

TABLE I**Comparison of results of serial execution on different RAM size**

Size of the matrix	100*100	500*500	1000*1000	1500*1500	2000*2000
Serial execution with 256 MB RAM	0.0159 seconds	1.2744 seconds	9.8071 seconds	32.9938 seconds	78.1319 seconds
Serial execution with 1000 MB RAM	0.0157 seconds	1.2713 seconds	9.8112 seconds	32.9798 seconds	78.1452 seconds
Time difference	-0.0002 seconds	-0.0031 seconds	+0.0041 seconds	-0.0014 seconds	+0.0133 seconds

TABLE II**Performance dependency of parallel application on RAM**

Size of the matrix	100*100	500*500	1000*1000	1500*1500	2000*2000
Parallel execution with 256 MB RAM	0.3752 seconds	8.3144 seconds	46.5224 seconds	769.1427 seconds	1085.2721 seconds
Parallel execution with 1000 MB RAM	0.1951 seconds	6.8115 seconds	26.9792 seconds	76.2485 seconds	170.6431 seconds
Time difference	-0.1781 seconds	-0.4049 seconds	-19.5432 seconds	-692.8942 seconds	-914.629 seconds

