

Algorithms for time-independent Schrödinger equations

Changes made after the internal defence

Comparing my version history, I list all significant¹ changes made since May 31st in the order that they appear in the text.

- Added a preface with a more personal message and some acknowledgment of important people.
- Updated use of capital letters for ‘Schrödinger-vergelijking’ in the summary in Dutch.
- Added a reference and a sentence about the historic use of complex numbers by Bombelli in the context of cubic and quartic equations.
- Added some references to some articles from our own research group about the use of correction formula for finite difference schemes for Sturm-Liouville problems.
- In the historic conception of CP-methods we acknowledge the contributions by Ixaru in two internal reports.
- Fixed the bug present in our implementation of chapter 3.
- Re-executed the numerical experiments of chapter 3. Now yielding much better results. The text has been updated to reflect this.
- Our results in table 3.2 now agree to all digits with Ixaru’s first report.
- Removed the section ‘Analyzing unexpected numerical behavior’ in chapter 3.
- Updated conclusion of chapter 3 to reflect these better results.
- At the start of chapter 4, a sentence about the involvement of our research group in finite-difference schemes for Sturm-Liouville is added.
- Added two missing E ’s in equation (4.10).

¹Some smaller changes, like correcting typo’s or some minor layout modifications, are omitted.