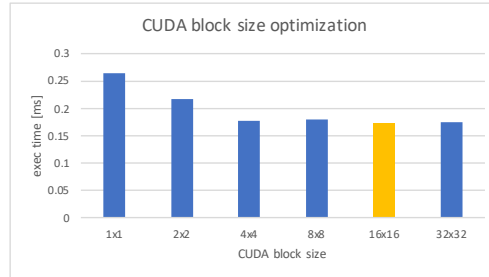


The Y-axis of all graphs are representing "execution time / frame".

1. CUDA block size optimization

Find the optimal block size by running anaglyph processing. (image resolution: 436x292 x2)

CUDA block size	exec time [ms]
1x1	0.265235
2x2	0.215579
4x4	0.176218
8x8	0.178695
16x16	0.172139
32x32	0.173829



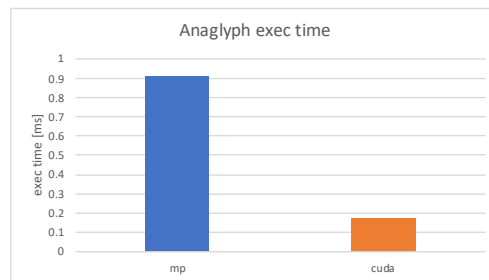
Assume the optimal block size is 16x16, I use it for all following comparison.

2. Benchmark

Run ittr.=100 times.

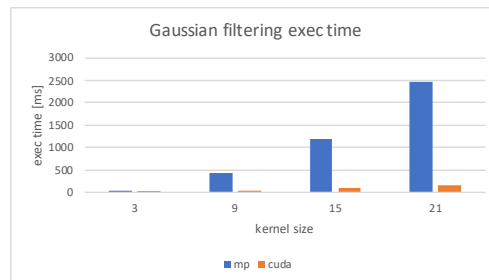
2.1. Anaglyph (image resolution: 436x292 x2)

	mp	cuda
\	0.912706	0.174221



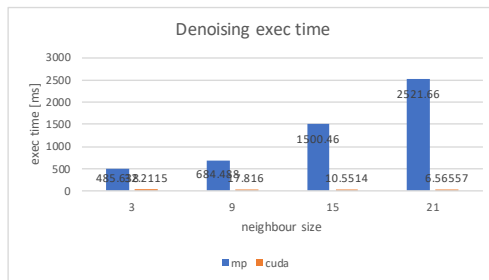
2.2. Gaussian filtering (image resolution: 928x746)

kernel size	mp	cuda
3	48.3689	5.12948
9	424.353	32.7338
15	1203.02	85.0368
21	2457.61	162.068



2.3. Denoising (image resolution: 640x460, max kernel size of gaussian filter: 15)

neighbour	mp	cuda
3	485.638	32.2115
9	684.488	17.816
15	1500.46	10.5514
21	2521.66	6.56557



3. Shared memory (image resolution: 928x746, same as section 2.2, compare with its results)

kernel size	cuda (no sha)	cuda (shared memory)
3	5.12948	5.0266
9	32.7338	31.8435
15	85.0368	82.7157
21	162.068	157.35

