Shady Boukhary

Dr. Colmenares

GPU Research Week 3

March 5th, 2018

Size/System	Intel Core i3-7100 CPU @ 3.90GHz (CPU) Nvidia Geforce GTX 1050 TI (GPU)		
	Method	Speed(seconds)	Speedup(Ts/Tp)
512x512	Sequential	5.906498e-01	
	OpenACC	1.162069e-01	<i>5.083</i> (508.3%)
	CUDA Global Memory	2.288103e-03	<i>258.14</i> (25814%)
	CUDA Shared Memory	1.162052e-03	<i>508.282</i> (50828.2%)
1024x1024	Sequential	13.35325	
	OpenACC	1.308241e-01	<i>102.07</i> (10207%)
	CUDA Global Memory	1.847792e-02	722.67 (72267%)
	CUDA Shared Memory	9.077072e-03	1471.099 (147
2048x2048	Sequential	106.4078	
	OpenACC	3.450470e-01	<i>308.386</i> (30838.6%)
	CUDA Global Memory	1.281788e-01	<i>830.151</i> (83015.1%)
	CUDA Shared Memory	7.176995e-02	<i>1482.623</i> (148262.3%)
4096x4096	Sequential	874.135	
	OpenACC	1.7556	<i>497.912</i> (49791.2%)
	CUDA Global Memory	1.0862	804.764 (80476.4%)
	CUDA Shared Memory	5.1807e-01	1687.291 (168729.1%)
8192x8192	Sequential	5760.748	
_	OpenACC	12.68030	454.306 (45430.6%)
	CUDA Global Memory	8.737388	659.321 (65931.1%)
	CUDA Shared Memory	3.633853	1585.30 (158530%)
16384x16384	Sequential	~46085.98	
	OpenACC	115.624	398.584
	CUDA Global Memory	105.2529	438.914
	CUDA Shared Memory	28.39943	1645.937

