HW5

Antony Sunwoo
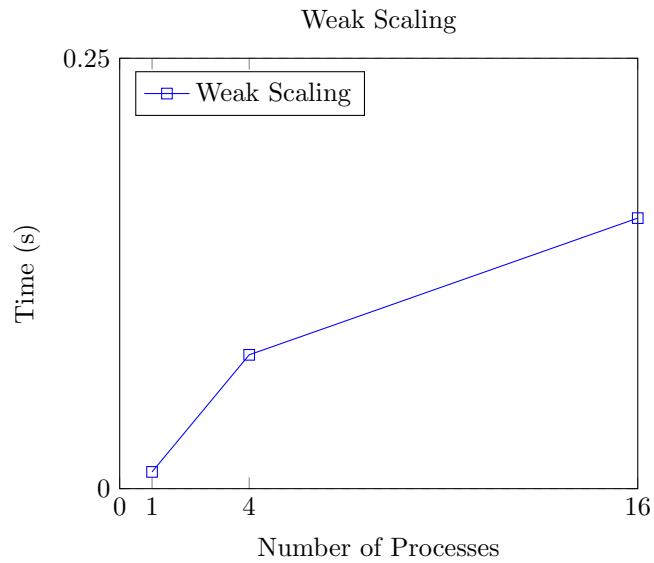
May 2020

1   MPI-parallel two-dimensional Jacobi smoother

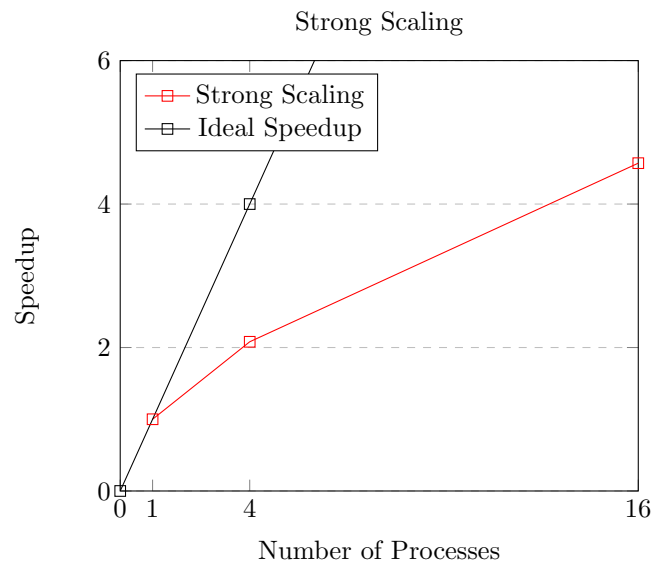See jacobi2d-mpi.cpp.

Weak scaling: $N_l = 100$, for 1000 iterations.

p	Time (s)
1	0.009742
4	0.077736
16	0.157146

Weak Scaling

Strong scaling: $N = 1600$, for 1000 iterations.

p	Time (s)	Speedup
1	5.630781	1
4	2.705367	2.08
16	1.232431	4.57

1

Strong Scaling

2 Parallel sample sort

See ssort.cpp.

Could not finish debug/timings due to availability of prince. Had a bug due to memory, could not test fix.