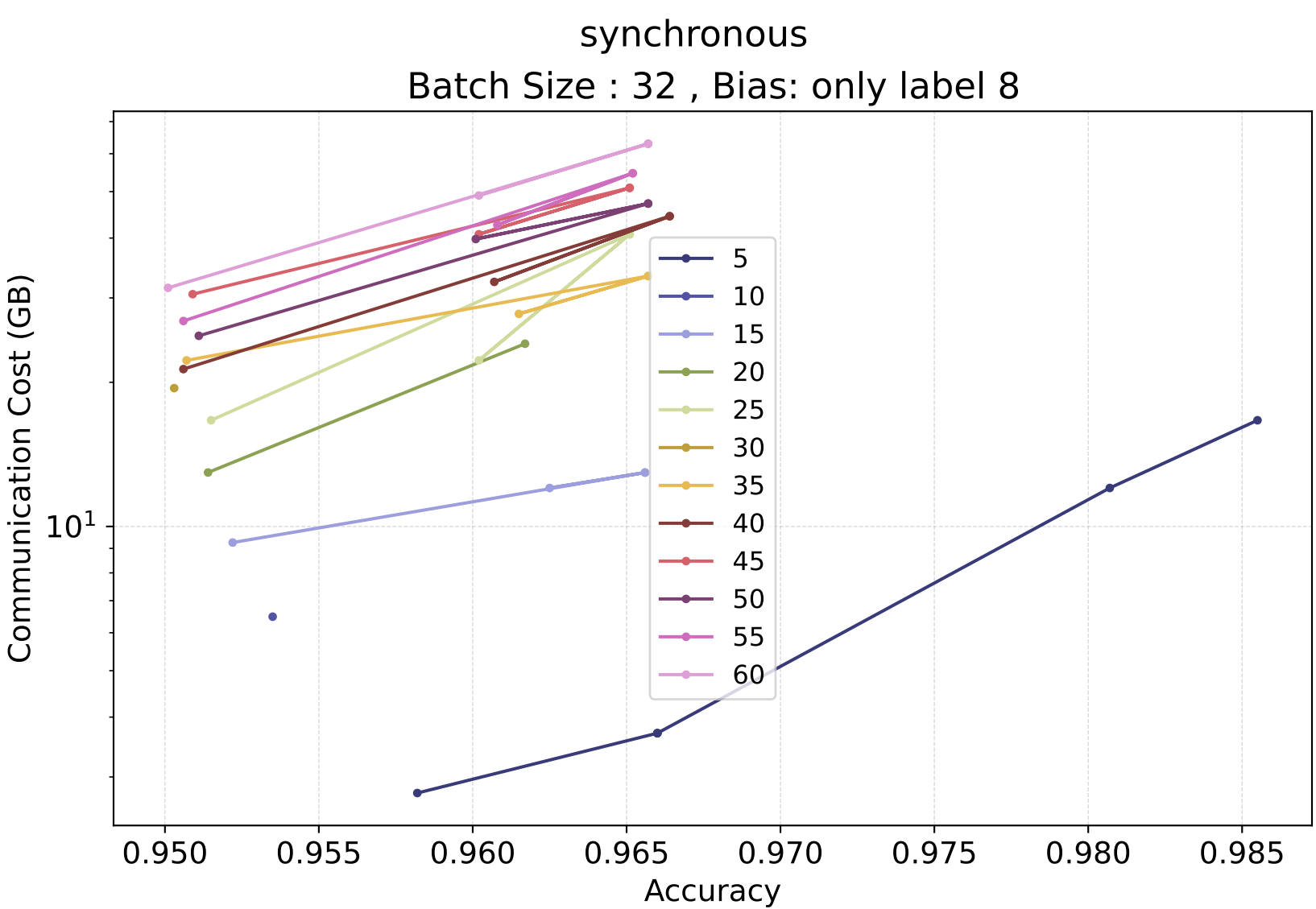
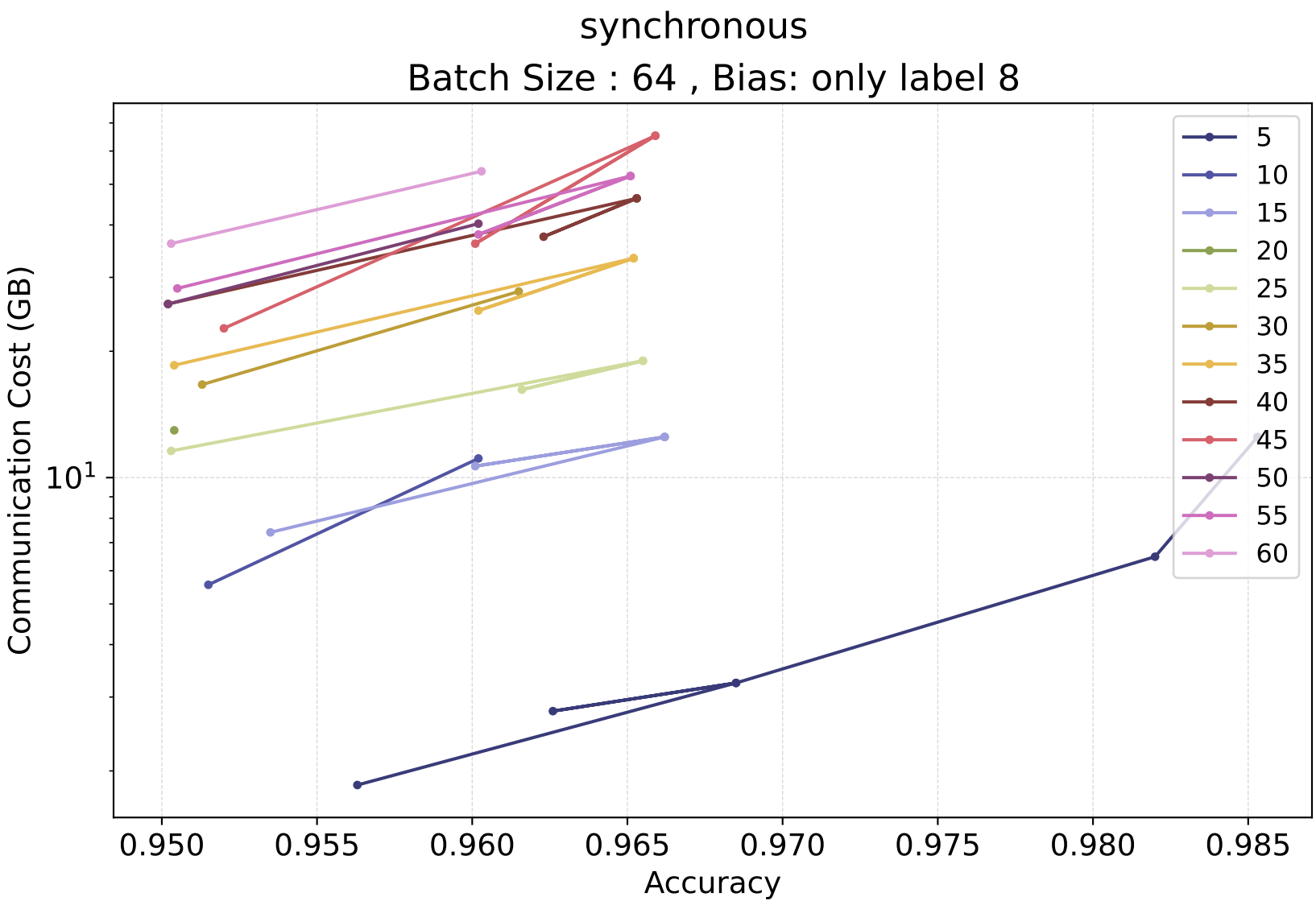
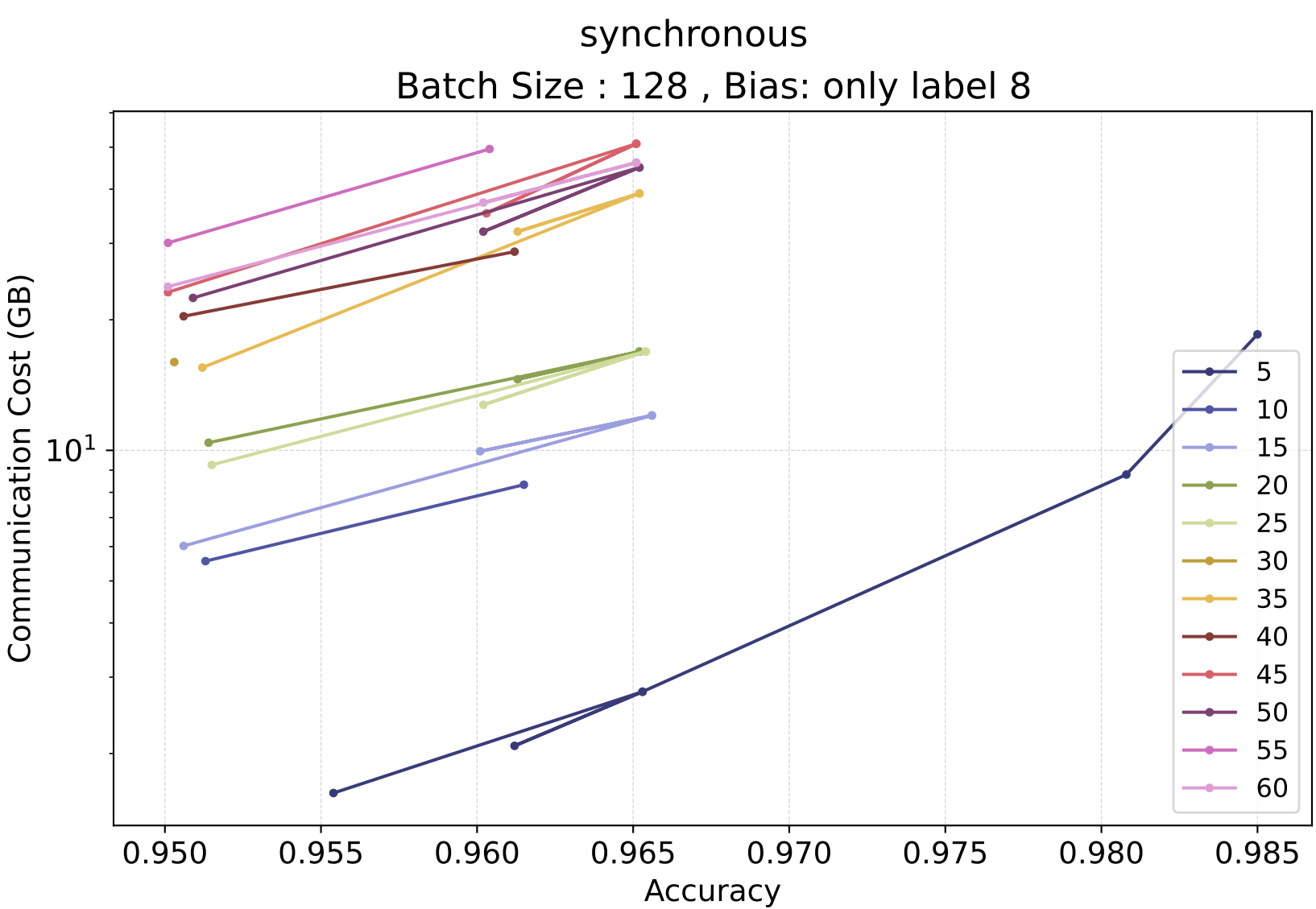
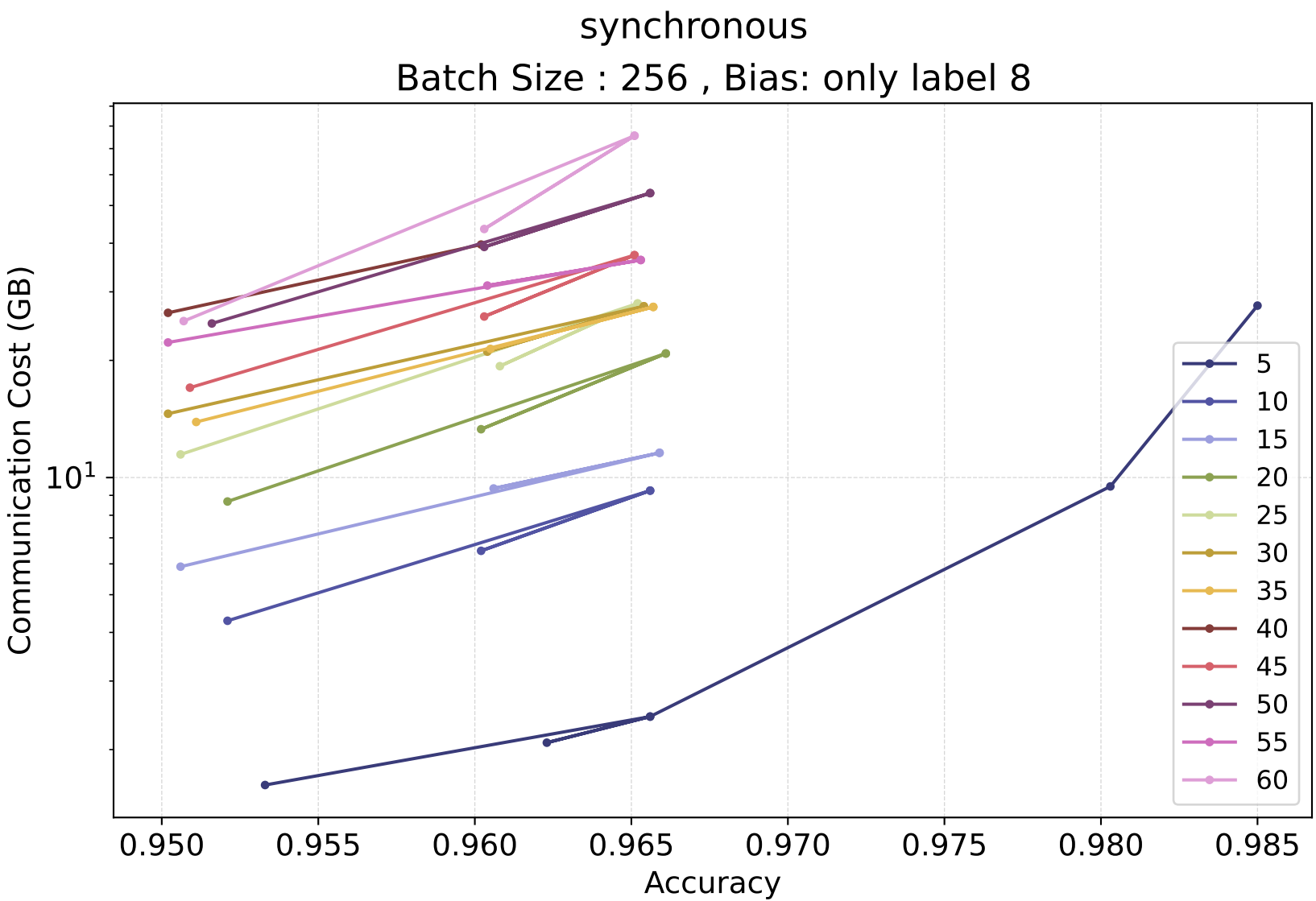
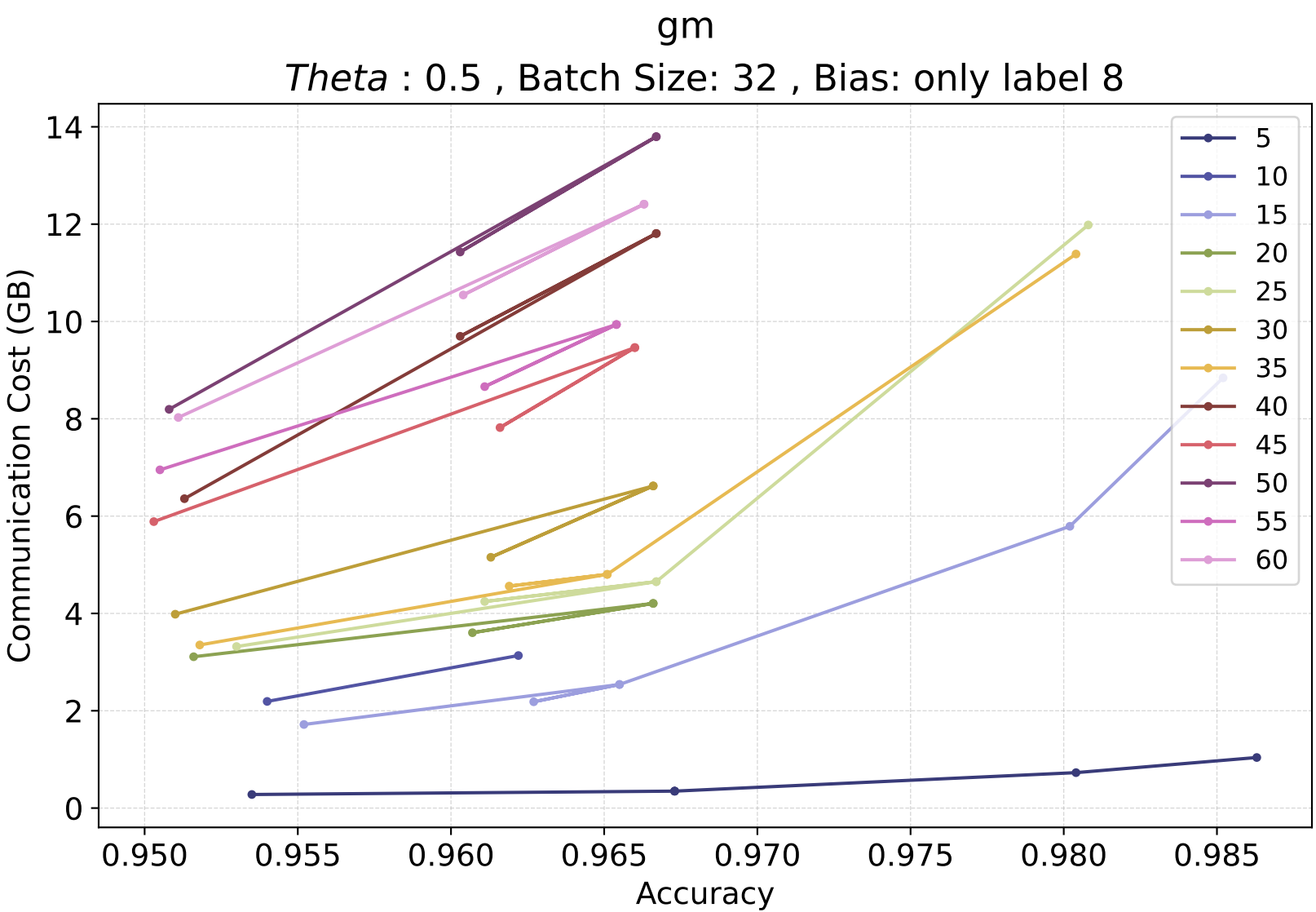
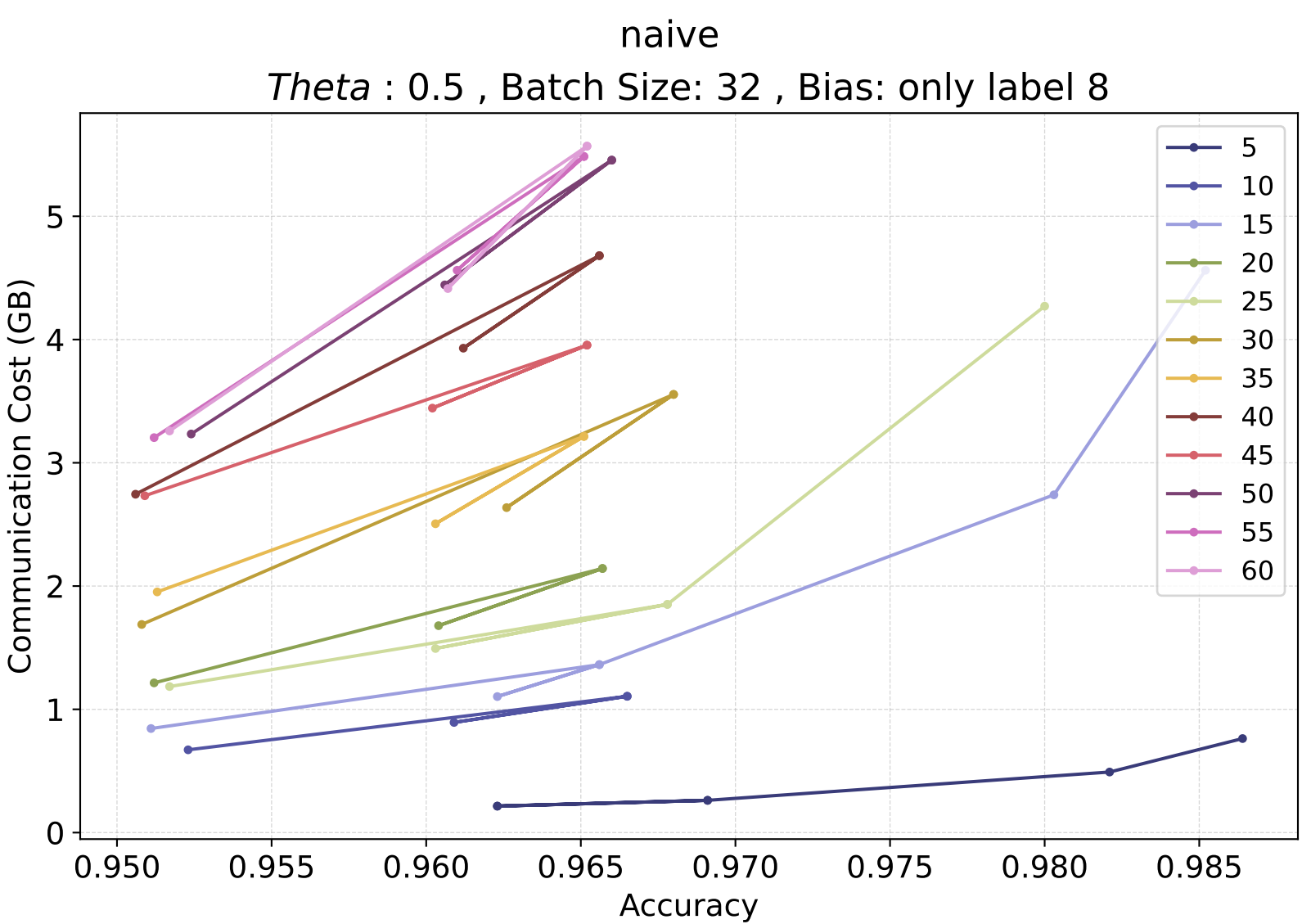

synchronous
Batch Size : 32 , Bias: only label 8
Communication Cost (GB)
10^1
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
20
25
30
35
40
45
50
55
60

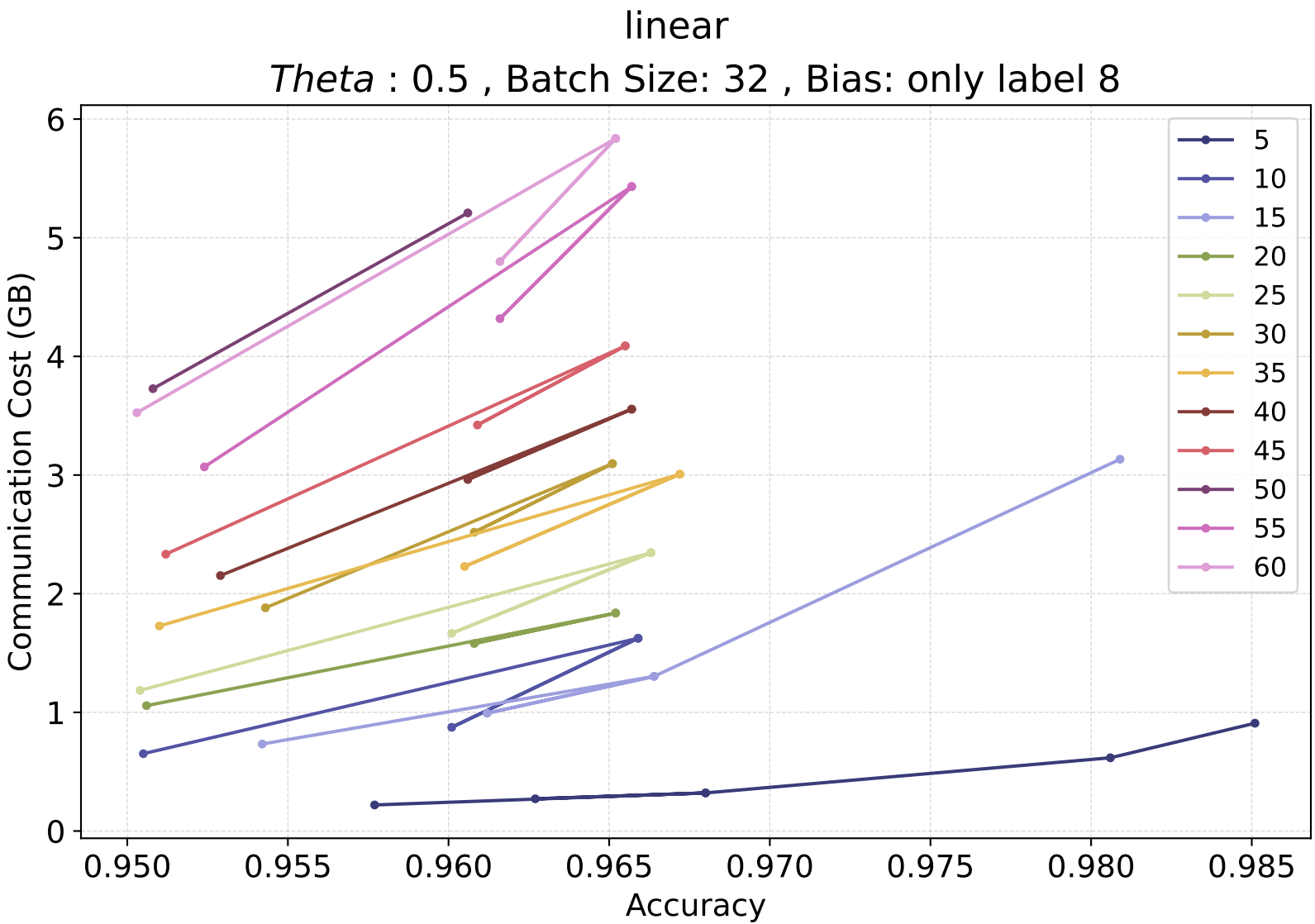

synchronous
Batch Size : 64 , Bias: only label 8
Communication Cost (GB)
10^1
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
20
25
30
35
40
45
50
55
60

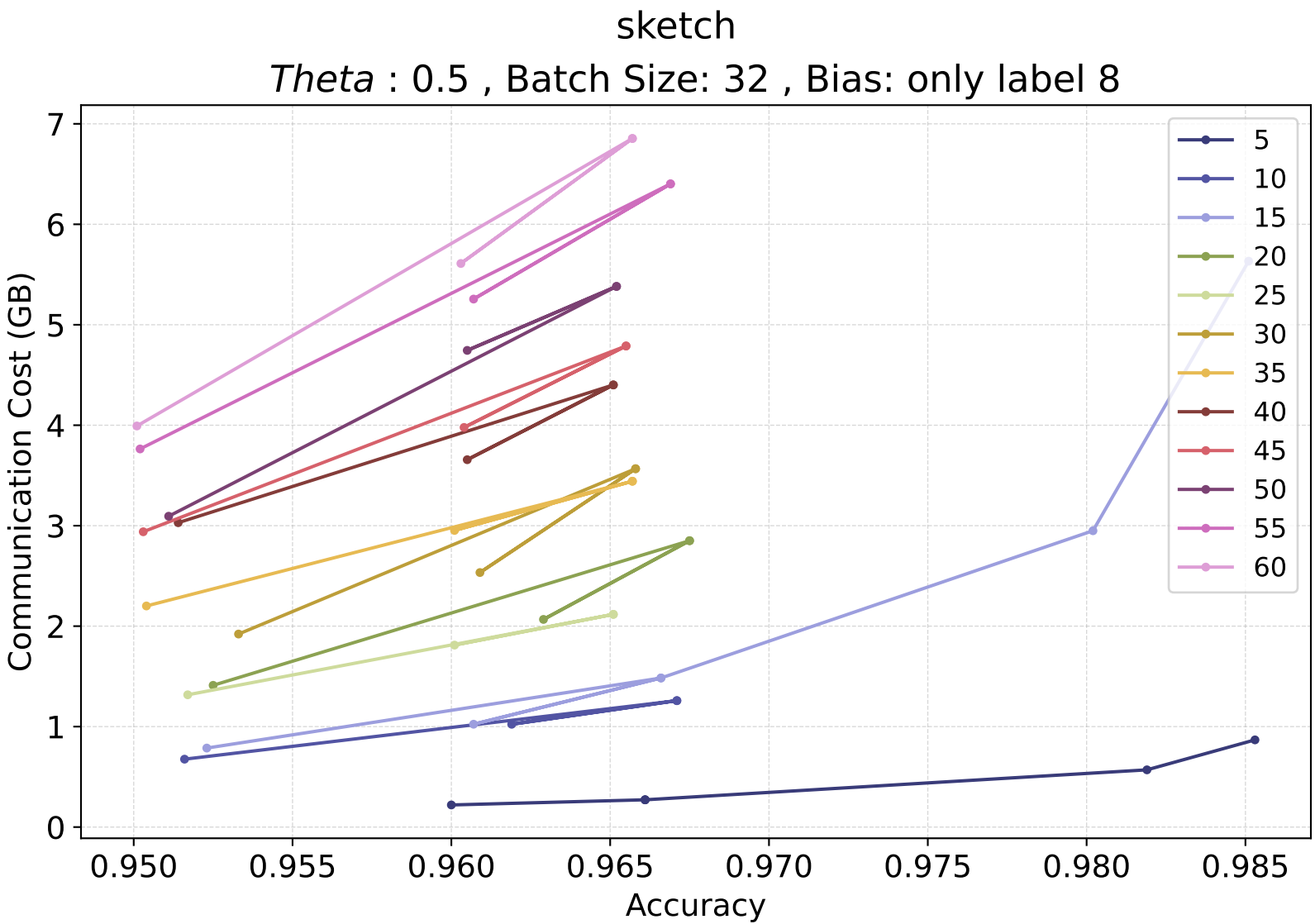

synchronous
Batch Size : 128 , Bias: only label 8
Communication Cost (GB)
10^1
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
20
25
30
35
40
45
50
55
60

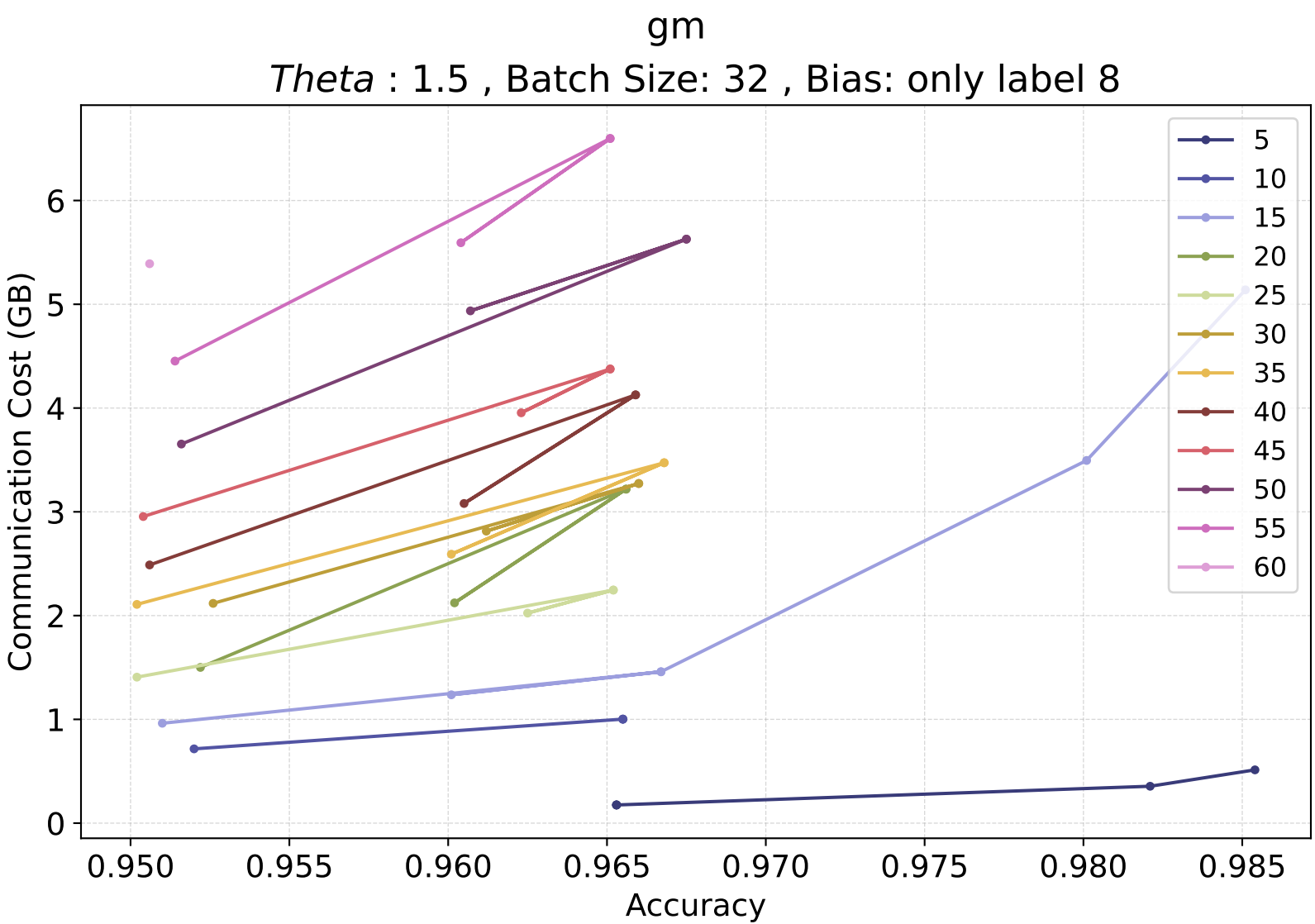

synchronous
Batch Size : 256 , Bias: only label 8
Communication Cost (GB)
10^1
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
20
25
30
35
40
45
50
55
60

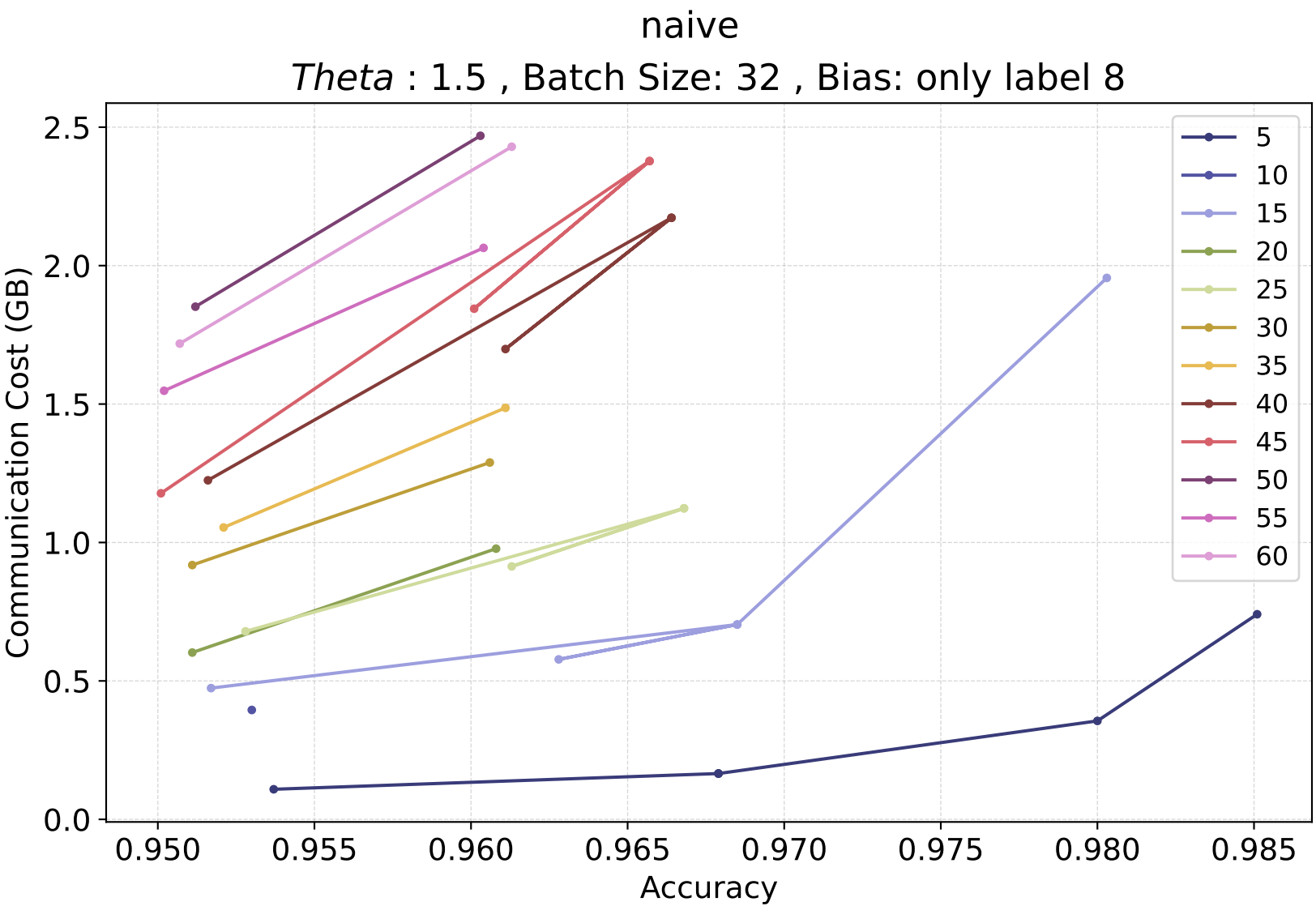

gm
Theta : 0.5 , Batch Size: 32 , Bias: only label 8
Communication Cost (GB)
Accuracy
0
2
4
6
8
10
12
14
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
5
10
15
20
25
30
35
40
45
50
55
60

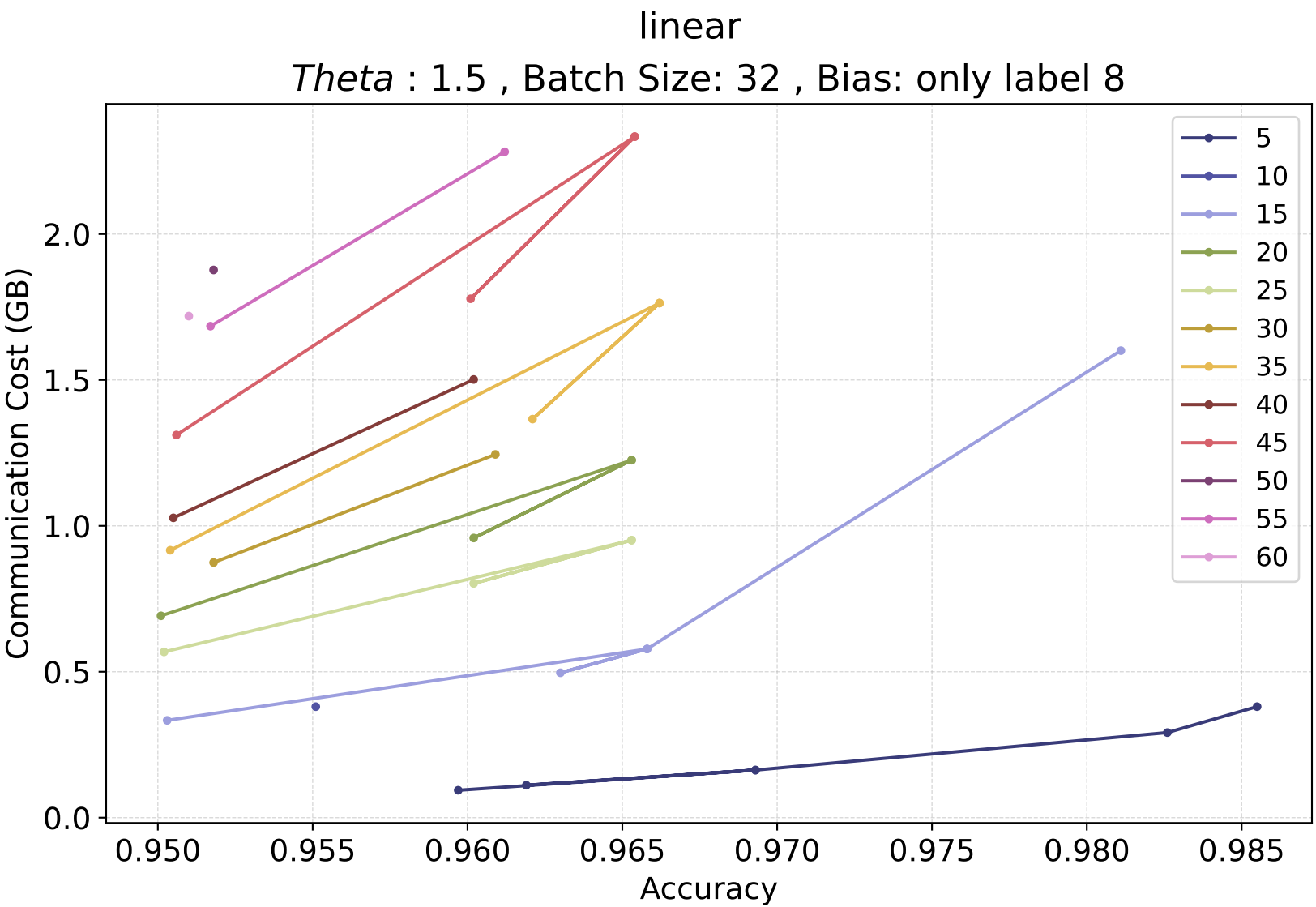

naive
Theta : 0.5 , Batch Size: 32 , Bias: only label 8
Communication Cost (GB)
Accuracy
0
1
2
3
4
5
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
5
10
15
20
25
30
35
40
45
50
55
60

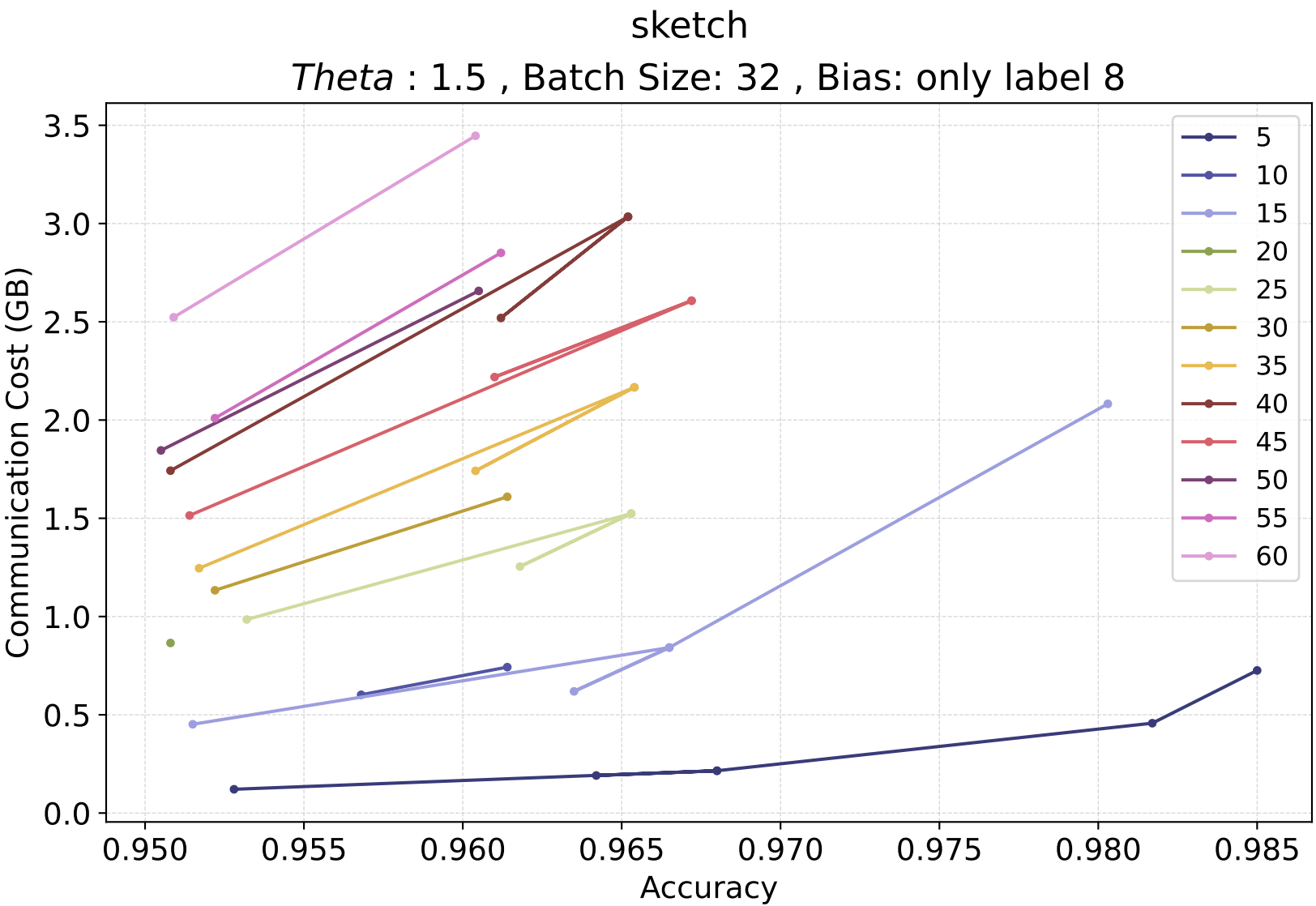

linear
Theta : 0.5 , Batch Size: 32 , Bias: only label 8
Communication Cost (GB)
Accuracy
0
1
2
3
4
5
6
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
5
10
15
20
25
30
35
40
45
50
55
60


sketch
Theta : 0.5 , Batch Size: 32 , Bias: only label 8
Communication Cost (GB)
Accuracy
0
1
2
3
4
5
6
7
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
5
10
15
20
25
30
35
40
45
50
55
60


gm
Theta : 1.5 , Batch Size: 32 , Bias: only label 8
Communication Cost (GB)
Accuracy
0
1
2
3
4
5
6
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
5
10
15
20
25
30
35
40
45
50
55
60


naive
Theta : 1.5 , Batch Size: 32 , Bias: only label 8
Communication Cost (GB)
Accuracy
0.0
0.5
1.0
1.5
2.0
2.5
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
5
10
15
20
25
30
35
40
45
50
55
60


linear
Theta : 1.5 , Batch Size: 32 , Bias: only label 8
Communication Cost (GB)
0.0
0.5
1.0
1.5
2.0
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
20
25
30
35
40
45
50
55
60


