

High Performance Computing Assignment 6

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Final project update

We are almost done with the final project, and we need to do some performance test this week.

MPI-parallel two-dimensional Jacobi smoother

Weak scaling: $N_l = 100$, iter=3000

#core	Time
1	0.080s
4	0.276s
16	0.475s
64	0.540s

Strong scaling: 2^{20} points, iter=1000

#core	Time
1	8.607s
4	4.226s
16	2.170s
64	1.182s

Parallel sample sort

64 cores on prince:

N	Time
10000	1.059s
100000	1.126s
1000000	1.308s