

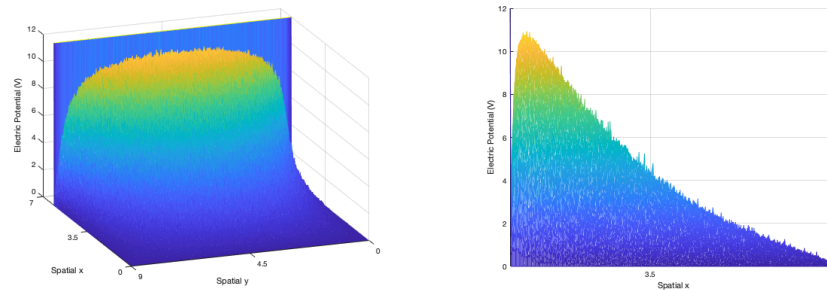
MONTE CARLO SOLUTION TO LAPLACE'S EQ ON A RECTANGULAR DOMAIN

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ABSTRACT. We use the Tour Du Wino Method, an algorithm based on Monte-Carlo simulation, to approximate a solution to Laplace's Eq on a rectangular domain with Dirichlet boundary conditions

1. INTRODUCTION
2. BACKGROUND
3. IMPLEMENTATION
4. COMPUTATIONAL RESULTS

FIGURE 1. Numerical solution with a grid size of 350x350 and 350 realizations



4.1. Plots.

4.2. Convergence Towards Analytical Solution.

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4.3. Computation Time. DEPARTMENT OF MATHEMATICAL SCIENCES, NEW JERSEY INSTITUTE OF TECHNOLOGY, UNIVERSITY HEIGHTS, NEWARK, NJ 07102

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