SGLsolver Documentation

Release 0.1

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SGLSOLVER

1.1 Introduction

Package containing routines for solving the schrödinger equation for different potentials.

CHAPTER

TWO

USAGE

2.1 Input

The following text shows an example how the .int data has to be structured

schrodinger.int

> 2.0 # mass -2.0 2.0 1999 # xMin xMax nPoint 1 5 # first and last eigenvalue to print linear # interpolation type 2 # nr. of interpolation points and xy declarations -2.0 0.0 2.0 0.0

2.2 Apllication

2.2.1 Solvers

./solvers.py -d [Directory] Solves the SGL for the given problem in the given Directory

Returns:

- energies.dat: .dat containing energie and eigenvalues
- potential.dat: .dat containing the interpolatet potential
- wavefunction.dat: .dat containing the eigenvectors

2.2.2 Plotmain

./plotmain.py -d [Directory] -ymin [Ymin] -ymax [Ymax] -s [Scaling] Visualise the solved problem in a graph

Returns:

- graph.pdf: .pdf containing graphs

CHAPTER

THREE

INDICES AND TABLES

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