sketch
Theta : 1.5 , Batch Size: 32 , Bias: only label 8
Communication Cost (GB)
Accuracy
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
5
10
15
20
25
30
35
40
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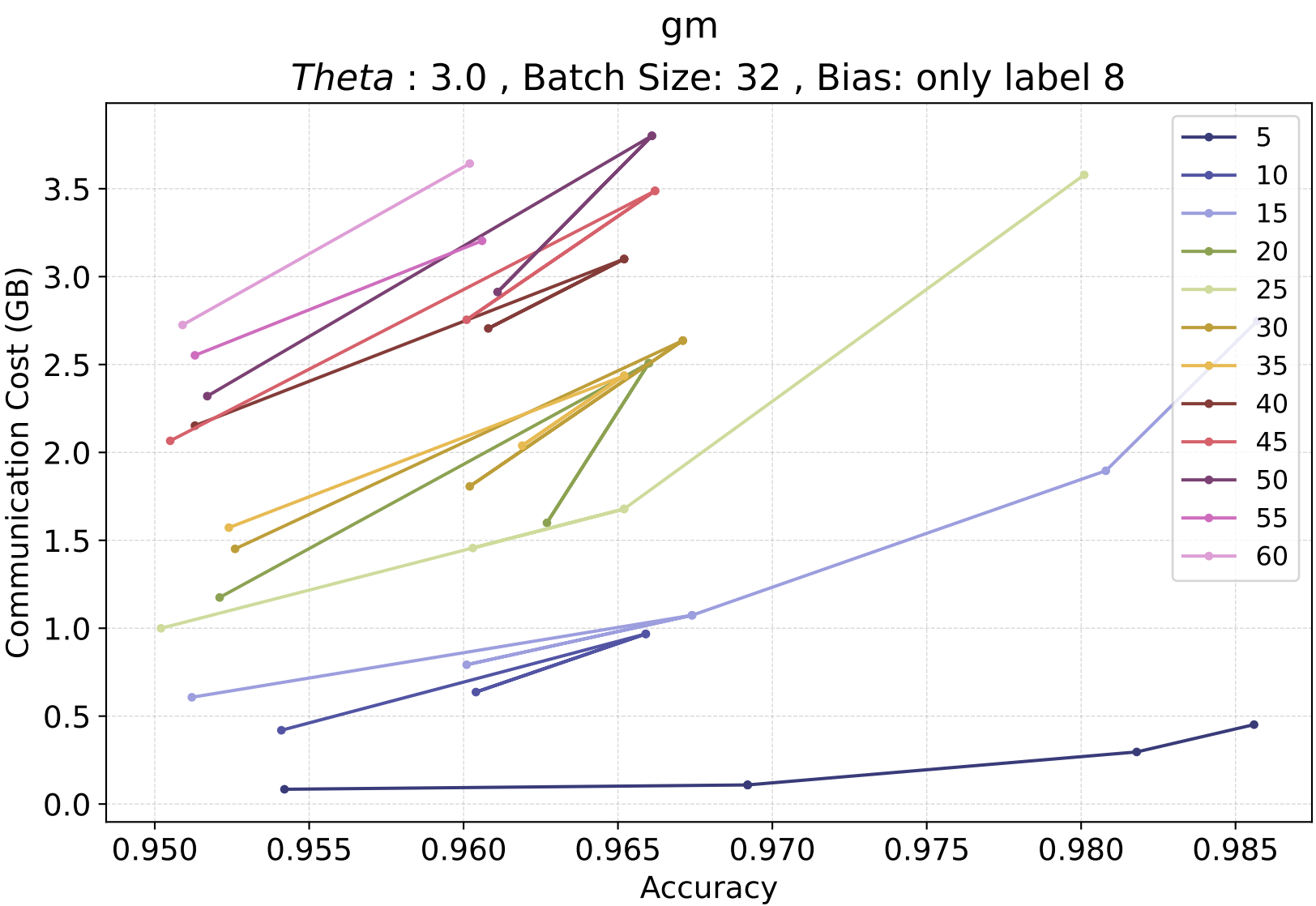
gm
Theta : 3.0 , Batch Size: 32 , Bias: only label 8
Communication Cost (GB)
Accuracy
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
5
10
15
20
25
30
35
40
45
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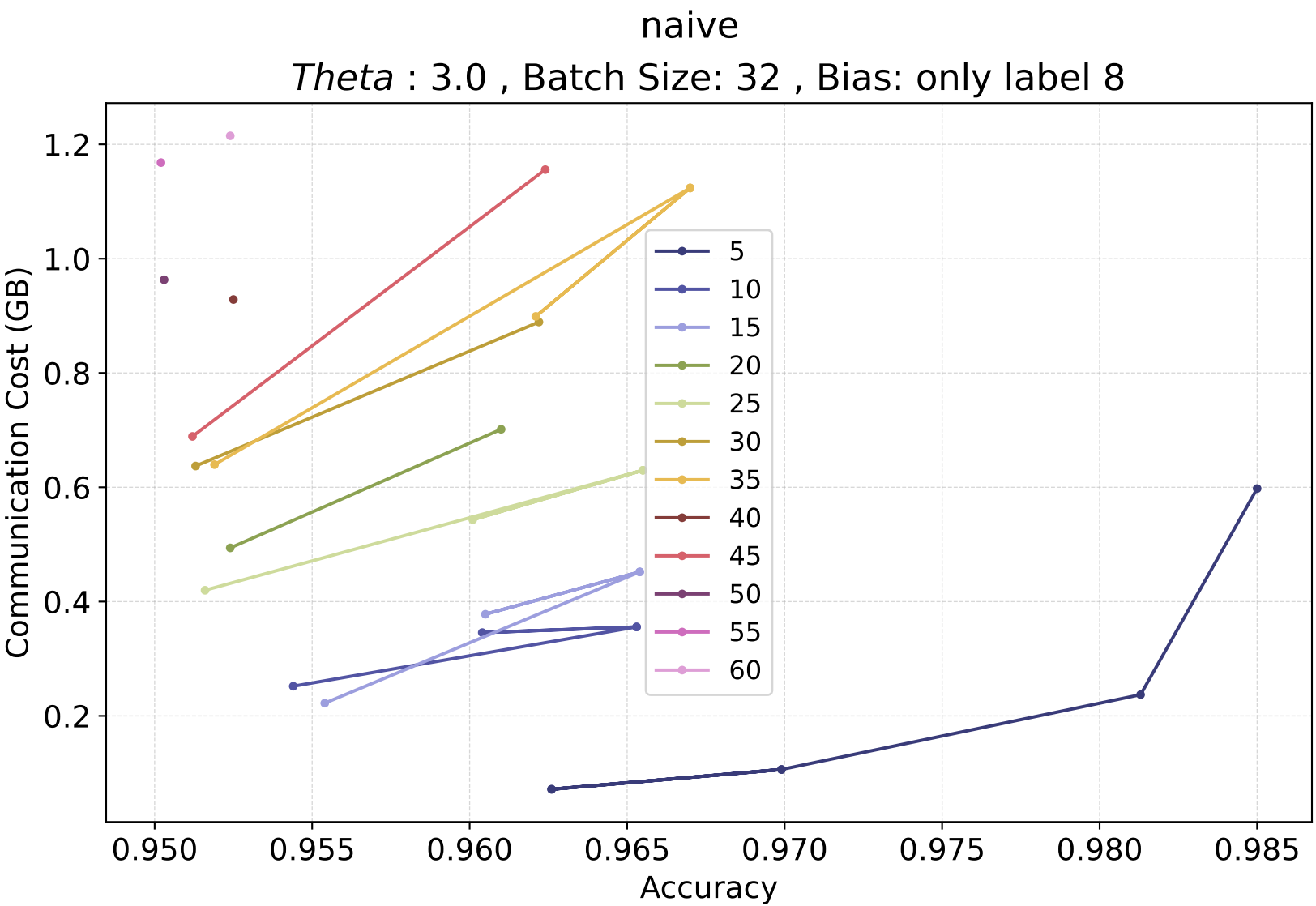
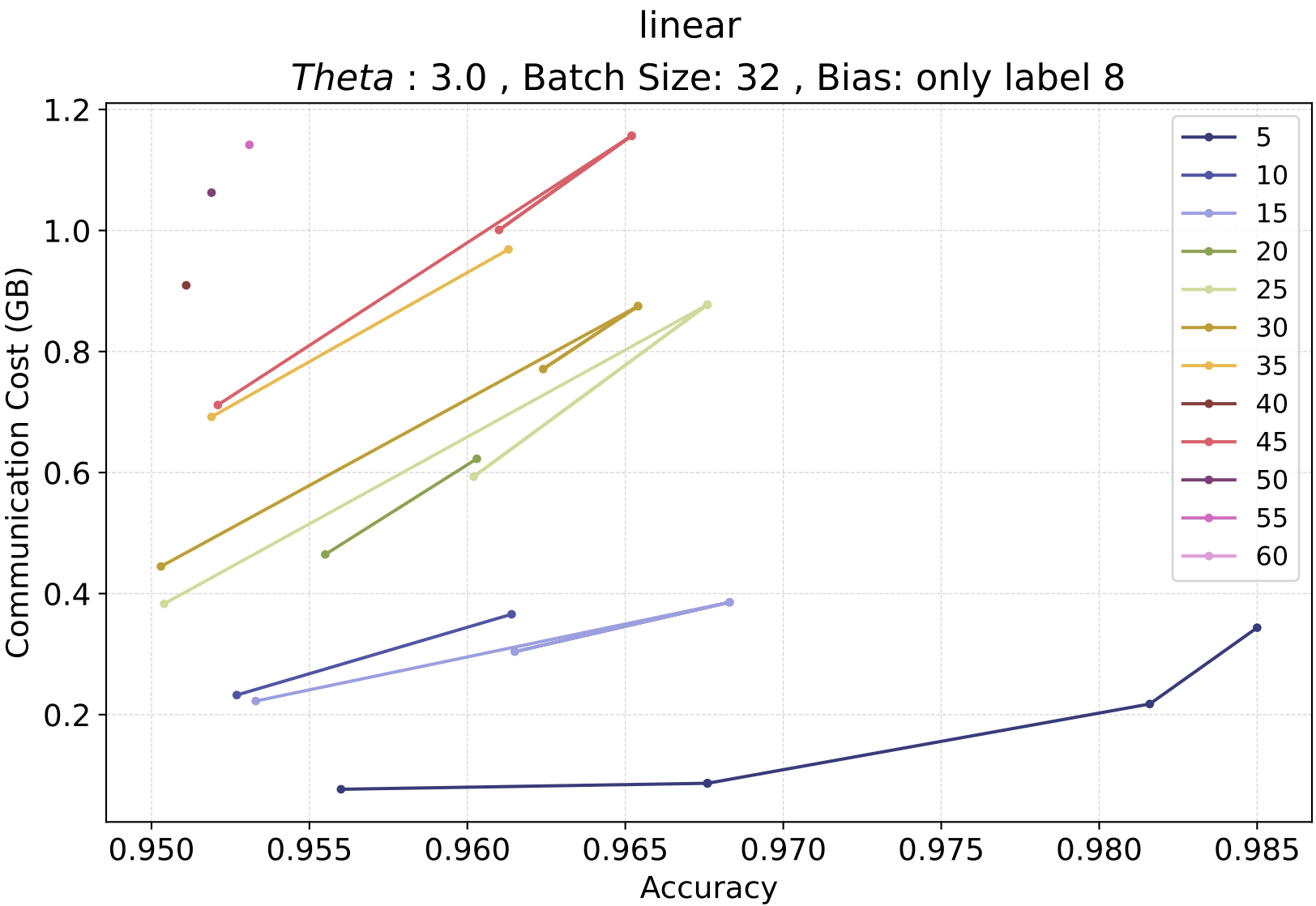
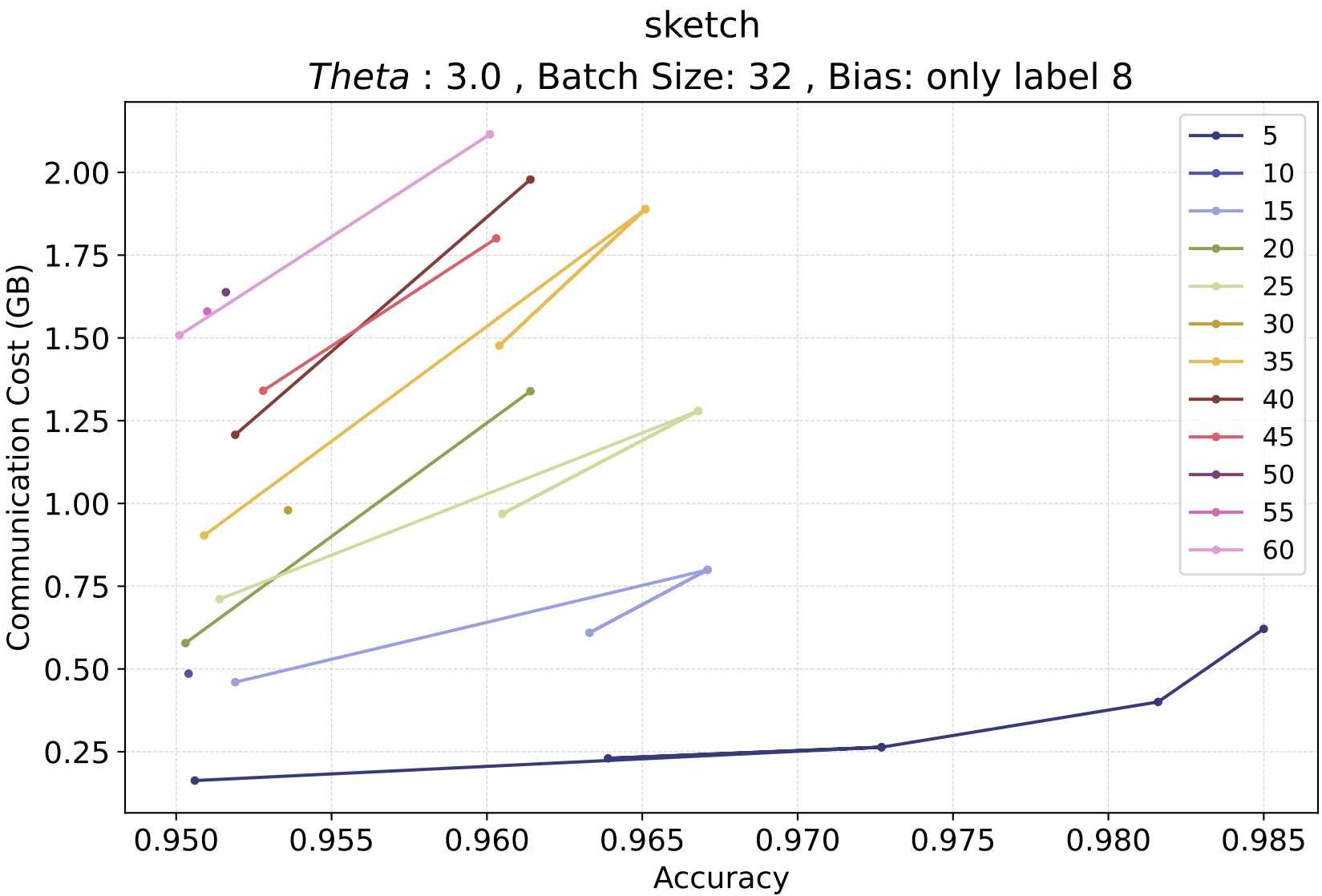
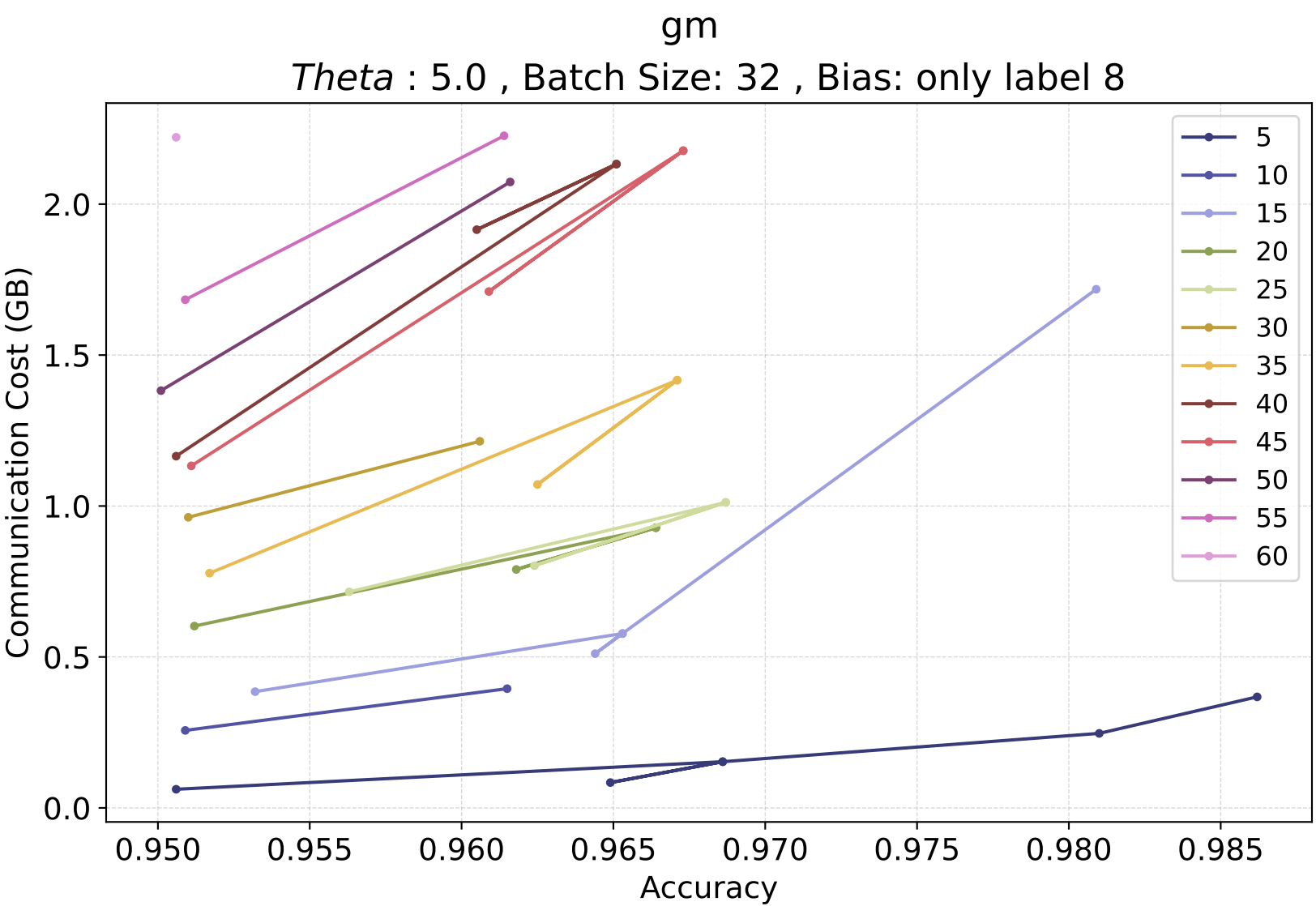
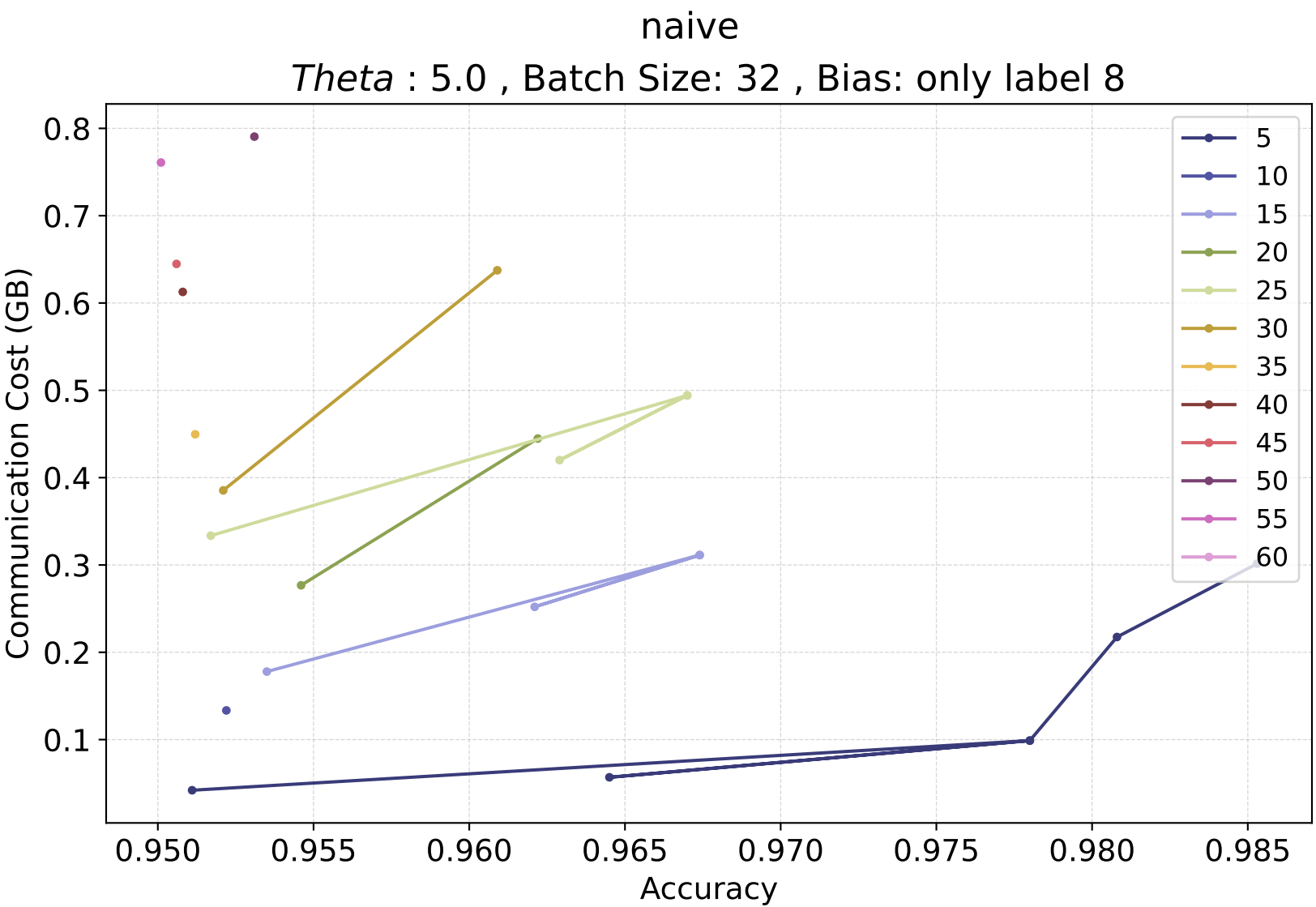
55
60


naive
Theta : 3.0 , Batch Size: 32 , Bias: only label 8
Communication Cost (GB)
1.2
1.0
0.8
0.6
0.4
0.2
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
20
25
30
35
40
45
50
55
60


linear
Theta : 3.0 , Batch Size: 32 , Bias: only label 8
Communication Cost (GB)
Accuracy
1.2
1.0
0.8
0.6
0.4
0.2
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
5
10
15
20
25
30
35
40
45
50
55
60


sketch
Theta : 3.0 , Batch Size: 32 , Bias: only label 8
Communication Cost (GB)
2.00
1.75
1.50
1.25
1.00
0.75
0.50
0.25
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
20
25
30
35
40
45
50
55
60


gm
Theta : 5.0 , Batch Size: 32 , Bias: only label 8
Communication Cost (GB)
0.0
0.5
1.0
1.5
2.0
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
20
25
30
35
40
45
50
55
60


naive
Theta : 5.0 , Batch Size: 32 , Bias: only label 8
Communication Cost (GB)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
20
25
30
35
40
45
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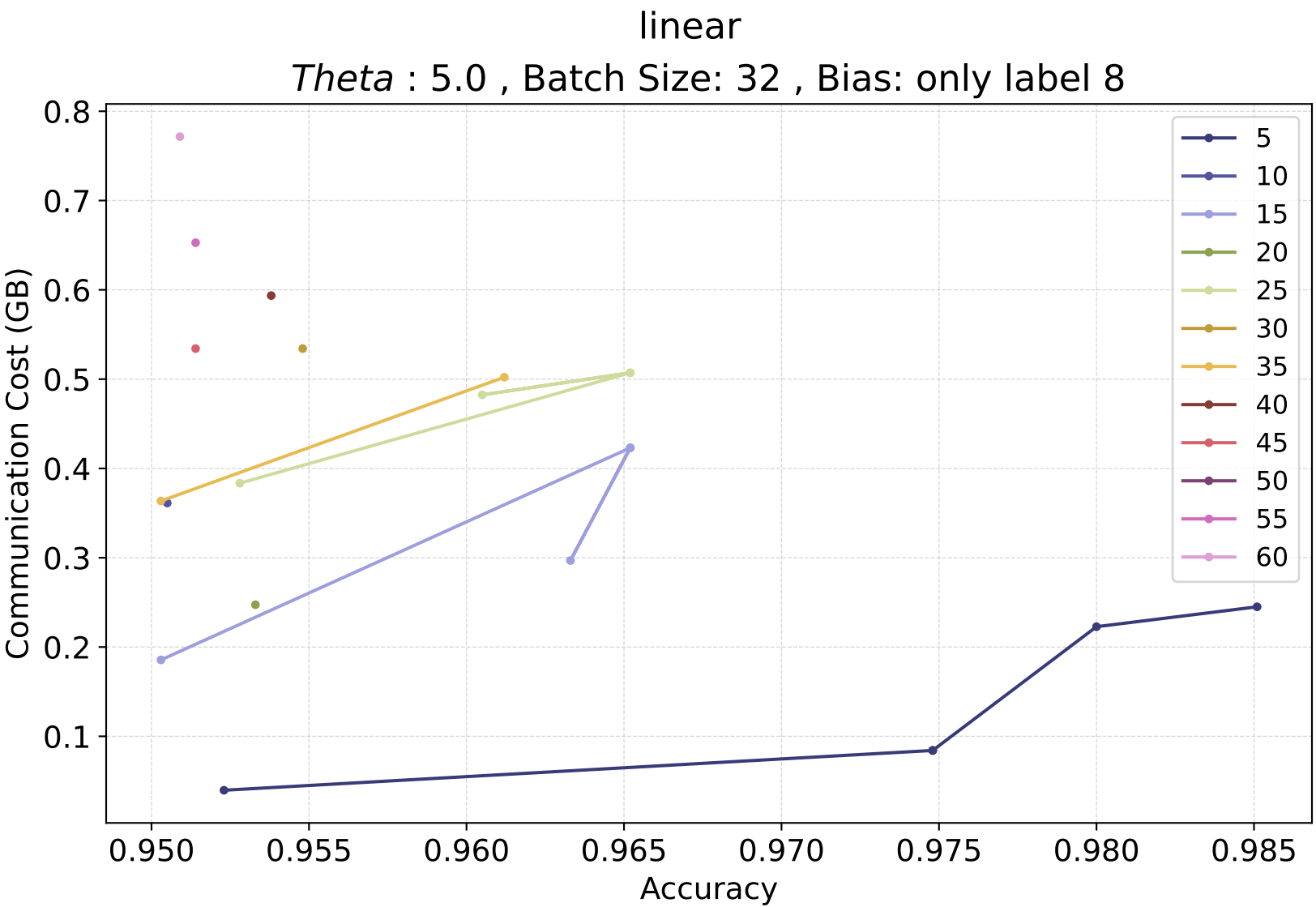
linear
Theta : 5.0 , Batch Size: 32 , Bias: only label 8
Communication Cost (GB)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
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25
30
35
40
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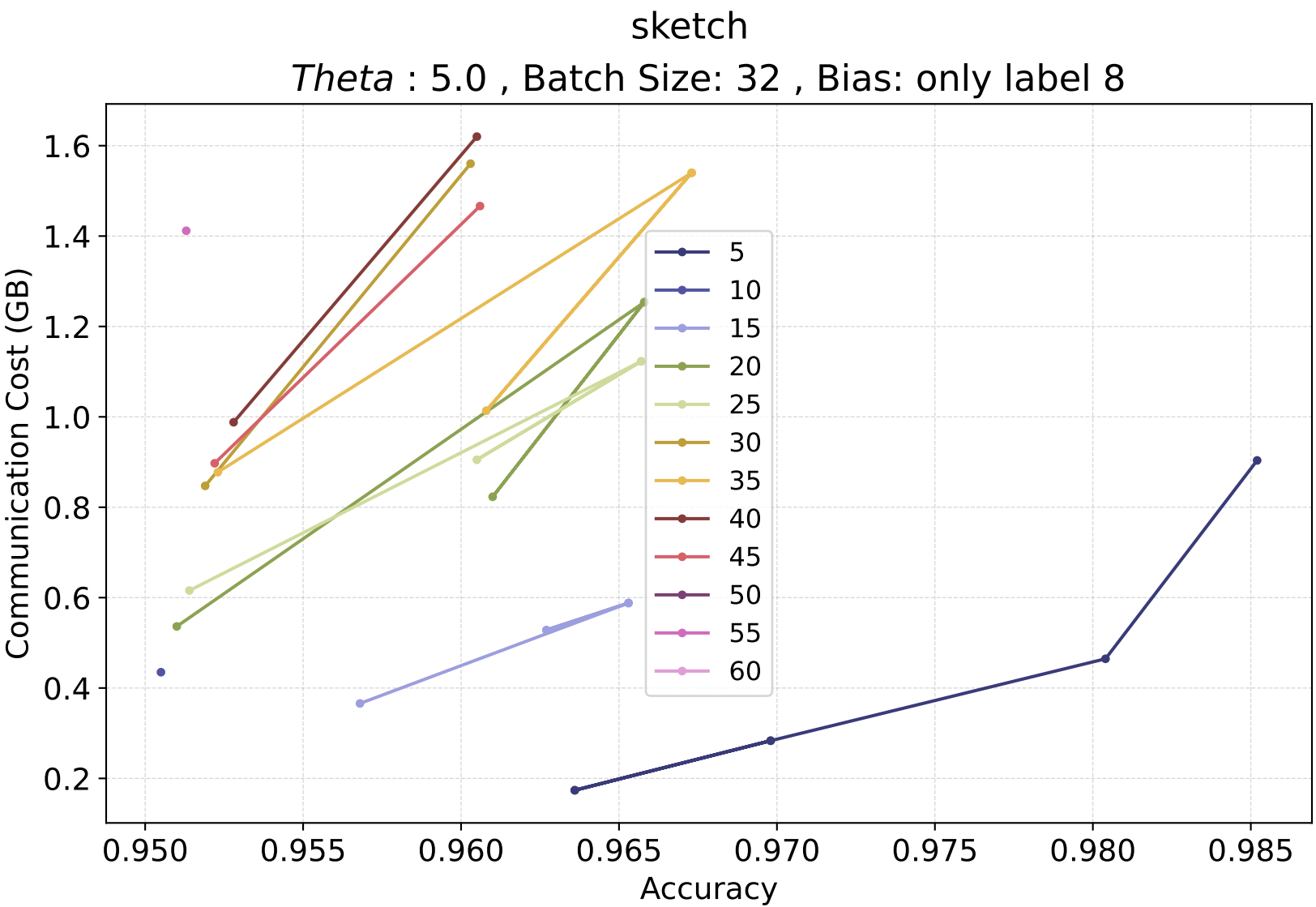
sketch
Theta : 5.0 , Batch Size: 32 , Bias: only label 8
Communication Cost (GB)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
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25
30
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40
45
50
55
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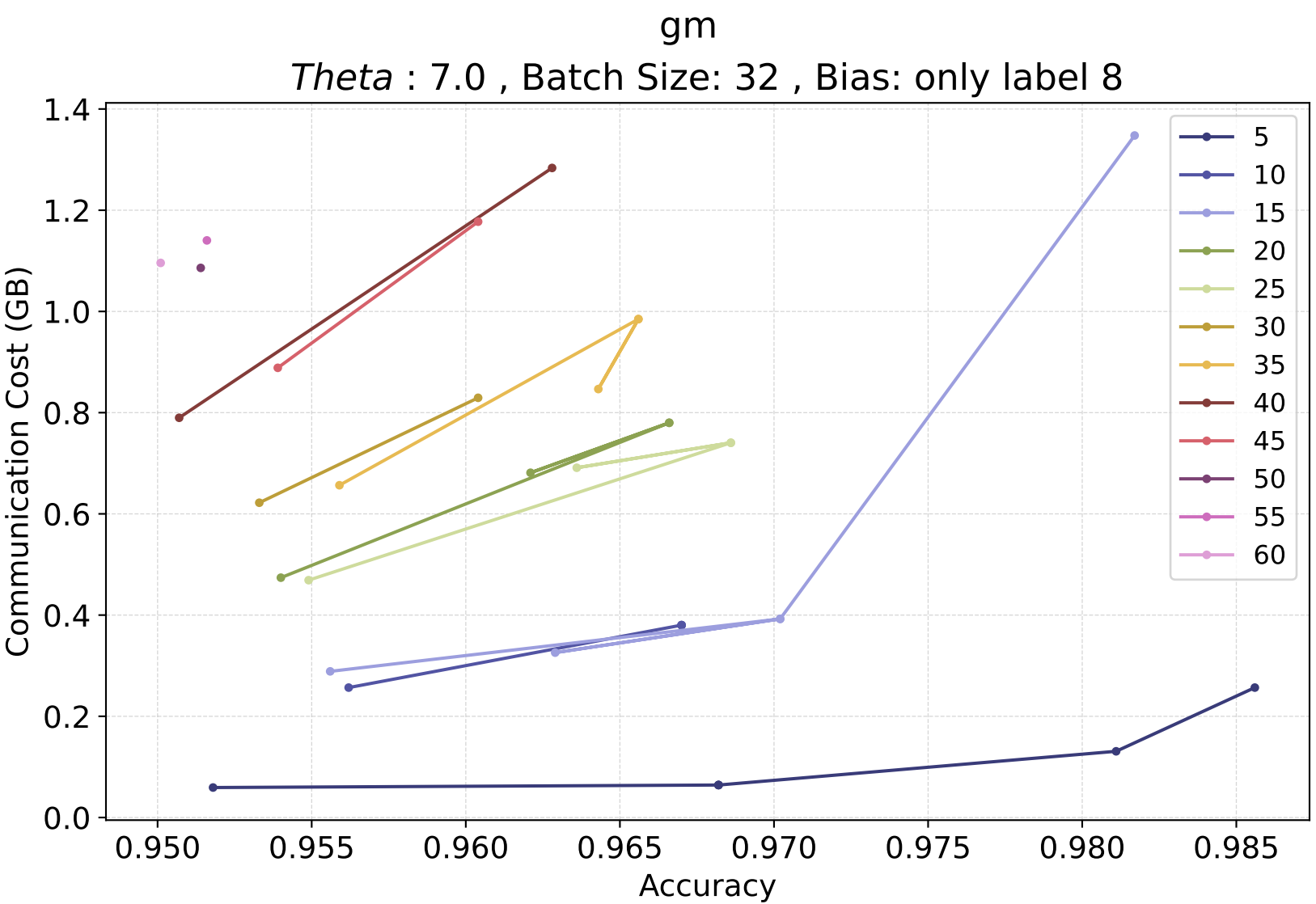
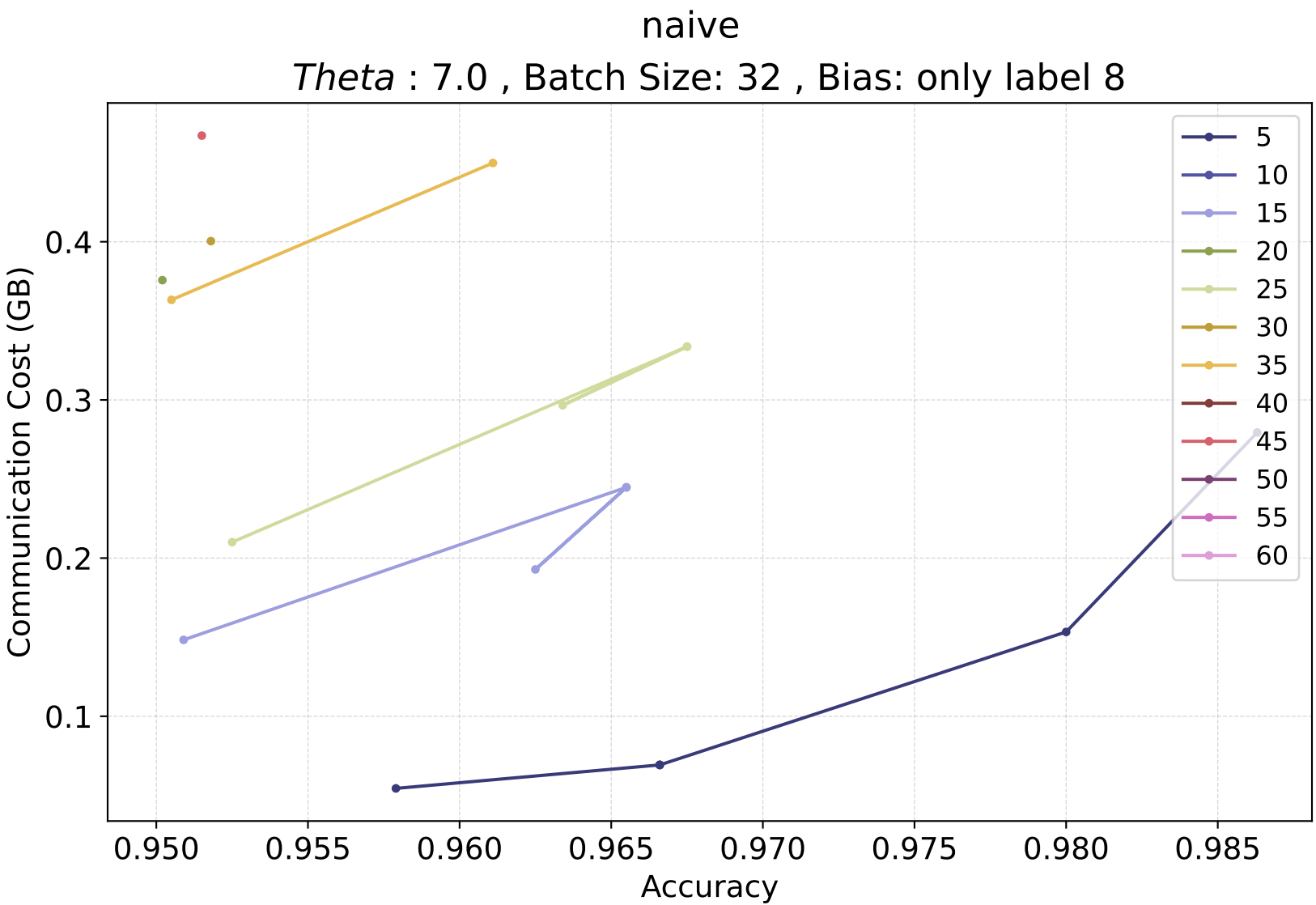
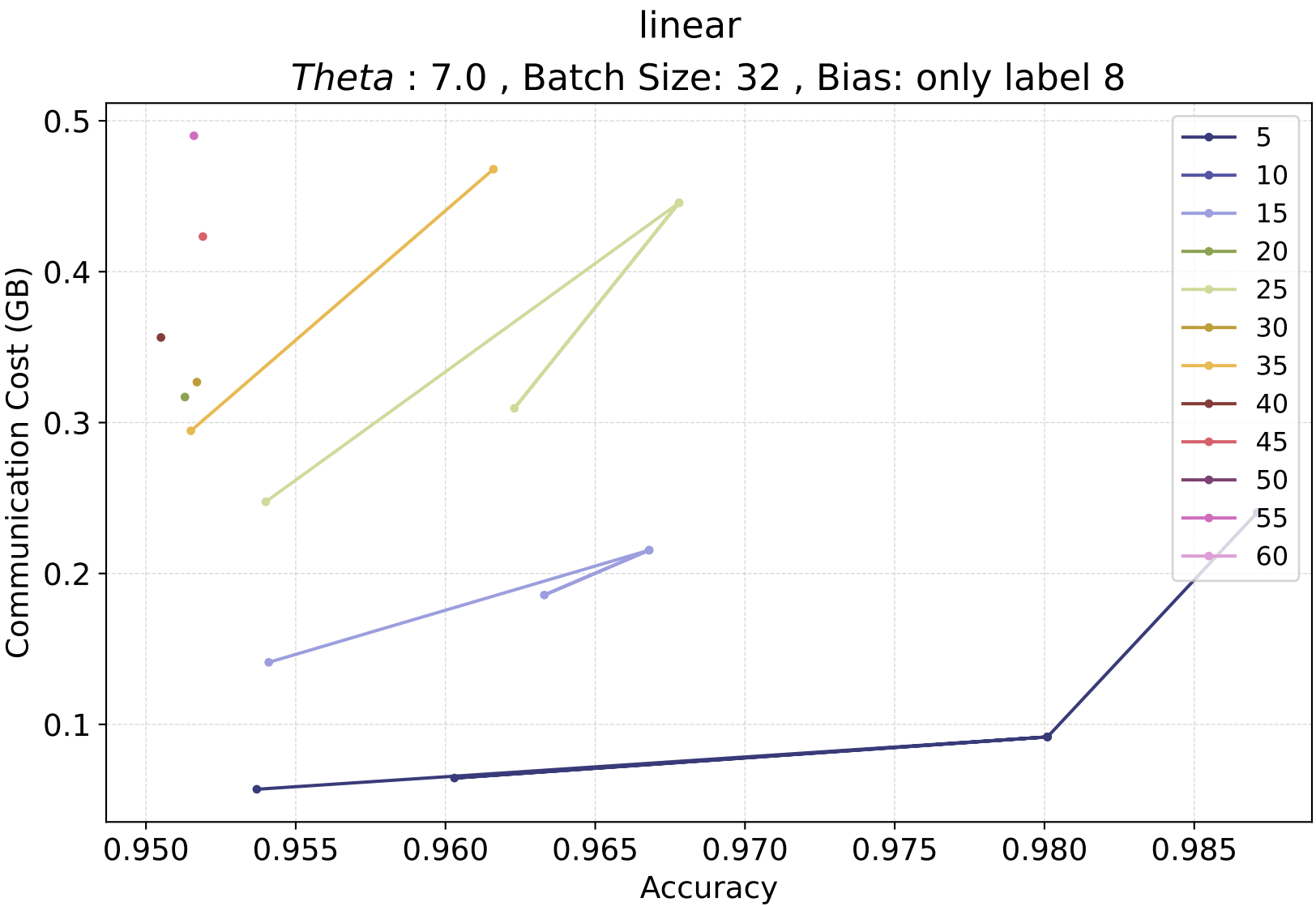
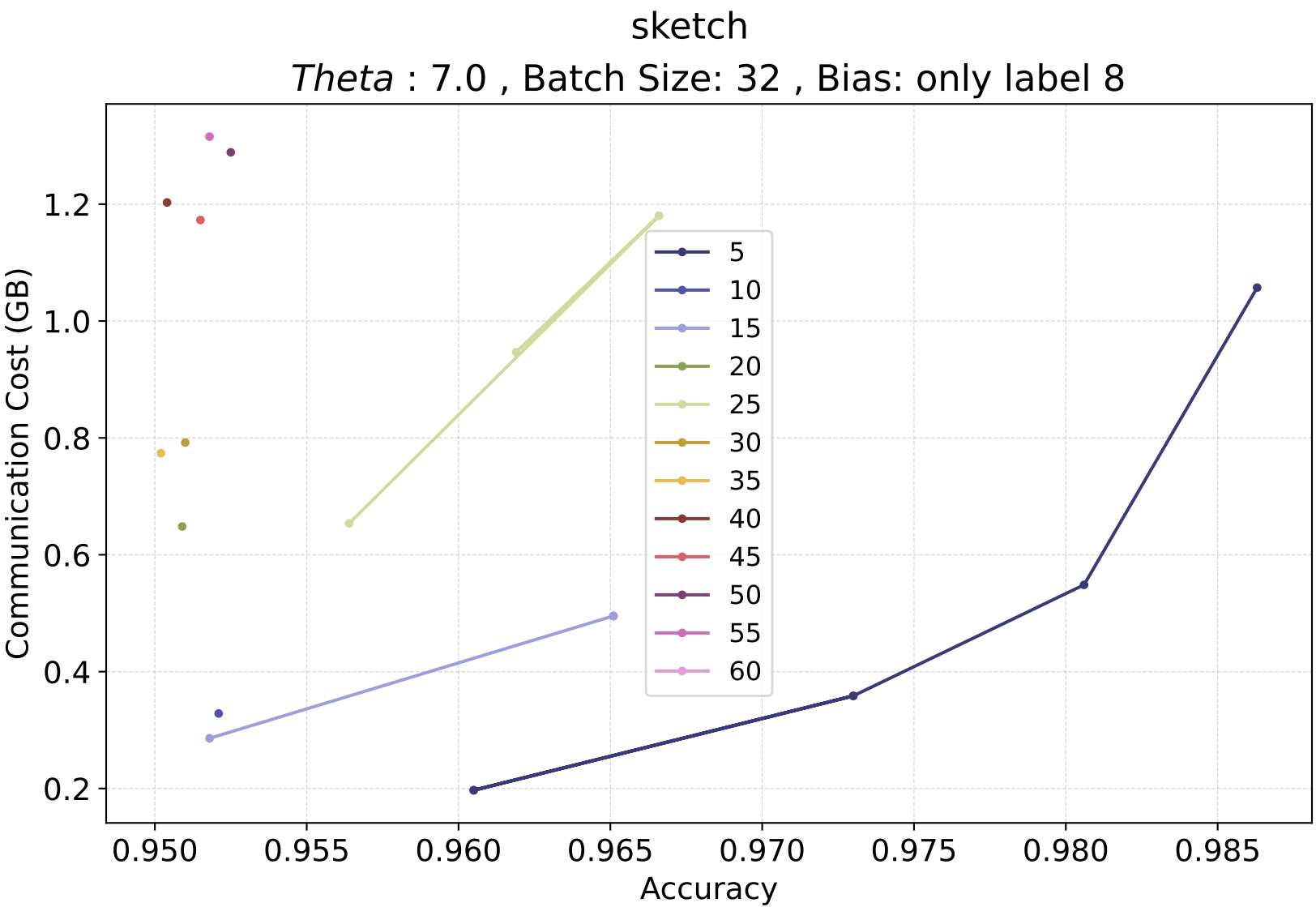
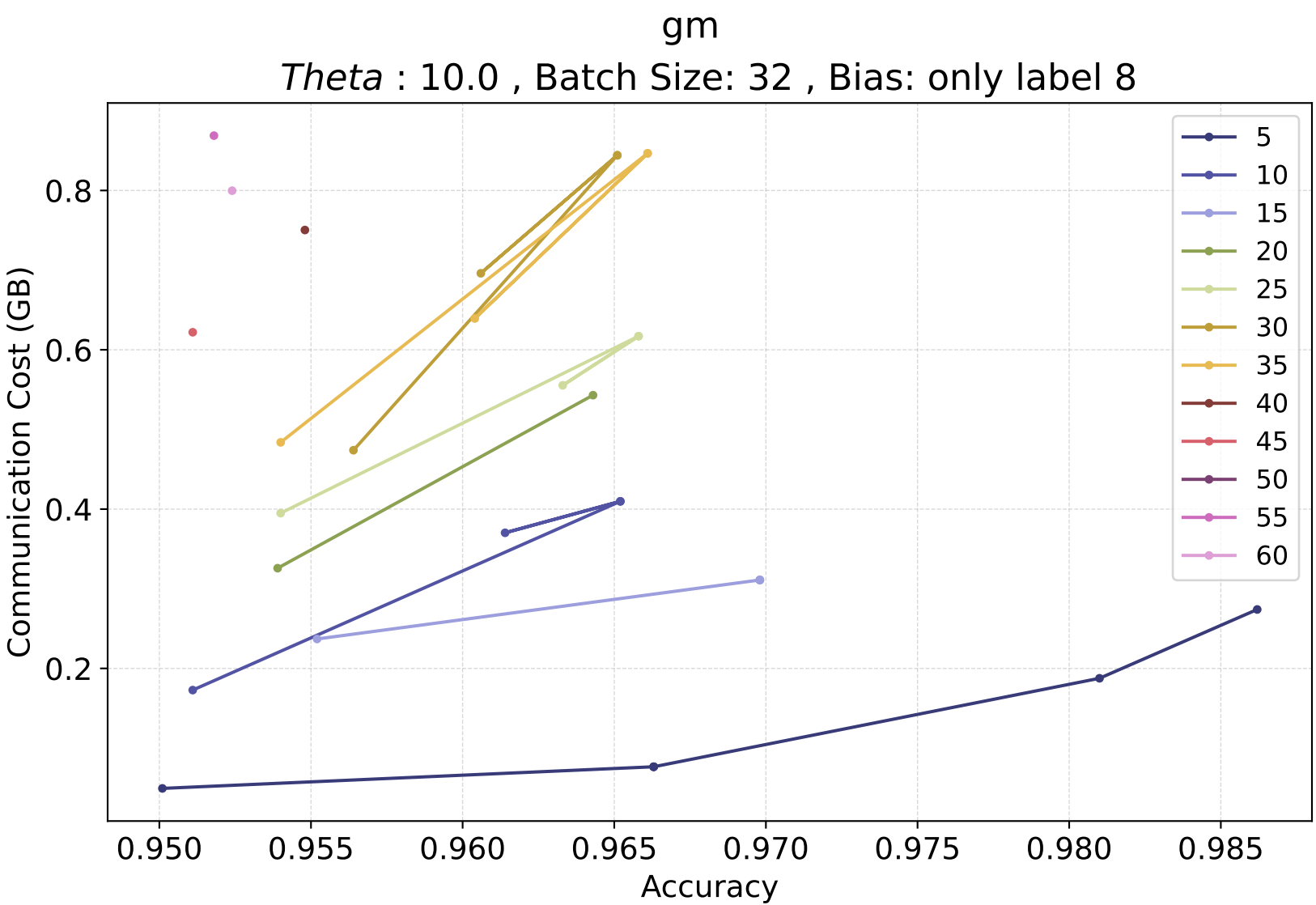
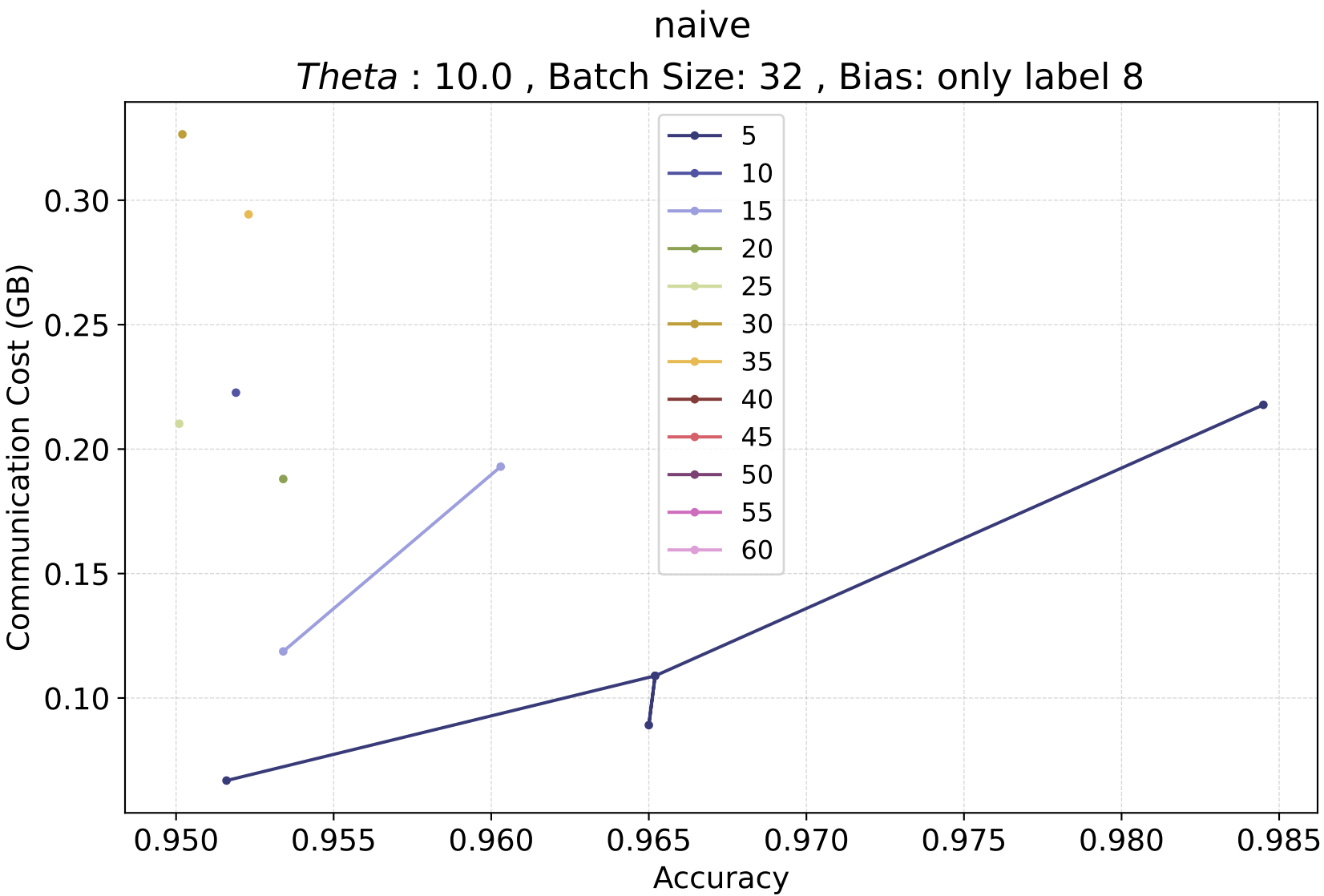

gm
Theta : 7.0 , Batch Size: 32 , Bias: only label 8
Communication Cost (GB)
Accuracy
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
5
10
15
20
25
30
35
40
45
50
55
60

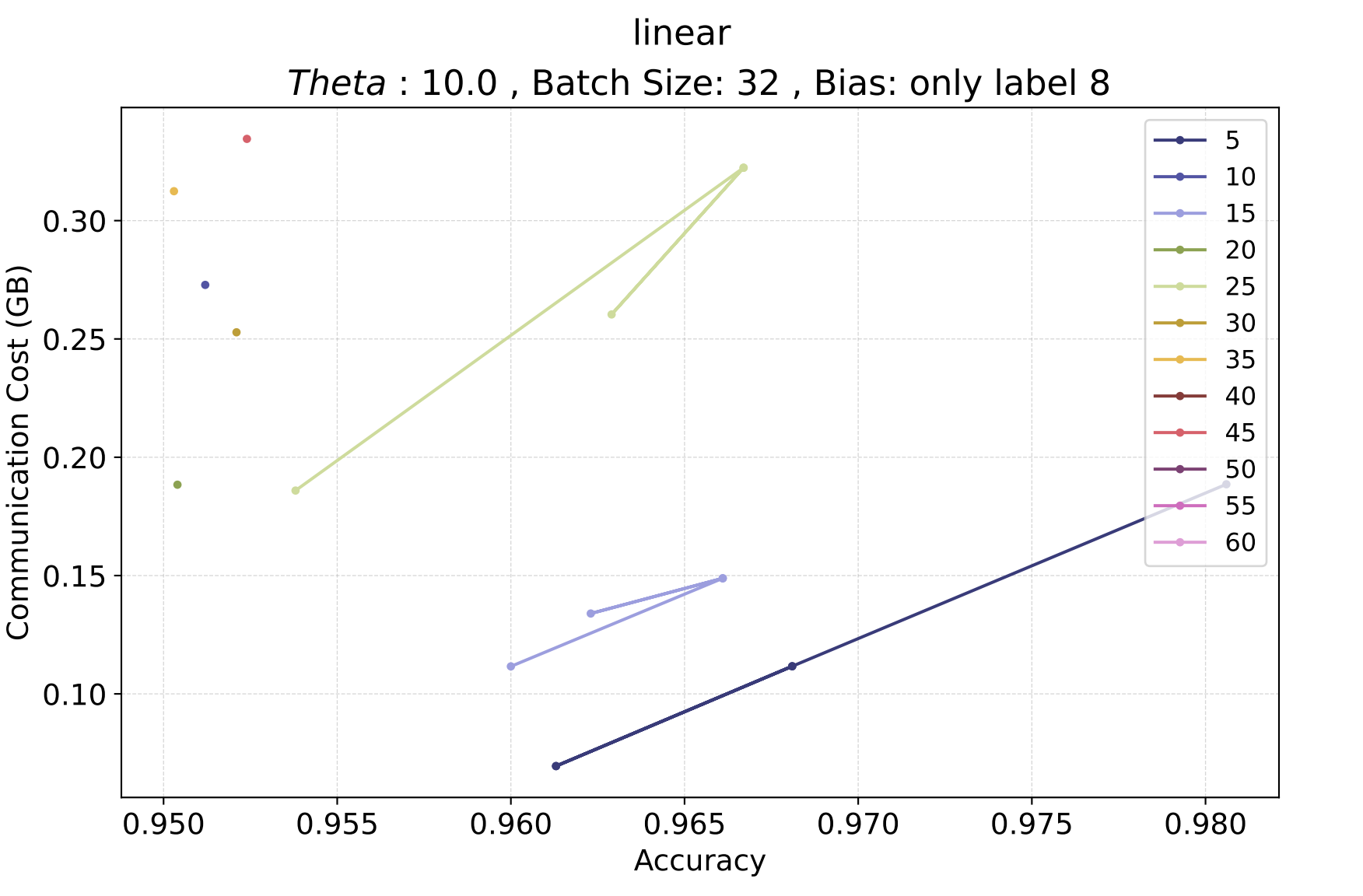

naive
Theta : 7.0 , Batch Size: 32 , Bias: only label 8
Communication Cost (GB)
0.1
0.2
0.3
0.4
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
20
25
30
35
40
45
50
55
60


linear
Theta : 7.0 , Batch Size: 32 , Bias: only label 8
Communication Cost (GB)
0.5
0.4
0.3
0.2
0.1
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
20
25
30
35
40
45
50
55
60


sketch
Theta : 7.0 , Batch Size: 32 , Bias: only label 8
Communication Cost (GB)
1.2
1.0
0.8
0.6
0.4
0.2
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
20
25
30
35
40
45
50
55
60


gm
Theta : 10.0 , Batch Size: 32 , Bias: only label 8
Communication Cost (GB)
0.2
0.4
0.6
0.8
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
20
25
30
35
40
45
50
55
60


naive
Theta : 10.0 , Batch Size: 32 , Bias: only label 8
Communication Cost (GB)
0.30
0.25
0.20
0.15
0.10
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
20
25
30
35
40
45
50
55
60


linear
Theta : 10.0 , Batch Size: 32 , Bias: only label 8
Communication Cost (GB)
0.30
0.25
0.20
0.15
0.10
0.950
0.955
0.960
0.965
0.970
0.975
0.980
Accuracy
5
10
15
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25
30
35
40
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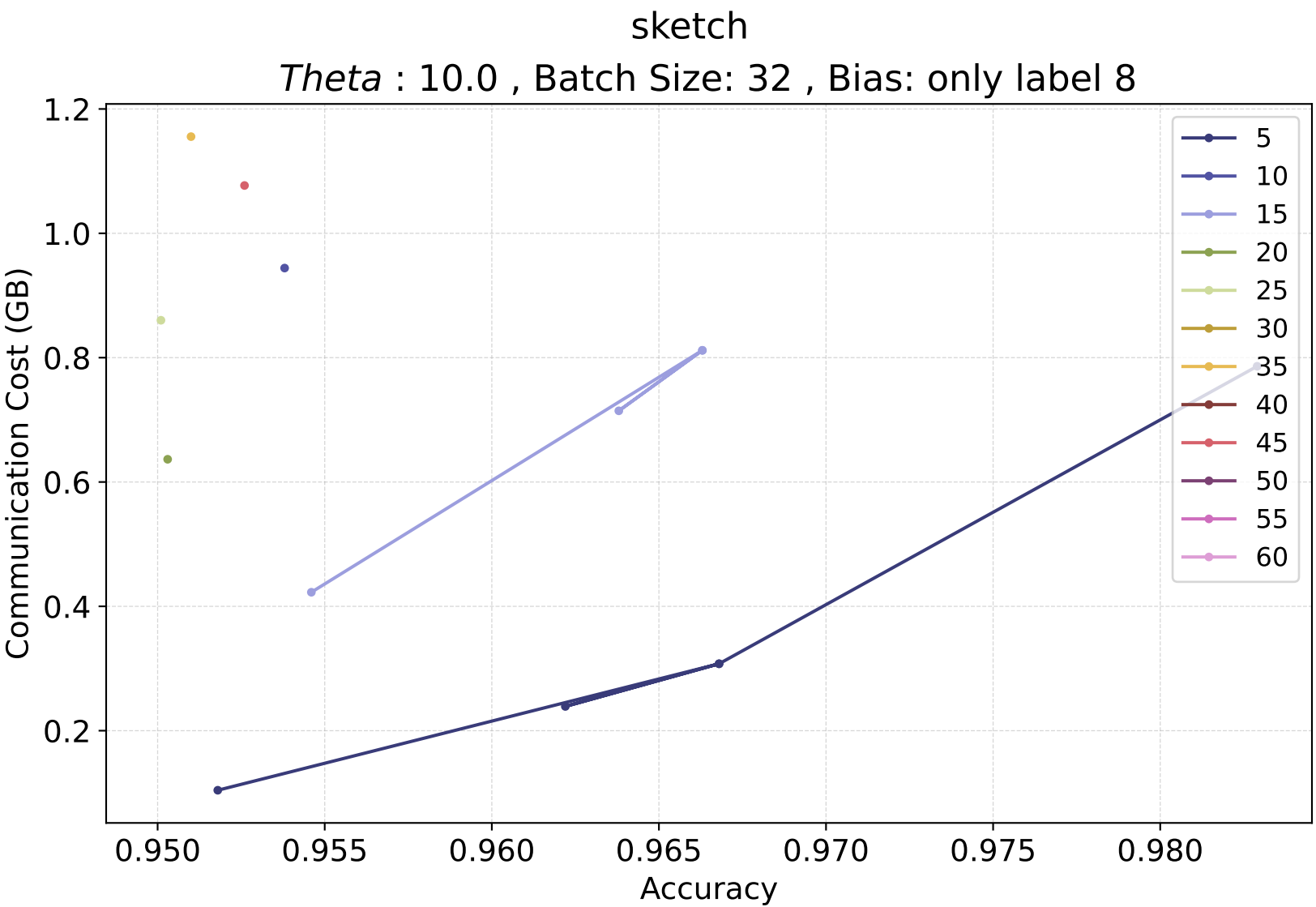
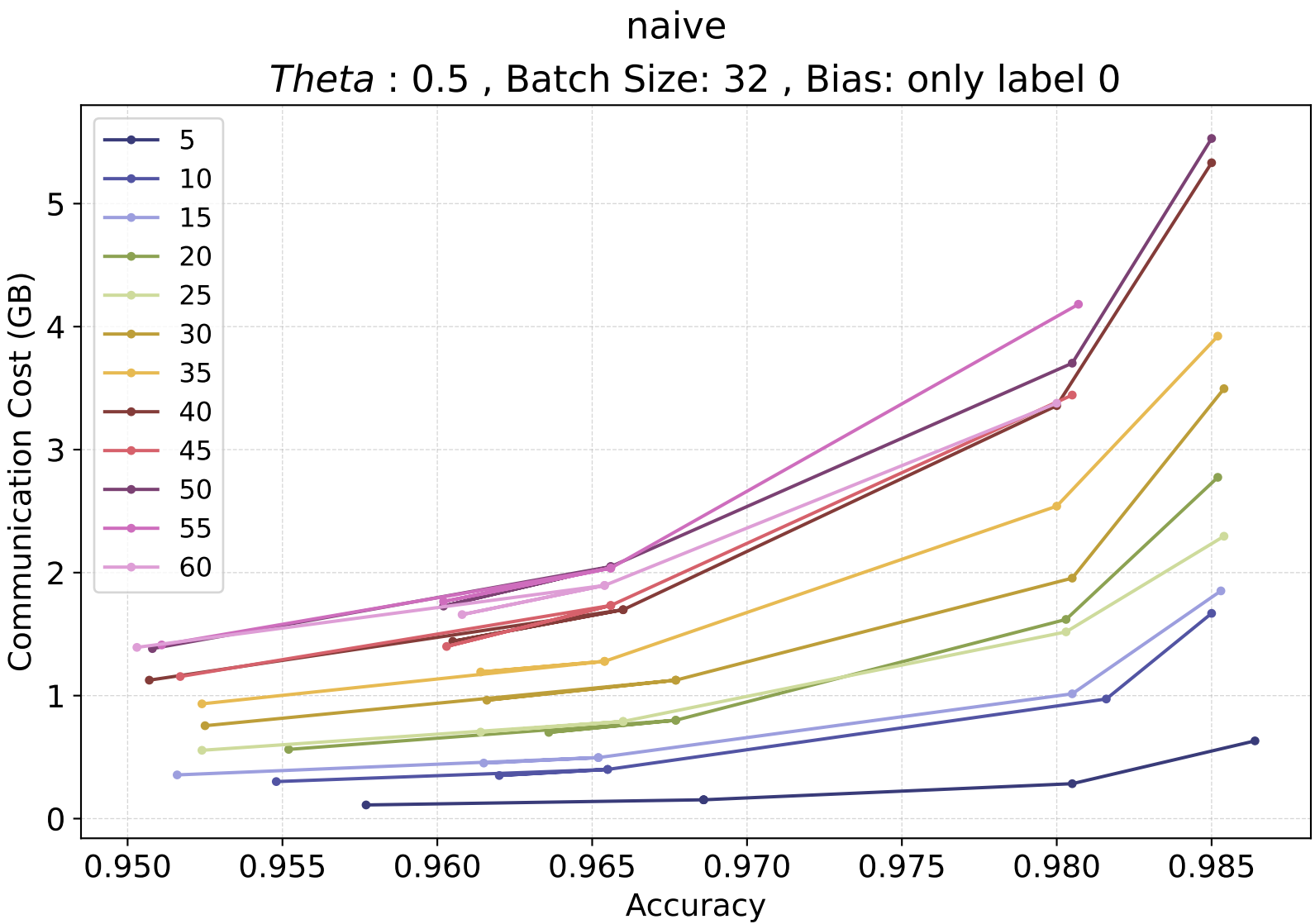
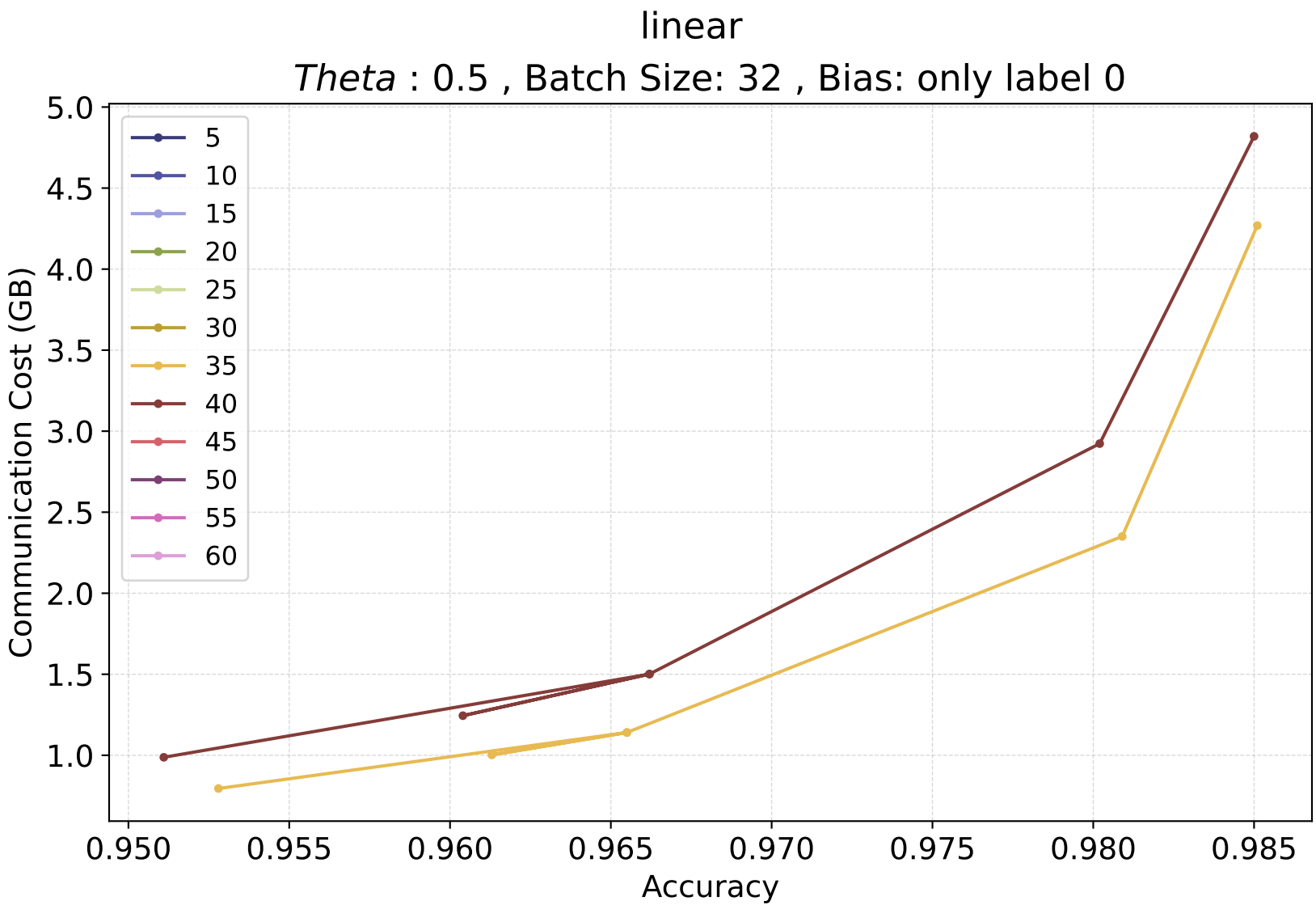
55
60


