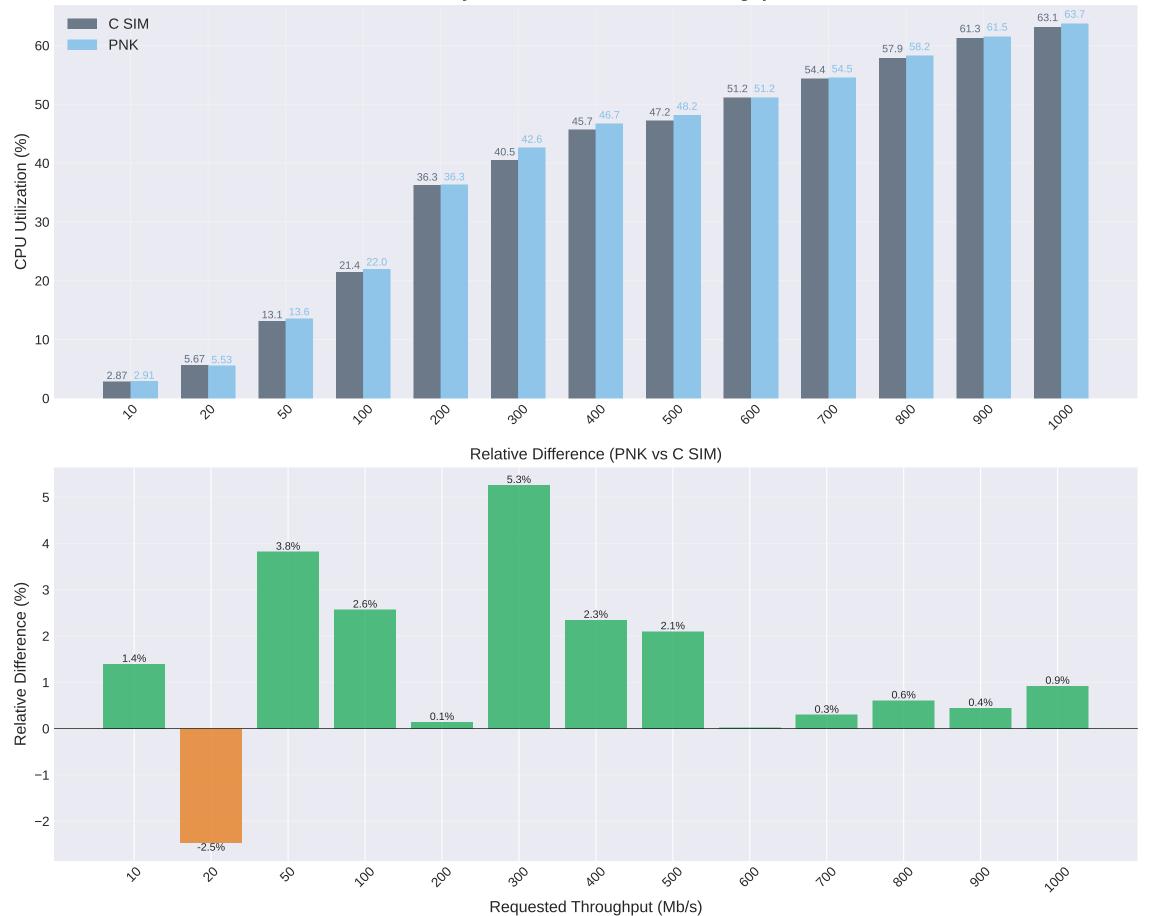
Instructions per Second vs Throughput 0.66 0.7 0.66 0.66 C SIM PNK 0.6 0.57 0.56 Instructions per Second (Billions) 0.52 0.52 0.52 0.51 0.50 0.51 0.50 0.51 0.51 0.51 0.51 0.51 0.50 0.50 0.50 0.49 0.49 0.34 0.33 0.1 0.0 200 200 300 400 400 600 100 800 900 2000 20 20 B Relative Difference (PNK vs C SIM) 2.4% 0 -0.8% -0.8% -1.0% -1.3% -1.1% -1.8% -2.0% -3.5% -5 Relative Difference (%) -25 -30 -33.0% 200 200 300 400 600 100 900 30 20 SO NO Requested Throughput (Mb/s)

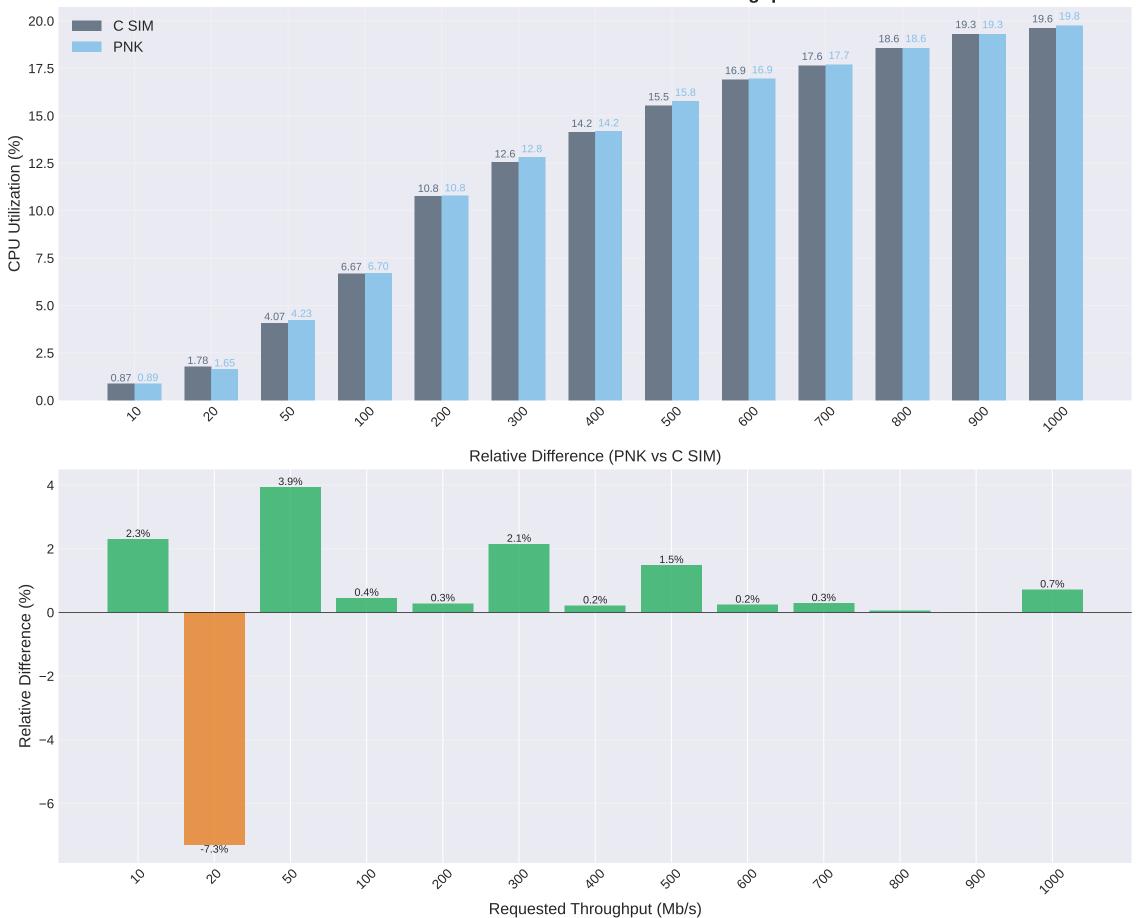
Received Throughput vs Requested with CPU Utilization Overlay 1000 C SIM Recv Throughput 956.7957.0 100 PNK Recv Throughput C SIM CPU Util 900.0900.0 PNK CPU Util 800.0800.0 800 80 700.0700.0 Received Throughput (Mb/s) 63.7% 61.5% 600.0600.0 600 CPU Utilization (%) 58.2% 54.5% 51.2% 500.0500.0 400 300.0300.0 200.0200.0 200 20 100.0100.0 50.0 50.0 2.9% 20.0 20 0 900 200 NOO 400 2000 700 300 600 100 900 30 20 50

Requested Throughput (Mb/s)

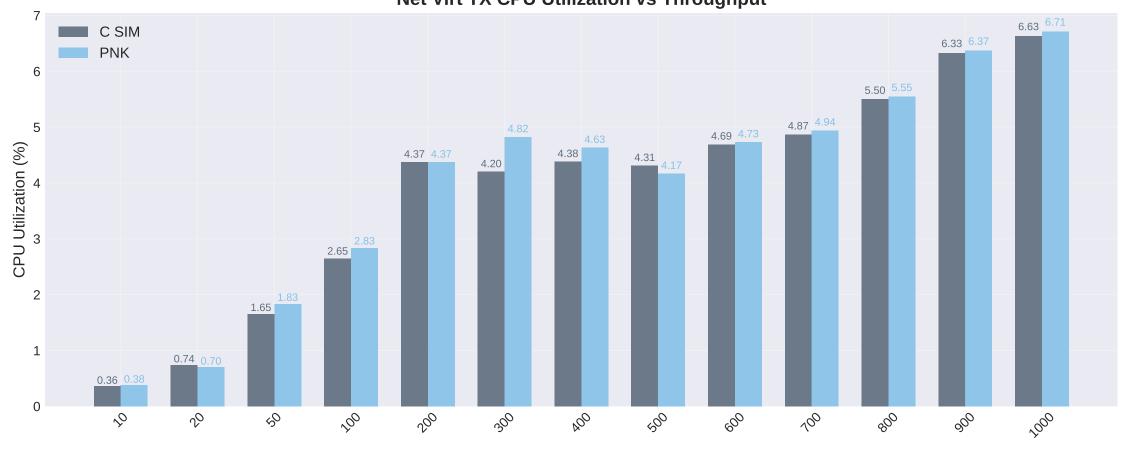
Total System CPU Utilization vs Throughput

