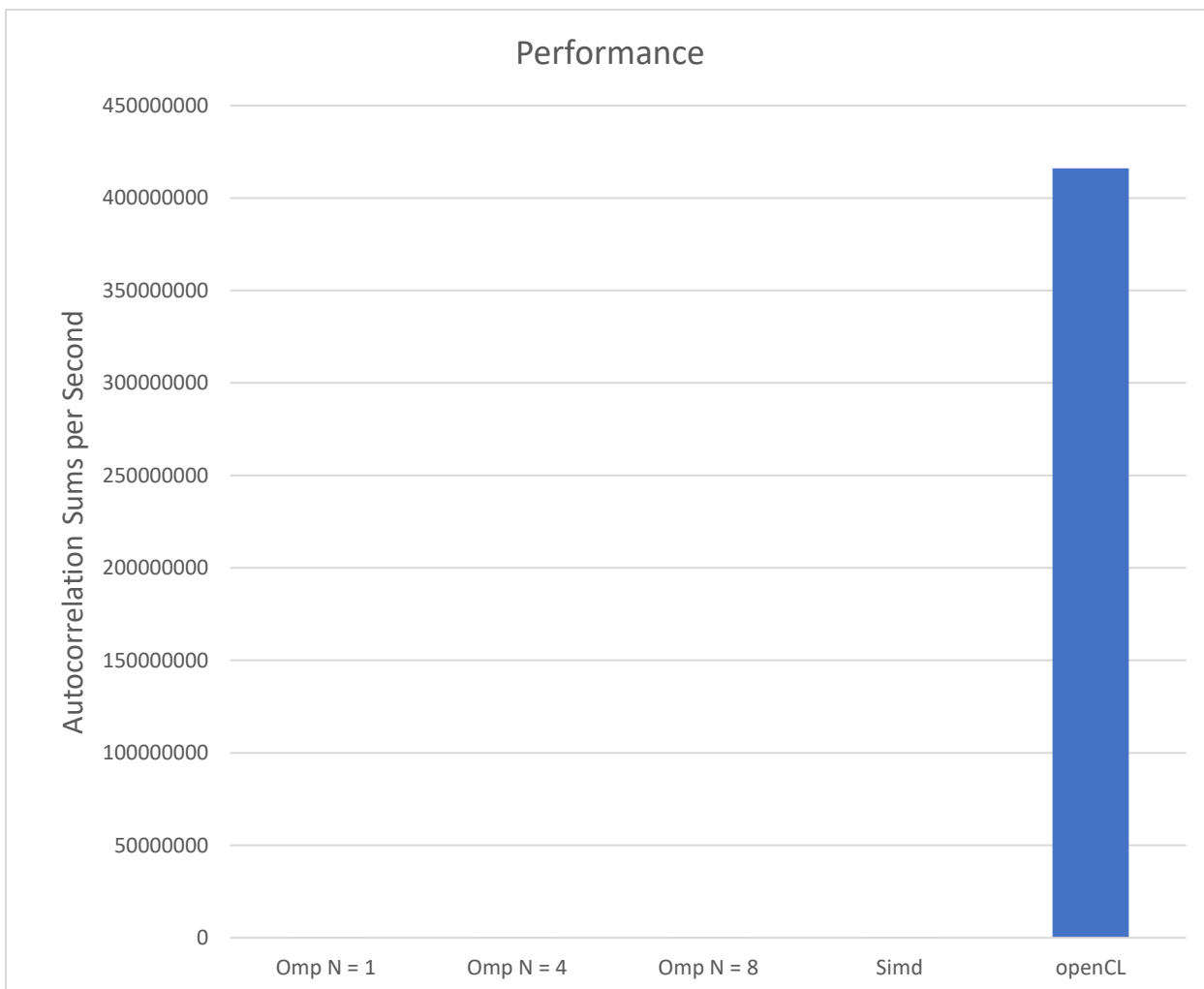
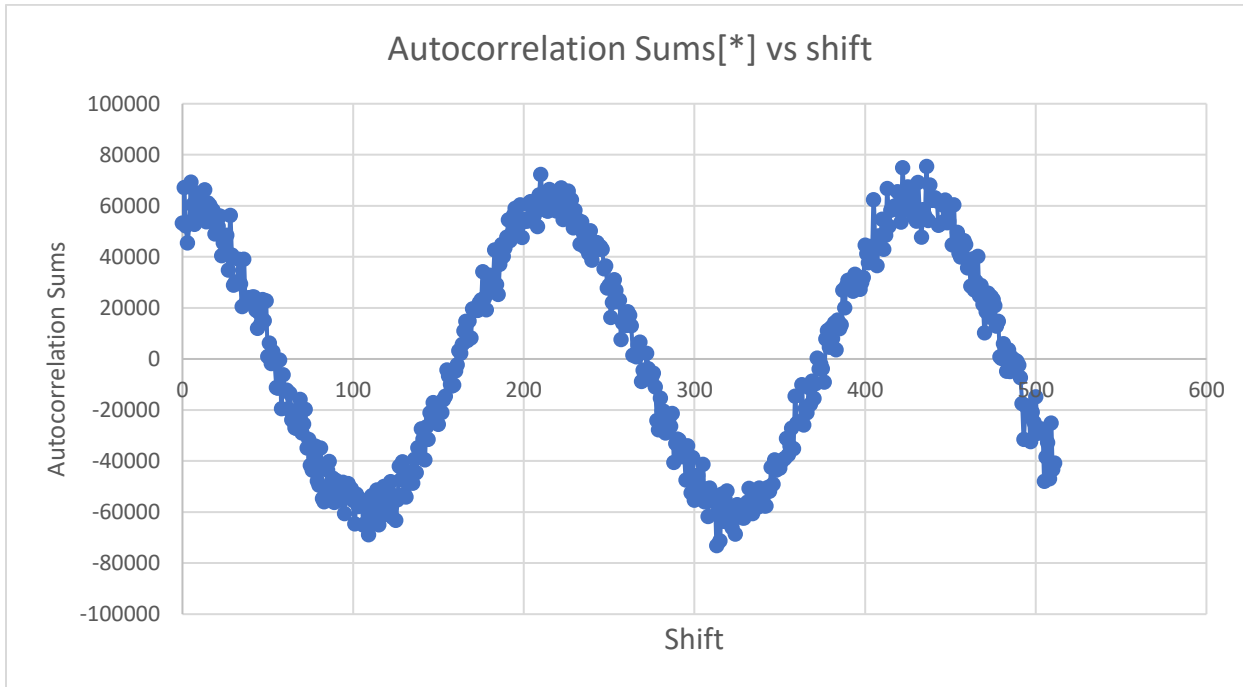
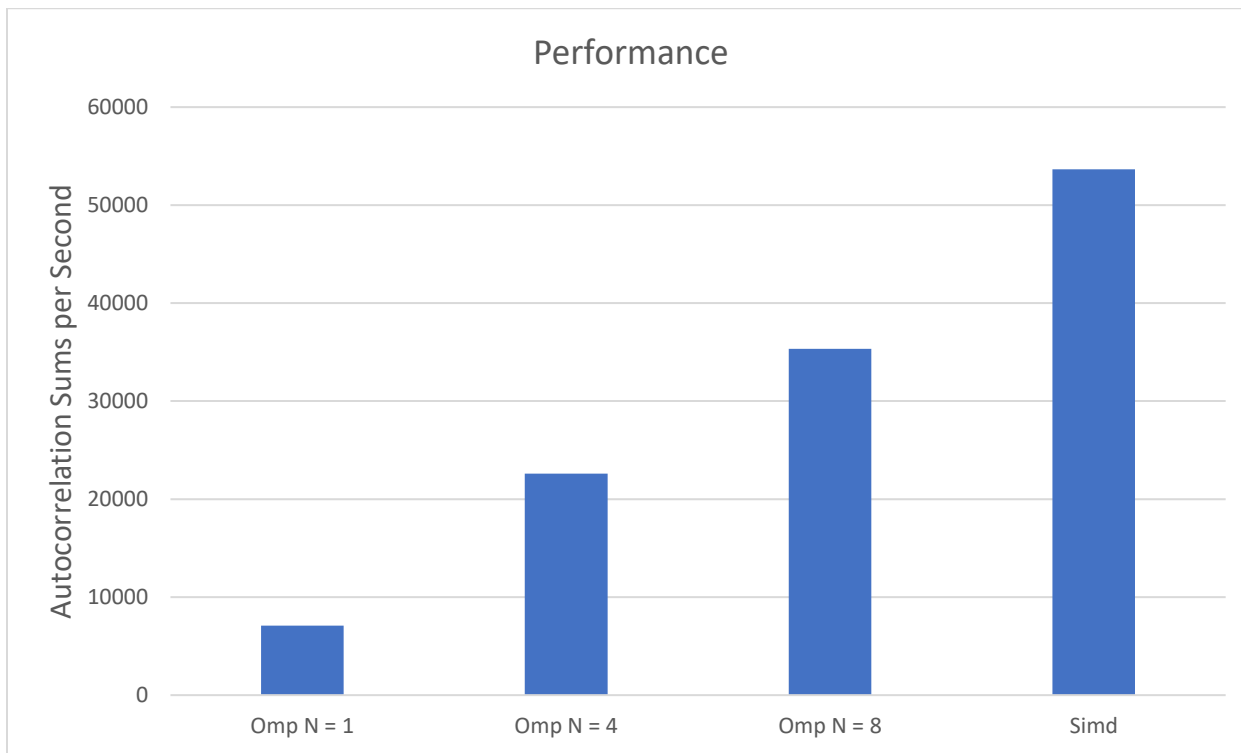


1. The tests for OpenMP and SIMD were both run on flip, the tests for OpenCL were run on the rabbit server
- 2.





*I've included this second graph because the values for OpenMP were so huge they didn't give a good representation of the increase in performance between the other means of summing.

3. The period appears to be 200 or more accurately 215

4. The tests in OpenMP were by far the slowest, they start at 1 thread being the slowest and then get faster as the threads increase up to 8 threads. The SIMD tests were the next fastest, they run much faster than OpenMP. Finally the OpenCL blew the other two tests out of the water. In the graph with all three tests neither of the other values can be discerned because OpenCL dwarfs them all to such an extreme level.

5. The performance increase between the values of OpenMP threads are because there are more lines of execution through the code and each line of execution is given a different core to operate on. Therefore since there are more cores calculating sums there is a performance increase. For SIMD there are fewer assembly level instructions and several floats are being multiplied at one time thus a speedup. The reason for the speedup seen in the OpenCL tests is similar to that of the OpenMP tests. The hardware on the rabbit server has many more "cores" or Processing Elements, a value somewhere in the thousands. Therefore since the rabbit server has thousands of cores computing the problem opposed to 8 in the OpenMP tests the problem can be computed many times faster.