ADMISSION CRITERIA

Bachelor degree (180 ECTS or equivalent) in Physics and related topics.

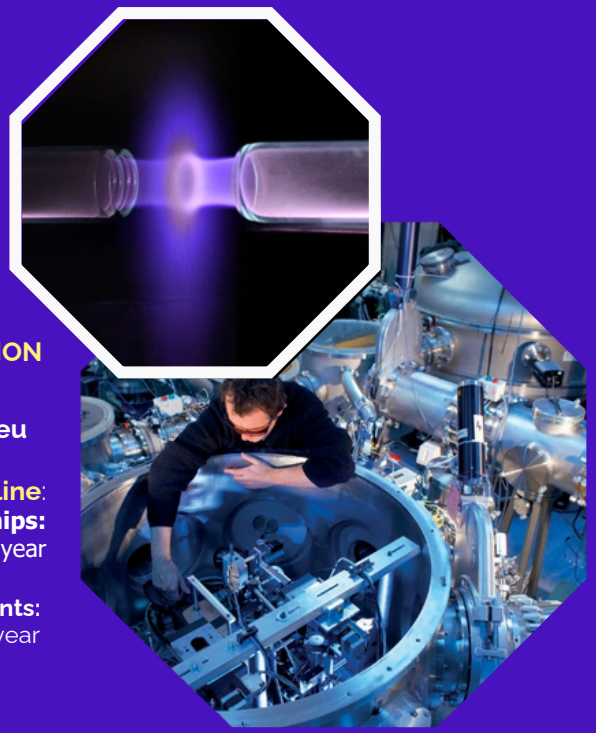
English skills (TOEFL, IELTS or other proof).

SCHOLARSHIPS

Erasmus+: Erasmus Mundus (for 2 years):
up to 33 600 €

Paris-Saclay scholarships (for 2 years):
up to 17 500 €

Lascala partial scholarship (for 2 years):
fee waiving



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APPLICATION

www.master-lascala.eu

Deadline:
Scholarships:
February of each year

Self-financed students:
April of each year

Lascala

Erasmus Mundus Master

LARGE SCALE ACCELERATORS AND LASER

ABOUT US

The LASCALA Master's is a two-year international programme run by four leading European universities. It provides advanced training in accelerator physics, high-power laser technologies, laser–plasma interactions, and gravitational wave detectors, with a focus on cross-disciplinary applications such as energy, medicine, and security.

Proposed by 4 european research Universities:

- Paris-Saclay University (France)
- University of Salamanca (Spain)
- Sapienza University of Rome (Italy)
- Lund University (Sweden)

Best features of the Lascala master:

- Mobility experience in up to 4 European universities
- Double or multiple diploma
- Summer school on big science project
- A specialized winter school on Laser-Plasma Interaction, Accelerators or Gravitational waves
- Large network of large scale facilities and companies
- 6 month research internship

CONTACT US

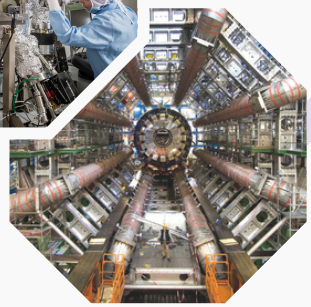
master.lascala@universite-paris-saclay.fr

