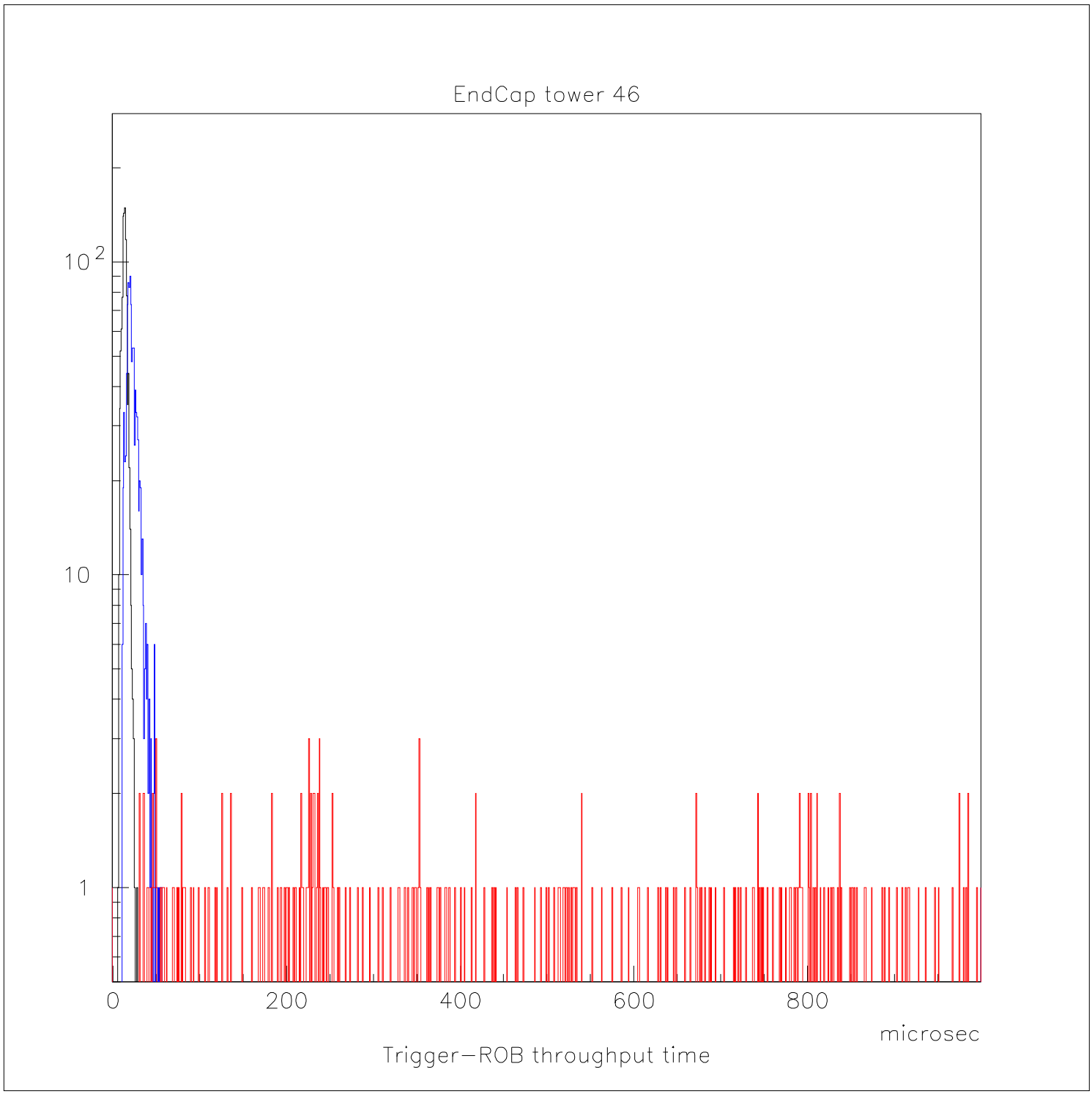

EndCap tower 45
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time


EndCap tower 46
60000
50000
40000
30000
20000
10000
0
0
5
10
15
20
Words/TDC
3000
2500
2000
1500
1000
500
0
0
50
100
150
200
Words/CSM
1000
800
600
400
200
0
0
50
100
150
200
words/sharc
60
50
40
30
20
10
0
0
200
400
Words/ROD


EndCap tower 46
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
800
600
400
200
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
600
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
10
20
sharc events
600
400
200
0
0
2
4
ZBT events
1000
750
500
250
0
0
2
4
ZBT events


EndCap tower 46
$10^3$
$10^2$
10
1
0
1000
2000
200
400
sharc size
ZBT size


EndCap tower 46
Events in chain
200
180
160
140
120
100
80
60
40
20
0
0
50
100
150
200
250
300
350
Events


EndCap tower 46
10 2
10
1
0
200
400
600
800
microsec
Trigger−ROB throughput time