

# Parallel and Concurrent Programming

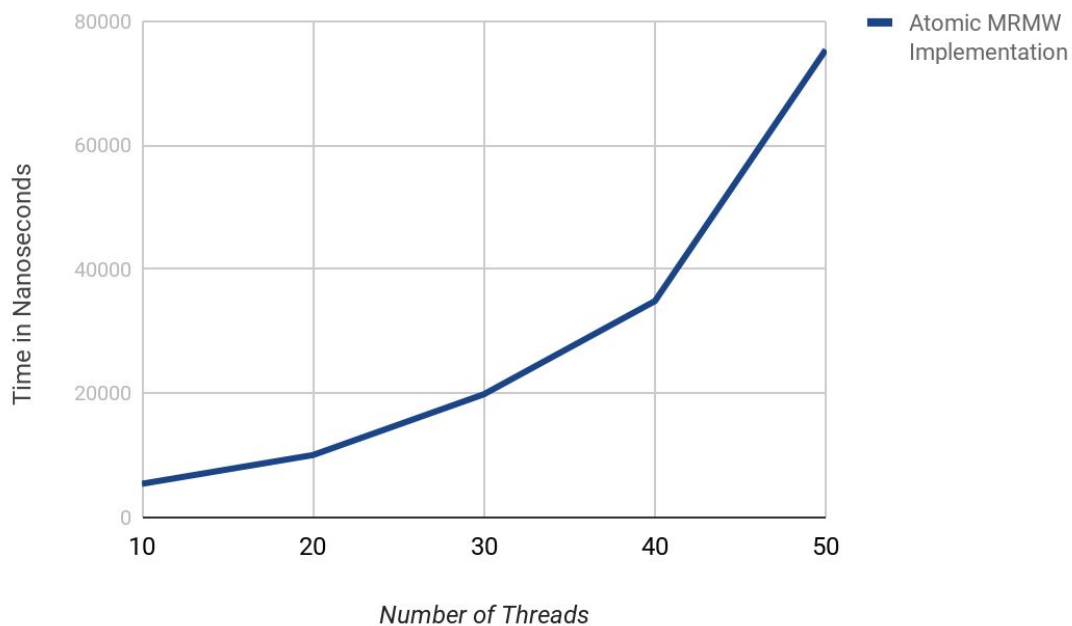
## Assignment 3

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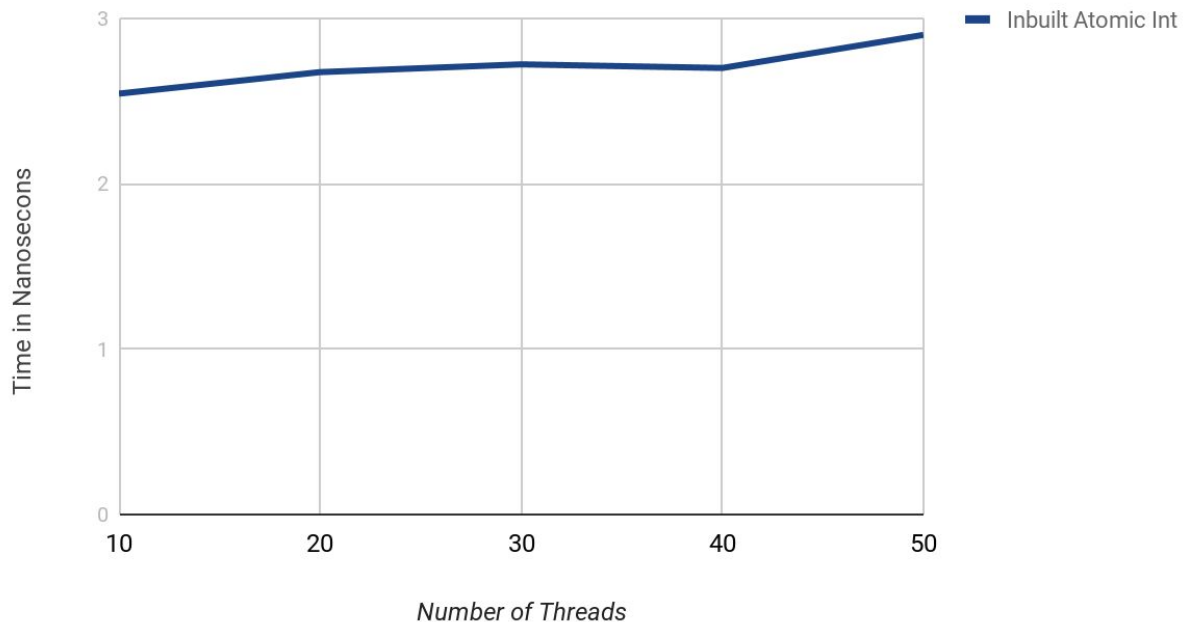
**Problem Statement :** Implement Atomic MRMW Register using Regular SRSW m-valued register. Implement as given in the textbook.

Two different graphs are plotted because inbuilt atomic implementation was much faster than our implementation, so the inbuilt atomic implementation was not clear in single graph.

Atomic MRMW Implementation



## Inbuilt Atomic Implementation



We can notice that the avg time incase of our implementation increases with increase in number of threads. This is because when the number of threads increase, array sizes also increase which means traversing the arrays will take more time.

Incase of inbuilt atomic implementation, the avg time is almost constant.

NOTE: `thread_local` was not used in the program because it was proven to be useless.