Introduction

M.Sc. in Mathematical Modelling & Scientific Computing,
Practical Numerical Analysis

Michaelmas Term 2019

Introduction to Practical Numerical Analysis

- Two lectures per week on Thursdays at 4pm in L5 and on Fridays at 12noon in L2.
- There will be one problem sheet per week to be submitted on Tuesdays by 12noon.
- After week 1, the Friday lecture will go through concepts and the Thursday lecture will go through the problem sheets.
- Idea is to learn more Matlab by a set of examples from Numerical Analysis.

Introduction to Practical Numerical Analysis

Topics we will look at include

- Interpolation
- Quadrature
- Rootfinding
- ODEs (initial value problems)
- Parabolic PDEs
- Elliptic PDEs
- Spectral methods

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The idea of the Friday lectures (and Thursday in week 1) is to summarise the ideas for a topic. While there may be theorems stated, there will not (generally) be any proofs — this is meant to be a practical course.