# Lecture notes on PDE and Modelling

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Lecturer
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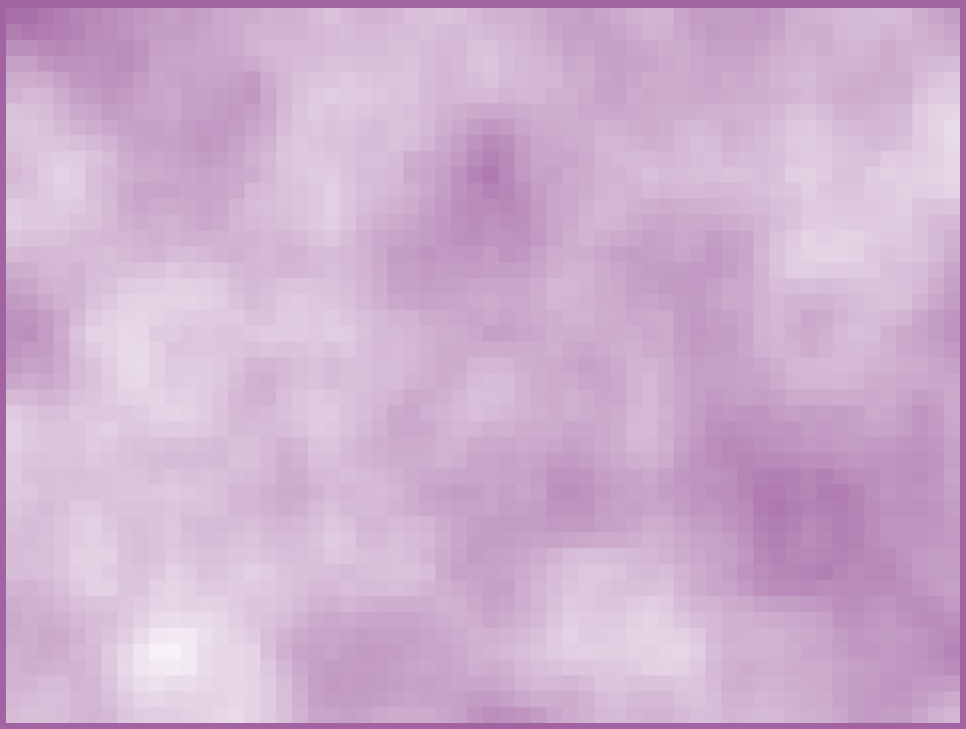

University of Bonn
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# Contents

# Chapter 0:
# Manuel's notes

**Warning**

These are unofficial lecture notes written by a student. They are messy, will almost surely contain errors, typos and misunderstandings and may not be kept up to date! I do however try my best and use these notes to prepare for my exams. Feel free to email me any corrections to mh@mssh.dev or s6mlhinz@uni-bonn.de.
Happy learning!

**General Information**

- Basis: Basis
- Website: https://ins.uni-bonn.de/teachings/ss-2025-467-v5e1-advanced-topics/
- Time slot(s): **Wednesdays: 10-12** Zeichensaal and **Fridays: 08-10** Zeichensaal
- Exams: ?
- Deadlines: ?

## 0.1 Organization

- Start of lecture 01 (09.4.2025)

# Chapter 1: Test

Some text.

**Theorem 1.1.** *There are infinitely many primes.*

**Definition 1.2.** *This is a definition.*

*Not a very useful definition ... but a very useful marginnote!*

**Remark.** *This is a remark.*

TEST

**Algorithm 1**

**Input:** $A \in \mathbb{R}^{m \times n}, m \geq n$
**Output:** $R$ von der $QR$-Zerlegung ($A$ wird zerstört "in place")

**for** $j = 1, \ldots, n$ **do**
  **for** $i = m, m-1, \ldots, j+1$ **do**
    Berechne $c, s$

$$A[i-1:i, j:n] = \begin{bmatrix} c & s \\ -s & c \end{bmatrix}^t A[i-1:i, j:n]$$

  **end for**
**end for**

# Journal

- Lecture 01: Covering:

  .
  Starting in ‘Organization’ on page 2 and ending in ‘Organization’ on page 2. Spanning 0 pages