sketch
Theta : 10.0 , Batch Size: 32 , Bias: only label 8
Communication Cost (GB)
1.2
1.0
0.8
0.6
0.4
0.2
0.950
0.955
0.960
0.965
0.970
0.975
0.980
Accuracy
5
10
15
20
25
30
35
40
45
50
55
60


naive
Theta : 0.5 , Batch Size: 32 , Bias: only label 0
Communication Cost (GB)
Accuracy
0
1
2
3
4
5
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
5
10
15
20
25
30
35
40
45
50
55
60


linear
Theta : 0.5 , Batch Size: 32 , Bias: only label 0
Communication Cost (GB)
Accuracy
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
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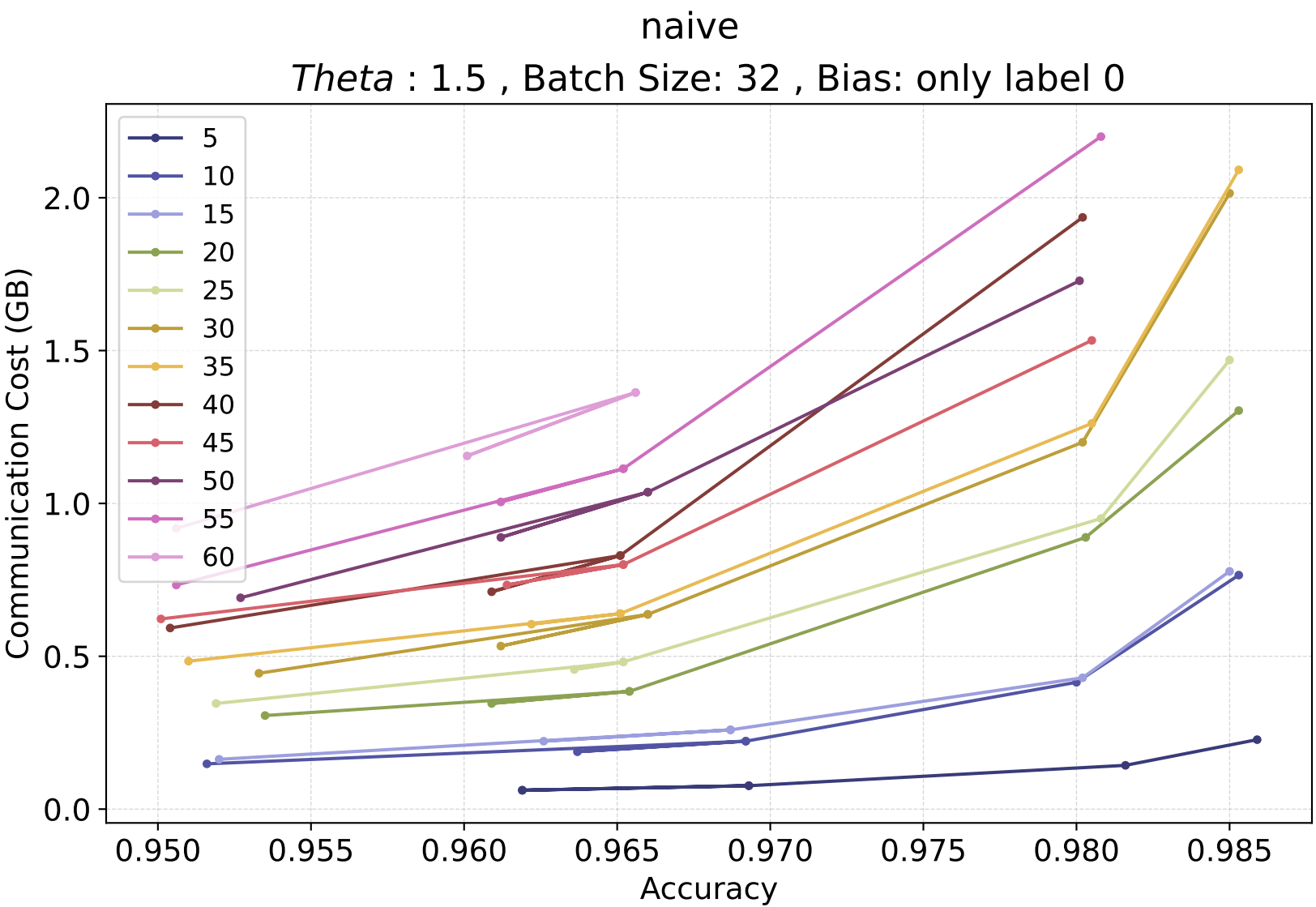
naive
Theta : 1.5 , Batch Size: 32 , Bias: only label 0
Communication Cost (GB)
Accuracy
0.0
0.5
1.0
1.5
2.0
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
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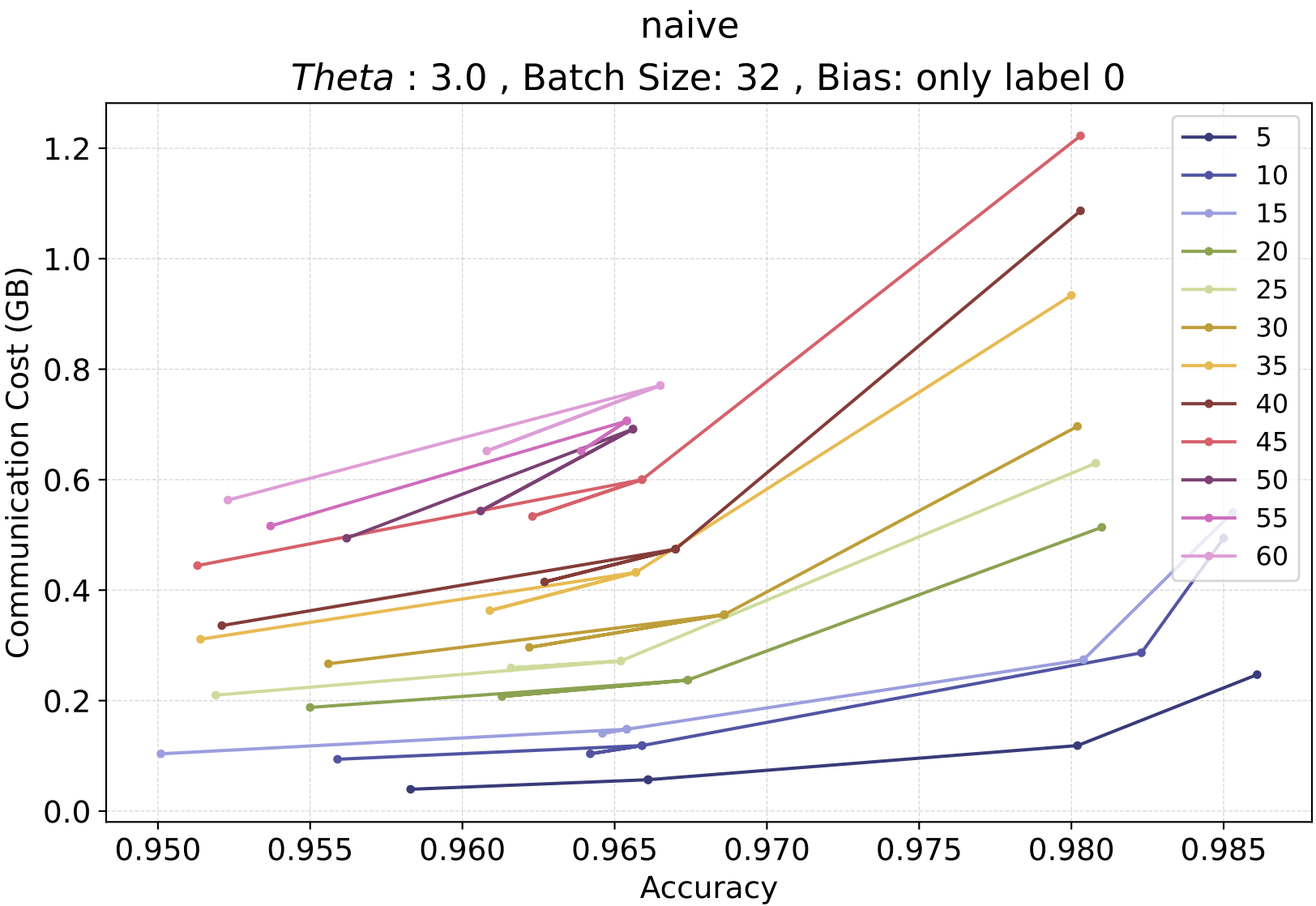
naive
Theta : 3.0 , Batch Size: 32 , Bias: only label 0
Communication Cost (GB)
Accuracy
0.0
0.2
0.4
0.6
0.8
1.0
1.2
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
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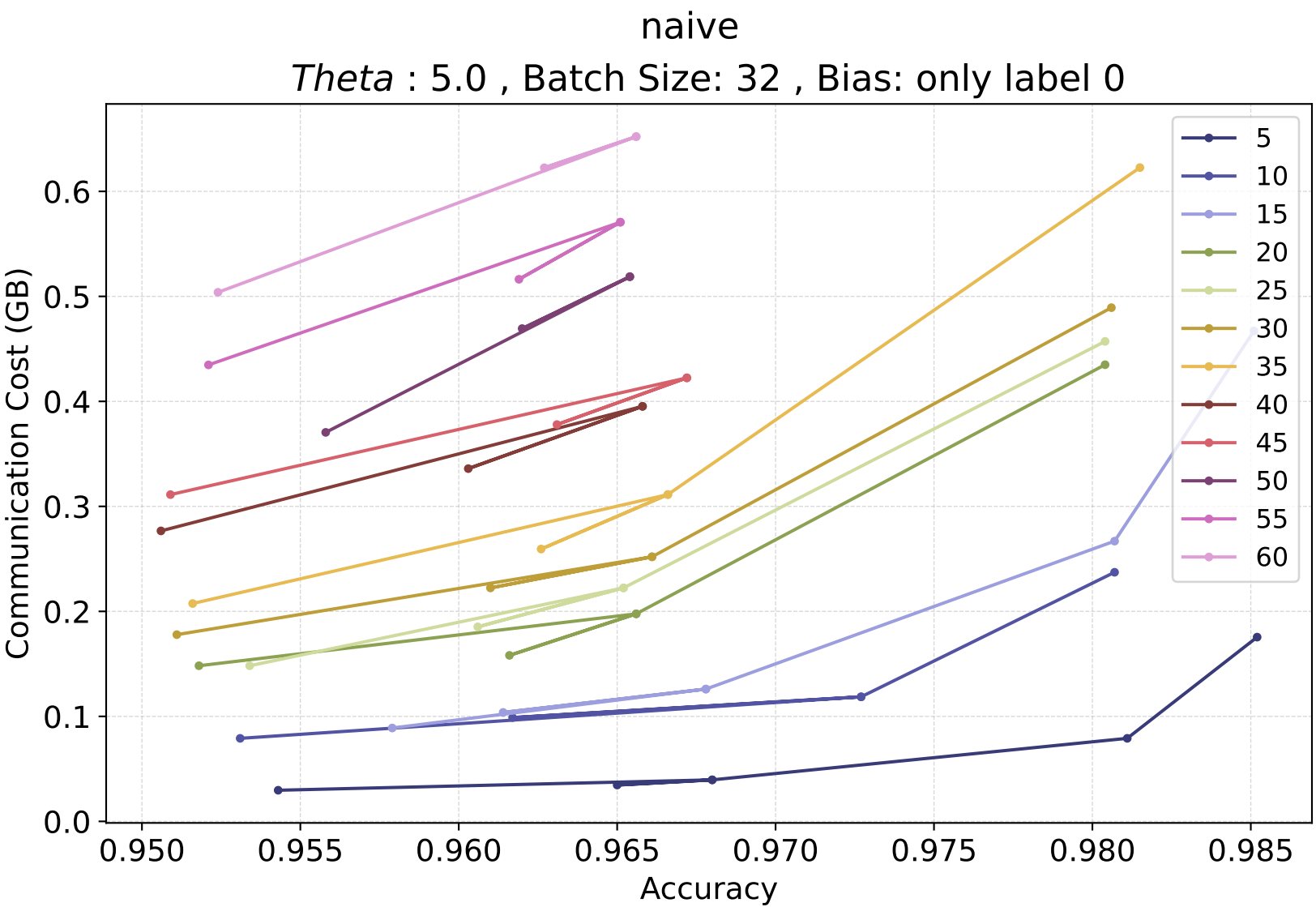
naive
Theta : 5.0 , Batch Size: 32 , Bias: only label 0
Communication Cost (GB)
Accuracy
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
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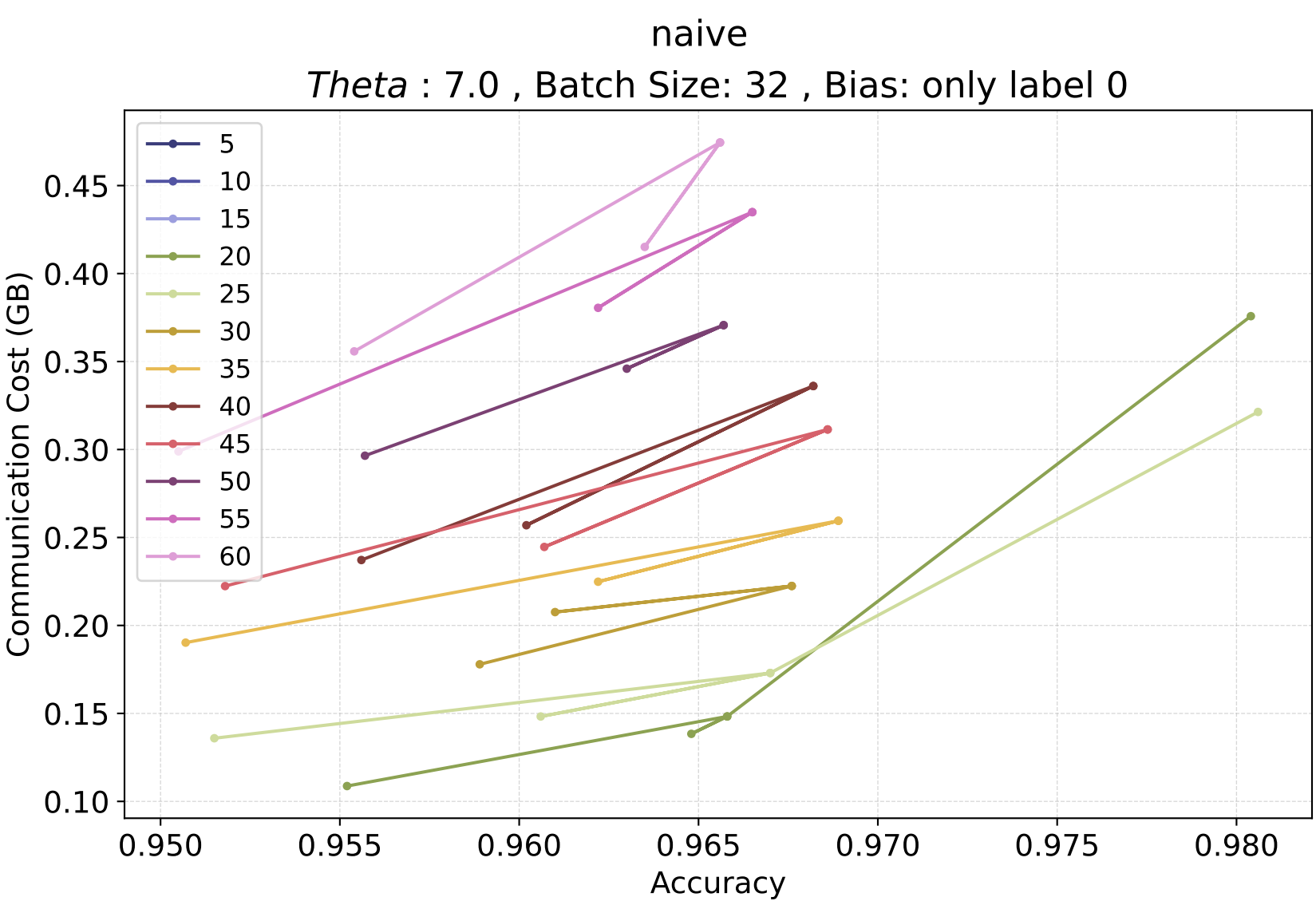
naive
Theta : 7.0 , Batch Size: 32 , Bias: only label 0
Communication Cost (GB)
Accuracy
0.10
0.15
0.20
0.25
0.30
0.35
0.40
0.45
0.950
0.955
0.960
0.965
0.970
0.975
0.980
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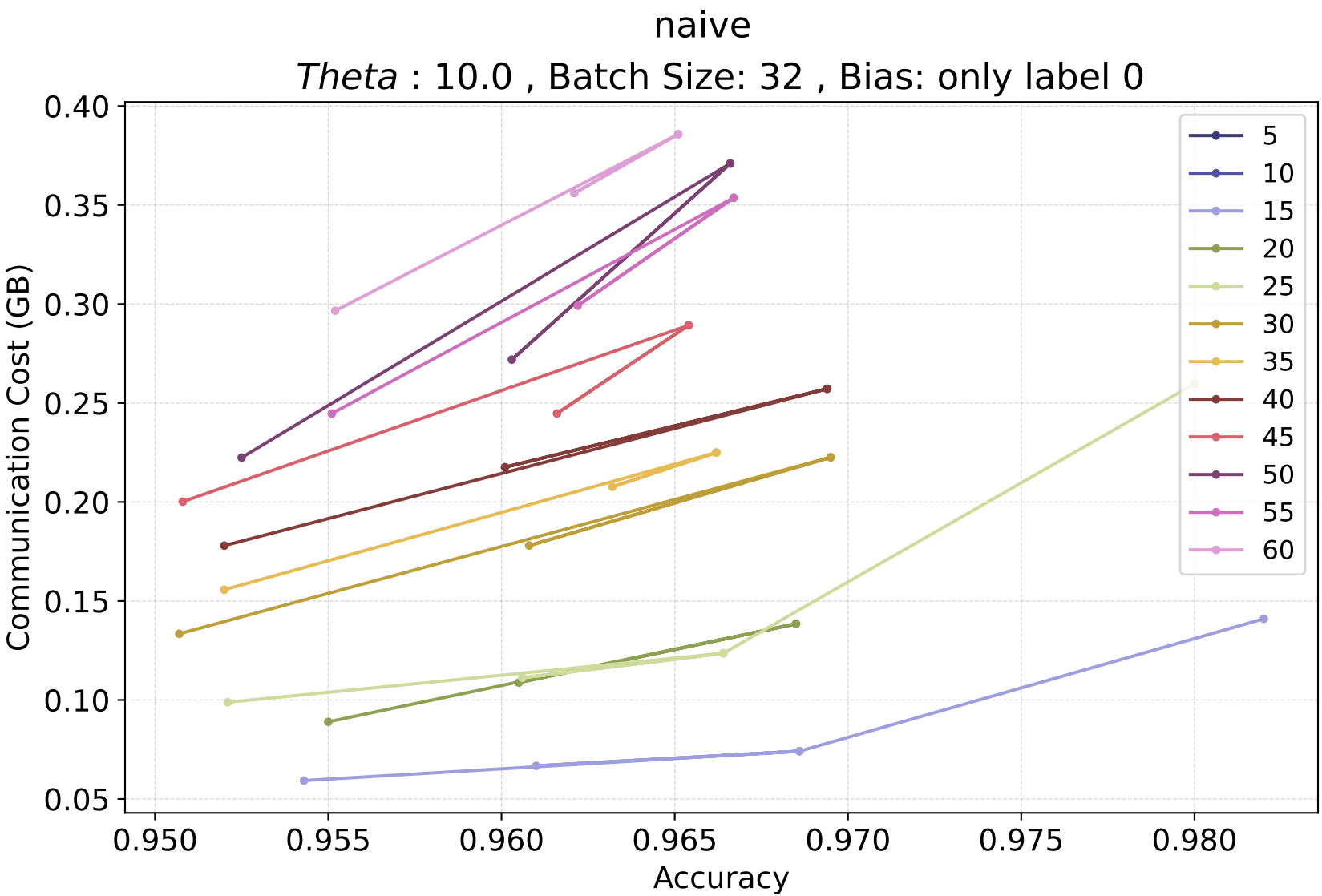
naive
Theta : 10.0 , Batch Size: 32 , Bias: only label 0
Communication Cost (GB)
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.950
0.955
0.960
0.965
0.970
0.975
0.980
Accuracy
5
10
15
20
25
30
35
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45
50
55
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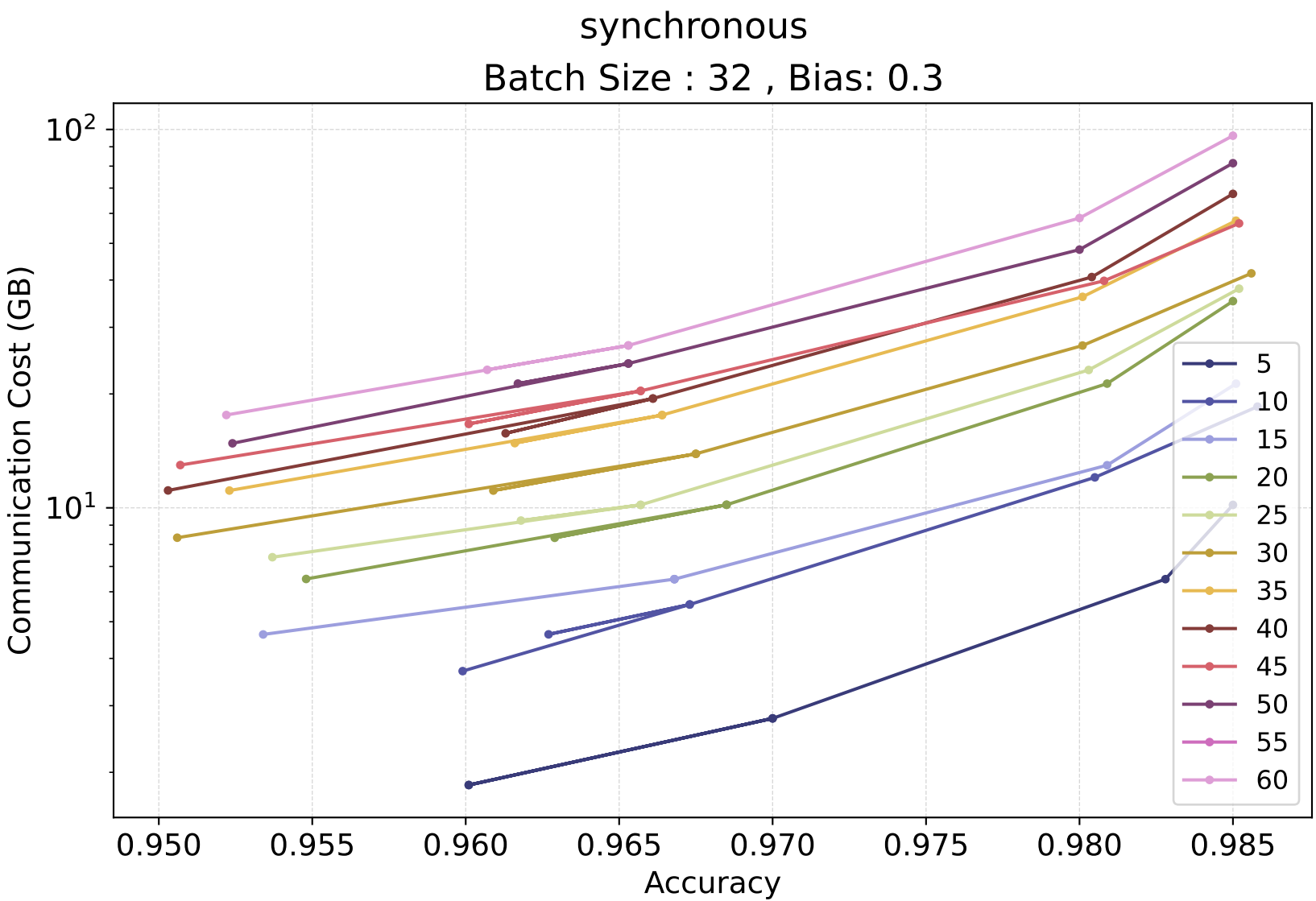
synchronous
Batch Size : 32 , Bias: 0.3
Communication Cost (GB)
10^2
10^1
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
20
25
30
35
40
45
50
55
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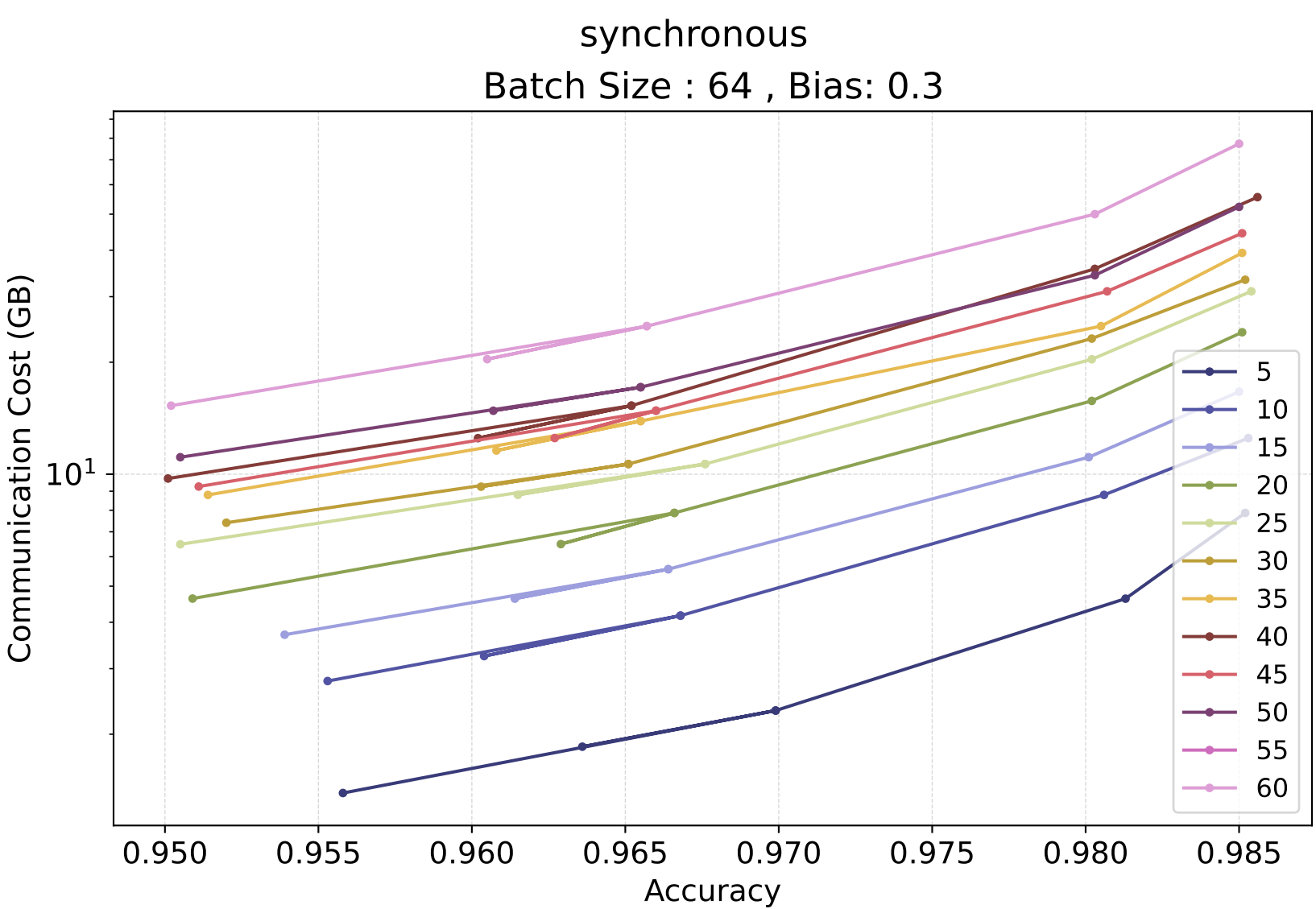
synchronous
Batch Size : 64 , Bias: 0.3
Communication Cost (GB)
10^1
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
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15
20
25
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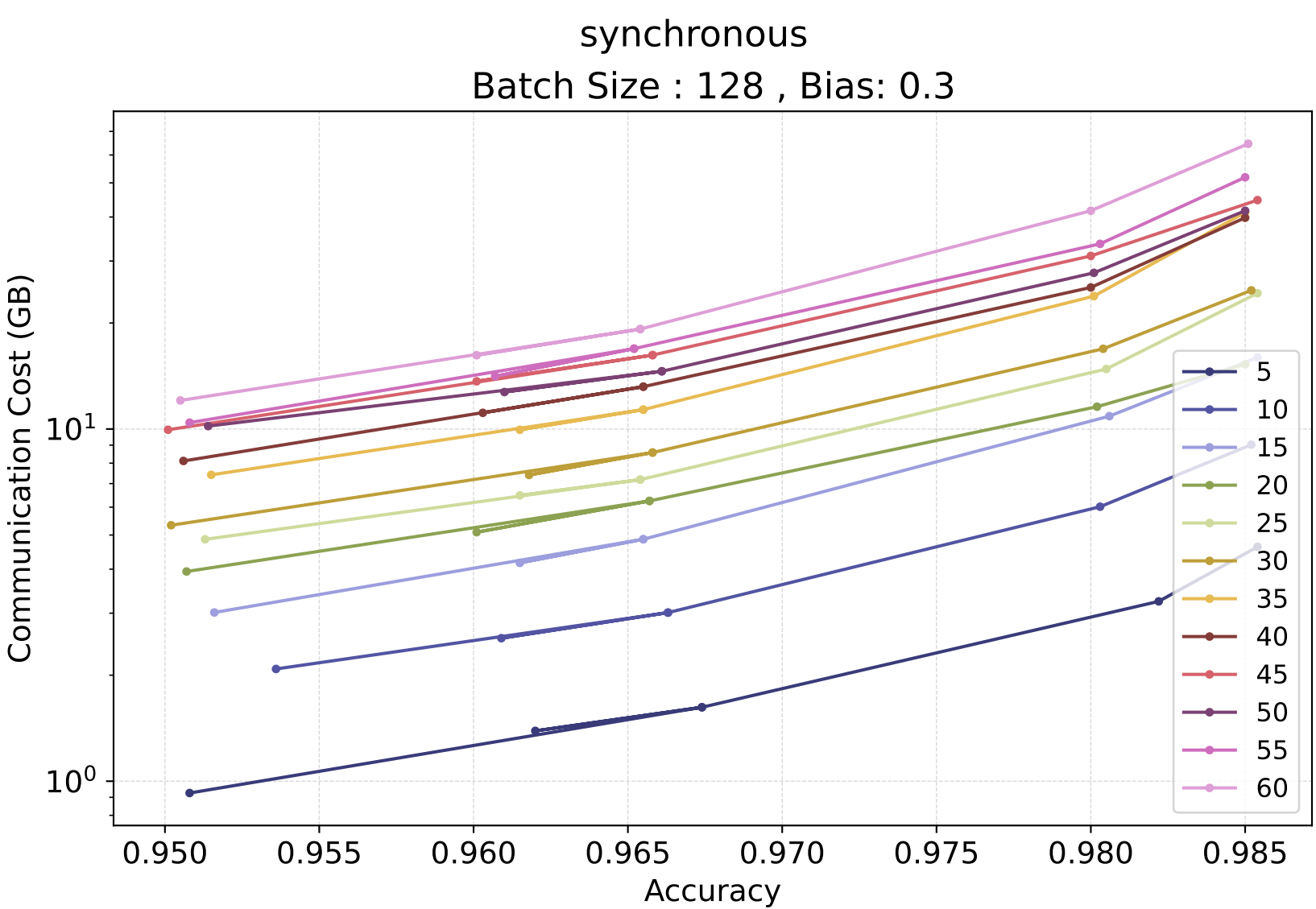
synchronous
Batch Size : 128 , Bias: 0.3
Communication Cost (GB)
10^1
10^0
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
20
25
30
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50
55
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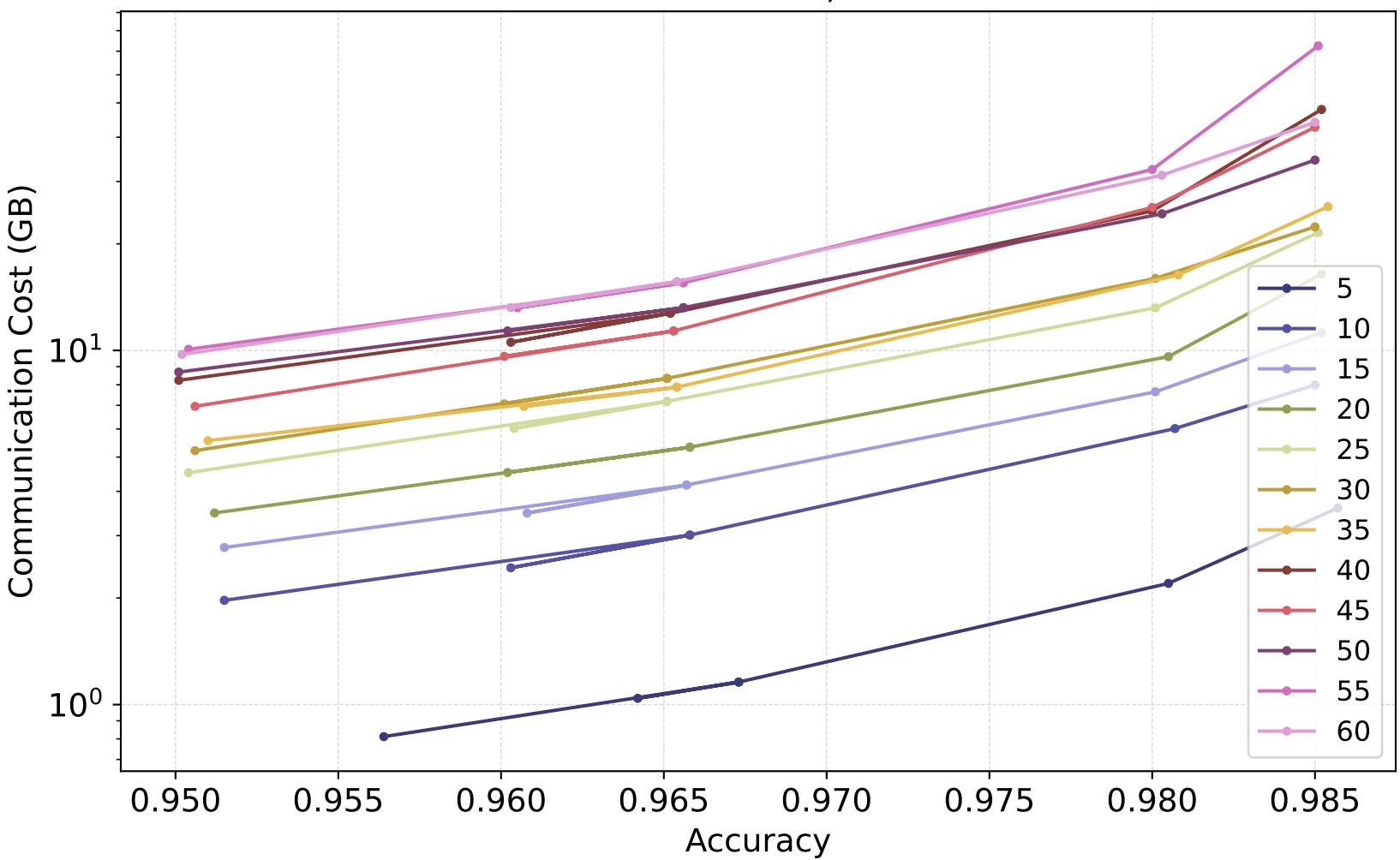
synchronous
Batch Size : 256 , Bias: 0.3
Communication Cost (GB)
10^1
10^0
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
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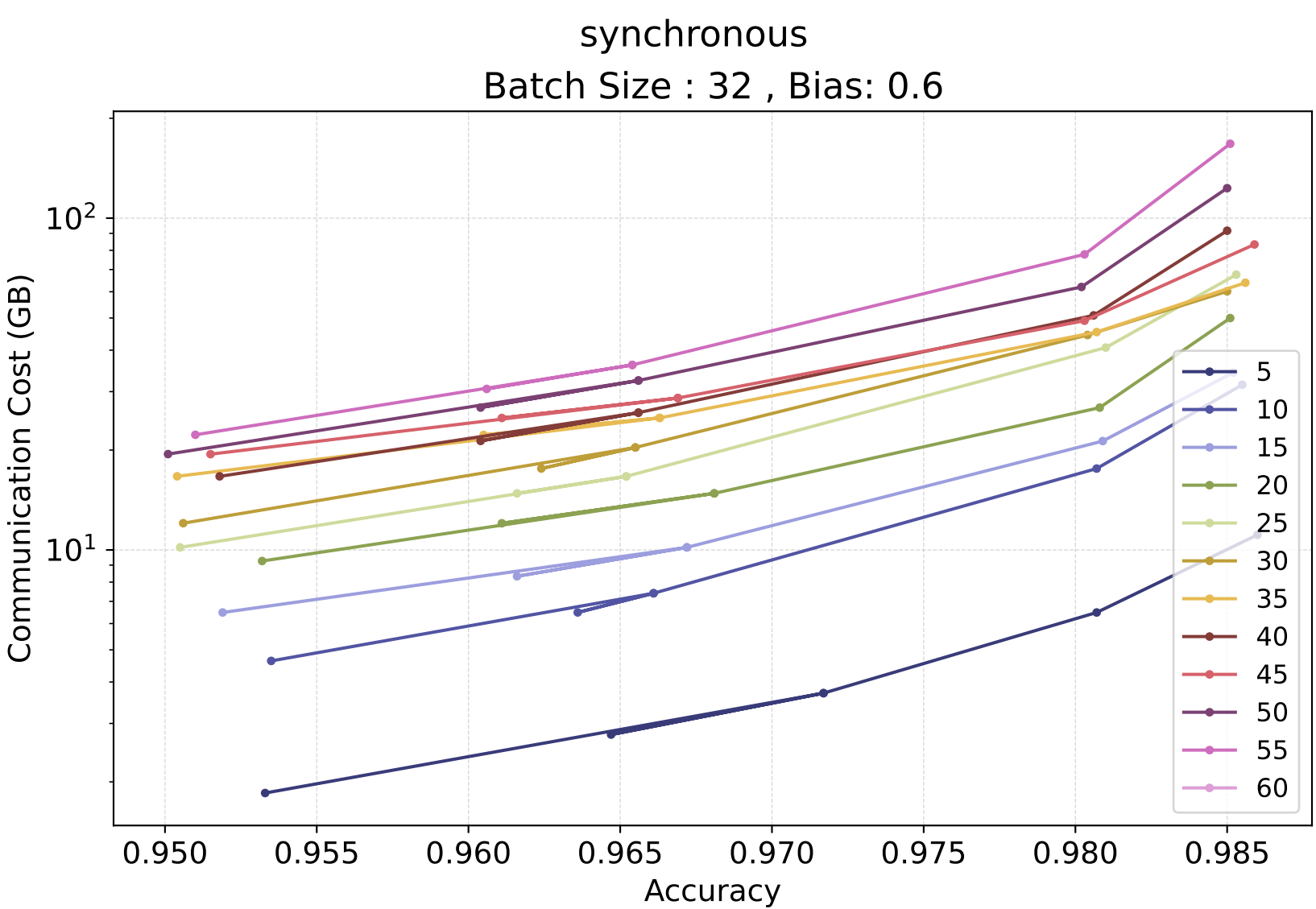
synchronous
Batch Size : 32 , Bias: 0.6
Communication Cost (GB)
10^2
10^1
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
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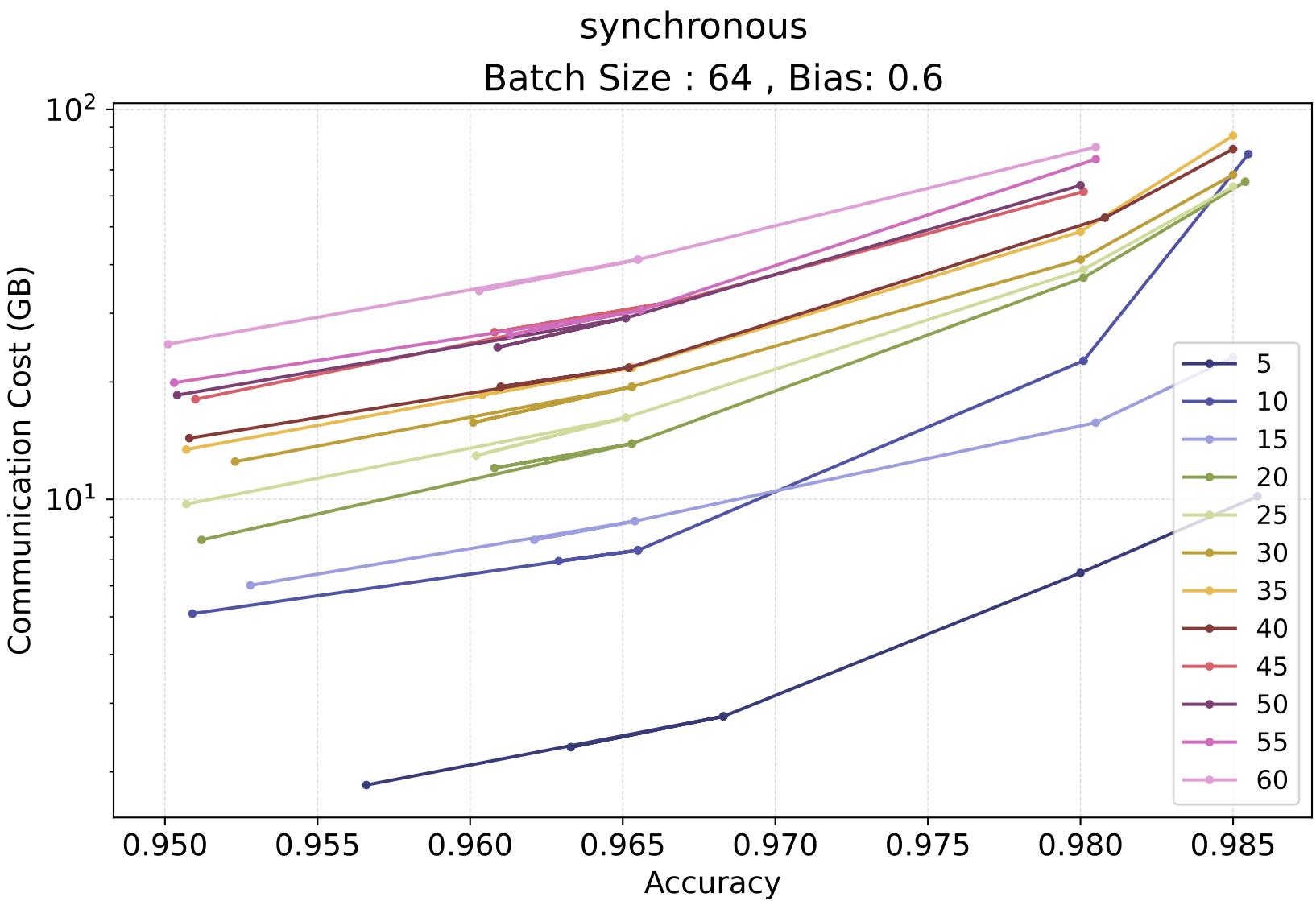
synchronous
Batch Size : 64 , Bias: 0.6
Communication Cost (GB)
10^2
10^1
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
