

Extension of a GPU-based solver for Parity Games

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Recently, a solver of parity games has been developed at I7 which takes advantage of the modern GPUs using CUDA to speed up the computation of winning strategies. In this master thesis, based on the existing code the solver should be first re-implemented to support both CUDA and OpenCL and then extended so that it can take advantage of multiple GPUs within the same PC.

1 Required Knowledge

- C/C++
- CUDA/OpenCL
- Basic Graph Algorithms
- Course “Automata and Formal Languages”