Université Paris-Saclay
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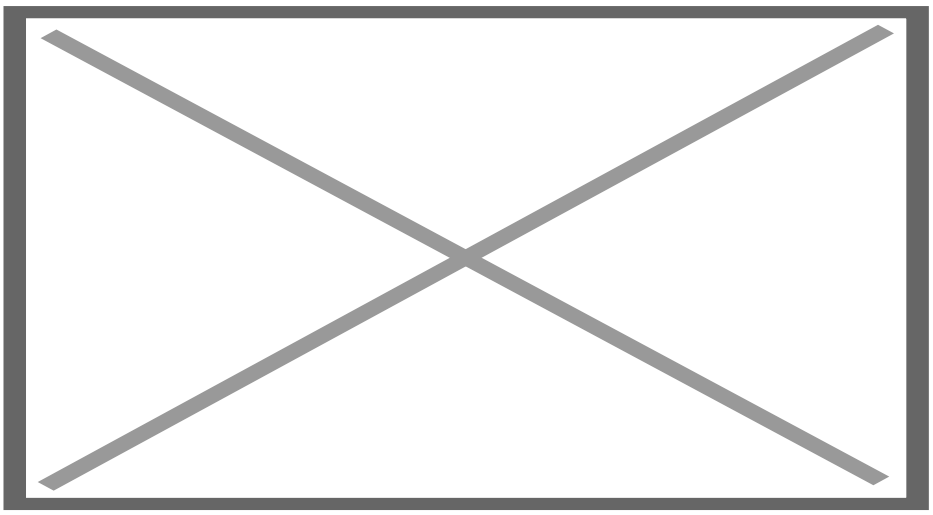
M1 General Physics

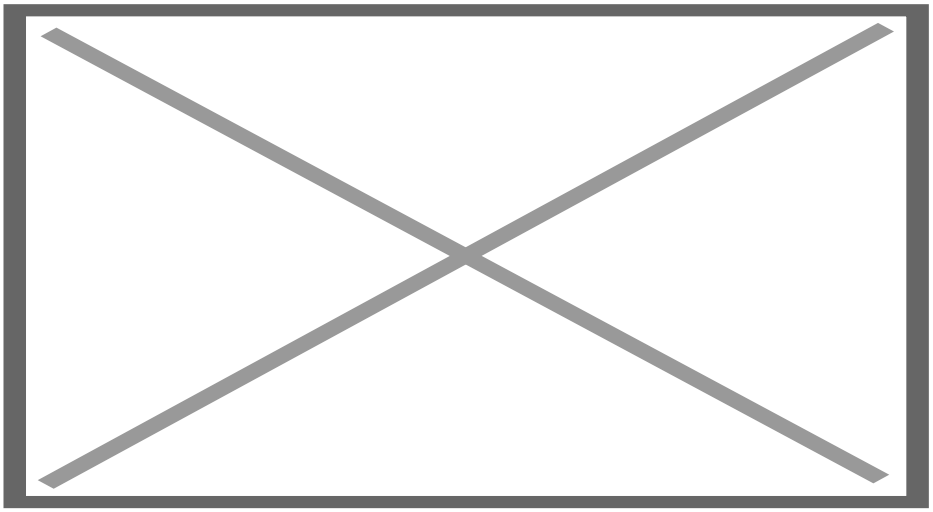
Master's degree
Specialisation Physique fondamentale et applications
Enrolment type
Formation initiale
Formation continue
Language(s) of instruction
English

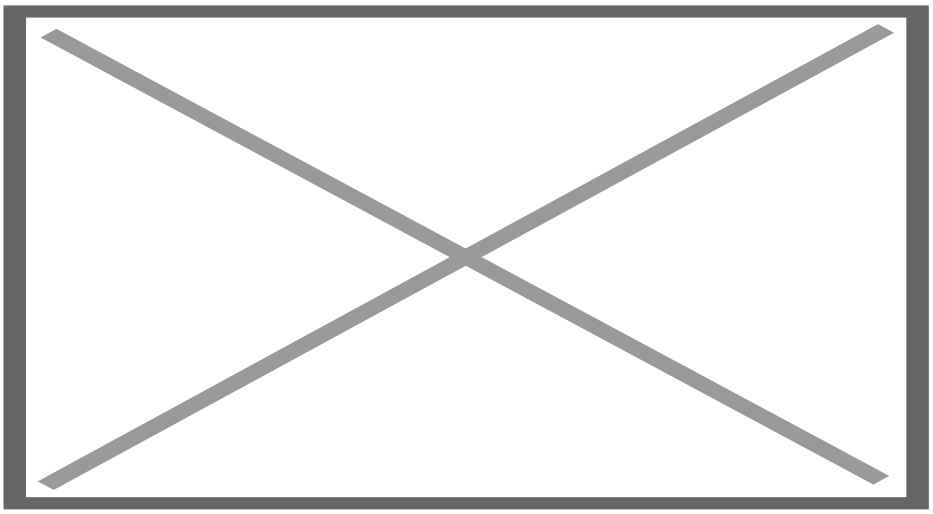
The Master 1 in General Physics is the first year of the Master’s program in the Department of Physics at Université Paris-Saclay.

