

STUDENT AGREEMENT "Erasmus Mundus Joint Master" LASCALA

1. Preamble

Scope

This agreement sets out the role, rights and duties of the parties directly involved in ensuring the successful completion of the EMJM LASCALA by the student mentioned below. The parties commit to comply with the rules of each partner university and customary practices.

General information about the Erasmus Mundus Joint Master:

 $\underline{\text{https://eacea.ec.europa.eu/erasmus-plus/actions/key-action-1-learning-mobility-individuals/erasmus-mundus-joint-master-degrees en}$

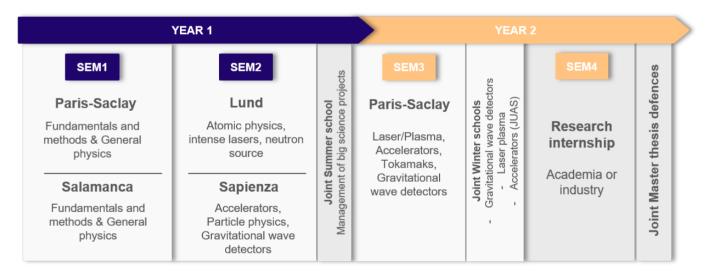
Student

Name: [To be completed]
Nationality: [To be completed]

Category of the Student: [To be completed]

2. Academic issues

Mobility scheme



The student will attend courses in **at least two partner universities** of the Consortium, located in different countries other than the student's country of origin:

- <u>University semester 1:</u> University Paris-Saclay (France); University of Salamanca (Spain)
- <u>University semester 2</u>: Lund University (Sweden); Sapienza University of Rome (Italy)
- <u>University semester 3</u>: University Paris-Saclay (France)

The Consortium partners fully recognize courses which are offered within the programme, as well as examinations passed at the other institutions of the Consortium.











General schedule (for information only)

First Year (M1):

Start of semester 1: beginning of September

End of semester 1: end of January

Winter school: beginning of the second semester Start of semester 2: mid-january /first week of February

Second Year (M2):

Summer school (1 week): end of August Start of semester 3: 1st week of September

Start of the master's thesis: Between January and May

Master thesis defense: Last week of August

End of the master: end of August

Local coordinators

The LASCALA consortium has appointed the following local coordinators:

Institution	Coordinator	Contact
University Paris-Saclay (France)	Professor Sophie Kazamias	sophie.kazamias@universite-paris- saclay.fr
University of Salamanca (Spain)	Professor Íñigo Sola Larrañaga	<u>ijsola@usal.es</u>
Lund University (Sweden);	Associate prof. Cord Arnold	cord.arnold@fysik.lth.se
Sapienza University of Rome (Italy)	Professor Gianluca Cavoto	gianluca.cavoto@uniroma1.it

Tutors

Each hosting institution will appoint an academic advisor to the students. The academic advisor should advise or give assistance to the student during their stay at the institution.

Study programme

The mobility choice for the second semester has been made during the application stage through the LASCALA. website; it cannot be changed after the selection.

The medium of instruction and examination is English at each university.

Mobility

The student chose the following mobility:

- SEM 1: Paris-Saclay University / Salamanca University
- SEM 2: Sapienza University / Lund University
- SEM 3: Paris-Saclay University
- SEM 4: Master's thesis











List of courses

LASCALA EMJM – ACADEMIC PROGRAMME YEAR 1 - 60 ECTS SEM 1 – 30 ECTS Paris-Saclay University Fundamentals and methods & General physics SEM 1 - 30 ECTS Salamanca University Fundamentals and methods & General physics Introductory day: Scientific methodology and Integrity, EU values Introductory day: Scientific methodology and Integrity, EU values European History of Science and communication of research results (3) Computational Methods in Physics and Optics & Transfer and Communication of Research Results (5 ECTS) Mathematics and statistical methods (3 ECTS) Laboratory (6 ECTS) Laboratory (6 ECTS) Quantum Solid State and Semiconductor Physics (6 ECTS) Quantum Solid State Physics (6 ECTS) Optics & Lasers I (9 ECTS) Atoms, molecules, optics (3 ECTS) Molecules, Atoms, Nuclei, and Particles (4 ECTS) Nuclei (3 ECTS) + Research immersion: lab visits, practical work, seminars, conferences + Research immersion: lab visits, practical work, seminars, conferences (PATH 1) Femto and attosecond (PATH 2) Accelerators (PATH 1) Fernto and attosecond (PATH 2) Accelerators Lasers (3 ECTS) Laser-Plasma interaction (3 ECTS) Particles @ FCTS) Optios & Lasers II (3 ECTS) Plasmas (3 ECTS) Electrodynamics (3 ECTS) Laser plasma interaction (3 ECTS) Plasmas (3 ECTS) (PATH 3) Gravitational wave detectors (PATH 3) Gravitational wave detectors Lasers (3 ECTS) Optics & Lasers II (3 ECTS) (PATH 3) JOINT WINTER SCHOOL - Introduction to gravitational waves, Sapienza University, Roma, Italy (3 ECTS)

