

RUPRECHT-KARLS-UNIVERSITÄT HEIDELBERG  
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE  
INSTITUTE OF APPLIED MATHEMATICS

BACHELOR THESIS

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# **Accelerating the Rayleigh quotient iteration with complex initial values**

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## **Beschleunigen der Rayleigh-Quotient-Methode durch komplexe Startwerte**

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July 29, 2019



# Declaration of Authorship

I, Nils FRIESS, declare that this thesis titled, “Accelerating the Rayleigh quotient iteration with complex initial values

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Beschleunigen der Rayleigh-Quotient-Methode durch komplexe Startwerte” and the work presented in it are my own. I confirm that:

- This work was done wholly or mainly while in candidature for a research degree at this University.
- Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated.
- Where I have consulted the published work of others, this is always clearly attributed.
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- I have acknowledged all main sources of help.
- Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself.

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# Abstract

Nils FRIESS

*Accelerating the Rayleigh quotient iteration with complex  
initial values*

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*Beschleunigen der Rayleigh-Quotient-Methode durch komplexe  
Startwerte*

The Thesis Abstract is written here (and usually kept to just this page). The page is kept centered vertically so can expand into the blank space above the title too. . .



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## Chapter 1

# Introduction



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