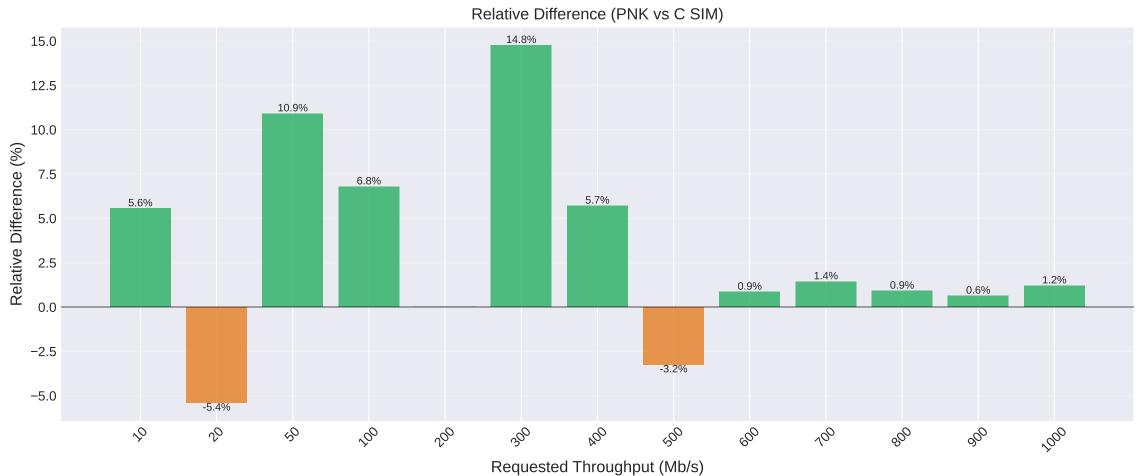


Ethernet Driver CPU Utilization vs Throughput

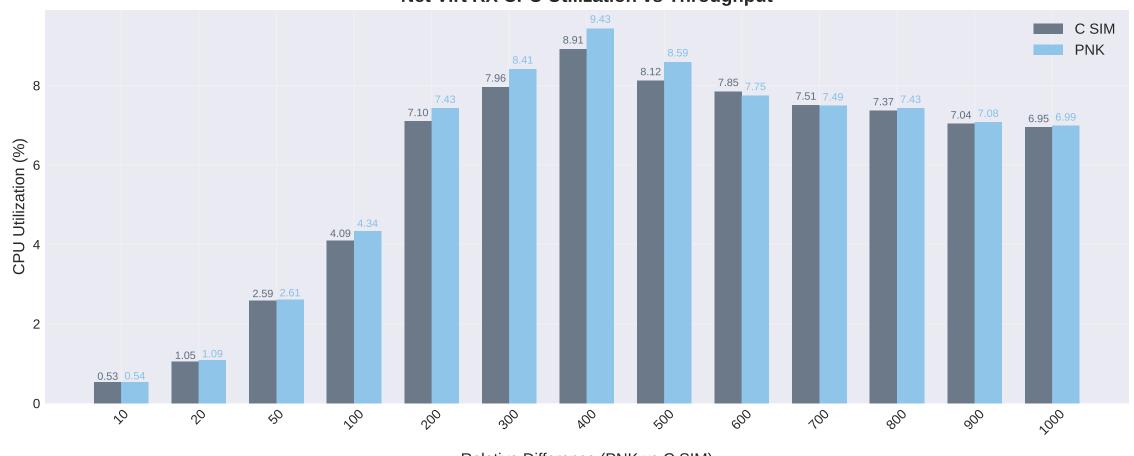


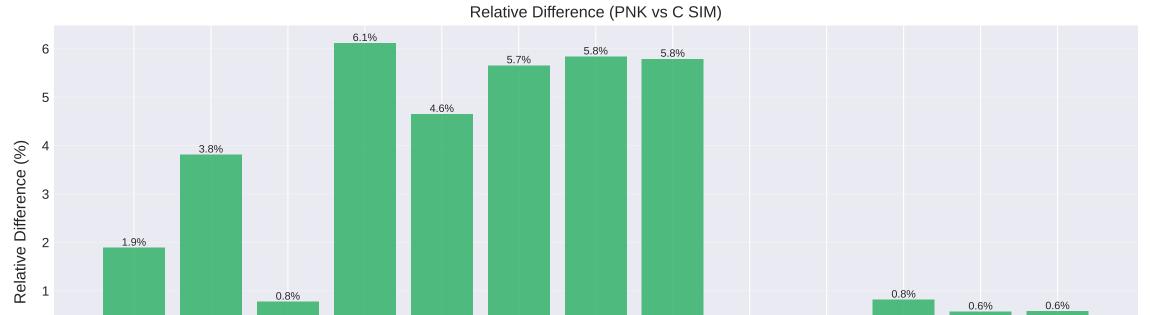
Net Virt TX CPU Utilization vs Throughput





Net Virt RX CPU Utilization vs Throughput





NO

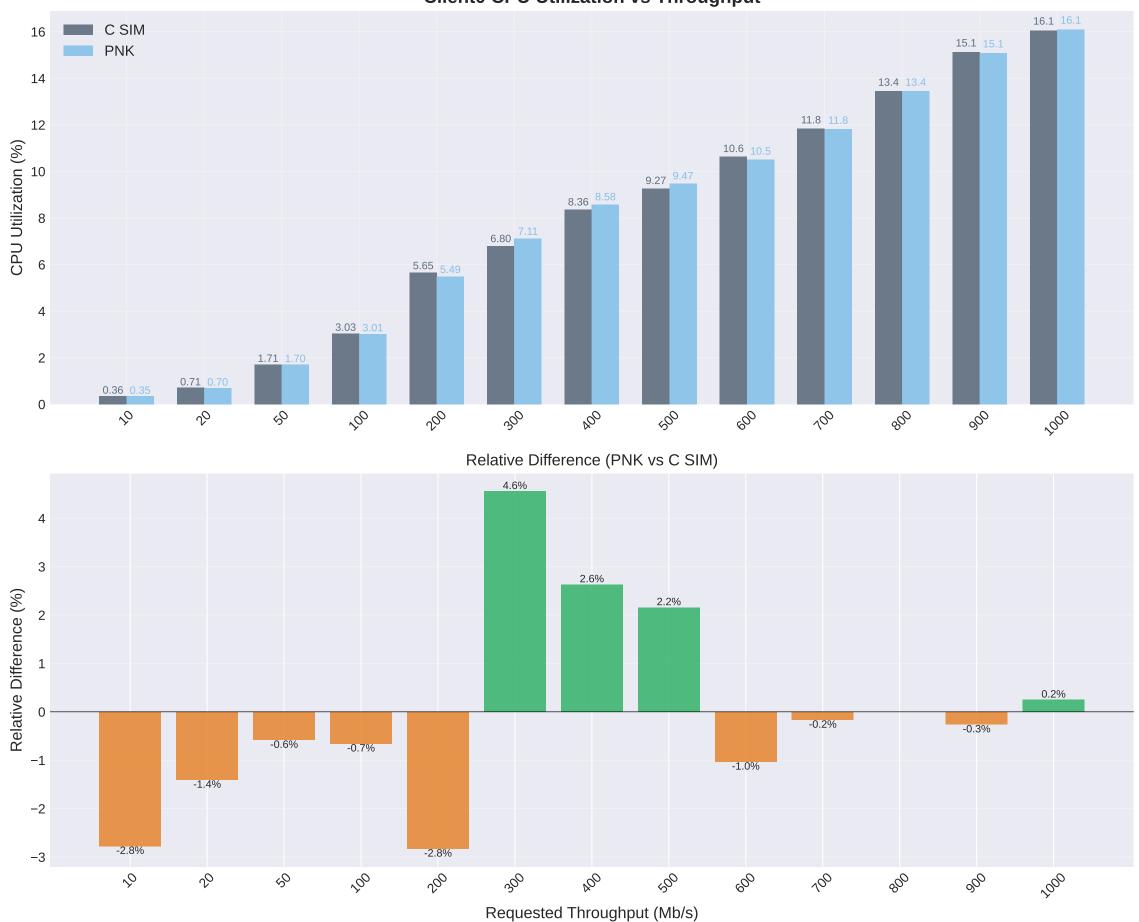
Requested Throughput (Mb/s)

