Université Paris-Saclay

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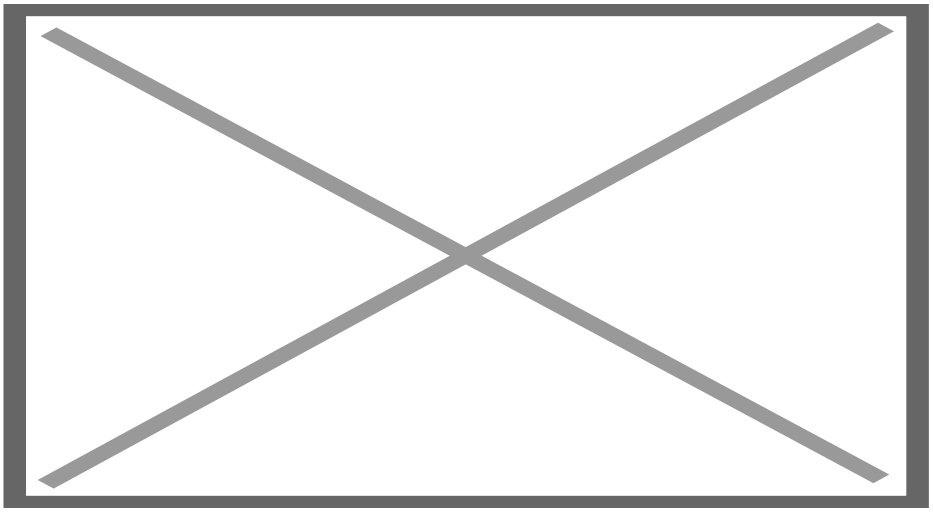
M1 Physique Fondamentale

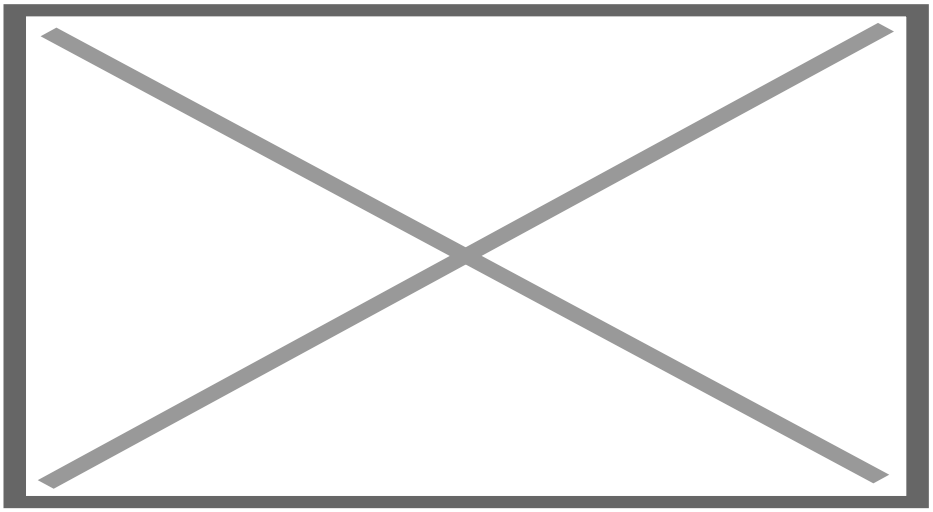
Master's degree
Specialisation Physique fondamentale et applications
Enrolment type
Formation initiale
Language(s) of instruction
French

