Masaryk University
Faculty of Informatics

Framework for Parallel Kernels Autotuning

Master's Thesis

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Declaration

Hereby I declare that this paper is my original authorial work, which I have worked out on my own. All sources, references, and literature used or excerpted during elaboration of this work are properly cited and listed in complete reference to the due source.

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Abstract

The result of this thesis is a framework for autotuning of parallel kernels which are written in either OpenCL or CUDA language. The framework includes advanced functionality such as support for composite kernels and online autotuning. The thesis describes API and internal structure of the framework and presents several examples of its utilization for kernel optimization.

Keywords

Contents

1 Introduction

Todo...

2 Autotuning in CUDA and OpenCL

Todo...

3 Conclusion

Todo...

Bibliography

[1] Cedric Nugteren and Valeriu Codreanu. "CLTune: A Generic Auto-Tuner for OpenCL Kernels". In: *MCSoC: 9th International Symposium on Embedded Multicore/Many-core Systems-on-Chip*. 2015.

[2] Khronos OpenCL Working Group. *The OpenCL 1.2 Specification*. 2012. URL: https://www.khronos.org/registry/cl/specs/opencl-1.2.pdf (visited on 02/25/2018).

A Appendix

Todo...