

Advanced Programming in C++

- ▶ 2/2 Z/Zk
- ▶ Lecture
 - ▶ mixture of lecturers
- ▶ "Seminars"
 - ▶ only 3 sessions during the semester
 - ▶ dedicated to 3 homework assignments
 - *before*: assignment, explanation, hints
 - *after (the first two)*: evaluation, frequent errors, best solutions
- ▶ Credit
 - ▶ at least 15 points from assignments required before exam
- ▶ Exam
 - ▶ homeworks: 27..30pts \Rightarrow **1**, 23..26pts \Rightarrow **2**, 19..22pts \Rightarrow **3**
 - *since 2022/23*: at least 50% points from **each** homework
 - if you are happy with this result, you may skip the oral part
 - ▶ oral exam \Rightarrow ± 10 pts
 - beware: it may improve or worsen your result



Homework assignments and seminars

- ▶ week 8
 - ▶ April 6 Seminar: Assignment #1
- ▶ week 10
 - ▶ April 20: Deadline #1
- ▶ week 11
 - ▶ April 27 Seminar: Evaluation #1, Assignment #2
- ▶ week 13
 - ▶ May 11: Deadline #2
- ▶ week 14
 - ▶ May 18: Seminar: Evaluation #2, Assignment #3
- ▶ later
 - ▶ June 8: Deadline #3
- ▶ Deadlines
 - ▶ submit the required files to ReCodeX
 - ▶ late submissions = 1 point per each day deduced

▶C++11/14/17/20

- 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- ▶ Best practices – before C++11 = outdated but may be worth reading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)