GPU Programming 2016/17

Tutorial 5

In this tutorial we will write a Cuda program that implements convolution. See Figure 1 for an example.

0.) Download the skeleton code and generate the build system using `cmake` (Under Linux and MacOS you can use a package manager (apt, brew, port,...) to install `cmake`. Then type `cmake ..` on the command line from the `./build` directory to generate the make file. On Windows `cmake ..` generates a Visual Studio solution).

1.) Understand the given host and Cuda implementations.

2.) Improve the performance of the Cuda implementation.

3.) Measure the speedup by your improvement.

Please finish the implementation until next week (week of 02/12/2016).

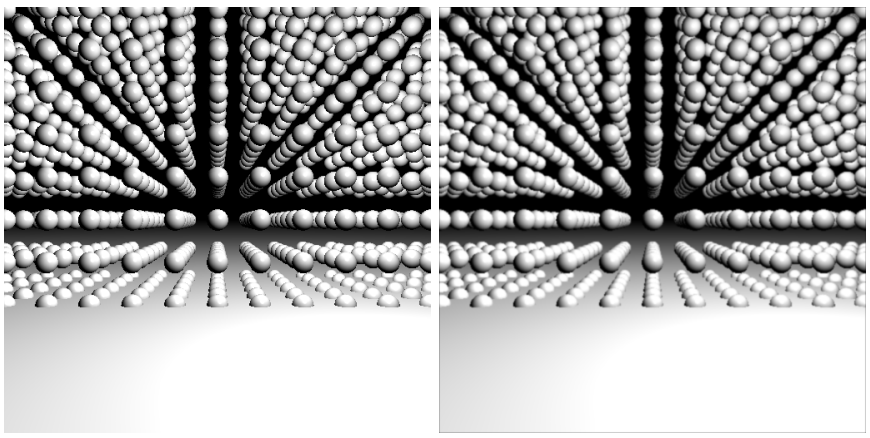

Figure 1: Image before and after convolution with a Gaussian kernel.