-0.3%

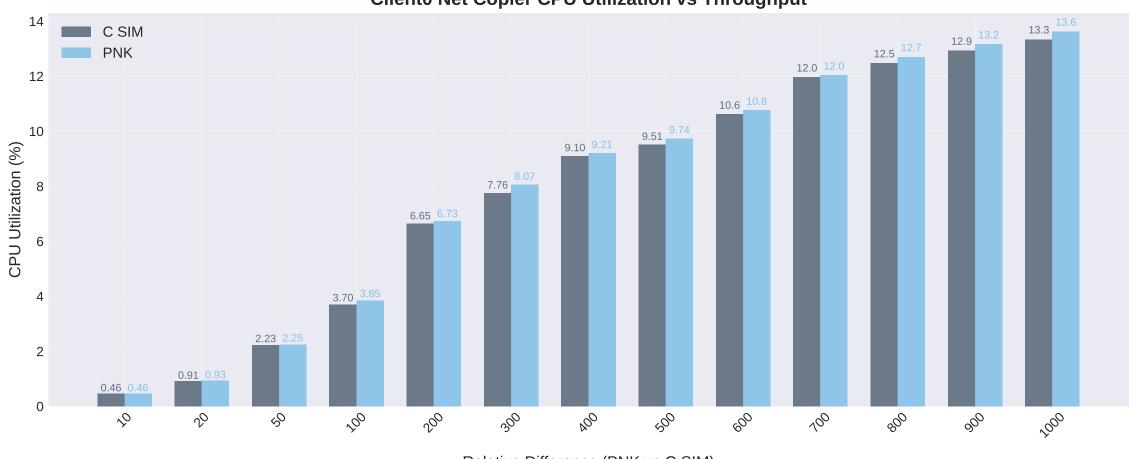
-1.3%

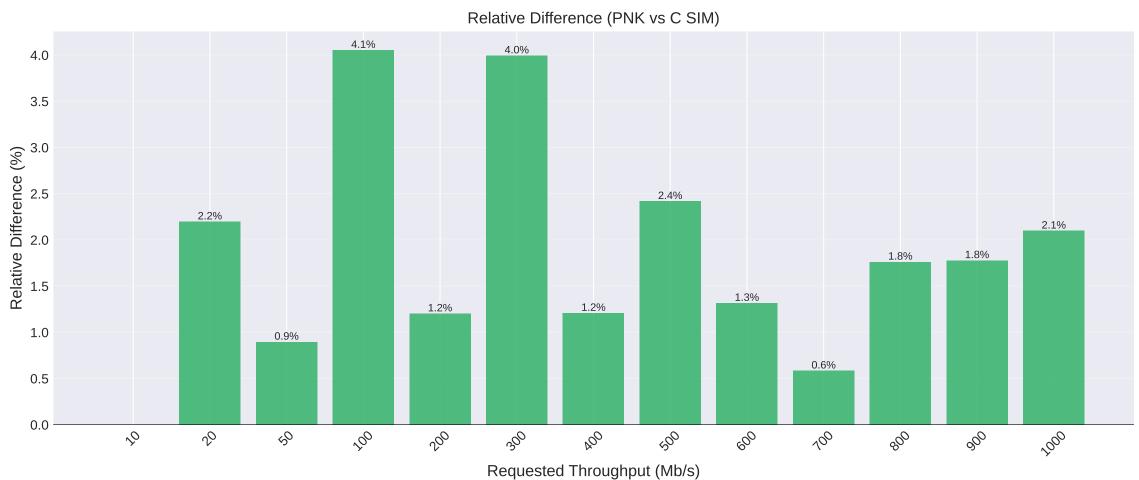
-1

Client0 CPU Utilization vs Throughput

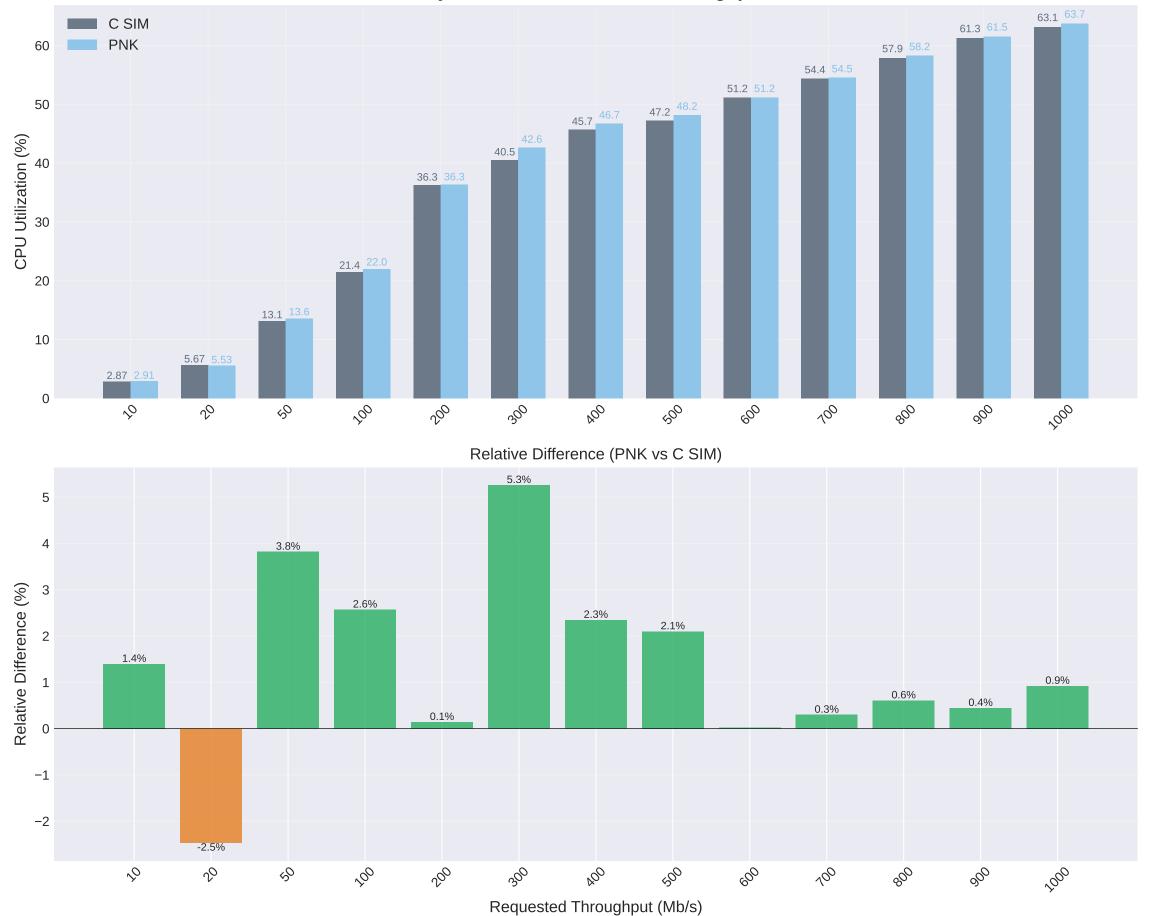


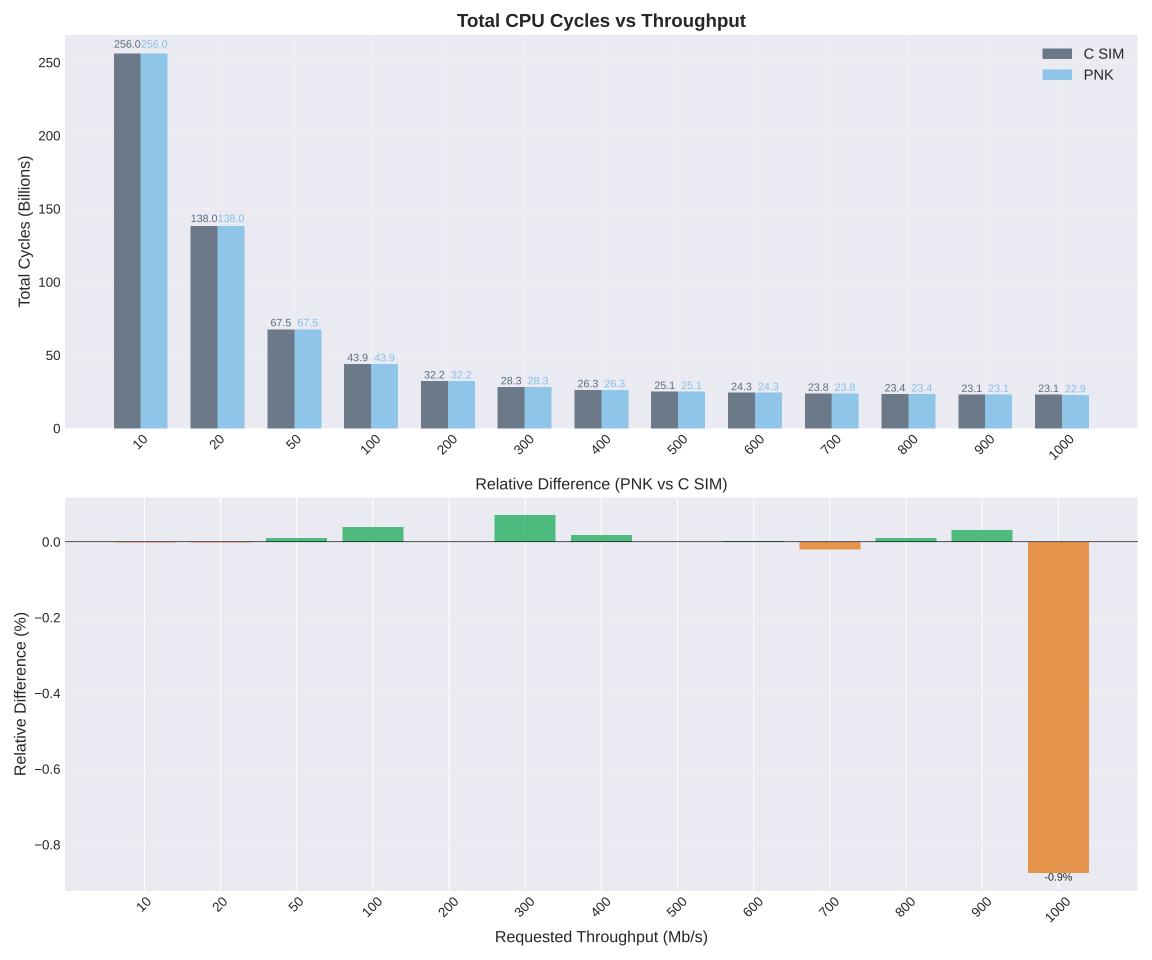
Client0 Net Copier CPU Utilization vs Throughput