SEM 2 – 33 ECTS **Sapienza University** Particle physics, Accelerators, Experimental gravitational wave

(PATH 2) Accelerators

Physics Laboratory II (9 ECTS) Dietectors and Accelerators in Particle Physics (6 ECTS) Advanced Machine Learning for Physics (6 ECTS) Accelerator Physics and relativistic electrodynamics (6 ECTS)

1 Optional course to be chosen:

Particles physics (6 ECTS) Laboratory of data analysis (6 ECTS) (PATH 3) Gravitational wave detectors

Physics Laboratory II (9 ECTS) Laboratory of data analysis (6 ECTS) Advanced Machine Leaming for Physics (6 ECTS) Experimental Gravitation (6 ECTS) Gravitational Waves, Compact Stars and Black Holes (6 ECTS)

Atomic physics, intense lasers, Neutron source and synchrotron (PATH 1) Fernto and attosecond

Optoelectronics and optical communications (7.5 ECTS) Advanced Optics and lasers (7,5 ECTS)

2 Ontional courses to be chosen:

Light matter interaction (7,5 ECTS) Biophotonic (7,5 ECTS) Modern X-ray physics, diffraction and imaging (7,5 ECTS) Electro dynamics (7,5 ECTS) Accelerators and free electron (7,5 ECTS)

+ Research immersion: lab visits, practical work, seminars, conferences

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SEM 2 – 30 ECTS **Lund University**

YEAR 2 - 60 ECTS

SEM 3 – 30 ECTS **Paris-Saclay University** La sers/Plasma, Accelerators, Tokamaks, Gravitational wave detectors

(PATH 1, 2, 3) JOINT SUMMER SCHOOL - TOSCA: Techniques of Oversight in Scientific project Administration, ESI, Archamps, France (3 ECTS)

- Transverse high technologies (3 ECTS)
- Manipulations on large scale facilities (4 ECTS)
- Advanced numerical methods (3 ECTS)
- Management of large-scale facilities (2 ECTS)
- + Research immersion: lab visits, practical work, seminars, conferences

(PATH 1) Lasers, optical metrology Introduction to intense laser sources (3 ECTS) Advanced femto and attosecond metrology (3 ECTS) Femto laser plasma interaction, compact acceleration (3 ECTS) Optical radiation sources (3 ECTS)	JOINT WINTER SCHOOL (3 ECTS) Laser plasma interaction, ELI-ALPS, Szeged, Hungary
(PATH 2) Accelerators Introduction to accelerators (3 ECTS) Advanced accelerators (3 ECTS) Detectors (3 ECTS) Optical radiation sources (3 ECTS)	JOINT WINTER SCHOOL (3 ECTS) Joint Universities Accelerators School — JUAS, ESI, Archamps, France
(PATH 3) Gravitational wave detectors Elements of General Relativity and Cosmology (3 ECTS) Advanced femto and attosecond metrology (3 ECTS) Quantum optics for GVV detection (3 ECTS) Optical radiation sources (3 ECTS)	JOINT WINTER SCHOOL (3 ECTS) Advanced gravitational wave data analysis, Wigner Institute, Budapest, Hungary

SEM 4 – 30 ECTS Internship + Joint Master thesis and defense











Joint summer school (3 ECTS included in the SEM3) – TOSCA, Techniques of Oversight in Scientific project Administration, ESI, Archamps, France.

The summer schools will be held at the beginning of the third semester. The objective of this intensive program is to develop students' skills in the management of large-scale scientific projects. The summer school carries 3 ECTS.

Joint winter school (3 ECTS)

The winter schools will take place at the end of the 1st and 3rd semesters. This intensive program aims to allow students to specialize in one of the three program paths:

- Path 1 Lasers and Optical Metrology;
- Path 2 Accelerators;
- Path 3 Gravitational Wave Detectors.
- In the 1st semester, the winter school will be an introductory course on Gravitational Waves for students enrolled in Path 3.
- In the 3rd semester, students will attend one of the following joint winter schools according to their chosen specialisation: JUAS, Laser-Plasma Interaction, or Gravitational Waves.

