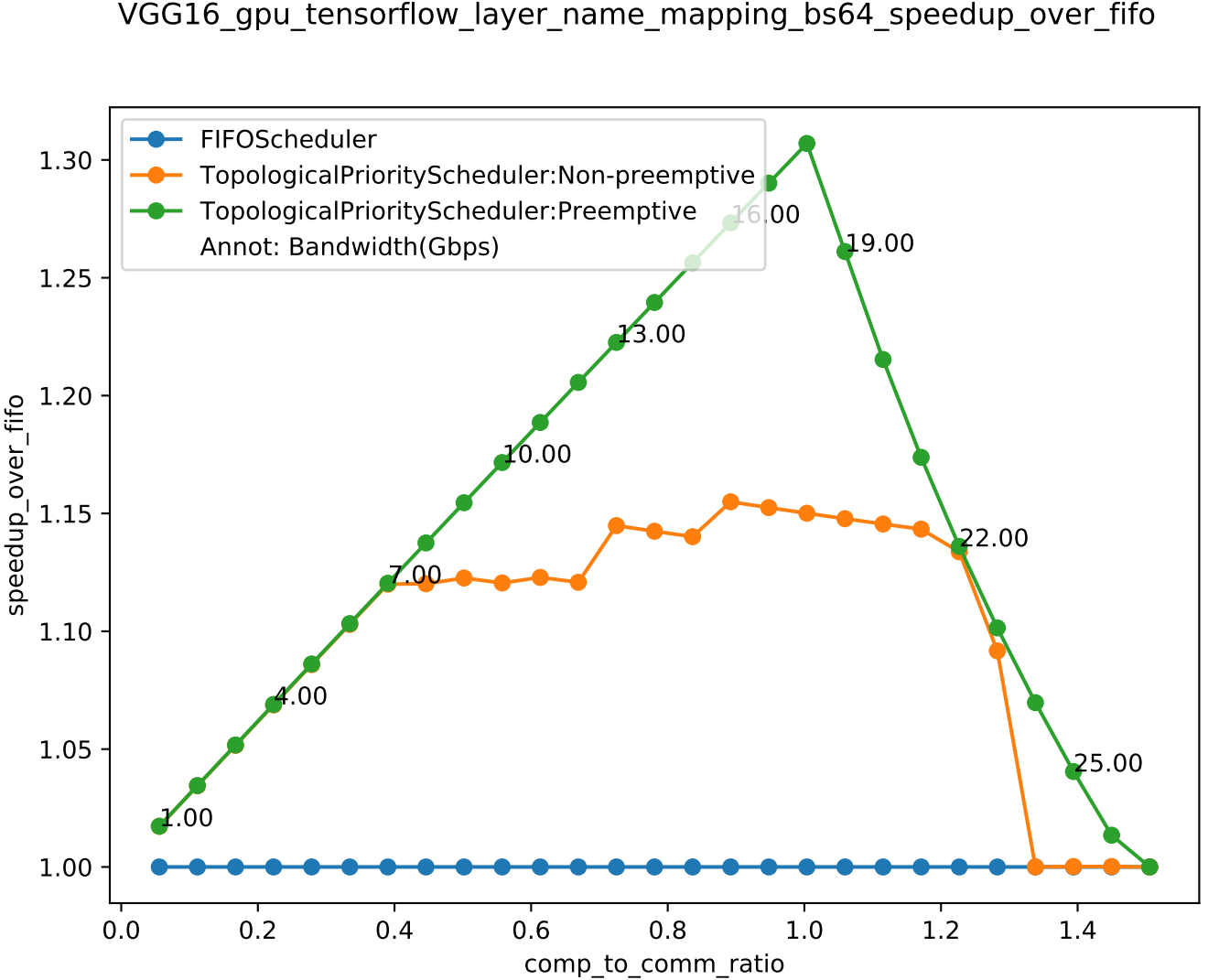
VGG16_gpu_tensorflow_layer_name_mapping_bs64_speedup_over_fifo
FIFOScheduler
TopologicalPriorityScheduler:Non-preemptive
TopologicalPriorityScheduler:Preemptive
Annot: Bandwidth(Gbps)
1.00
4.00
7.00
10.00
13.00
16.00
19.00
22.00
25.00
speedup_over_fifo
comp_to_comm_ratio
1.00
1.05
1.10
1.15
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0.4
0.6
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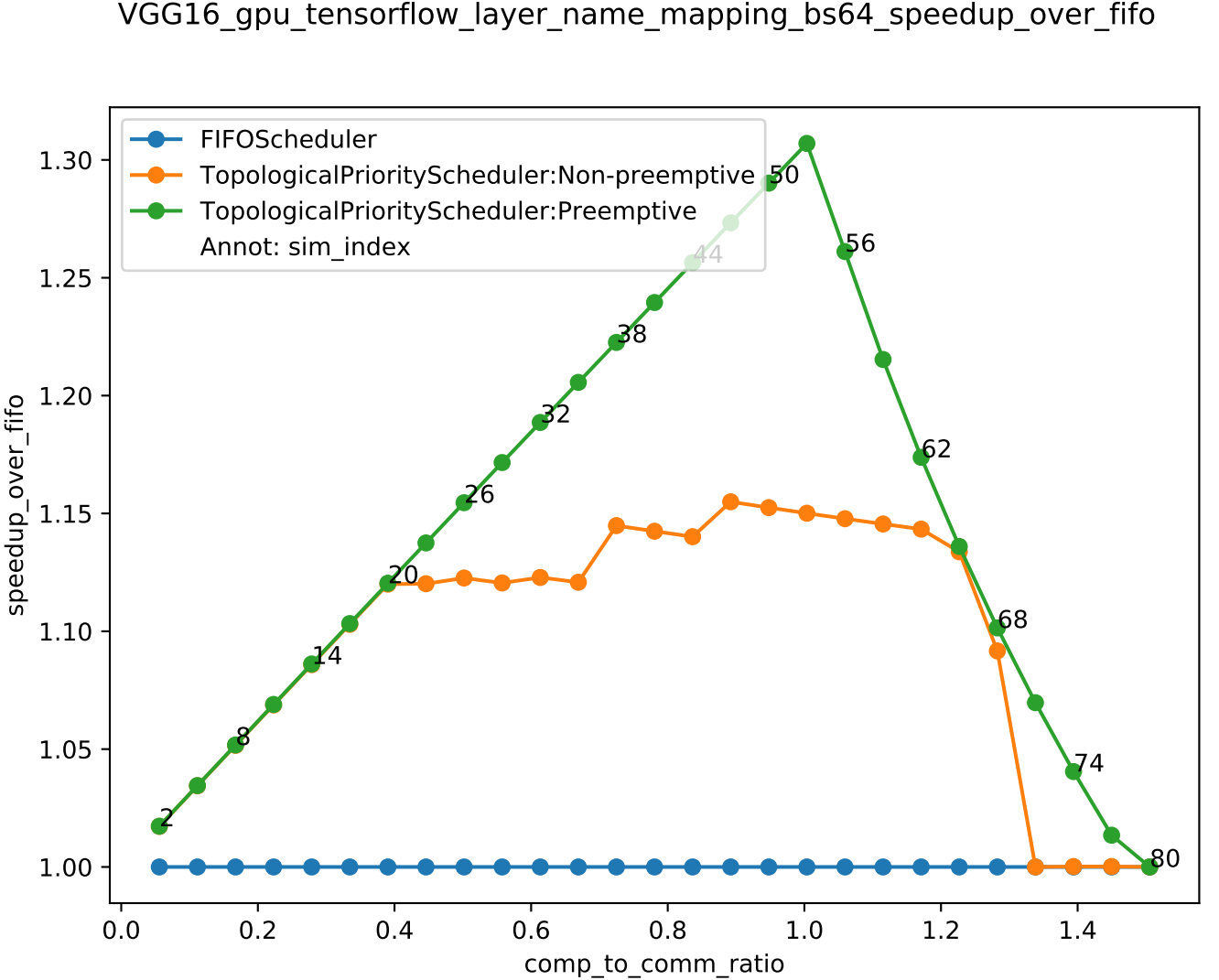
1.4


VGG16_gpu_tensorflow_layer_name_mapping_bs64_speedup_over_fifo
FIFOScheduler
TopologicalPriorityScheduler:Non-preemptive
TopologicalPriorityScheduler:Preemptive
Annot: sim_index
speedup_over_fifo
comp_to_comm_ratio
1.00
1.05
1.10
1.15
1.20
1.25
1.30
0.0
0.2
0.4
0.6
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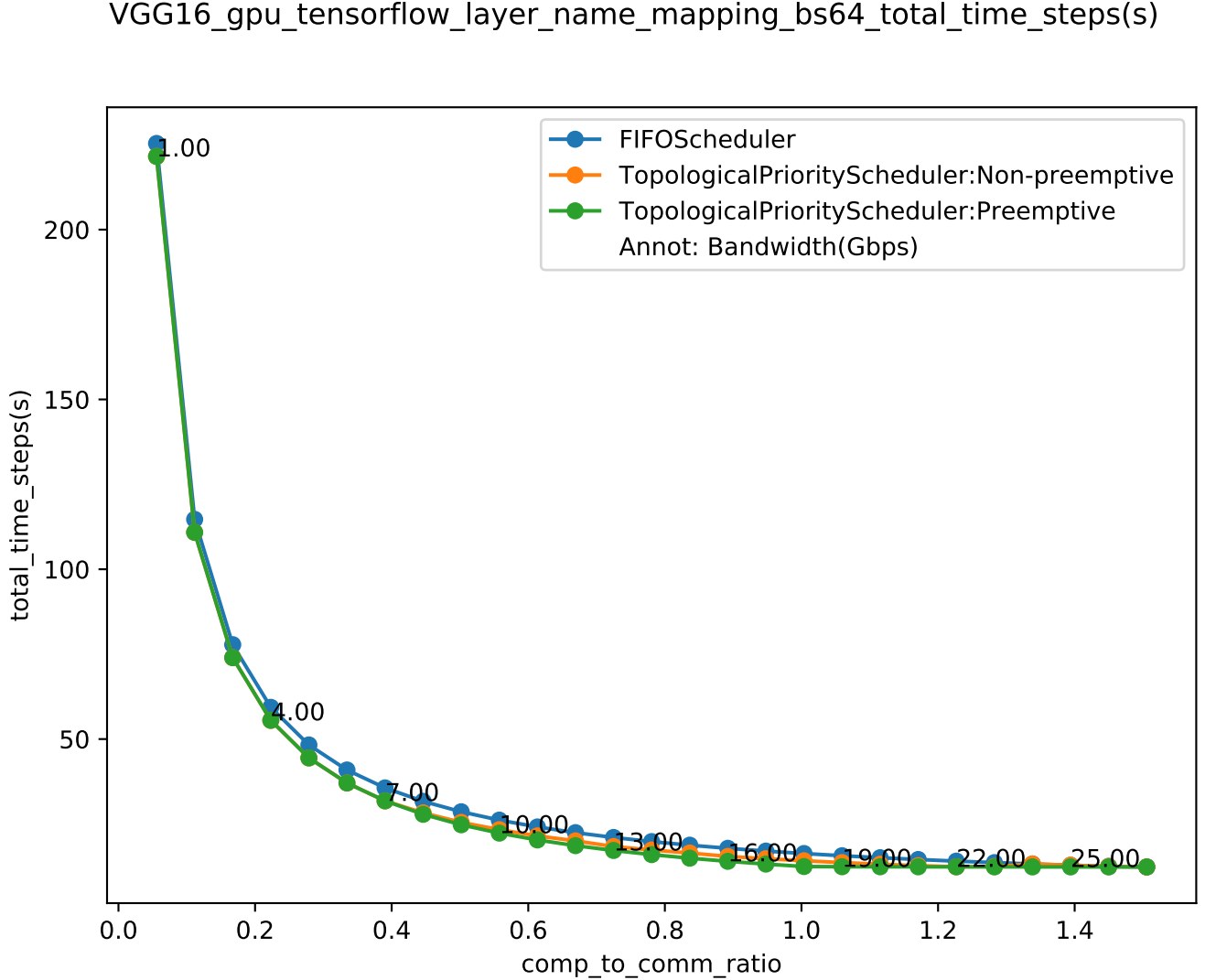
VGG16_gpu_tensorflow_layer_name_mapping_bs64_total_time_steps(s)
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TopologicalPriorityScheduler:Preemptive
Annot: Bandwidth(Gbps)
1.00
4.00
7.00
10.00
13.00
16.00
19.00
22.00
25.00
total_time_steps(s)
comp_to_comm_ratio
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150
100
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0.6
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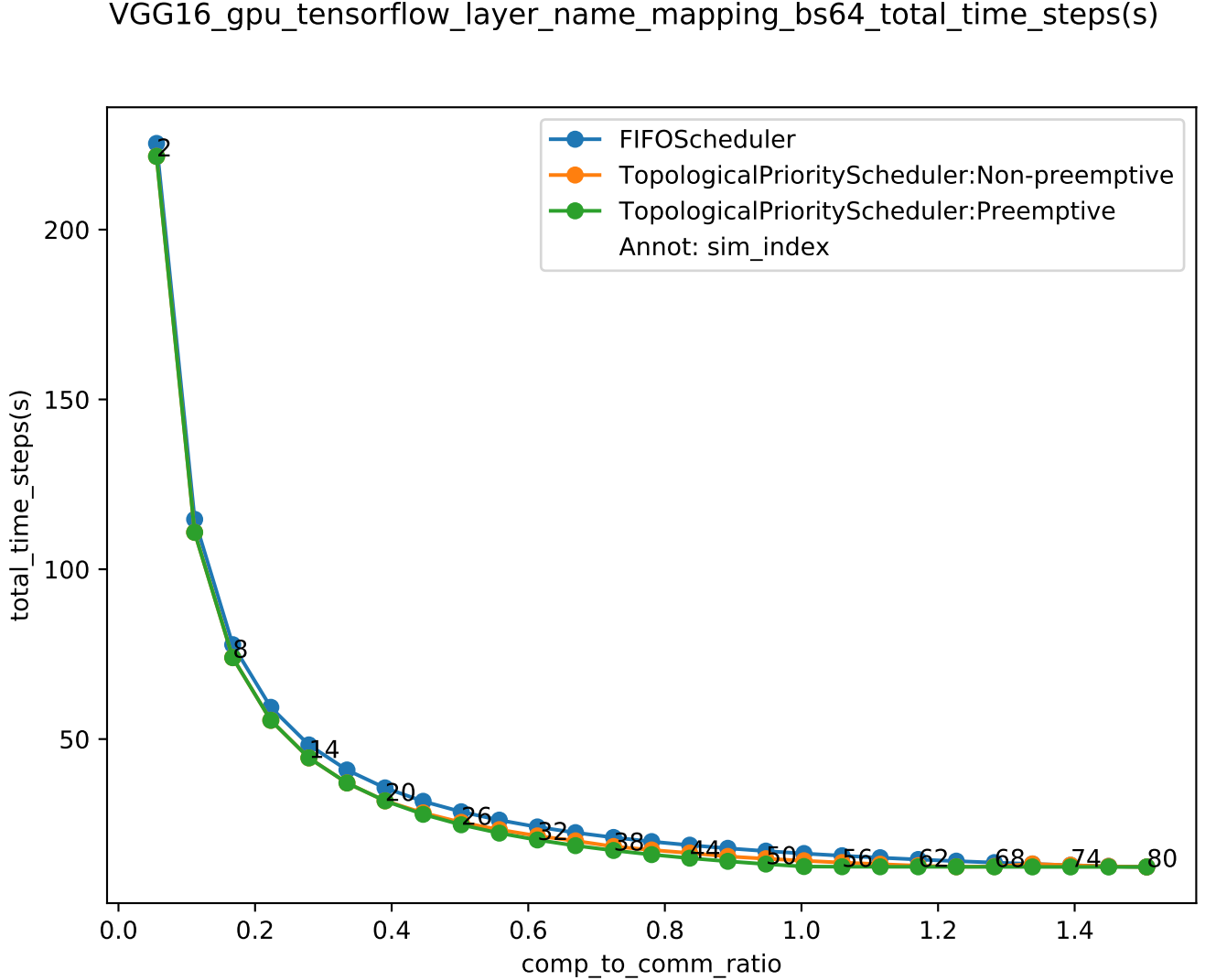
1.0
1.2
1.4