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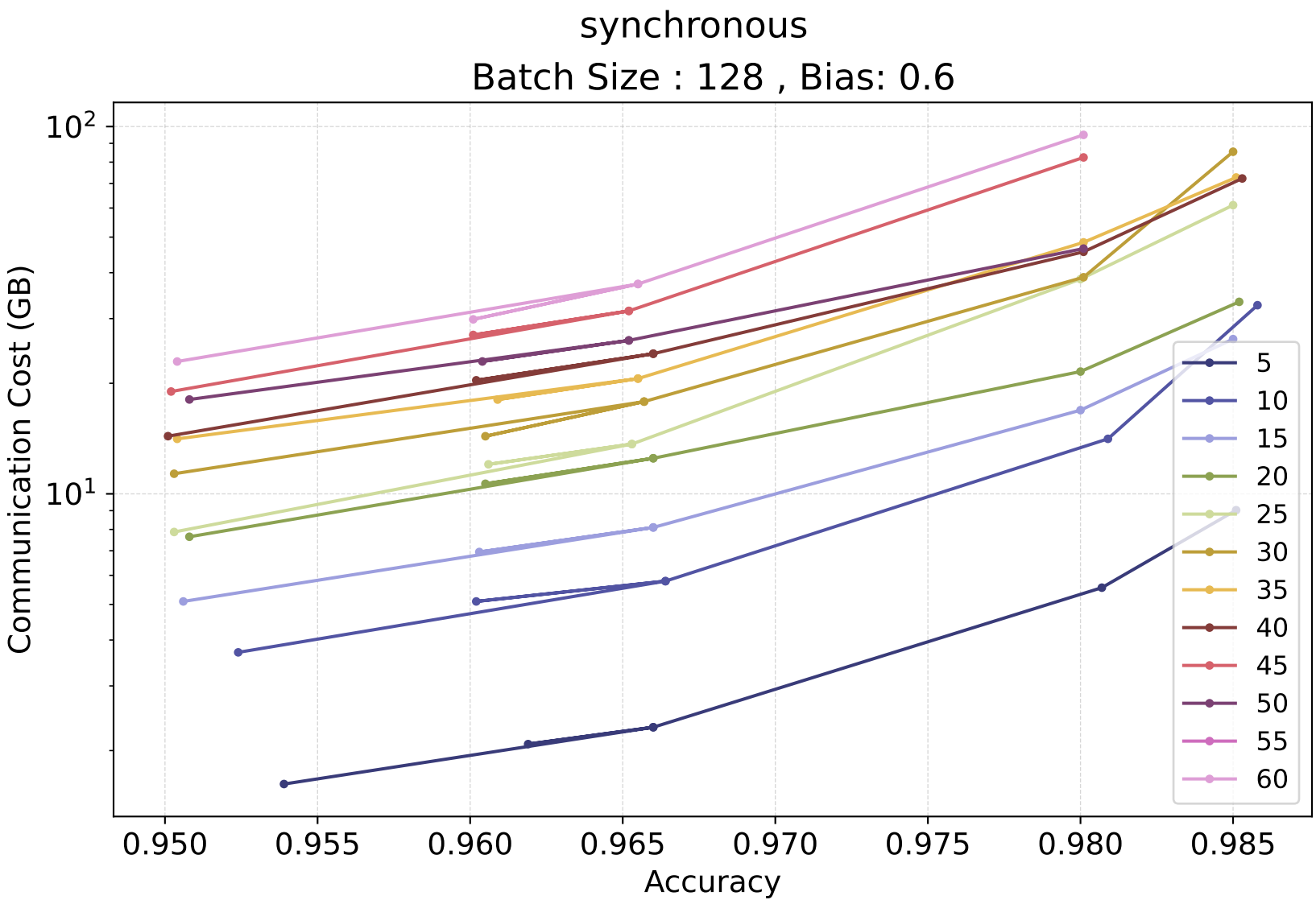
synchronous
Batch Size : 128 , Bias: 0.6
Communication Cost (GB)
10^2
10^1
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
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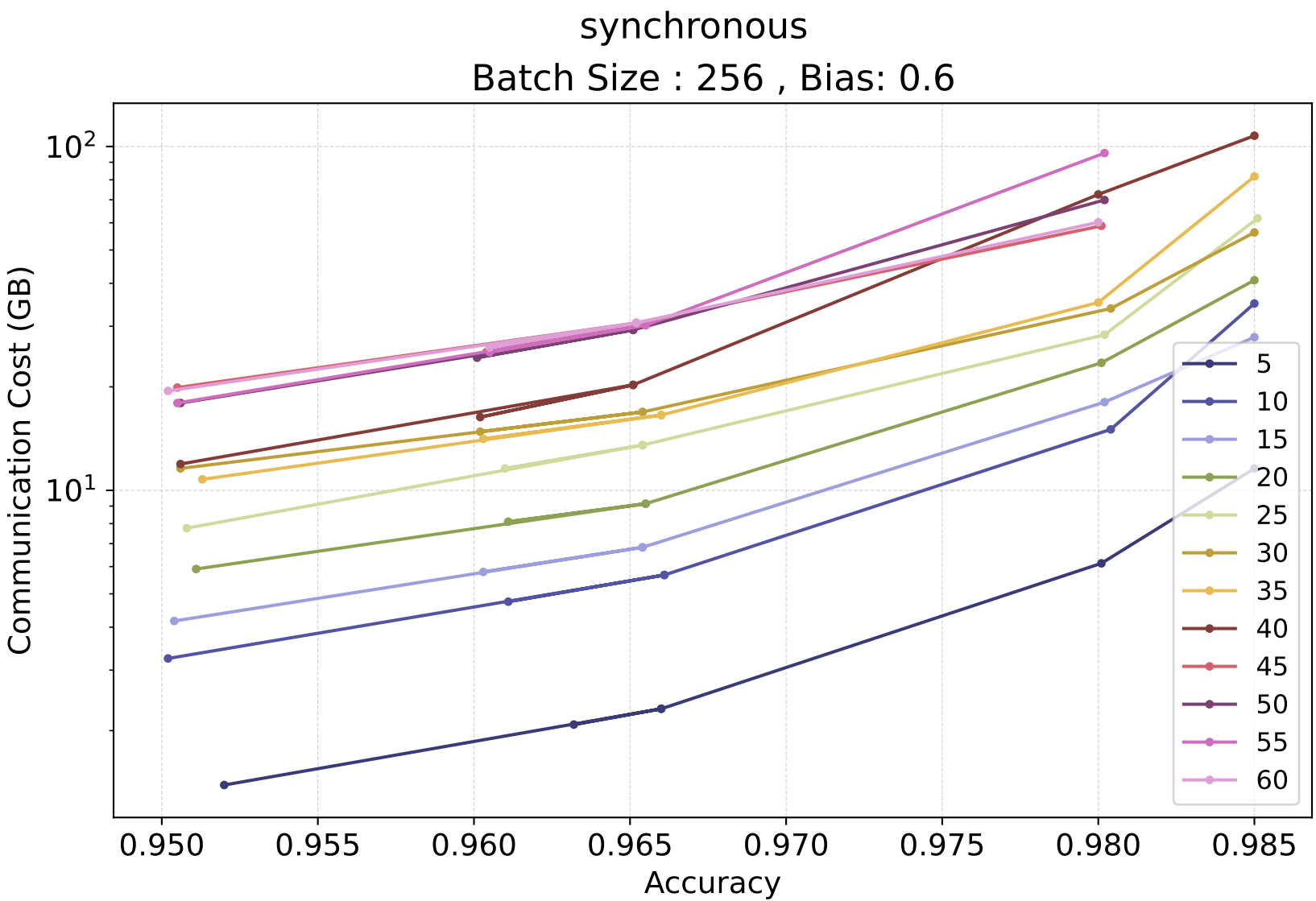
synchronous
Batch Size : 256 , Bias: 0.6
Communication Cost (GB)
10^2
10^1
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
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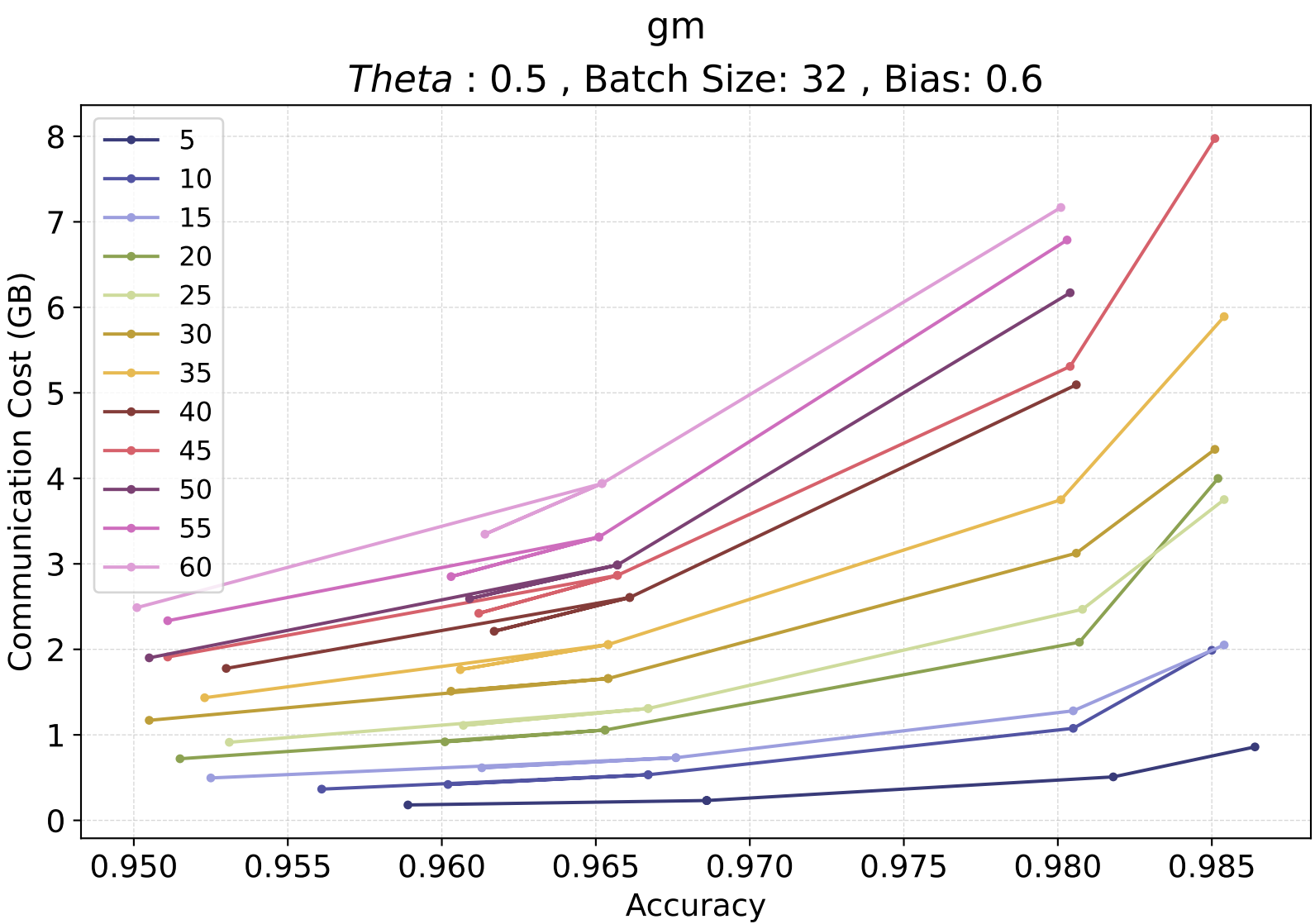
gm
Theta : 0.5 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
Accuracy
0
1
2
3
4
5
6
7
8
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
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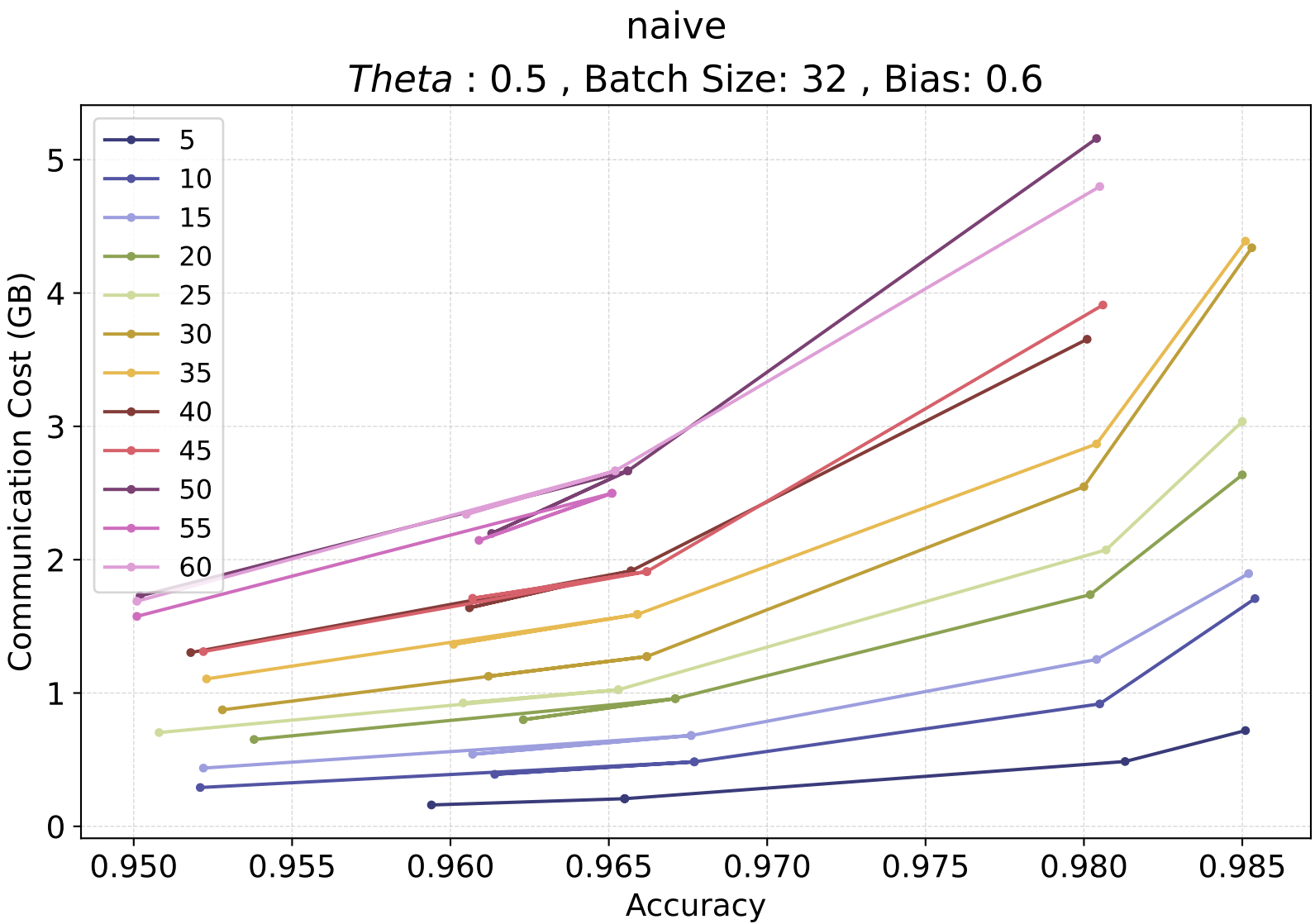
naive
Theta : 0.5 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
Accuracy
0
1
2
3
4
5
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
5
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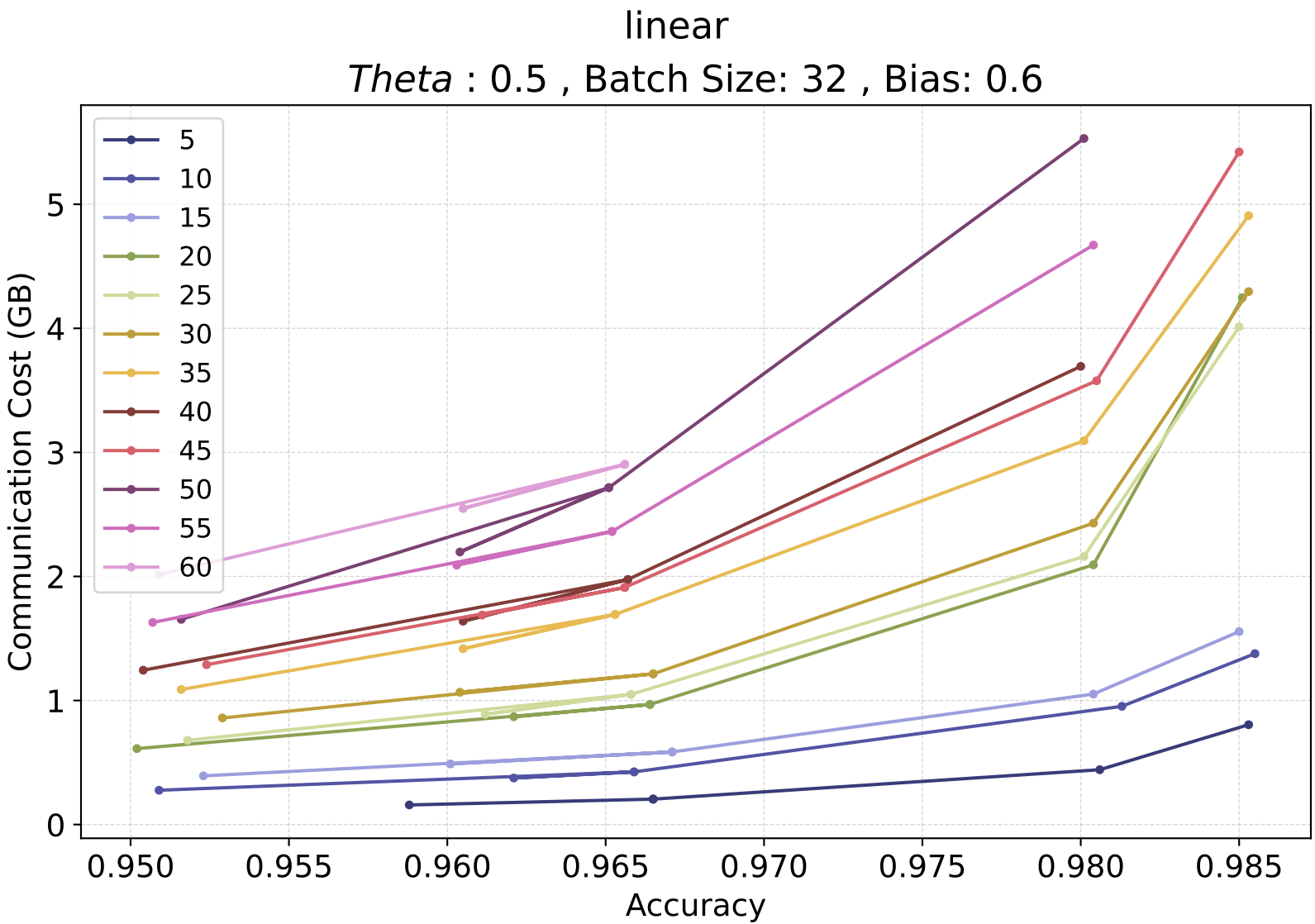
linear
Theta : 0.5 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
Accuracy
0
1
2
3
4
5
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
5
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45
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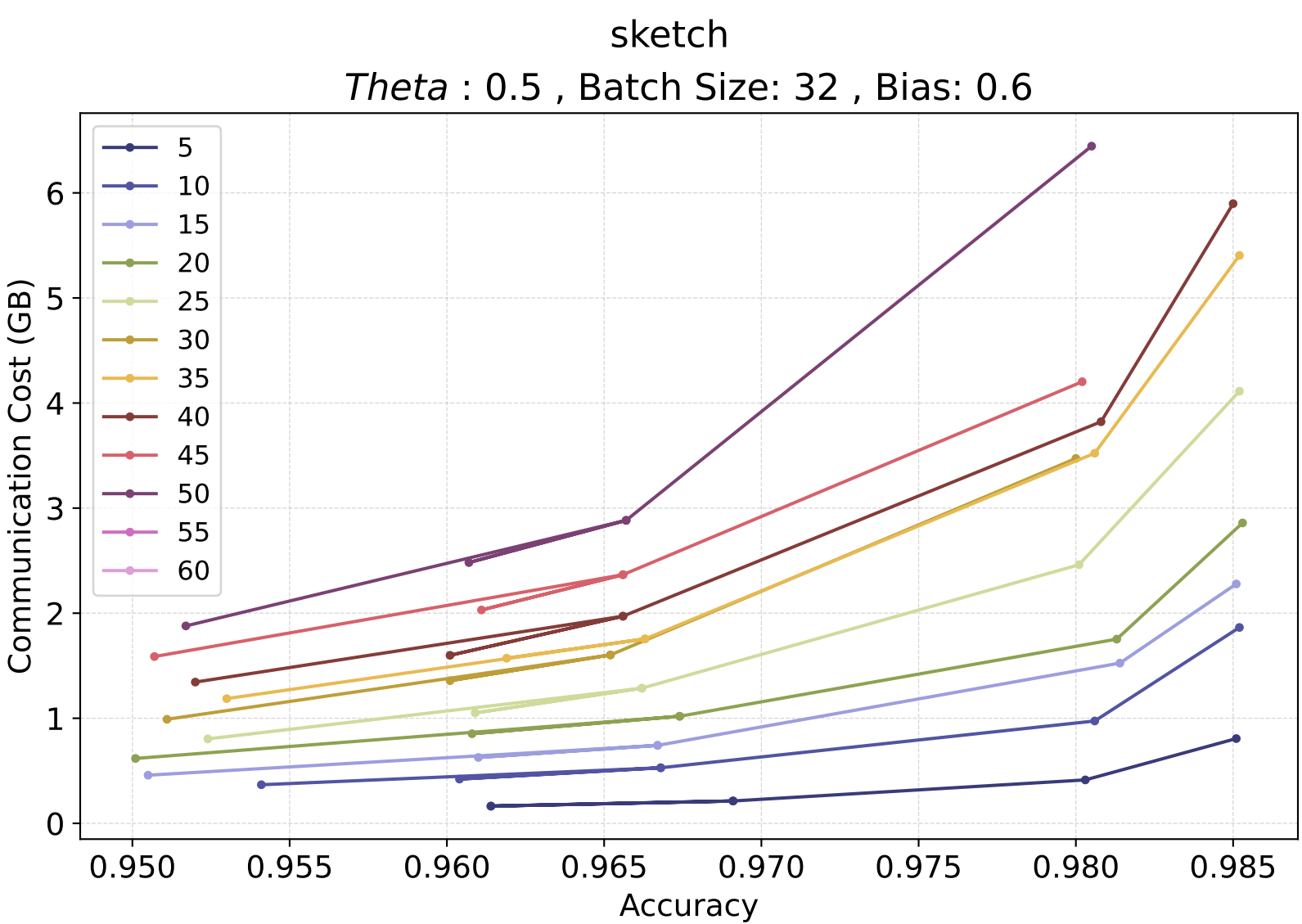
sketch
Theta : 0.5 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
Accuracy
0
1
2
3
4
5
6
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
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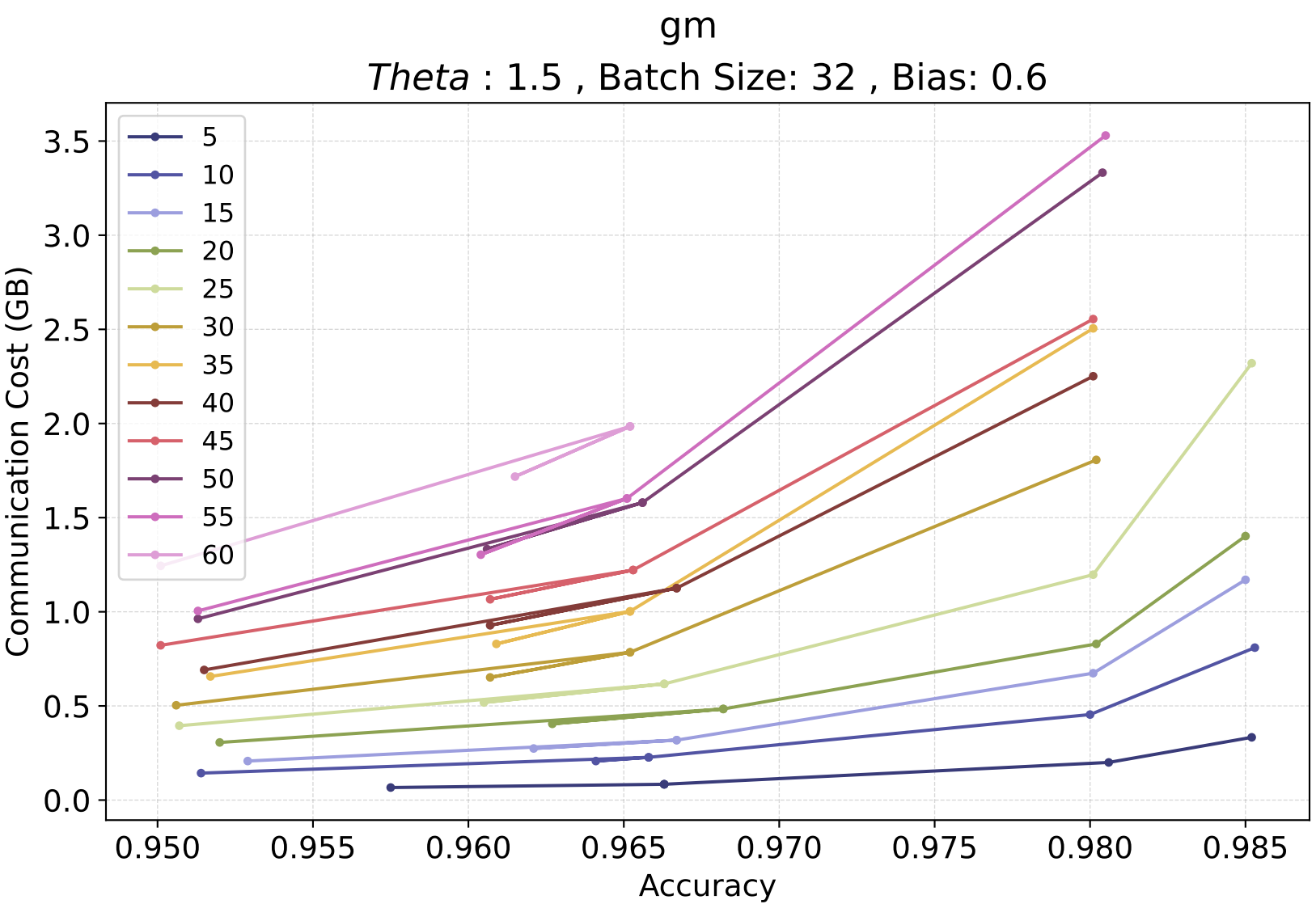
gm
Theta : 1.5 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
Accuracy
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
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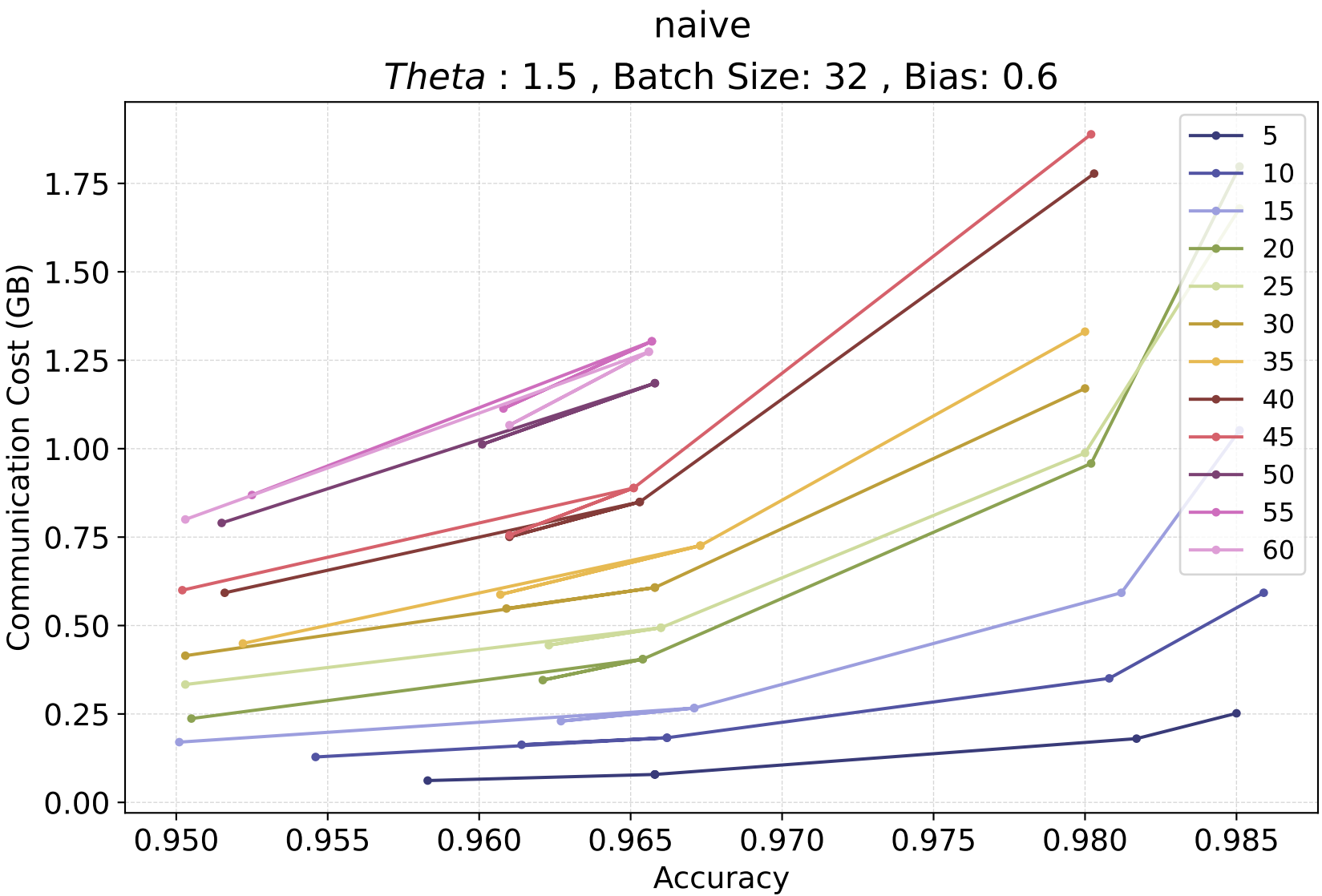
naive
Theta : 1.5 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
0.00
0.25
0.50
0.75
1.00
1.25
1.50
1.75
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
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25
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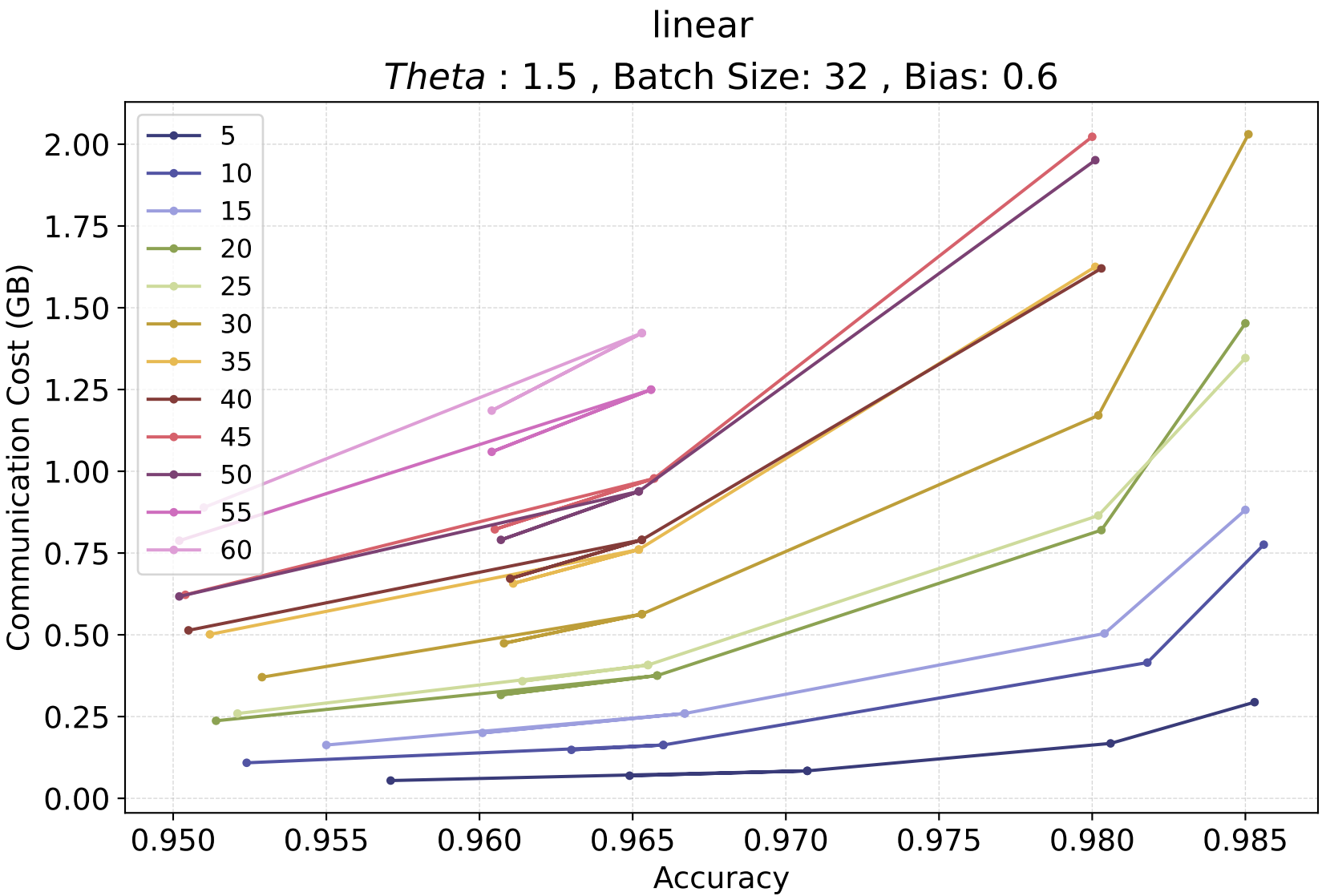
linear
Theta : 1.5 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
Accuracy
0.00
0.25
0.50
0.75
1.00
1.25
1.50
1.75
2.00
0.950
0.955
0.960
0.965
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0.980
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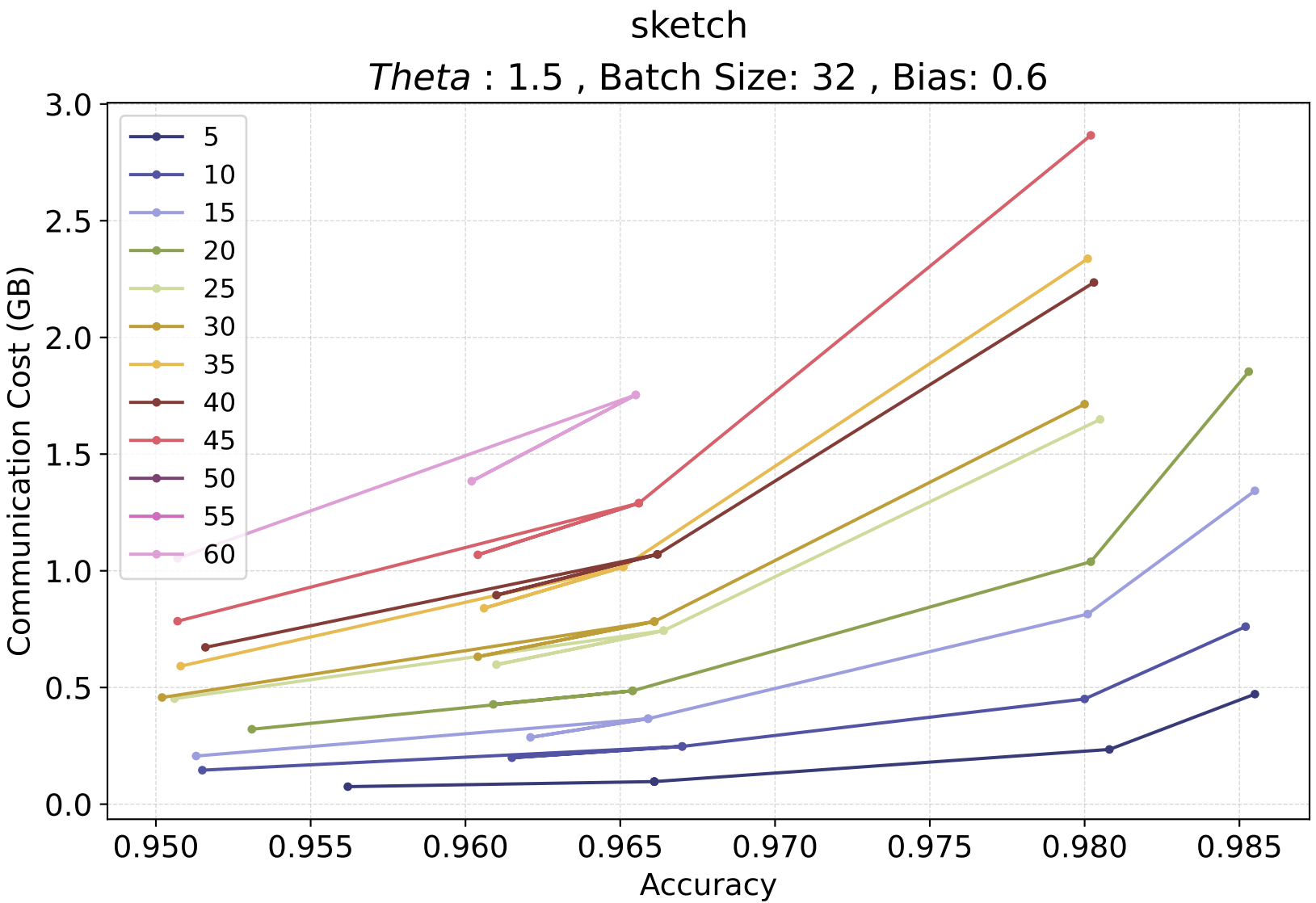
sketch
Theta : 1.5 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
Accuracy
0.0
0.5
1.0
1.5
2.0
2.5
3.0
0.950
0.955
0.960
0.965
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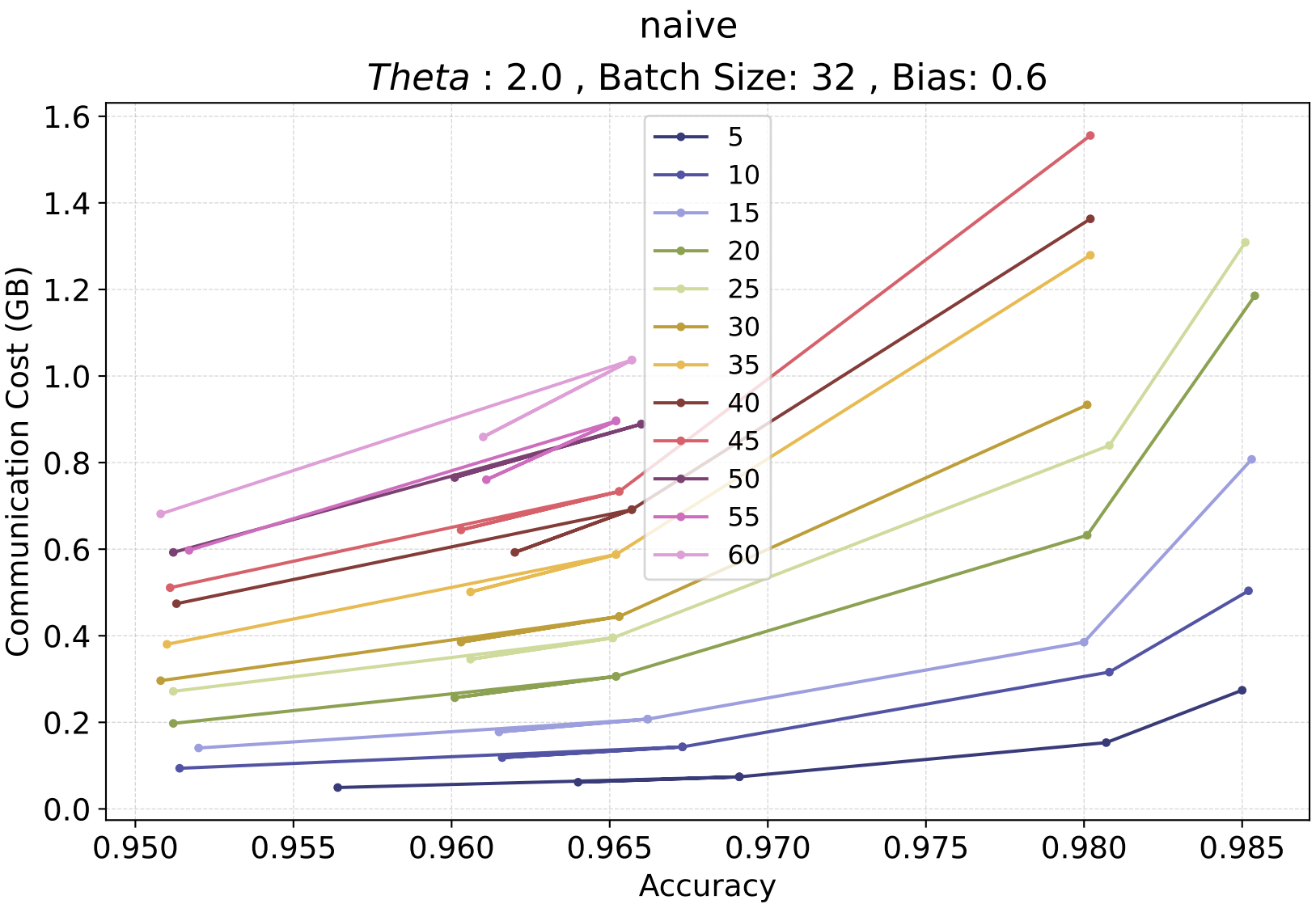
naive
Theta : 2.0 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
Accuracy
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
0.950
0.955
0.960
0.965
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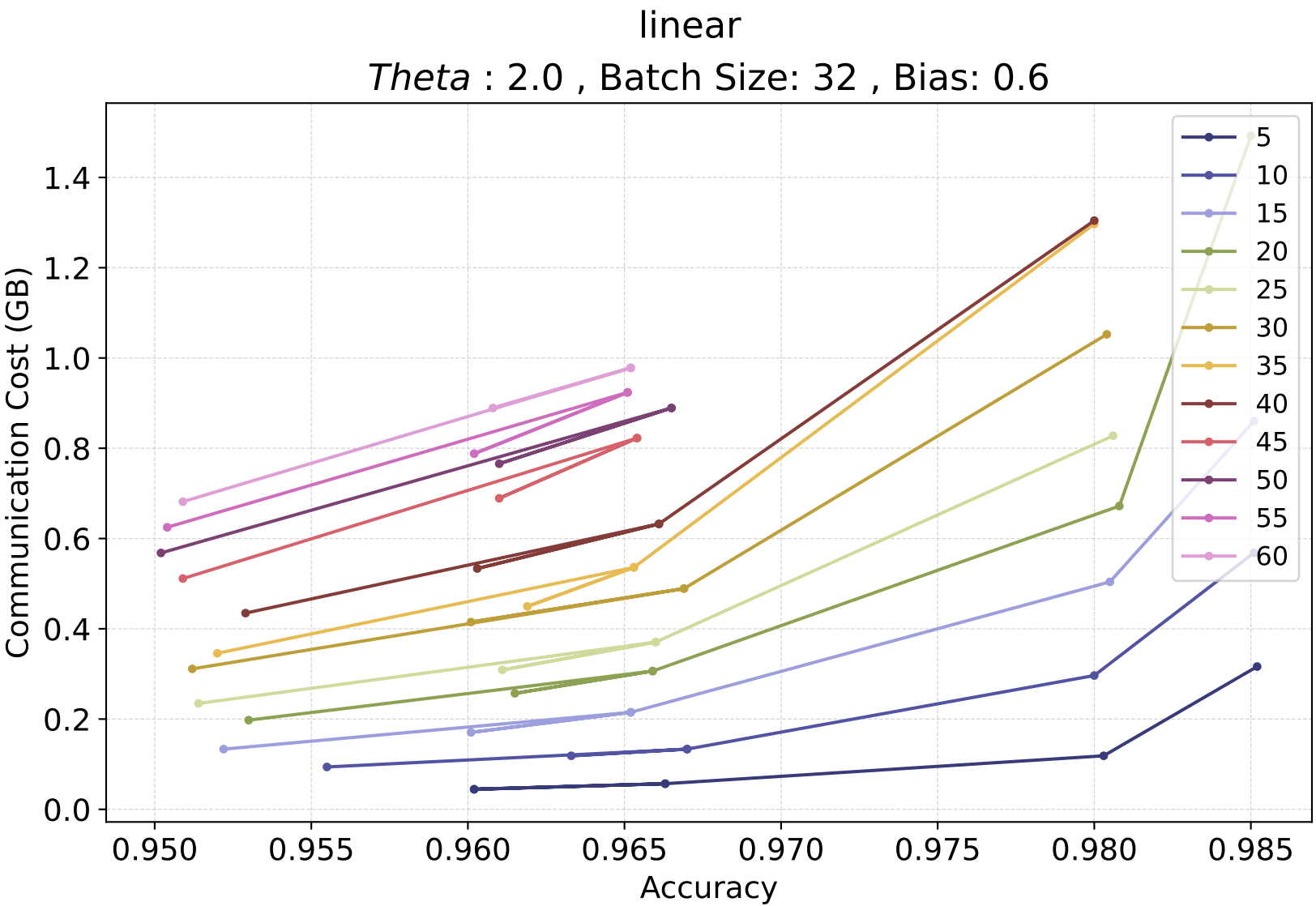
linear
Theta : 2.0 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
Accuracy
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
0.950
0.955
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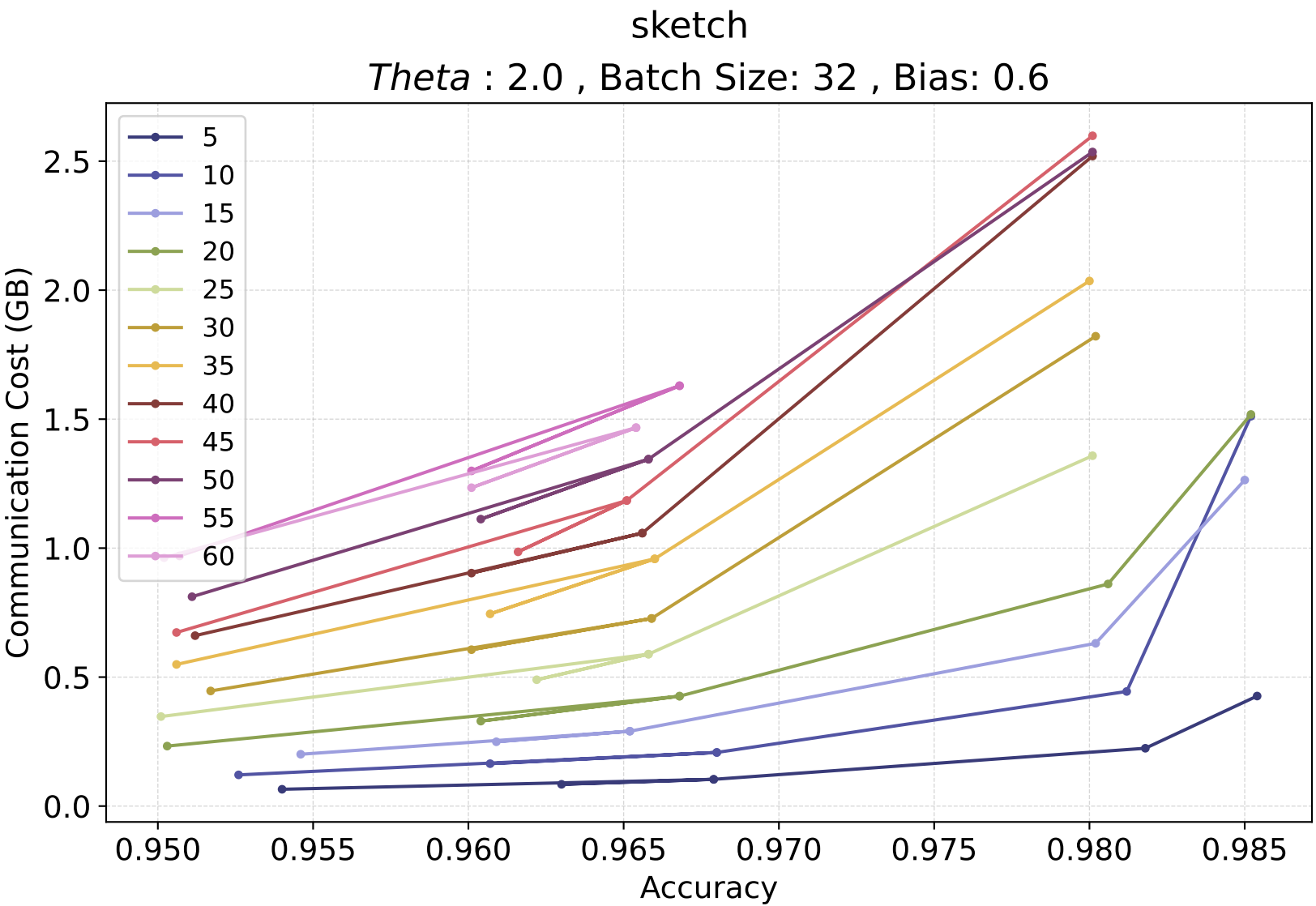
sketch
Theta : 2.0 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
Accuracy
0.0
0.5
1.0
1.5
2.0
2.5
0.950
0.955
0.960
0.965
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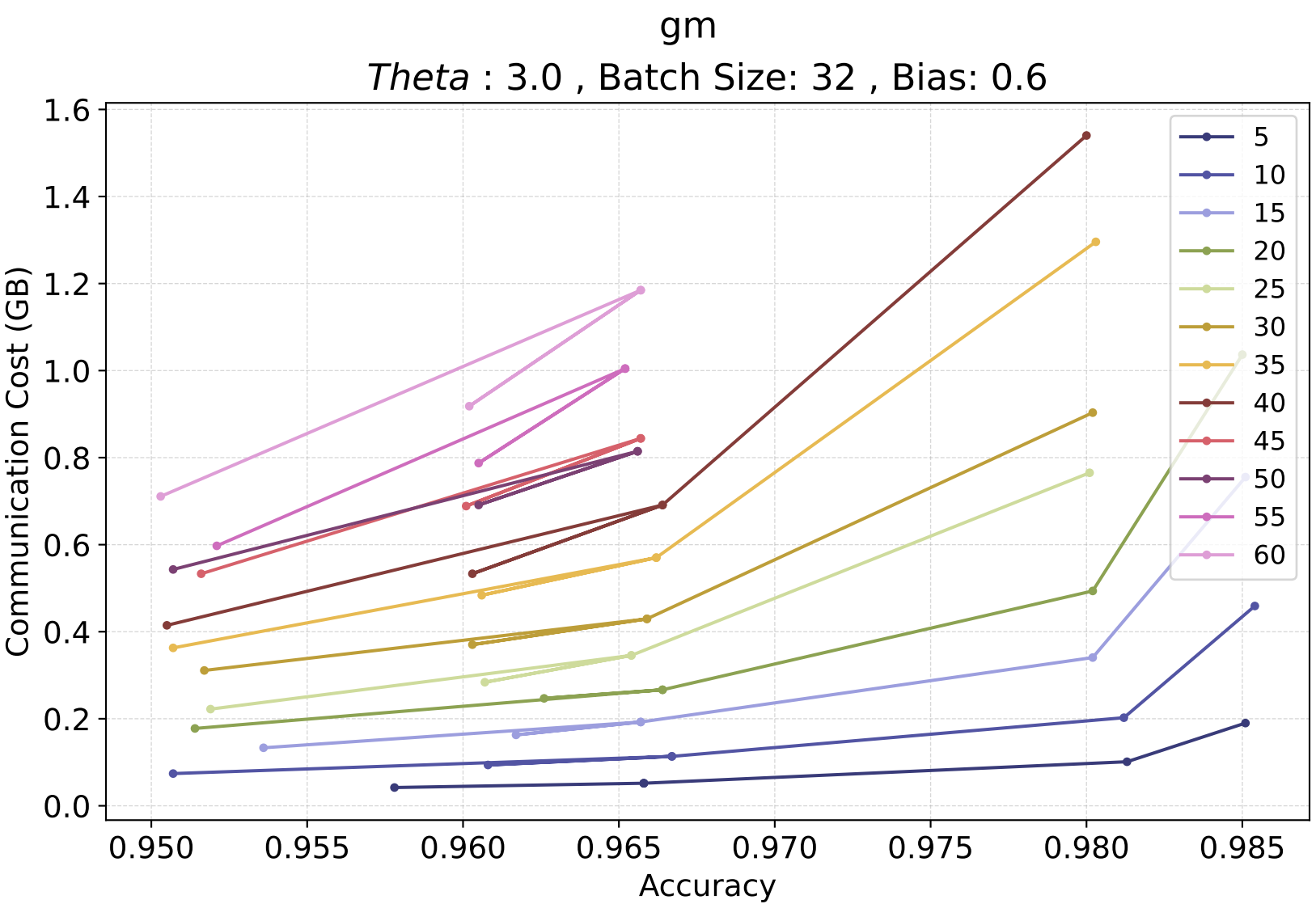
gm
Theta : 3.0 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
Accuracy