Each winter school carries 3 ECTS credits.

Internship and Master thesis (2nd year students)

Procedure

During the third semester, the student proposes to the Lascala coordinator a possible subject of study, including name of potential supervisors and hosting laboratories or companies, based on career objectives and pedagogical consistency with their curriculum. Master's thesis may take place anywhere in the world. The final choice of the master's thesis will be decided together with the Lascala coordinator.

Depending on the rules of each host institution for the semester 4, internship contracts may be signed between the laboratory/company and the university where the student is registered. A copy should be sent to the manager of the master at the University Paris-Saclay.

Evaluation

The student will be evaluated on the basis of their report and their oral defense in front of an international jury. This oral examination will be common to all the students. Each partner institution will be represented. The evaluation given to the thesis work and to its defense will be recognized by all degree awarding institutions.

Mandatory activities and further academic training

Mandatory activities

- 1) Participation of the student is mandatory in all the activities organized within the master:
 - · academic courses detailed in the study programme,
 - Summer and Winter school,
 - visits (including industrial sites),
 - outreach activities training,
 - meetings with local coordinators,
 - seminars and conferences.

Students must arrive on time to the lectures and must be present at the host university site for the whole semester, with the only exception of the official academic vacation periods communicated by the local coordinator.

In case of absence due to health problems, the student may be requested to provide a medical certificate to the local coordinator. This holds true in particular for the exams, the calendar of which will be announced at least two weeks in advance.











The student will have to inform the local coordinator in case they are not in a position to attend the foreseen activities. More generally, the student must keep the local coordinator of the hosting institution informed about possible difficulties they might encounter.

- 2) The Consortium requires the student to participate in the evaluation and the <u>quality assessment</u> exercises (surveys/evaluations) in which they will make their opinion known with regards to all aspects of the programme during and at the end of each semester.
- **3)** The student must acknowledge the Erasmus +: Erasmus Mundus programme in all the documents (presentations, publications) produced during the master.

The following sentence can be used: "With the support of the Erasmus+: Erasmus Mundus programme of the European Union"

- **4)** The consortium also strongly encourages the students to join the Erasmus Mundus Students and Alumni Association (EMA, see http://www.em-a.eu/)
- 5) The university rules of each hosting university have to be respected by the student. The student will not abuse or misuse the access to equipment and installations and will not perform any unauthorized access or violation of departmental, school or university rules.
- 6) The student engages to behave with ethics during their studies. They will commit no fraudulent act and will specially avoid cheating, falsification or plagiarism of any academic work. In addition, following conducts are prohibited: academic misconduct, endangering behaviors, use of mobile phone during courses and exams, destruction of property, racist and sexist language and behavior, sexual and moral harassment and hazing. Any type of discrimination against a person because of religion, color, sex, gender identity, sexual orientation, national origin, age or disability is strictly prohibited.

Any incident against this compromise will be treated by the Pedagogical Council of the host institution and by the Consortium board. It may cause the exclusion of the student from the LASCALA Master.

In case the student receives a scholarship, the latter will be immediately stopped.

Scientific exposure

The student is strongly encouraged to participate in classes, seminars and conferences that are organized by the host universities, along with activities organized in any of the Consortium's partner universities, when the schedule allows it.

Duties of local coordinators

The local coordinators guarantee to assist the student with all administrative procedures related to their participation in the LASCALA programme.

The local coordinators shall also hold the role of academic advisor, including supervision of the internship preparation. The local coordinators are responsible for informing the student of the academic calendar and, in particular, on the examination periods. They will also inform the student at the beginning of the academic year regarding the rules for the conduct of examinations.

The local coordinators will ensure that the candidate is in the best possible situation to complete their study programme according to the foreseen plan. Local coordinators will have to monitor the student's progress and inform the other coordinators about possible problems that might arise.

The local coordinator helps the candidate planning and organizing their mobility.

The local coordinator together with the Consortium partners organizes activities specifically aimed at maximizing the student's high-level employment opportunities. Among other activities, the Consortium will accompany the candidate's insertion in student, research and professional networks.











Students evaluation assessment

To obtain the multiple diplomas, the student must succeed at each semester and pass all the courses. The evaluation rules depend on the rules of the hosting institution (see below). There is no compensation between the semesters. The master thesis (semester 4) cannot compensate the academic semesters. The grading system of each institution is depicted below.

