COMPUTAÇÃO DE ALTO DESEMPENHO

2018/2019

CUDA Lab 1

1. Implement a pair-wise addition of two arrays, placing the result in a third array.

2. Convert an RGB image into a gray scale image. The input is an RGB triple of float values that you must convert into a single float grayscale intensity value. A pseudo-code version of the algorithm is shown below:

```
for ii from 0 to height do
    for jj from 0 to width do
        idx = ii * width + jj
        # here channels is 3
        r = input[3*idx]
        g = input[3*idx + 1]
        b = input[3*idx + 2]
        grayImage[idx] = (0.21*r + 0.71*g + 0.07*b)
    end
end
```