

# Accelerator, astroparticle, and gravitational wave physics - Astroparticle and gravitational wave physics

5.00 credits

27.5 h + 2.5 h

Q1

Teacher(s)	Bruno Giacomo ;Cortina Gil Eduardo ;de Wasseige Gwenhaël ;Lemaitre Vincent ;
Language :	English
Place of the course	Louvain-la-Neuve
Prerequisites	LPHYS2131. Students are also advised to have followed the course <a href="#">lphys2221 « Astrophysics and astroparticles »</a>
Main themes	Particles and radiation of cosmic origin – Gravitational waves
Learning outcomes	
Evaluation methods	Evaluation of personal projects reports. Oral exam, partly based on the projects reports.
Teaching methods	Lectures in class. Personal projects. Students can choose the subject among a list proposed by the teachers. Reading portfolio for personal study.
Content	This partim counts for 5 credits and includes a part on astroparticle physics (15 hours) and a part on gravitational wave physics (15 hours) The 15 hours of this partim dedicated to astroparticle physics are given by prof. G. de Wasseige. Subjects that will be touched are: theory, instrumentation and data analysis methods used in the field. The other 15 hours of this partim dedicated to gravitational wave physics are given by prof. G. Bruno. Subjects that will be touched are: theory, instrumentation and data analysis methods used in the field.
Bibliography	Des diapositives de cours et des documents supplémentaires sur les sujets traités sont disponibles sur le site MoodleUCL de l'unité d'enseignement. Course slides and additional documents on the subjects addressed are available on the MoodleUCL website of the teaching unit.
Other infos	Following the sanitary conditions, the modalities of the teaching AND the examination could be reassessed according to the situation and the rules in force.
Faculty or entity in charge	PHYS

**Programmes containing this learning unit (UE)**

Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Physics	PHYS2M	5		