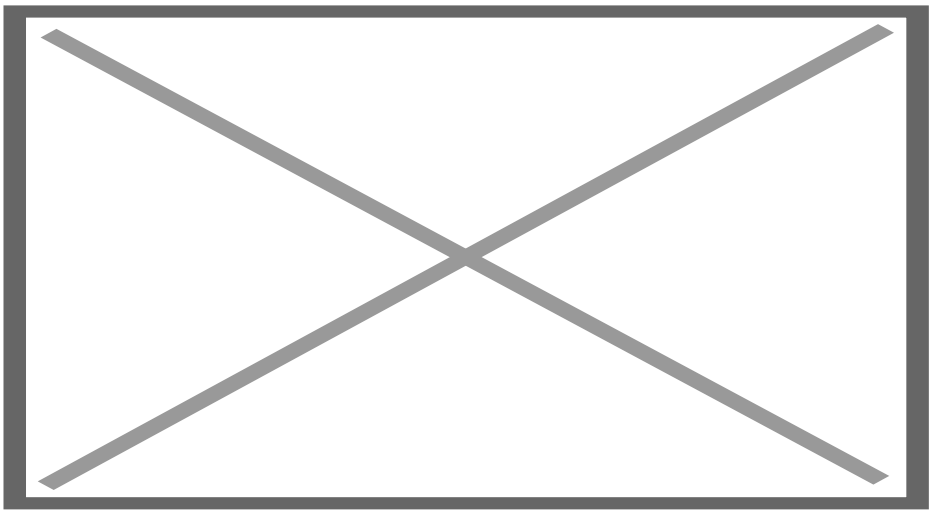
The M1 in Fundamental Physics aims to provide high-level general training that allows students to deepen their understanding of fundamental concepts in the major fields of physics.

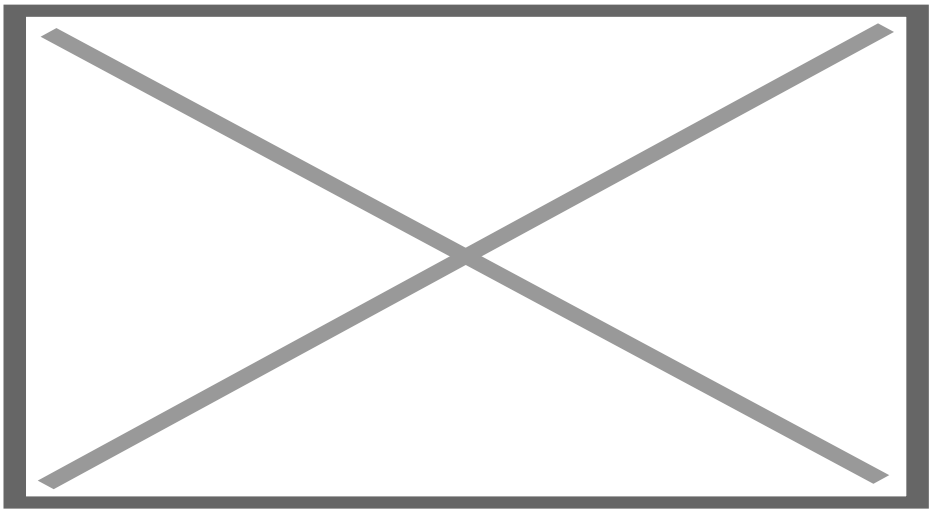
This programme offers a wide range of options that allow students to begin specialising or to explore other areas of physics. It also emphasises experimentation with numerous practical works. It opens up a wide range of Master's 2 programmes in physics.

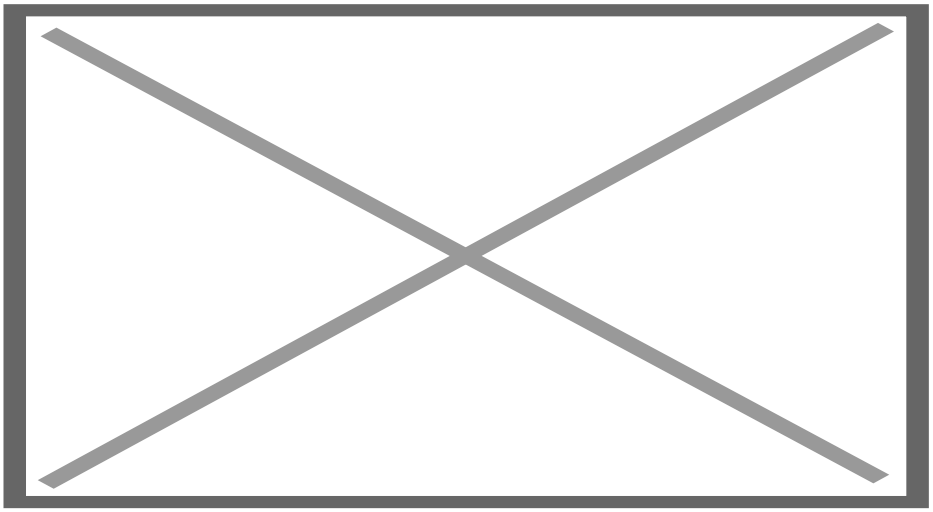
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Information