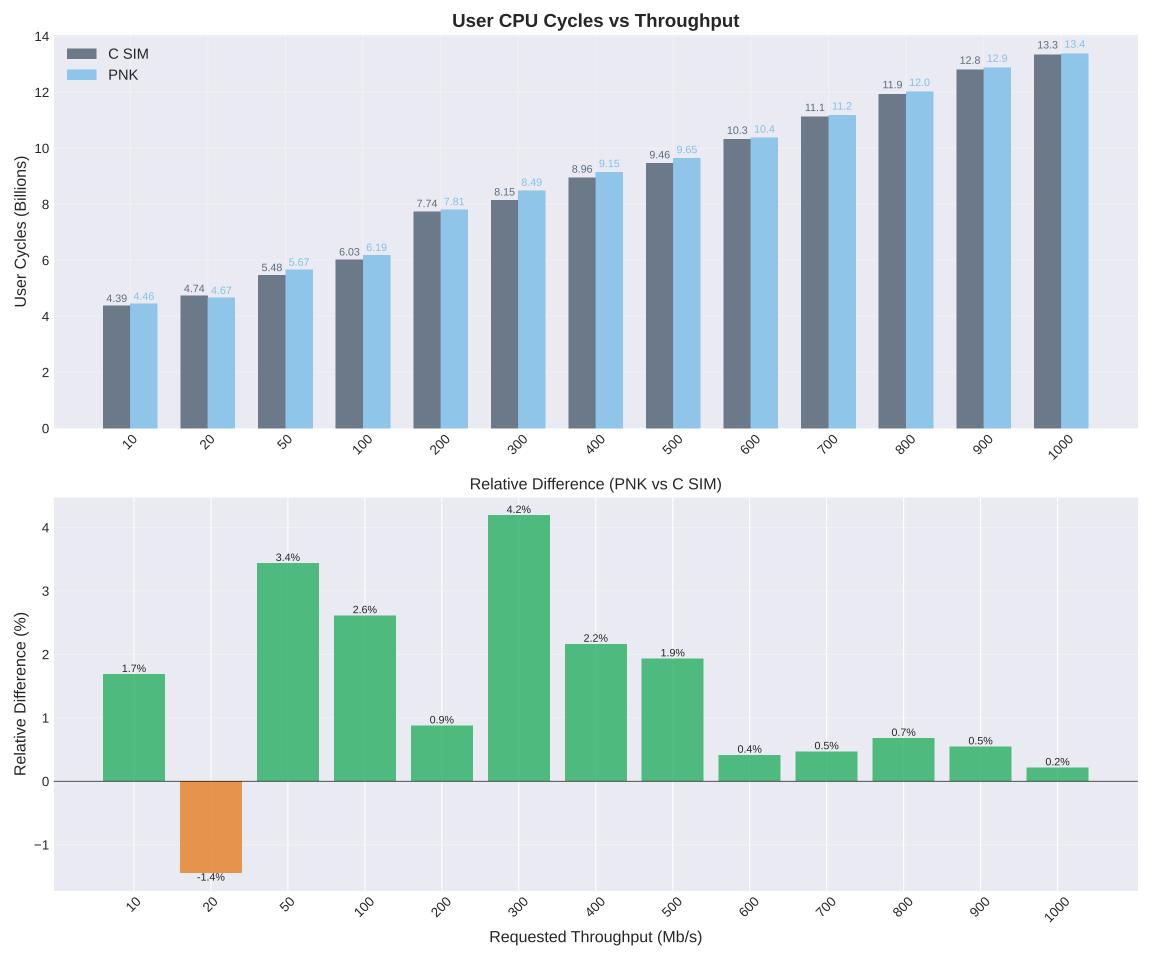
System CPU Utilization vs Throughput



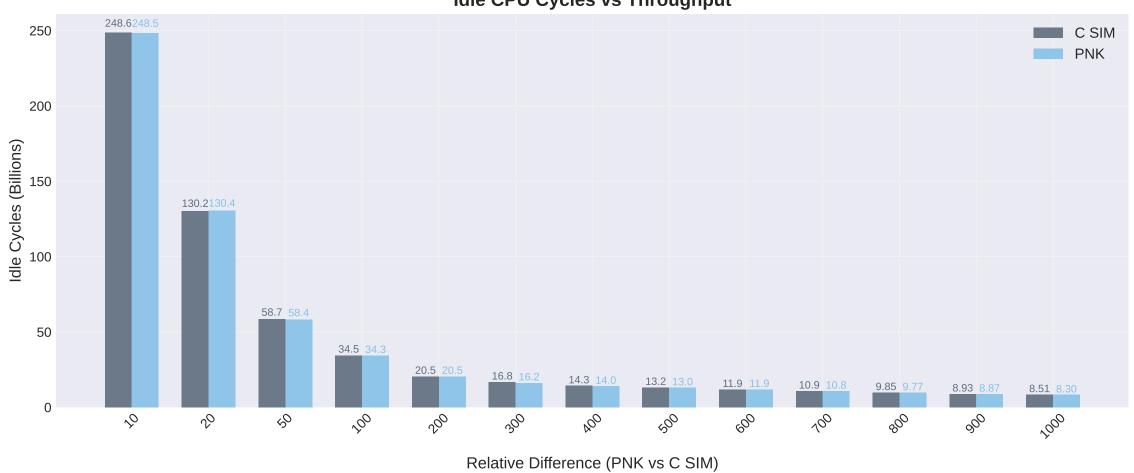


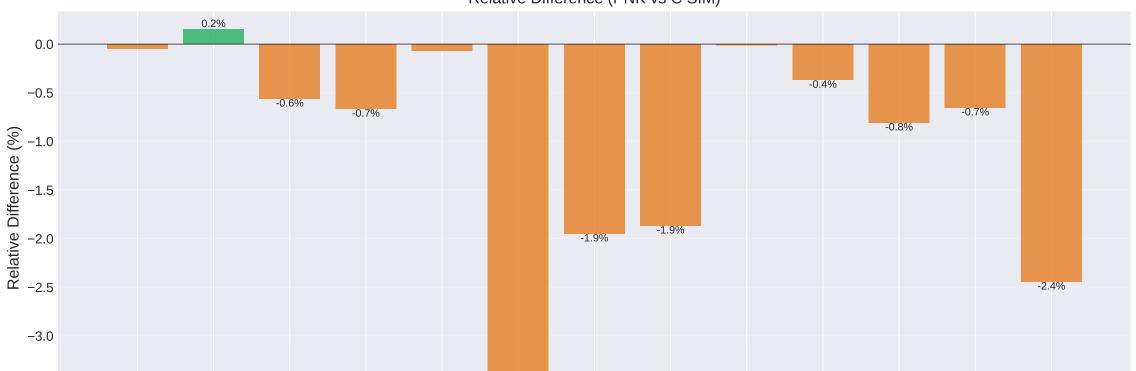
Kernel CPU Cycles vs Throughput 3.41 3.43 3.5 C SIM PNK 2.94 2.98 2.96 3.0 2.83 2.86 2.48 Kernel Cycles (Billions) 2.28 2.34 2.29 2.30 2.00 1.96 1.71 1.69 1.50 1.50 1.22 1.21 1.11 1.09 0.5 0.0 700 200 300 NOO 400 600 700 900 900 2000 30 20 60 Relative Difference (PNK vs C SIM) 7.3% 6 Relative Difference (%) 3.7% 3.6% 2.8% 2.2% 0.6% 0.6% -0.4% -1.1% -2 -1.9% -2.1% -4 -4.0% \$0 20 60 200 200 300 NOO 400 600 100 900

Requested Throughput (Mb/s)









NOO

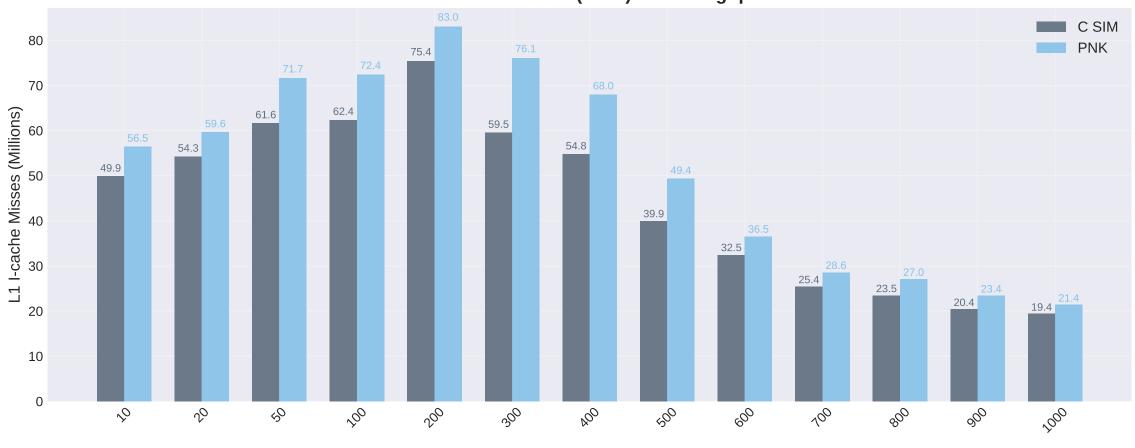
Requested Throughput (Mb/s)

