Contribution ID: **29** Type: **Lecture**

How a real-world C++ compiler works

Tuesday 7 March 2023 15:45 (1 hour)

The C++ language is widely used for state-of-the-art physics analysis code. Source code must be compiled before it can be executed, which involves a number of steps. Although compiler theory is taught in most undergraduate CS courses, real-world compilers carry an aura of mysterious, highly complex software products.

This lecture aims to uncover some of those secrets by feeding snippets of C++ code to a compiler, illustrating the different processing steps and dissecting the internal representations, from source to a final binary.

Attended school

Exercise hours

Lecture hours

Author: CEJP, Martin (CERN)

Presenter: CEJP, Martin (CERN)

Track Classification: Performance tuning and accelerated computing