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
0.950
0.955
0.960
0.965
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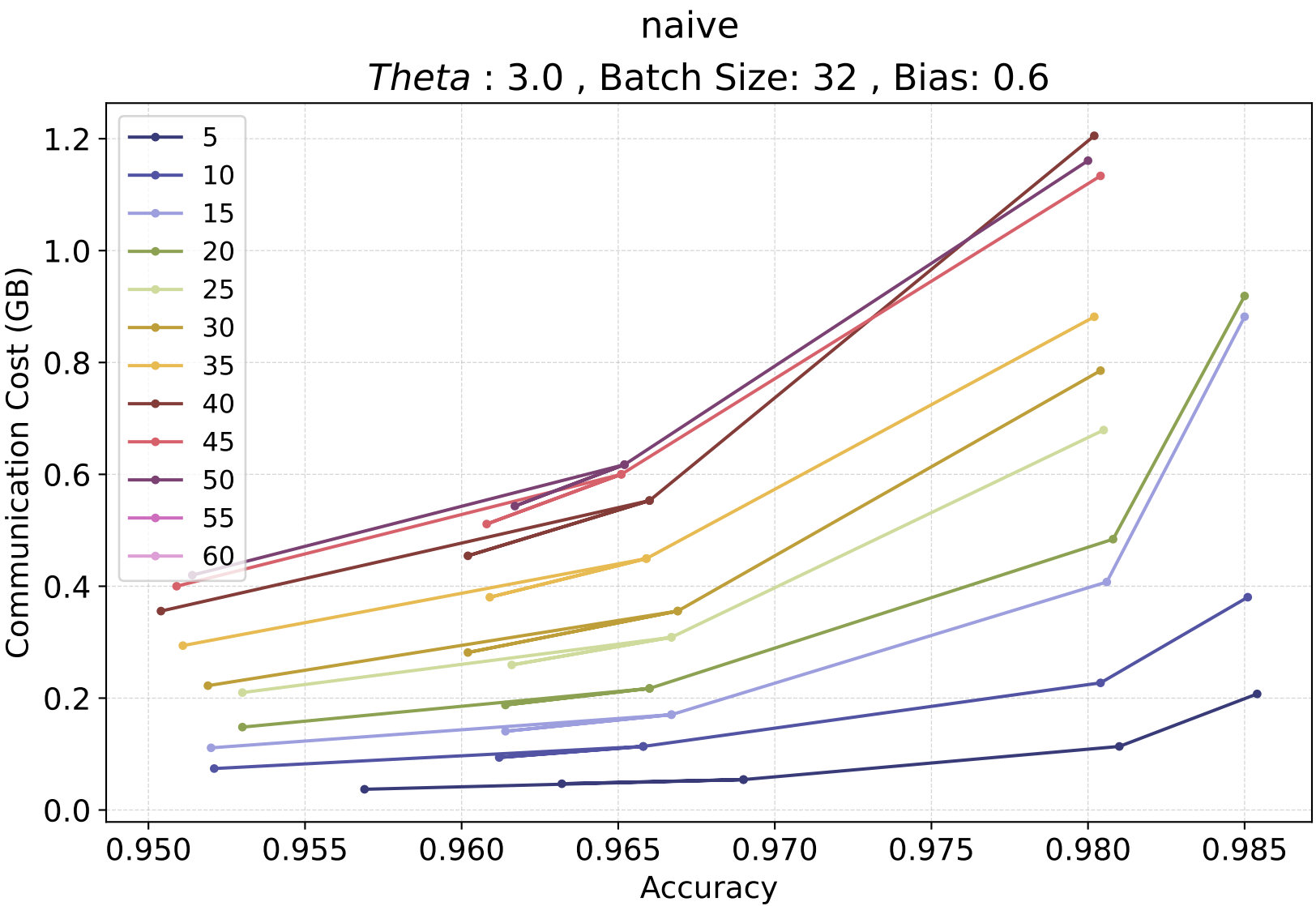
naive
Theta : 3.0 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
Accuracy
0.0
0.2
0.4
0.6
0.8
1.0
1.2
0.950
0.955
0.960
0.965
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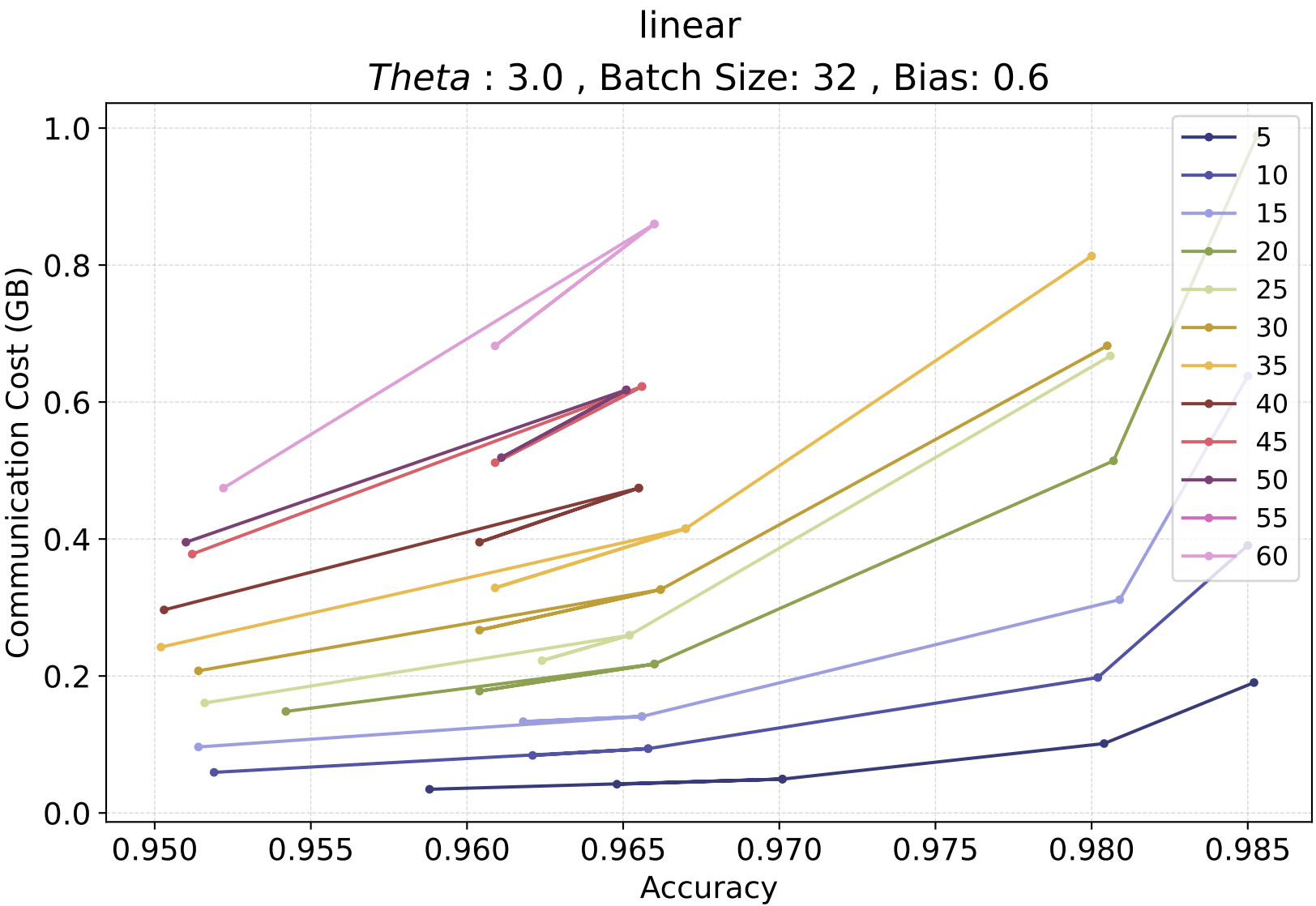
linear
Theta : 3.0 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
Accuracy
1.0
0.8
0.6
0.4
0.2
0.0
0.950
0.955
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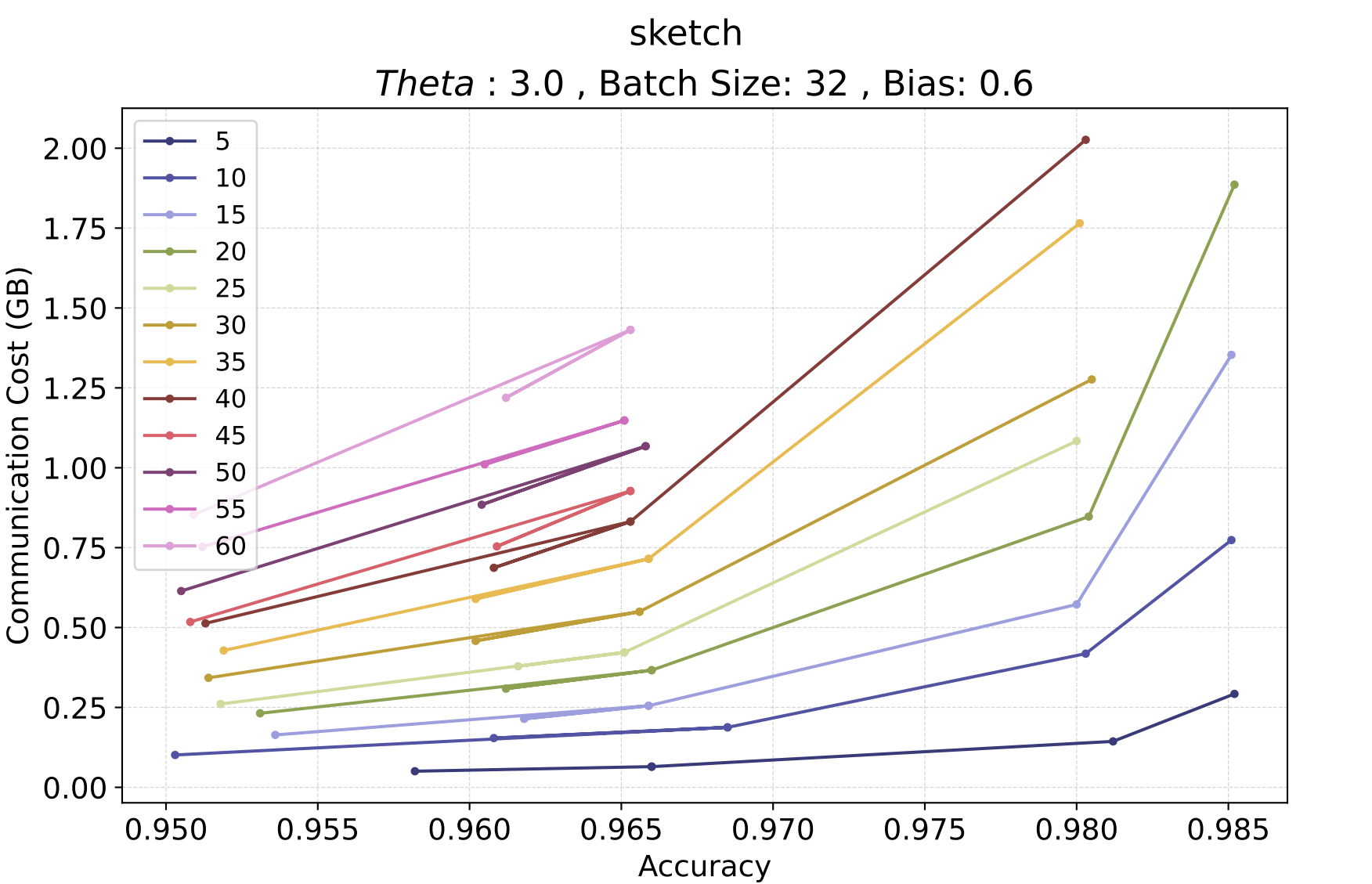
sketch
Theta : 3.0 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
Accuracy
0.00
0.25
0.50
0.75
1.00
1.25
1.50
1.75
2.00
0.950
0.955
0.960
0.965
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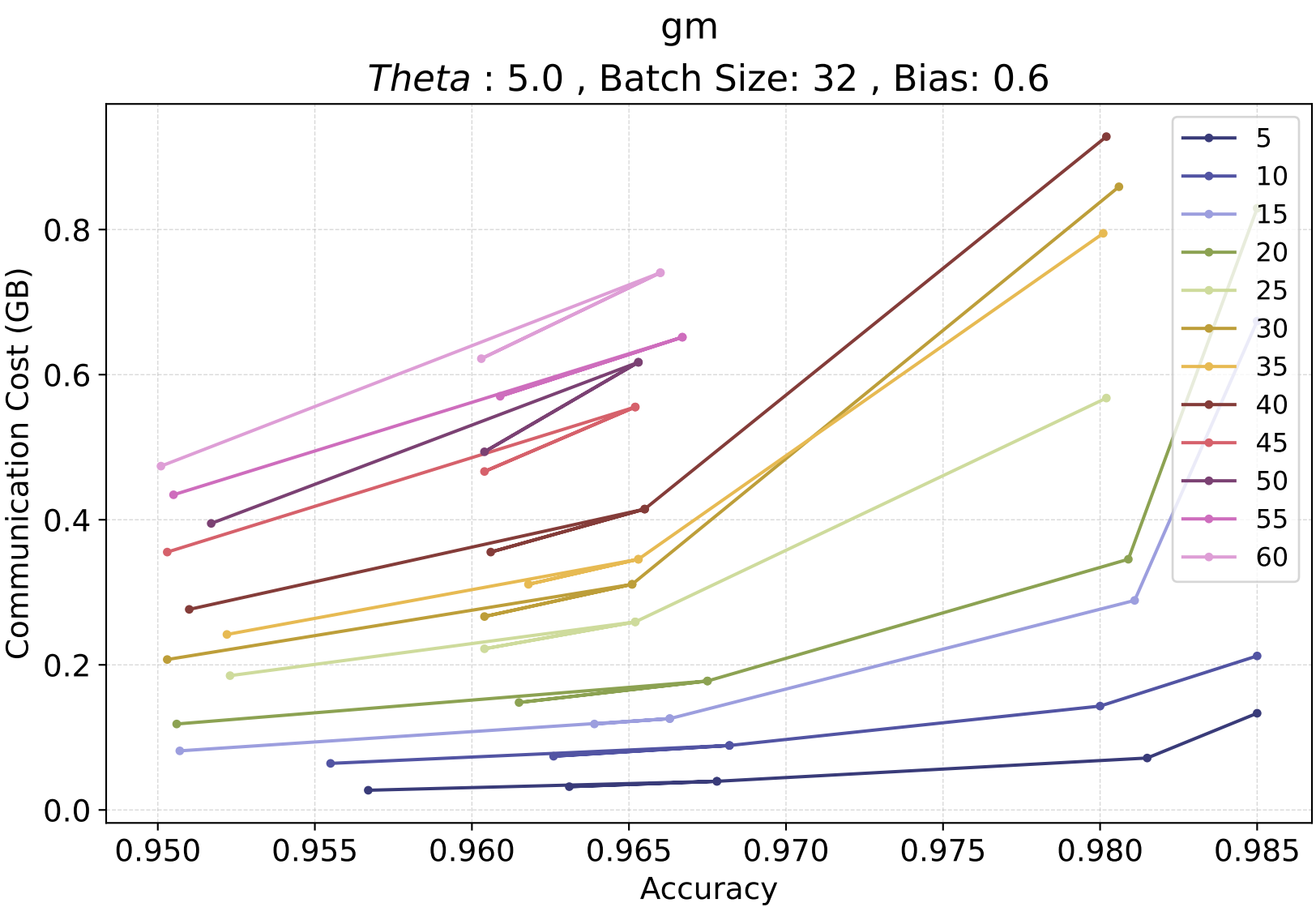
gm
Theta : 5.0 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
0.0
0.2
0.4
0.6
0.8
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
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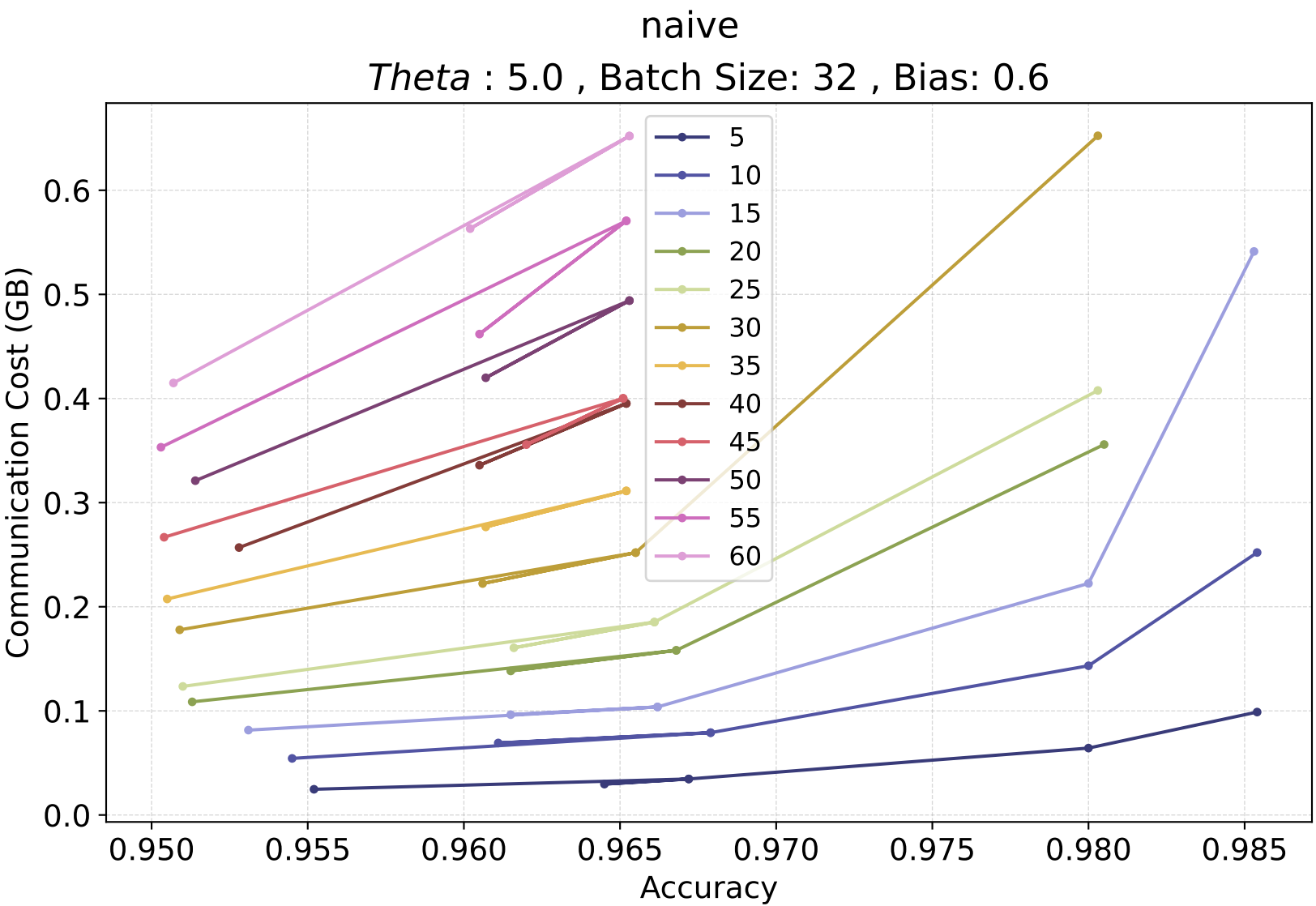
naive
Theta : 5.0 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
Accuracy
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
5
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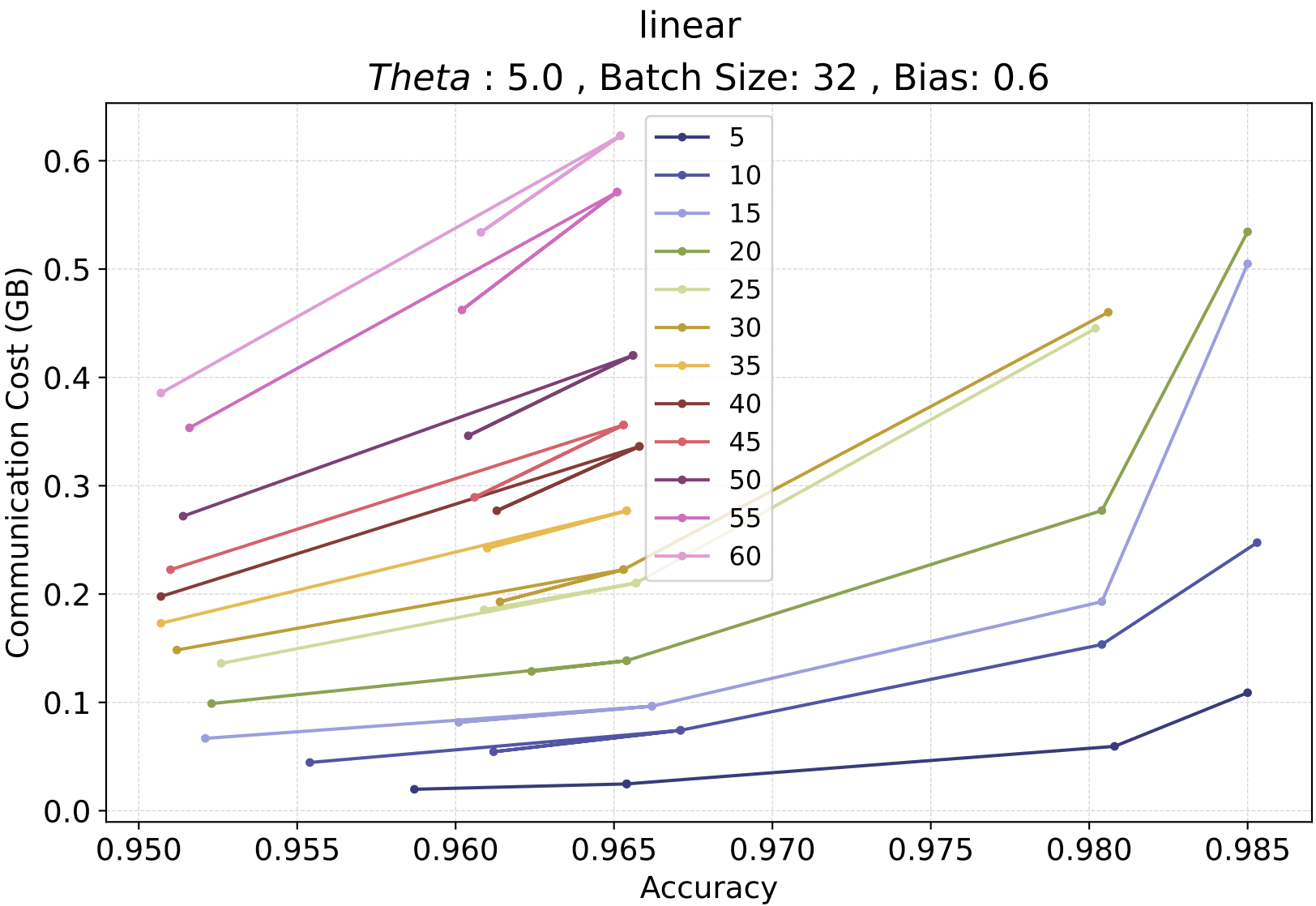
linear
Theta : 5.0 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
Accuracy
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
5
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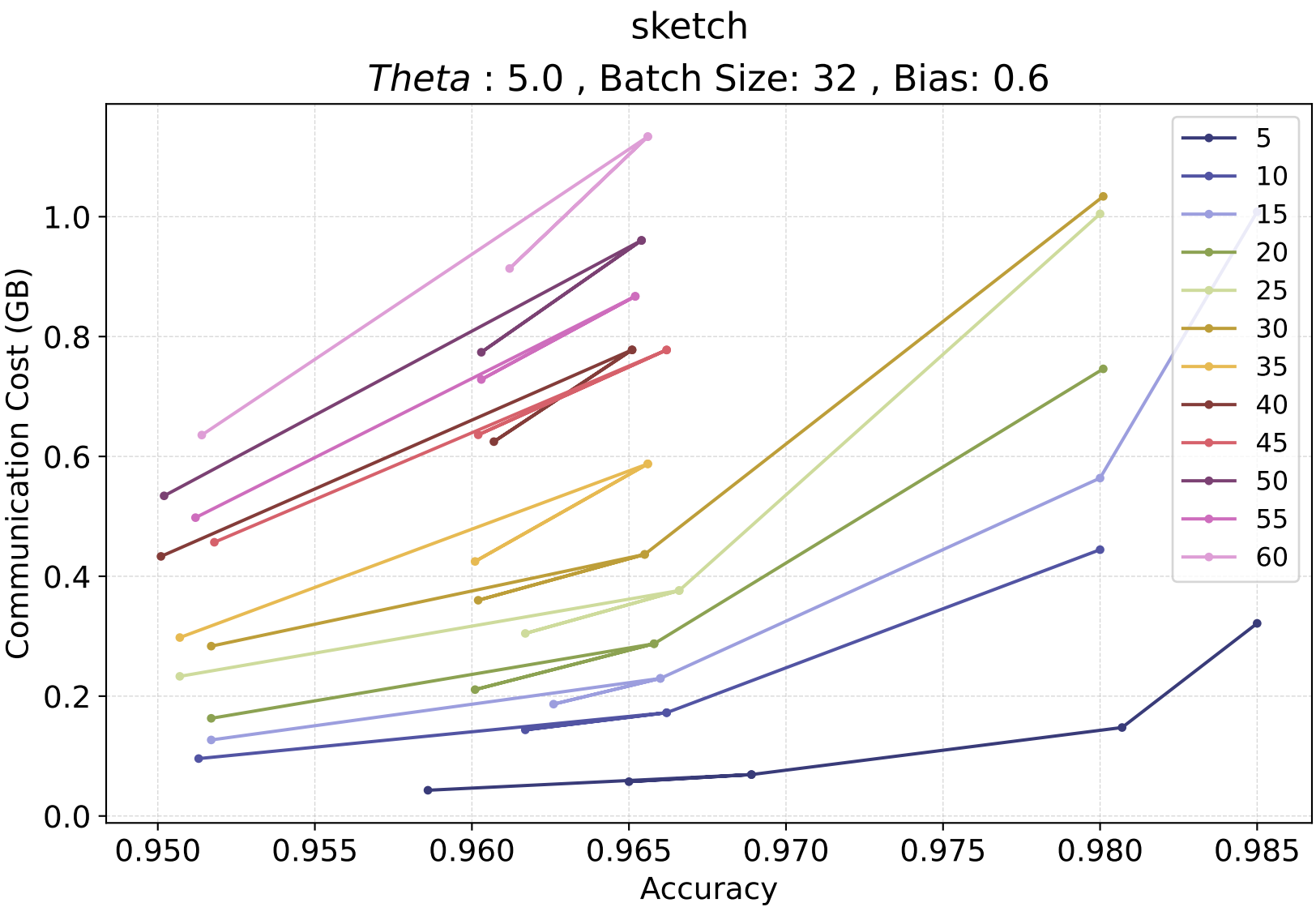
sketch
Theta : 5.0 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
0.0
0.2
0.4
0.6
0.8
1.0
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
20
25
30
35
40
45
50
55
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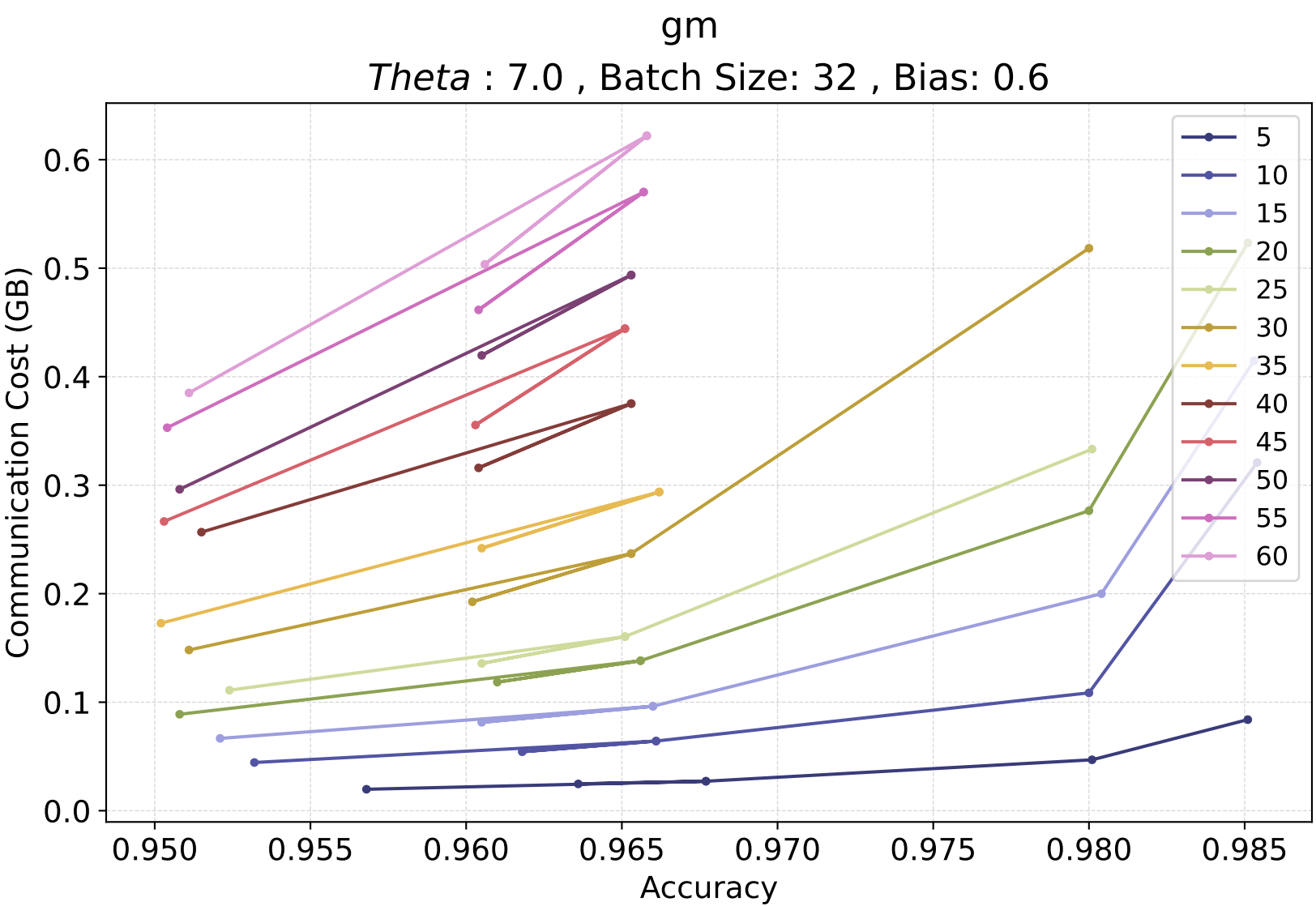
gm
Theta : 7.0 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
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35
40
45
50
55
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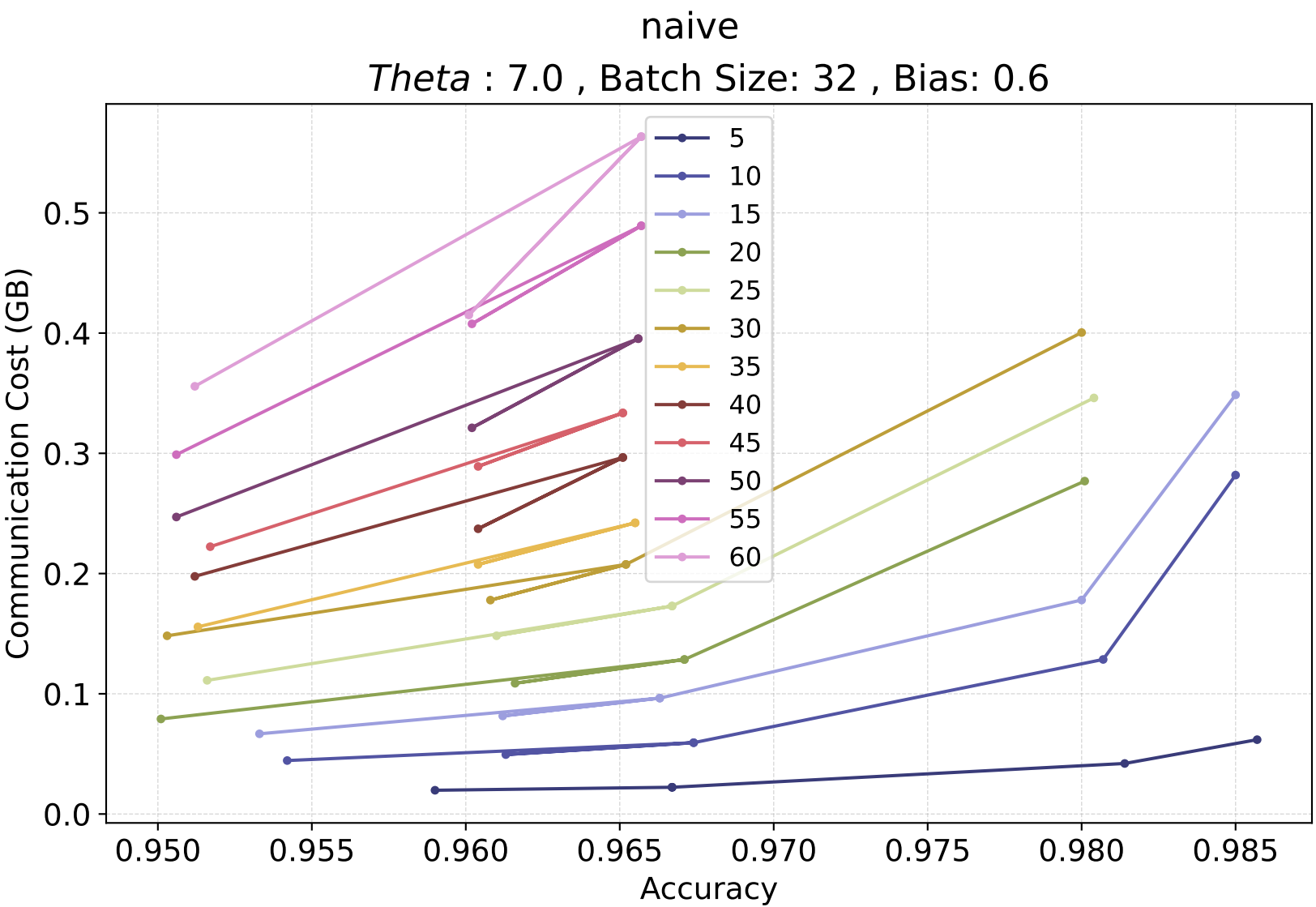
naive
Theta : 7.0 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
0.0
0.1
0.2
0.3
0.4
0.5
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
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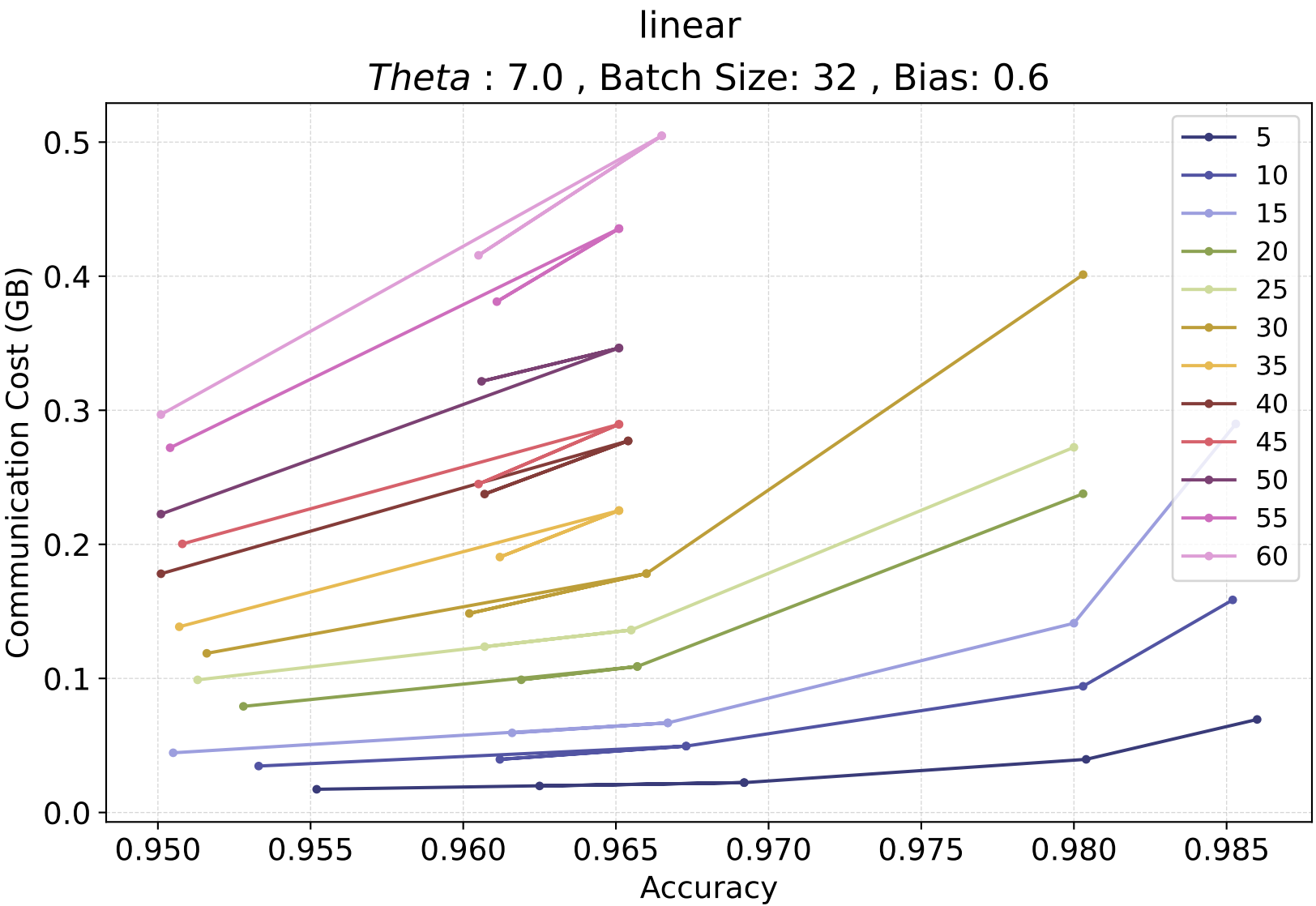
linear
Theta : 7.0 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
0.0
0.1
0.2
0.3
0.4
0.5
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
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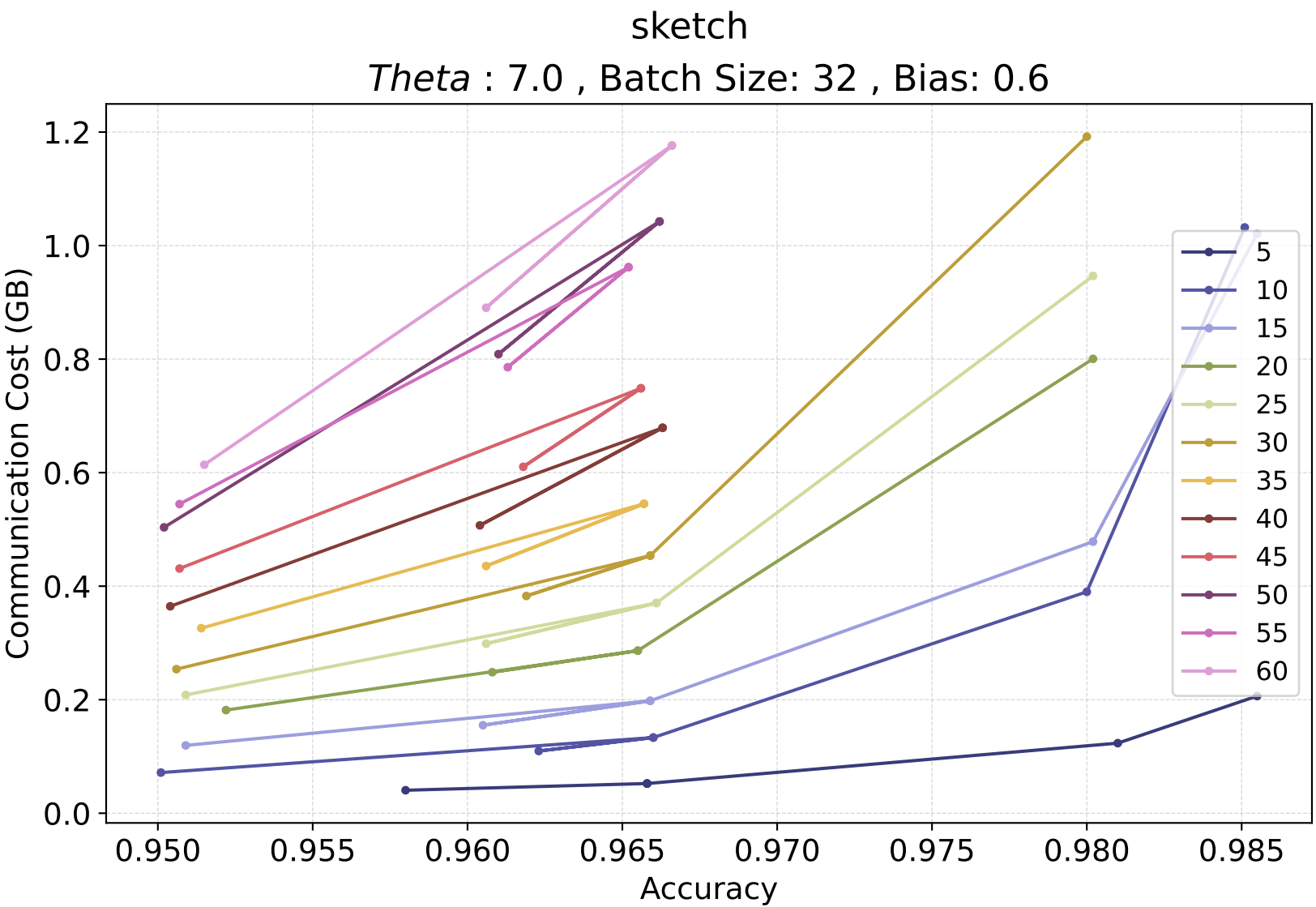
sketch
Theta : 7.0 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
Accuracy
0.0
0.2
0.4
0.6
0.8
1.0
1.2
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
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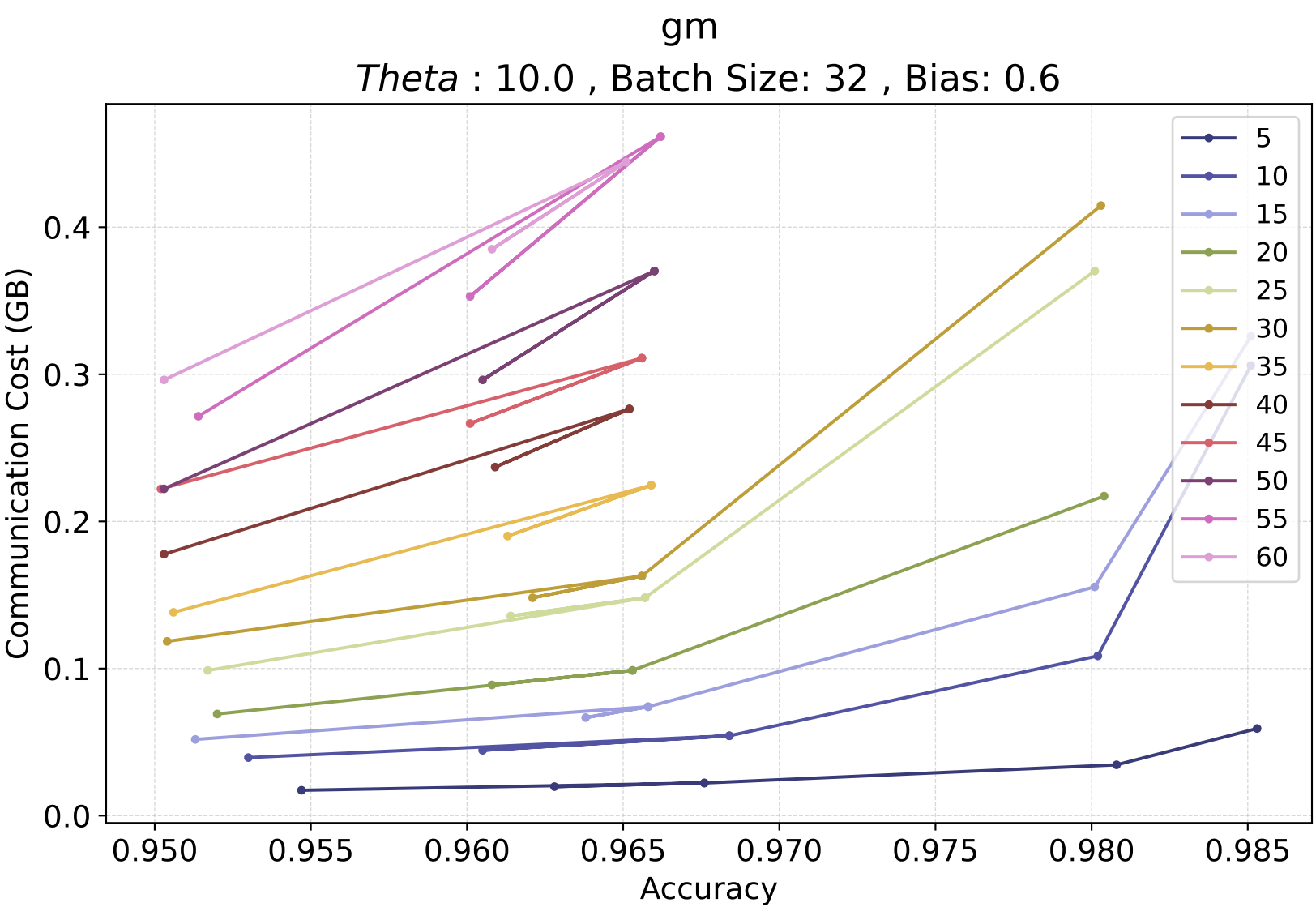
gm
Theta : 10.0 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
0.0
0.1
0.2
0.3
0.4
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
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25
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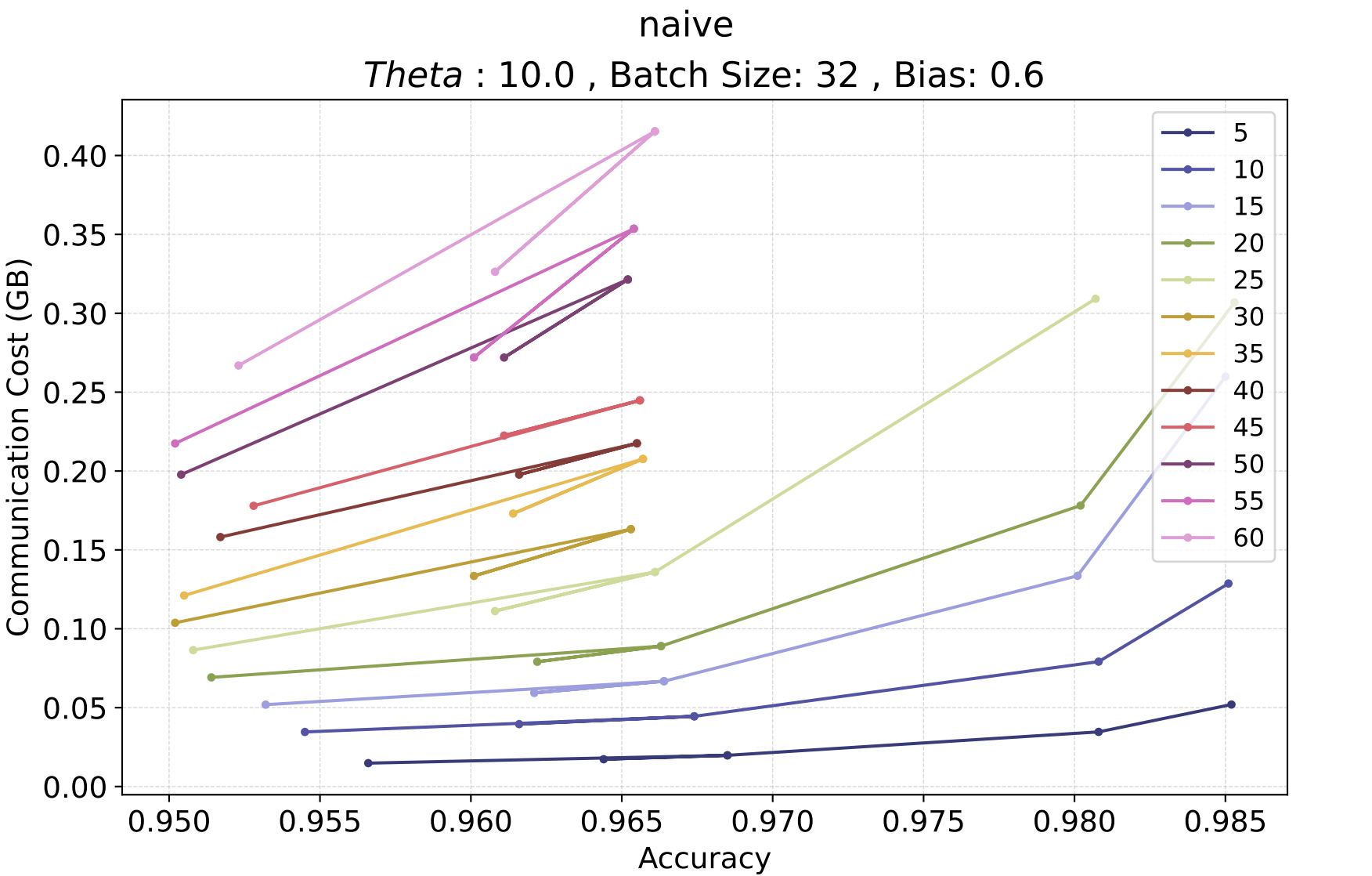
naive
Theta : 10.0 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35
0.40
Accuracy
0.950
0.955
0.960
0.965
0.970
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0.980
0.985
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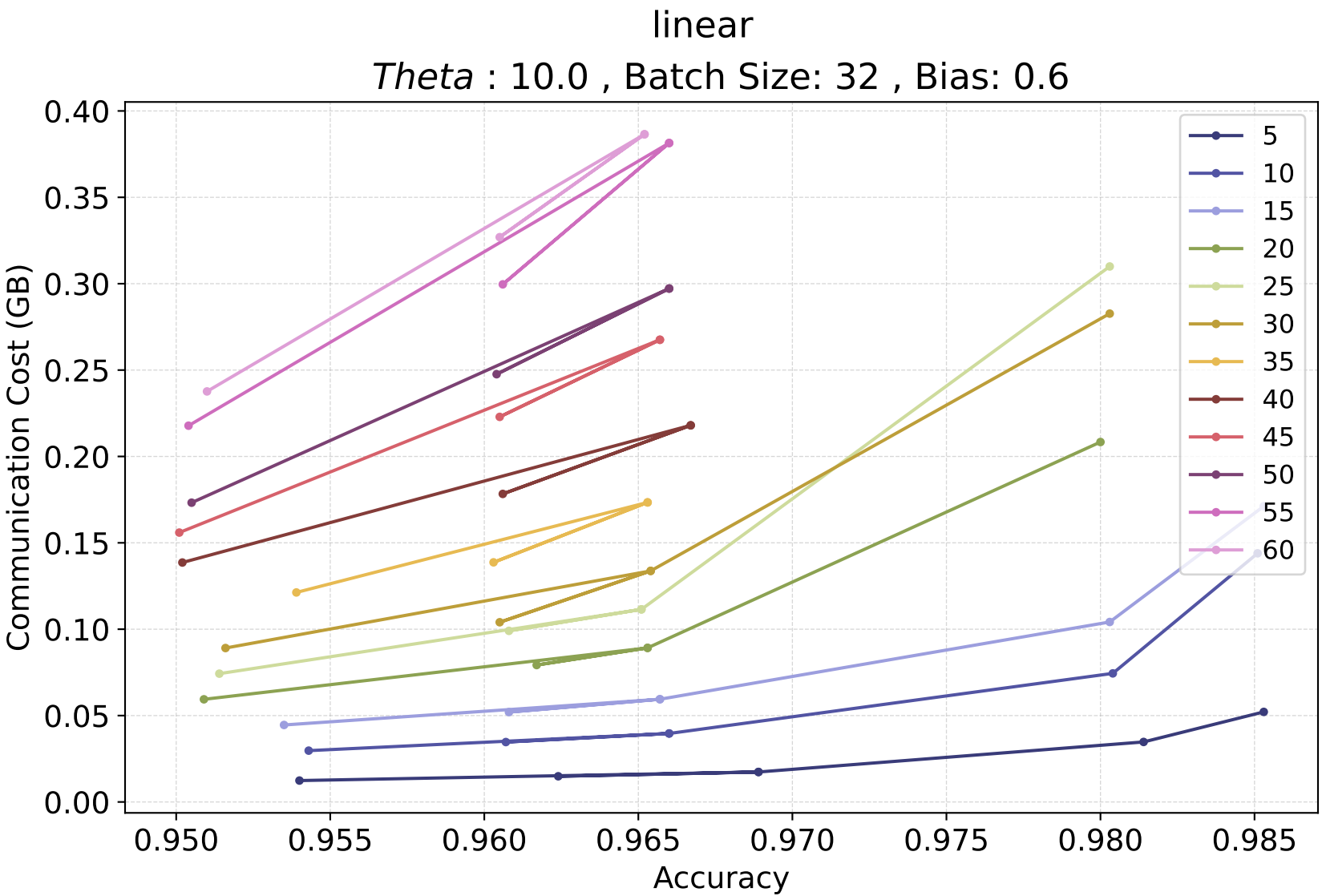
linear
Theta : 10.0 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