VGG16_gpu_tensorflow_layer_name_mapping_bs64_total_time_steps(s)
FIFOScheduler
TopologicalPriorityScheduler:Non-preemptive
TopologicalPriorityScheduler:Preemptive
Annot: sim_index
total_time_steps(s)
comp_to_comm_ratio
200
150
100
50
0.0
0.2
0.4
0.6
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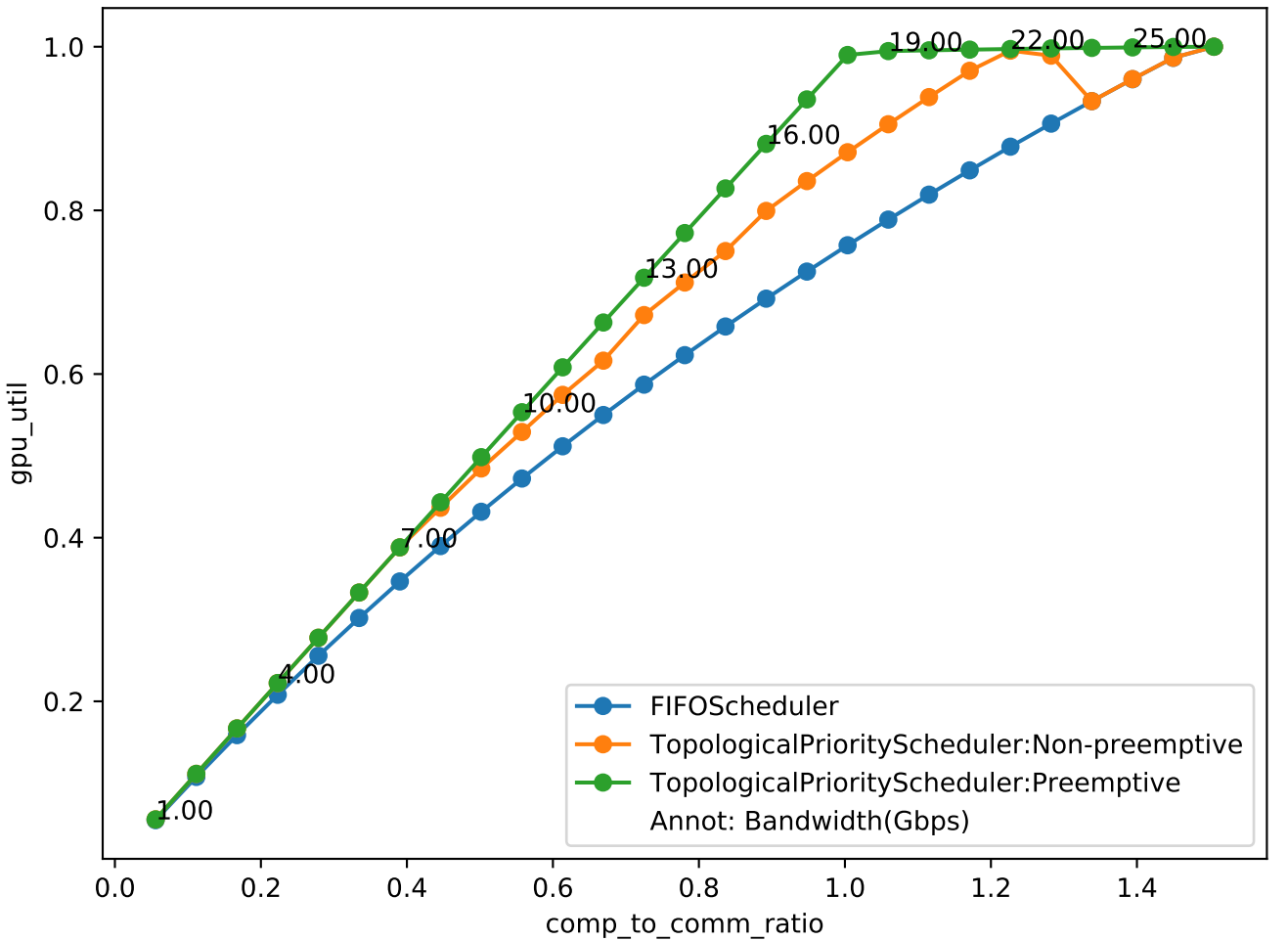
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gpu_util
comp_to_comm_ratio
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FIFOScheduler
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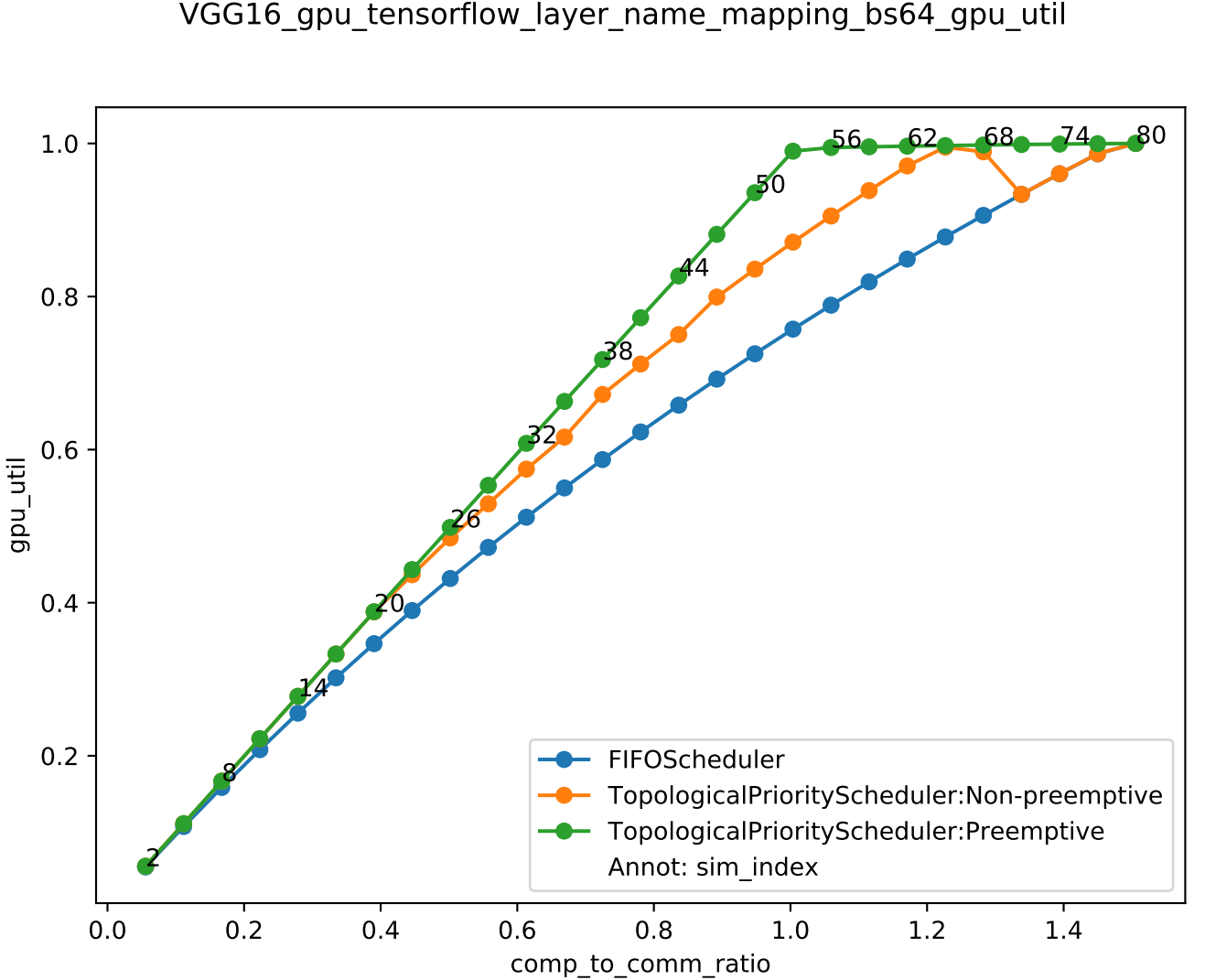
TopologicalPriorityScheduler:Preemptive
Annot: Bandwidth(Gbps)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comp_to_comm_ratio
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0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
2
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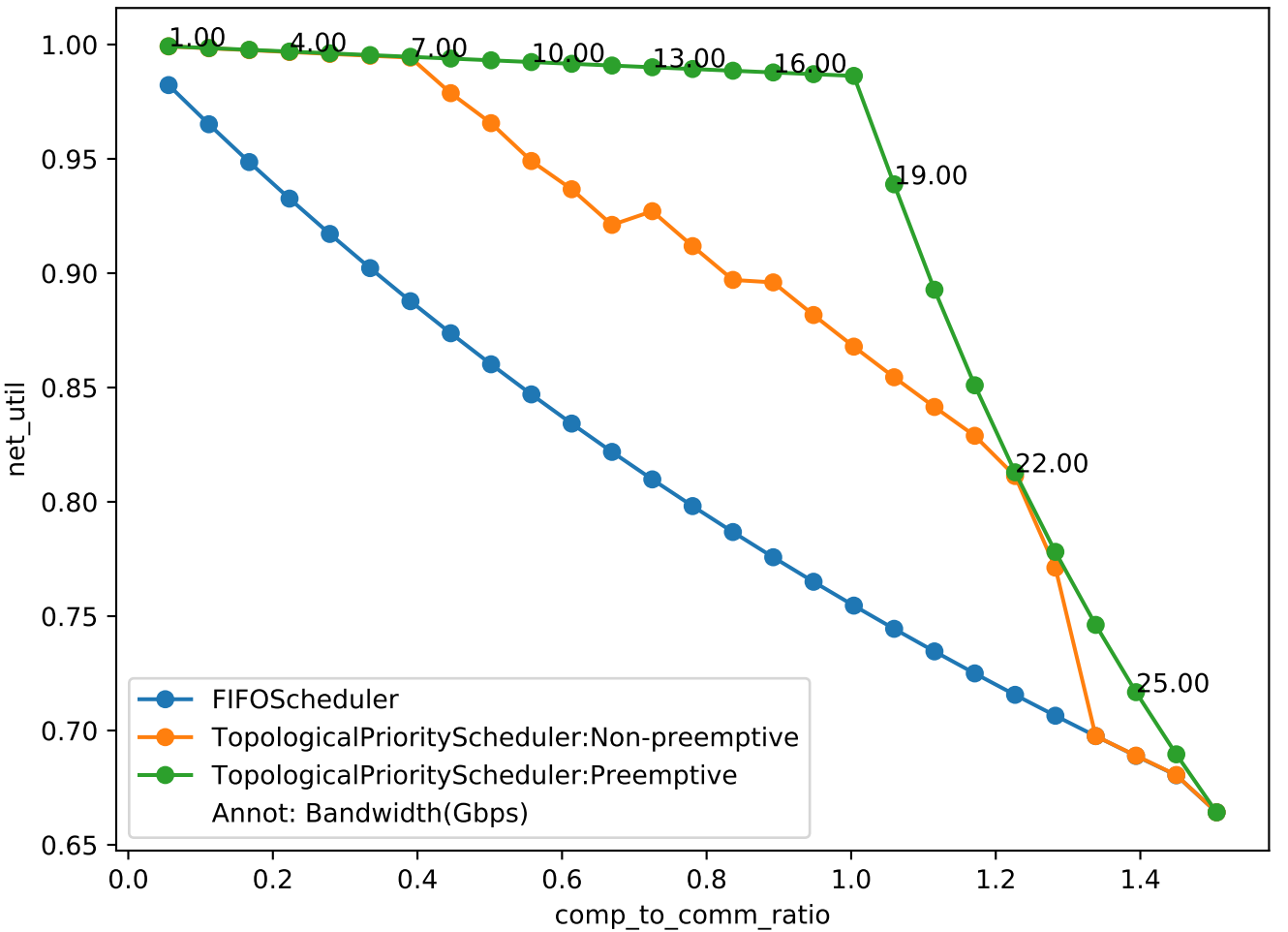
FIFOScheduler
TopologicalPriorityScheduler:Non-preemptive
TopologicalPriorityScheduler:Preemptive
Annot: sim_index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0.80
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0.70
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0.4
0.6
0.8
1.0
1.2
1.4
1.00
4.00
7.00
10.00
13.00
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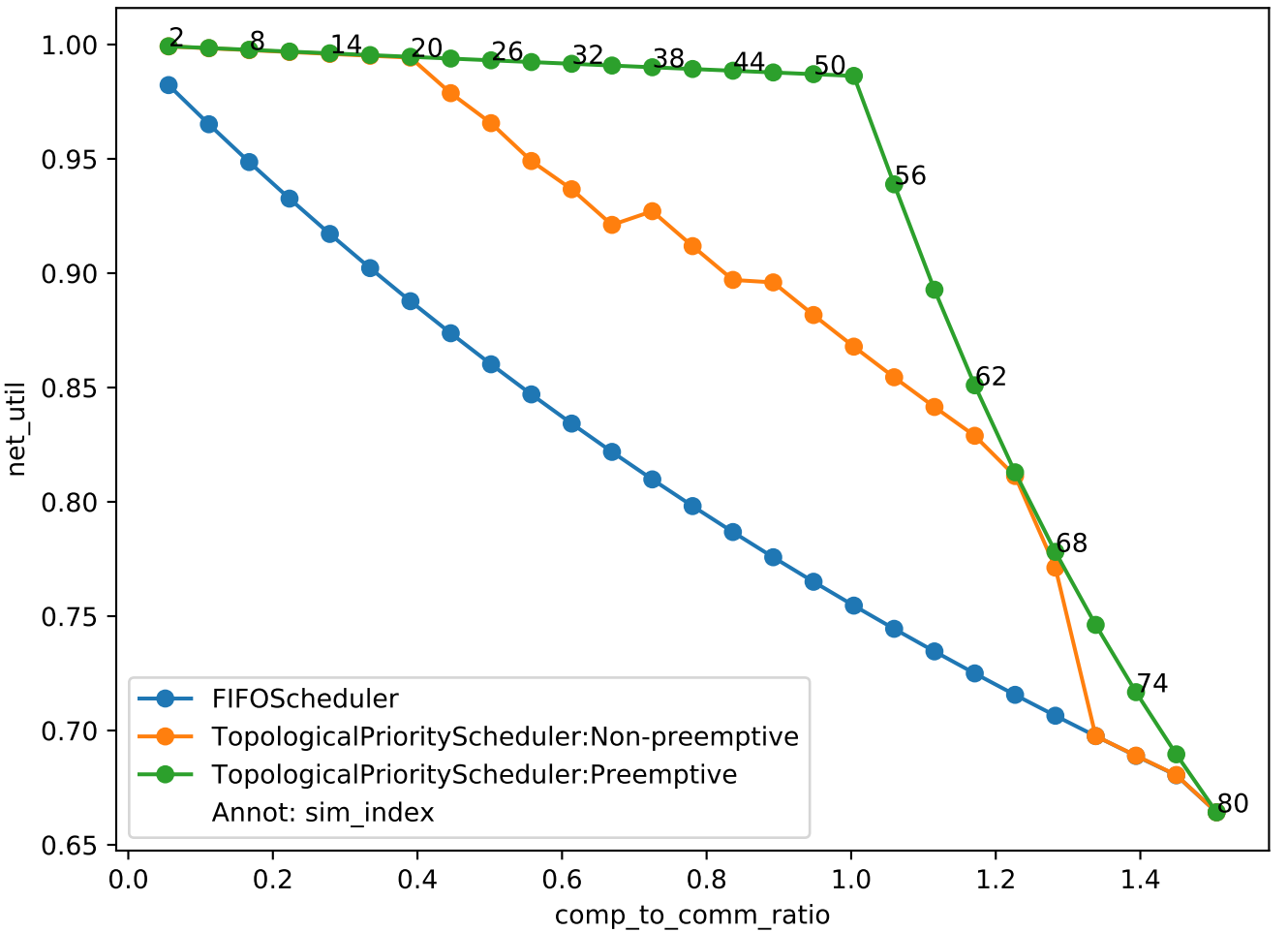
FIFOScheduler
TopologicalPriorityScheduler:Non-preemptive
TopologicalPriorityScheduler:Preemptive
Annot: Bandwidth(Gbps)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comp_to_comm_ratio
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1.4
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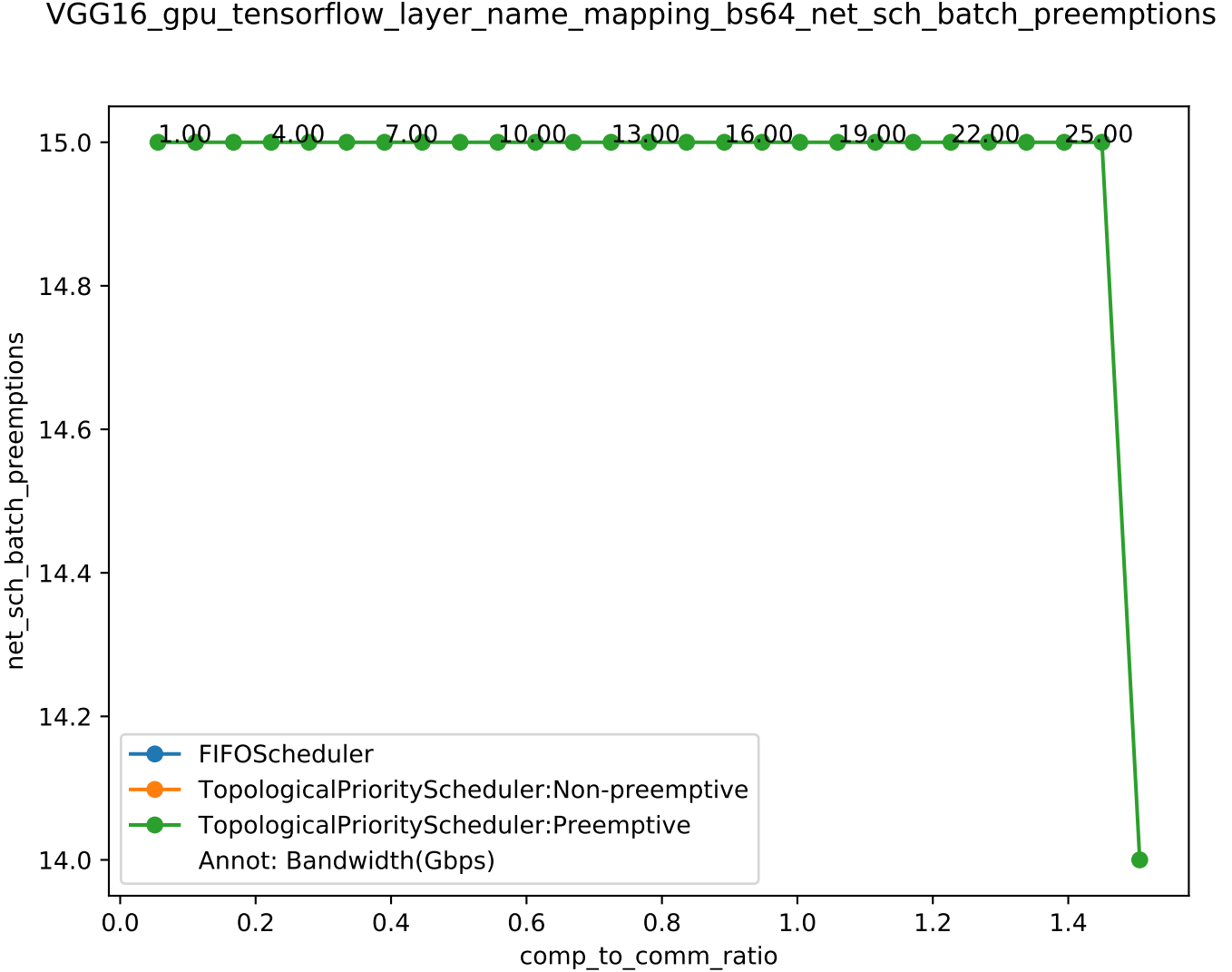
FIFOScheduler
TopologicalPriorityScheduler:Non-preemptive
TopologicalPriorityScheduler:Preemptive
Annot: sim_index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22.00
25.00
15.0
14.8
14.6
14.4
14.2
14.0
net_sch_batch_preemptions
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
comp_to_comm_ratio
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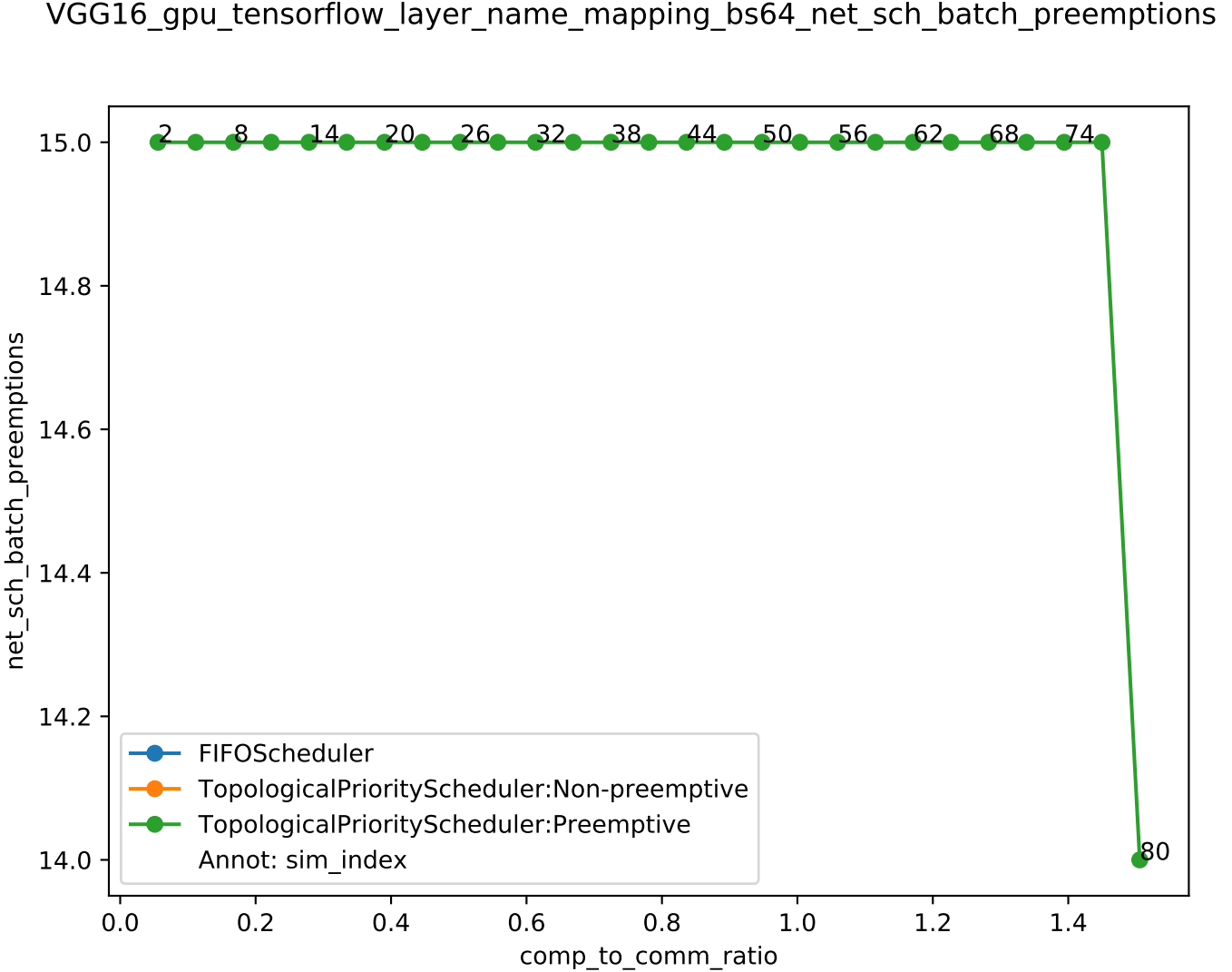
TopologicalPriorityScheduler:Preemptive
Annot: Bandwidth(Gbps)


