Starting CPU vs. GPU interpolation benchmarks:

Testing with 1000 random points:

test\_interpolation.exe (52664): Loaded 'C:\Windows\System32\bcryptprimitives.dll'.

CPU Bilinear: 0 ms

CPU Cubic: 0 ms

CPU Kriging: 5 ms

GPU Bilinear: 10 ms

GPU Cubic: 2 ms

GPU Kriging: 21 ms

Bilinear result validation: PASSED

Cubic result validation: PASSED

Kriging result validation: PASSED

Testing with 5000 random points:

CPU Bilinear: 0 ms

CPU Cubic: 3 ms

CPU Kriging: 15 ms

GPU Bilinear: 2 ms

GPU Cubic: 3 ms

GPU Kriging: 9 ms

Bilinear result validation: PASSED

Cubic result validation: PASSED

Kriging result validation: PASSED

Testing with 10000 random points:

CPU Bilinear: 2 ms

CPU Cubic: 8 ms

CPU Kriging: 38 ms

GPU Bilinear: 3 ms

GPU Cubic: 7 ms

GPU Kriging: 17 ms

Bilinear result validation: PASSED

Cubic result validation: PASSED

Kriging result validation: PASSED

Testing with 50000 random points:

CPU Bilinear: 8 ms

CPU Cubic: 41 ms

CPU Kriging: 147 ms

GPU Bilinear: 10 ms

GPU Cubic: 32 ms

GPU Kriging: 73 ms

Bilinear result validation: PASSED

Cubic result validation: PASSED

Kriging result validation: PASSED

Testing with 100000 random points:

CPU Bilinear: 16 ms

CPU Cubic: 81 ms

CPU Kriging: 307 ms

GPU Bilinear: 20 ms

GPU Cubic: 64 ms

GPU Kriging: 142 ms

Bilinear result validation: PASSED

Cubic result validation: PASSED

Kriging result validation: PASSED

Testing with 1000000 random points:

CPU Bilinear: 166 ms

CPU Cubic: 794 ms

CPU Kriging: 3068 ms

GPU Bilinear: 178 ms

GPU Cubic: 627 ms

GPU Kriging: 1388 ms

Bilinear result validation: PASSED

Cubic result validation: PASSED

Kriging result validation: PASSED

Testing with 5000000 random points:

CPU Bilinear: 823 ms

CPU Cubic: 4001 ms

CPU Kriging: 16670 ms

GPU Bilinear: 880 ms

GPU Cubic: 3113 ms

GPU Kriging: 6918 ms

Bilinear result validation: PASSED

Cubic result validation: PASSED

Kriging result validation: PASSED