

# Advanced Programming in C++

- ▶ 2/2 Z/Zk
- ▶ Lecture
  - ▶ mixture of lecturers
- ▶ Tutorials
  - ▶ Only 3, dedicated to 3 major homework assignments
    - *before*: assignment, explanation, hints
    - *after (the first two)*: evaluation, frequent errors, best solutions
- ▶ The 3 major homework assignments
  - ▶ Deadlines 18 days after assignment
  - ▶ Up to 10 points per assignment
  - ▶ Late submission: -1 point per day

## ▶ Credit

- ▶ at least 1 point from **each** assignment, and
- ▶ at least 15 points in total

## ▶ Skipping the exam

- you may skip the exam if you have:
  - ▶ at least 5 points from **each** assignment, and
  - ▶ at least 19 points in total

## ▶ Oral exam

- ▶ Credit required before exam
- ▶  $\Rightarrow \pm 10$  points
  - beware: it may improve or worsen your result

## ▶ Grading

- ▶ 27..30 points  $\Rightarrow$  **1**
- ▶ 23..26 points  $\Rightarrow$  **2**
- ▶ 19..22 points  $\Rightarrow$  **3**

## ► C++11/14/17/20/23/26

- [en.cppreference.com/w/cpp](http://en.cppreference.com/w/cpp)
- **Scott Meyers: Effective Modern C++ (C++11/C++14)**
  - O'Reilly 2014
  - Methodology of programming
- **Scott Meyers: Overview of the New C++ (C++11)**
  - Collected slides
  - Motivation behind C++11 explained
- **Bjarne Stroustrup: The C++ Programming Language - [4th Edition](#)**
  - Addison-Wesley 2013
  - Complete C++11 textbook
- **David Vandevoorde, Nicolai M. Josuttis, Douglas Gregor: C++ Templates: The Complete Guide ([2nd Edition](#))**
  - Addison-Wesley 2017 (832 pages)
- **Anthony Williams: C++ Concurrency in Action: Practical Multithreading**
  - Manning Publications 2012 (528 pages)
- <http://stackoverflow.com/questions/388242/the-definitive-c-book-guide-and-list>

- ▶ Best practices – before C++11 = outdated but may be worth reading
  - Andrei Alexandrescu, Herb Sutter:  
C++ Coding Standards (2005)
  - Scott Meyers:  
Effective C++ (1998)  
More Effective C++ (1996)  
Effective STL (2001)
  - Herb Sutter:  
Exceptional C++ (2000)  
More Exceptional C++ (2002)  
Exceptional C++ Style (2004)
  - Nicolai M. Josuttis:  
Object-Oriented Programming in C++ (2002)