

Topics:

New techniques

- Range-based for-loops (C++11)
- RValues and move semantics (C++11)
- Initialization lists (C++11)
- {} vs. ()? (C++11)

Templates (generic programming)

- Function templates
- Class templates
- Variadic templates (C++11)
- Concepts
- Specialization
- Non-type template arguments
- Functors
- Safe downcast without overhead

Type deduction in detail

- Template arguments
- auto (C++11)
- decltype (C++11)
- auto(decltype) (C++14)
- Deduced return type (C++14)

Lambdas (C++11)

- Foundations
- Generic Lambdas (C++14)
- Extended Captures (C++14)

Standard Library

- Iterator concept
- Containers (part. C++11)
- Functions (part. C++11)
- Concurrency-Intro (C++11)

Meta-programming

- Let the compiler compute
- Providing type informations
- Const-adaptive classes
- Expression templates