- Overview
- Application requirements
- Schedule

Présentation

Skills

Master and apply specialised knowledge of physics with the necessary scientific rigour.

Objectives

The M1 in Fundamental Physics is a generalist physics programme. This programme builds on the L3 in Fundamental Physics. It covers a wide range of topics, enabling students to apply fundamental concepts in many areas of physics, such as condensed matter, subatomic physics, atomic and molecular physics, laser physics, plasma physics, soft matter, and more. Students are also offered a wide range of options. At the end of the M1, students can apply for any of the M2 programmes in physics.

Débouchés

Career prospects

After a Master's or Master's + PhD: engineer (R&D, control, production, etc.)
After a Master's + PhD: researcher or lecturer
Academic staff
Research or Design Engineer
Lecturer (after a PhD)
Teacher (after the CAPES or 'agrégation' competitive exam)

Further Study Opportunities

PhD
PhD thesis
Students in this track can turn to research at the end of the 2nd year Master's.
R&D researcher or data modelling and analysis expert in leading-edge companies or laboratories.

Calendar

Start of programme (indicative date)
31/08/2026
End of programme (indicative date)
31/08/2027
Admission

Admission Route

Physics

Capacity

Available Places

60

Target Audience and Entry Requirements

The M1 in Fundamental Physics is a demanding course aimed at students who have completed a Bachelor's degree in Physics. A good knowledge of general physics courses (analytical mechanics, quantum mechanics, electromagnetism, statistical physics, optics, etc.) is required.

Période(s) de candidature

Inception Platform

From 15/01/2026 to 16/03/2026

MonMaster Platform

From February 17th to March 16th, 2026

To find out which platform you should apply through, please see the Masters' applications and enrolment page.

Supporting documents

Compulsory supporting documents

Motivation letter.

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

Curriculum Vitae.

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.

Additional supporting documents

Certificate of French (compulsory for non-French speakers).

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

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

Programme

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	dist lea co
UEs obligatoires									
Physique Atomique et Moléculaire Charger le détail	6	Semestre 1	25.5	24.5					
Noyaux et Particules Charger le détail	6	Semestre 2	25.5	24.5					
Physique des Lasers Charger le détail	3	Semestre 2	12.5	12.5					
UEs à choix									
Rattrapage Physique Statistique Classique en M1 Charger le détail	3	Semestre 1	13	13					
Mécanique des Fluides Charger le détail	3	Semestre 1	12.5	12.5					
UEs coloration									
Physique non linéaire Charger le détail	3	Semestre 2	12.5	12.5					
Physique des Plasmas Charger le détail	3	Semestre 2	12.5	12.5					
Matière molle Charger le détail	3	Semestre 2	14	11					
Relativité générale et cosmologie Charger le détail	3	Semestre 2	16.5	8.5					

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	dist lea co
UE libre S2	3	Semestre 2							
Charger le détail									