www.master-lascala.eu

université PARIS-SACLAY · VNiVERSiDAD D SALAMANCA · SAPIENZA UNIVERSITÀ DI ROMA · LUND UNIVERSITY

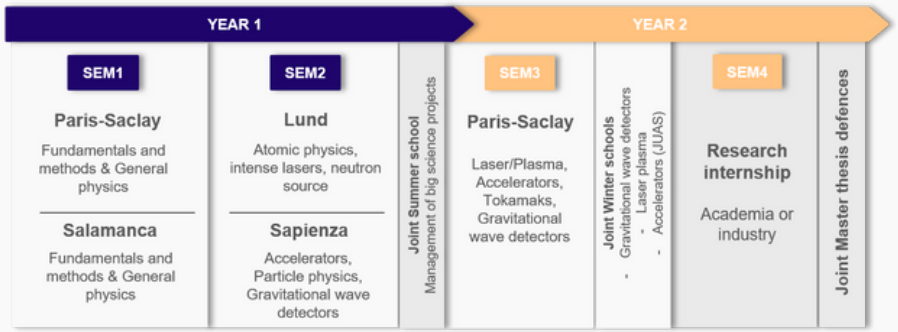
Co-funded by the European Union

MOBILITY TRACKS & SPECIALIZATIONS



Create your own master's programme by choosing between the different specializations of our partner universities.

PATH 1 - Laser, femto and attosecond
PATH 2 - Accelerators
PATH 3 - Gravitational wave detectors



DOUBLE / MULTIPLE DEGREE

1 academic semester = 1 diploma

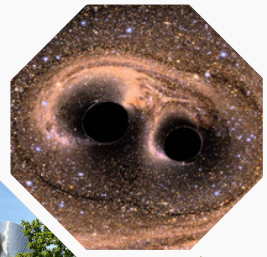
- Master in Physics of Paris-Saclay University
- Master in Photonics of Lund University
- Master in Large Scale Accelerators and Lasers of Salamanca University
- Master in Physics of Sapienza University of Rome

SUMMER AND WINTER SCHOOLS

JOINT WINTER SCHOOLS

A specialized winter school focused on one of the program's core themes:

- **PATH 1** - **Laser-Plasma Interaction**, ELI-ALPS, Szeged, Hungary.
- **PATH 2** - **JUAS**, ESI, Archamps, France.
- **PATH 3** - **Advanced gravitational wave data analysis**, Wigner, Budapest, Hungary.



JOINT SUMMER SCHOOL

Techniques of Oversight in Scientific project Administration (TOSCA) - Archamps, France.

One-week intensive programme on managing large-scale scientific projects (accelerators, lasers, gravitational wave detectors).

- Governance & organization
- Financing & procurement
- Scheduling & quality assurance
- Knowledge transfer & IP
- Sustainability & outreach

SCIENTIFIC AND INDUSTRIAL NETWORKING

Benefit from a full immersion research experience with practicals in research labs, winter schools, on-site visits, seminars and internships proposed by our partners:

- **Research centers:** CLPU (Spain), Elettra Sincrotrone Trieste (Italy), HUN-REN Wigner (Hungary), INFN (Italy), L2A2 (Spain), ELI-ALPS (Hungary), Laserlab Europe (Europe), MAX-IV (Sweden), SOLEIL Synchrotron (France), Central Laser Facility (United Kingdom), Institute of Photonics and Technologies (Taiwan), Structured Light Laboratory (South Africa).
- **Scientific collaboration**: Einstein telescope (Europe), EuPRAXIA (Europe), ECFA (Europe), VIRGO (Europe), LIGO (USA).
- **Companies**: Thales accelerator RF department (France), Thales laser department (France), Amplitude (France).


Lascala
Co-funded by
the European Union
Erasmus Mundus Lascala Master
Large Scale Accelerators and Lasers