Grading system

Grading system at the University Paris-Saclay: Scale: 0-20 Grading system at the Salamanca University: Scale: 0-10

Grading system at the Sapienza University of Rome: Scale: 0 - 30 Grading system at Lund University: Scale: fail, 3, 4, 5 and fail/pass

Common score evaluation table

	Fail		Suff	ficient		Satis	factory	G	ood	Very	Good	Excellent				
ECTS Grades	F			E			D		С	E	3	A				
Salamanca	<5		5		6		7		3	3	9		10			
Paris-Saclay	<7	7	8	9	10	11	12	13	14	15	16	17	18	19	20	

	Fail	Sufficient							sfactory		Goo	d		Very G		Excellent				
ECTS Grades	F		Е					D C			В				Α					
Sapienza	<18	18		19	20	21	22	23	24	25	26	27	28	29	30)		30 e	lode	
Paris-Saclay	<7	7	8	9	9,5	10	10,5	11	11,5	12	13	13,5	14	14,5	15	16	17	18	19	20

	Fail	Suffi	cient	Satisfactory	Goo	d	Very	Good	Excellent						
ECTS Grades	F	F	Ē	D	С	E	3	A							
Lund	<12	12	13	14	15	16	17	18	19		20				
Paris- Saclay	<7	11	12	13	13,5	14,5	15,5	16,5	17	18	19	20			

Note: Grades from Lund University will not be transferred to the French grading system on course level. Instead the sum of all grades in Lund (four courses) will be converted into a semester grade at Paris-Saclay. The grading scale of the courses is fail, 3, 4, 5 where 3 is the lowest grade. The resulting total, expressed on a scale 12-20, is converted to the French grading system in accordance with the table above.

In case a student fails a subject, resit sessions will be organized according to the rules of the host university. If the student still fails after the resit process, they will have to leave the LASCALA programme. If the student is receiving a scholarship, it will be stopped, and the student will lose the remaining amount.

Diploma awarded

Level of qualification: 5 years higher education studies (300 ECTS)

Official length of the programme: 2 years (120 ECTS)

Type of degree

This programme will lead to the awarding of a double/multiple degree. The student will be awarded the diplomas of each university they studied at during at least one academic semester (semester 1, 2 or 3):

- University Paris-Saclay (France): Master in Physics
- University of Salamanca (Spain): Master in Large Scale Accelerators and Lasers
- Lund University (Sweden): Master of Science (120 credits). Main Field of Study: Photonics.











• Sapienza University of Rome (Italy): Master in Physics

The diplomas are awarded by the academic authorities empowered to do so, on the basis of the results the student has obtained at the different hosting institutions, according to the defined study programme.

Diploma Supplement

A complete Joint Diploma Supplement will be attached to the degree certificates. The Joint Diploma Supplement describes the master design and the student performance, highlighting the international mobility of the training.

Intellectual Property

The student hereby agrees that their thesis title and abstract will be posted on the LASCALA website when teir degree is awarded. They also agreed that the degree awarding universities may store and protect the master thesis either as a hardcopy or as an electronic version following their respective procedures. **Ownership and access rights to results of the student's work (material and data) will be handled according to applicable national legislation.**

Plagiarism is strictly forbidden. In case of plagiarism, the student will be severely punished according to the rules of each partner institution.

Right to the image

The student grants permission to the Consortium Partners, and their representatives, to take photographs and videos, and to make recordings during the Master.

The student grants also the Consortium Partners the right to reproduce, use, exhibit, display, broadcast and distribute and create derivative works of these images and recordings in any media now known or later developed as well as their name for promoting, publicizing or explaining the LASCALA Master, all the initiatives ensuing from it comprised, and its activities and for administrative, educational or research purposes.

3. Administrative issues

The student will be a full member of the student community at each hosting institution. As such, the student will be assisted with the administrative procedures (visa, permits of stay, housing, insurance, access to a bank account) and will be granted the means necessary to complete the study programme (access to lab facilities, libraries, computing facilities). The student will also be made part of institutional social activities. The tutor and the local coordinator should make sure that such measures are enforced.

For each student that has been accepted to the programme, and paid the tuition fees for the master, either directly or through the Erasmus+: Erasmus Mundus scholarship, the consortium contracts private **insurance before their arrival**, ensuring in this way the **medical insurance cover of the student**. This last covers their unexpected medical expenses, it also provides accident cover, and protects them against some costs arising from civil liabilities (third -party insurance). This medical coverage also applies during periods of travel during the master.

