

Assignment 4 HPC

Bonus

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Using MPI_MAX

	N = 100	Speedup	Efficiency	N =1000	Speedup	Efficiency
P = 1	0.000633 sec	1	1	0.000751 sec	1	1
P = 2	0.000510	1.24117	0.62058	0.000649	1.15716	0.57858
P = 4	0.001033	0.61277	0.15319	0.001078	0.69666	0.17416
P = 8	0.001895	0.33403	0.04175	0.002018	0.37215	0.04651
P = 16	0.003427	0.18470	0.01154	0.005268	0.14255	0.00890
P = 32	0.009404	0.06731	0.00210	0.010039	0.07480	0.00233
P = 64	0.023167	0.02732	0.00042	0.024157	0.03108	0.00048

Start time and end time in rank 0

	N = 100	Speedup	Efficiency	N = 1000	Speedup	Efficiency
P = 1	0.000716	1	1	0.000817	1	1
P = 2	0.000692	1.034682081	0.51734104	0.000854	0.956674473	0.478337237
P = 4	0.001012	0.707509881	0.17687747	0.000885	0.923163842	0.23079096
P = 8	0.002691	0.266072092	0.033259012	0.002868	0.284867503	0.035608438
P = 16	0.006214	0.115223688	0.007201481	0.004915	0.166225839	0.010389115
P = 32	0.010875	0.06583908	0.002057471	0.010422	0.078391863	0.002449746
P =64	0.022152	0.032322138	0.000505033	0.021819	0.037444429	0.000585069