LASCALA CONSORTIUM

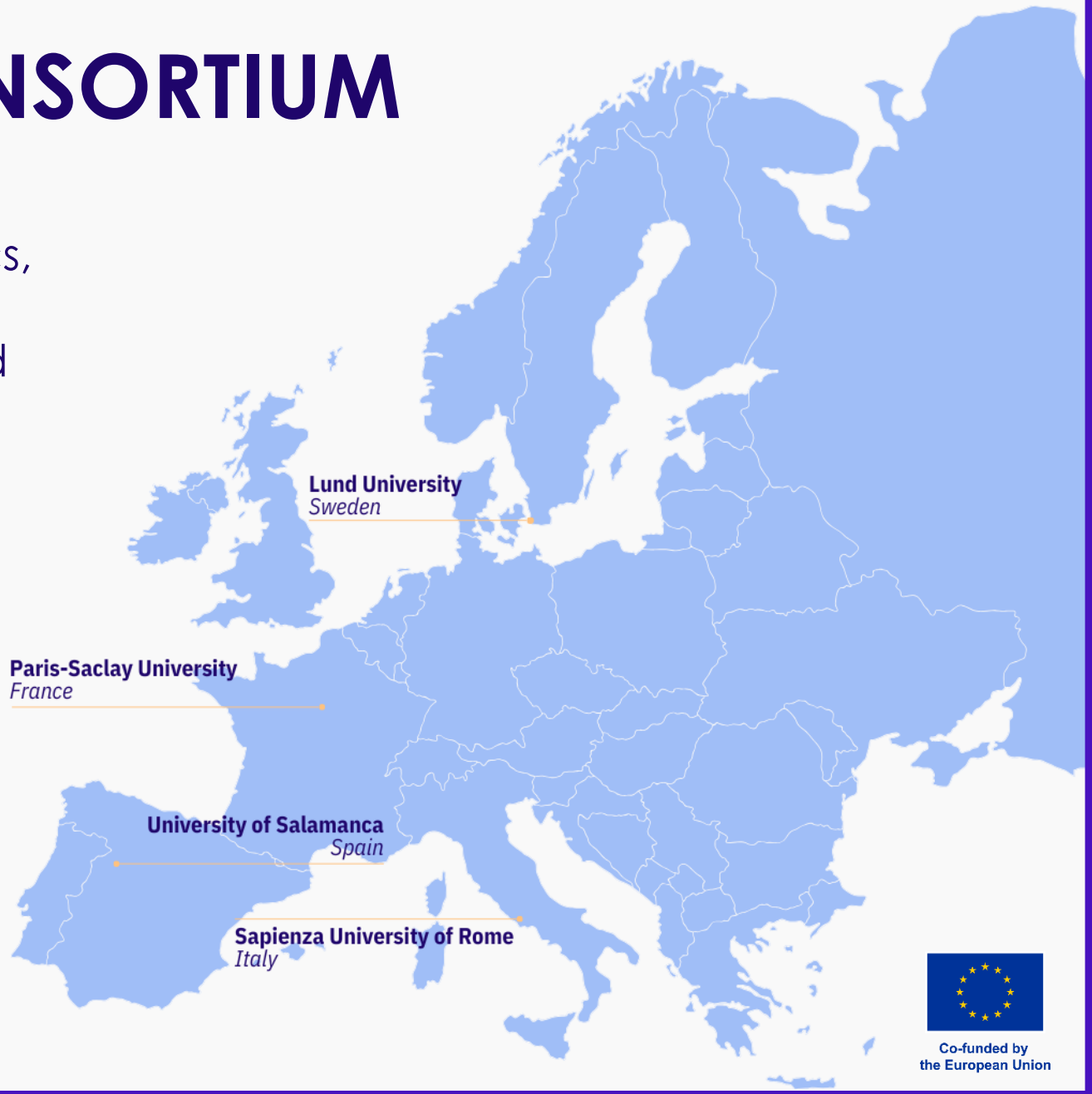
- Master of **Physics** in accelerator physics, high-power laser technologies, high-intensity laser–plasma interactions, and gravitational wave detectors.
- Consortium of **4 leading European universities**:

