UCLouvain

lphy2135

2018

Computing and numerical methods in particle physics

4 credits	15.0 h + 22.5 h	Q2
-----------	-----------------	----

Teacher(s)	Bruno Giacomo ;Delaere Christophe ;
Language :	English
Place of the course	Louvain-la-Neuve
Main themes	- Real time event selection (Hardware and software triggering systems) - Event reconstruction methods: Tracking, vertexing, clustering and particle identification. Calibration and alignement techniques Data analysis methods Particle interaction MonteCarlo generators Simulation of particle propagation in matter. Computing laboratory sessions where projects related to the field under study will be carried out.
Aims	Allow the students to understand and use the main data processing techniques used in modern Particle Physics experiments. The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s)
	can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".
Other infos	It is advised (but not necessary) to follow one or more among the following courses: PHY2372 " Experimental Methods ", PHY2131 " Elementary particle Physics I " and PHY2236 " Detectors, nuclear electronics and measurements of ionizing radiation".
Faculty or entity in charge	PHYS

Programmes containing this learning unit (UE)						
Program title	Acronym	Credits	Prerequisite	Aims		
Master [120] in Physics	PHYS2M	4		•		