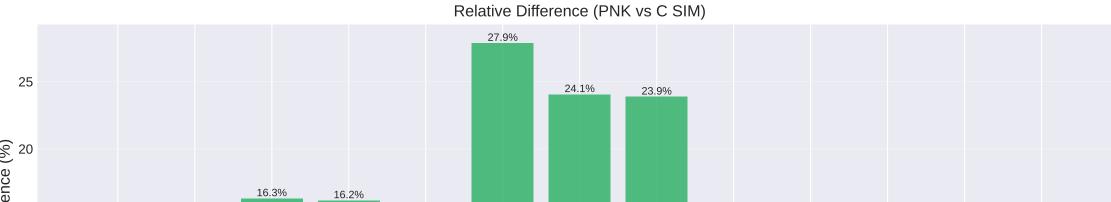
-3.5%

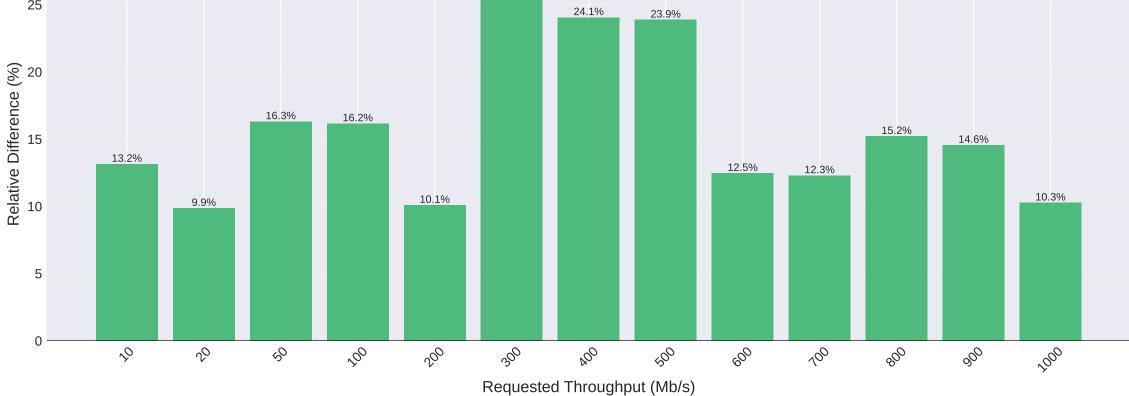
-3.5

SO

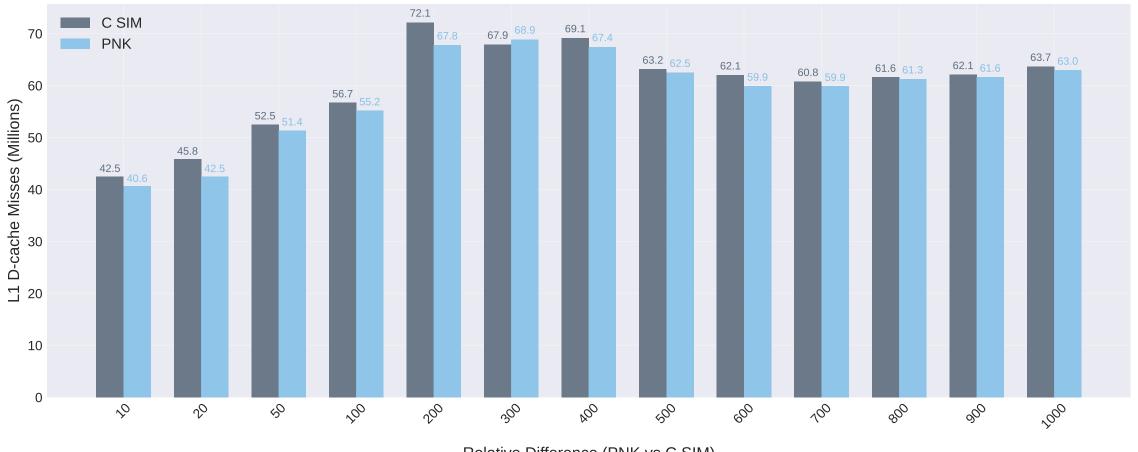
L1 I-cache Misses (Total) vs Throughput



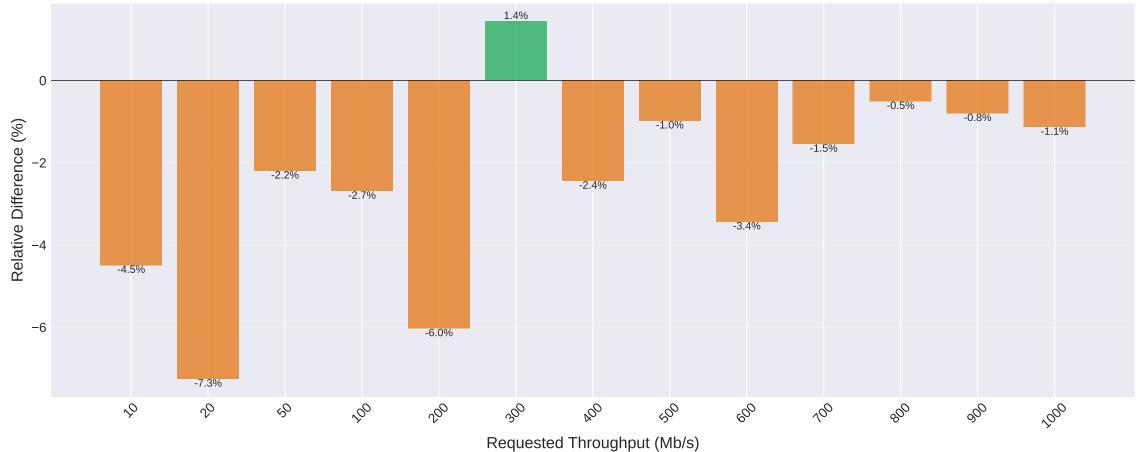




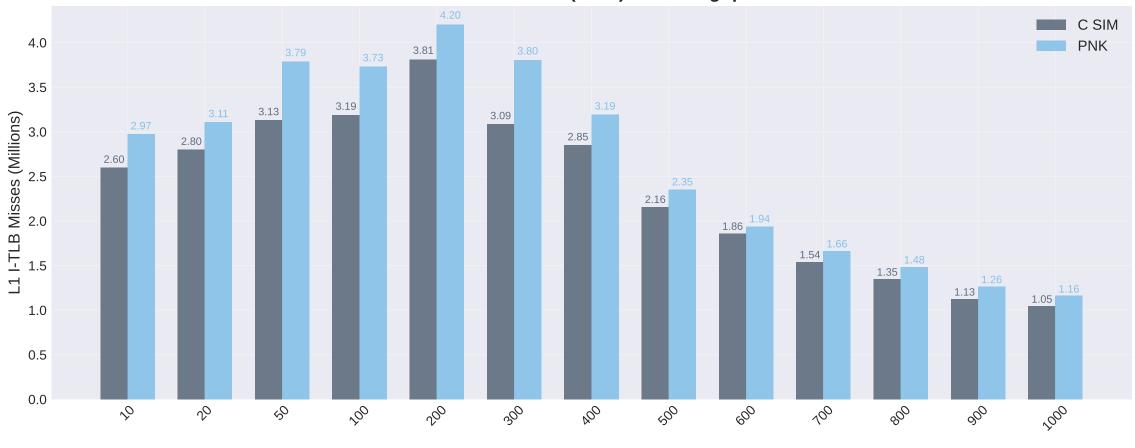


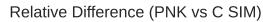


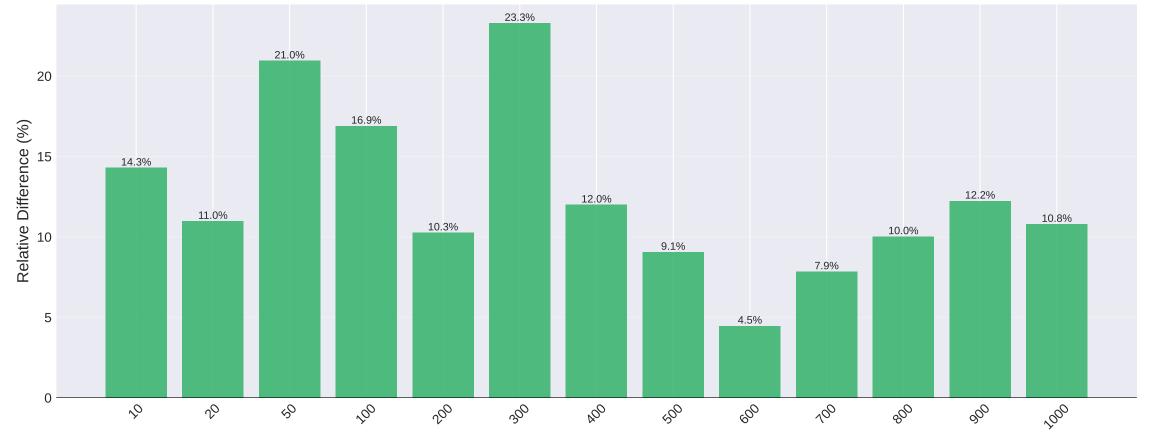




L1 I-TLB Misses (Total) vs Throughput

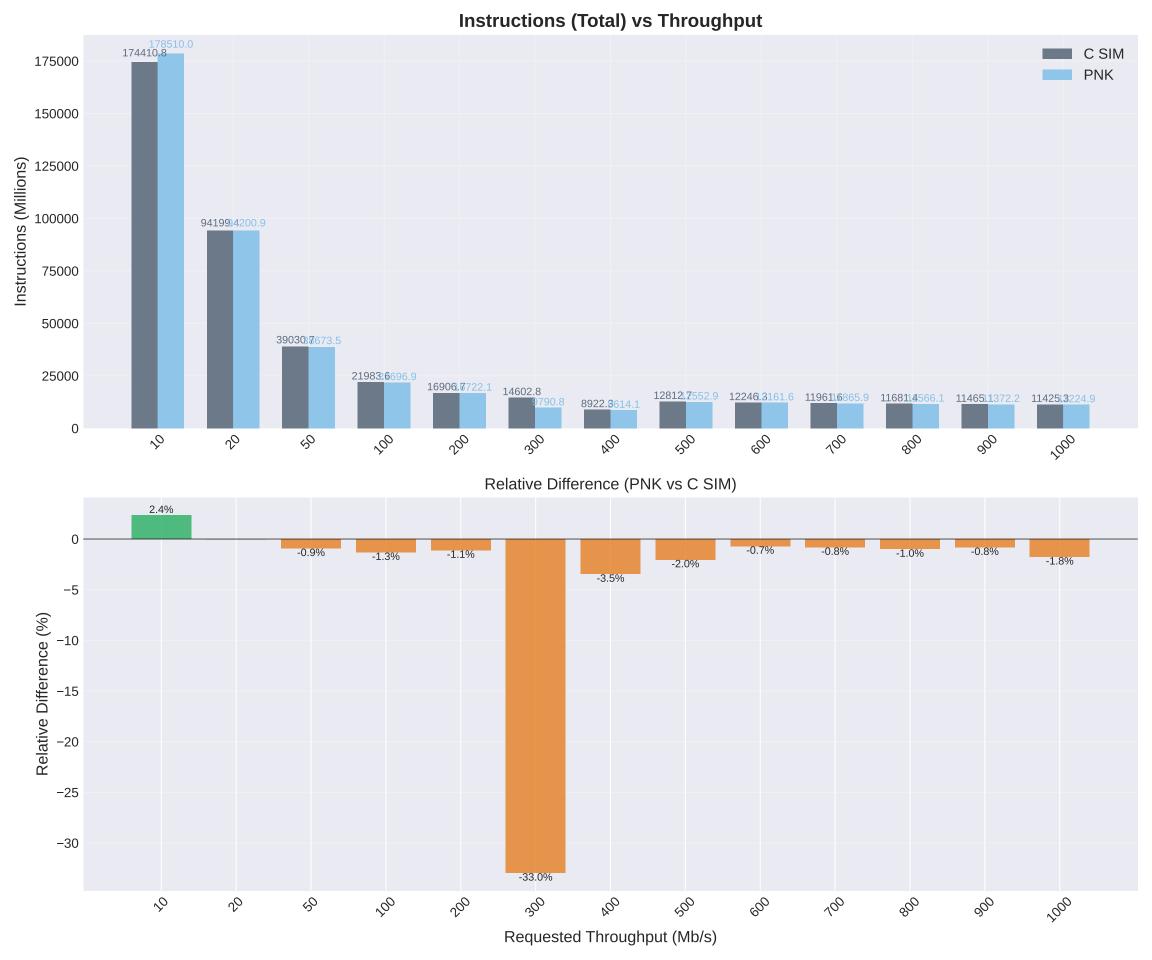




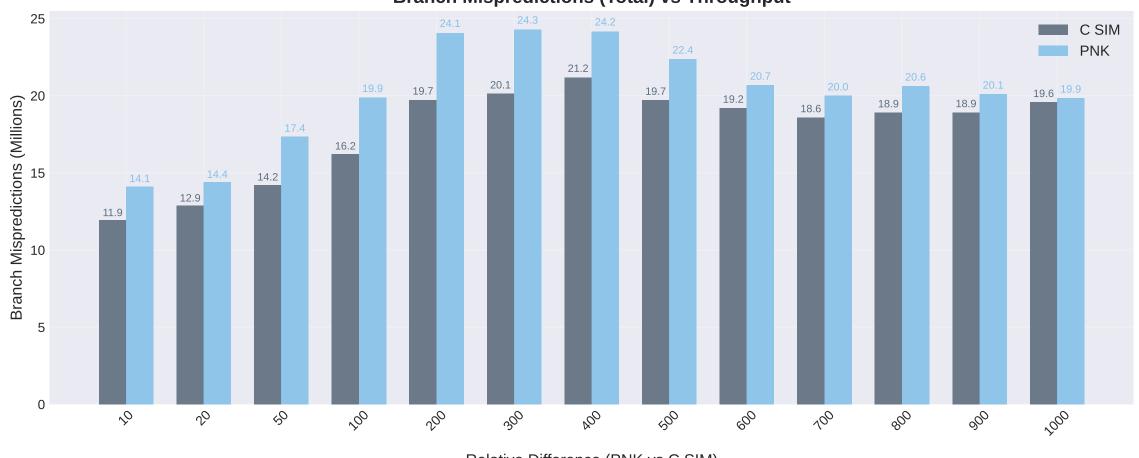


Requested Throughput (Mb/s)

