

### Execution Time on HPC Server

*Matrix Size: Processes: Time 1 (s): Time 2 (s): Time AVG (s): Each Speedup:*

1000	1	4.744	4.733	4.739	1.000
1000	2	2.728	2.737	2.733	1.734
1000	4	1.376	1.365	1.371	3.457
1000	8	0.725	0.714	0.720	6.586
1000	16	0.359	0.321	0.340	13.937
1000	28	0.210	0.209	0.210	22.618

2000	1	35.691	34.728	35.210	1.000
2000	2	22.938	22.758	22.848	1.541
2000	4	11.307	11.229	11.268	3.125
2000	8	5.865	5.926	5.896	5.972
2000	16	3.031	2.955	2.993	11.764
2000	28	1.773	1.813	1.793	19.637

5000	1	758.351	758.601	758.476	1.000
5000	2	389.814	389.768	389.791	1.946
5000	4	193.890	192.405	193.148	3.927
5000	8	100.119	99.785	99.952	7.588
5000	16	51.052	50.874	50.963	14.883
5000	28	29.161	30.712	29.937	25.336

7000	1	2350.030	2353.820	2351.925	1.000
7000	2	1163.220	1201.150	1182.185	1.989
7000	4	587.658	583.878	585.768	4.015
7000	8	276.821	276.909	276.865	8.495
7000	16	141.617	142.836	142.227	16.536
7000	28	83.039	79.379	81.209	28.961

10000	1	6456.810	6623.350	6540.080	1.000
10000	2	3331.560	3311.360	3321.460	1.969
10000	4	1755.030	1742.180	1748.605	3.740
10000	8	832.166	833.838	833.002	7.851
10000	16	449.943	452.403	451.173	14.496
10000	28	241.107	308.458	274.783	23.801

<i>Average</i>	1	1.000
<i>Speedup</i>	2	1.836
<i>Per</i>	4	3.653
<i>Process</i>	8	7.299
<i>Count:</i>	16	14.323
	28	24.071