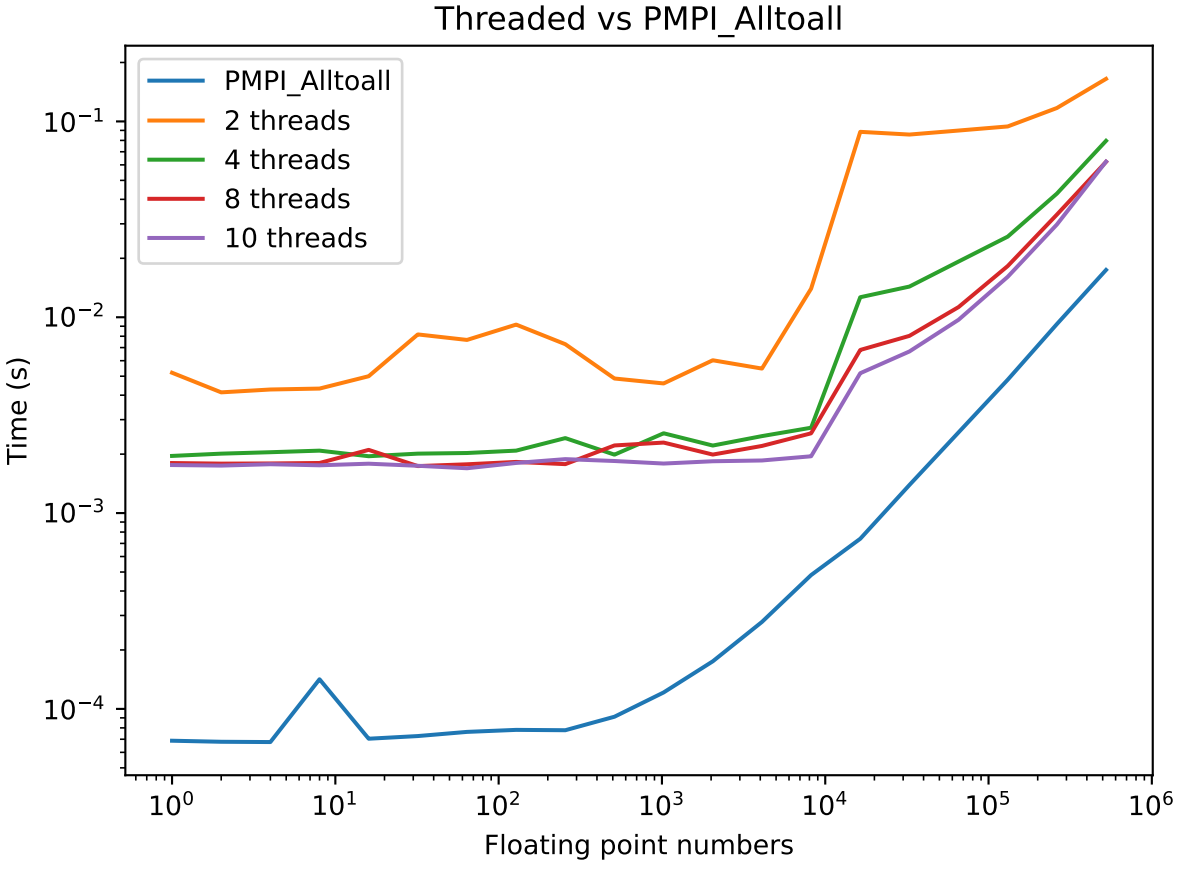
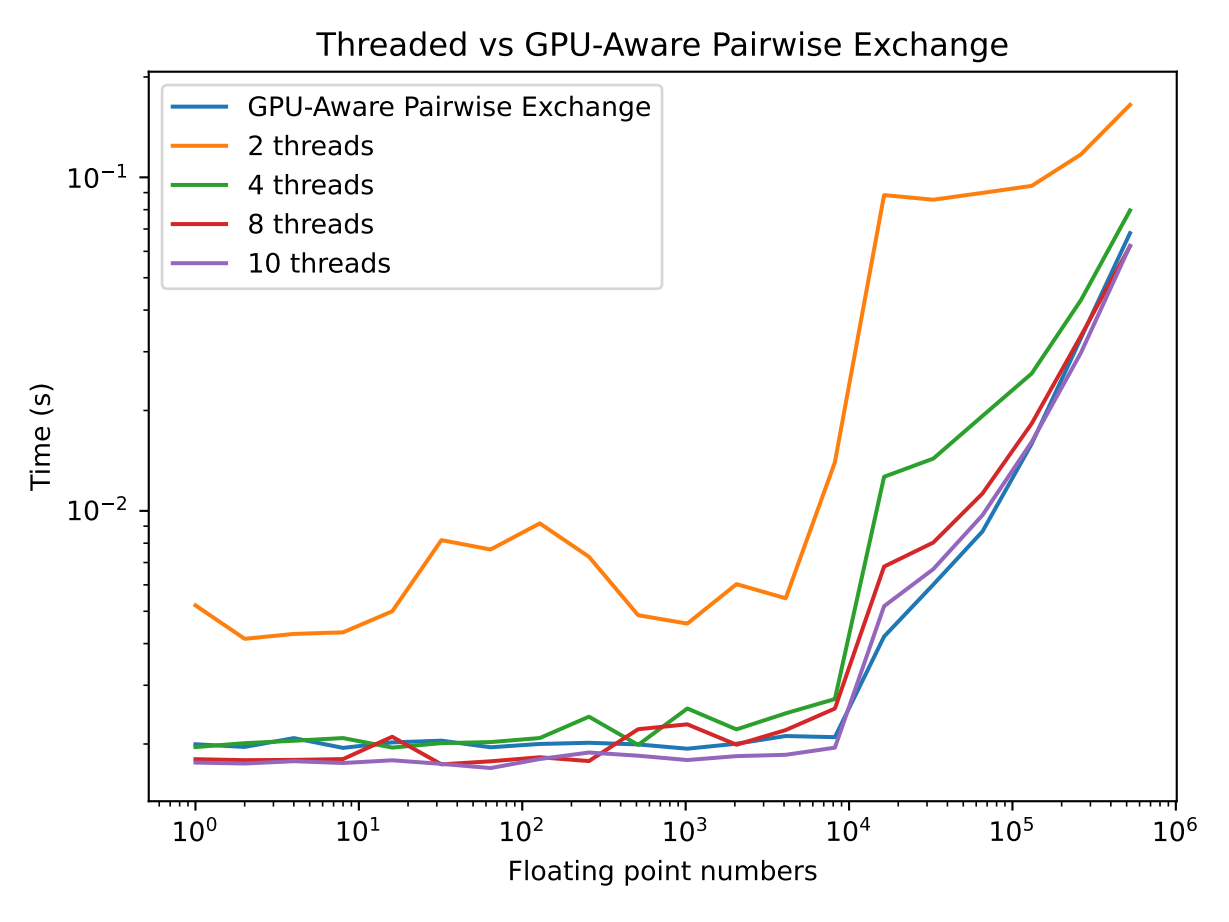
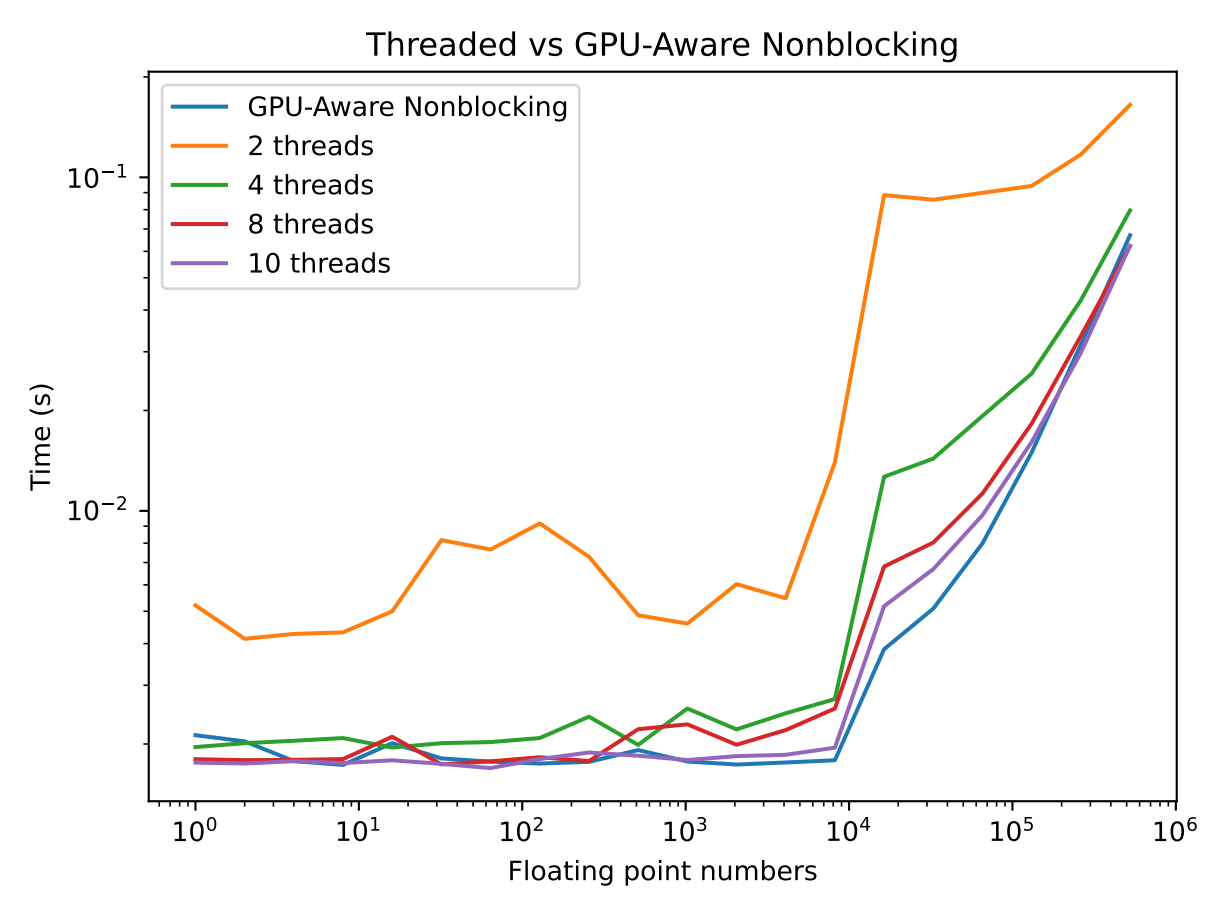
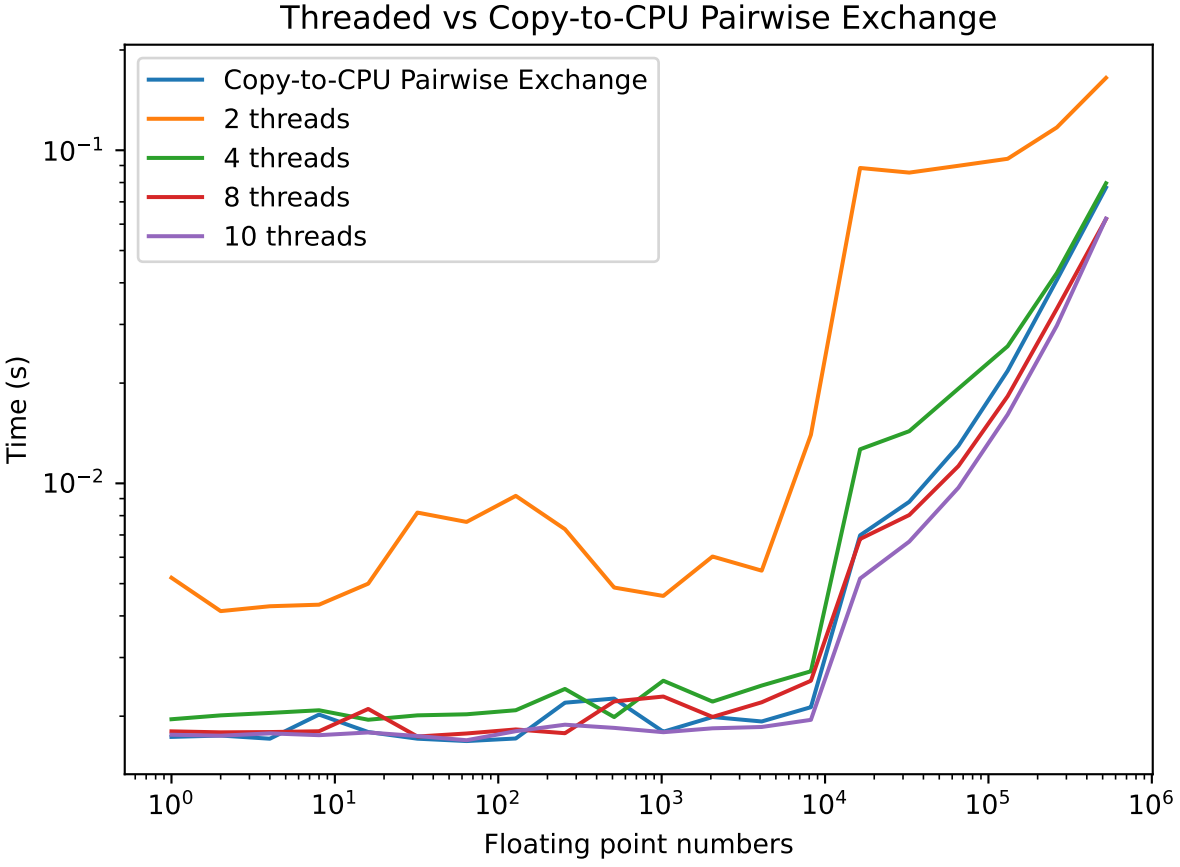
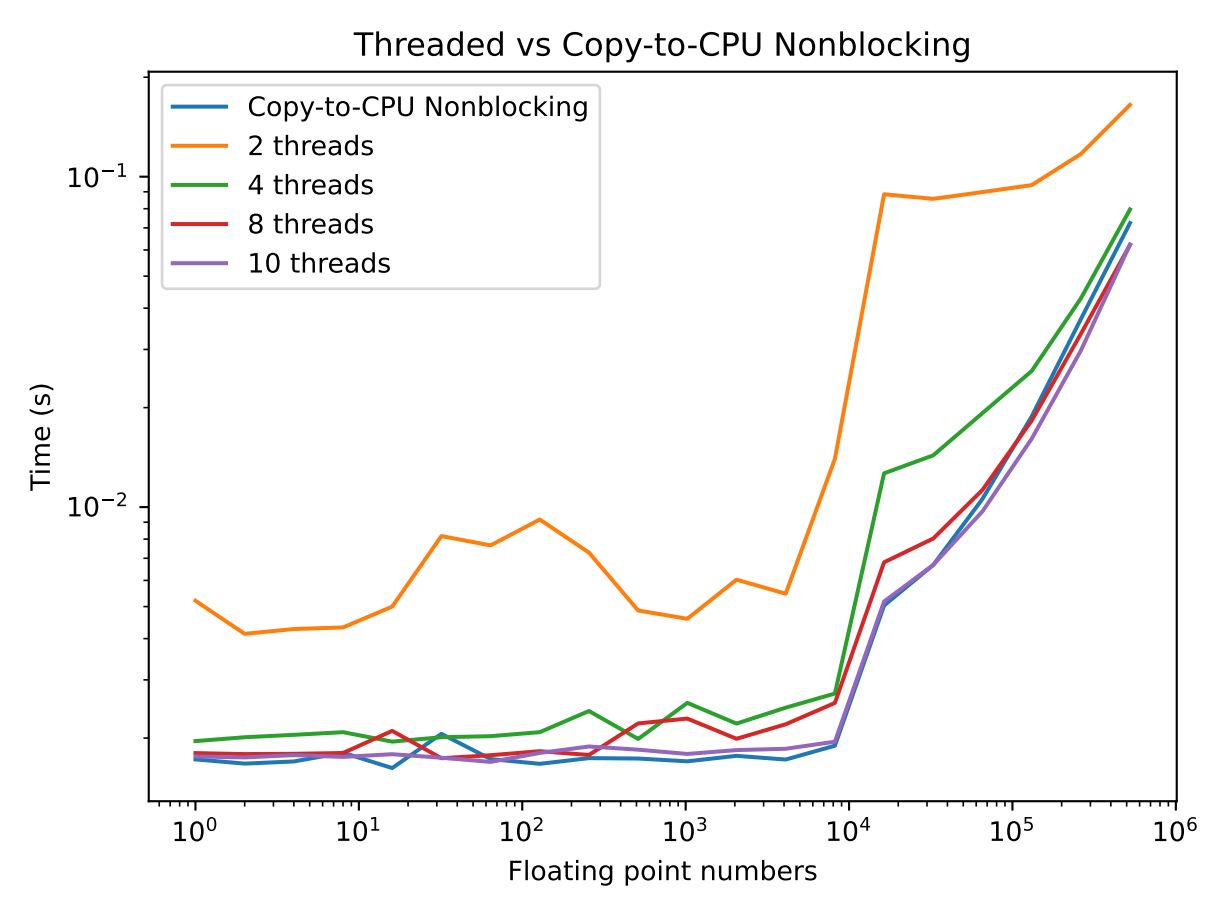
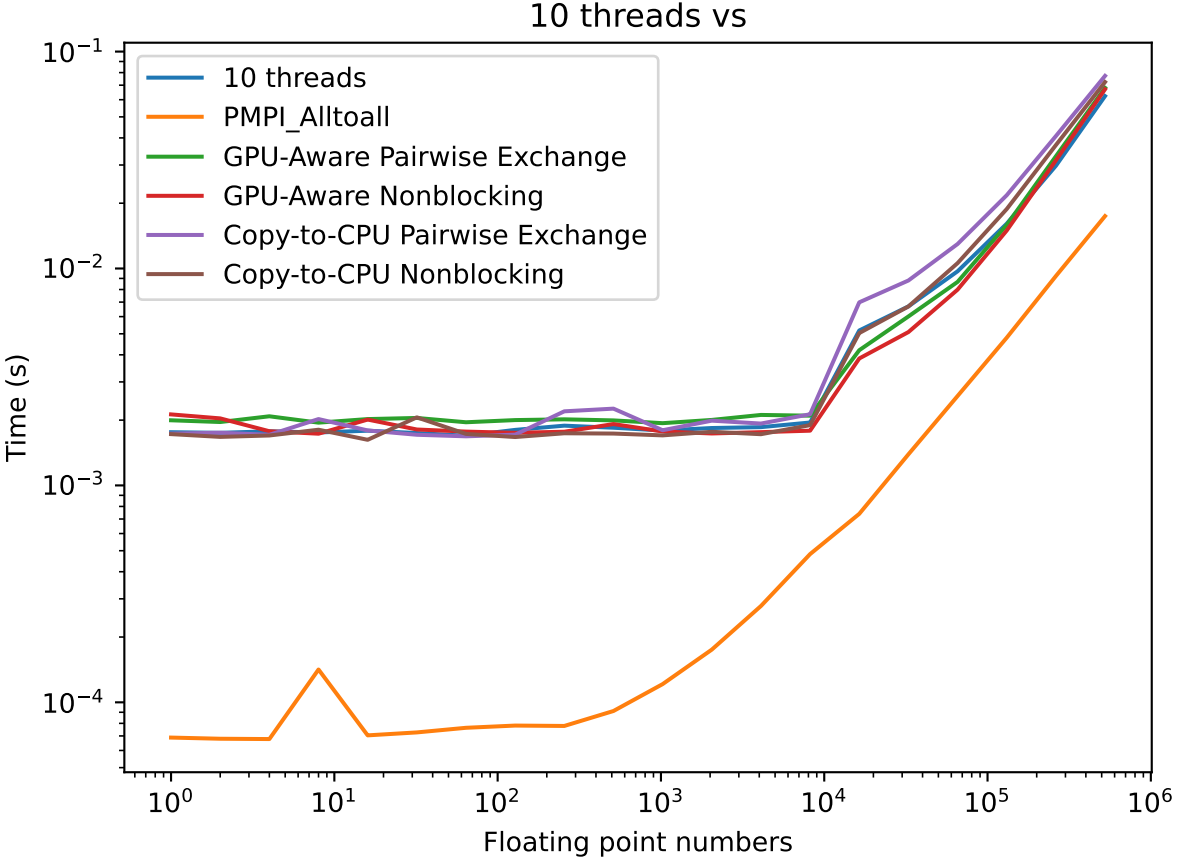

Threaded vs PMPI_Alltoall
PMPI_Alltoall
2 threads
4 threads