VGG16_gpu_tensorflow_layer_name_mapping_bs64_net_sch_batch_preemptions
net_sch_batch_preemptions
comp_to_comm_ratio
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14.8
14.6
14.4
14.2
14.0
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
2
8
14
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32
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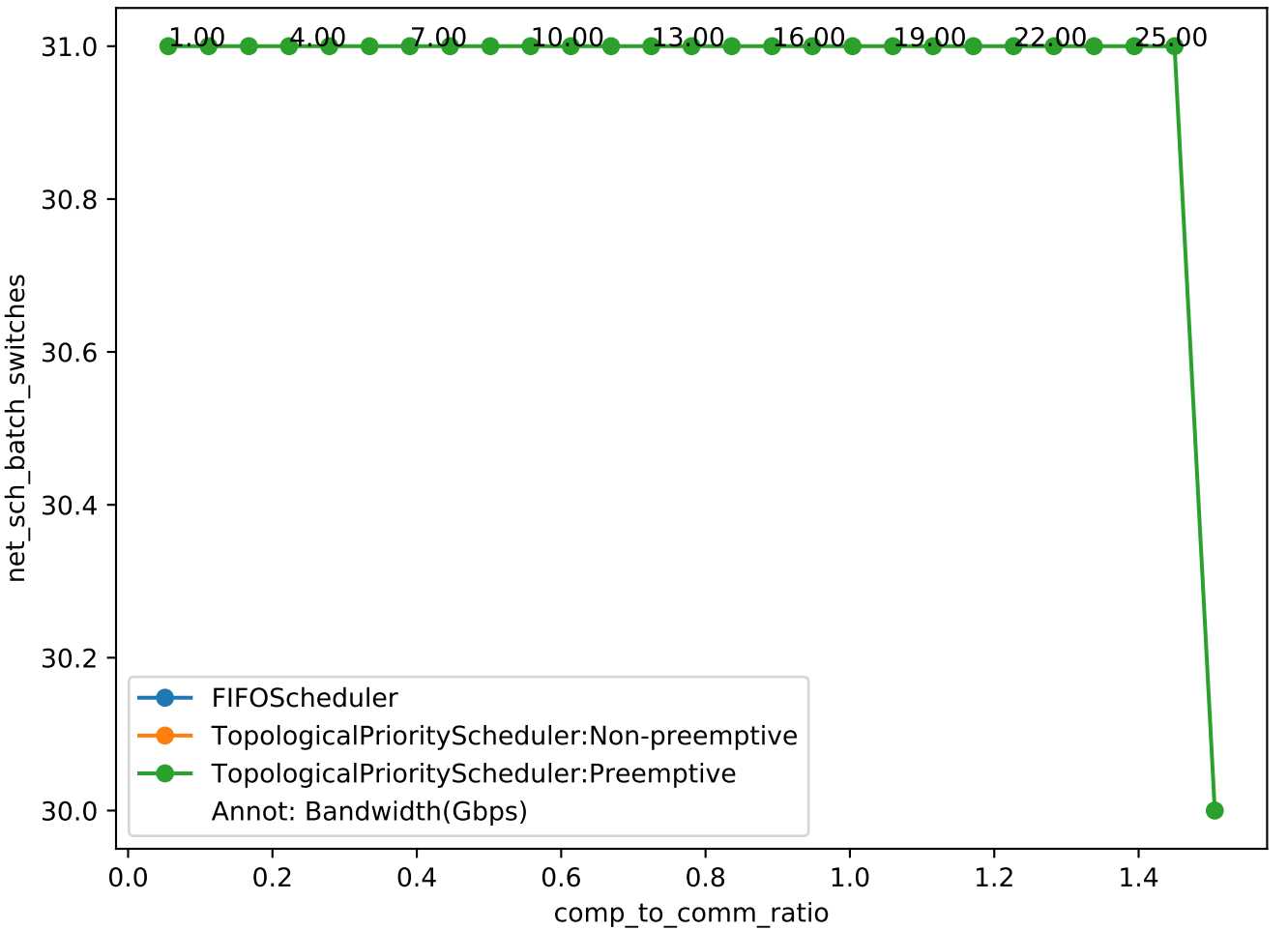
FIFOScheduler
TopologicalPriorityScheduler:Non-preemptive
TopologicalPriorityScheduler:Preemptive
Annot: sim_index


VGG16_gpu_tensorflow_layer_name_mapping_bs64_net_sch_batch_switches
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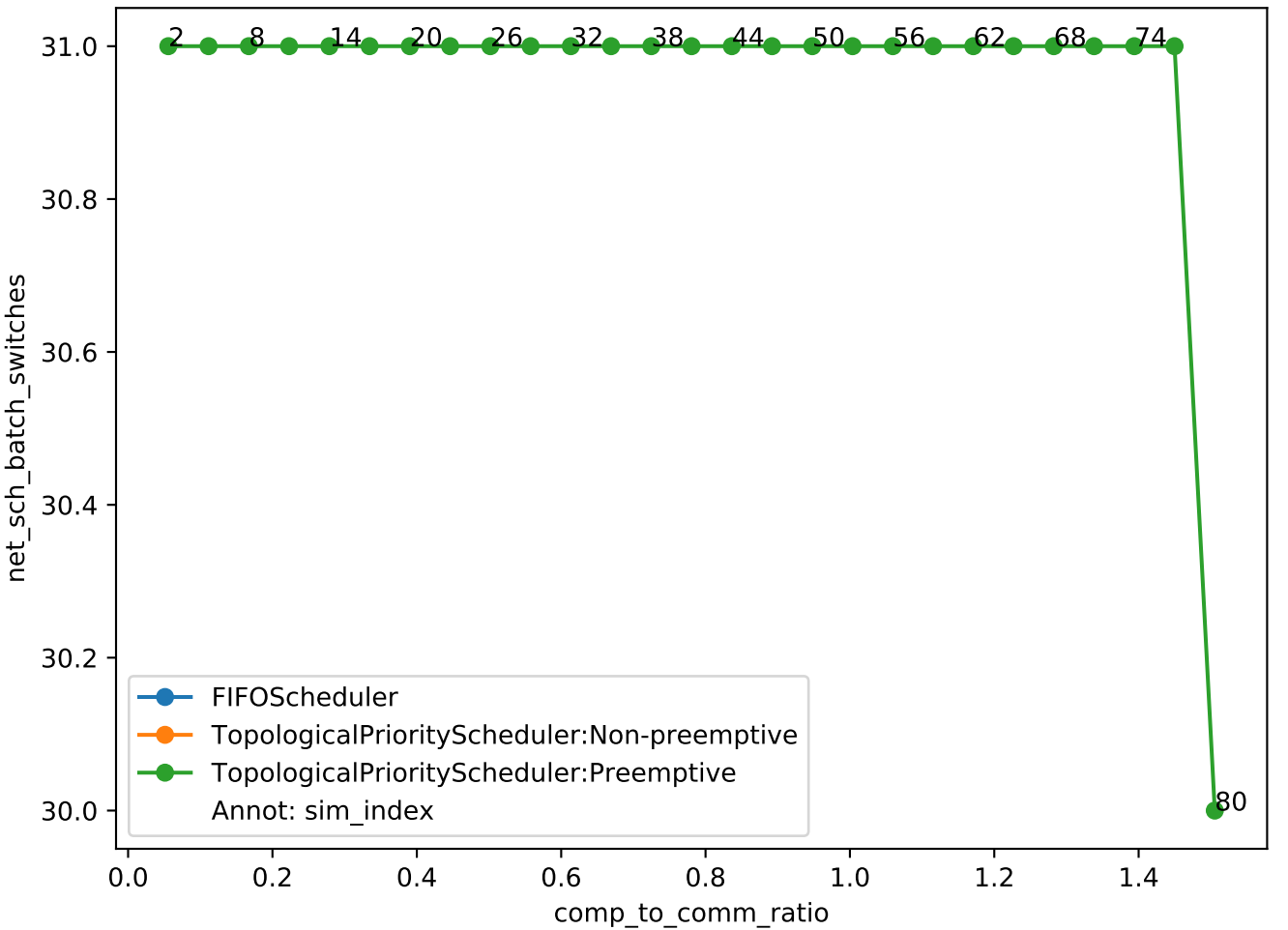
4.00
7.00
10.00
13.00
16.00
19.00
22.00
25.00
31.0
30.8
30.6
30.4
30.2
30.0
net_sch_batch_switches
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
comp_to_comm_ratio
FIFOScheduler
TopologicalPriorityScheduler:Non-preemptive
TopologicalPriorityScheduler:Preemptive
Annot: Bandwidth(Gbps)