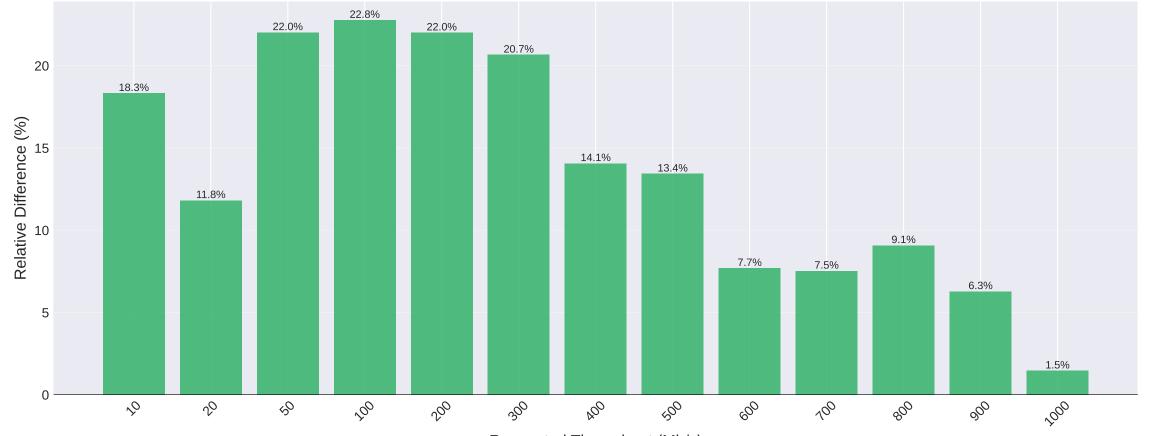




Branch Mispredictions (Total) vs Throughput

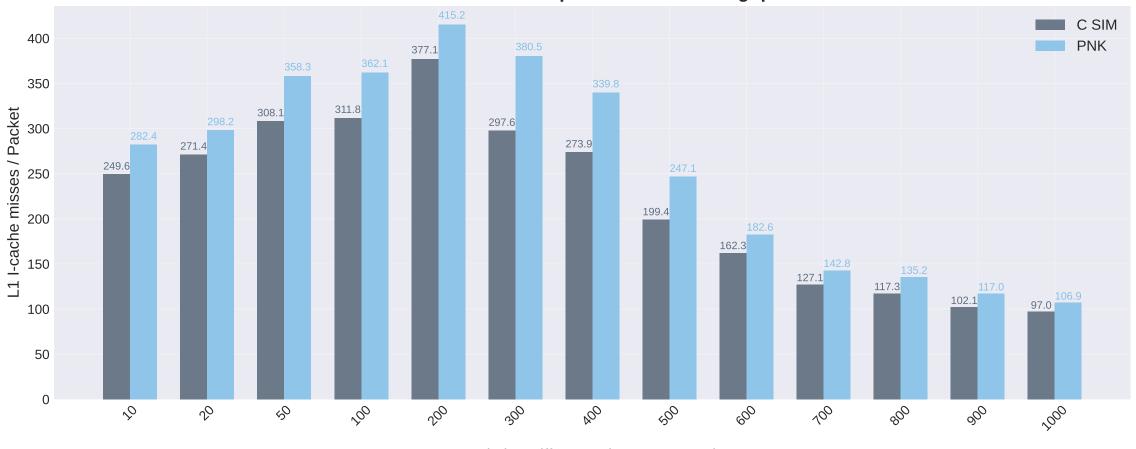


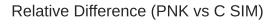


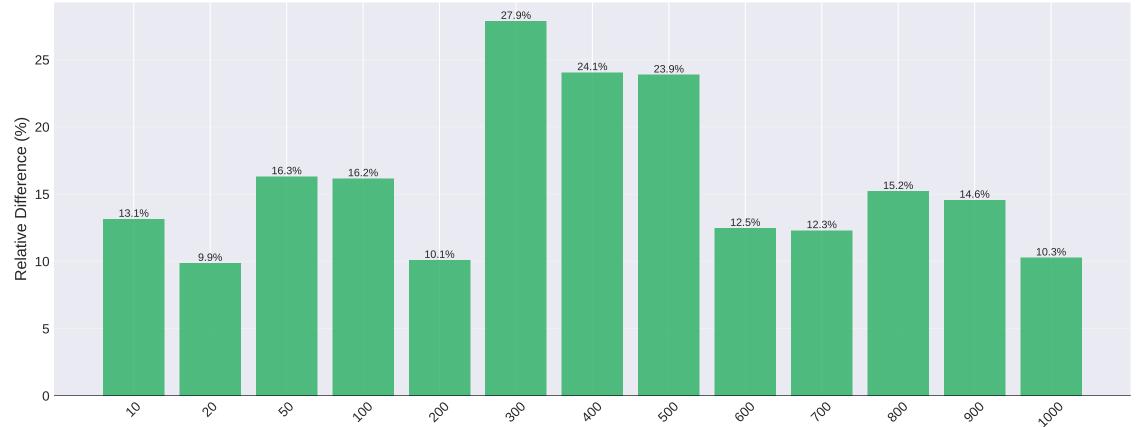


Requested Throughput (Mb/s)

L1 I-cache Misses per Packet vs Throughput

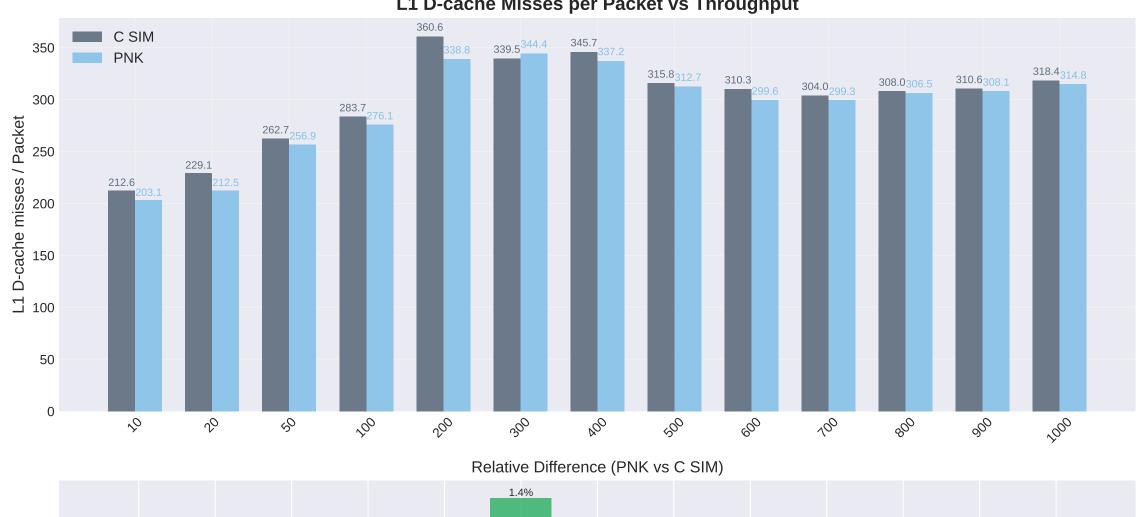


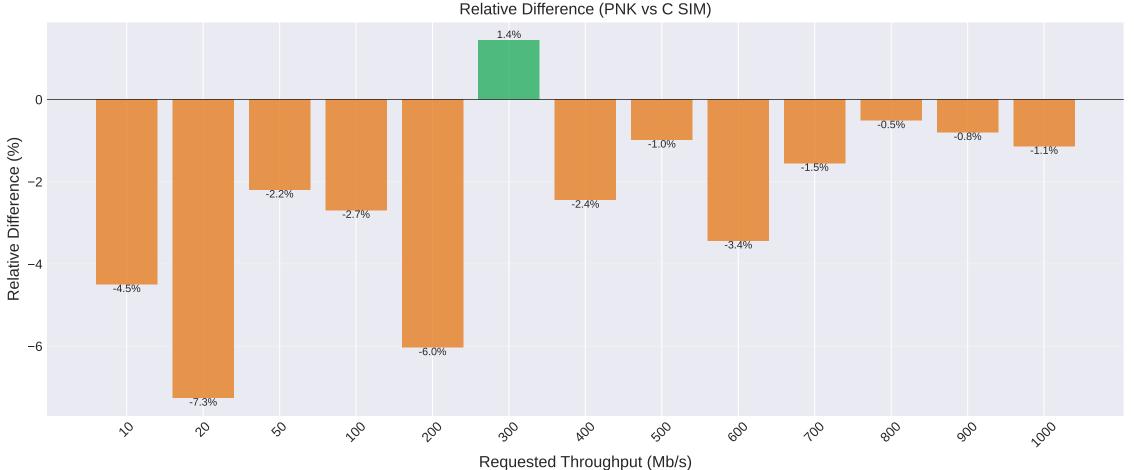




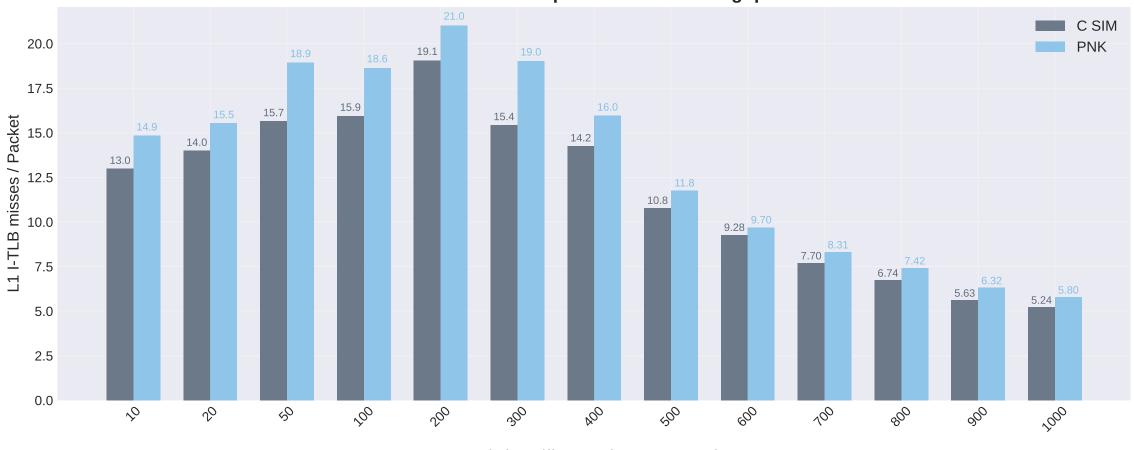
Requested Throughput (Mb/s)

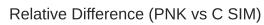
L1 D-cache Misses per Packet vs Throughput

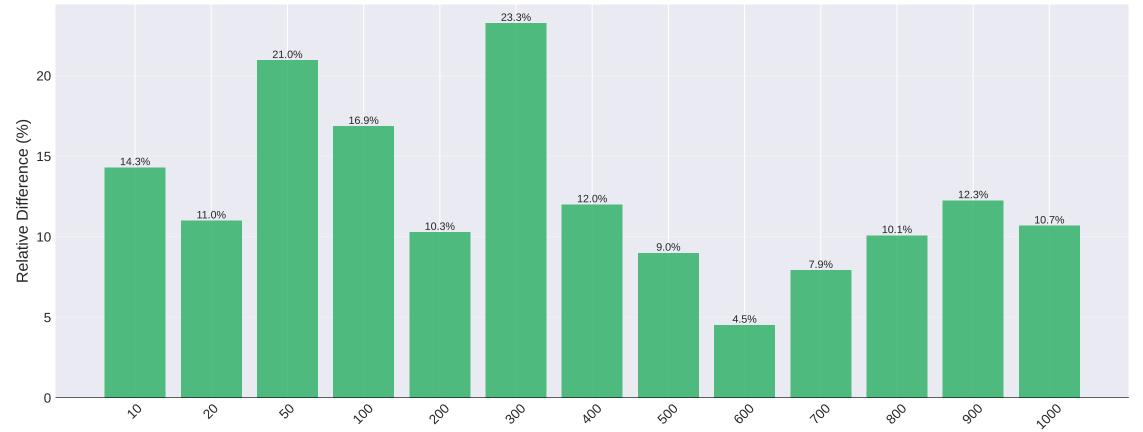




L1 I-TLB Misses per Packet vs Throughput



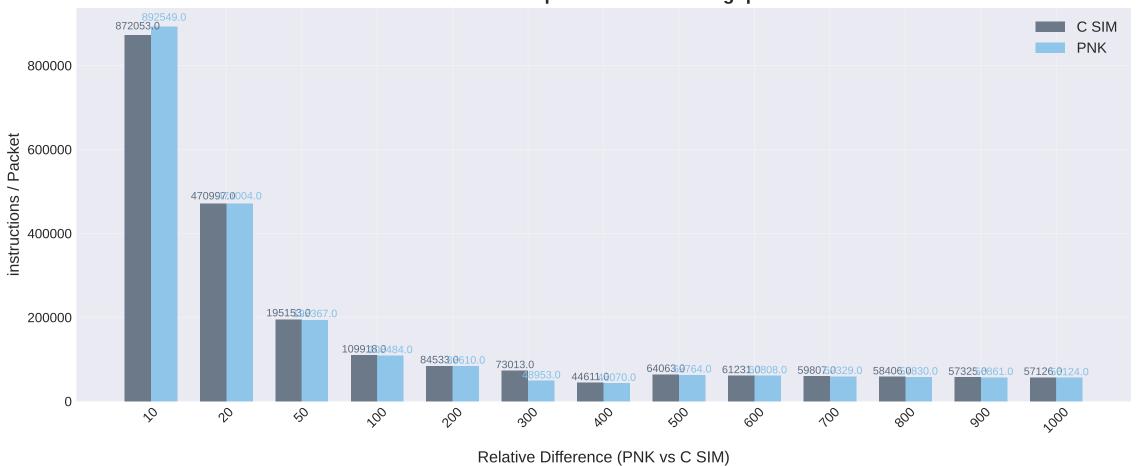




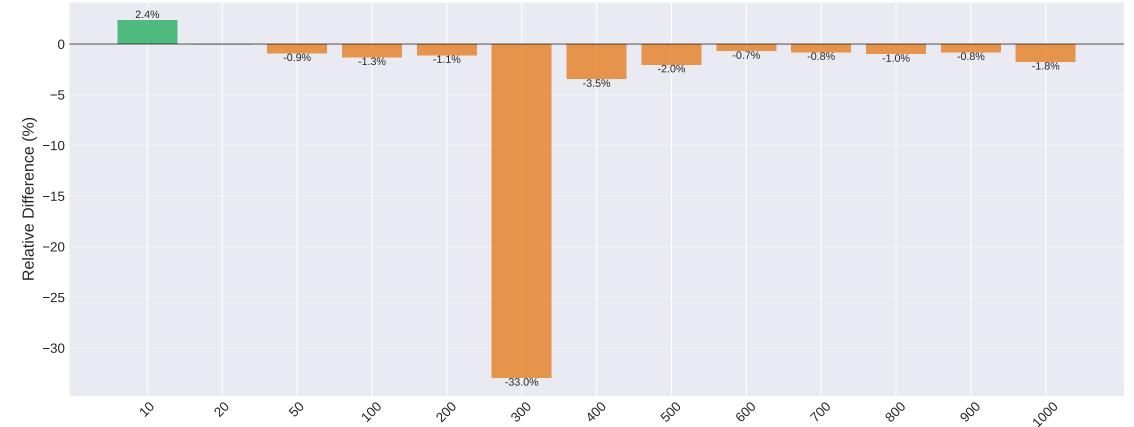
Requested Throughput (Mb/s)





