

CSCD 439  
HW3

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n (array dimension)	1600	1600	1600	1600	1600	1600	3200	3200
threadPerBlock	32	128	256	384	512	1024	256	128
Time cost for Serial (ms) threadPerBlock=0	80.95	80.95	80.95	80.95	80.95	80.95	174.27	174.27
Time cost for CUDA k0 (ms)	2.98	2.99	3.03	3.06	3.13	3.15	11.49	11.35
Speedup of K0 compared with Serial Code.	27.16	27.07	26.72	26.45	25.86	25.70	15.17	15.35
Time cost for CUDA k1 (ms)	3.50	2.24	2.21	2.37	2.43	2.46	8.20	8.34
Speedup of k1 compared with Serial Code	23.13	36.14	36.63	34.16	33.31	32.91	21.25	20.90
Speedup k1 compared with K0	0.85	1.33	1.37	1.29	1.29	1.28	1.40	1.36

Note: For my implementation I added a feature to Jacobi.cu which allows for a kernel to be specified. This was used along with a bash script to automate the process of running the various configurations and collecting the resulting data.