5ᵀᴴ HEP C++ COURSE AND HANDS-ON TRAINING

11 — 13 OCT 2022

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WELCOME

▸ Fifth edition of a C++ course and training

   ▸ Co-organised by [HSF](#) and [SIDIS](#)

   NEW

   ▸ Course content split into "Essentials" and "Advanced" (this course)

▸ We will record the morning lectures and post them on indico and CDS

▸ Organised by volunteers from within the HEP community for HEP

OVERALL ORGANISATION

▸ Feedback is more than welcome

   ▸ Pre-training survey link sent to participants last week

   ▸ We'll send you a link to a post-training survey on Friday, please fill it in

▸ Communication tools:

   ▸ This zoom room, used for lectures and training

   ▸ Mattermost channel, interact with organisers, ask questions (register first)

MORNING LECTURES

▸ Every day, Tuesday - Thursday, 9.00 - 11:45 CST including a 15 minutes break

▸ The slides are available on the indico page

▸ Content is organised in smaller chapters (~ 15 minutes each)

  ▸ Please keep questions until the end of a chapter & use "raise hand zoom feature"

Tue	Wed	Thu
Recap from Essentials Course **Core Modern C++ 1** (constexpr, move semantics, …)	**Core Modern C++ 2** (lambdas, STL, ranges, …) **Tools** (formatting, profiling, …)	**Concurrency** **Expert C++** (variadic templates, perfect forwarding, …)

AFTERNOON TRAININGS

▸ Every day Tuesday - Thursday, 14.00 - 16.00 CEST

▸ A set of examples are provided at the end of the morning

▸ Organised in physical and zoom breakout rooms, 1 mentor / ~ 12 students

  ▸ If you are remote, please connect again to **this zoom room** and you can join breakout rooms from here

▸ Style "a la university lab", i.e. students work mostly on their own, ask mentors for help in case they have questions or get stuck

CERN ROOMS FOR AFTERNOON TRAININGS

▸ 3 rooms for afternoon hands-on sessions:

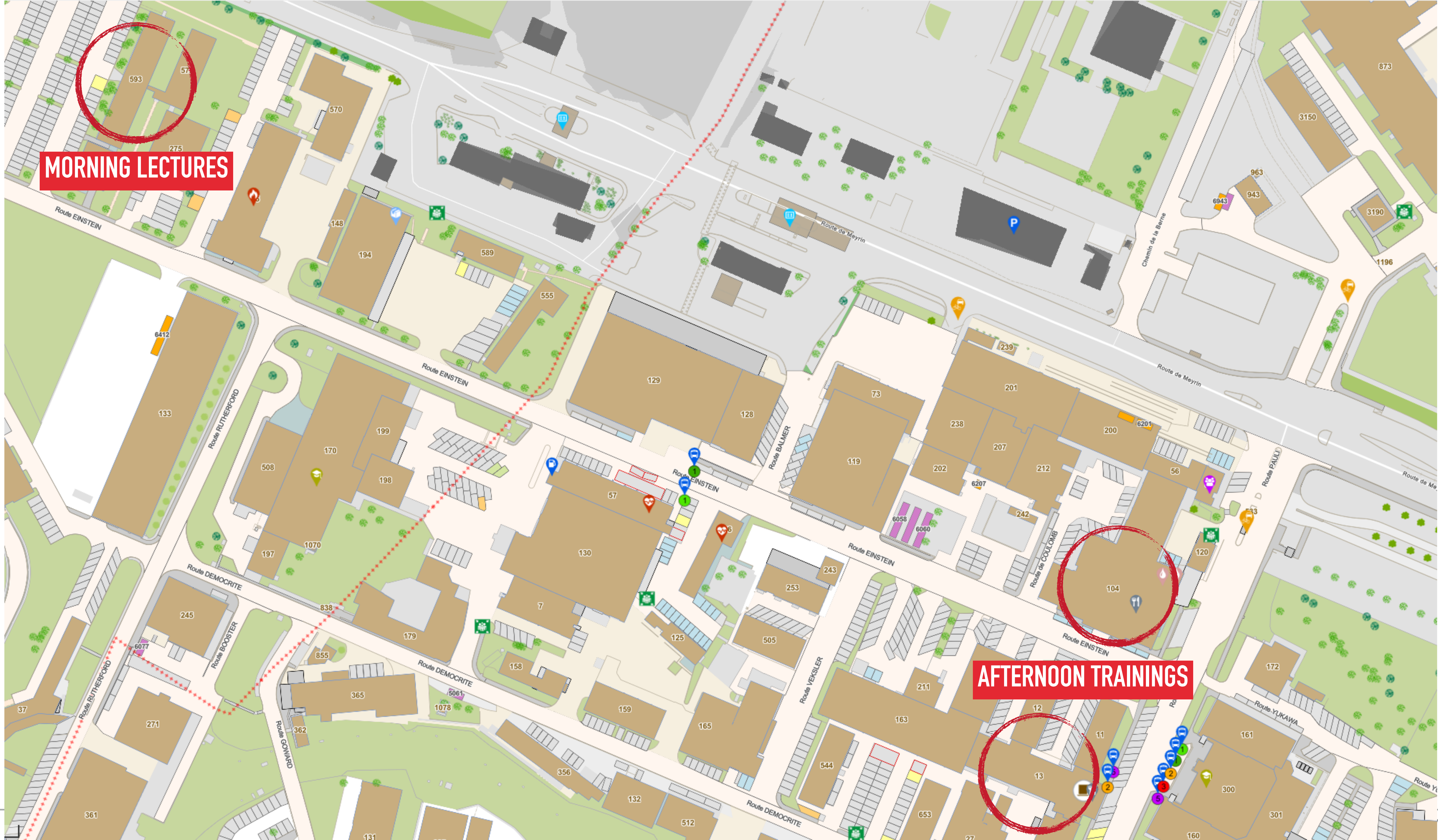   ▸ 13/1-017 (15 places)   13/3-005 (10 places)   104/R-B09 (20 places)

▸ If you are on premise, please subscribe to one of the rooms

   ▸ Wir circulate lists in a moment

MORNING LECTURES

AFTERNOON TRAININGS

ATTENDANCE CERTIFICATE

▶ If you prefer an attendance certificate

  ▶ Please drop me a mail if you want to receive one

  ▶ Please also make yourself "findable" in zoom (i.e. use a name that we can associate to your registration)

AFTERNOON BREAKOUT TRAINING ROOM ORGANISATION

▶ Today Tuesday we start with setting up your environments and some first examples. Mentors today are:

Many thanks to all volunteering mentors:

Name	OS	Room
Sebastien Ponce	Linux	13/1-017
Attila Krasznahorkay	Linux, MacOS, Windows	zoom
David Chamont	Linux, Docker	zoom
Guilherme Amadio	Linux, MacOS, WSL	zoom
Stephan Hageboeck	Linux, MacOS	104/R-B09
Enrico Guiraud	Linux	zoom
Bernhard Gruber	Windows, Linux	13/3-005
Walter Lampl	Linux	zoom

SEBASTIEN PONCE
ABHISHEK LEKSHMANAN
GUILHERME AMADIO
WALTER LAMPL
MICHAL SIMON
ENRICO GUIRAUD
DAVID CHARMONT
ATTILA KRASZNAHORKAY
STEPHAN HAGEBOECK
BERNHARD GRUBER