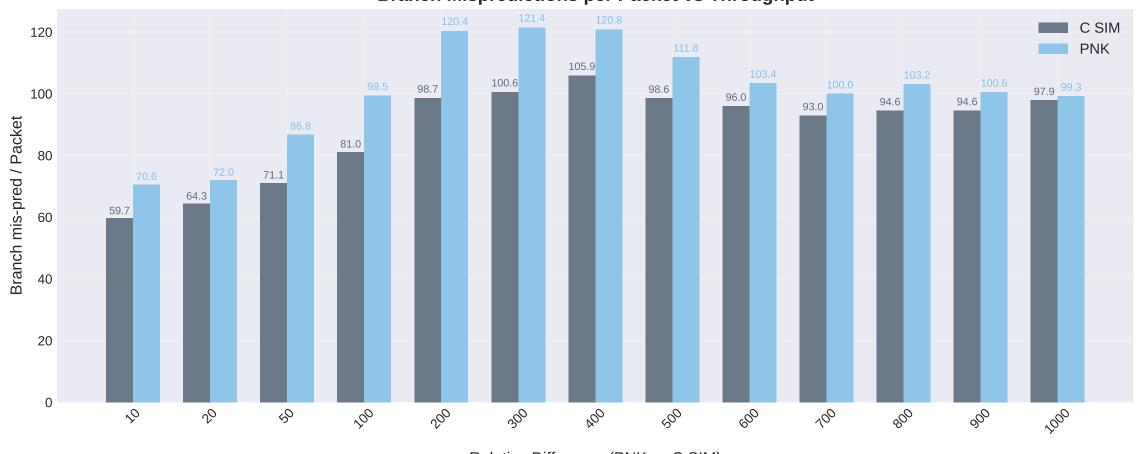






Requested Throughput (Mb/s)

Branch Mispredictions per Packet vs Throughput

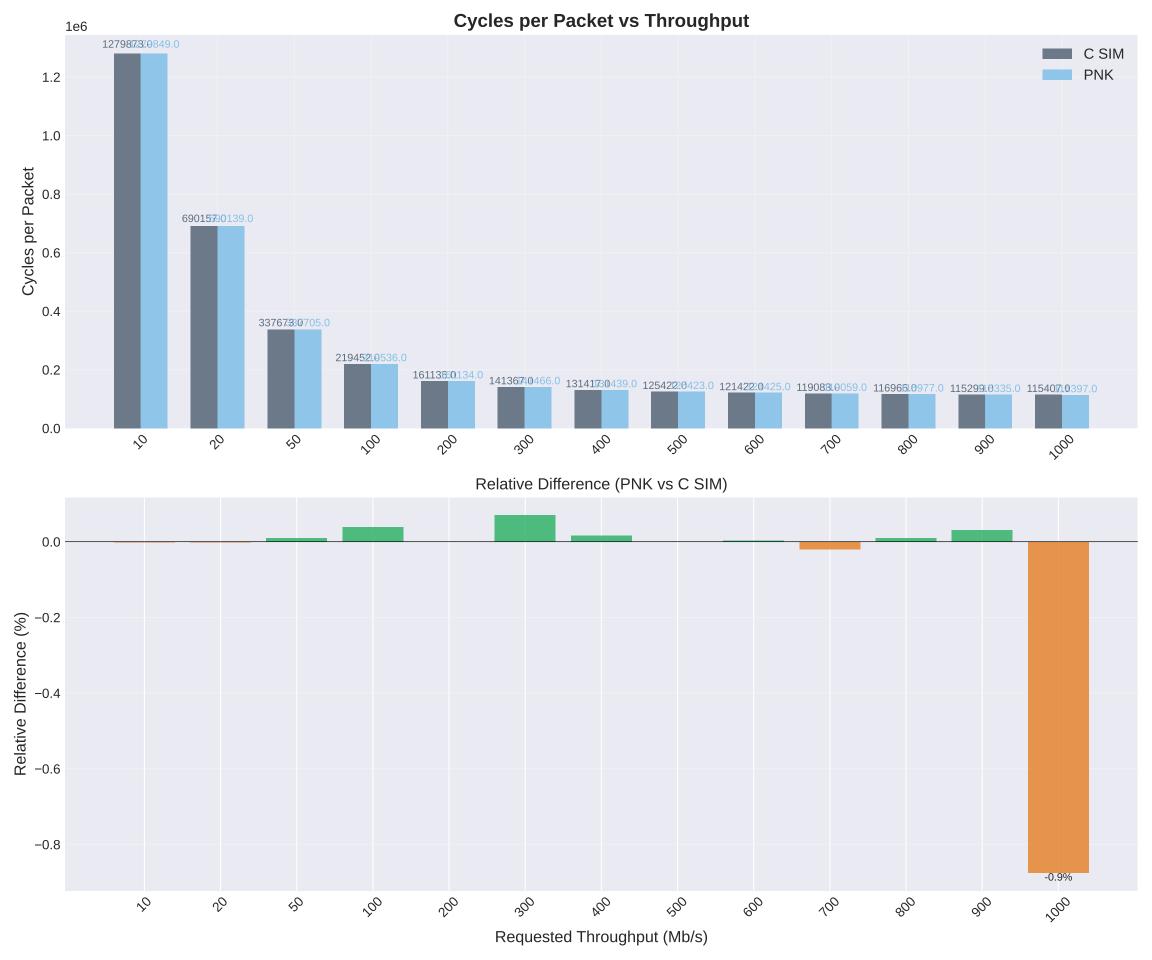




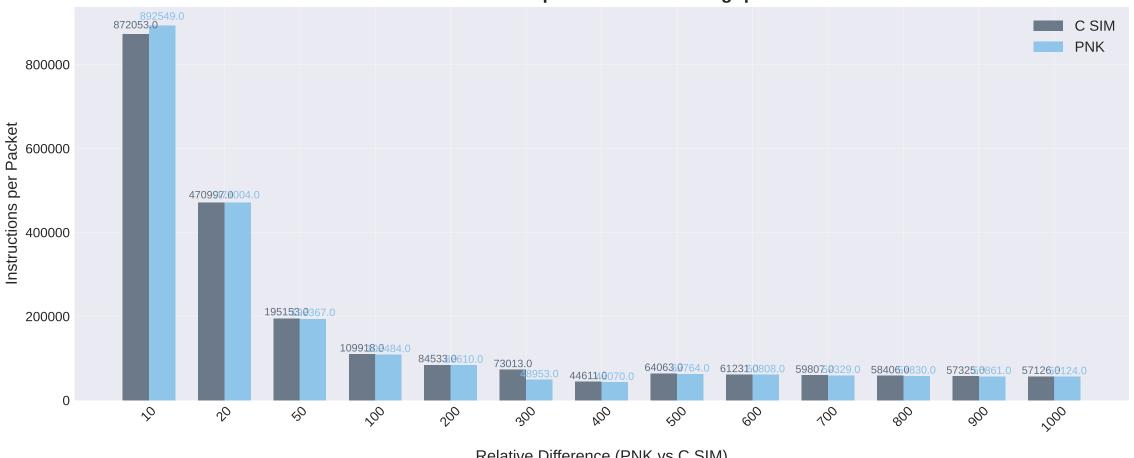
NOO

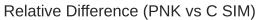
Requested Throughput (Mb/s)