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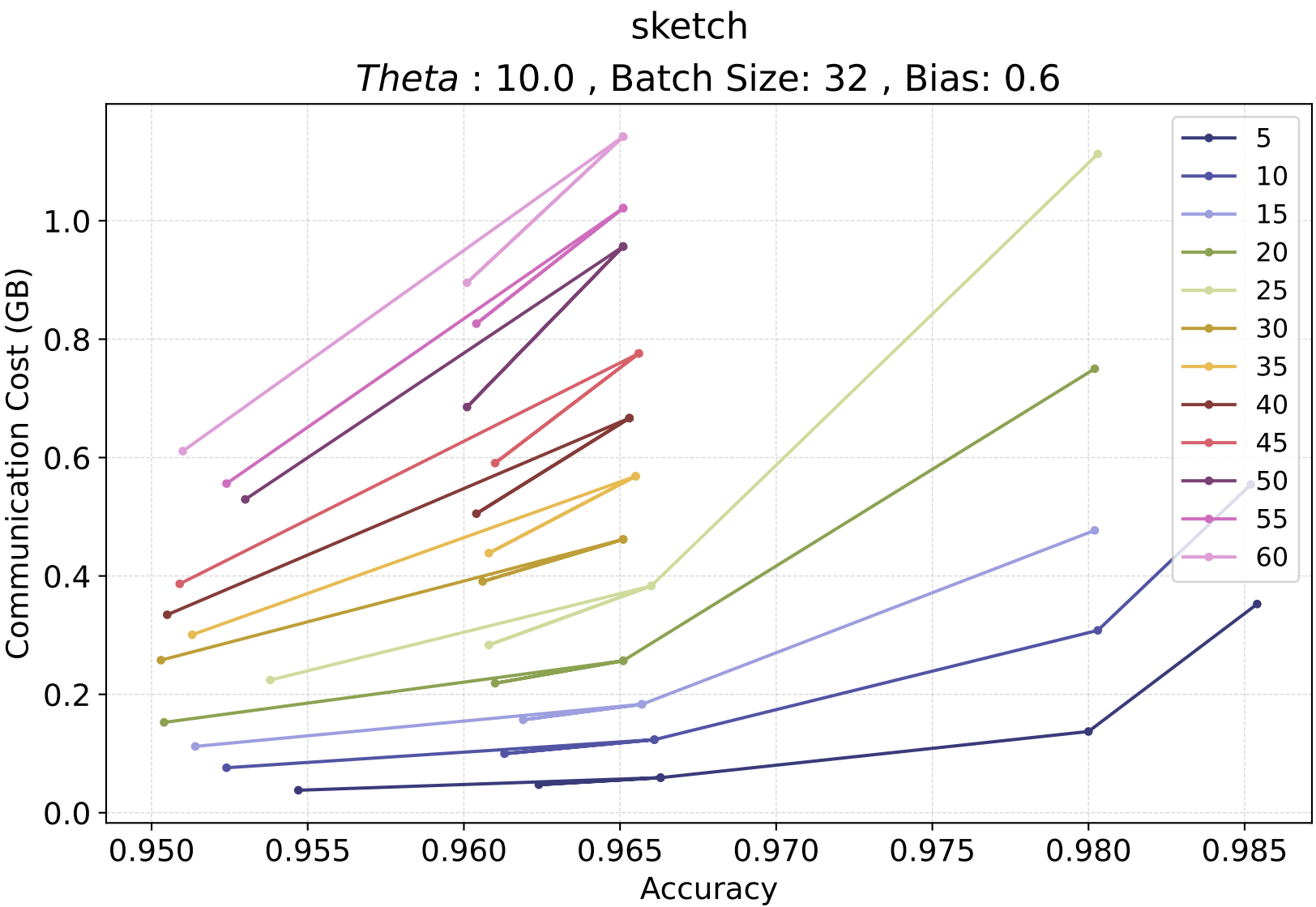
sketch
Theta : 10.0 , Batch Size: 32 , Bias: 0.6
Communication Cost (GB)
Accuracy
0.0
0.2
0.4
0.6
0.8
1.0
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
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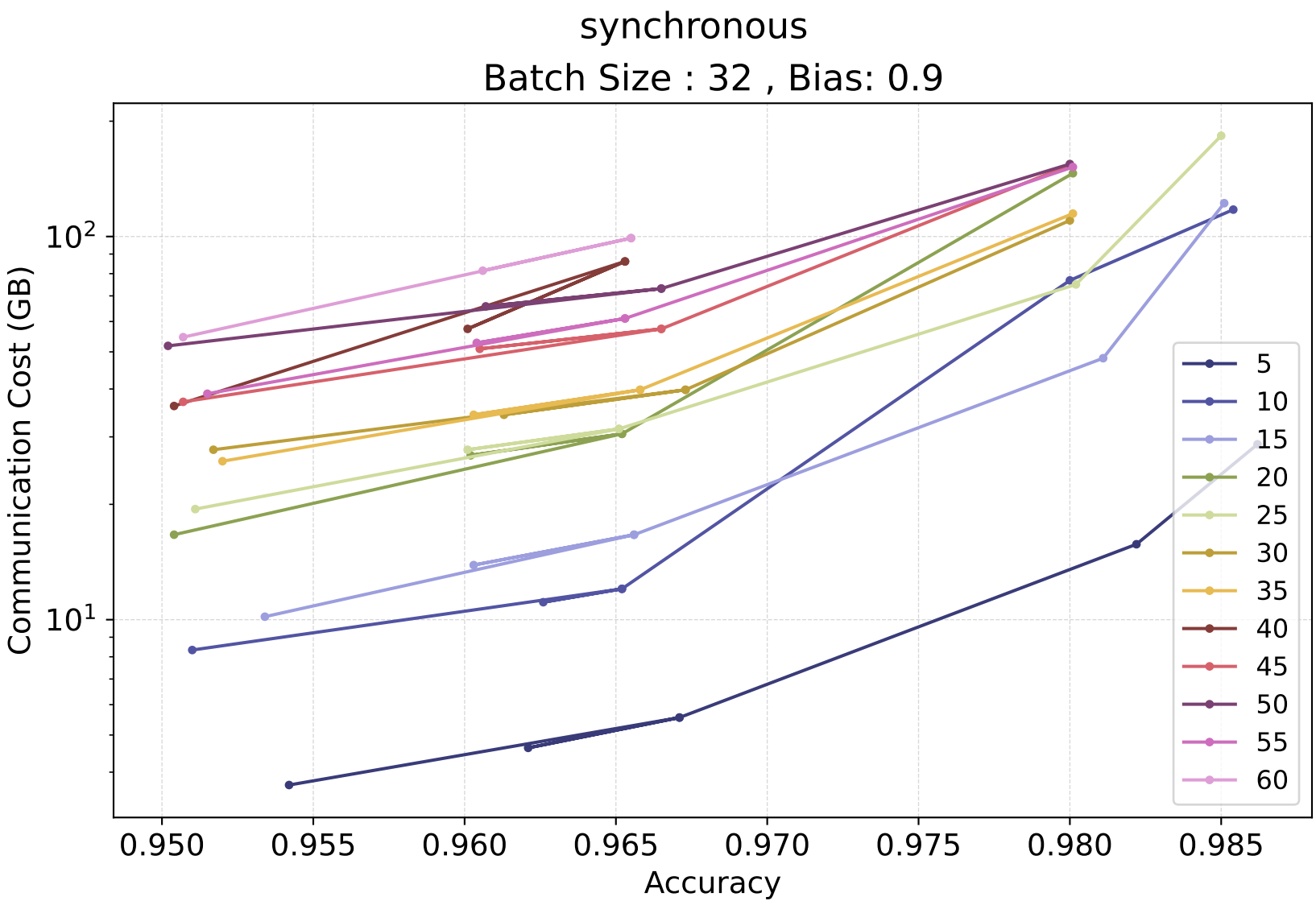
synchronous
Batch Size : 32 , Bias: 0.9
Communication Cost (GB)
10^2
10^1
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
20
25
30
35
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50
55
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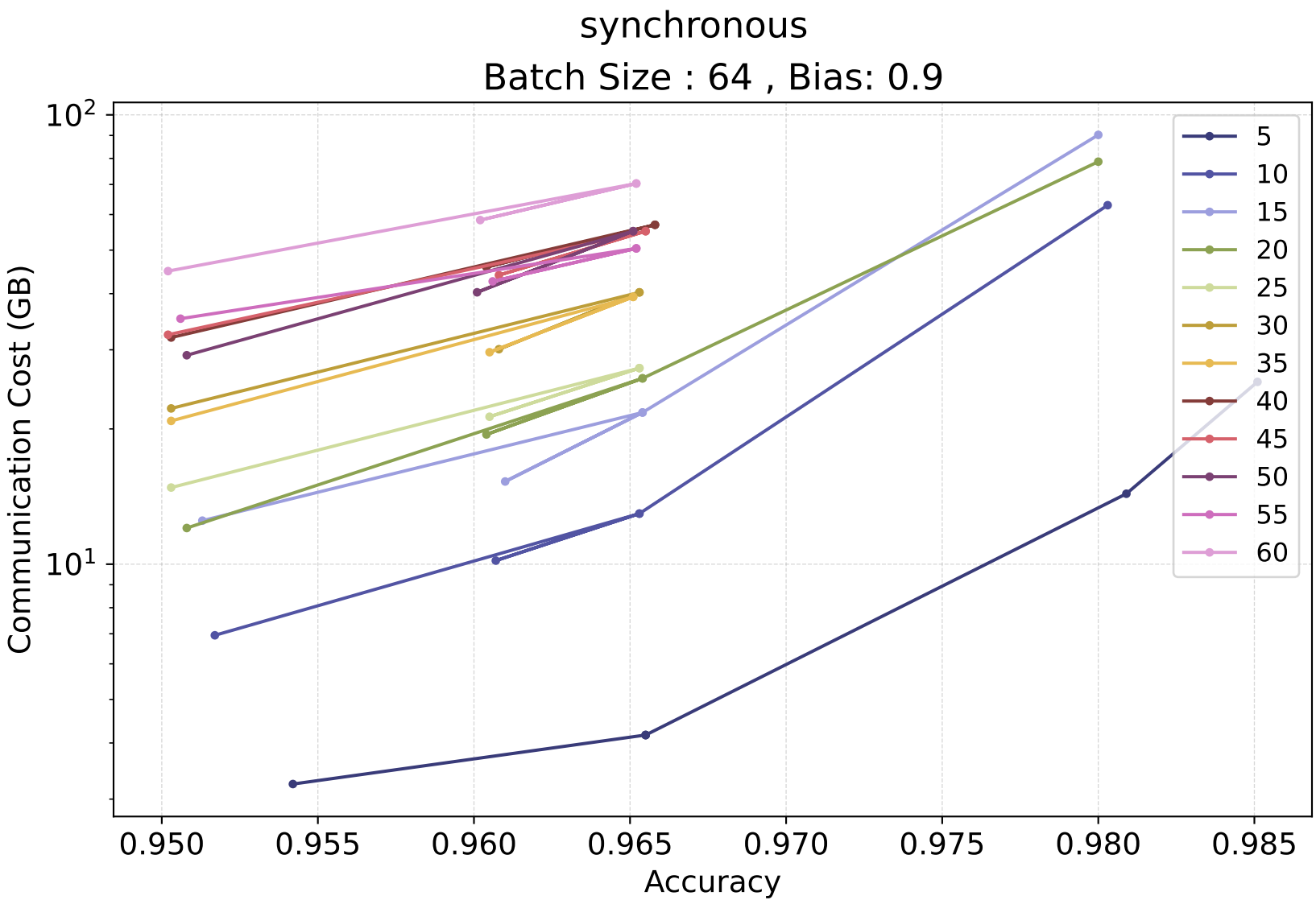
synchronous
Batch Size : 64 , Bias: 0.9
Communication Cost (GB)
10^2
10^1
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
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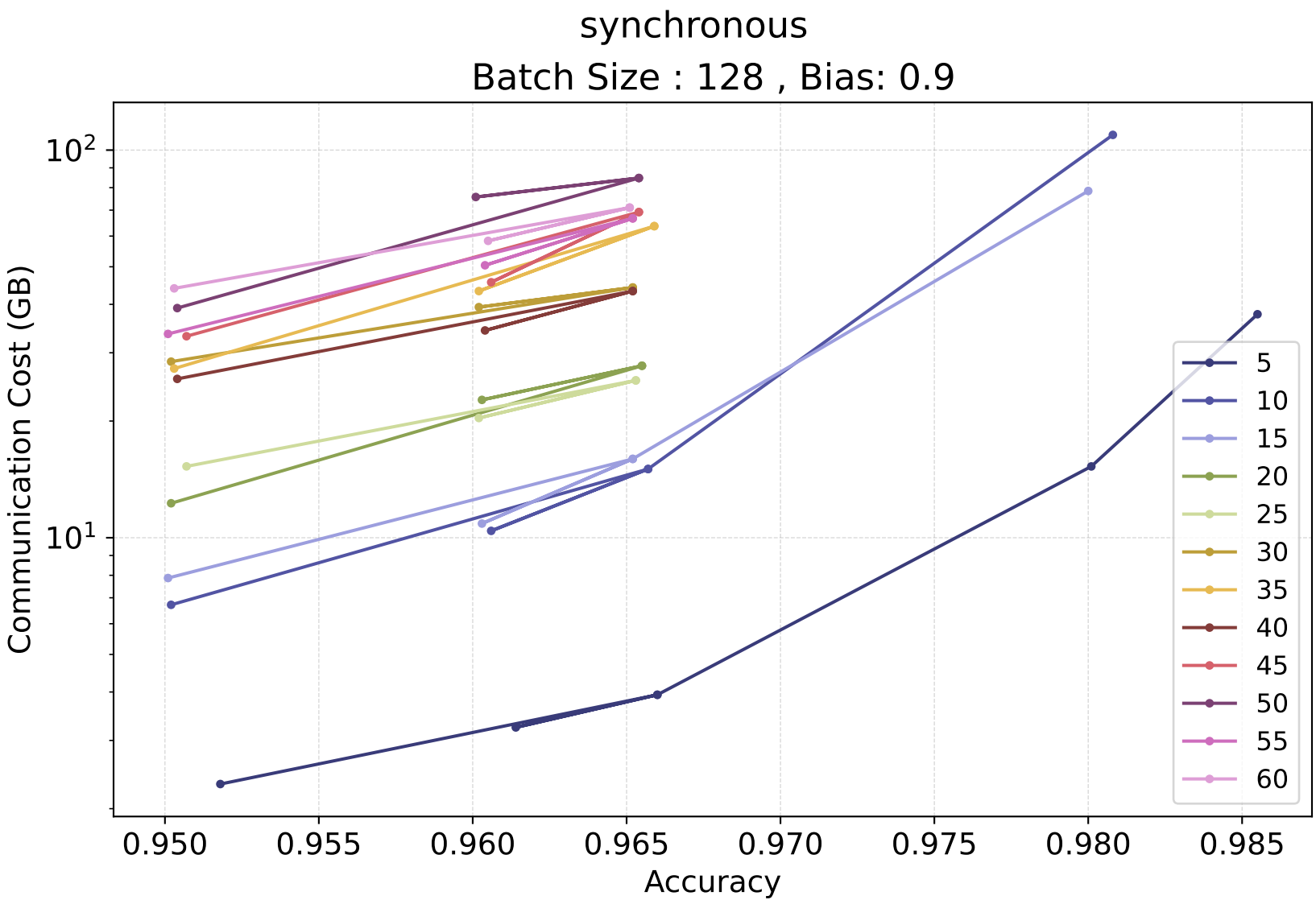
synchronous
Batch Size : 128 , Bias: 0.9
Communication Cost (GB)
10^2
10^1
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
20
25
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40
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50
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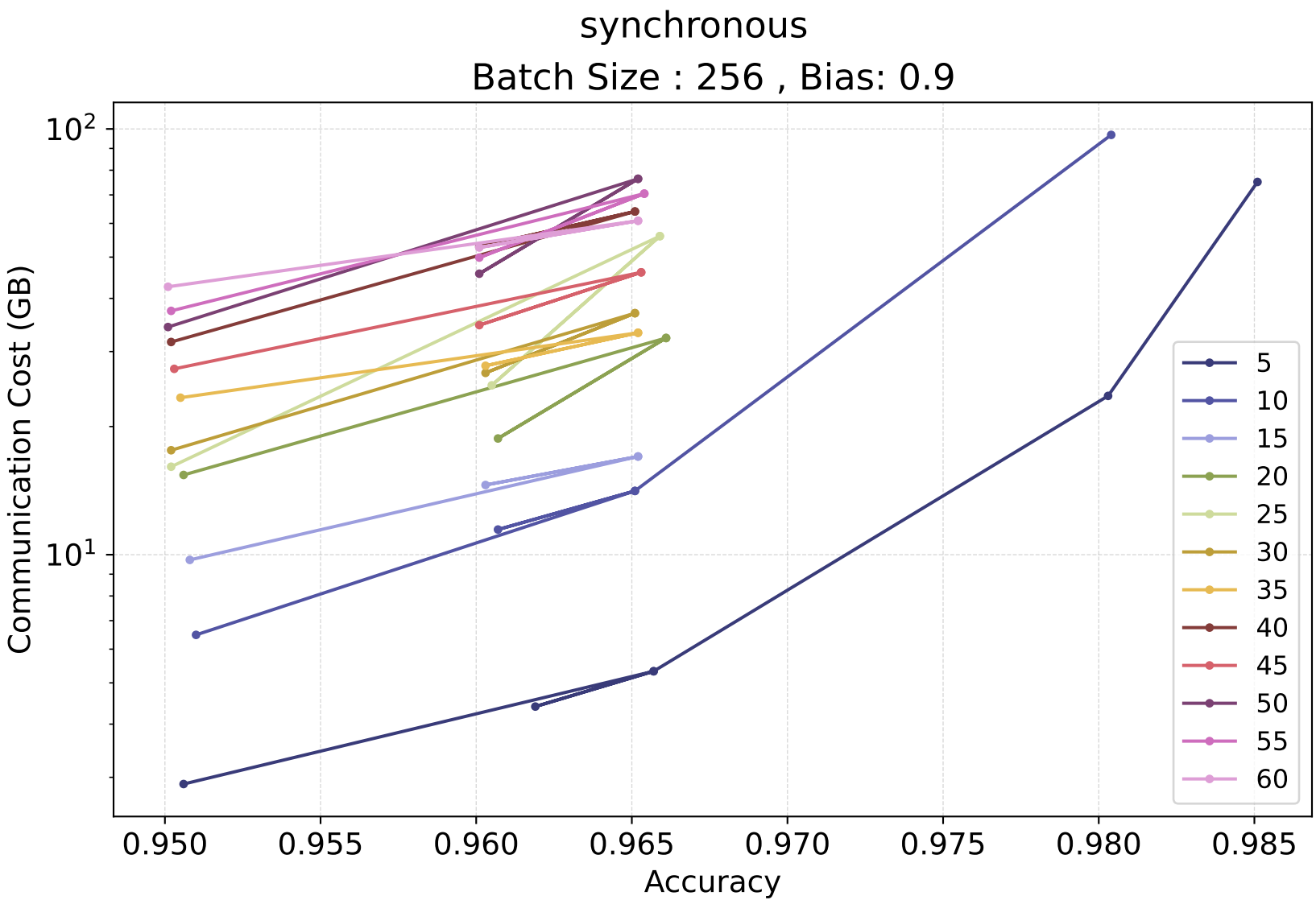
synchronous
Batch Size : 256 , Bias: 0.9
Communication Cost (GB)
10^2
10^1
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
20
25
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55
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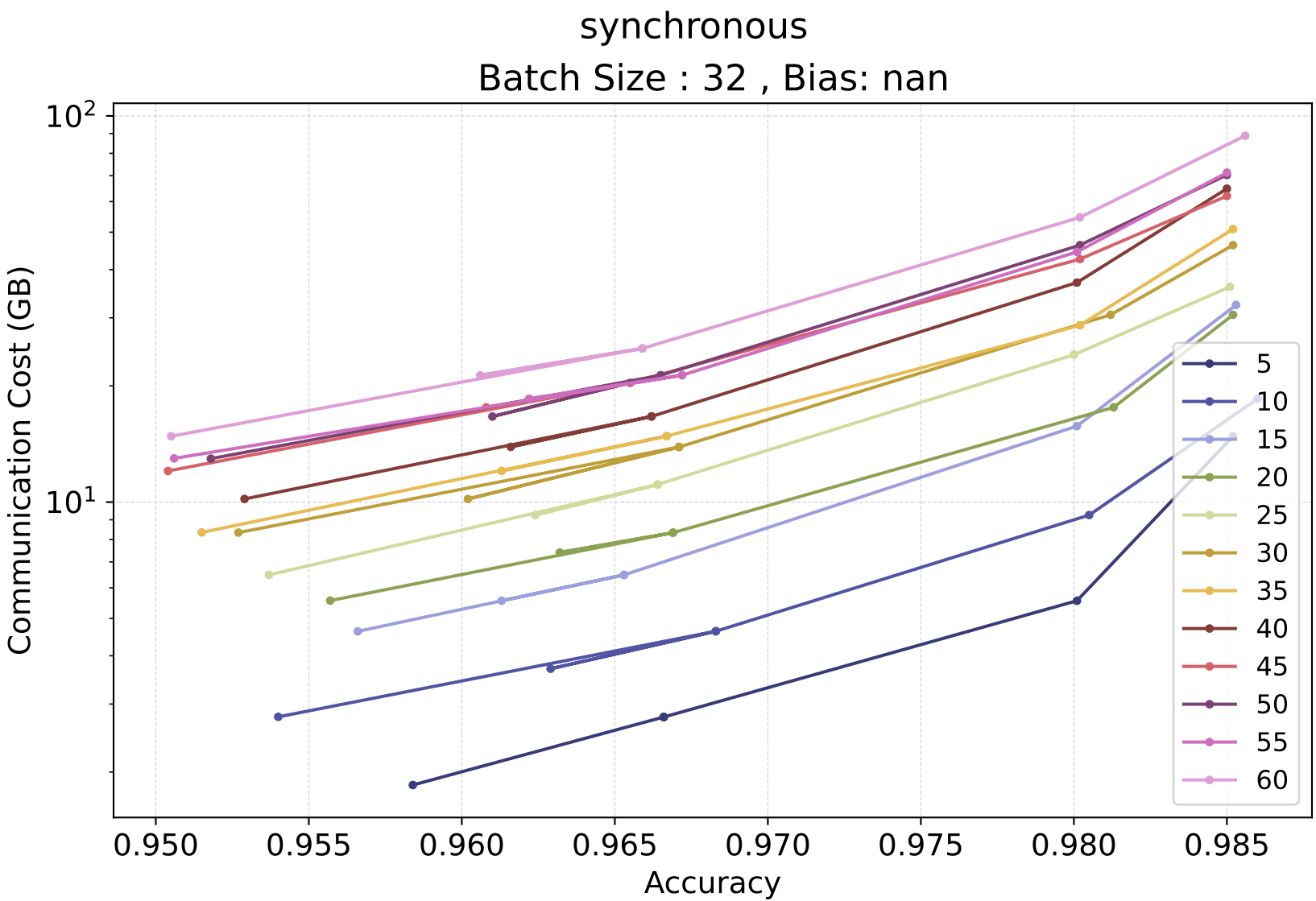
synchronous
Batch Size : 32 , Bias: nan
Communication Cost (GB)
10^2
10^1
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
20
25
30
35
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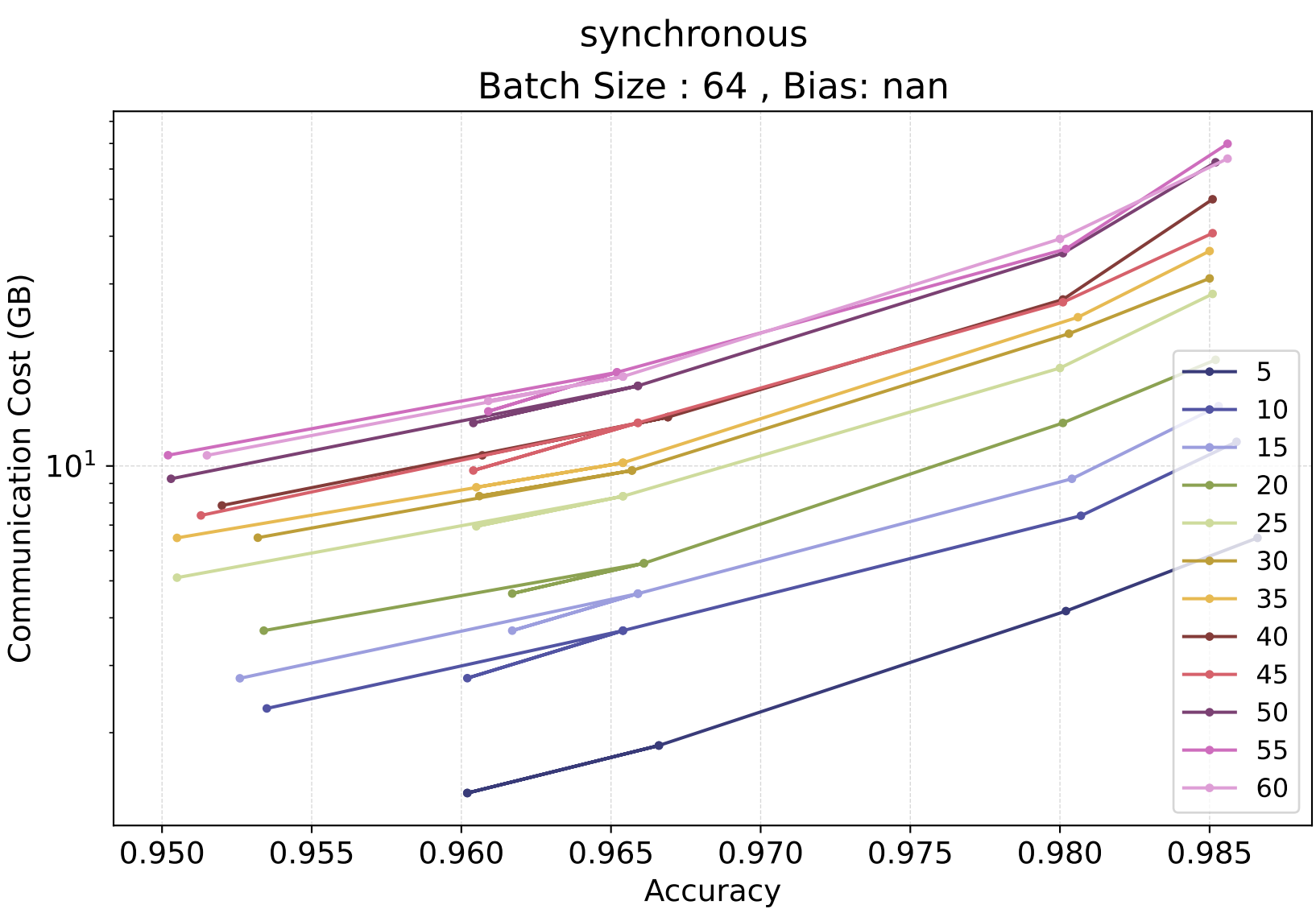
synchronous
Batch Size : 64 , Bias: nan
Communication Cost (GB)
10^1
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
20
25
30
35
40
45
50
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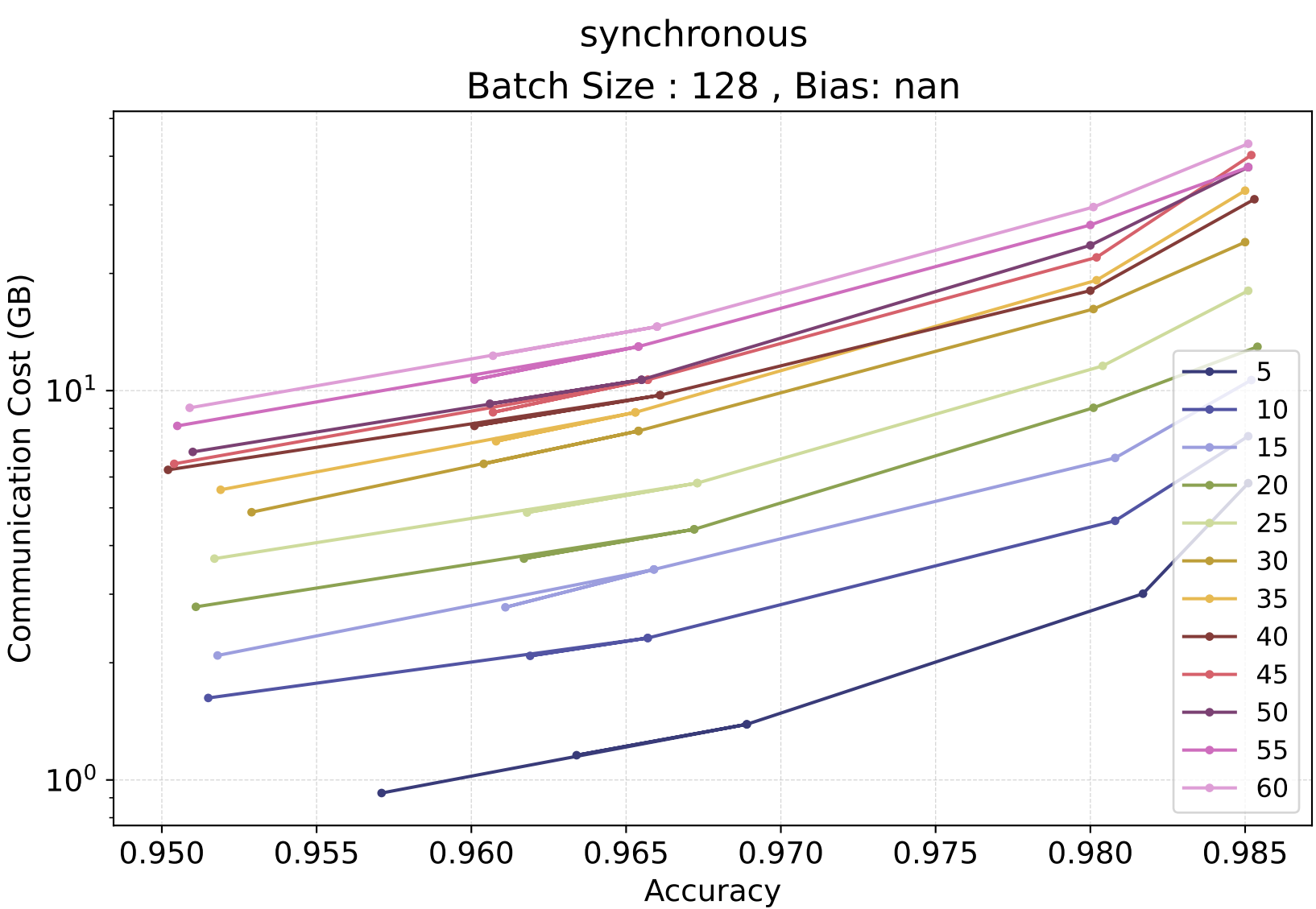
synchronous
Batch Size : 128 , Bias: nan
Communication Cost (GB)
10^1
10^0
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
20
25
30
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45
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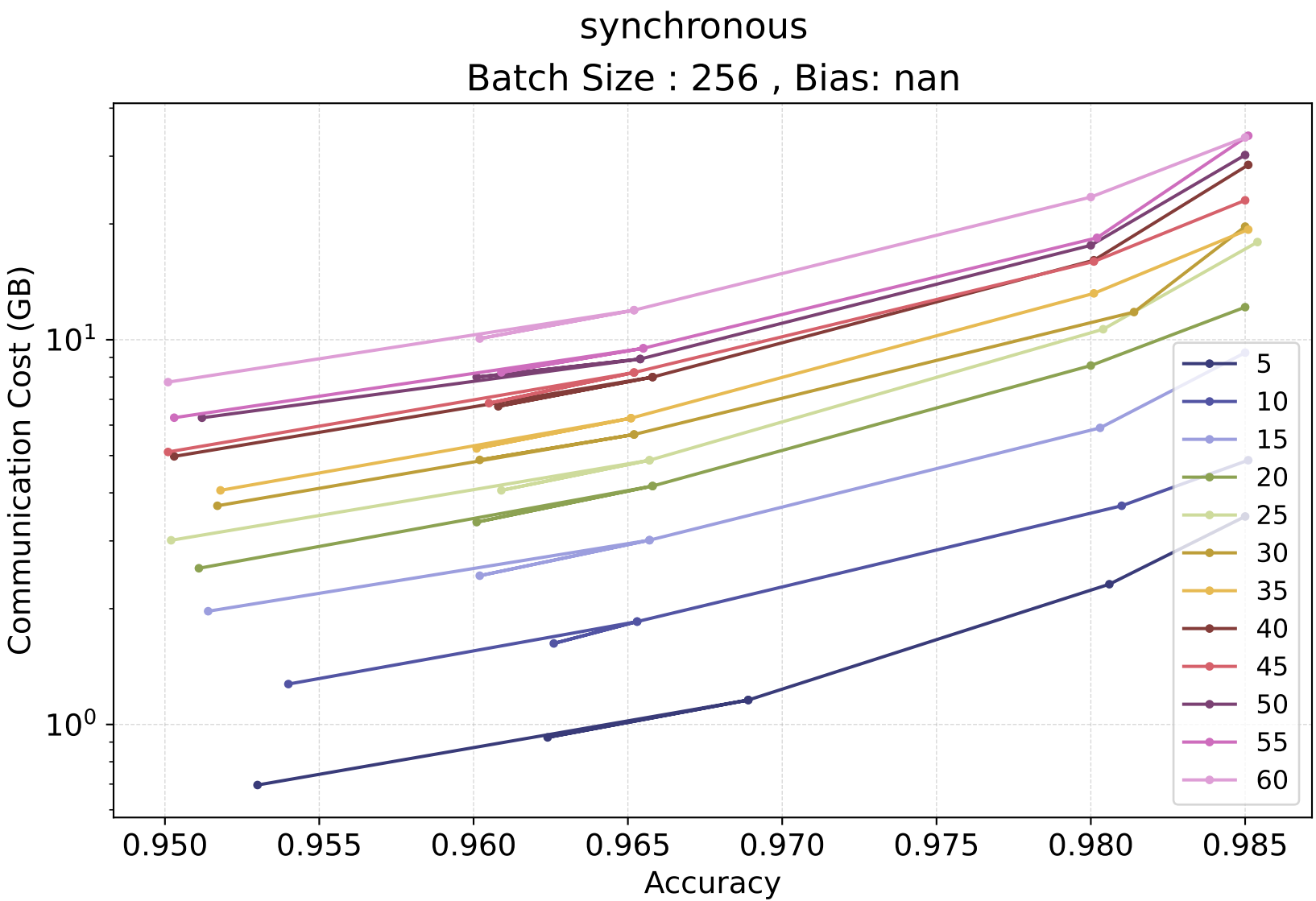
synchronous
Batch Size : 256 , Bias: nan
Communication Cost (GB)
10^1
10^0
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy
5
10
15
20
25
30
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45
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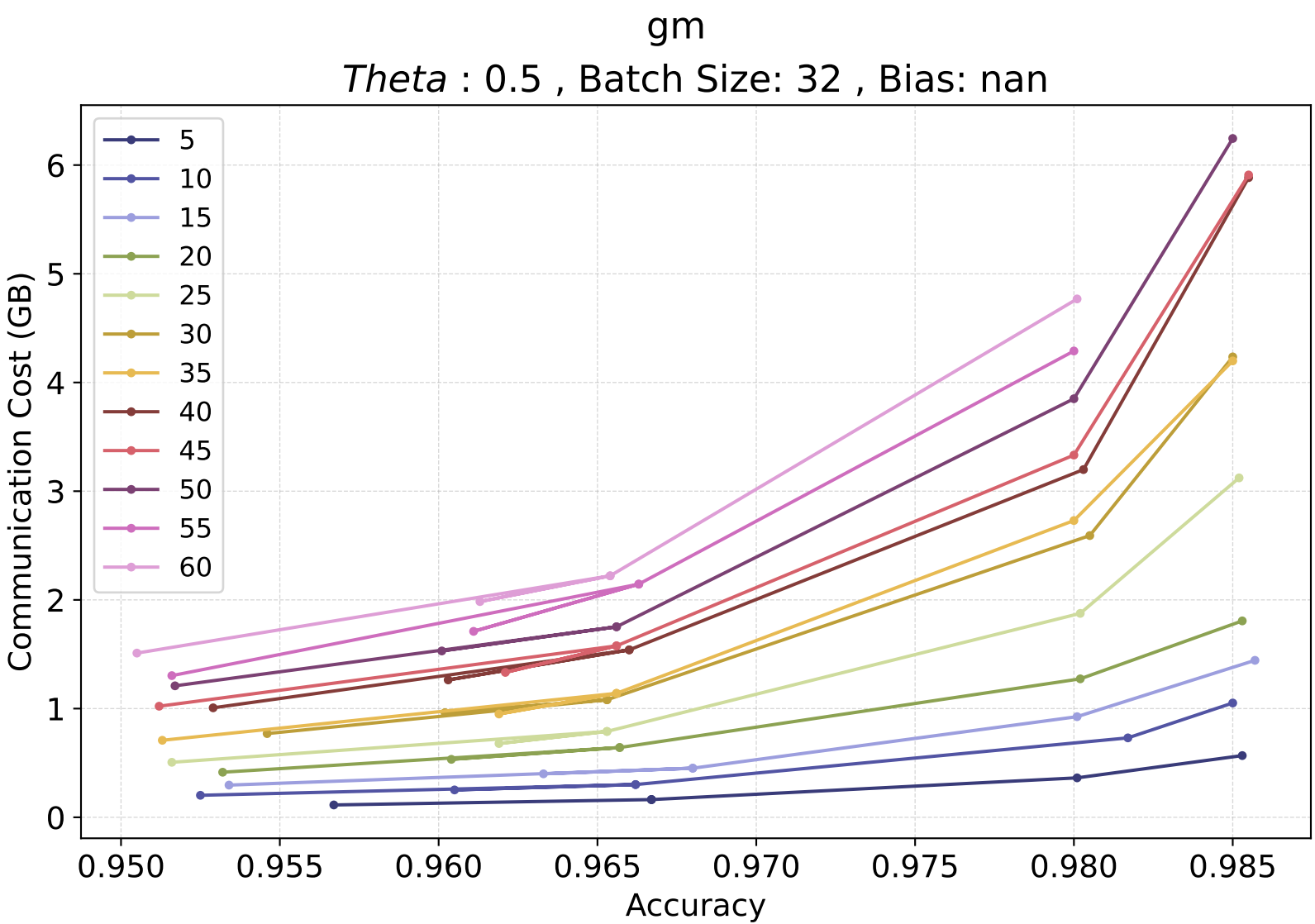
gm
Theta : 0.5 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
0
1
2
3
4
5
6
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
5
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45
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55
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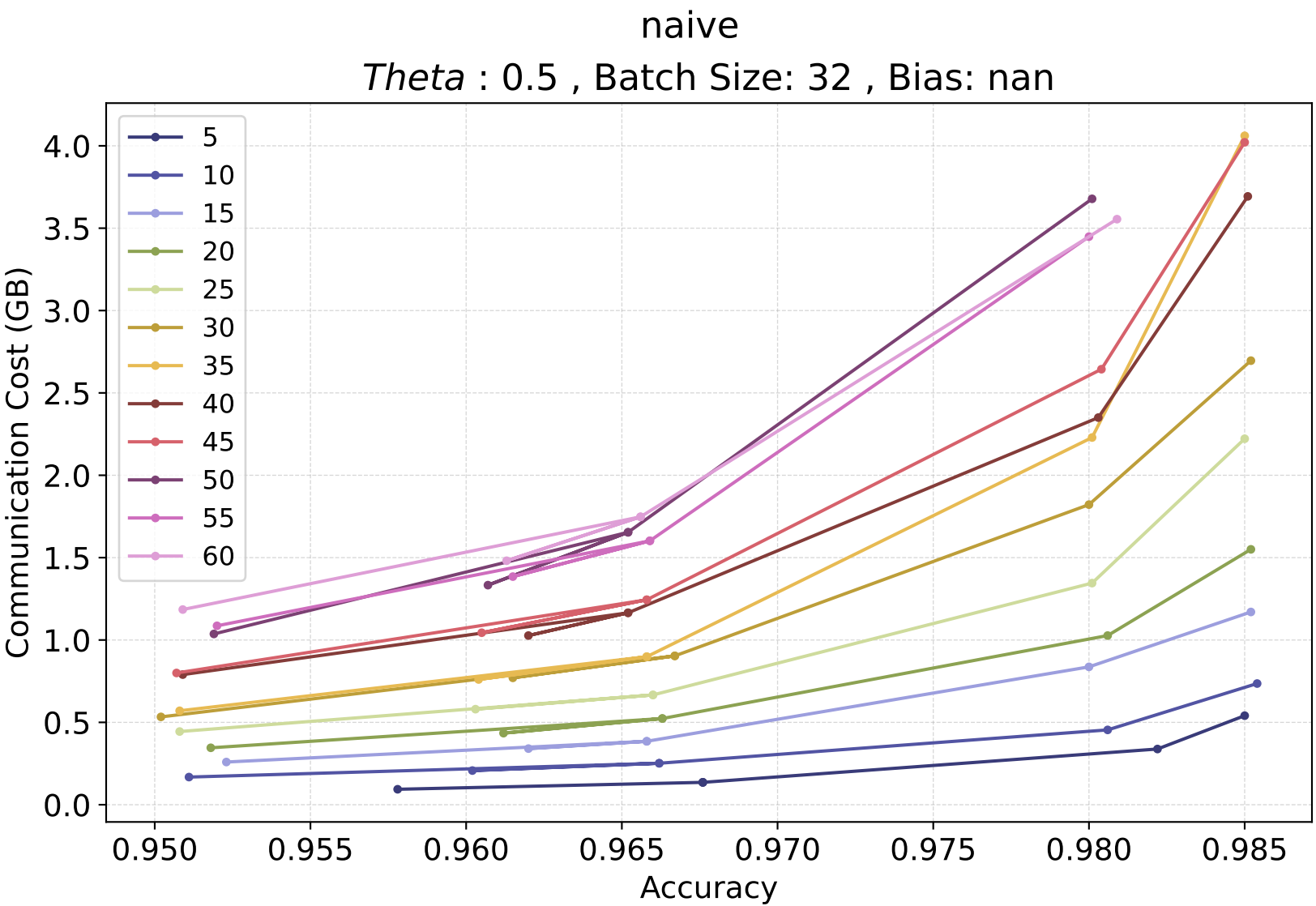
naive
Theta : 0.5 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
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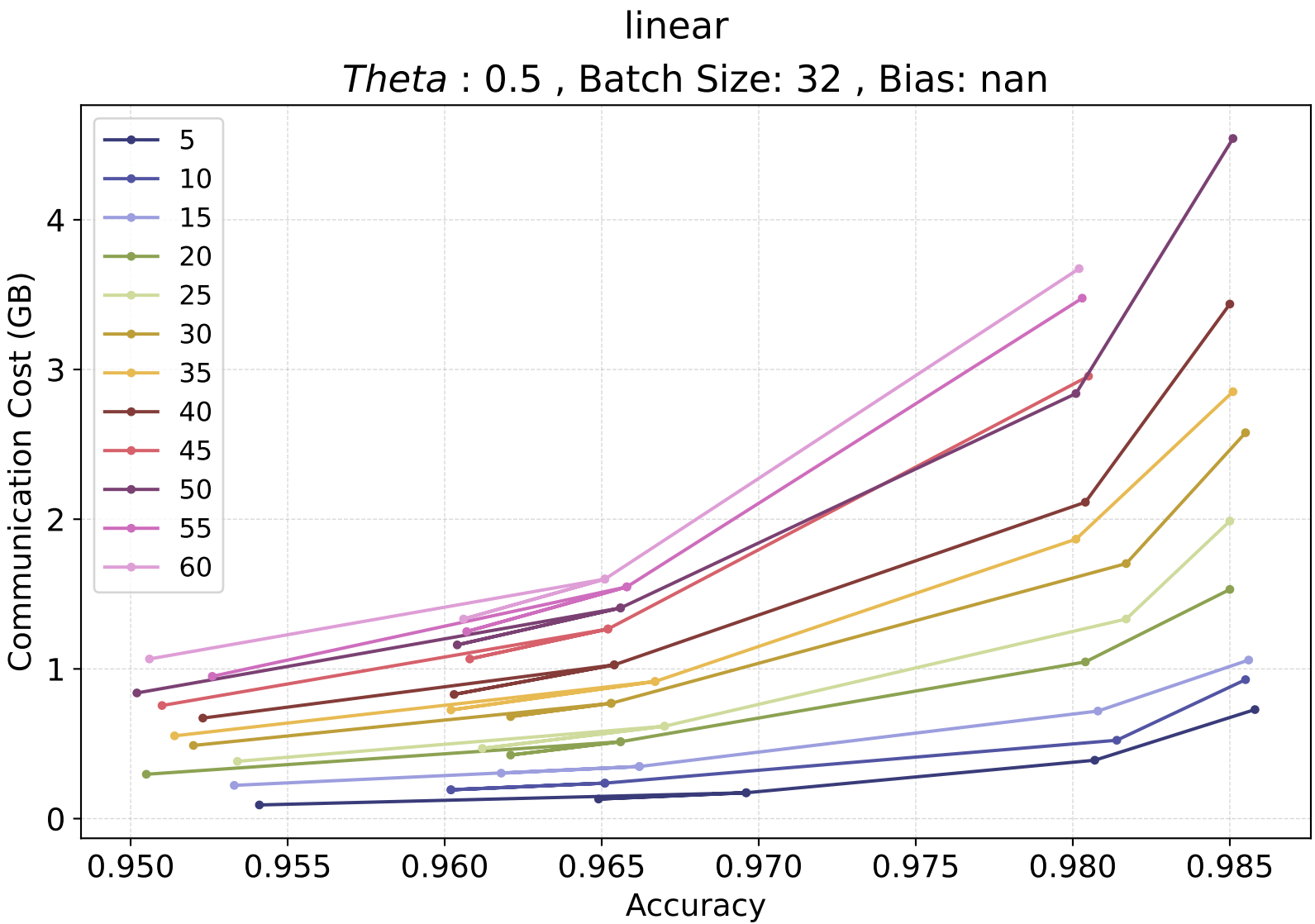
linear
Theta : 0.5 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
0
1
2
3
4
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
5
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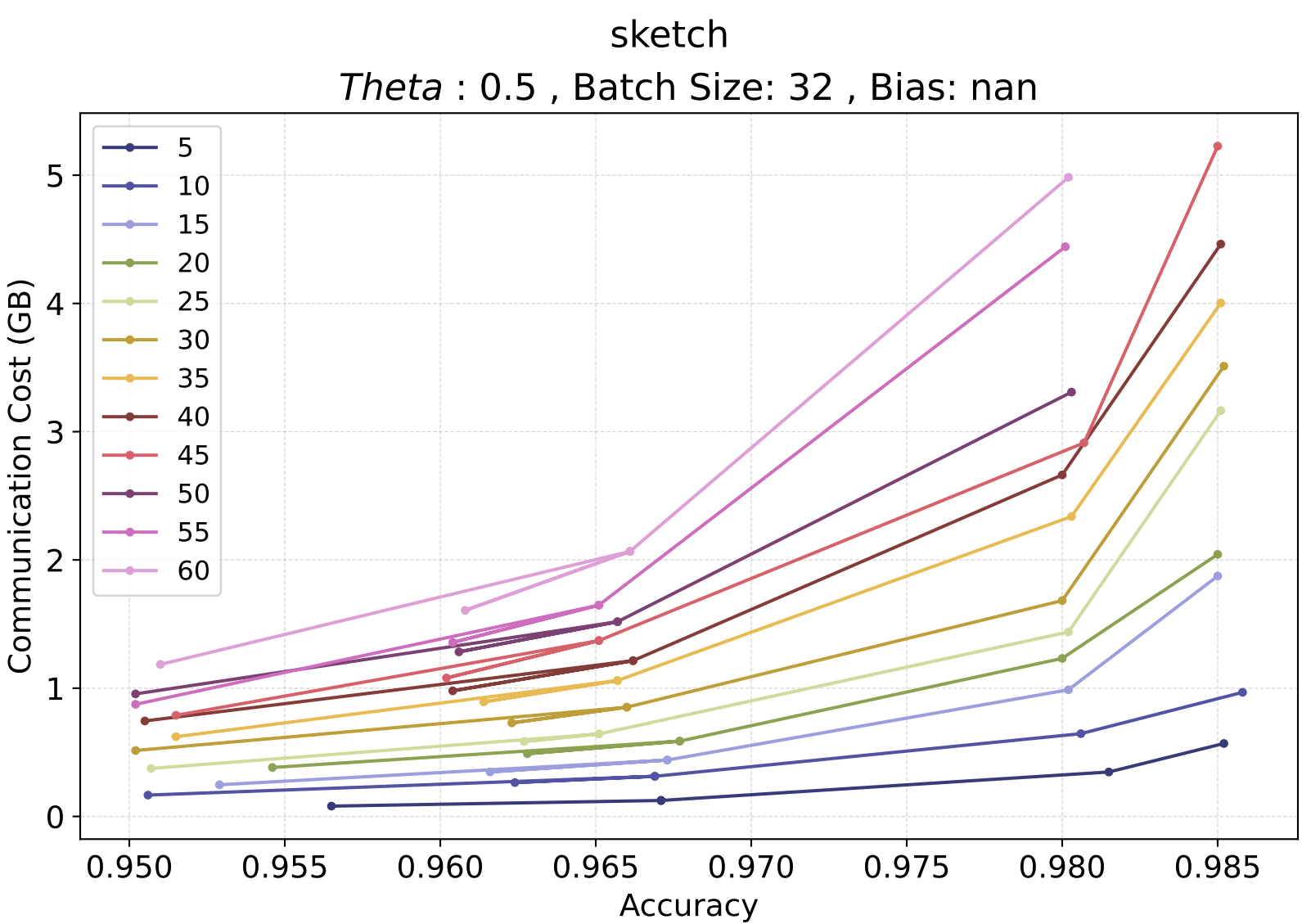
sketch
Theta : 0.5 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
0
1
2
3
4
5
