

In this thesis, we introduce a novel random cache-oblivious sorting algorithm loosely based on another sorting algorithm called ColumnSort shown by Leighton. Our algorithm achieves asymptotic optimality in expected case. As it is cache-oblivious, no further finetuning is necessary. We also demonstrate that its implementation is straightforward and can fit in approximately 100 lines of code, therefore we believe it is accessible and can be easily integrated into existing systems. After we show the implementation in detail, we prove its expected and worst running times and then we compare our implementation with the existing implementation of Funnel Sort implemented by Rønn and `std::sort` provided by standard C++ library.