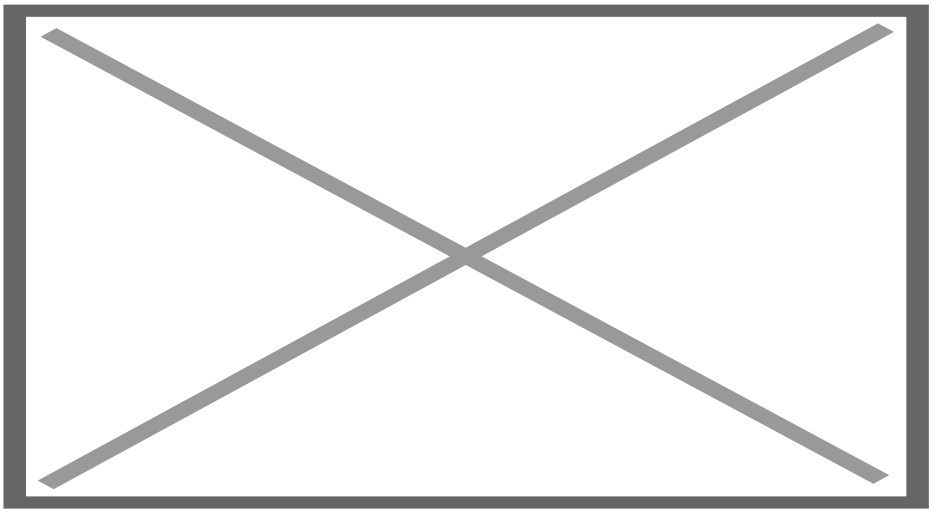
It is open to all international students, taught entirely in English, and offers a broad curriculum spanning high-energy physics and cosmology, quantum physics, statistical physics, soft matter, and condensed matter. A distinctive feature of the program is the flexible *à la carte* choice of courses. The courses are spread over two semesters.

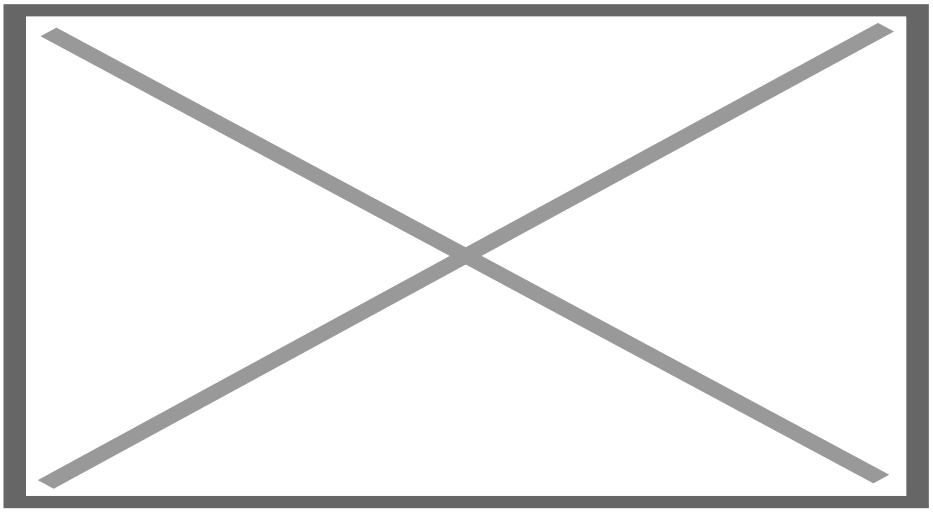
Télécharger la fiche détaillée
Apply Now











Information

- Overview
- Application requirements
- Schedule

Présentation

Skills

To master and apply specialized knowledge in physics, both fundamental and applied, with the required scientific rigor.