VGG16_gpu_tensorflow_layer_name_mapping_bs64_net_sch_batch_switches
net_sch_batch_switches
comp_to_comm_ratio
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30.4
30.2
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0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
2
8
14
20
26
32
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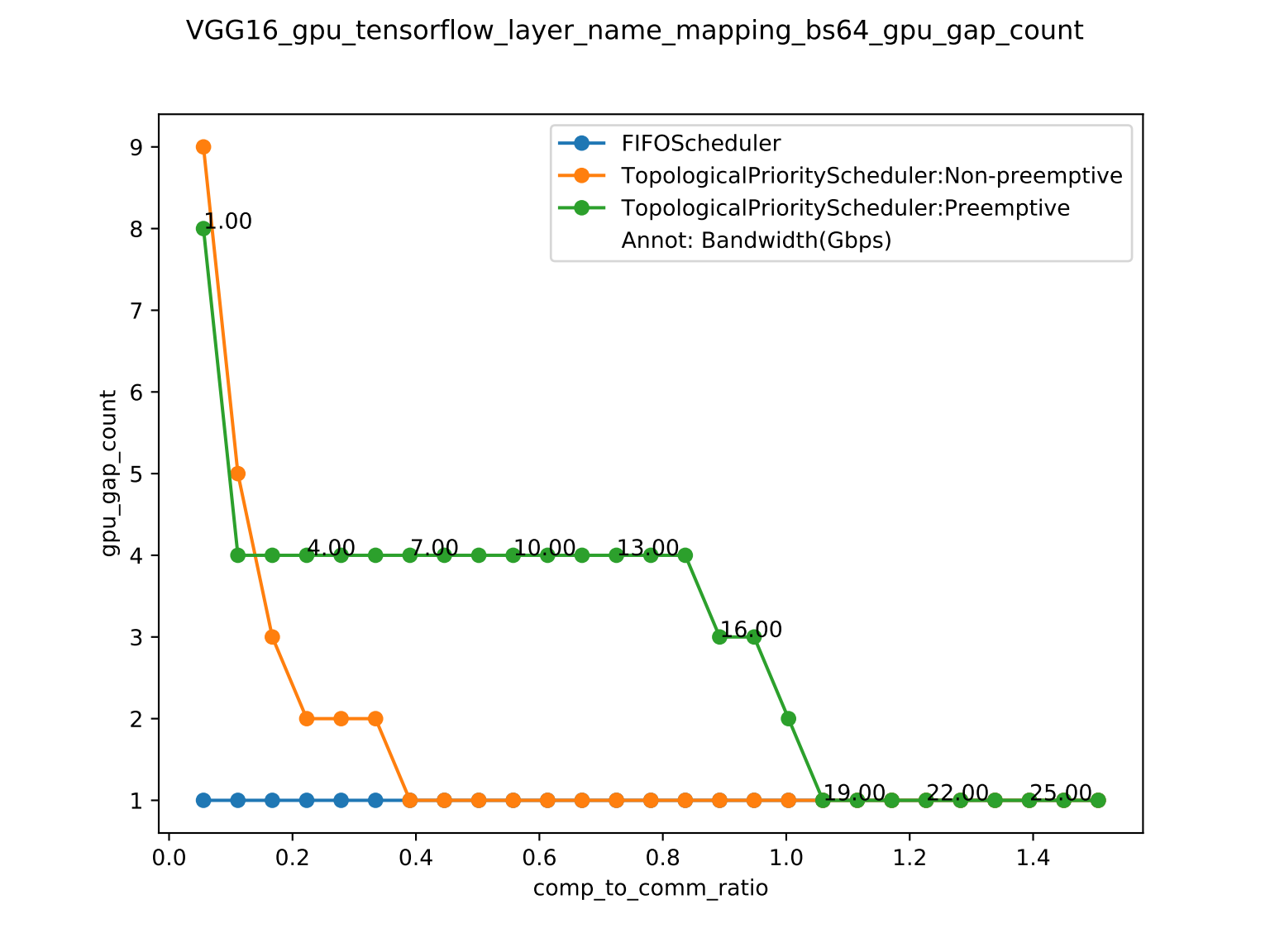
FIFOScheduler
TopologicalPriorityScheduler:Non-preemptive
TopologicalPriorityScheduler:Preemptive
Annot: sim_index


VGG16_gpu_tensorflow_layer_name_mapping_bs64_gpu_gap_count
FIFOScheduler
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TopologicalPriorityScheduler:Preemptive
Annot: Bandwidth(Gbps)
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4.00
7.00
10.00
13.00
16.00
19.00
22.00
25.00
gpu_gap_count
comp_to_comm_ratio
0.0
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0.4
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1.2
1.4
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2
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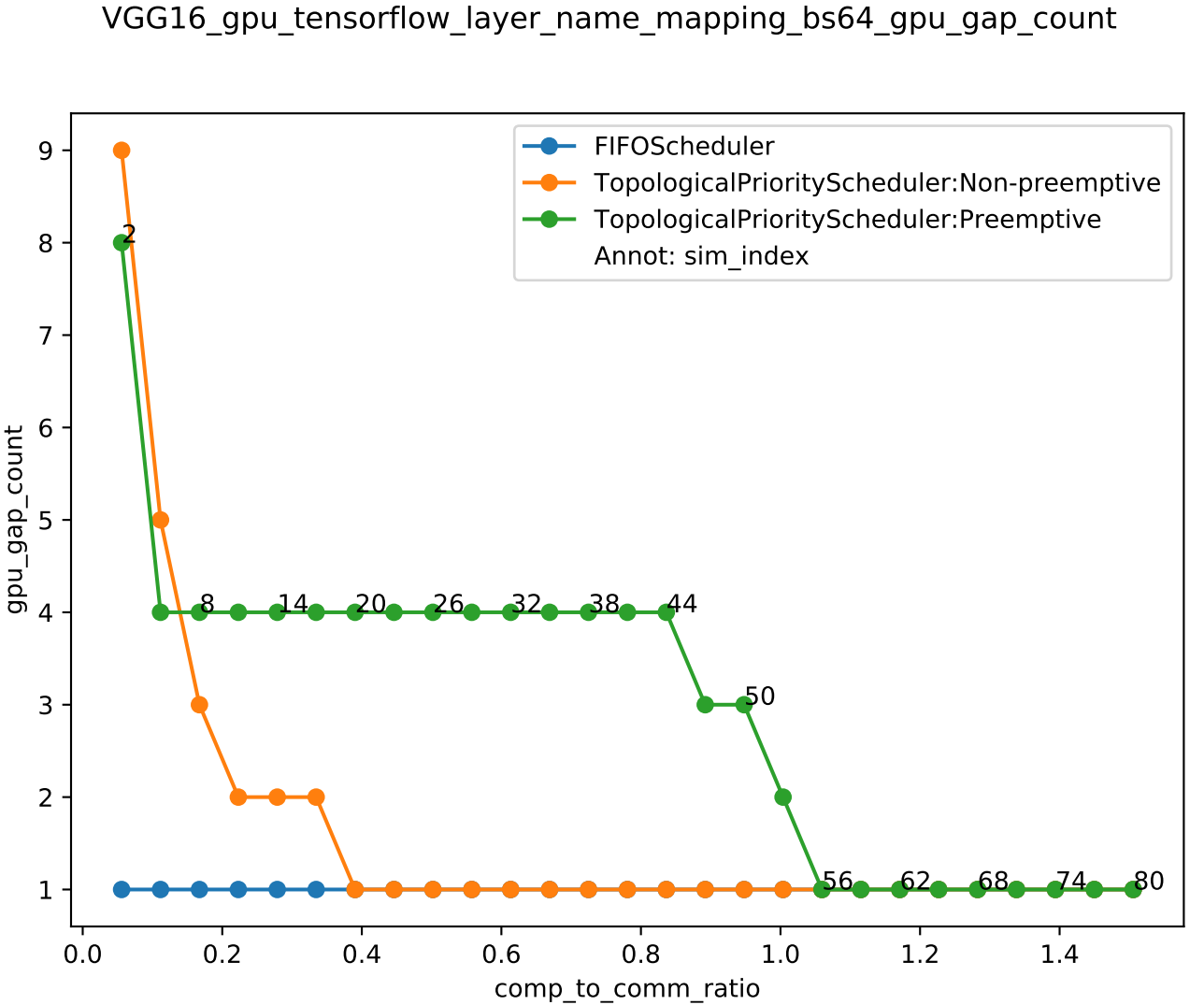
9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TopologicalPriorityScheduler:Preemptive
Annot: sim_index
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comp_to_comm_ratio
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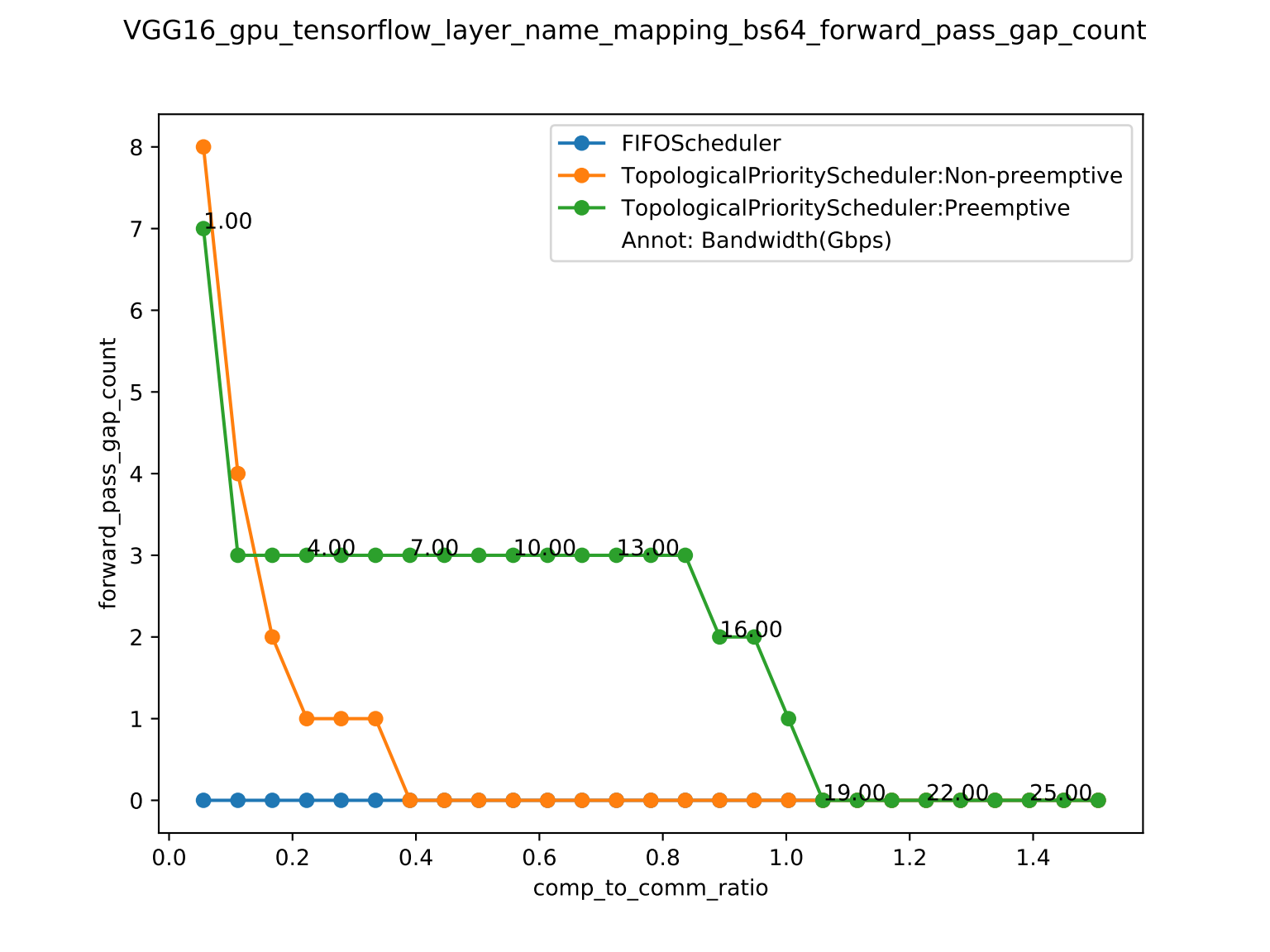
VGG16_gpu_tensorflow_layer_name_mapping_bs64_forward_pass_gap_count
FIFOScheduler
TopologicalPriorityScheduler:Non-preemptive
TopologicalPriorityScheduler:Preemptive
Annot: Bandwidth(Gbps)
1.00
4.00
7.00
10.00
13.00
16.00
19.00
22.00
25.00
forward_pass_gap_count
comp_to_comm_ratio
0
1
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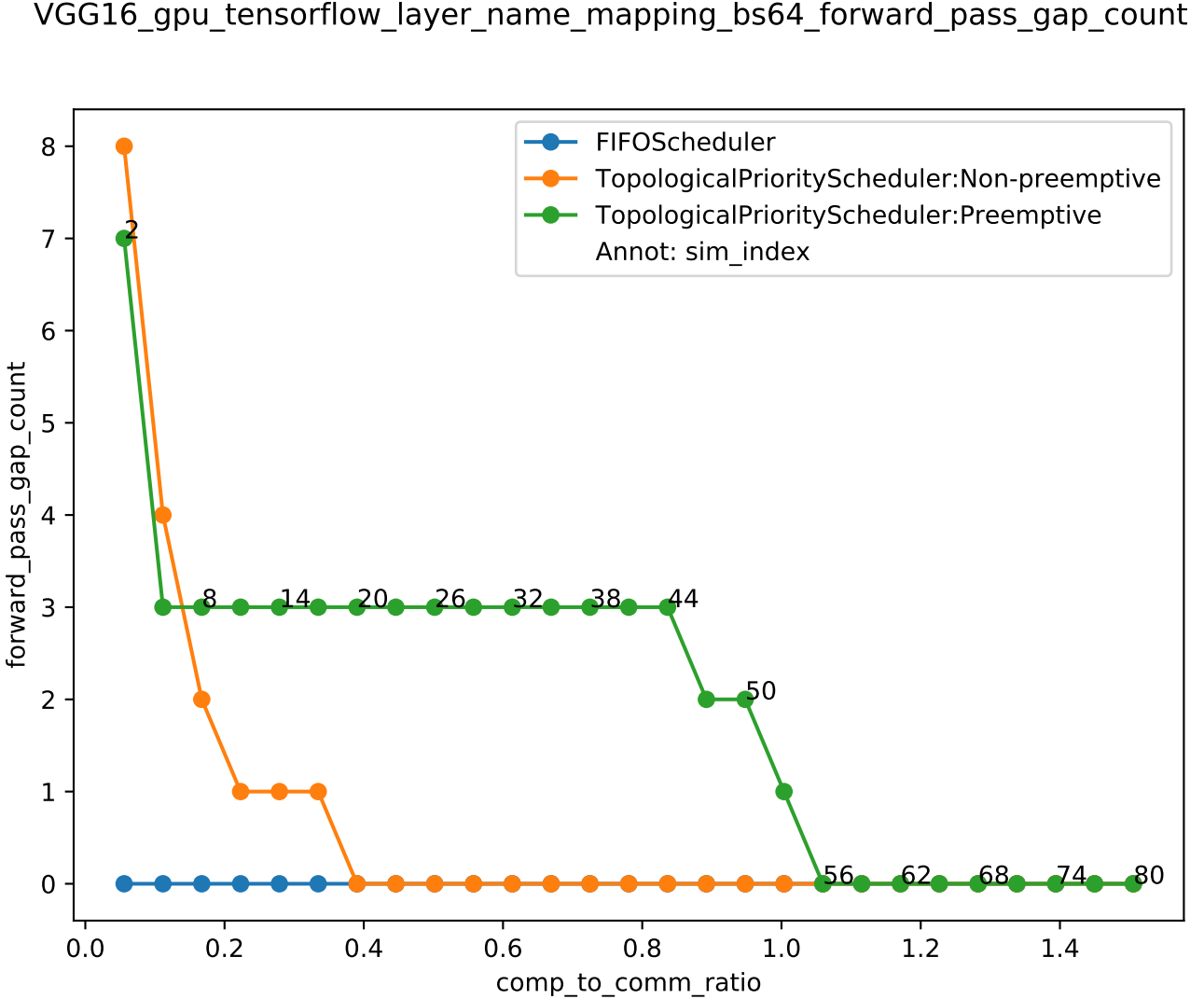
1.4