LUND UNIVERSITY

SAPIENZA UNIVERSITÀ DI ROMA

VNiVERSiDAD D SALAMANCA

université PARIS-SACLAY

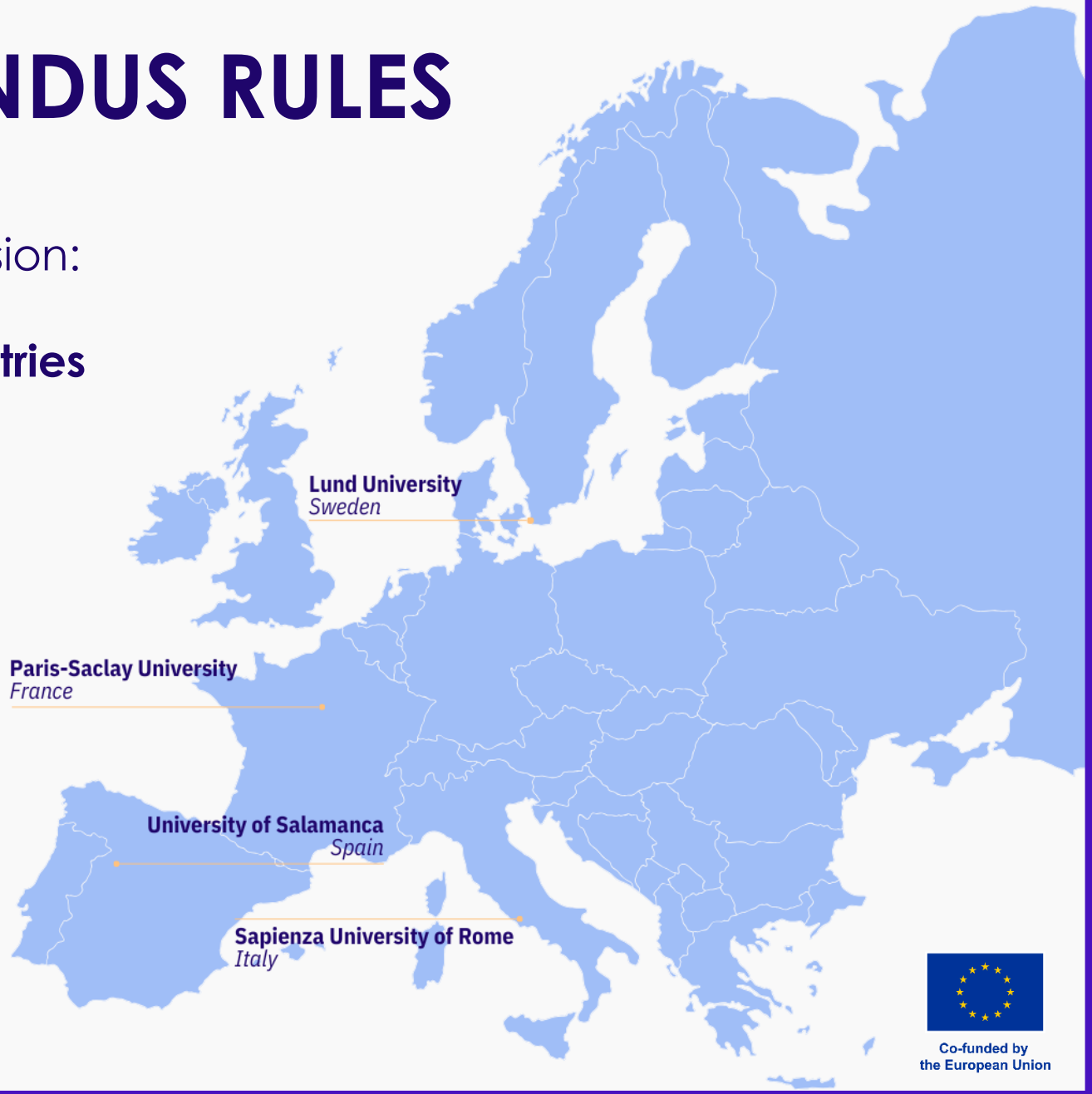


Co-funded by the European Union

ERASMUS MUNDUS RULES

Erasmus+ action of the European Commission:

- Mandatory mobility **in at least two countries** (other than the country of residence)
- Fully taught in **English**
- Open to **European** and **non-European students.**



