

Vortex Interactions in Type II Superconductors

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Abstract

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1 Introduction

1.1 Superconductors

1.2 Path Integrals

1.3 Problem Statement

2 Theory

2.1 Path Integral Details

2.2 Solving Schrodiner Equation in One Dimension

2.2.1 Eigenvalue Problem

2.2.2 Initial Value Problem

2.3 Solving Schrodiner Equation in Three Dimensions

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2.3.2 Successive Over Relaxation

2.4 Independent Residual

3 Results

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3.1.1 Eigen-problem

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3.2 Three Dimensions

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