VGG16_gpu_tensorflow_layer_name_mapping_bs64_forward_pass_gap_count
FIFOScheduler
TopologicalPriorityScheduler:Non-preemptive
TopologicalPriorityScheduler:Preemptive
Annot: sim_index
forward_pass_gap_count
comp_to_comm_ratio
0
1
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3
4
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6
7
8
0.0
0.2
0.4
0.6
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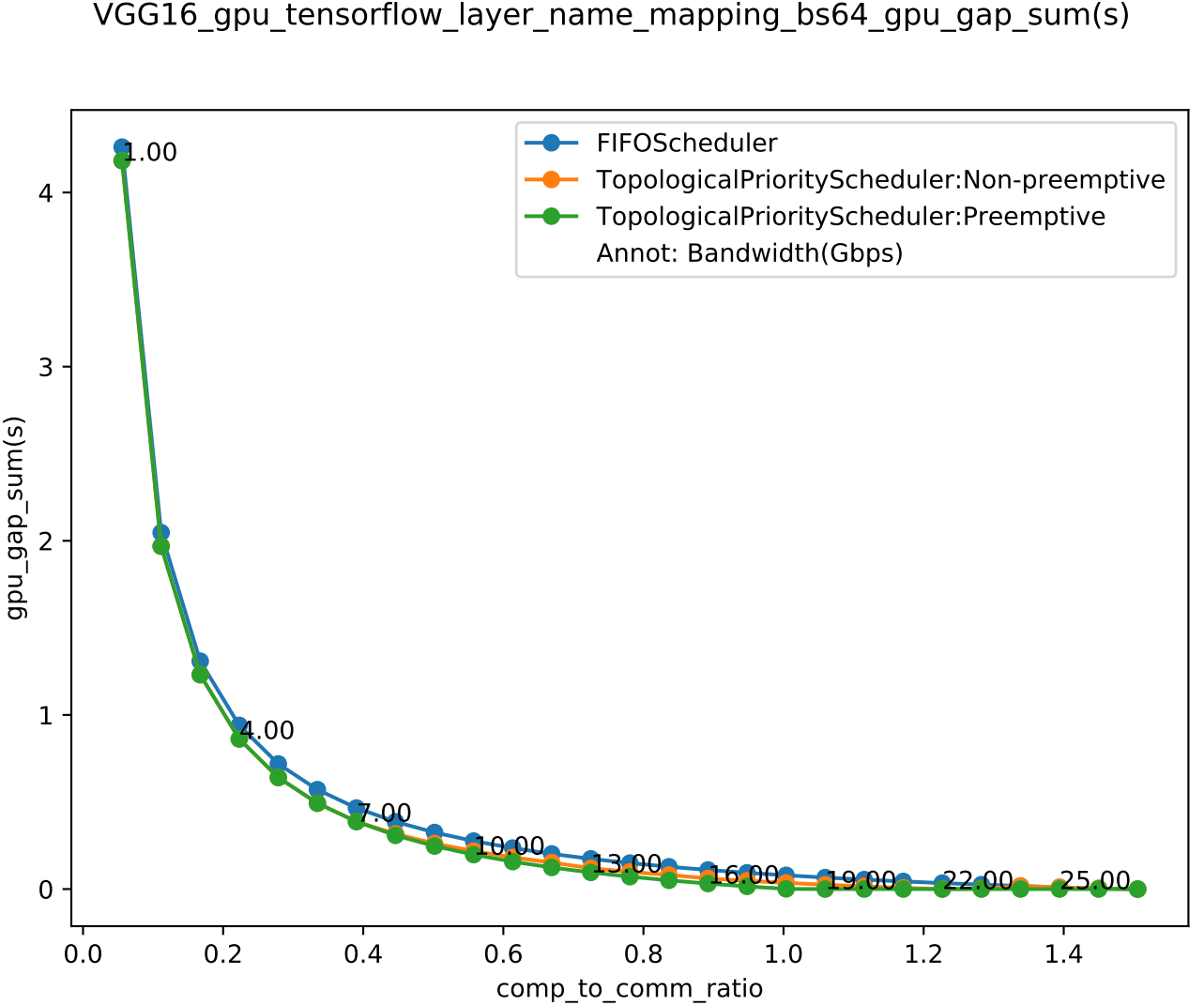
VGG16_gpu_tensorflow_layer_name_mapping_bs64_gpu_gap_sum(s)
FIFOScheduler
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TopologicalPriorityScheduler:Preemptive
Annot: Bandwidth(Gbps)
1.00
4.00
7.00
10.00
13.00
16.00
19.00
22.00
25.00
gpu_gap_sum(s)
comp_to_comm_ratio
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2
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4
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0.2
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0.6
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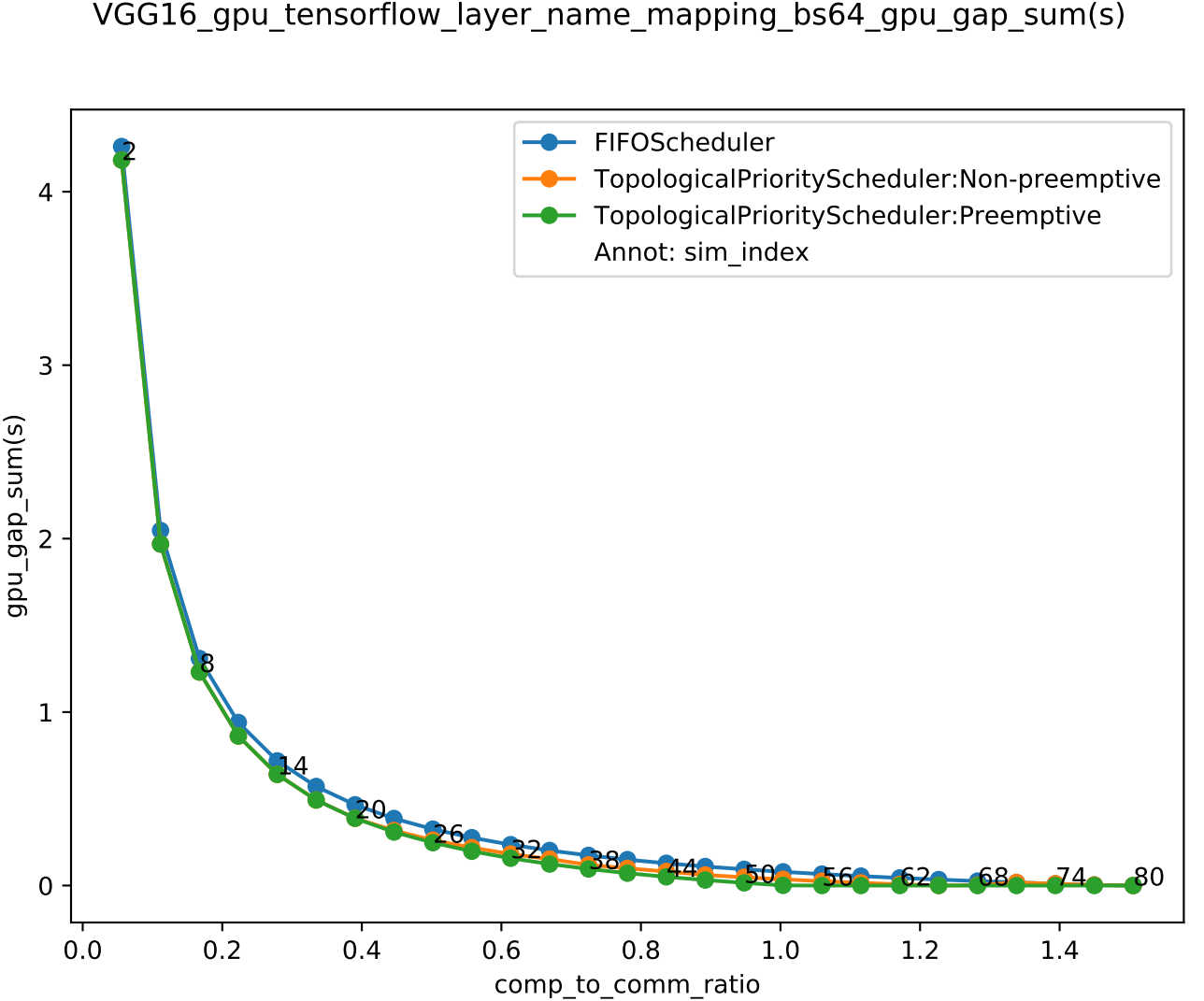
1.4


VGG16_gpu_tensorflow_layer_name_mapping_bs64_gpu_gap_sum(s)
FIFOScheduler
TopologicalPriorityScheduler:Non-preemptive
TopologicalPriorityScheduler:Preemptive
Annot: sim_index
gpu_gap_sum(s)
comp_to_comm_ratio
0
1
2
3
4
0.0
0.2
0.4
0.6
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1.4
2
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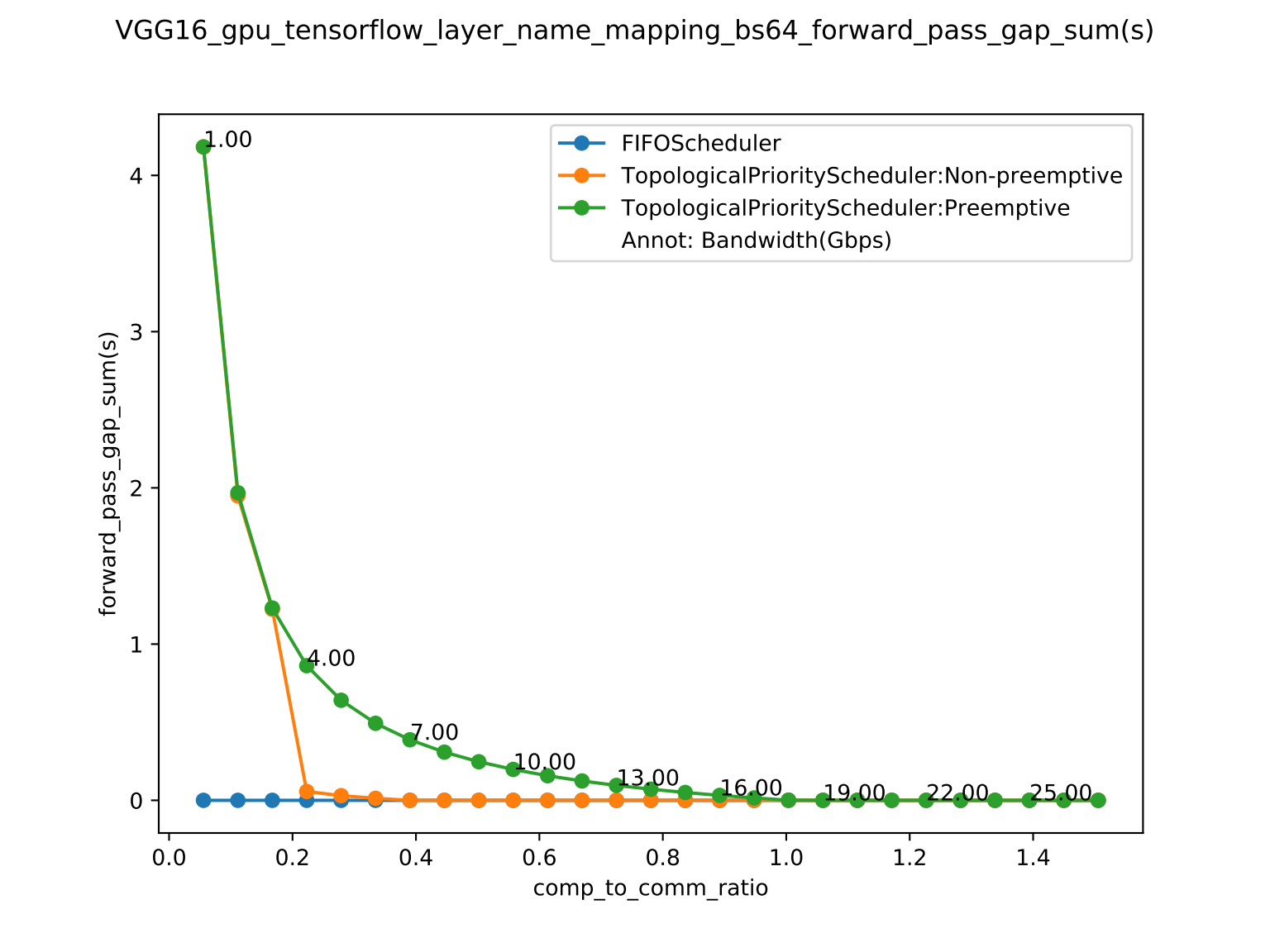
VGG16_gpu_tensorflow_layer_name_mapping_bs64_forward_pass_gap_sum(s)
FIFOScheduler
TopologicalPriorityScheduler:Non-preemptive
TopologicalPriorityScheduler:Preemptive
Annot: Bandwidth(Gbps)
1.00
4.00
7.00
10.00
13.00
16.00
19.00
22.00
25.00
forward_pass_gap_sum(s)
comp_to_comm_ratio
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4
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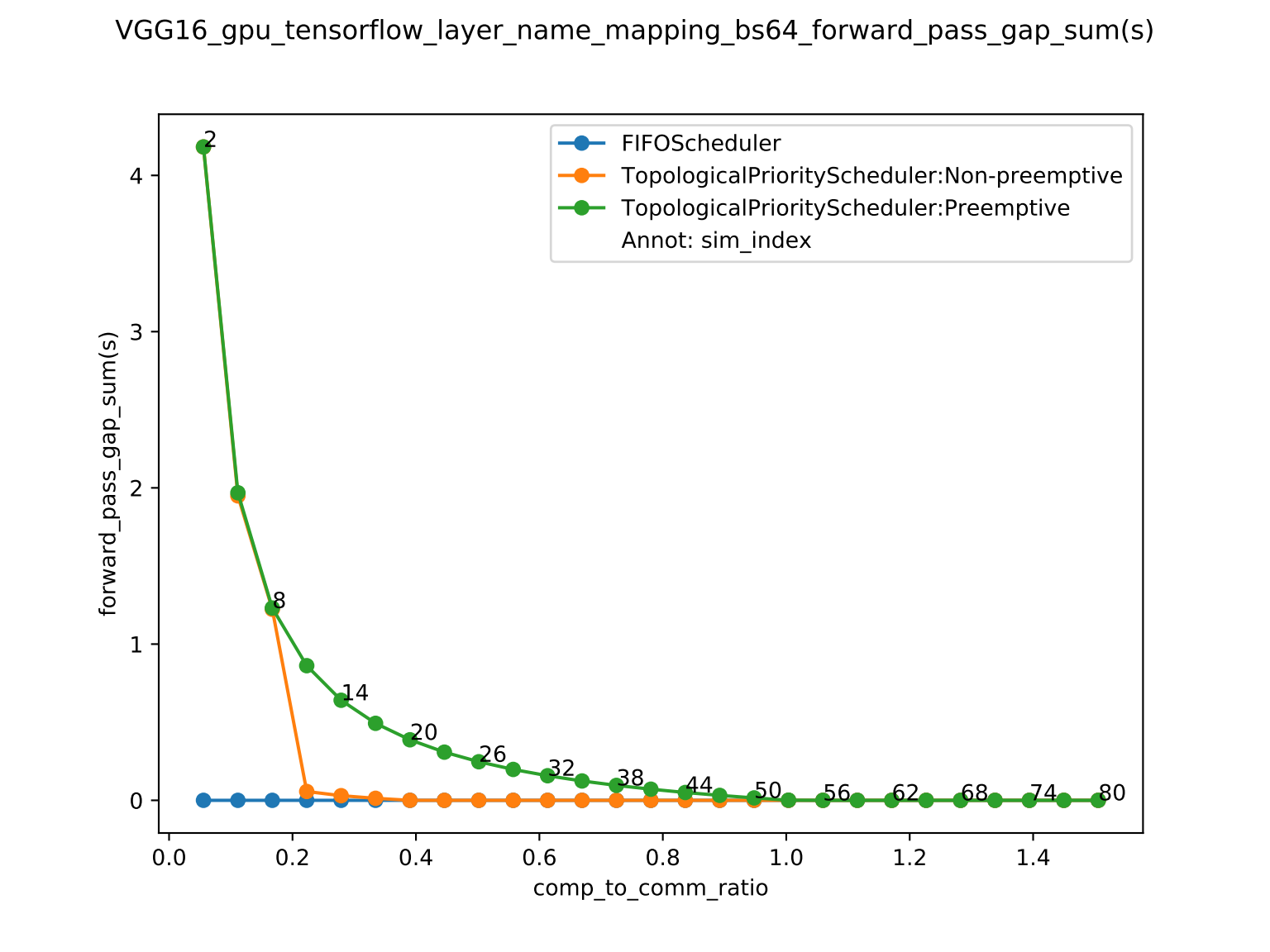
VGG16_gpu_tensorflow_layer_name_mapping_bs64_forward_pass_gap_sum(s)
FIFOScheduler
TopologicalPriorityScheduler:Non-preemptive
TopologicalPriorityScheduler:Preemptive
Annot: sim_index
forward_pass_gap_sum(s)
comp_to_comm_ratio
0
1
2
3
4
0.0
0.2
0.4
0.6
0.8
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1.4
2
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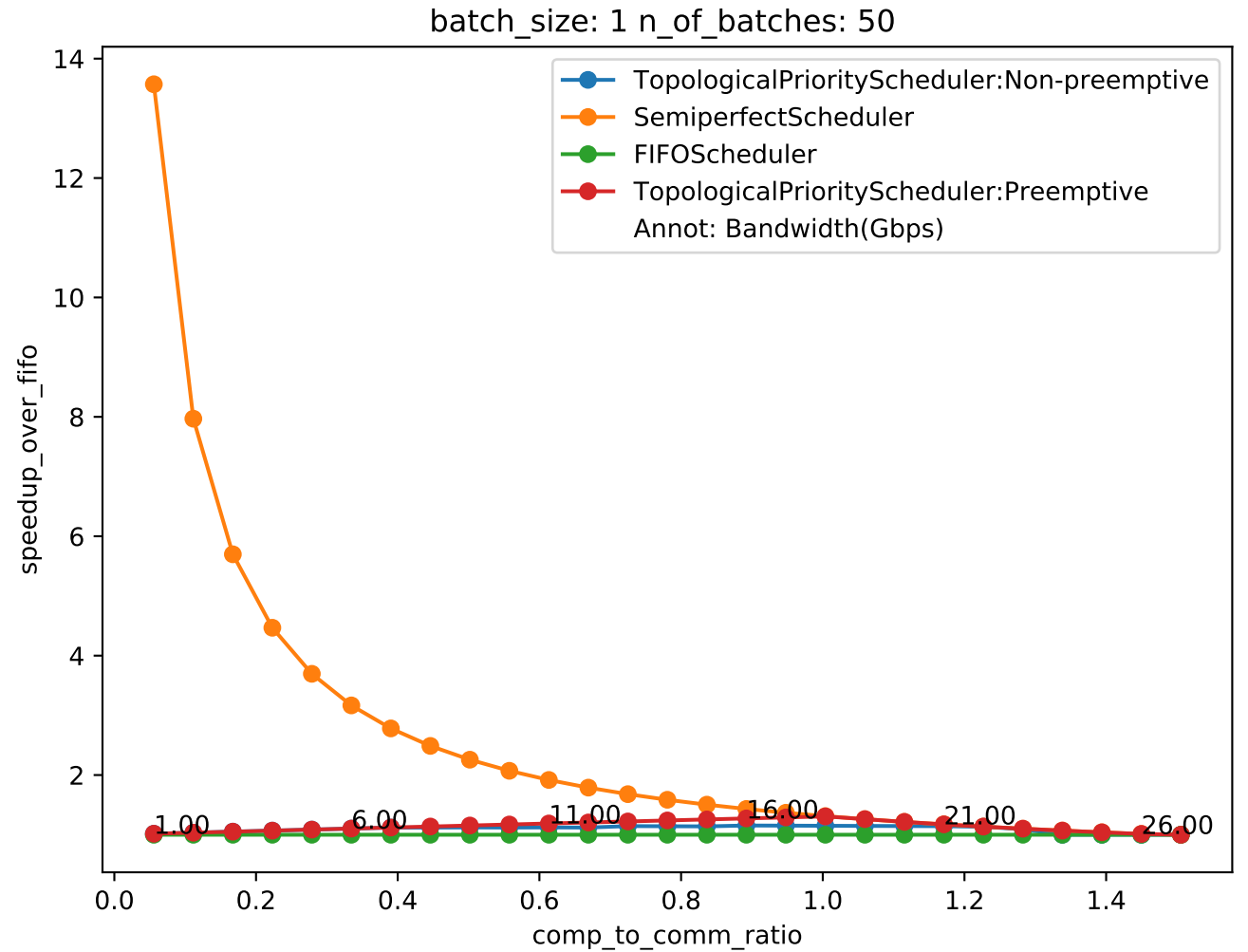
VGG16_gpu_tensorflow_layer_name_mapping_bs64_speedup_over_fifo_hypothetical
batch_size: 1 n_of_batches: 50
TopologicalPriorityScheduler:Non-preemptive
SemiperfectScheduler
FIFOScheduler
TopologicalPriorityScheduler:Preemptive
Annot: Bandwidth(Gbps)
1.00
6.00
11.00
16.00
21.00
26.00
speedup_over_fifo
comp_to_comm_ratio
0.0
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0.4
0.6
0.8
1.0
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1.4
2
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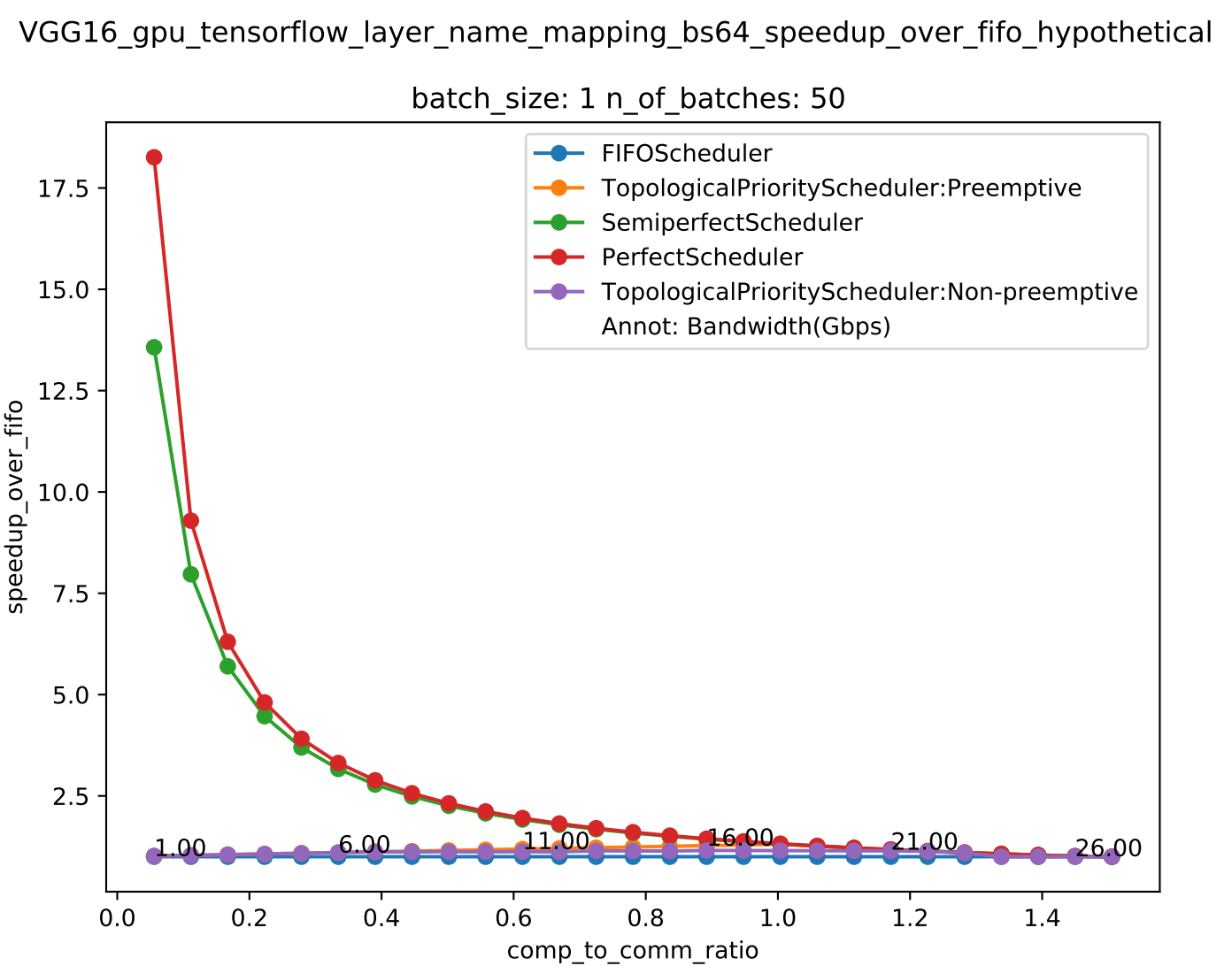
14


