

Analysis of Poisson Relaxation with Threads

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1 Introduction

I have written a version of the Poisson's Equation using the relaxation technique with a variable number of threads. The correctness of the program was guaranteed by checking the expected number of iterations (65,251) and also manually visualizing the array convergence over different iterations, as seen in figures 1-6, produced from script XXXXX.

Figure 1: 0 iterations

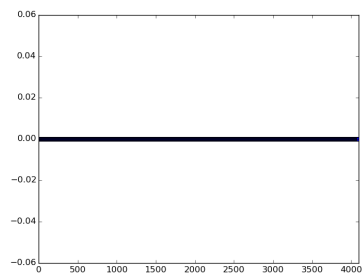


Figure 2: 10 iterations

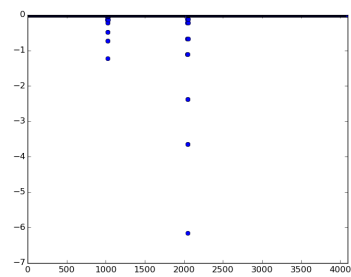


Figure 3: 100 iterations

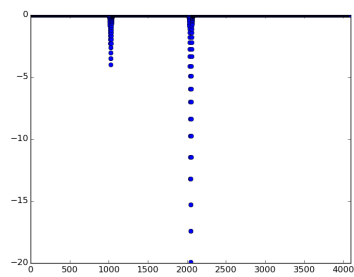


Figure 4: 100 iterations

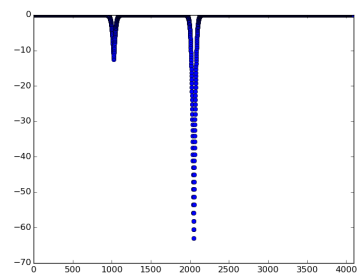


Figure 5: 10,000 iterations

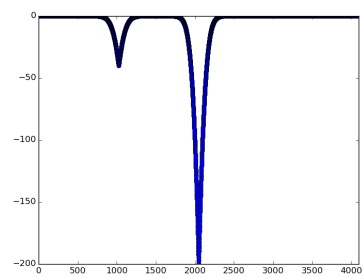


Figure 6: 65,250 iterations

