FYS 4150 - Computational Physics Project 1: Solving Poisson's equation in one dimension

Maren Rasmussen Markus Leira Asprusten Metin San

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Abstract

This project involves solving the one-dimensional Possion equation with dirichlet boundary conditions using two different algorithms. The first method is the tridiagonal matrix algorithm while the second is the LU decomposition. The conclusion of the project is that a specialized version of the tridiagonal algorithm is much faster.

1. Introduction

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1. Method

1.1 The Poisson equation

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