Objectives

After completing the M1 General Physics programme, students can apply for the second year of a Master's degree in Physics, specializing in either theoretical or applied physics, at Université Paris-Saclay or other universities.

The M1 General Physics programme provides students with essential skills, knowledge, and research capabilities for careers in modern physics fields, including particle physics, astrophysics, condensed matter, nanosciences, optics, and more, covering both experimental and theoretical aspects.

This programme also provides students with access to the world-class research environment at Université Paris-Saclay, including the numerous Physics Graduate School laboratories. It serves as a strong foundation for pursuing a Ph.D. in physics and meets the national and international demand for highly qualified postgraduates prepared for future developments in the field.

Calendar

Start of programme (indicative date)
31/08/2026

End of programme (indicative date)
09/07/2027
Admission

Admission Route

Physics

Capacity

Available Places

35

Target Audience and Entry Requirements

The M1 General Physics welcomes talented Bachelor's graduates who wish to deepen their knowledge of physics and pursue a research career in a university, an industrial or a public research laboratory. It is open primarily to physicists, but also to mathematics and engineering students, provided they have a solid background in fundamental physics (including quantum mechanics, statistical physics, special relativity and electrodynamics) and in mathematical tools for physics.

Période(s) de candidature

Inception Platform

From 01/01/2026 to 06/07/2026

Supporting documents

Compulsory supporting documents

Referring contact information (compulsory for non-international applicants).

Motivation letter.

In particular, please explain your motivation for joining specifically our M1 General Physics programme.

All transcripts of the years / semesters validated since the high school diploma at the date of application.

Baccalauréat (BAC) in France = https://en.wikipedia.org/wiki/Baccalaur%C3%A9at, we need your complete undergraduate and gradute (if applicable) transcripts

Certificate of English level (compulsory for non-English speakers).

Any document attesting to your proficiency in English will be examined (usual English qualification tests, certificate that English was your language of instruction, etc.). We expect at least a B2 level (Common European Framework of Reference).

Curriculum Vitae.

Detailed description and hourly volume of courses taken since the beginning of the university program.

Provide the Syllabus (usually given by your university) of the courses that you have taken during your studies.

Additional supporting documents

VAP file (obligatory for all persons requesting a valuation of the assets to enter the diploma).

Please leave empty if you are not concerned by the Recognition of Prior Learning procedure (https://www.universite-paris-saclay.fr/en/formation/formation-continue-validation-des-acquis/recognition-prior-learning-rpl)

Supporting documents :
- Residence permit stating the country of residence of the first country
- Or receipt of request stating the country of first asylum
- Or document from the UNHCR granting refugee status
- Or receipt of refugee status request delivered in France
- Or residence permit stating the refugee status delivered in France
- Or document stating subsidiary protection in France or abroad
- Or document stating temporary protection in France or abroad.

Programme

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed	Lecture/practical	directed study/practical class	d l
Fundamentals S1 (Select 3 modules among 5 – 4 ECTS each)									
Atoms, Molecules and Optics	4	Semester 1							
Charger le détail									
Particles	4	Semester 1	18	12					
Charger le détail									
Universe	4	Semester 1	16	14					
Charger le détail									
Nuclei	4	Semester 1							
Charger le détail									

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	d l
Advanced Statistical Physics	4	Semester 1	16	14					
Charger le détail									
Focus S1 (Select 0, 1 or 2 modules – 6 ECTS each)									
Plasma physics and applications	6	Semester 1	24	24					
Charger le détail									
Quantum Solid State Physics	6	Semester 1	28	20					
Charger le détail									
Electives S1 (Select 0, 2 or 4 modules – 3 ECTS each)									
Exploratory course S1	3	Semester 1							
Charger le détail									
Magnetism at the Nanoscale	3	Semester 1	16	14					
Charger le détail									
Sensors, measurements, and signal processing	3	Semester 1	12	12	6				
Charger le détail									
Language course	3	Semester 1	24						
Charger le détail									
Laser Physics	3	Semester 1	12	12	6				
Charger le détail									
Mathematical and statistical methods: from big data to relevant information	3	Semester 1	20	5	5				
Charger le détail									

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	d l
Mandatory S1 (Experimental Physics – 6 ECTS, required)									
Experimental Physics	6	Semester 1			48				
Charger le détail									
Environmental S1 (Optional – 3 ECTS)									
Environmental Sustainability S1	0	Semester 1							
Charger le détail									

