

# Fundamentals on Numerical Analysis

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# Introduction

I expect whoever comes across this project to be, at the very least, surprised to find out I'm keeping under the same repository a book written both in English and in Galician; and more surprised I expect you to be when you find out the Galician version is, in fact, the main one.

Normally, I would just leave the question "Why in Galician?" outside of the text, never to be addressed; but since this is going to be posted on Github, I'll try my best to explain people who may never heard of Galician language before why I'm doing this.

First, and more important, because it's my mother tongue. I live in a small region in the northwest of Spain called Galicia (or Galiza, both writings are valid) and we have a language on our own called Galician. It is a minority language (despite having legal recognition) and compared to twenty or forty years ago Galician has lost a great number of speakers; but that doesn't mean it's an extinct language.

Related to that very topic is my second reason: I find the amount of books on numerical analysis "lacking", so to speak; as of today, the only one I know about is Ciarlet's "Introduction to Linear Numerical Algebra and Optimisation", which was translated from French. In order for Galician to stay alive it must be relevant, and that implies that we continue to write science, literature, newspapers, etc., on it. This will try to be my contribution to that goal.

Lastly, and also very related to my previous reason (it could be considered the same, actually), English has plenty of books on numerical analysis written by more competent mathematicians than I am. I expect you to find more helpful or complete the books I will be referencing than my redaction of the same contents. The only reason I keep an English translation is that maybe someone can find an open book like this helpful, or maybe you find this project interesting and you want to give some feedback. Whatever is your case, I thank you for your interest.

A last word of advice: I will be focusing on the Galician version and this is a project I will be dedicating my free time to; therefore, if I haven't

updated this project on a while, keep in mind it doesn't necessarily mean that I have abandoned it.

# Chapter 1

## The First Chapter





## Chapter 2

### The Second Chapter