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
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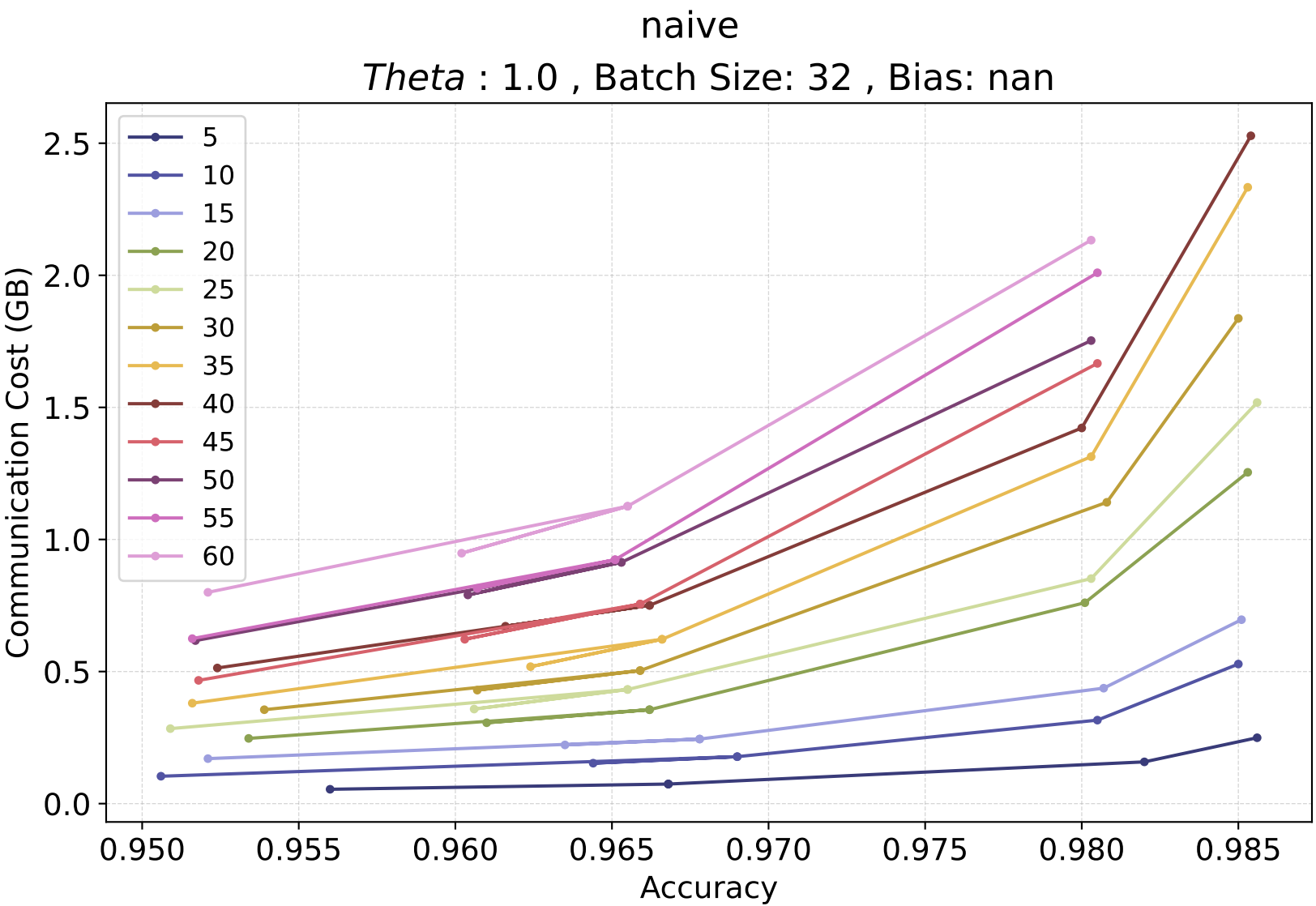
naive
Theta : 1.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
0.0
0.5
1.0
1.5
2.0
2.5
0.950
0.955
0.960
0.965
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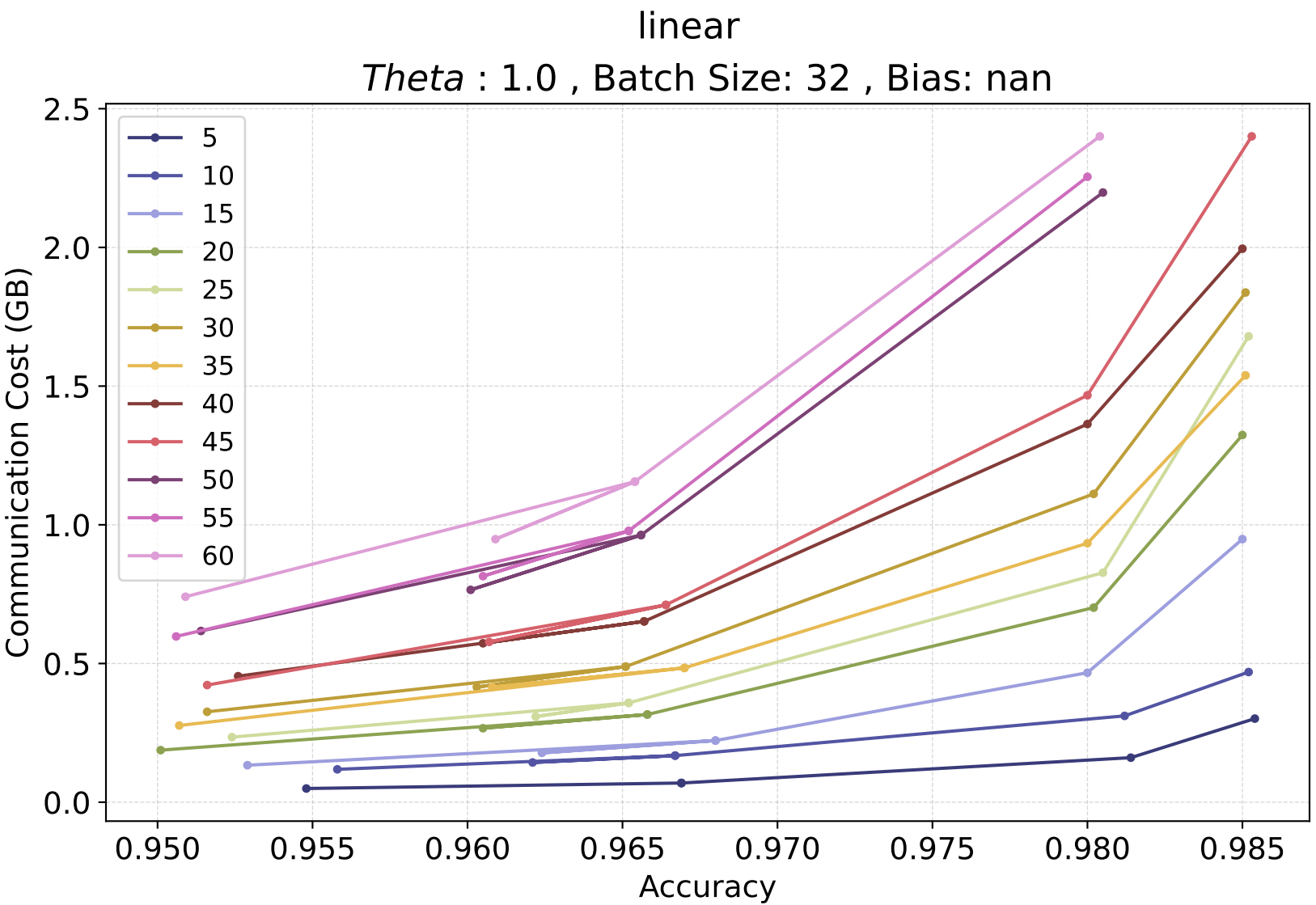
linear
Theta : 1.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
0.0
0.5
1.0
1.5
2.0
2.5
0.950
0.955
0.960
0.965
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0.980
0.985
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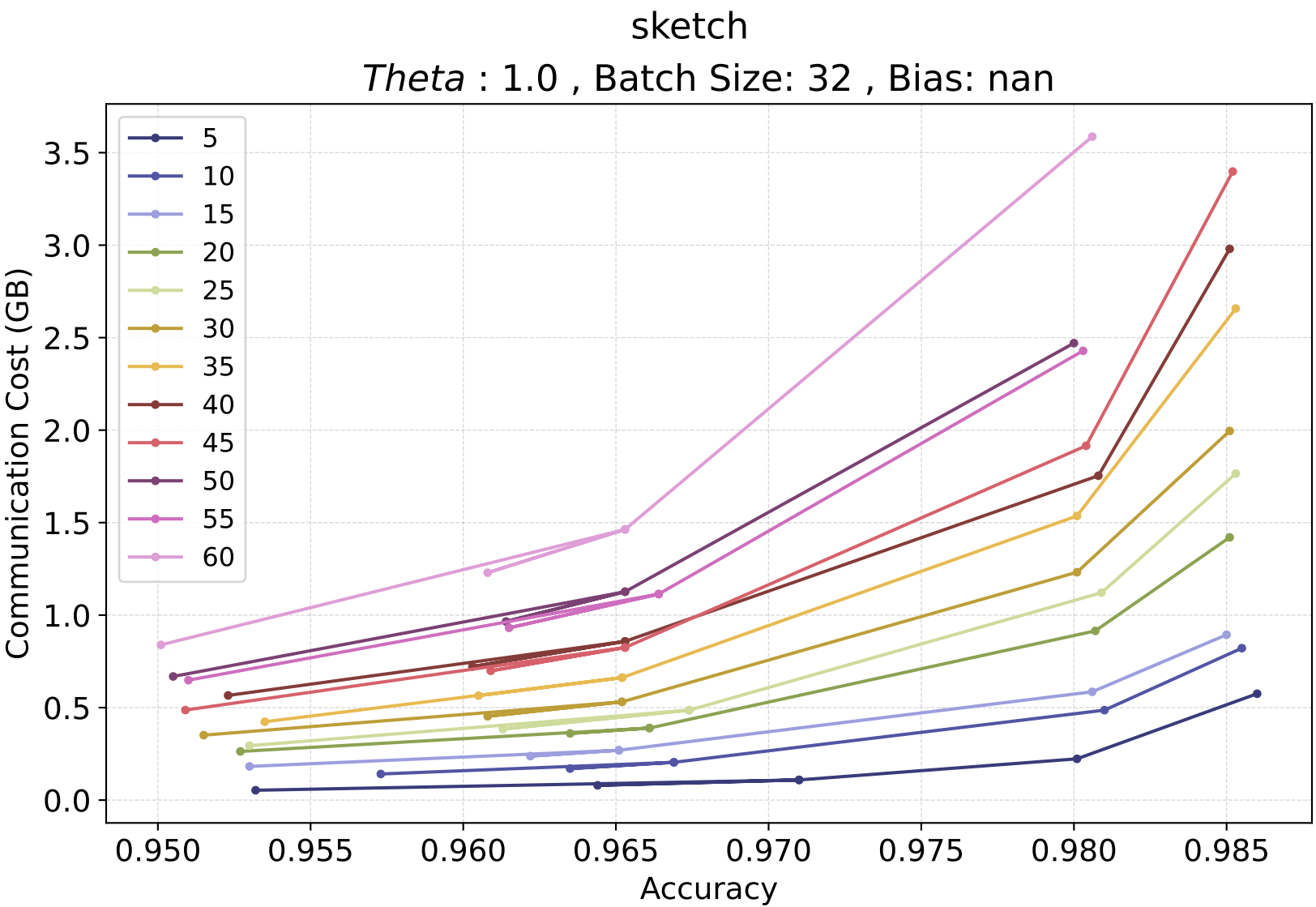
sketch
Theta : 1.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
0.950
0.955
0.960
0.965
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0.985
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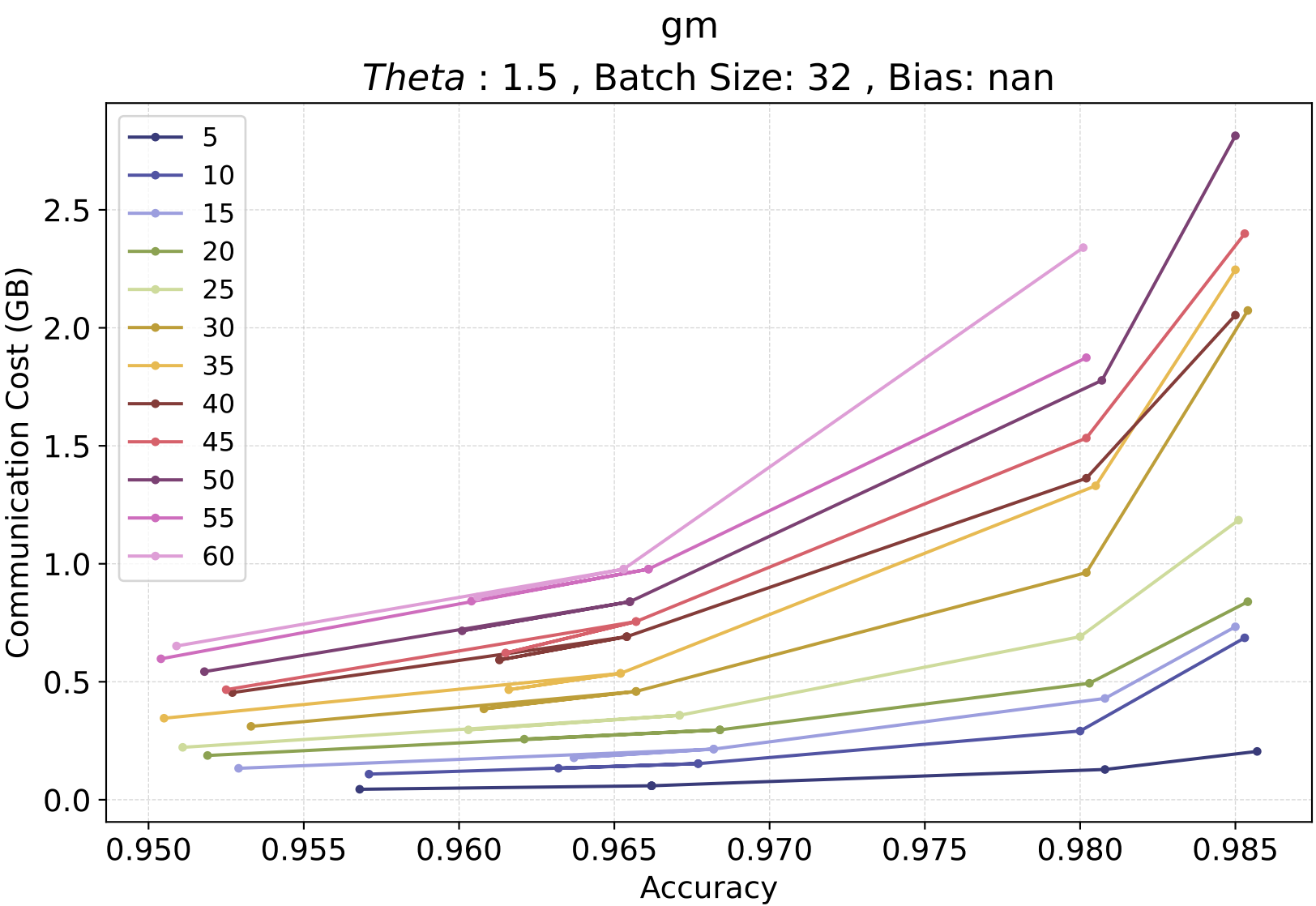
gm
Theta : 1.5 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
0.0
0.5
1.0
1.5
2.0
2.5
0.950
0.955
0.960
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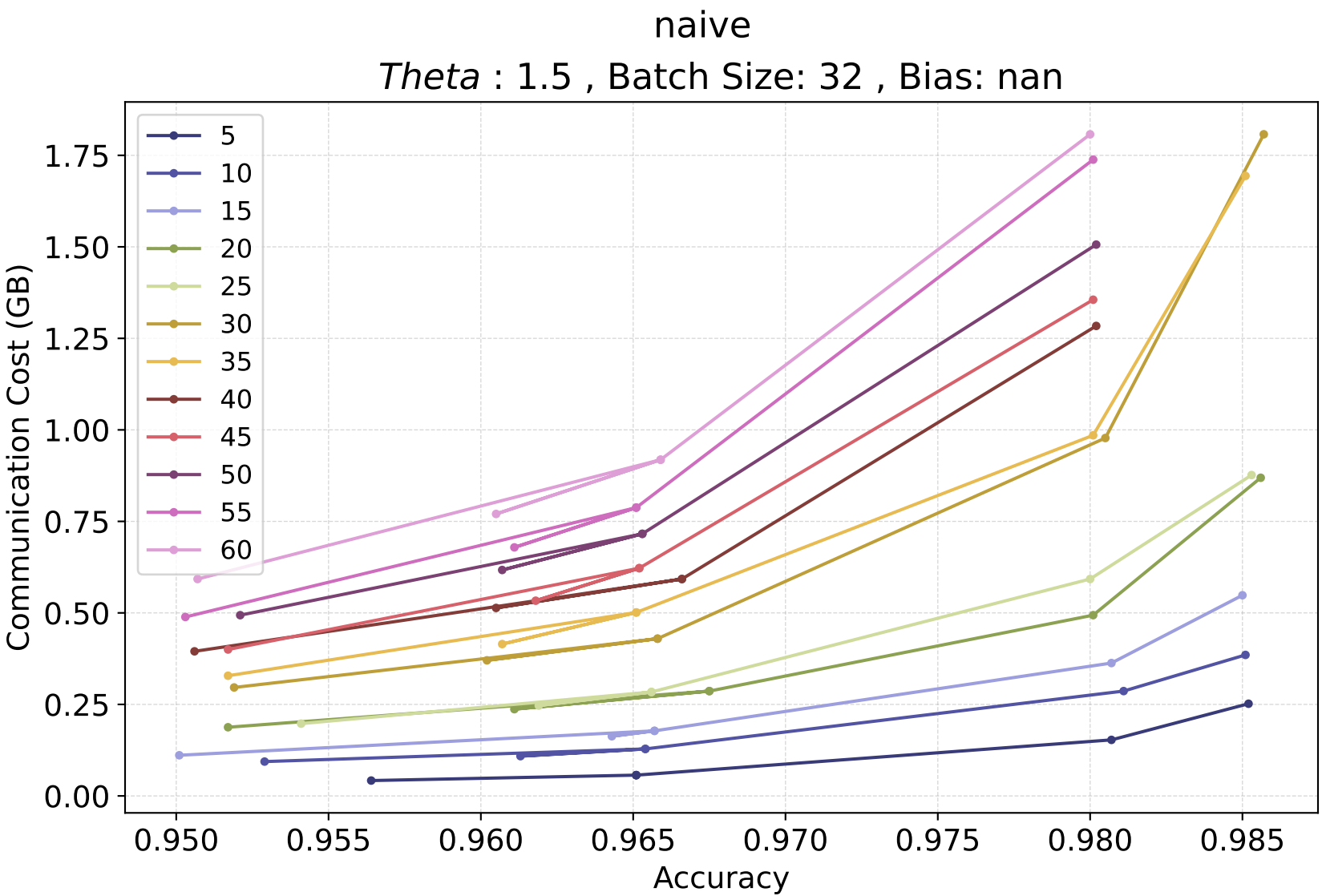
naive
Theta : 1.5 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
0.00
0.25
0.50
0.75
1.00
1.25
1.50
1.75
0.950
0.955
0.960
0.965
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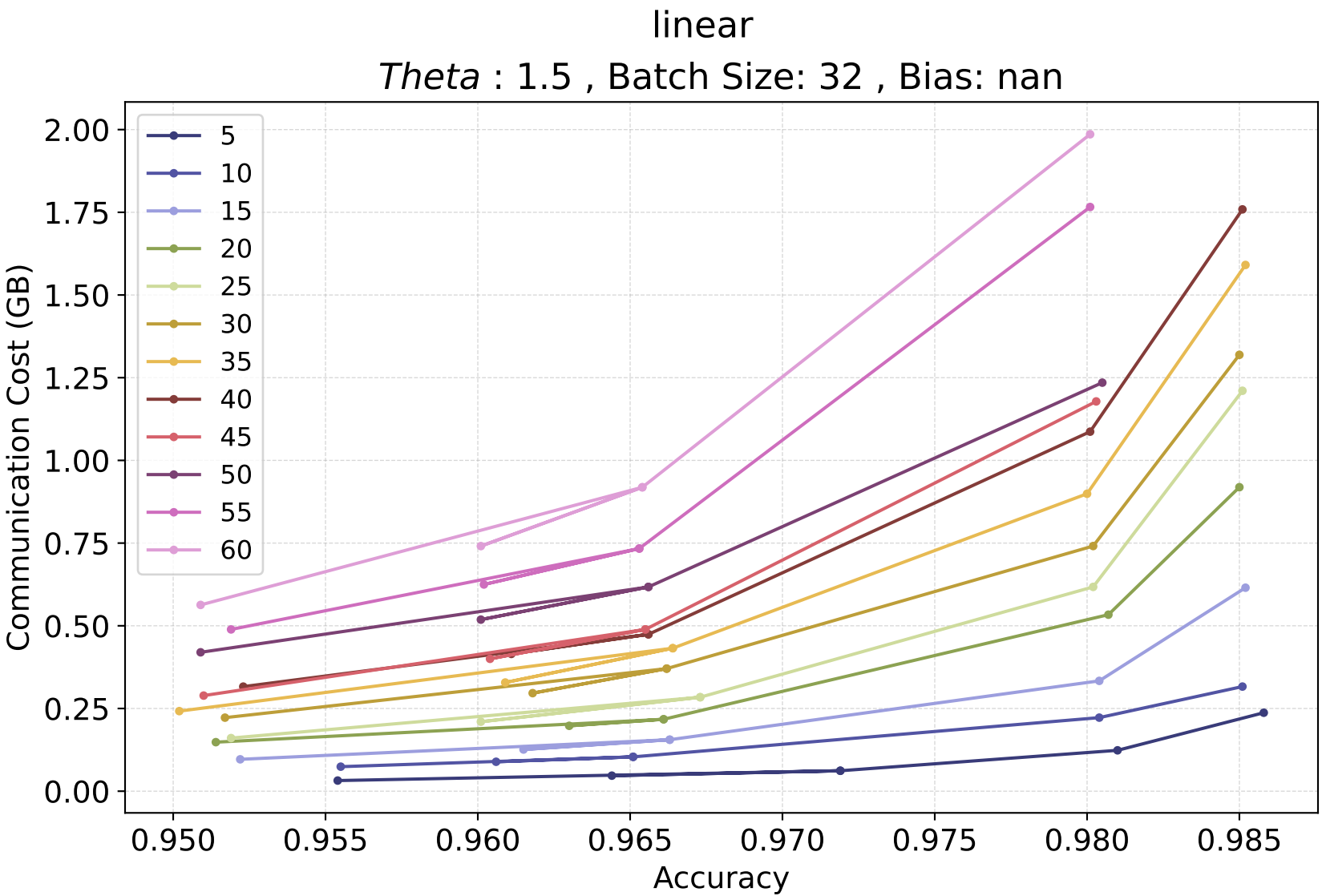
linear
Theta : 1.5 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
0.00
0.25
0.50
0.75
1.00
1.25
1.50
1.75
2.00
0.950
0.955
0.960
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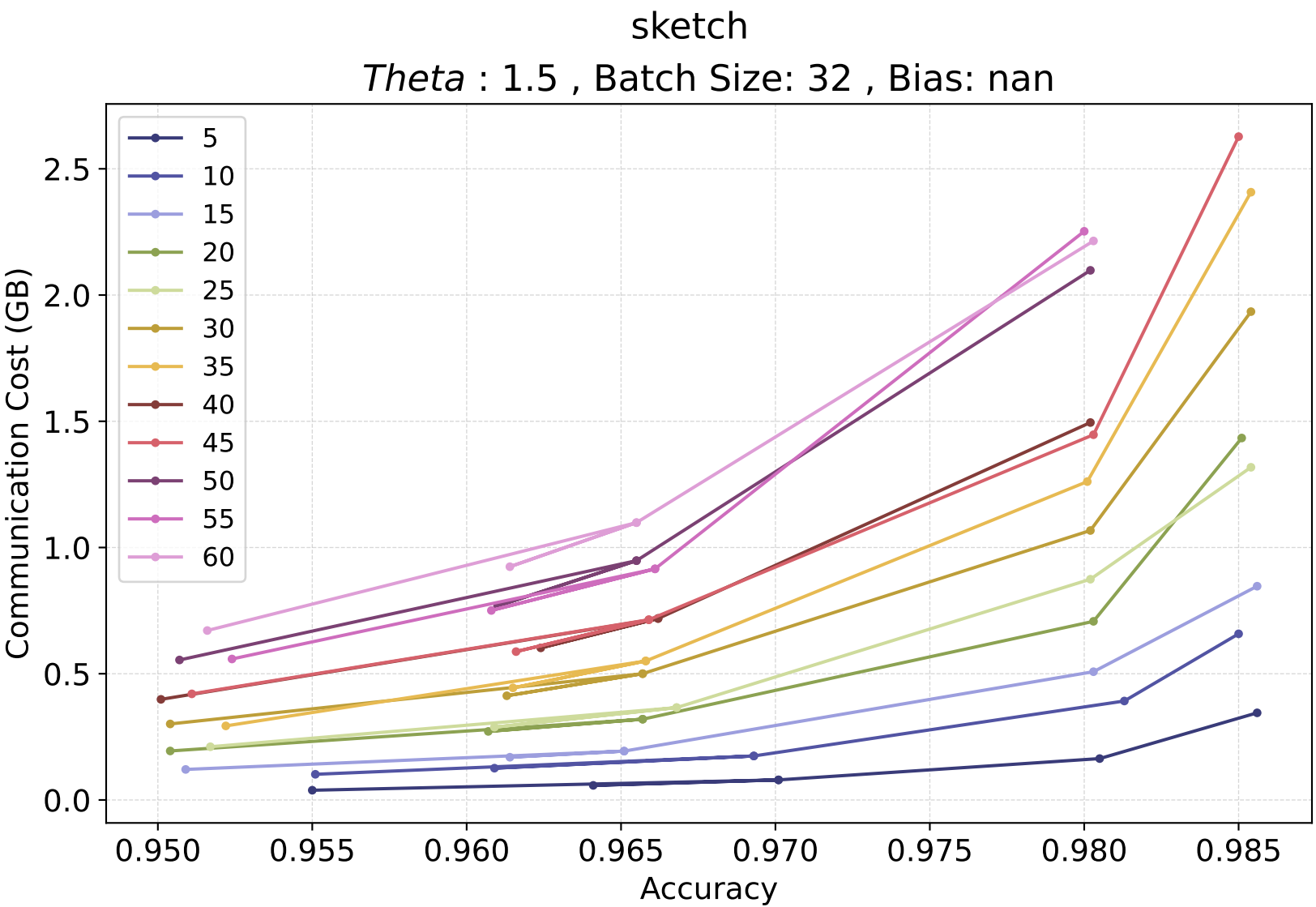
sketch
Theta : 1.5 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
0.0
0.5
1.0
1.5
2.0
2.5
0.950
0.955
0.960
0.965
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0.980
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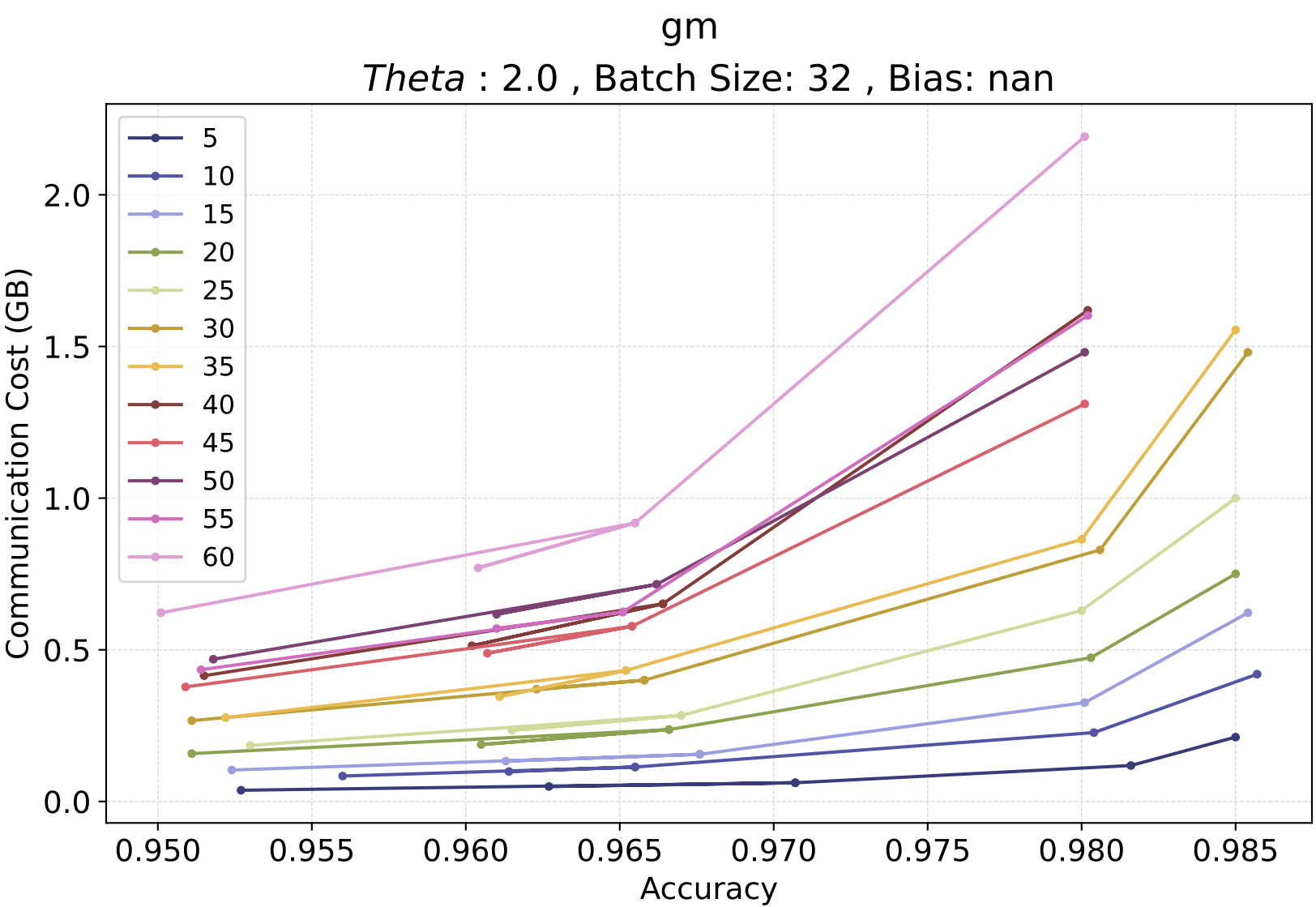
gm
Theta : 2.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
0.0
0.5
1.0
1.5
2.0
0.950
0.955
0.960
0.965
0.970
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0.980
0.985
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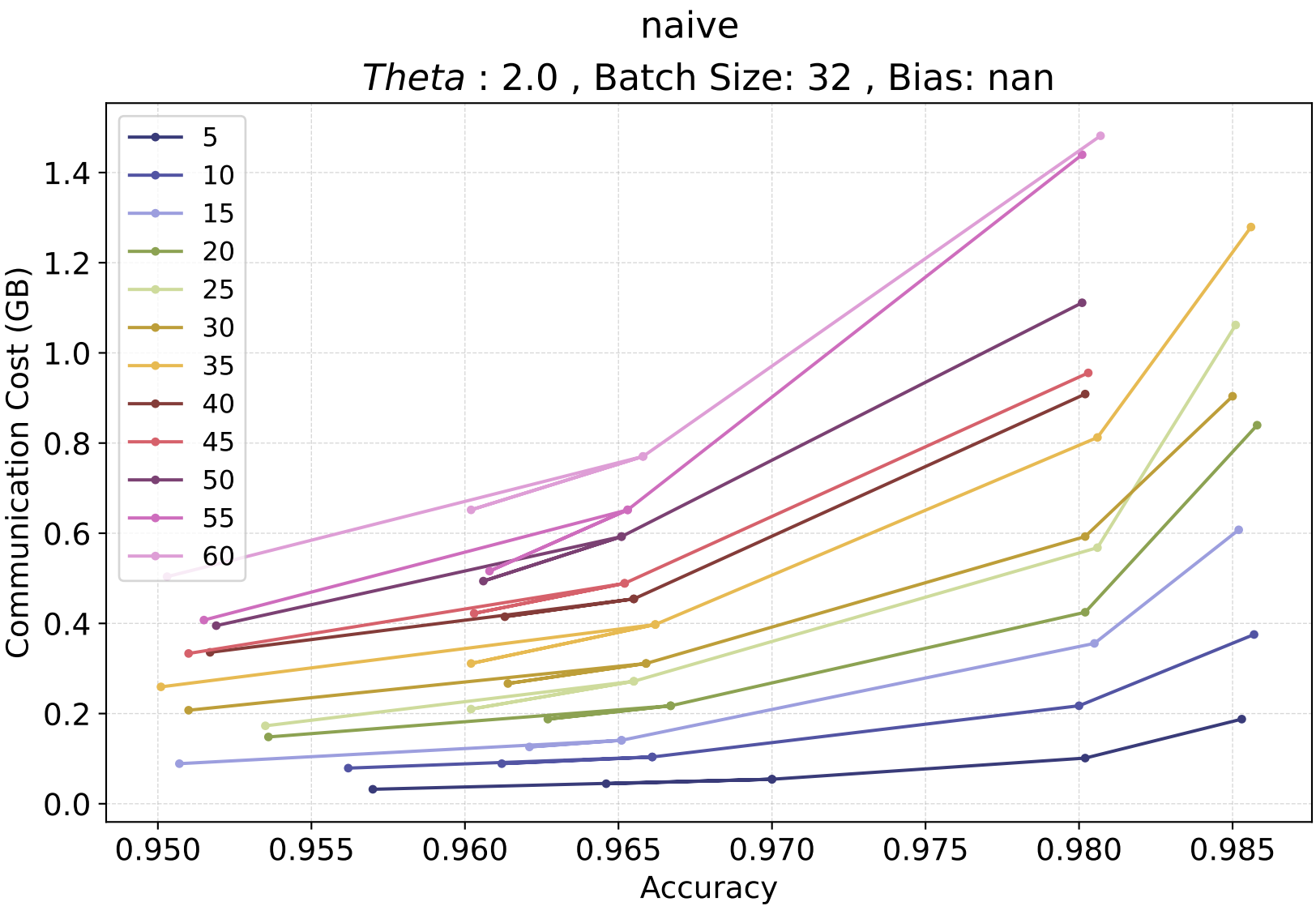
naive
Theta : 2.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
0.950
0.955
0.960
0.965
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0.980
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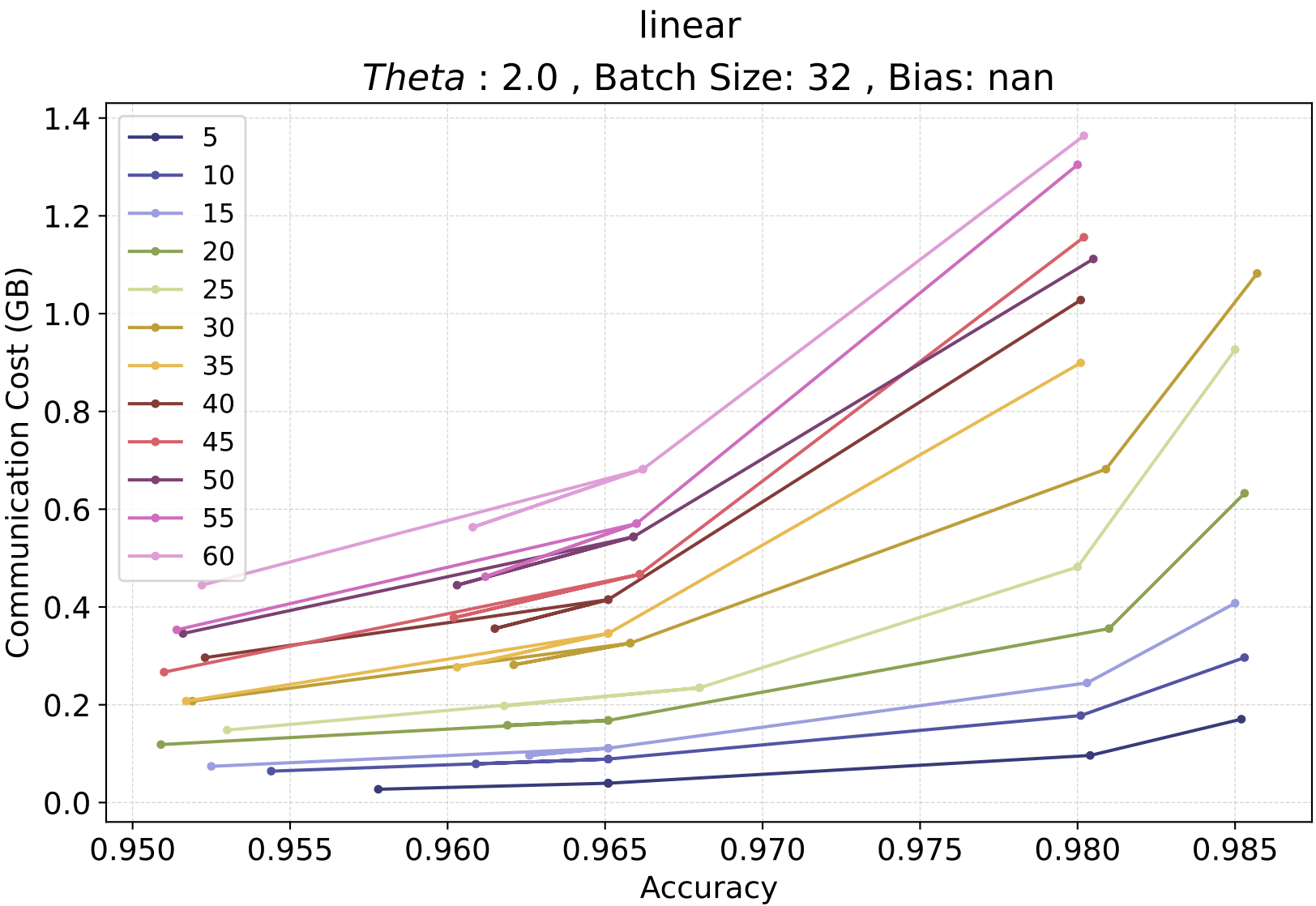
linear
Theta : 2.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
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0.2
0.4
0.6
0.8
1.0
1.2
1.4
0.950
0.955
0.960
0.965
0.970
0.975
0.980
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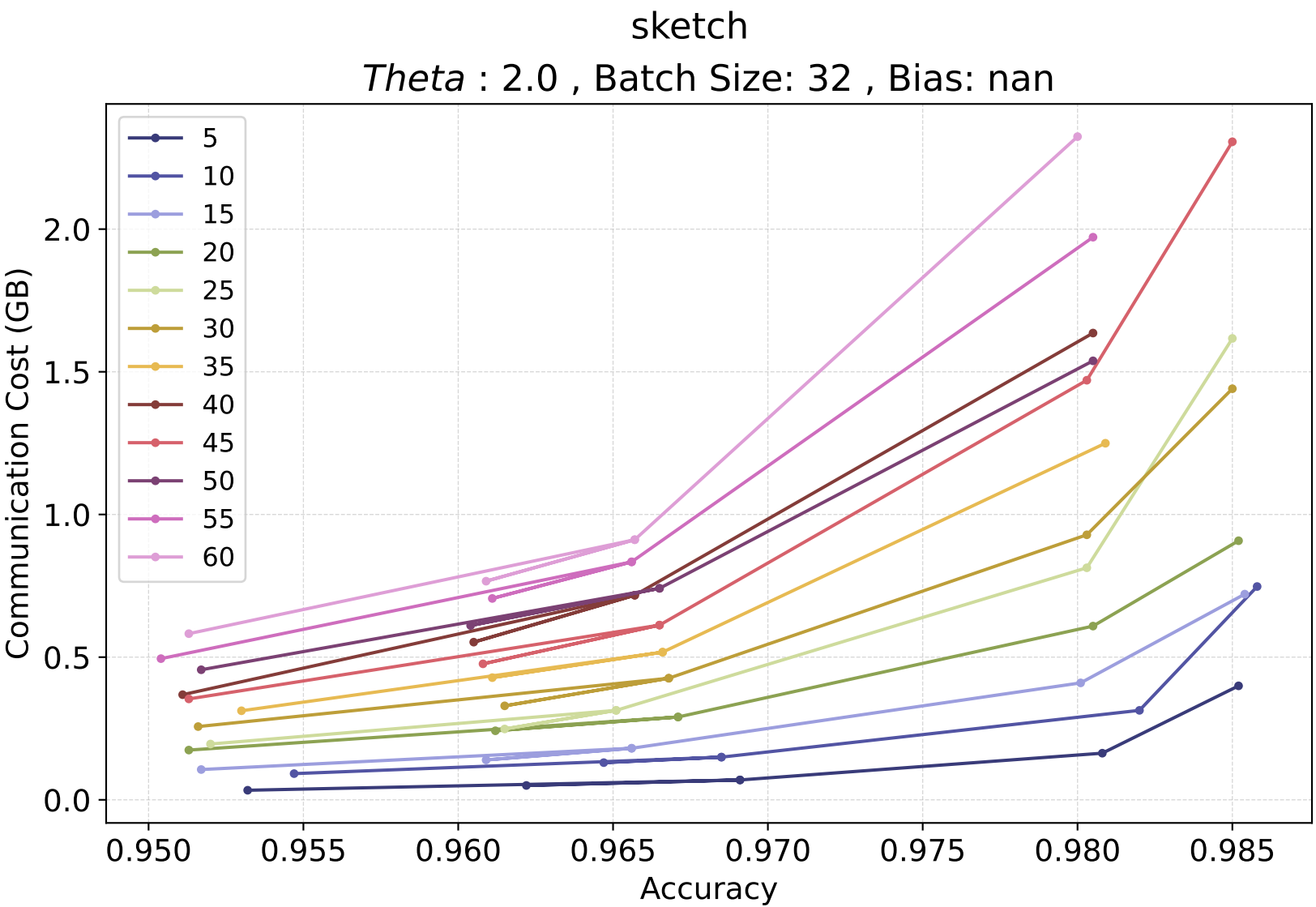
sketch
Theta : 2.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
0.0
0.5
1.0
1.5
2.0
0.950
0.955
0.960
0.965
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0.980
0.985
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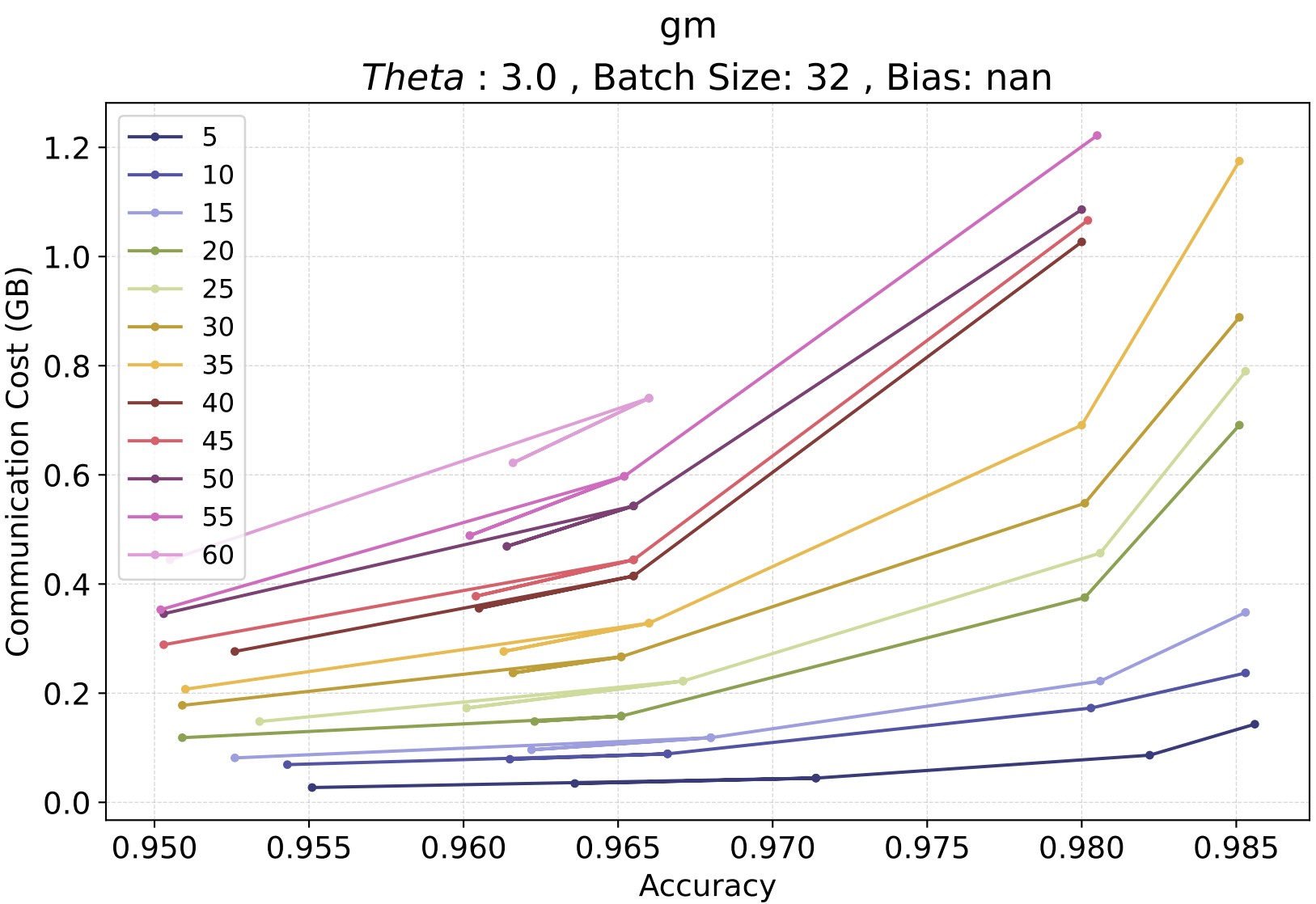
gm
Theta : 3.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
0.0
0.2
0.4
0.6
0.8
1.0
1.2
0.950
0.955
0.960
0.965
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0.980
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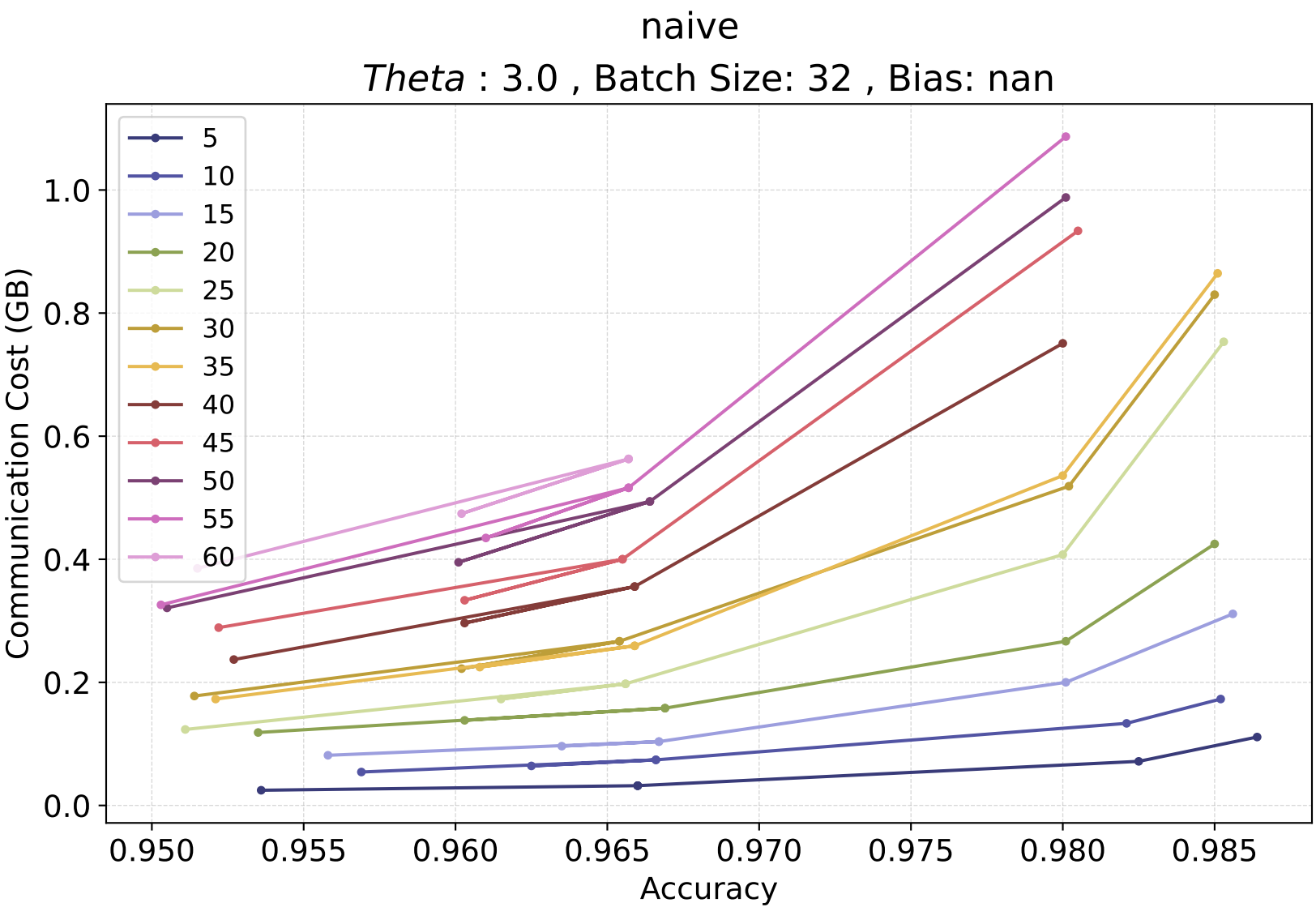
naive
Theta : 3.0 , Batch Size: 32 , Bias: nan
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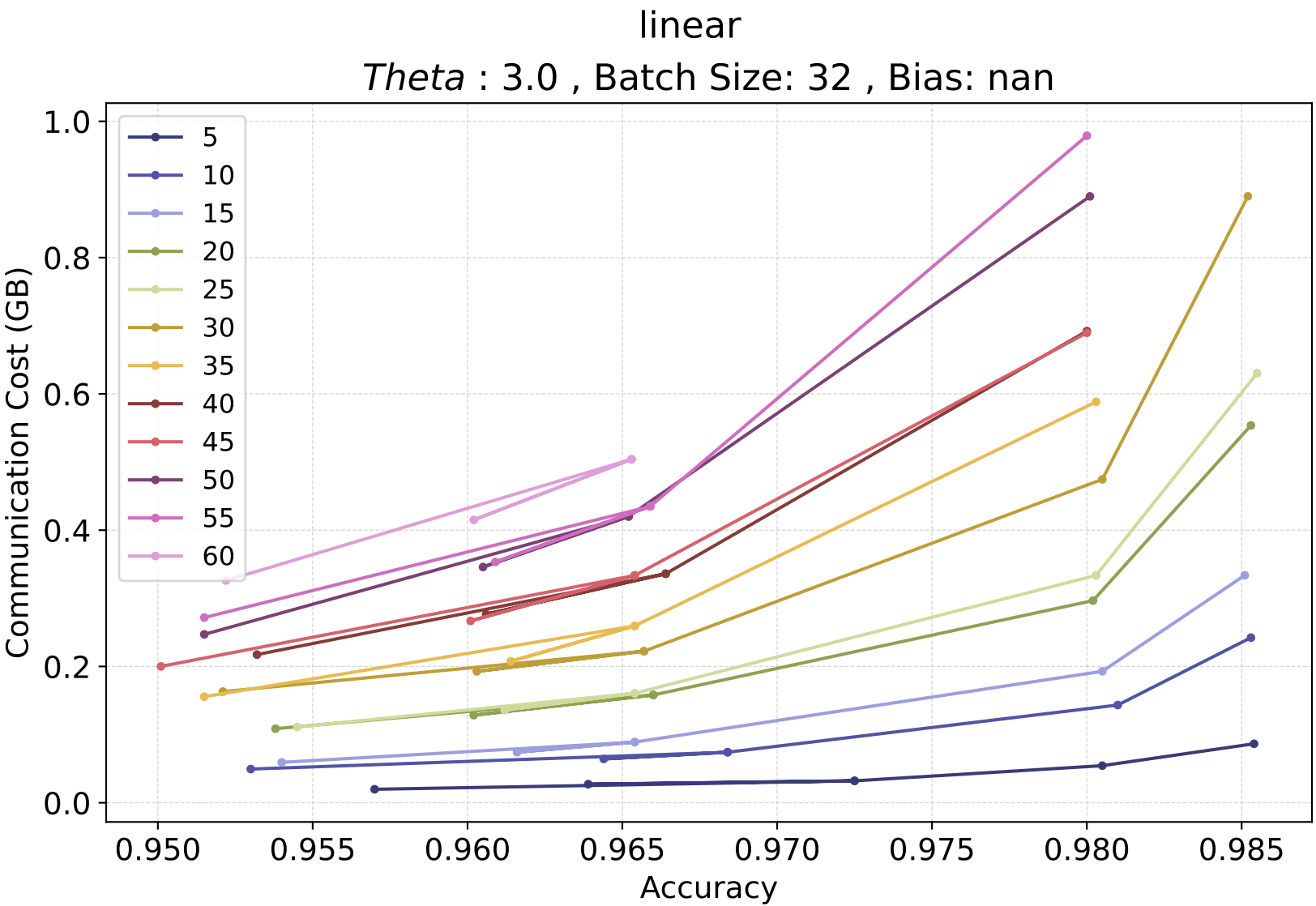
55
60
Communication Cost (GB)
0.0
0.2
0.4
0.6
0.8
1.0
0.950
0.955
0.960
0.965
0.970
0.975
0.980
0.985
Accuracy


