

# Run Times of Pthreads Matrix-Vector Multiplication

CS 625 Parallel and Distributed Computing

Spring, 2014

## Original algorithm

Threads	Matrix Order					
	8,000,000 × 8		8000 × 8000		8 × 8,000,000	
	Time	Eff	Time	Eff	Time	Eff
1	366	1.00	340	1.00	434	1.00
2	208	0.88	183	0.93	286	0.76
4	148	0.62	115	0.74	372	0.29

## Updates to $y$ use local storage

Threads	Matrix Order					
	8,000,000 × 8		8000 × 8000		8 × 8,000,000	
	Time	Eff	Time	Eff	Time	Eff
1	362	1.00	334	1.00	431	1.00
2	205	0.88	180	0.93	254	0.85
4	148	0.61	115	0.73	236	0.46

Times are in milliseconds. Code was compiled with optimization `-O3` and run on a node of the penguin cluster.