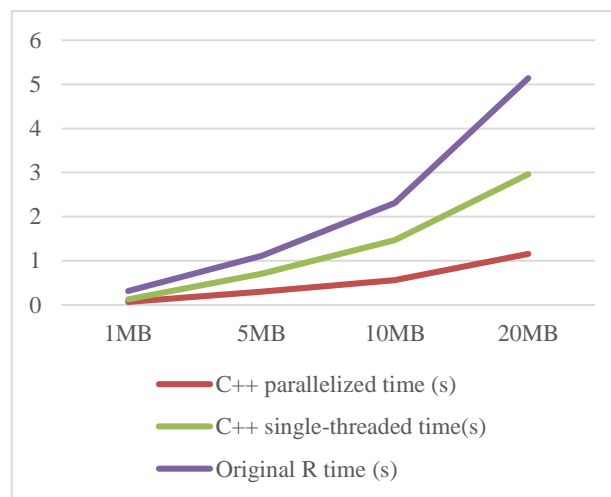# Map-Reduce Parallelizing R to C++/GPU Compilation

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ABSTRACT

Automatic parallelization existing code can lead to a performance increase. This paper discusses an innovative compiler built to compile R to C++ while automatically parallelizing certain constructs and method calls. It looks at previous attempts to decrease the computation time of R code by others and then details this particular implementation. It finds that for the particular example tested the implementation the compiler is successful at achieving its goal to increase execution speed through parallelization although the speed increase is marginal when the data size is small due to the overhead of parallelization.

Figure 1. Example Results