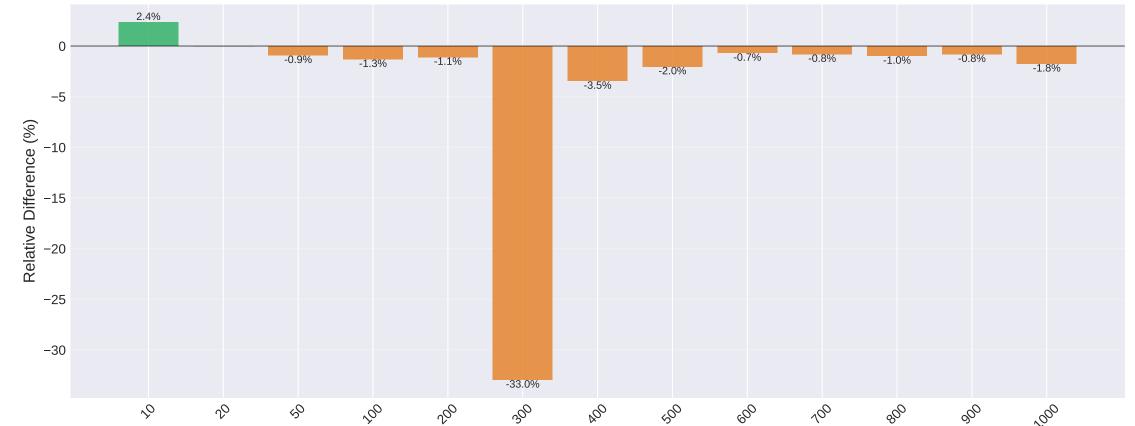
\$





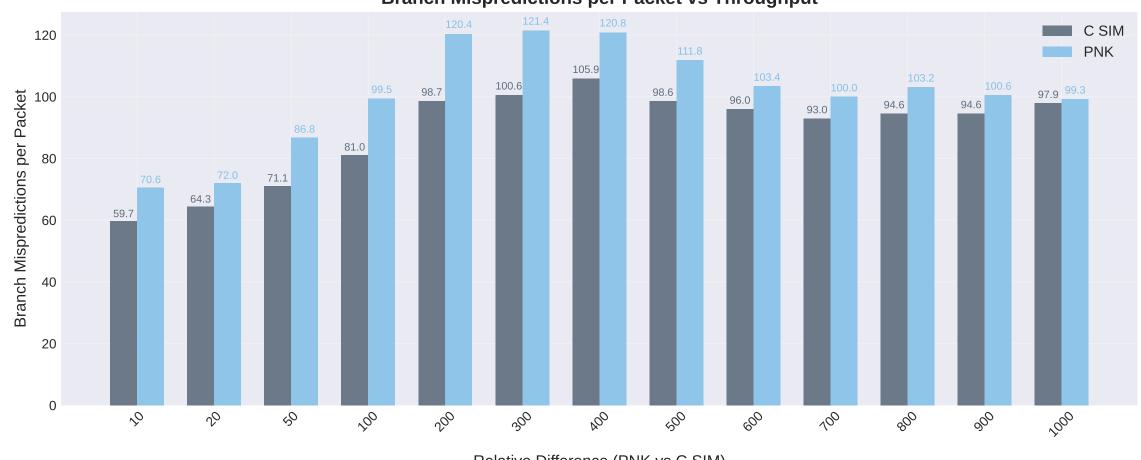


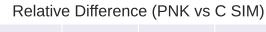


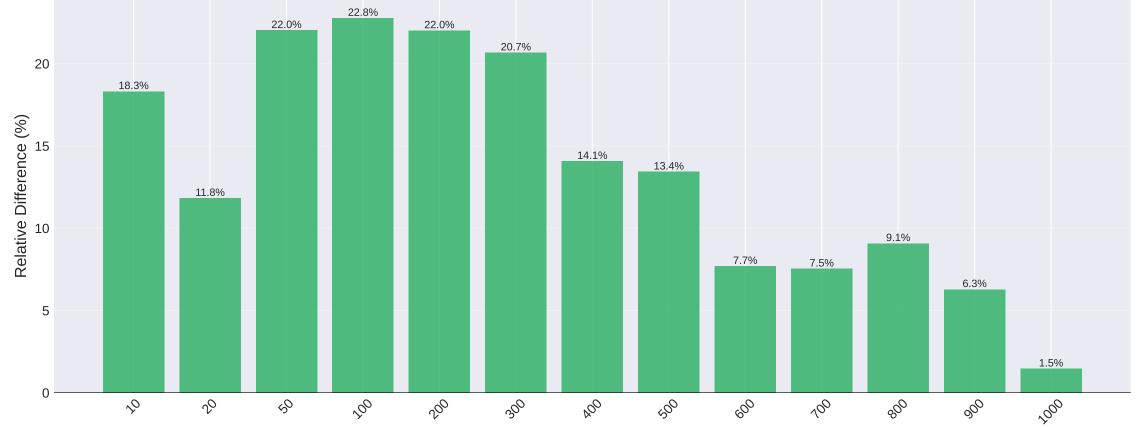


Requested Throughput (Mb/s)

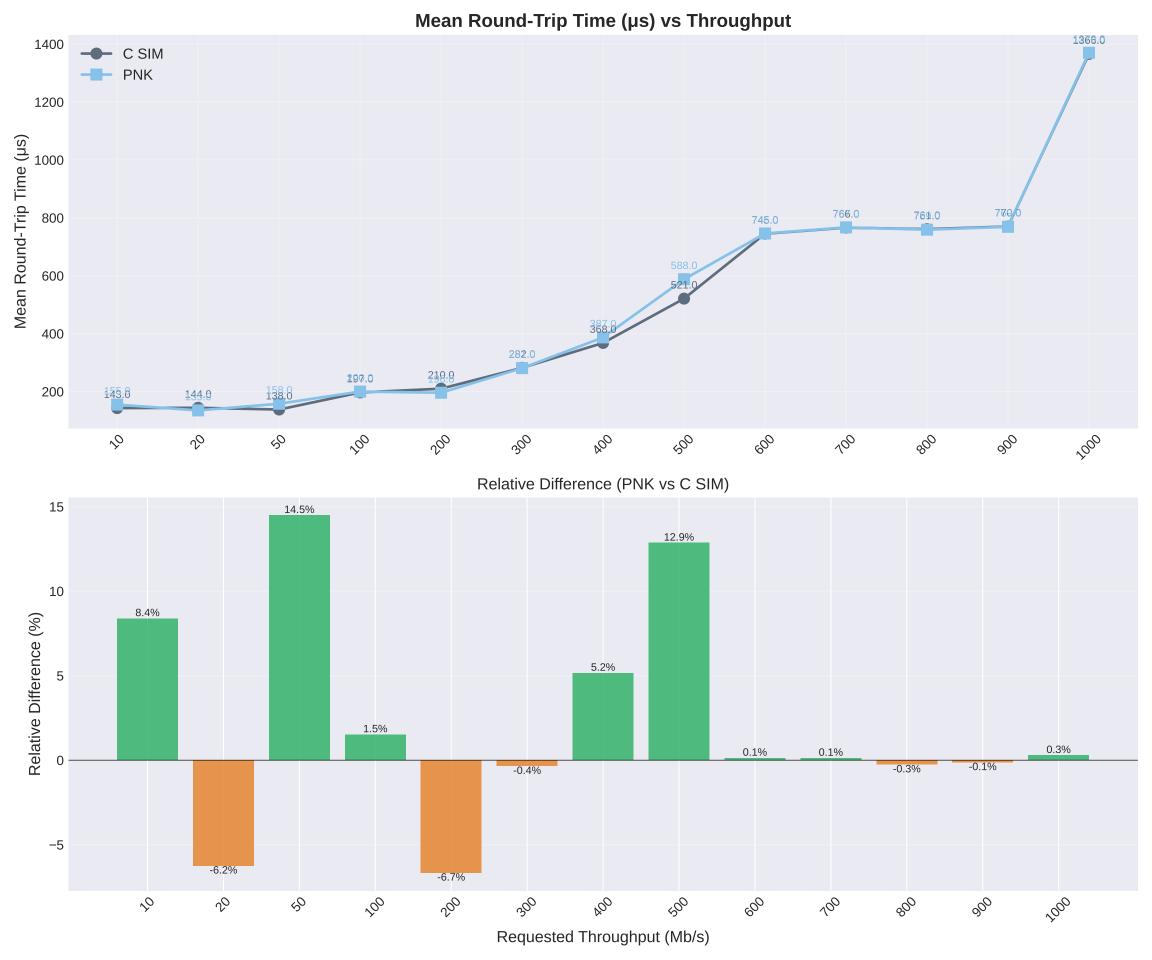
Branch Mispredictions per Packet vs Throughput



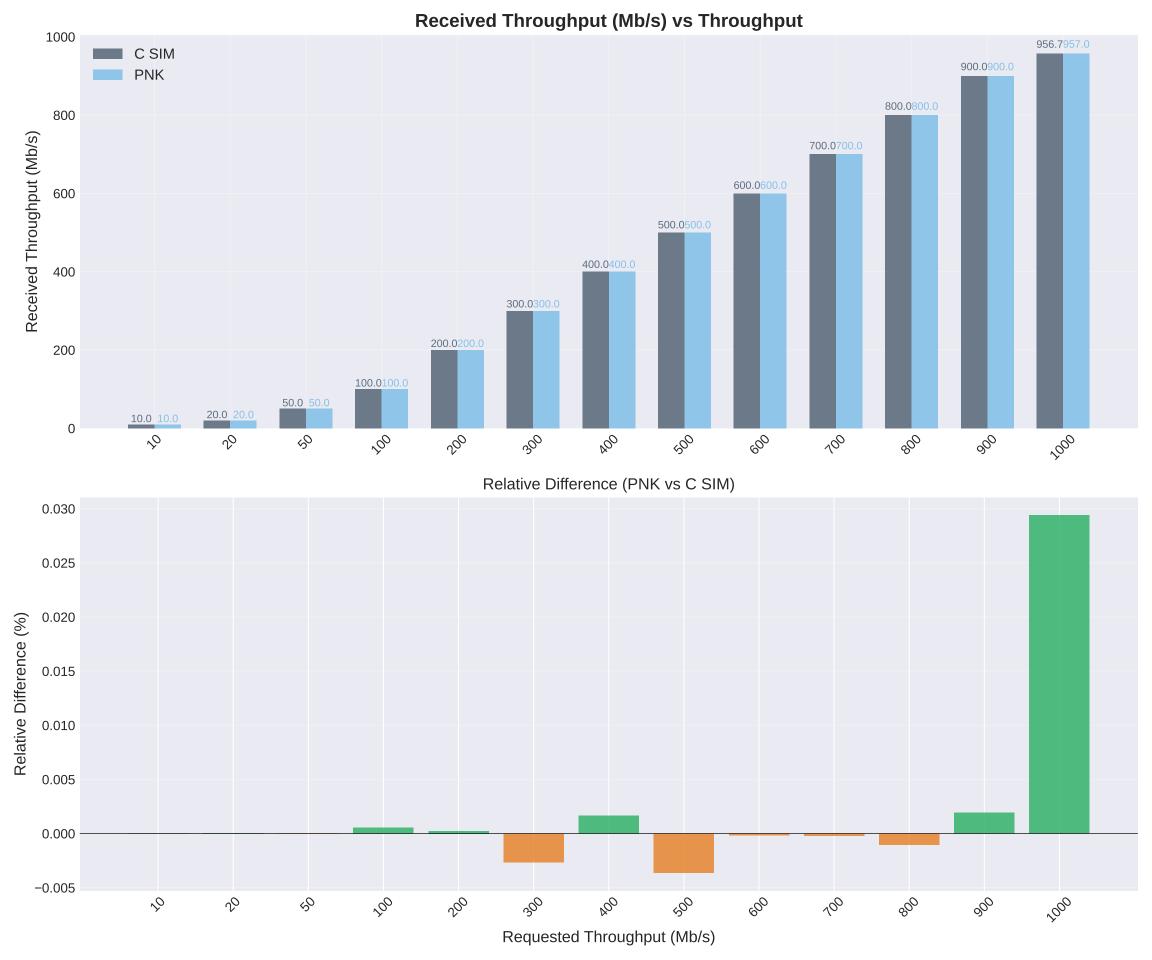




Requested Throughput (Mb/s)



Packet Rate (packets/s) vs Throughput 78.3 78.3 80 C SIM 73.6 73.6 PNK 70 65.4 65.4 60 57.3 57.3 Packet Rate (Kpps) 49.1 49.1 40.9 40.9 32.7 32.7 24.5 24.5 20 16.4 16.4 10 8.18 8.18 4.09 4.09 1.64 1.64 0.82 0.82 0 600 700 900 7000 700 200 300 NOO 400 900 \$ 20 SO Relative Difference (PNK vs C SIM) 0.030 0.025 0.020 Relative Difference (%) 0.015 0.010 0.005 0.000 -0.005 30 20 SO 200 200 300 NOO 500 600 700 900 Requested Throughput (Mb/s)



Sent Throughput (Mb/s) vs Throughput 1000.0000.0 C SIM 1000 PNK 900.0900.0 800.0800.0 800 Sent Throughput (Mb/s) 700.0700.0 600.0600.0 600 500.0500.0 400.0400.0 400 300.0300.0 200.0200.0 200 100.0100.0 50.0 50.0 20.0 20.0 10.0 10.0 0 7000 \$ 200 200 300 NOO 400 600 700 900 900 20 50 Relative Difference (PNK vs C SIM) 0.0008 0.0006 0.0004 Relative Difference (%) 0.0002 0.0000 -0.0002 -0.0004 -0.0006 30 20 200 200 300 NOO 400 600 100 900 80 Requested Throughput (Mb/s)