VGG16_gpu_tensorflow_layer_name_mapping_bs64_speedup_over_fifo_hypothetical
batch_size: 1 n_of_batches: 50
FIFOScheduler
TopologicalPriorityScheduler:Preemptive
SemiperfectScheduler
PerfectScheduler
TopologicalPriorityScheduler:Non-preemptive
Annot: Bandwidth(Gbps)
speedup_over_fifo
comp_to_comm_ratio
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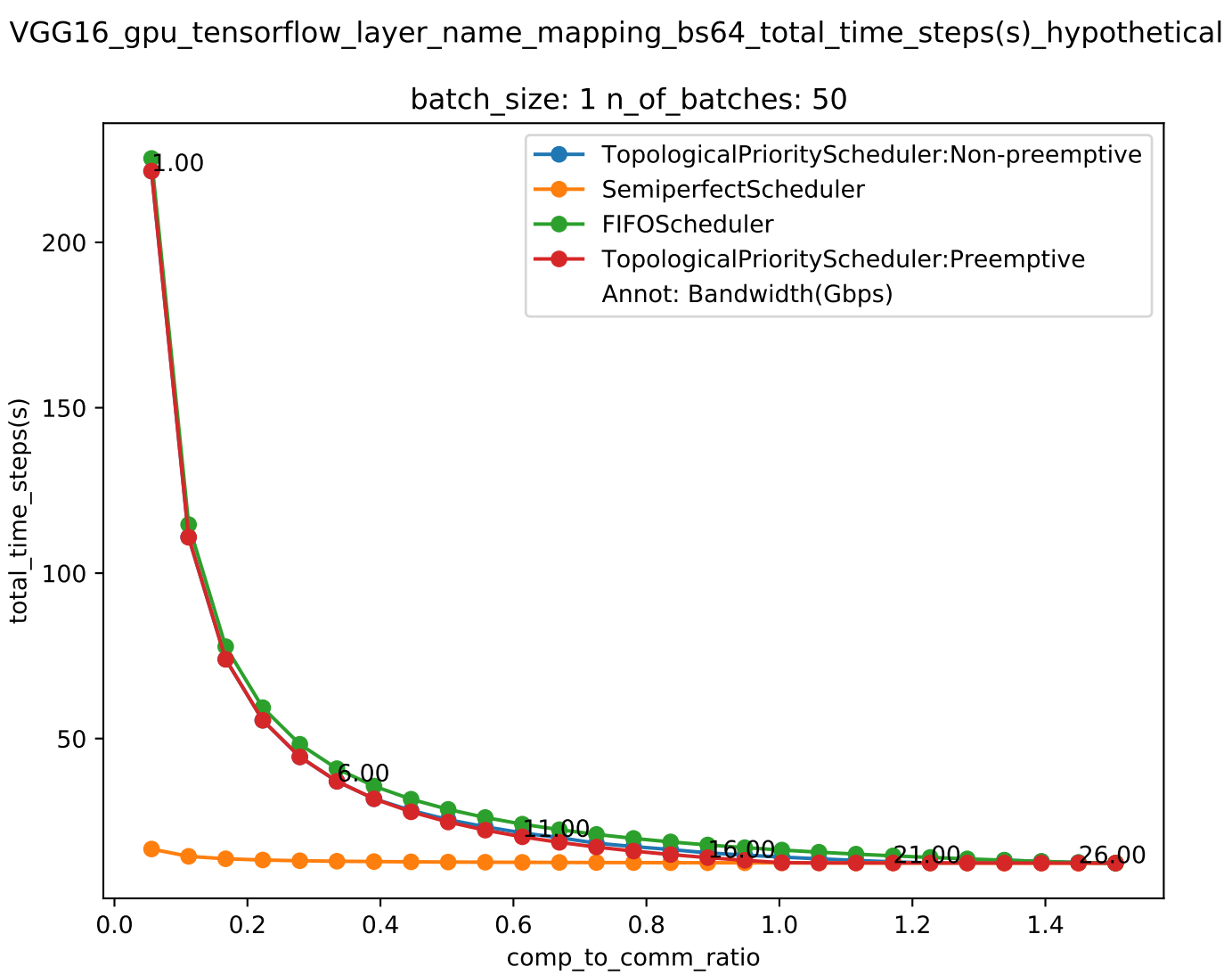
6.00
11.00
16.00
21.00
26.00


VGG16_gpu_tensorflow_layer_name_mapping_bs64_total_time_steps(s)_hypothetical
batch_size: 1 n_of_batches: 50
TopologicalPriorityScheduler:Non-preemptive
SemiperfectScheduler
FIFOScheduler
TopologicalPriorityScheduler:Preemptive
Annot: Bandwidth(Gbps)
1.00
6.00
11.00
16.00
21.00
26.00
total_time_steps(s)
comp_to_comm_ratio
200
150
100
50
0.0
0.2
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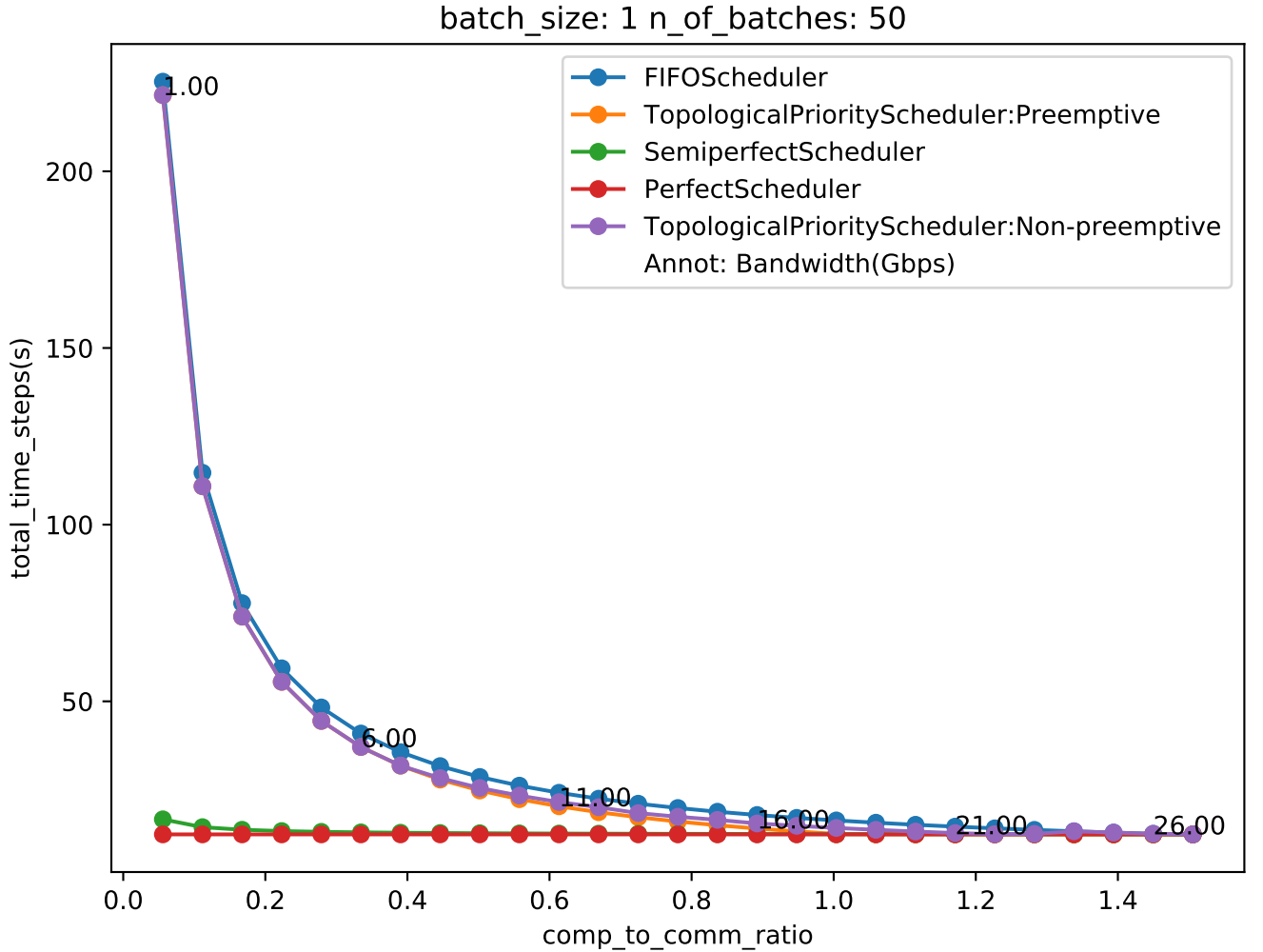
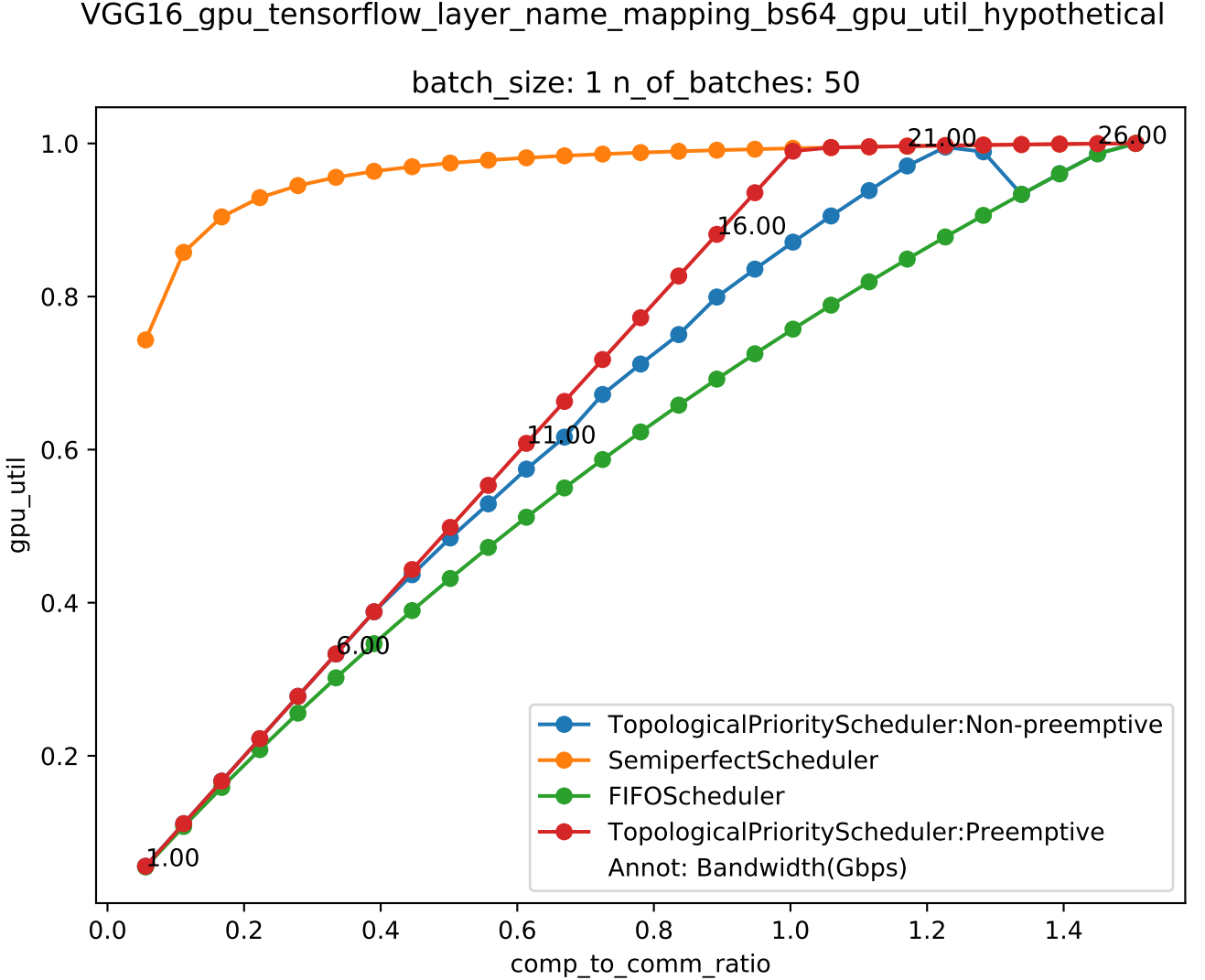
1.0
1.2
1.4

