Introduction

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

Michaelmas Term 2018

Introduction to Practical Numerical Analysis

- Two lectures per week on Mondays at 12noon in L2 and on Thursdays at 3pm in L4.
- There will be one problem sheet per week to be submitted on Fridays by 10am (although the first problem sheet will be due on Monday of week 2 at 9am).
- After week 1, the Monday 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

Introduction to Practical Numerical Analysis

The idea of the Monday 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.