INFN Course on C++, Root and GEANT 4 Timetable

Day 1 - Monday, 13 Dicembre 2010

9:30 Basic Elements of C++

Basics of C programming, Concepts of "object" and "class"; Model of Object Oriented programming; C++ syntax; Definition of "Class"; Methods and attributes; Visibility; Constructors and distructors; Examples of usage

11:30 Coffee Break

12:00 Basic elements of C++: practical exercises

13:30 Lunch

15:00 Advanced elements of C++

Objects and pointers; Ereditariety and virtual inheritance; Abstract classes; Examples of usage

16:30 Coffee Break

17:00 Advanced elements of C++: practical exercises

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Day 2 - Tuesday, 14 Dicembre 2010

9:00 Advanced elements of C++

Leftover of the previous day (exercises, questions, etc.); Brief introduction to the concept of design patterns; Singleton

10:15 Basic elements of a Monte Carlo simulation toolkit: GEANT4

Introduction to Geant4; Geant4 scope; Geant4 classes

11:30 Coffe Break

12:00 Basic elements of a Monte Carlo simulation toolkit: GEANT4

Leftover from the previous session; Geant4 applications and capabilities; Discussion

13:30 Lunch

15:00 Basic elements of ROOT

Introduction to ROOT; GUI, histograms, files, trees; Named and unnamed scripts; Use of ROOT in external programs

16:30 Coffee Break

17:00 Basic elements of ROOT

Leftover from the previous session; Usage of customized user classes in ROOT; Discussion