VGG16_gpu_tensorflow_layer_name_mapping_bs64_total_time_steps(s)_hypothetical




VGG16_gpu_tensorflow_layer_name_mapping_bs64_gpu_util_hypothetical
batch_size: 1 n_of_batches: 50
gpu_util
comp_to_comm_ratio
1.00
6.00
11.00
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26.00
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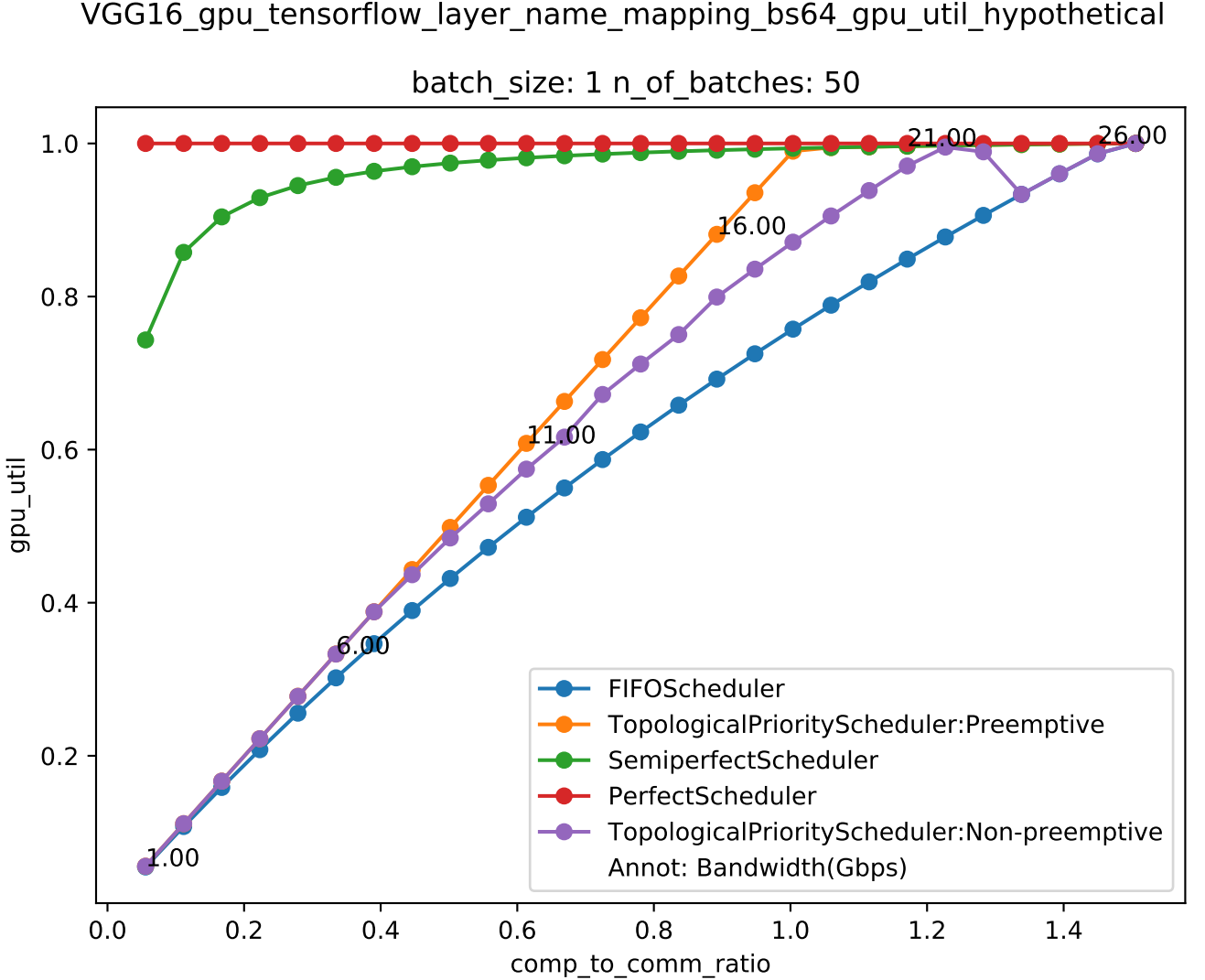
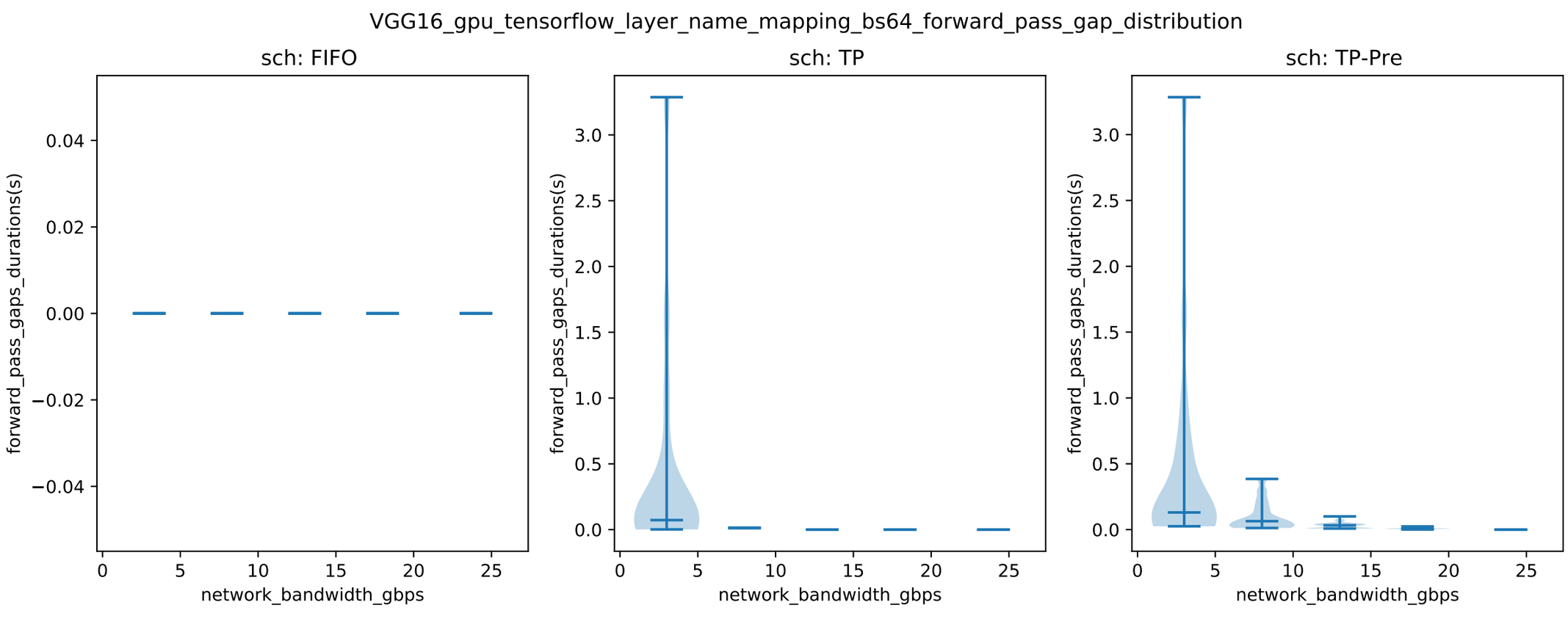
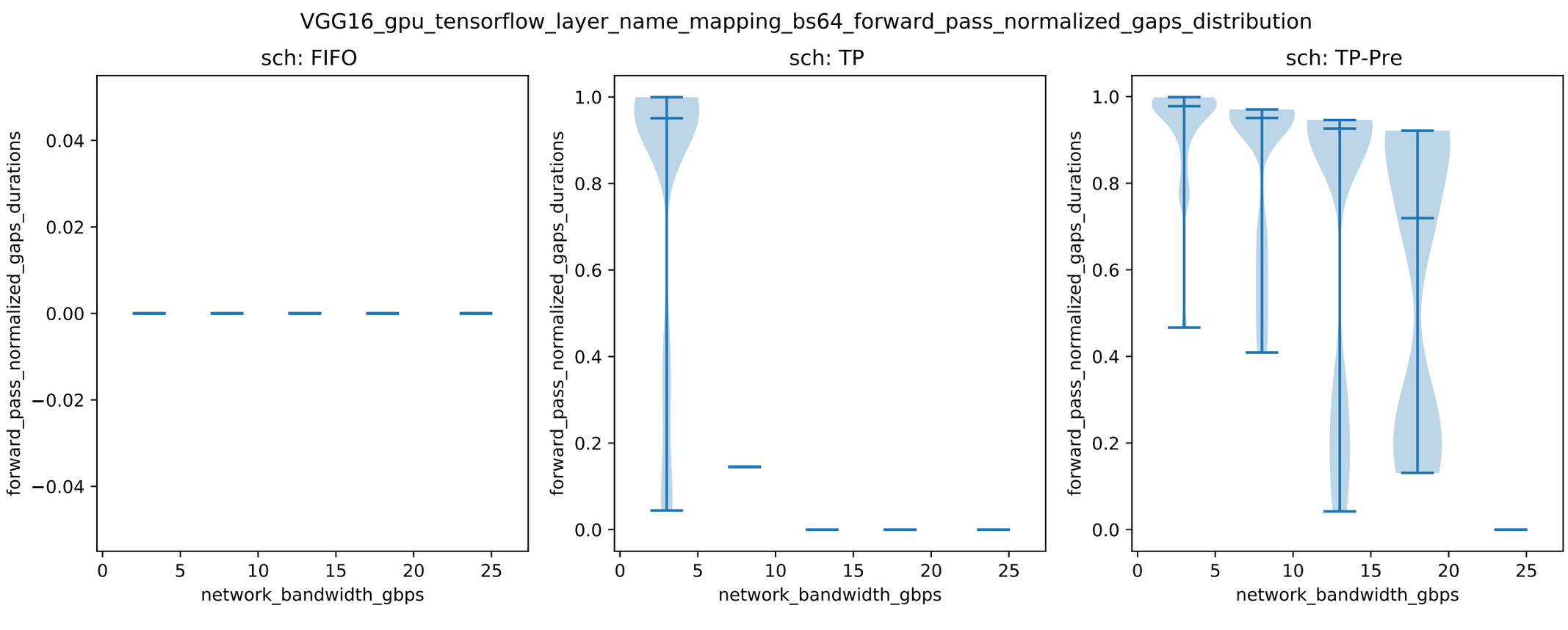
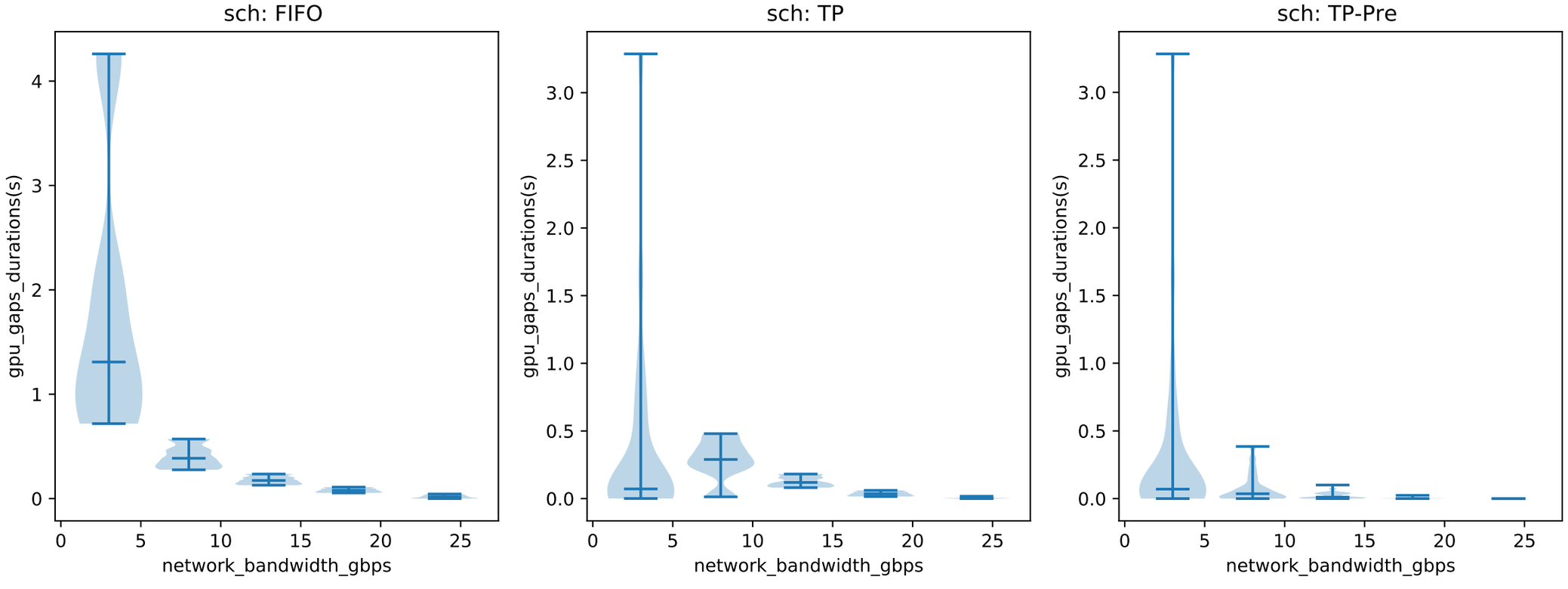
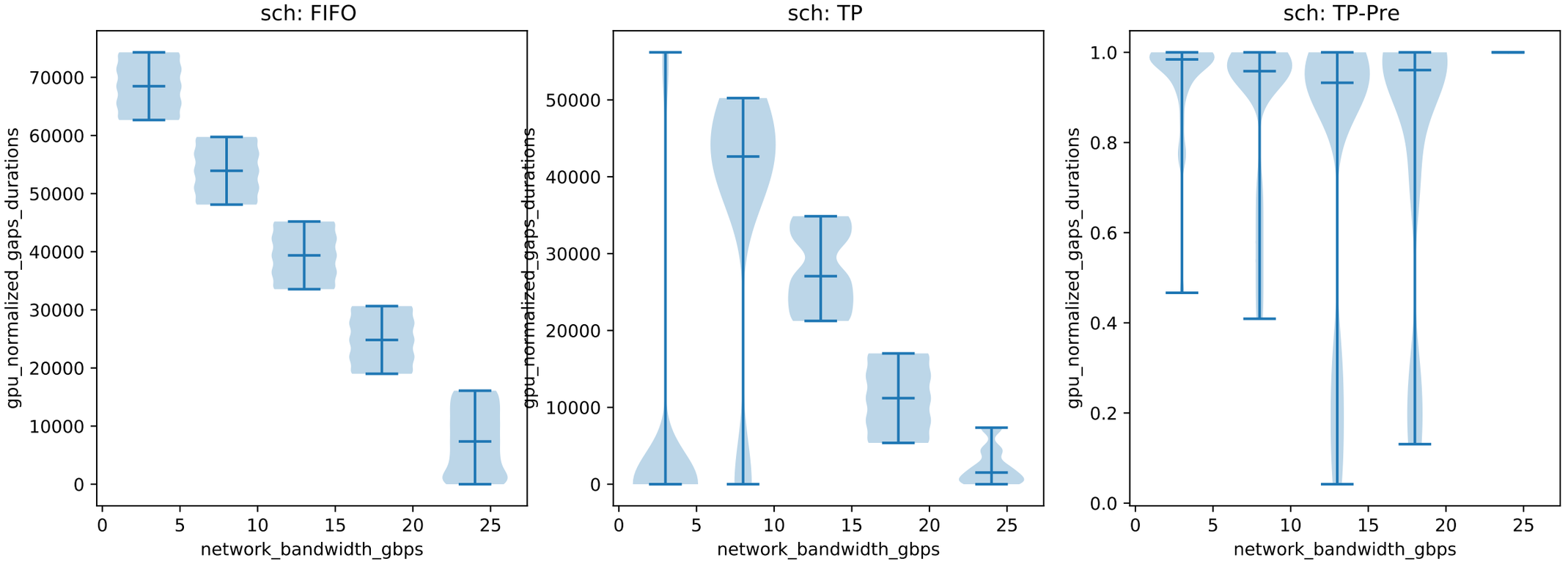
SemiperfectScheduler
FIFOScheduler
TopologicalPriorityScheduler:Preemptive
Annot: Bandwidth(Gbps)