linear
Theta : 3.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
1.0
0.8
0.6
0.4
0.2
0.0
0.950
0.955
0.960
0.965
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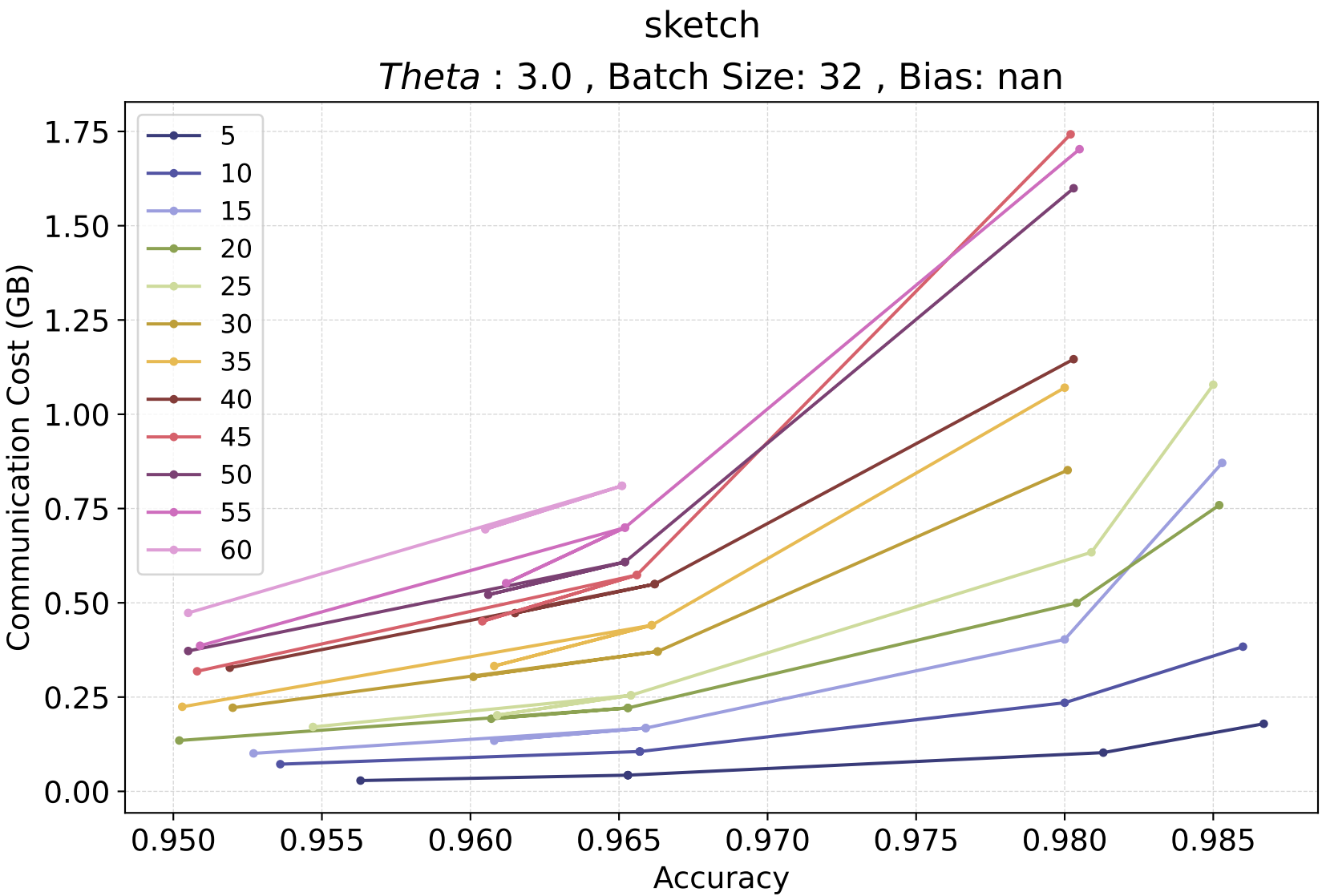
sketch
Theta : 3.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
0.00
0.25
0.50
0.75
1.00
1.25
1.50
1.75
0.950
0.955
0.960
0.965
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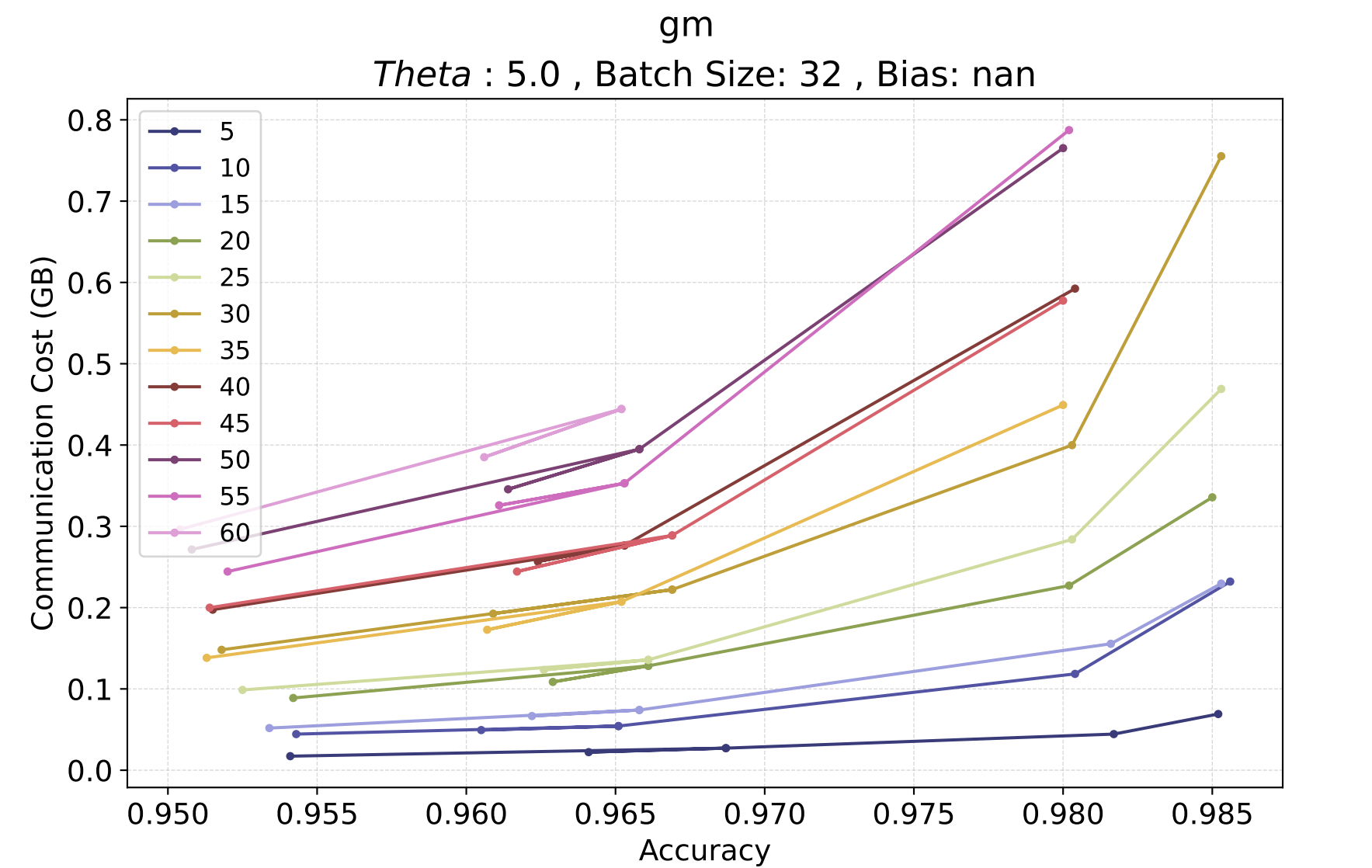
gm
Theta : 5.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.950
0.955
0.960
0.965
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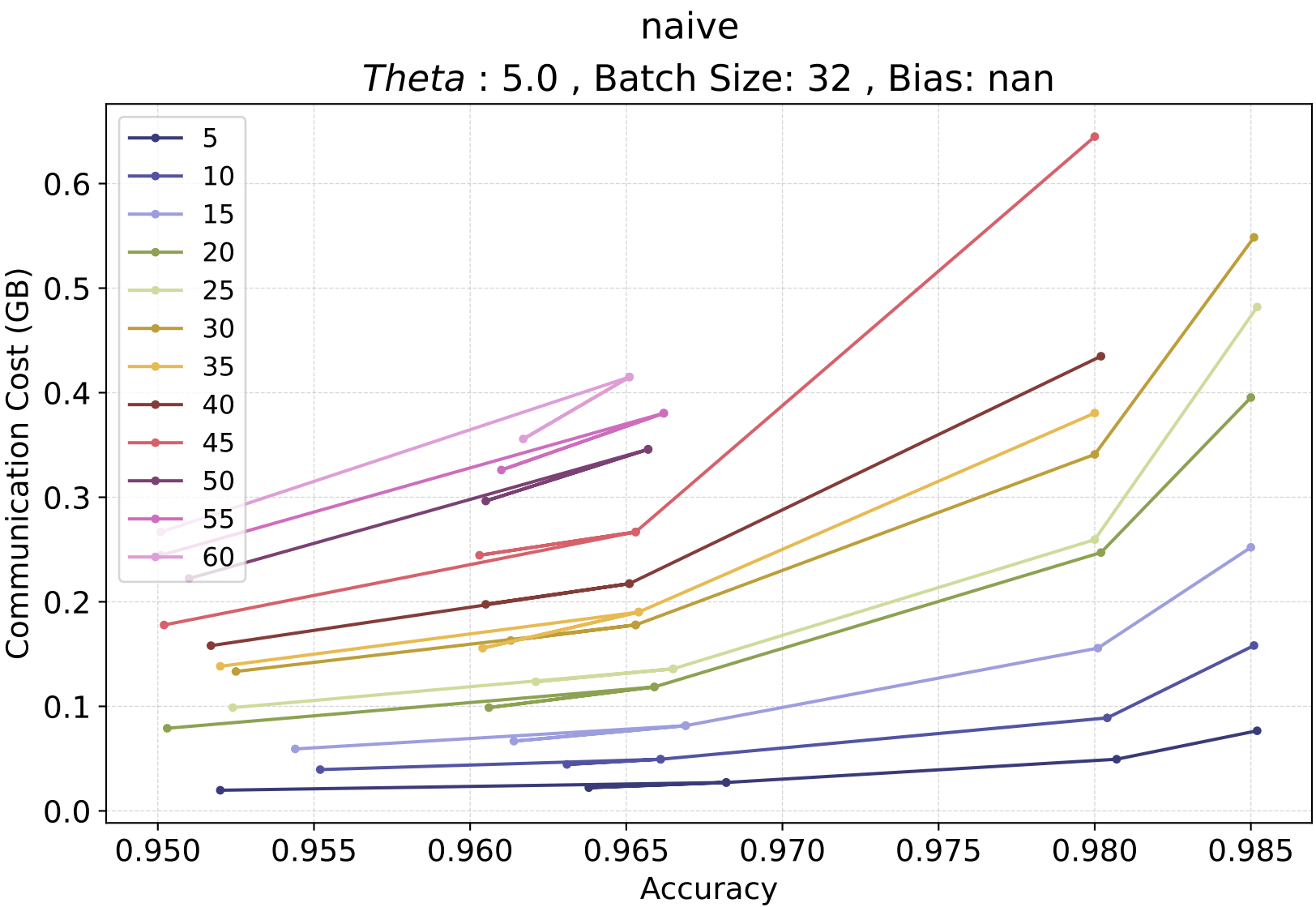
naive
Theta : 5.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.950
0.955
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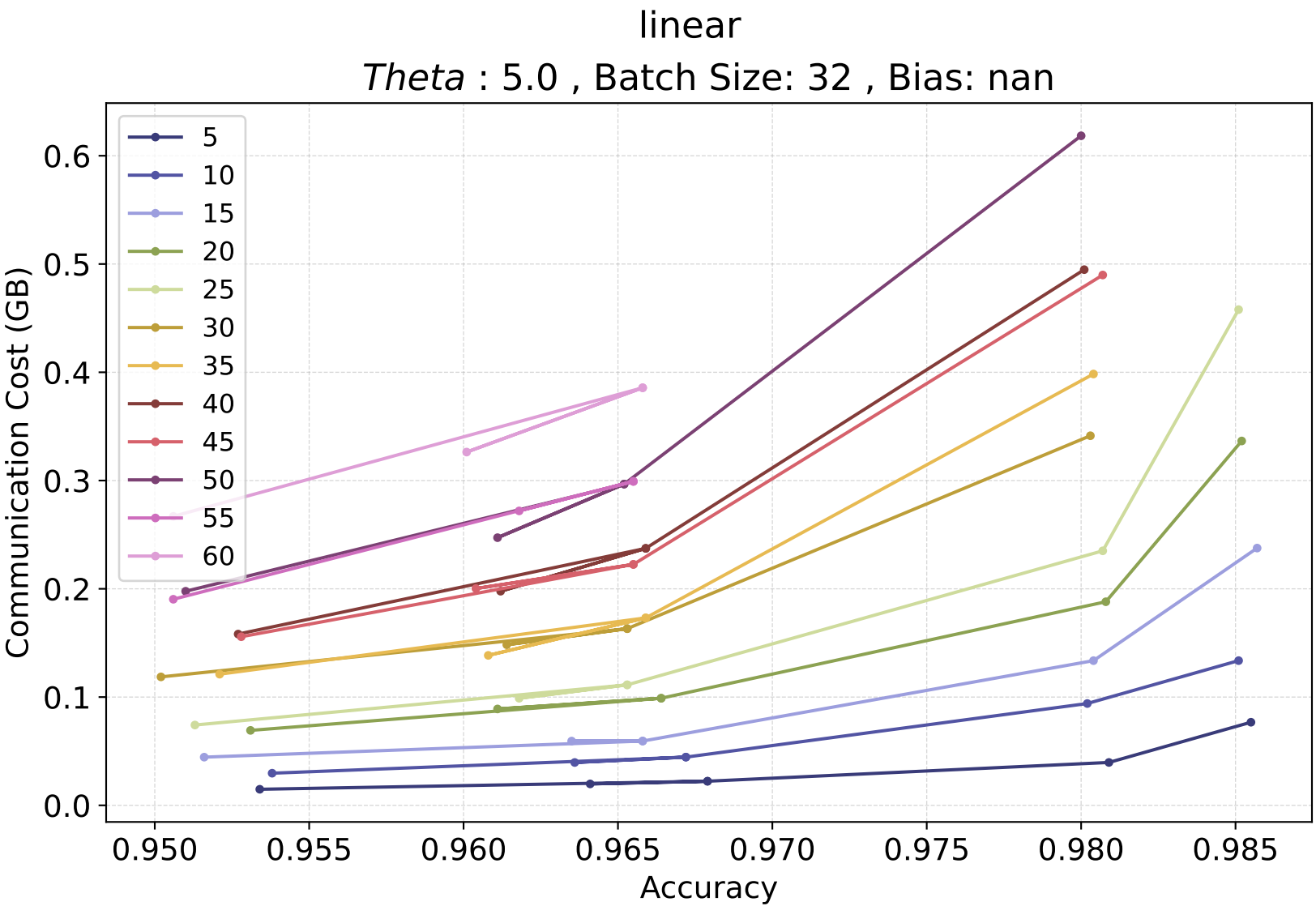
linear
Theta : 5.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
0.0
0.1
0.2
0.3
0.4
0.5
0.6
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0.955
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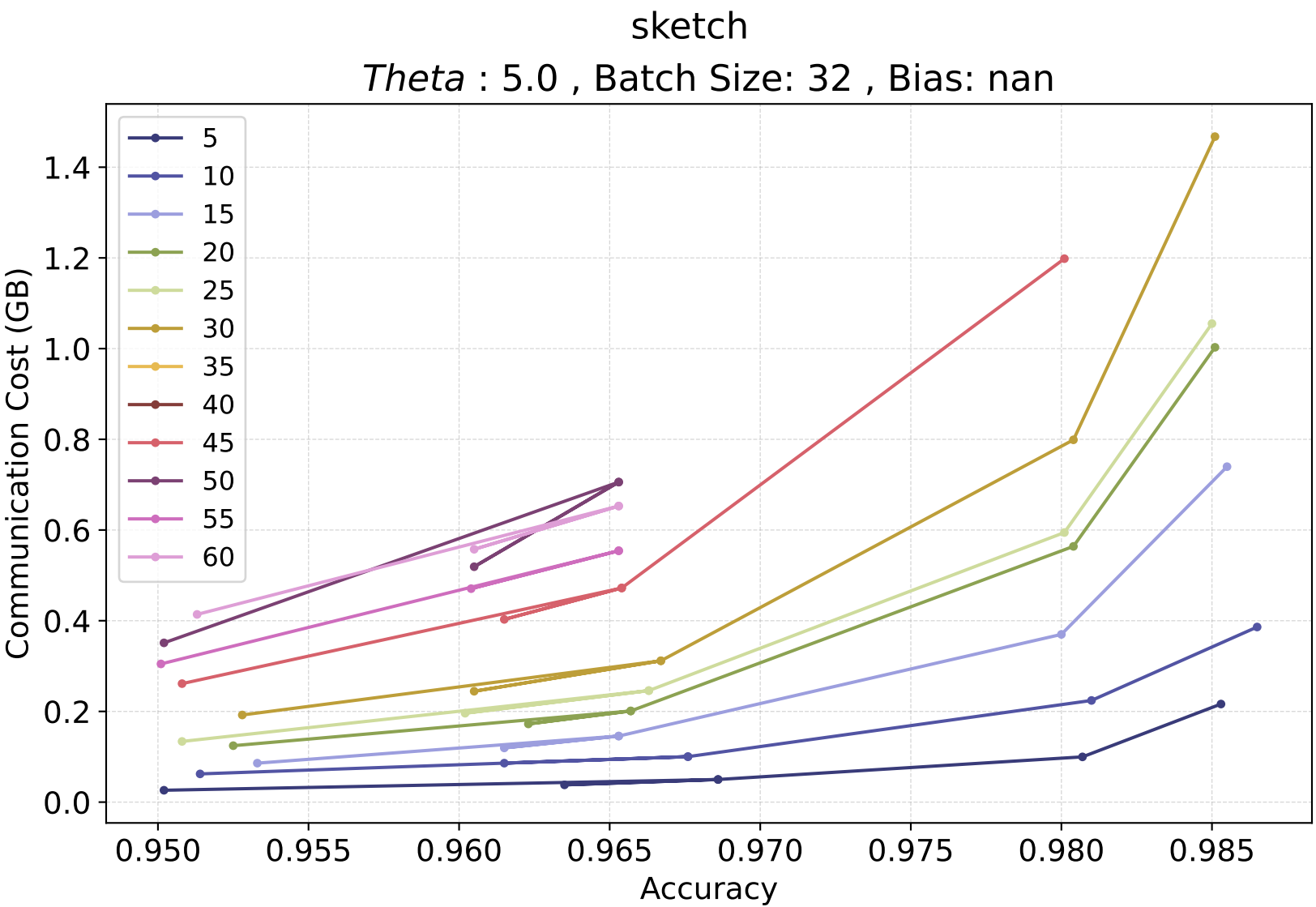
sketch
Theta : 5.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
0.950
0.955
0.960
0.965
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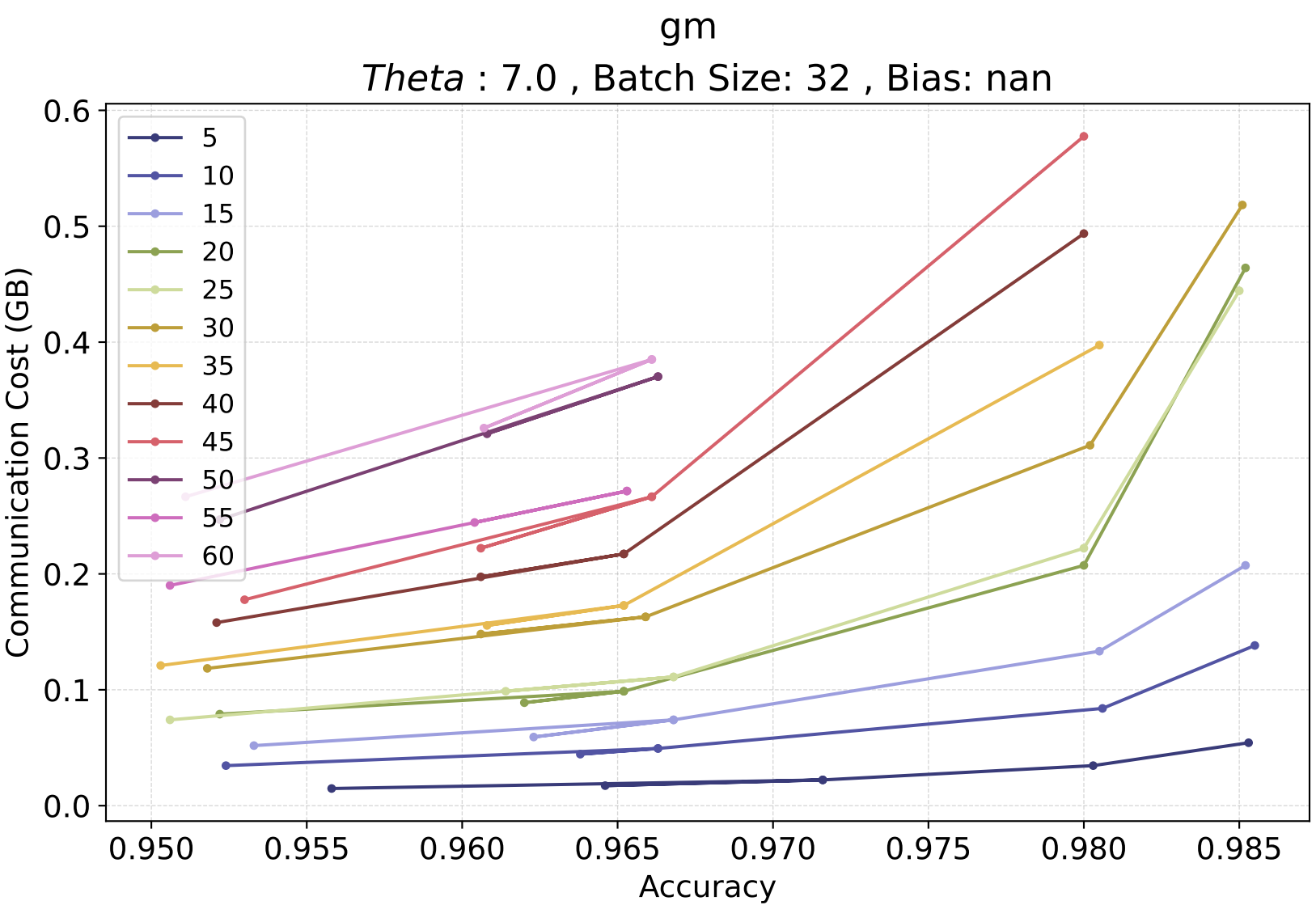
gm
Theta : 7.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
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0.2
0.3
0.4
0.5
0.6
0.950
0.955
0.960
0.965
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0.980
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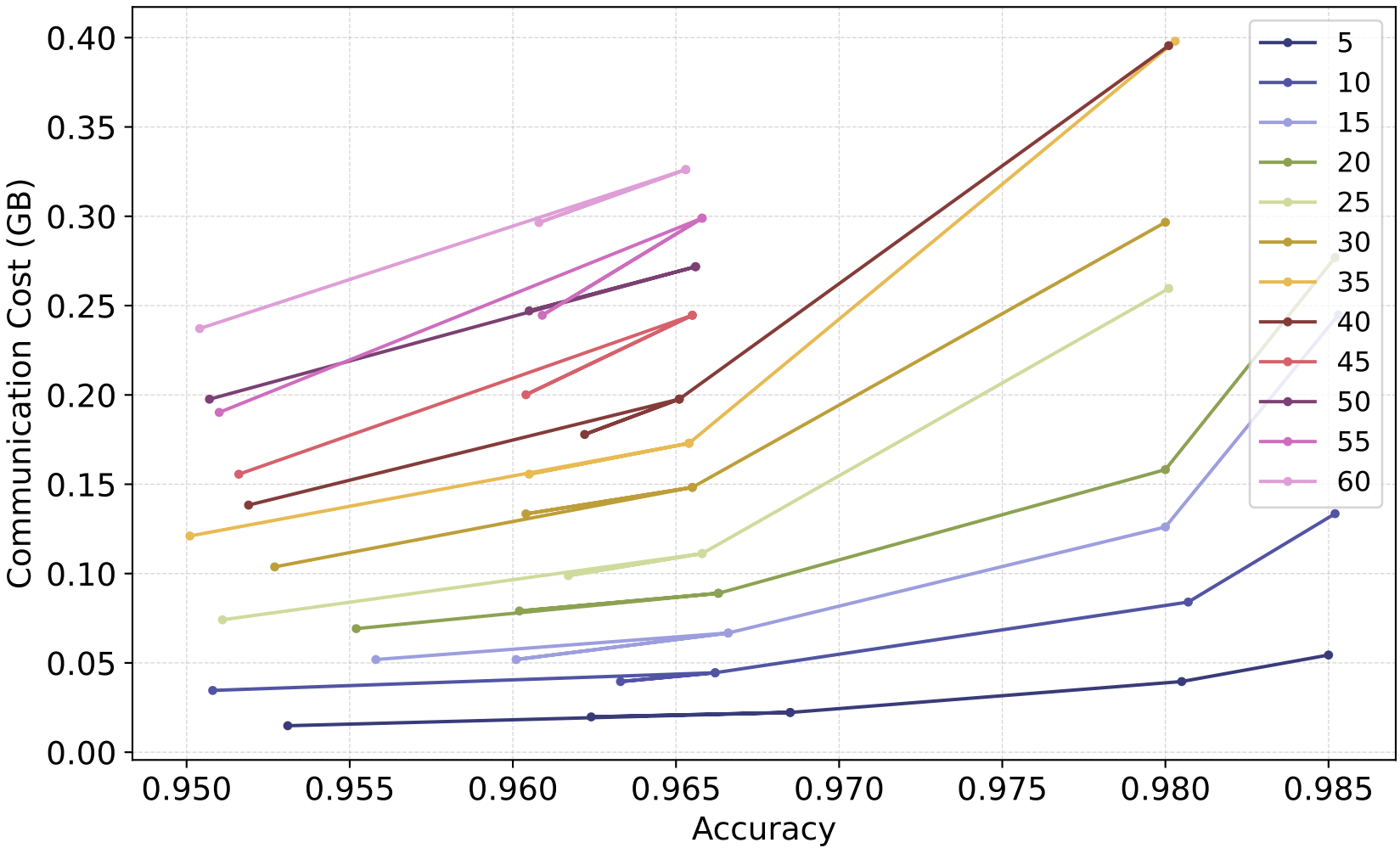
naive
Theta : 7.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
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0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.950
0.955
0.960
0.965
0.970
0.975
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0.985
Accuracy
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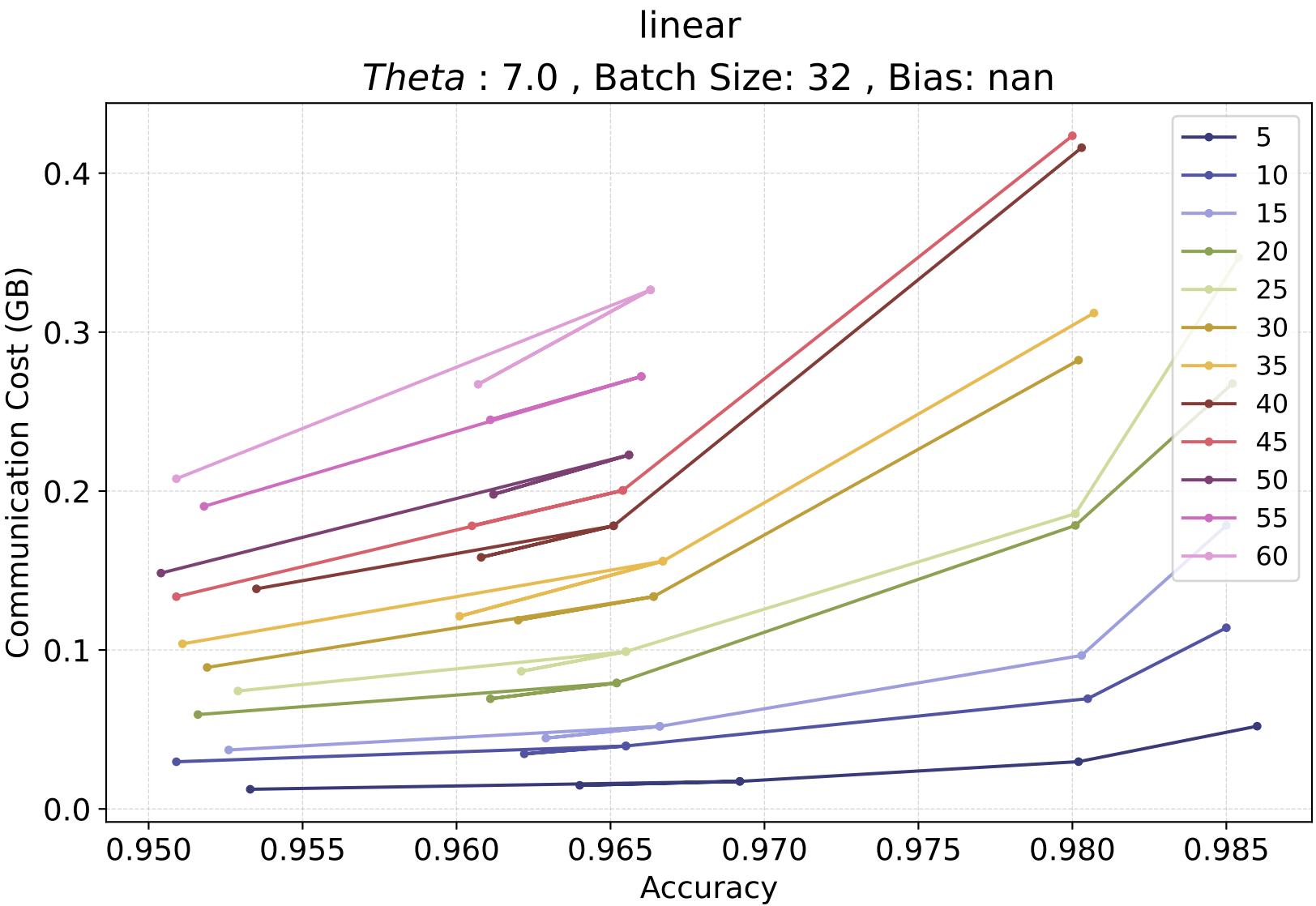
linear
Theta : 7.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
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0.1
0.2
0.3
0.4
0.950
0.955
0.960
0.965
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0.985
Accuracy
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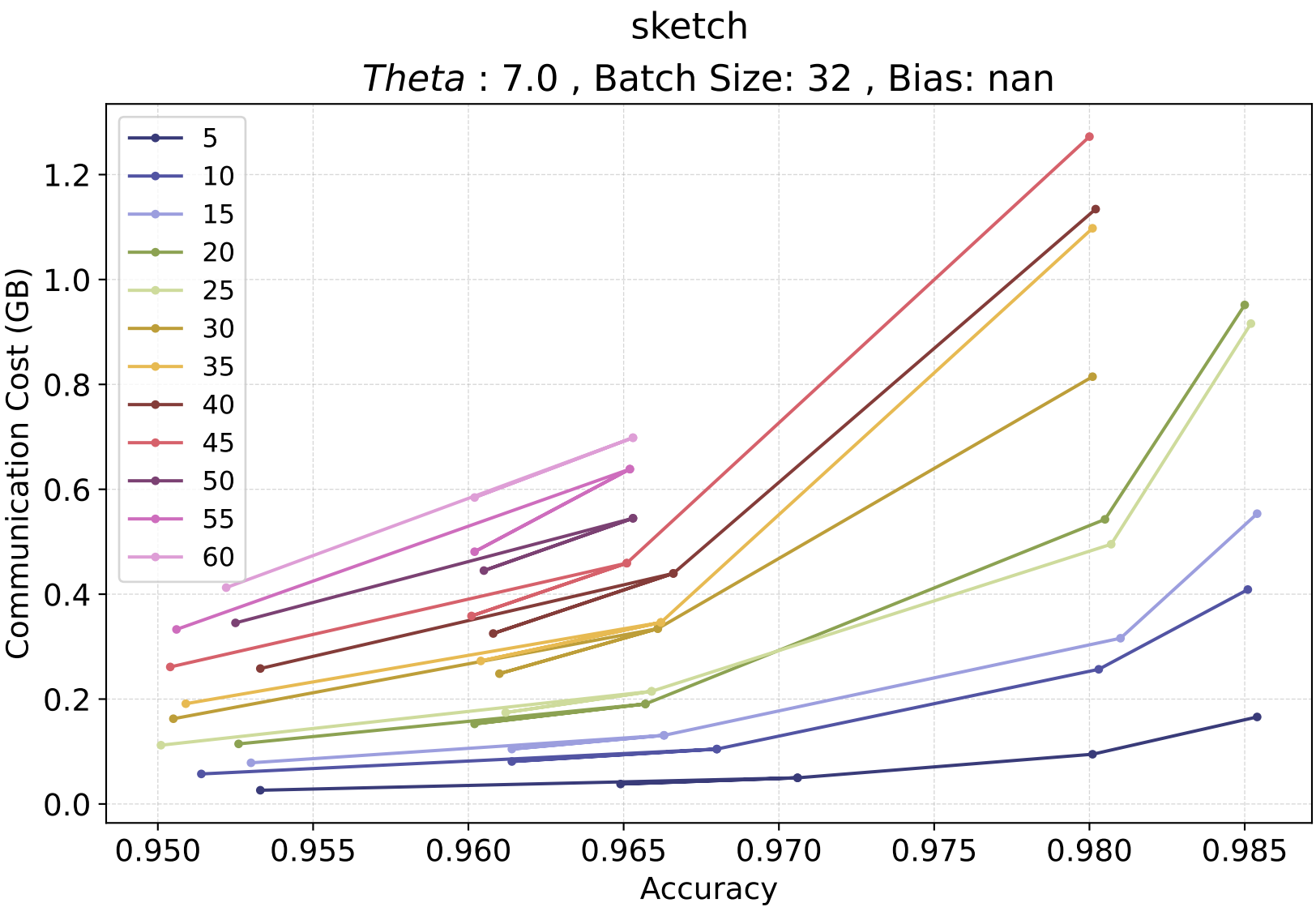
sketch
Theta : 7.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
0.0
0.2
0.4
0.6
0.8
1.0
1.2
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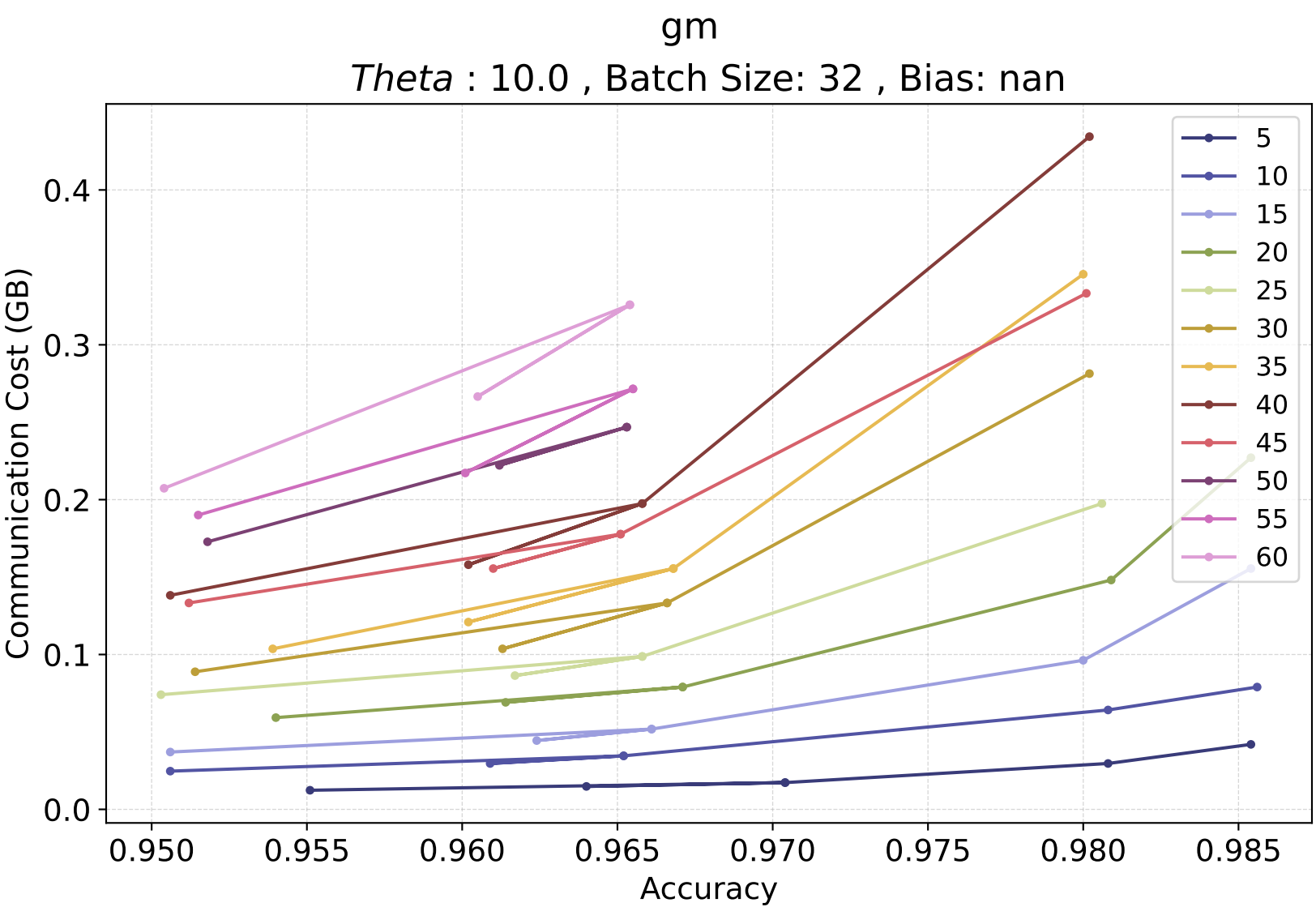
gm
Theta : 10.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
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0.2
0.3
0.4
0.950
0.955
0.960
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0.985
Accuracy
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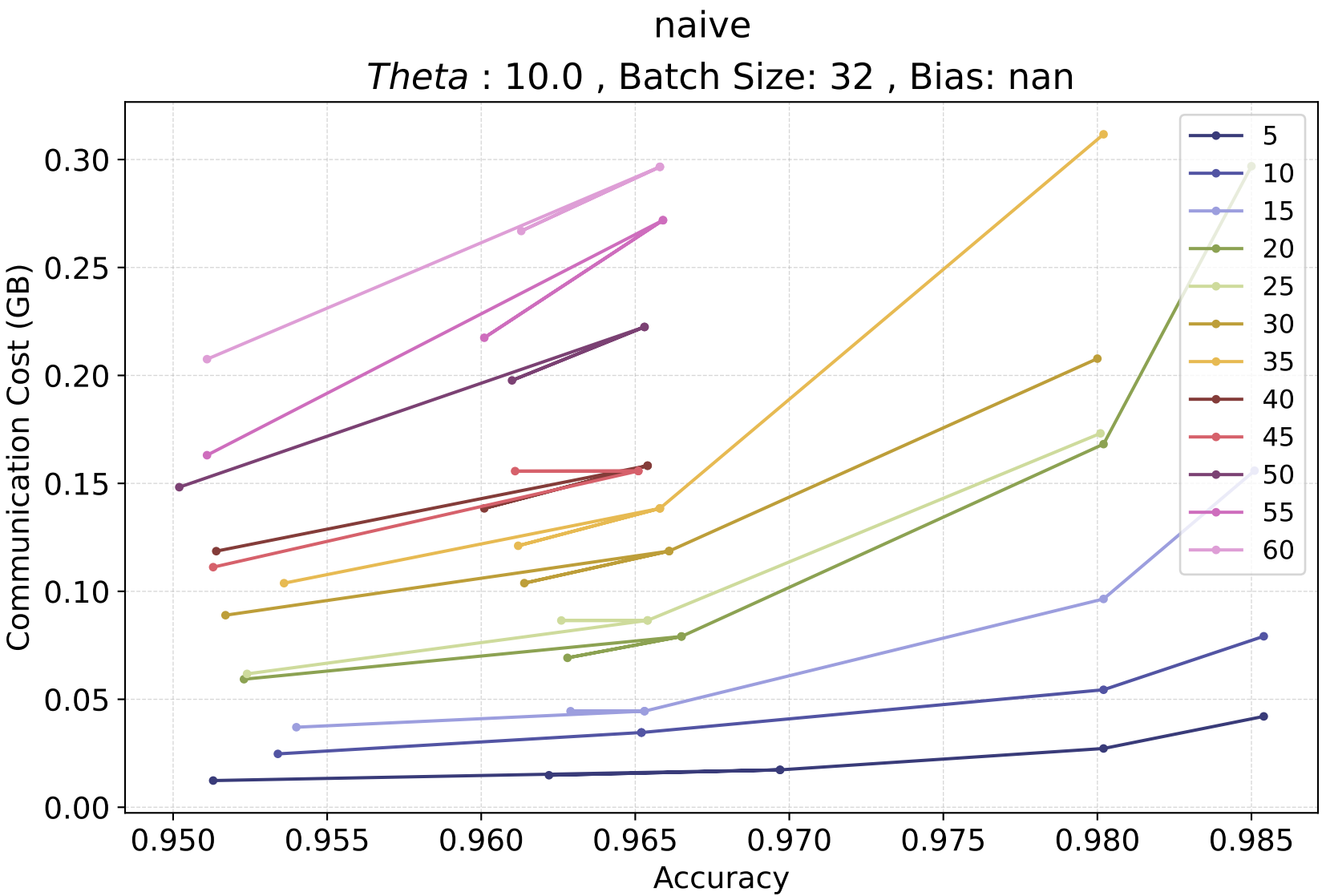
naive
Theta : 10.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
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0.25
0.30
Accuracy
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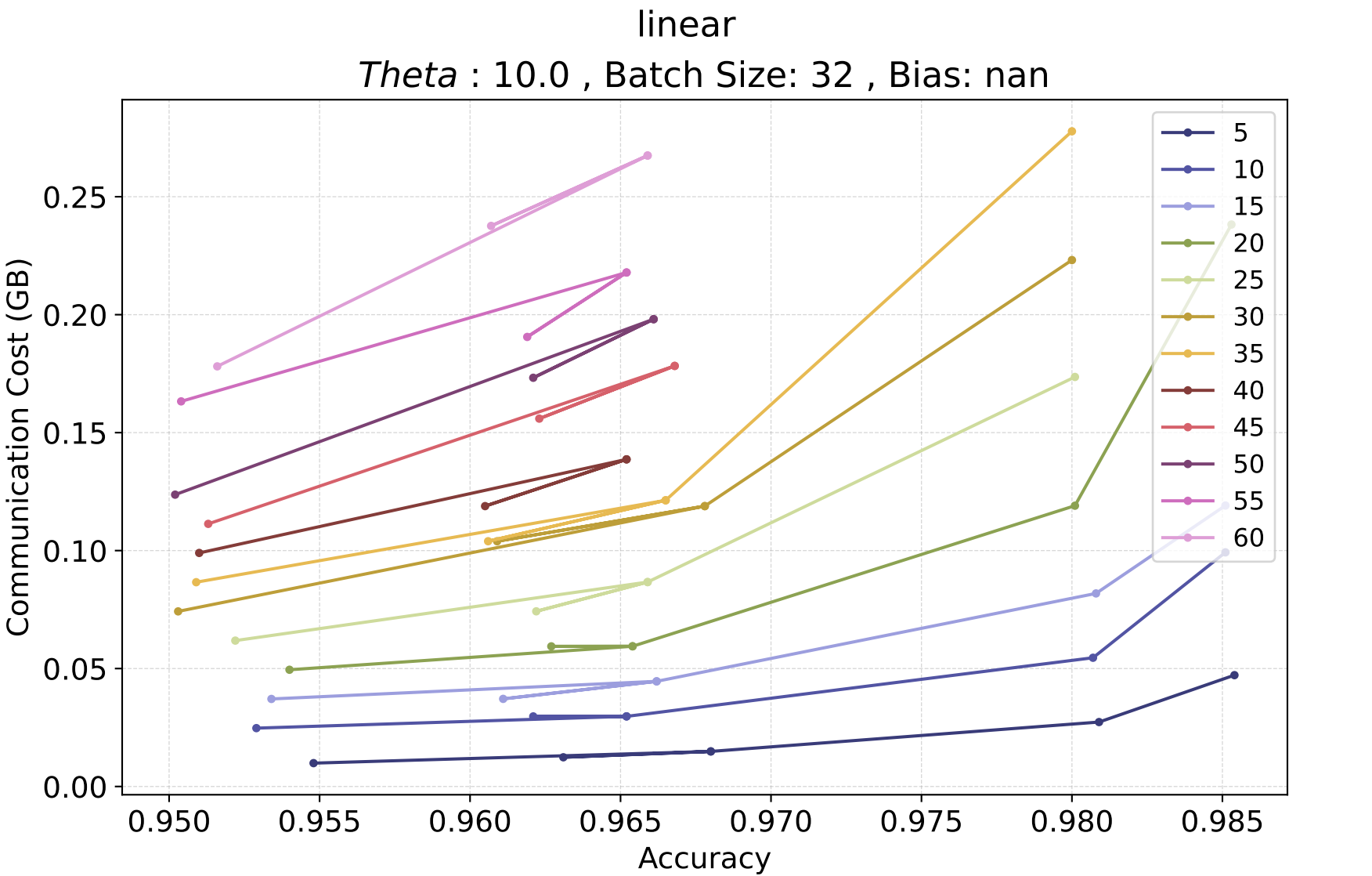
linear
Theta : 10.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
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Accuracy
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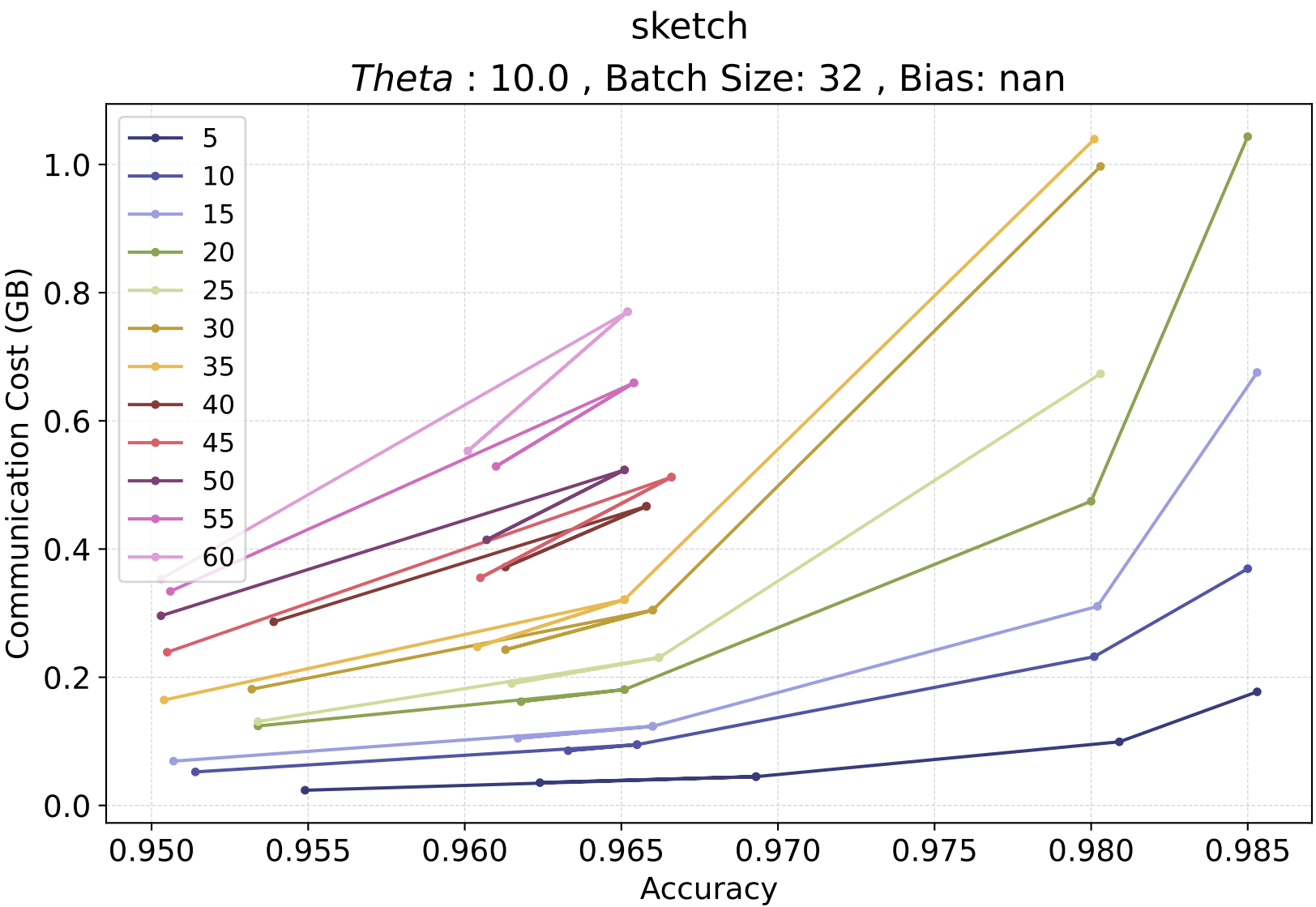
sketch
Theta : 10.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
0.0
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0.4
0.6
0.8
1.0
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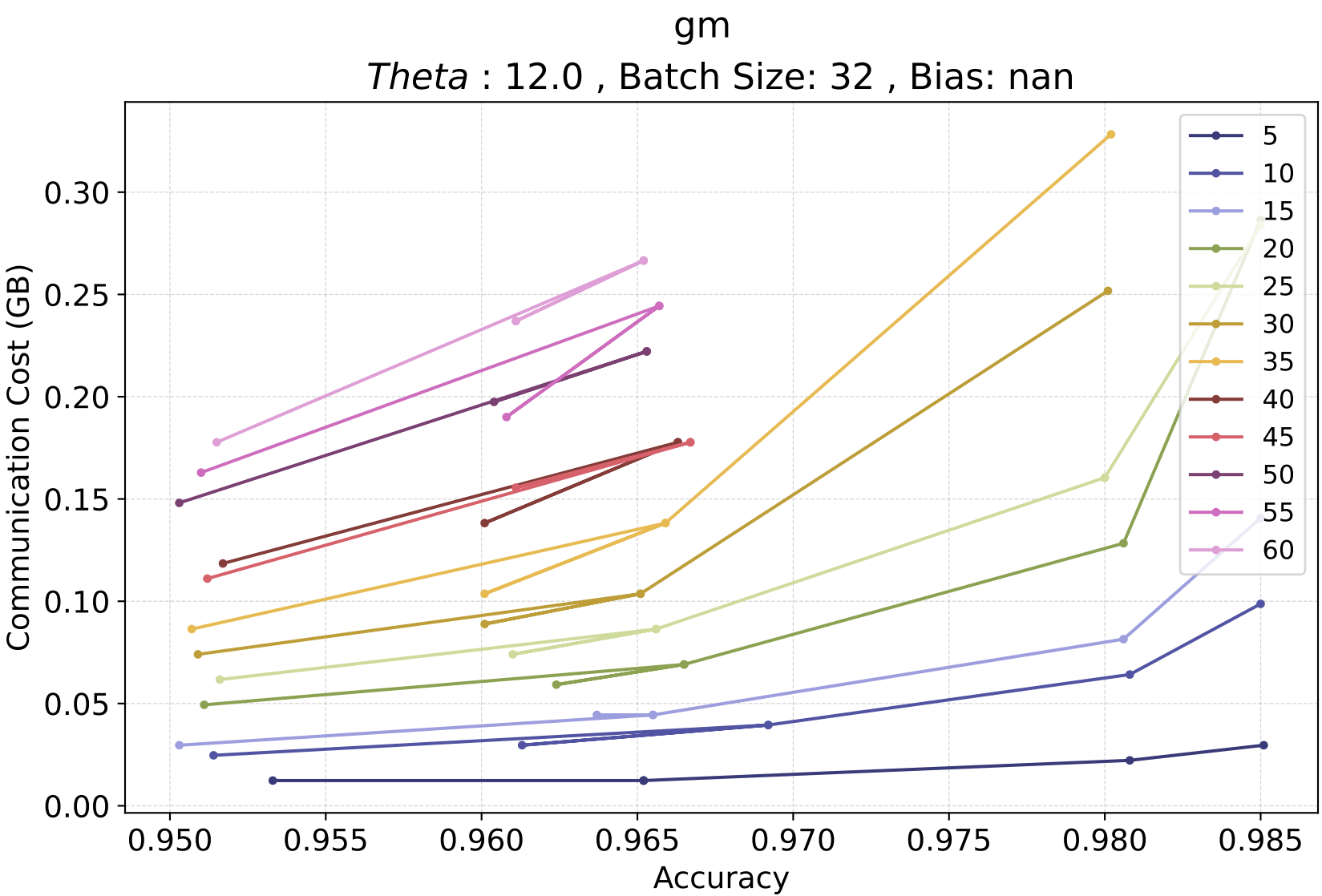
gm
Theta : 12.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
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0.10
0.15
0.20
0.25
0.30
Accuracy
0.950
0.955
0.960
0.965
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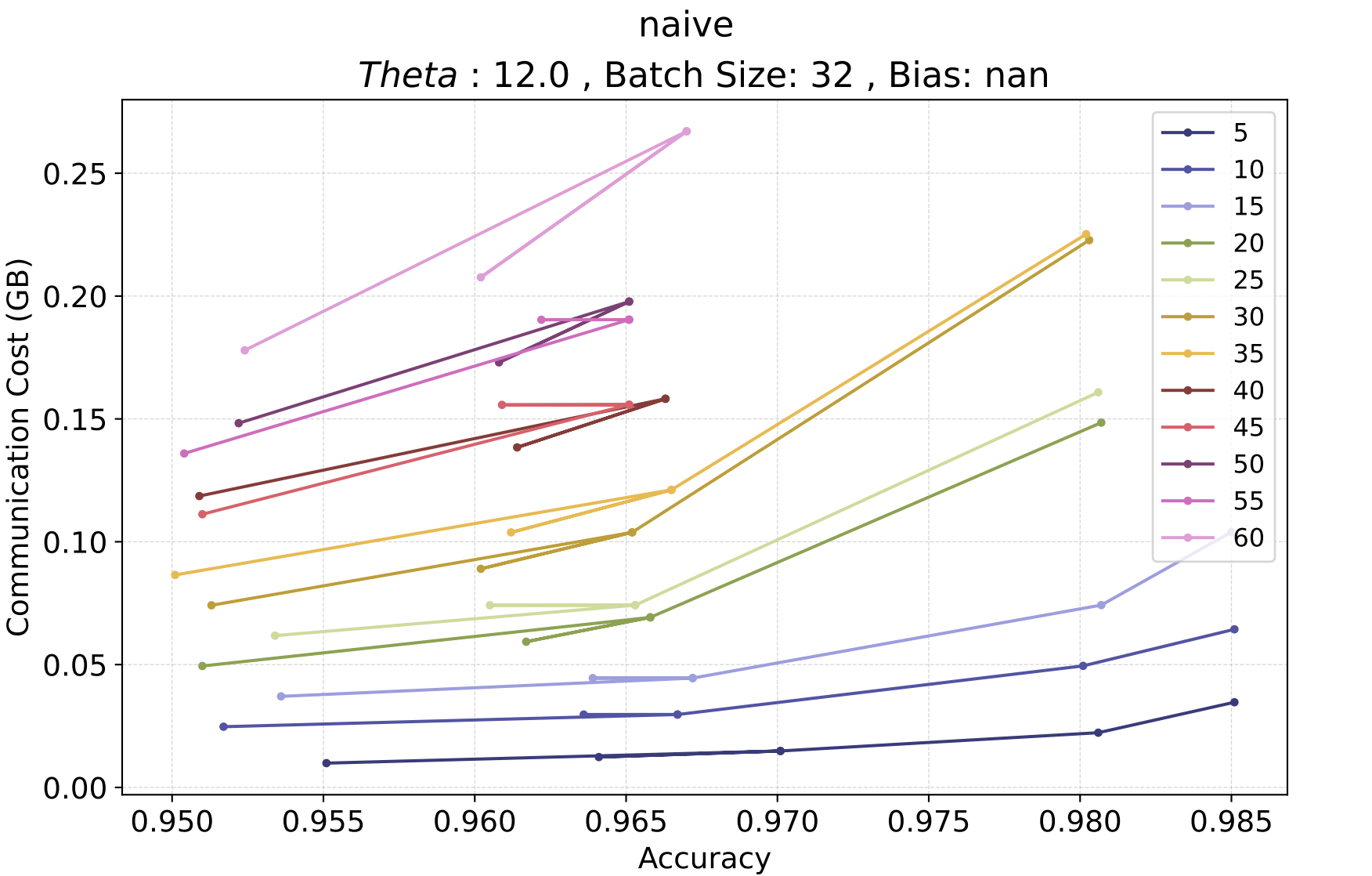
naive
Theta : 12.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
0.00
0.05
0.10
0.15
0.20
0.25
Accuracy
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0.955
0.960
0.965
0.970
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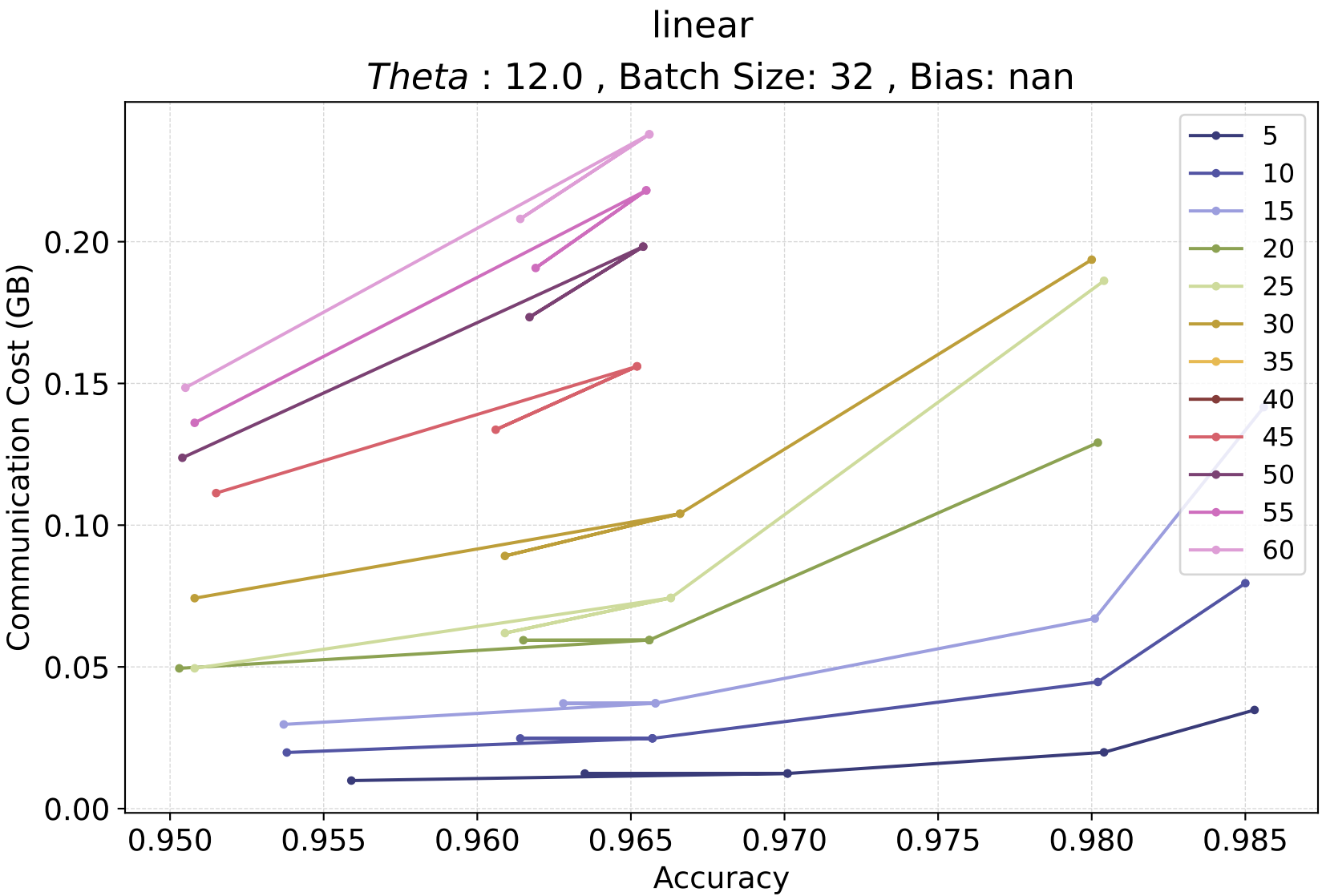
linear
Theta : 12.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
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0.05
0.10
0.15
0.20
0.950
0.955
0.960
0.965
0.970
0.975
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0.985
Accuracy
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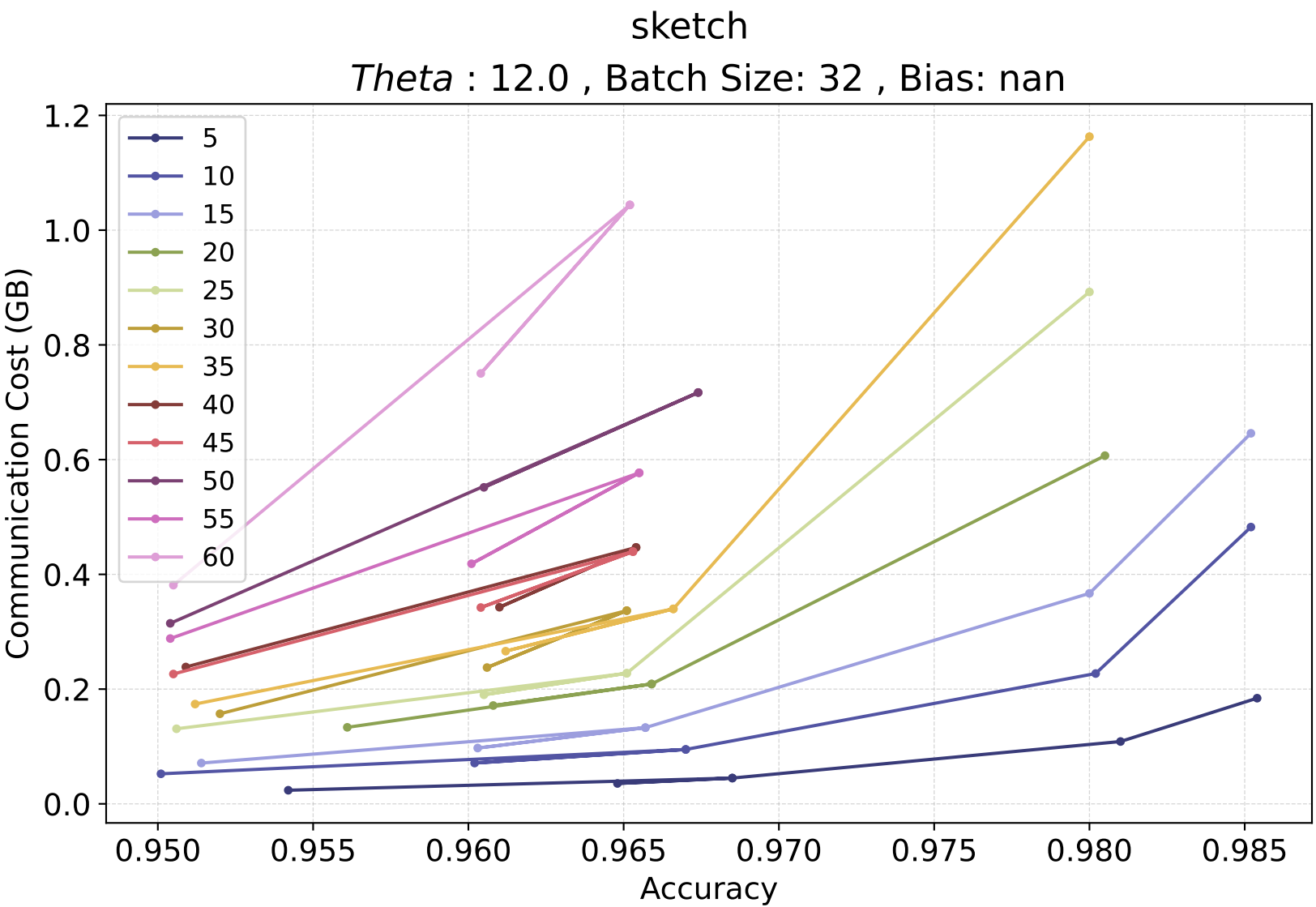
sketch
Theta : 12.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
0.0
0.2
0.4
0.6
0.8
1.0
1.2
0.950
0.955
0.960
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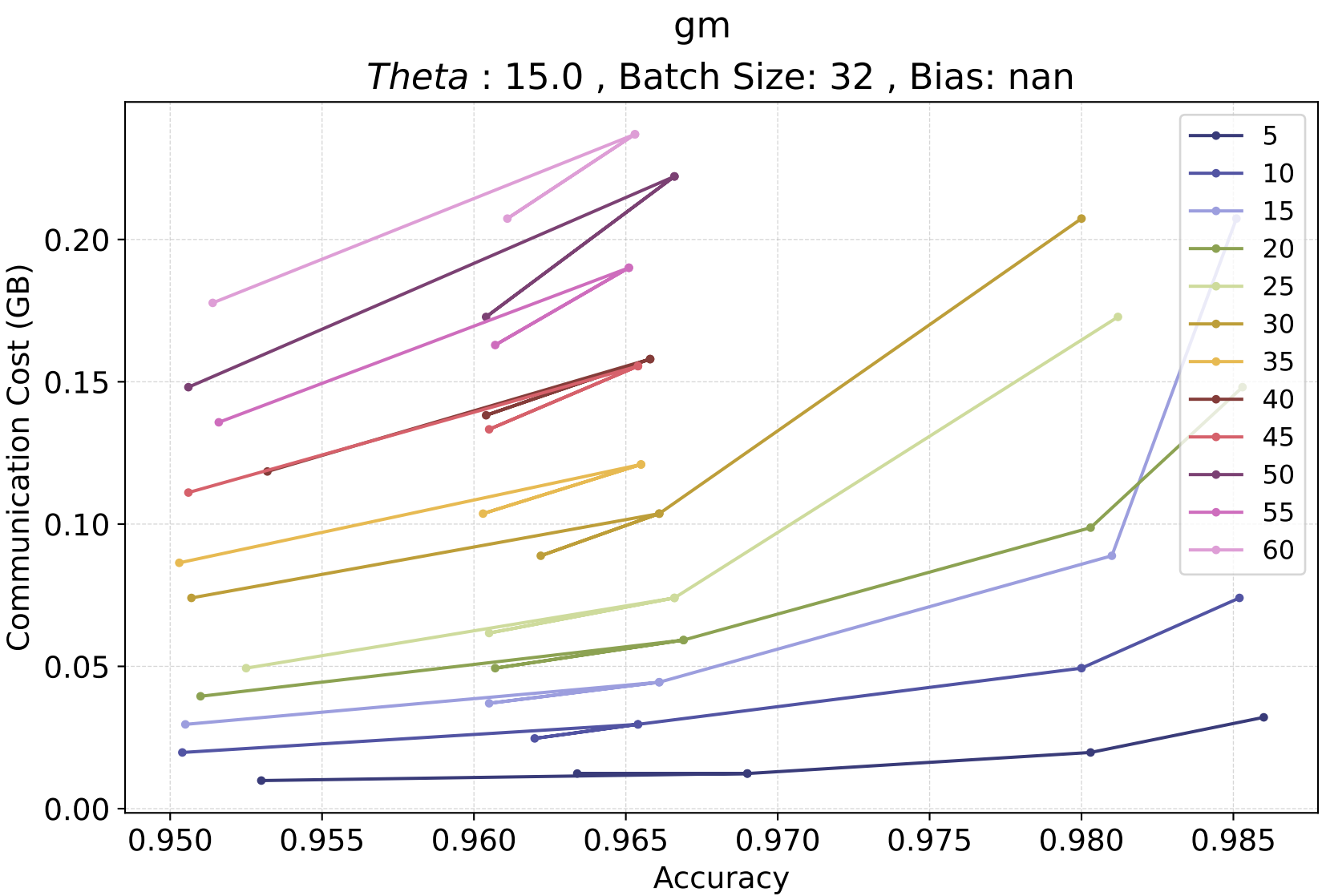
gm
Theta : 15.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
0.00
0.05
0.10
0.15
0.20
0.950
0.955
0.960
0.965
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0.985
Accuracy
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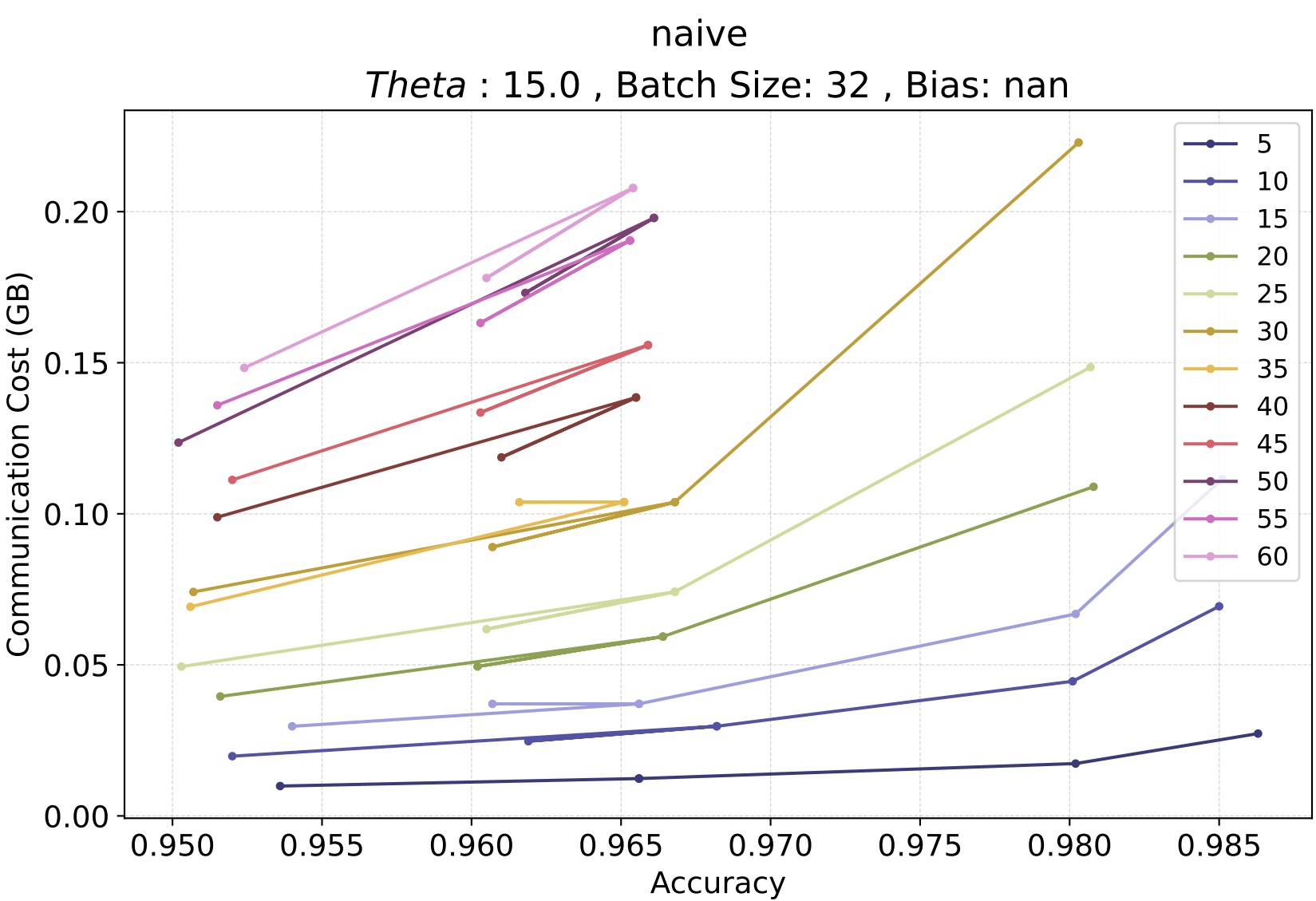
naive
Theta : 15.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
0.00
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Accuracy
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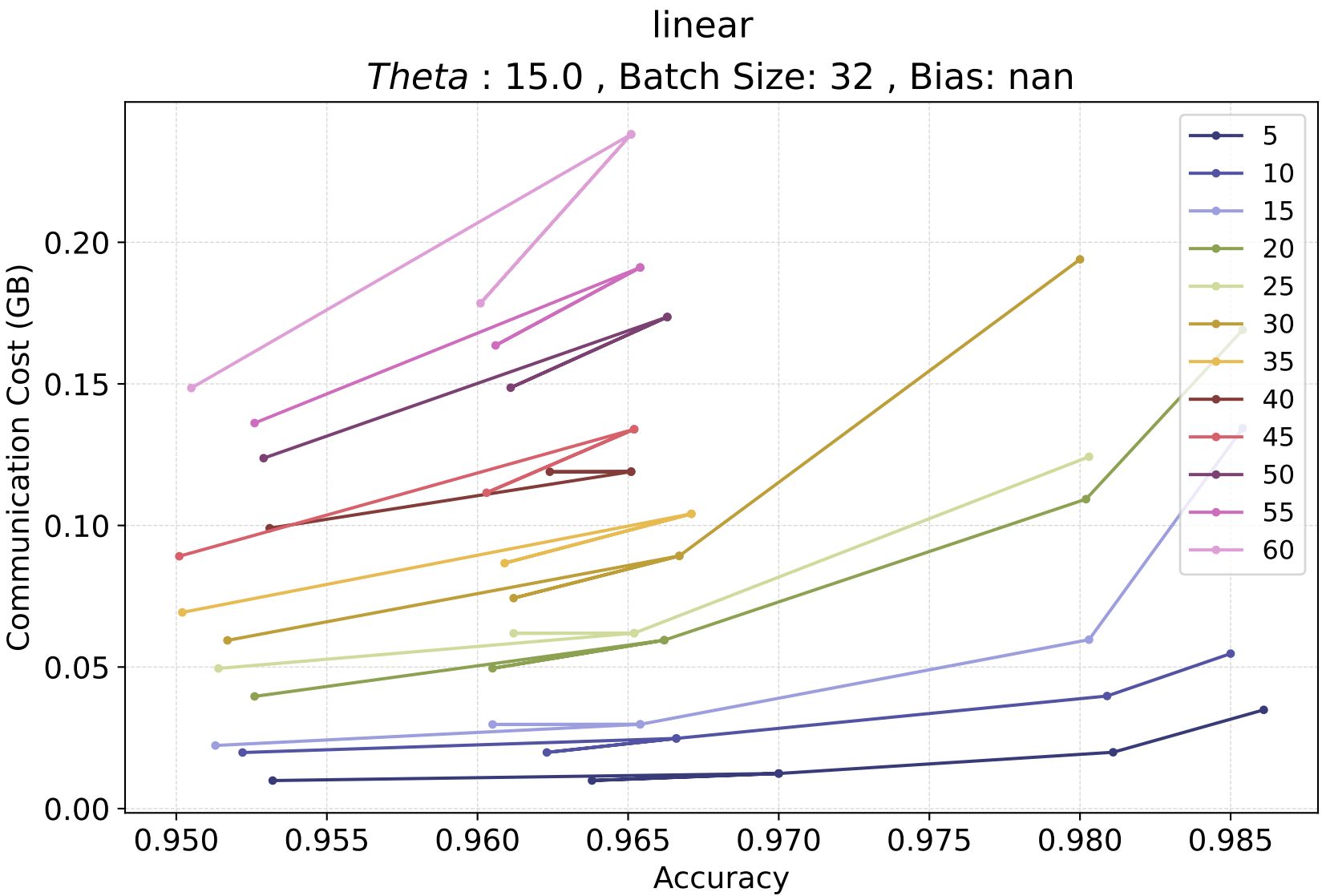
linear
Theta : 15.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
0.00
0.05
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Accuracy
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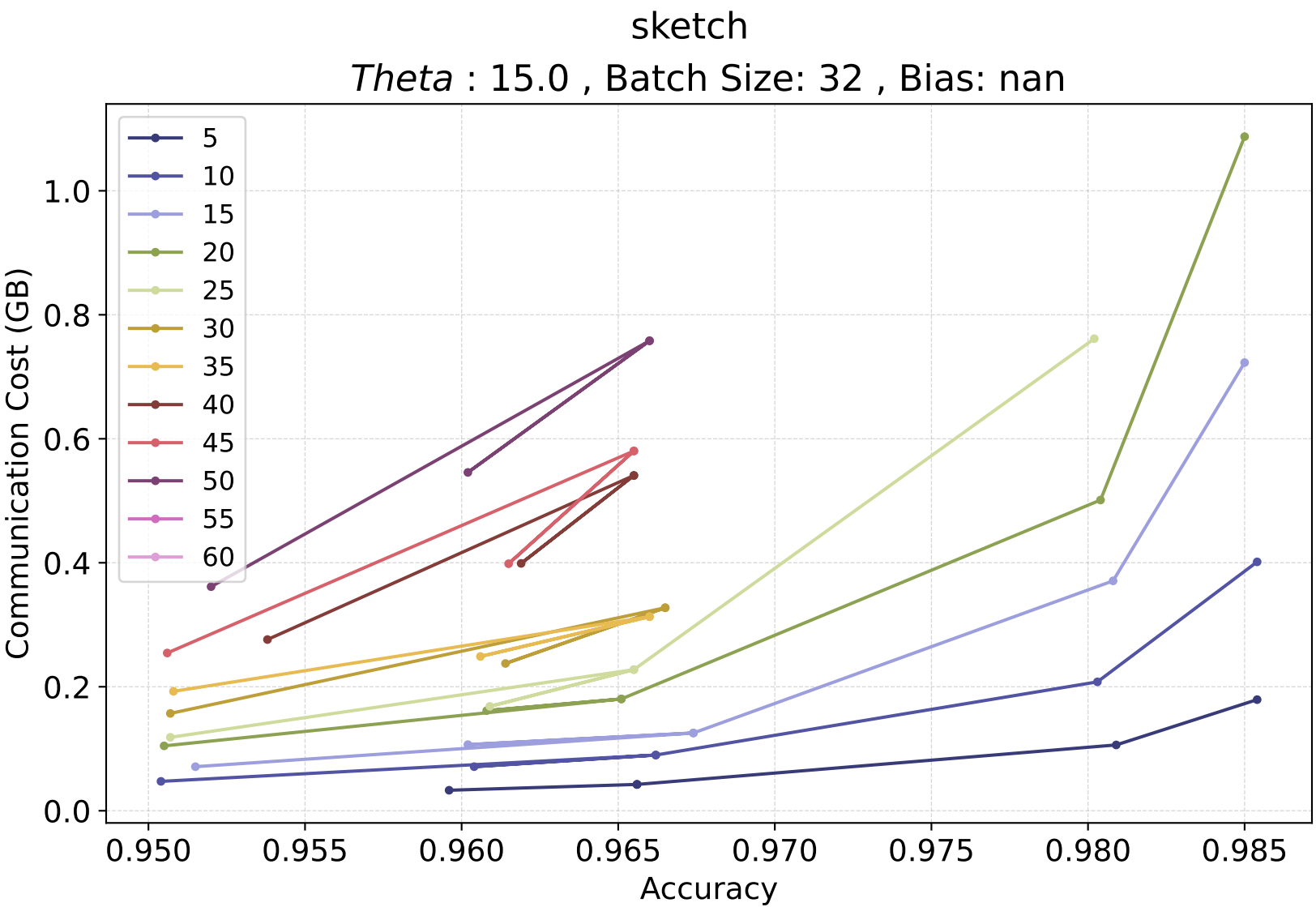
sketch
Theta : 15.0 , Batch Size: 32 , Bias: nan
Communication Cost (GB)
Accuracy
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0.4
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