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Focus S2 (Select 2 or 3 modules among 5 – 6 ECTS each)								
Nuclear and Particle Physics	6	Semester 2	30	20				
Charger le détail								
Macroscopic Quantum Phenomena	6	Semester 2	30	20				
Charger le détail								
General Relativity & Cosmology	6	Semester 2	30	20				
Charger le détail								
Soft Matter	6	Semester 2	30	20				
Charger le détail								
Quantum Field Theory	6	Semester 2	30	20				
Charger le détail								
Electives S2 (Select 1 or 3 modules among 12 – 3 ECTS each)								
Exploratory course S2	3	Semester 2						
Charger le détail								
Astroparticles	3	Semester 2	15	10				
Charger le détail								

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Interface biologie-physique : Fonctionnement du vivant et méthodes d'étude physiques	3	Semestre 2	21	3.5				
Charger le détail								
Optique non linéaire	3	Semestre 2	20	6				
Charger le détail								
Physique à l'échelle nanométrique	3	Semestre 2	7	17.5				
Charger le détail								
Physique de la conversion et du stockage de l'énergie	3	Semestre 2	12.5	12.5				
Charger le détail								
Physique du climat	3	Semestre 2	8	13				
Charger le détail								
Nanomaterials and Electronic Applications	3	Semester 2	16	14				
Charger le détail								
Astrophysics	3	Semester 2	15	10				
Charger le détail								
Advanced mathematics for physicists	3	Semester 2	20	10				
Charger le détail								
Research project	3	Semester 2						
Charger le détail								

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Quantum Matter	3	Semester 2	18	12				

Charger le détail

Environmental S2 (Optional – 3 ECTS)

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	distan learn cour
Environmental Sustainability S2	0	Semester 2							

Charger le détail

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	distan learn cour
Internship	6	Semester 2							

Charger le détail

Teaching Location(s)

ORSAY

Visit the website of the programme! All the details about the syllabus are available.

Training campus

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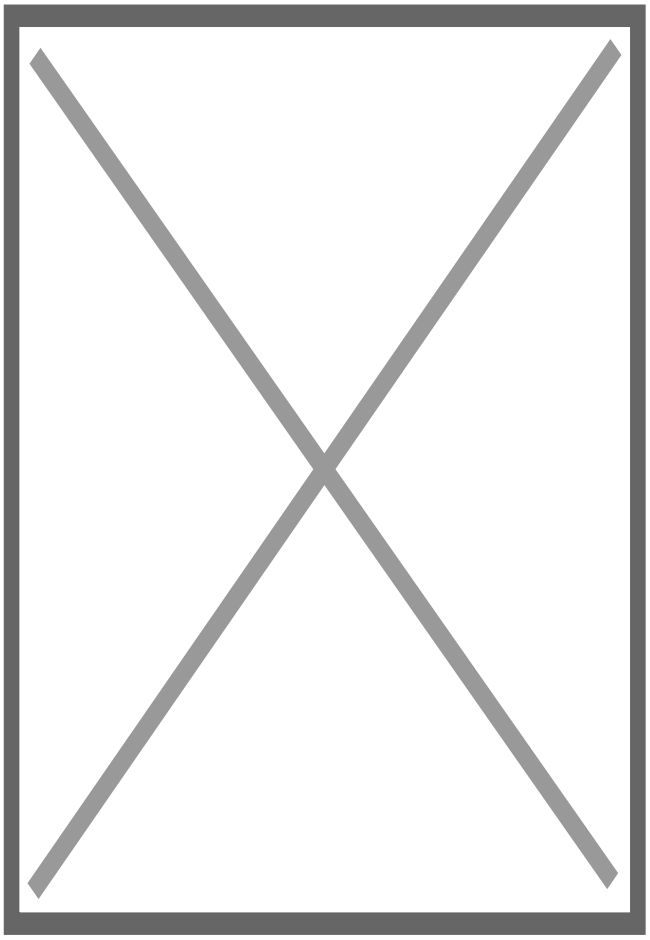

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Saclay / Gif-sur-Yvette / Orsay
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RER B Le guichet
Voir
Student restaurant (CROUS)
Library
Sports facilities
Student residence

Contact

- **Laurent VERSTRAETE**
- **Marcello CIVELLI**

http://www.universite-paris-saclay.fr/formation/master/physique-fondamentale-et-applications/m1-general-physics