Project – Jacobi’s Algorithm

Conclusion

There are two versions to the given algorithm, the sorting version and the non-sorting version. The sorting version of the program plots points which are either on or below the theoretical curve. The line of plotted points has a slope very close to the slope of the theoretical line.

This program examines all off diagonal values in the upper right triangle, finds the maximum value of the off diagonals. Then the program performes jacobi's algorithm using that value.

The non-sorting version executes jacobi's algorithm on each of the off diagonal values in the upper right section of the matrix in turn. After using each of the off diagonal values it starts with the first one until the OffB of the matrix is very accurate. This version took many more iterations to reach less than 10^-9.