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practic class
UEs obligatoires								
Anglais	3	Semestre 1		25				
Charger le détail								
Informatique Python	4	Semestre 1	14	21				
Charger le détail								
Matière condensée	6	Semestre 2	24.5	24.5				
Charger le détail								
Options 1								
Compléments de Physique et Chimie pour l'agrégation	6	Semestre 1	27	12	6.5			
Charger le détail								
Astrophysique : concepts et observations	6	Semestre 1	18	14	18			
Charger le détail								
Transitions de phases	6	Semestre 1	25	25				
Charger le détail								
Physique appliquée à la médecine : de la biologie à la thérapie	6	Semestre 1	33	6	6			
Charger le détail								
Nanosciences et Nanotechnologies	6	Semestre 1	28		24			
Charger le détail								

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed	Lecture/practical	directed study/practic class
Génie nucléaire : Transferts thermiques	3	Semestre 1	12.5	12.5				
Charger le détail								
Génie nucléaire : Science des matériaux appliquée au nucléaire	3	Semestre 1	9	8.5	7			
Charger le détail								
Electrodynamique classique et quantique	6	Semestre 1	24.5	24.5				
Charger le détail								
Développements récents en magnétisme et supraconductivité	6	Semestre 1	30	20				
Charger le détail								
Astrophysique avancée	6	Semestre 1	42		9			
Charger le détail								
UEs à choix								
Physique statistique quantique	3	Semestre 1	12.5	12.5				
Charger le détail								
Rattrapage Physique Statistique Quantique en M1	3	Semestre 1	12.5	12				
Charger le détail								
Stage facultatif (0 ECTS) - M1 Physique Fondamentale								
Stages	6	Semestre 2						
Charger le détail								

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed	Lecture/practical	directed study/practical class

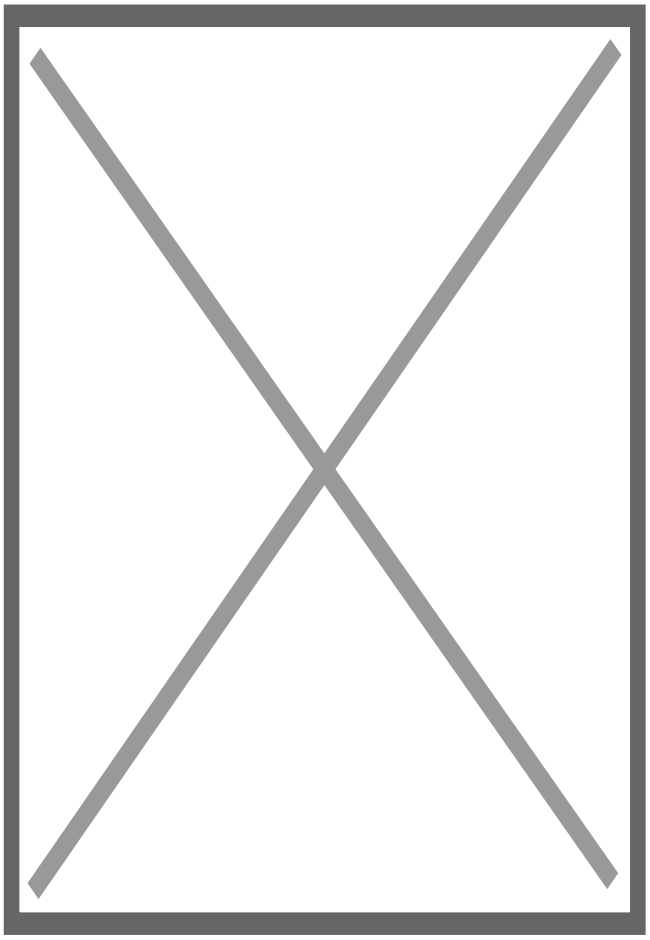
Travail bibliographique	2	Semestre 2	
Charger le détail			
Enseignement Expérimental	12	Semestre 2	64
Charger le détail			

Teaching Location(s)

ORSAY

Training campus

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Saclay Moulon

Saclay / Gif-sur-Yvette / Orsay
Bus 4606 / 4609 / 4611 / 5154
RER B Le guichet
Voir
Student restaurant (CROUS)
Library
Sports facilities
Student residence

Contact

- **Bruno ESPAGNON**

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