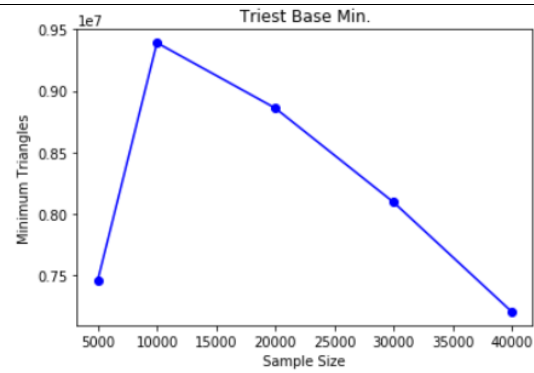
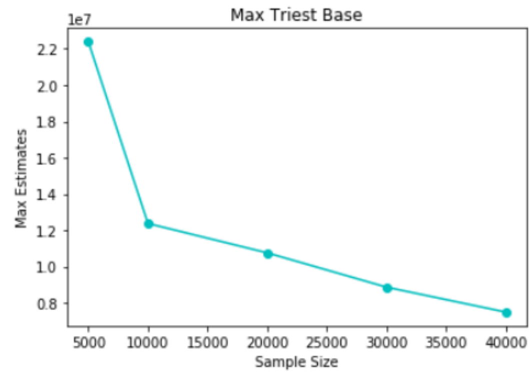
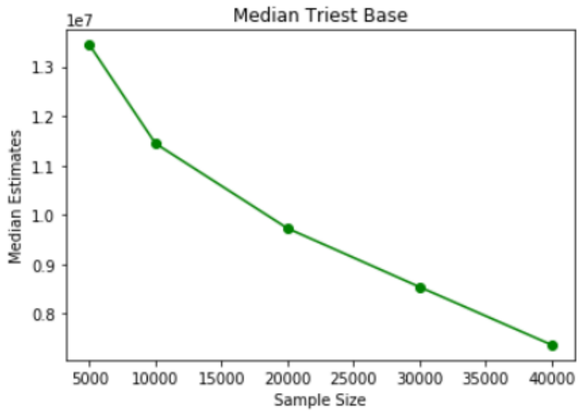
Daniel Betancur-Echeverri

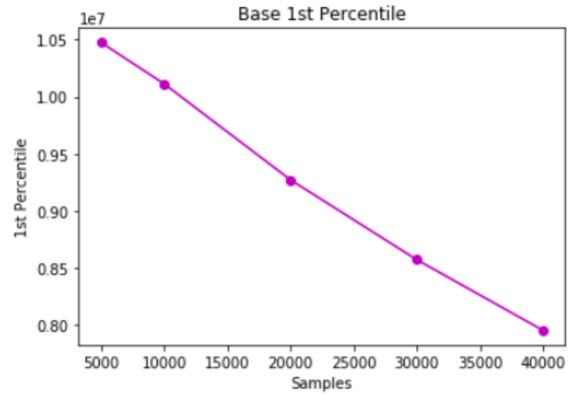
Run on Matteo's original graph.