VGG16_gpu_tensorflow_layer_name_mapping_bs64_gpu_util_hypothetical
batch_size: 1 n_of_batches: 50
gpu_util
comp_to_comm_ratio
1.00
6.00
11.00
16.00
21.00
26.00
FIFOScheduler
TopologicalPriorityScheduler:Preemptive
SemiperfectScheduler
PerfectScheduler
TopologicalPriorityScheduler:Non-preemptive
Annot: Bandwidth(Gbps)


VGG16_gpu_tensorflow_layer_name_mapping_bs64_forward_pass_gap_distribution
sch: FIFO
sch: TP
sch: TP-Pre
forward_pass_gaps_durations(s)
network_bandwidth_gbps
0.04
0.02
0.00
−0.02
−0.04
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
5
10
15
20
25


VGG16_gpu_tensorflow_layer_name_mapping_bs64_forward_pass_normalized_gaps_distribution
sch: FIFO
sch: TP
sch: TP-Pre
forward_pass_normalized_gaps_durations
network_bandwidth_gbps
0.04
0.02
0.00
−0.02
−0.04
1.0
0.8
0.6
0.4
0.2
0.0
0
5
10
15
20
25


VGG16_gpu_tensorflow_layer_name_mapping_bs64_gpu_gap_distribution
sch: FIFO
sch: TP
sch: TP-Pre
gpu_gaps_durations(s)
network_bandwidth_gbps
0
5
10
15
20
25
0
1
2
3
4
0.0
0.5
1.0
1.5
2.0
2.5
3.0


VGG16_gpu_tensorflow_layer_name_mapping_bs64_gpu_normalized_gaps_distribution
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sch: TP
sch: TP-Pre
gpu_normalized_gaps_durations
network_bandwidth_gbps
0
10000
20000
30000
40000
50000
60000
70000
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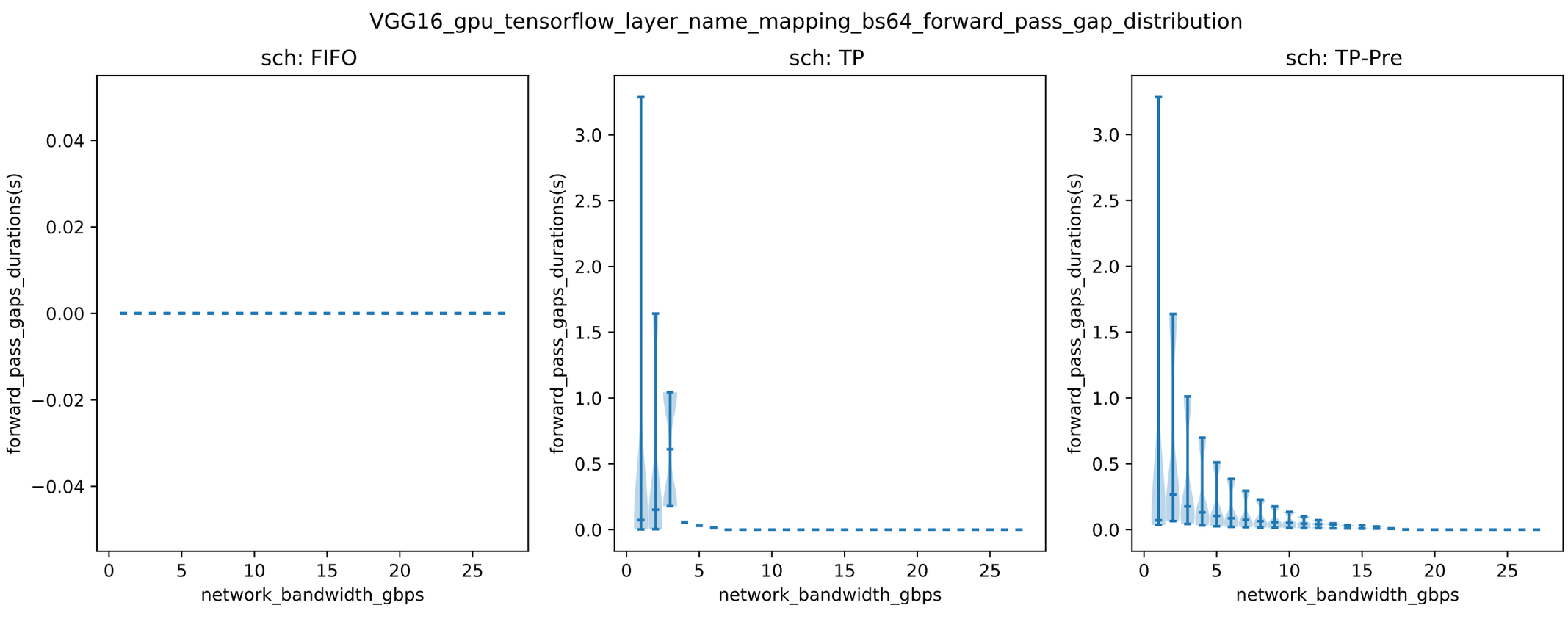
0.2
0.4
0.6
0.8
1.0
0
5
10
15
20
25


VGG16_gpu_tensorflow_layer_name_mapping_bs64_forward_pass_gap_distribution
sch: FIFO
sch: TP
sch: TP-Pre
forward_pass_gaps_durations(s)
network_bandwidth_gbps
0.04
0.02
0.00
−0.02
−0.04
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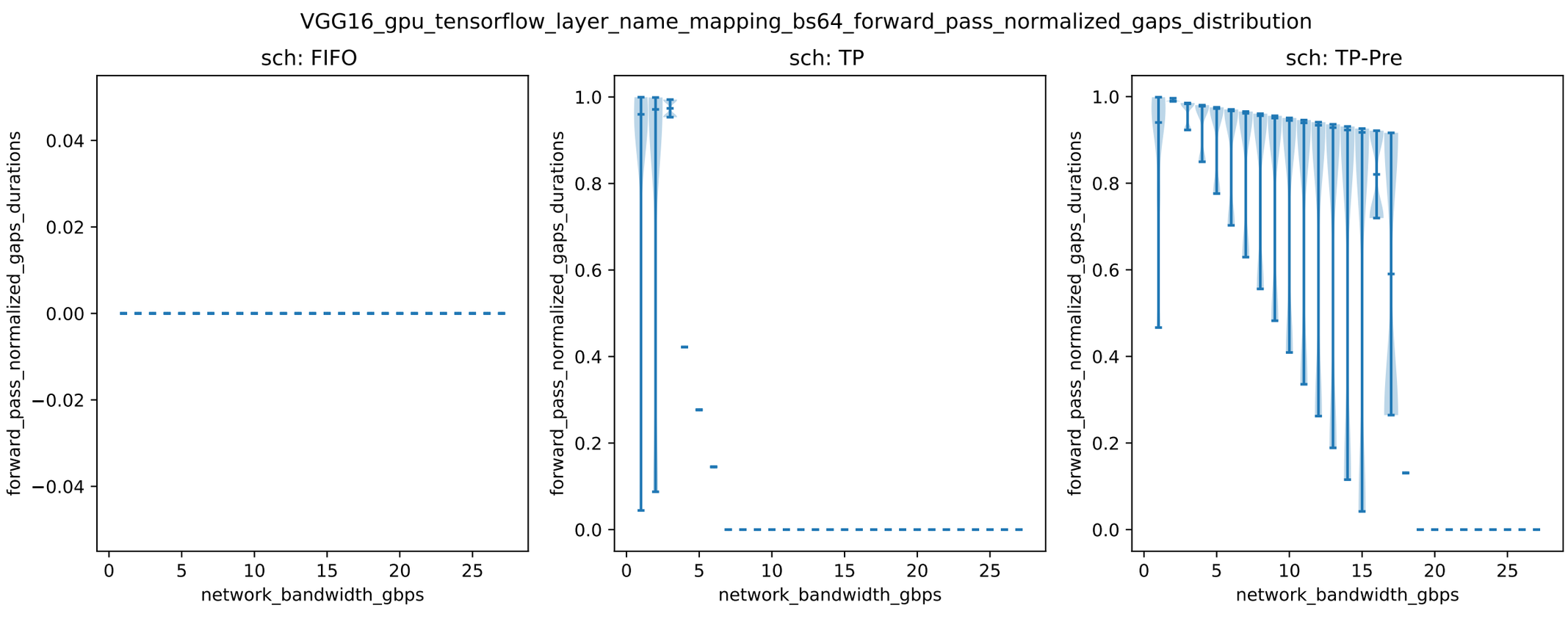
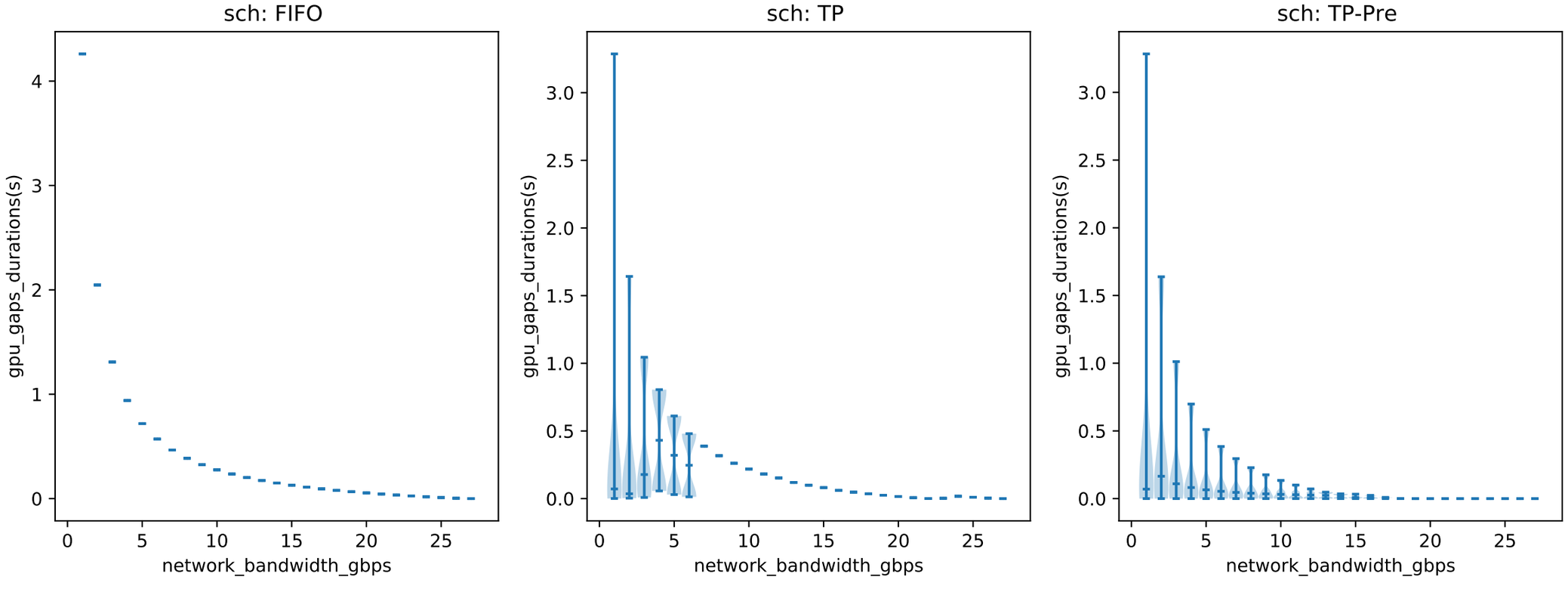
2.5
2.0
1.5
1.0
0.5
0.0
0
5
10
15
20
25


VGG16_gpu_tensorflow_layer_name_mapping_bs64_forward_pass_normalized_gaps_distribution
sch: FIFO
sch: TP
sch: TP-Pre
forward_pass_normalized_gaps_durations
network_bandwidth_gbps
0.04
0.02
0.00
−0.02
−0.04
1.0
0.8
0.6
0.4
0.2
0.0
0
5
10
15
20
25


VGG16_gpu_tensorflow_layer_name_mapping_bs64_gpu_gap_distribution
sch: FIFO
sch: TP
sch: TP-Pre
gpu_gaps_durations(s)
network_bandwidth_gbps
0
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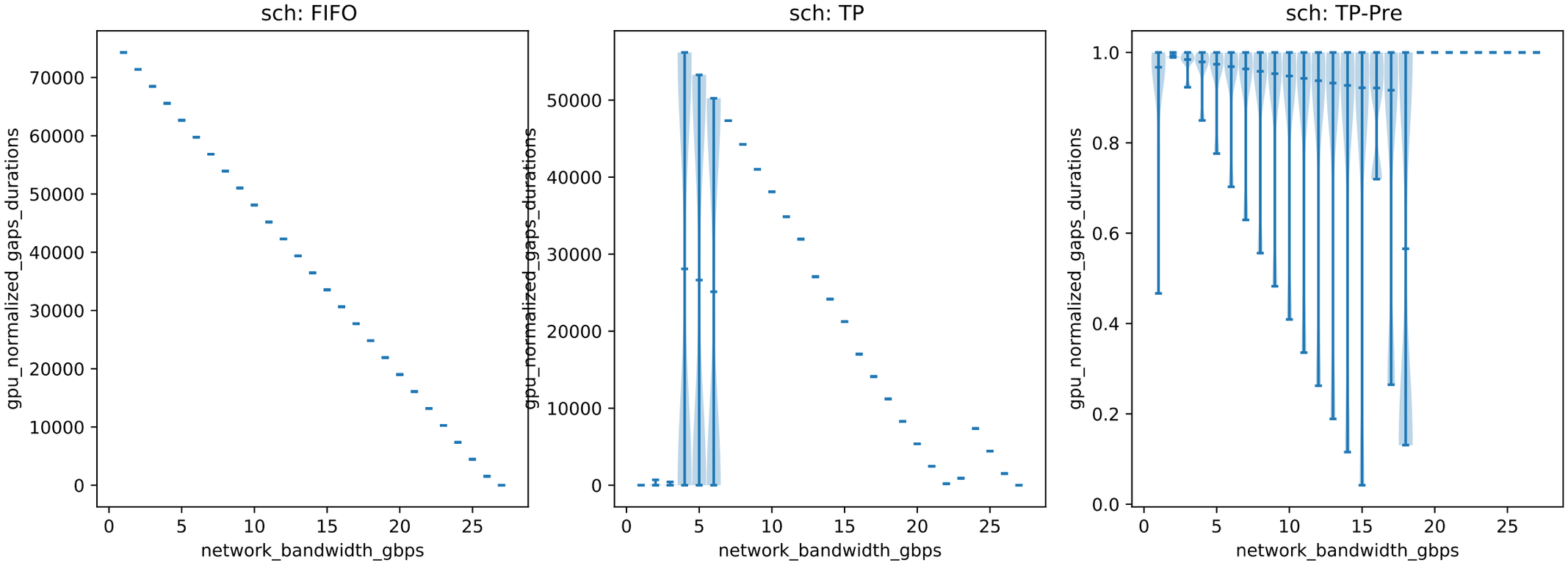
10
15
20
25
0.0
0.5
1.0
1.5
2.0
2.5
3.0
4


VGG16_gpu_tensorflow_layer_name_mapping_bs64_gpu_normalized_gaps_distribution
sch: FIFO
sch: TP
sch: TP-Pre
gpu_normalized_gaps_durations
network_bandwidth_gbps
0
10000
20000
30000
40000
50000
60000
70000
0.0
0.2
0.4
0.6
0.8
1.0
0
5
10
15
20
25