

# Schedule of the course

Programming Concepts in Scientific Computing  
EPFL, Master class

September 20, 2023

# Program by day

- ▶ Wednesday 20-th Sep:
  - ▶ Presentation of the class
  - ▶ What is a program ?
  - ▶ Compilation process
  - ▶ Exercises: on Linux and manual compilation
- ▶ Friday 22-th Sep: Using GIT and CLion + Exercises Chapter 1
- ▶ Wednesday 27-th Sep: Chapter 2&3 - Flow control, File Input and Output
- ▶ Friday 29-th Sep: Exercises on Chapter 2 and 3

## Program by day

- ▶ Wednesday 04-th Oct: Chapter 4: pointers + GDB
- ▶ Friday 06-th Oct: Chapter 4 exercises + GDB exercises
- ▶ Wednesday 11-th Oct: Chapter 5: blocks functions and reference variables + start exercises
- ▶ Friday 13-th Oct: Chapter 5: exercises
- ▶ Wednesday 18-th Oct: Chapter 6: An introduction to classes: structuring code + exercises
- ▶ Friday 20-th Oct: Chapter 6: exercises
- ▶ Wednesday 25-th Oct: Chapter 7: Inheritance and derived classes: about code reuse
- ▶ Friday 27-th Oct: Chapter 7: exercises
- ▶ Wednesday 01-th Nov: Chapter 8: classes of Templates + STL
- ▶ Friday 03-th Nov: Chapter 8: exercises

## Program by day

- ▶ Wednesday 08-th Nov: Chapter 9 (Errors and exceptions) + modern C++
- ▶ Friday 10-th Nov: Chapter 9 & STL exercises
- ▶ Wednesday 15-th Nov: Eigen library (not in book)
- ▶ Friday 17-th Nov: Exercises on Eigen
- ▶ Wednesday 22-th Nov: Chapter 10 & 12: Design of code and projects presentations
- ▶ Friday 24-th Nov: Assignment of the projects
- ▶ Wednesday 29-th Nov: CMake, Doxygen and start of the project developments
- ▶ Friday 01-th Dec: Session dedicated to work on the projects
- ▶ Wednesday 06-th Dec: Session dedicated to work on the projects
- ▶ Friday 08-th Dec: Session dedicated to work on the projects
- ▶ Wednesday 13-th Dec: Session dedicated to work on the projects
- ▶ Friday 15-th Dec: Deadline for projects