The private insurance will be provided by the Expat & Co (http://www.expatinsurance.eu/), covering the minimum requirements for the health and accident insurance coverage required for Erasmus Mundus Joint Master Degrees

Each student receives an insurance certificate before the start of the programme, as well as the general conditions of the insurance. These should be read carefully in order to know for which risks and health issues the student is covered. In case medical care has to be reimbursed or when problems arise, the student will personally contact the Expat & Co insurance company (contact details can be found on the insurance certificate).

4. Financial issues











Student's participation cost, available funding and support, and payments

Participation costs

The participation fees amount to:

- 8000 €/year for Partner country students
- 4500 €/year for Programme country students

This amount covers the following items:

- Registration fees at each university
- Additional costs: language courses, company visits, lab training, tutoring, international insurance, Summer school, Winter school, social activities and graduation ceremony.

Tuition fees do not include any travel and transportation costs.

Participation costs management

For Erasmus+: Erasmus Mundus scholarship holders, the participation costs are directly paid by EACEA to the Coordinating institution.

For self-financed students, the participation costs will be paid by the student to the Coordinating Institution. The payment for the first year must be done before the registration at the university. A payment certificate will have to be sent to the manager of the master (master.lascala@universite-paris-saclay.fr). Fees are due to:

Agent comptable de l'Université Paris-Saclay

Bank account number: 10071 91000 00001002940 65

IBAN: FR7610071910000000100294065

SWIFT/BIC: TRPUFRP1

Erasmus +: Erasmus Mundus Scholarship

Calculation of the maximum scholarship per student: the scholarship is calculated as follows: 1 400 Euros/month x 24 months. The scholarship covers travel, visa, installation and subsistence costs. It is calculated on the basis of a monthly unit cost (pro-rata of the actual number of days).

The Coordinating institution will pay the overall amount directly to the students under the following conditions: the monthly allowance will be transferred to the **bank account** of the student on a monthly basis and **it is due by the end of the month**. For this purpose, a bank account will have to be opened as soon as possible upon arrival and the bank account details (+official print out of the bank) will be communicated to the manager of the coordinating institution.

Students are responsible for submitting the correct data concerning their bank account. If the bank account details appear to be wrong, subsequent bank fees might be charged to the student. Students must be aware that changing their bank account during the year might result in delay of their monthly allowances.

According to Erasmus+ programme's rule, corrective payments will be done at the end of the programme for partially studied months (first and last month of the programme, holidays are considered as part of the study programme): a pro rata unit cost of 1/30 will be reimbursed for each day "not studied".

Calculation: (number of full months + remaining days/30) x 1 400€

For example: arrival on 12/09/2026 – departure on 23/08/2026:

(23 full months + 12 remaining days/30) x 1400 = 32 760€. The full scholarship will be 32 760€ instead of 33 600 €. The last month, the student will receive 1 400€ - 840€ = 560€ instead of 1400€.











In addition, by signing this agreement, the scholarship holder:

- declares to not have already benefited from a previous EMJM scholarship or an Erasmus Mundus Master Course/Joint Doctorate scholarship.
- commits to not benefit from another EU funded scholarship scheme to follow the same EMJM course for the entire period of the course.
- commits to reimburse the financial support in case of fraud or false declaration.

Student's exclusion/withdrawal

Reasons for termination of the contract between the student and the consortium: the contract may be terminated if the student decides to withdraw from the programme for personal reasons, fails to successfully complete an academic semester, or commits a serious breach of the ethical code mentioned above.

In case of termination of the contract between the student and the consortium, the student will have to reimburse the extra money they received after the date of their resignation.

5. Modification, mediation and cancellation

It is the signatories' responsibility to inform in writing the LASCALA coordinator of any changes in this agreement. The study programme can be modified by the student with the agreement of the local coordinator before signature.

Changes to the original proposed study programme must be approved by the student, the LASCALA coordinator and the relevant local coordinators.

All changes in the financial conditions have to be brought to the attention of all parties to this agreement, which will work collectively towards warranting the student the best possible conditions under the existing constraints. Once these new conditions have been determined, they will have to be included into an amendment of this agreement. In case of minor changes to this agreement, an amendment may be proposed by the party concerned and incorporated to the agreement as an annex signed by all parties.

Any breach of contract by the student may lead to the cancellation of this agreement.

Any conflict among the parties signing this agreement should be brought to the attention of the LASCALA coordinator, who will seek the best way to resolve it in collaboration with the LASCALA consortium.

The main coordinator is responsible for the formalization of this agreement upon the student's arrival, whereas the amendments formalized during the following semesters can be dealt with by the local coordinators of the Partner institutions.

The LASCALA coordinator, University Paris-Saclay
Date September [To be completed]







