Basic Computational Operation Execution Time τ (sec):

Test Number	Matrix Size	Execution Time (sec)	Theoretical Time (sec)
1	10	0,000012	0,00000103
2	100	0,001025	0,00091250
3	500	0,114405	0,11271363
4	1000	0,9022	0,90036052
5	1500	3,037221	3,03719967
6	2000	7,216211	7,19749007
7	2500	14,125084	14,05549074
8	3000	24,361494	24,28546066

τ≈1,348518×10^(−9)

Parallel Algorithm

Test Number	System Size	Serial Algorithm	2 processors		4 processors		8 processors	
			Time	Speed up	Time	Speed up	Time	Speed up
1	10	0,000012	0,000200	0,060000	0,000330	0,036364	0,011086	0,001082446
2	100	0,001025	0,001134	0,903880	0,001132	0,905477	0,001828	0,560722101
3	500	0,114405	0,115389	0,991472	0,067768	1,688186	0,057412	1,992701874
4	1000	0,9022	0,910682	0,990686	0,521742	1,729207	0,321945	2,802342015
5	1500	3,037221	3,047906	0,996494	1,732645	1,752939	1,003763	3,025834784
6	2000	7,216211	7,258085	0,994231	4,171946	1,729699	2,343036	3,07985494
7	2500	14,125084	14,146514	0,998485	8,083616	1,747372	4,506076	3,134675048
8	3000	24,361494	24,551868	0,992246	13,970678	1,743759	7,606600	3,202678463