



Felix Friedrich

# Data Structures and Algorithms

Course at D-MATH of ETH Zurich

Spring 2022

# Welcome!

Course homepage

<http://lec.inf.ethz.ch/DA>

The team:

Assistants

Ciril Humbel

Kamelia Ivanova

Ivana Klasovita

Leonhard Knirsch

Vedran Mihal

Harun Mustafa

Bastian Seifert

Felix Vittori

Backoffice

Ulysse Schaller

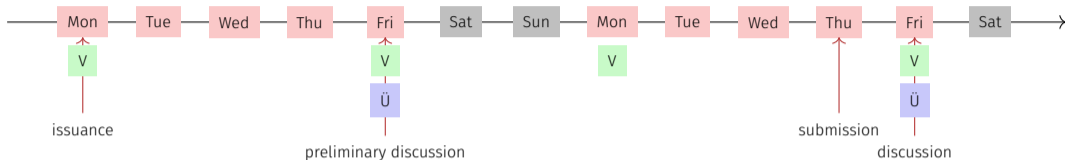
Head-Assistant

Julia Chatain

Lecturer

Felix Friedrich

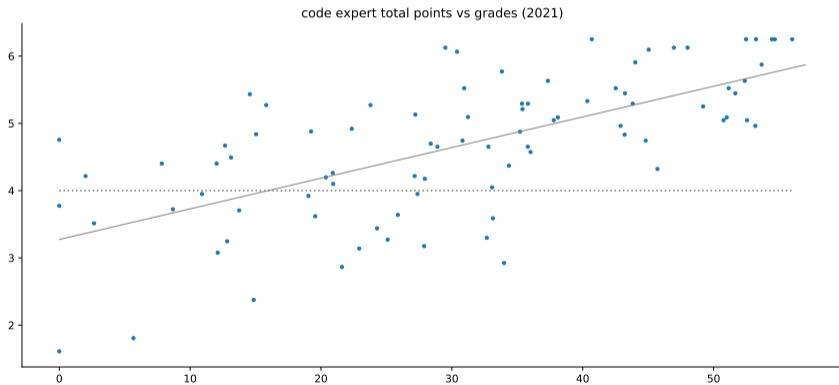
# Exercises



- Exercises available at lectures.
- Preliminary discussion in the following recitation session
- Solution of the exercise until the day before the next recitation session.
- Discussion of the exercise in the next recitation session.

# Exercises

- The solution of the weekly exercises is voluntary but **strongly** recommended.



# It is so simple!

For the exercises we use an online development environment that requires only a browser, internet connection and your ETH login.

If you do not have access to a computer: there are a a lot of computers publicly accessible at ETH.

# Literature

**Algorithmen und Datenstrukturen**, *T. Ottmann, P. Widmayer*, Spektrum-Verlag, 5. Auflage, 2011

**Algorithmen - Eine Einführung**, *T. Cormen, C. Leiserson, R. Rivest, C. Stein*, Oldenbourg, 2010

**Introduction to Algorithms**, *T. Cormen, C. Leiserson, R. Rivest, C. Stein*, 3rd ed., MIT Press, 2009

**The C++ Programming Language**, *B. Stroustrup*, 4th ed., Addison-Wesley, 2013.

**The Art of Multiprocessor Programming**, *M. Herlihy, N. Shavit*, Elsevier, 2012.

# Relevant for the exam

Material for the exam comprises

- Course content (lectures, handout)
- Exercises content (exercise sheets, recitation hours)

Written exam (150 min). Examination aids: four a4 pages. No constraints regarding content and layout (text, images, single/double page, margins, font size, etc.).

The exam will most likely be performed in hybrid form (on paper and at the computer).

# Offer

- Doing the weekly exercise series → bonus of maximally 0.25 of a grade point for the exam.
- The bonus is proportional to the achieved points of **specially marked bonus-task**. The full number of points corresponds to a bonus of 0.25 of a grade point.
- The **admission** to the specially marked bonus tasks can depend on the successful completion of other exercise tasks. The achieved grade bonus expires as soon as the course has been given again.



# Offer (Concretely)

- 3 bonus exercises in total;  $2/3$  of the points suffice for the exam bonus of 0.25 marks
- You can, e.g. fully solve 2 bonus exercises, or solve 3 bonus exercises to 66% each, or ...
- Bonus exercises must be unlocked ( $\rightarrow$  experience points) by successfully completing the weekly exercises
- It is again not necessary to solve all weekly exercises completely in order to unlock a bonus exercise
- Details: exercise sessions, online exercise system (Code Expert)

# Academic integrity

We encourage you explicitly to discuss solution ideas and approaches with your colleagues. Teamwork is important, also in computer science. It is, however, also important that you learn actively and do not only reproduce. Therefore:

## Rules for Bonus Tasks

You submit only solutions that you have written yourself and that you have understood. Copy-paste is not permitted, neither are team implementations.

# Should there be any Problems ...

- with the course content
  - definitely attend all recitation sessions
  - ask questions there
  - and/or contact the assistant
- further problems
  - Email to chef assistant (Julia Chatain) or lecturer (Felix Friedrich)
- We are definitely willing to help (!)