Project 3

For the course FYS3150

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Contents

Kommentarer fra project 1 på devilry:
Abstract: short motivation and presentation of the results and the findings

Introduction: you want to motive the reader about the problem and why you want solve it

Theory: explaining the theory behind the solution method and the problem

method/implementation: how you implement the solution in order to fix/solve the problem

results/graphs/tables: presenting the results

discussion: Discussing the result from previous section

conclusion: concluding the findings, your neutral opinion, etc... and future work

appendix:How you derived your method, theory, etc...

1 Abstract

bla bla bla bla bla bla bla

2 Introduction

All programs are found at our GitHub-repository.

3 Theory

$$\begin{bmatrix} d & a & 0 & \dots & 0 & 0 \\ a & d & a & \dots & 0 & 0 \\ 0 & a & d & \dots & 0 & 0 \\ \vdots & \vdots & \vdots & \ddots & \vdots & \vdots \\ 0 & 0 & 0 & a & d & a \\ 0 & 0 & 0 & 0 & a & d \end{bmatrix} \begin{bmatrix} u_1 \\ u_2 \\ u_3 \\ \vdots \\ u_{N-2} \\ u_{N-1} \end{bmatrix} = \lambda \begin{bmatrix} u_1 \\ u_2 \\ u_3 \\ \vdots \\ u_{N-2} \\ u_{N-1} \end{bmatrix}$$

4 Method

5 Results

Our results are as shown in the Appendix. We also have `.txt`-files for all the raw data generated by the projects up on GitHub.

6 Discussion

7 Conclusion and perspective

8 Appendix

9 References

Link to the PDF for Project 2.

Our GitHub-repository.

Link to lecture slides in FYS3150 - Computational Physics.

Offical Armadillo website for documentation of all contents in the library.

Analytical results for specific oscillator frequencies.