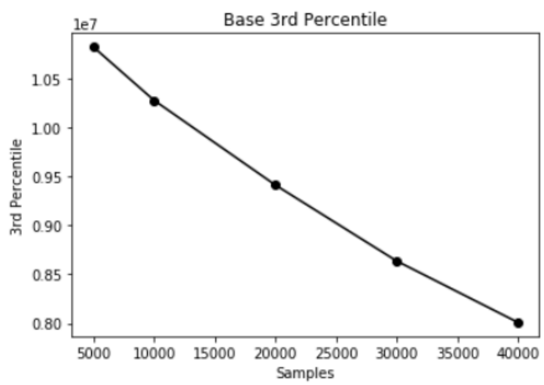
Triest Base



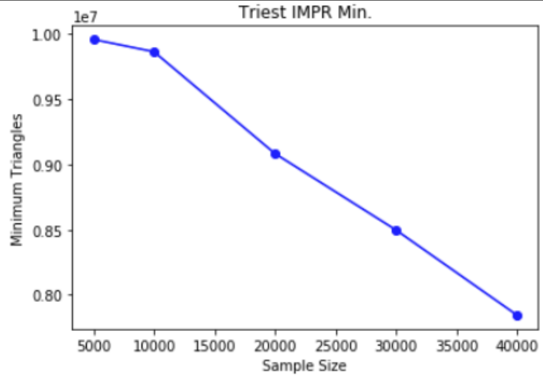


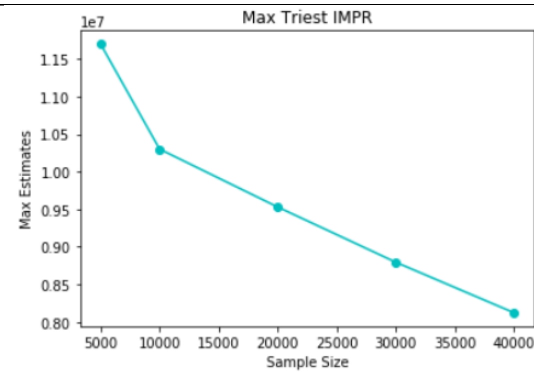


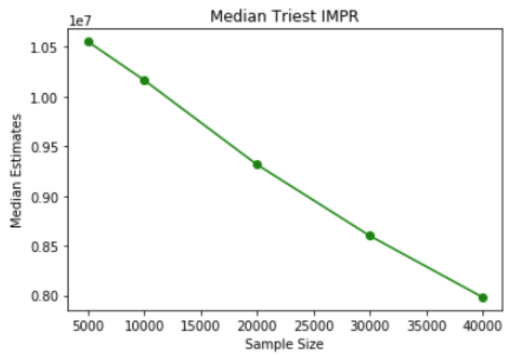


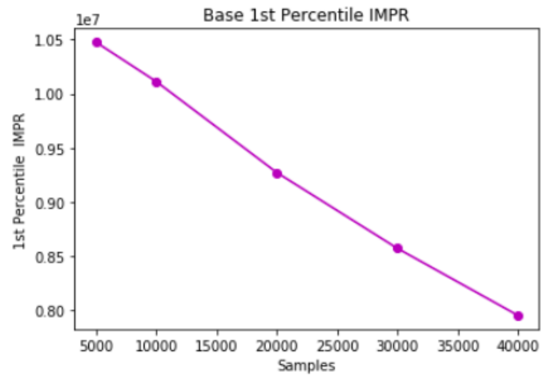


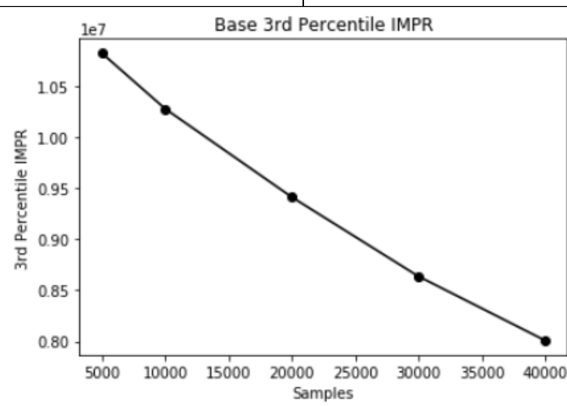
Triest IMPR


Triest IMPR Min.
1e7
Minimum Triangles
Sample Size


Max Triest IMPR
1e7
Max Estimates
Sample Size


Median Triest IMPR
1e7
Median Estimates
Sample Size


Base 1st Percentile IMPR
1e7
1st Percentile IMPR
Samples


Base 3rd Percentile IMPR
1e7
3rd Percentile IMPR
Samples

Analysis

In every graph, we see that as we increase **M**, the estimation gets lower and lower, with the notable exception in the min graph, where the first few estimates shoot up, but then quickly correct themselves back down.

We can also see that the Triest-Impr graph shows less variance overall. Which makes sense considering how Matteo's paper explains it.

We see that for *both* algorithms, grabbing the max of each run has more variance than for the other operations, regardless of algorithm. With the 3rd quartile being particularly smooth, and even more so for TriestImpr, again, due to the low variance.

Also, for both graphs, we see a relatively dramatic drop for triangle estimation on the graphs plotting max values of the runs over the sample size.