8 threads
10 threads
Time (s)
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
10^{5}
10^{6}
Floating point numbers


Threaded vs GPU-Aware Pairwise Exchange
GPU-Aware Pairwise Exchange
2 threads
4 threads
8 threads
10 threads
Time (s)
10^{-1}
10^{-2}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
10^{5}
10^{6}
Floating point numbers


Threaded vs GPU-Aware Nonblocking
GPU-Aware Nonblocking
2 threads
4 threads
8 threads
10 threads
Time (s)
10^{-1}
10^{-2}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
10^{5}
10^{6}
Floating point numbers


Threaded vs Copy-to-CPU Pairwise Exchange
Copy-to-CPU Pairwise Exchange
2 threads
4 threads
8 threads
10 threads
Time (s)
10^{-1}
10^{-2}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
10^{5}
10^{6}
Floating point numbers


Threaded vs Copy-to-CPU Nonblocking
Copy-to-CPU Nonblocking
2 threads
4 threads
8 threads
10 threads
Time (s)
10^{-1}
10^{-2}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
10^{5}
10^{6}
Floating point numbers


10 threads vs
10 threads
PMPI_Alltoall
GPU-Aware Pairwise Exchange
GPU-Aware Nonblocking
Copy-to-CPU Pairwise Exchange
Copy-to-CPU Nonblocking
Time (s)
Floating point numbers
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
10^{5}
10^{6}