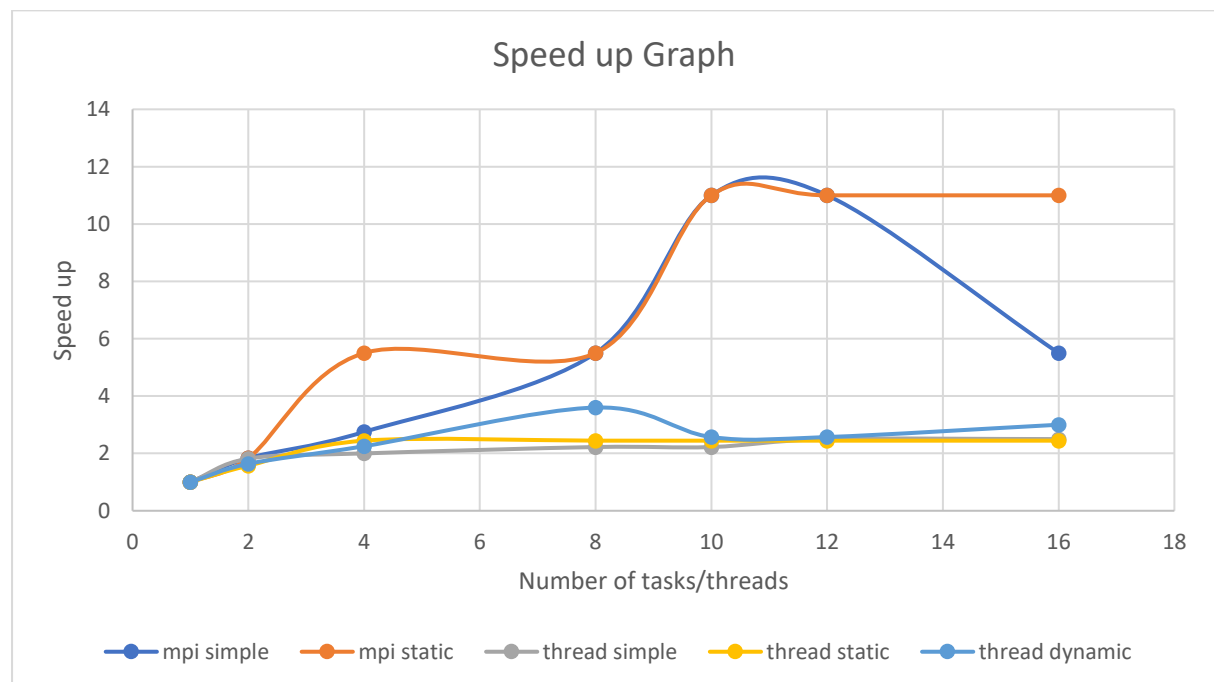


## RESULTS

To get these results, I used a matrix of size 600x600 and 100 max iterations, I did not expect this big difference between mpi and threads. I will explain the reasons why in the discussion of results.



## DISCUSSION :

I am going to discuss the results I expected, and not the ones I got, since I Believe they are not very accurate.

First off, my results are not the best probably due to an implementation error, or maybe due to the small nature of the problem, and I would notice better results with different/larger problems.

I expected MPI simple to be slower than Threads simple, since we do the same thing in both implementations, but MPI must communicate the computed values at the end. Since communications are somewhat fast, I expected threads to be just a bit faster, but at least not slower.

MPI static and Threads Static, I do not quite understand the interest behind these methods, this is just the same complexity as the simple algorithm, but maybe a bit easier to implement. The results here are somewhat True, as no actual performance gain was witnessed.

MPI dynamic is where things get interesting, this algorithm is very good, as this way no core has down time, this was the case with both the other algorithms, when they were waiting for the others to finish their part of the computations, in dynamic, not every core does the same amount of computations, as the fastest ones, will end up doing more computations, but every core finishes almost the exact same time.