LUND UNIVERSITY

SAPIENZA UNIVERSITÀ DI ROMA

VNiVERSiDAD D SALAMANCA

université PARIS-SACLAY

Co-funded by the European Union

MOBILITY TRACK & SPECIALIZATION

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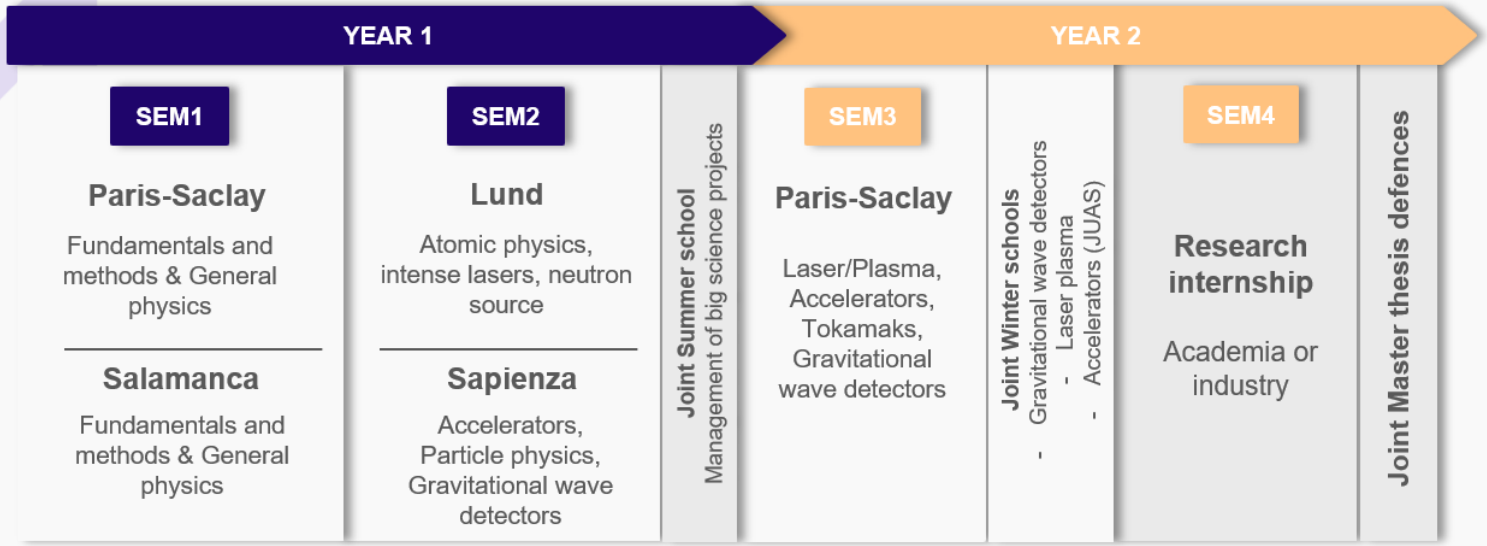

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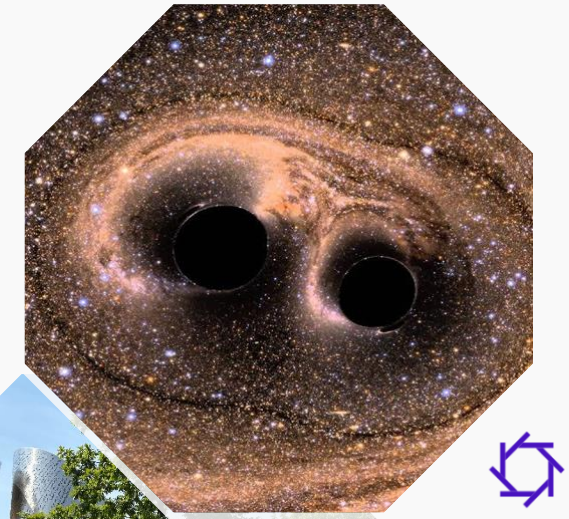
SCHOOLS



JOINT WINTER SCHOOLS

- **PATH 1 - Laser-Plasma Interaction**, ELI-ALPS, Szeged, Hungary.
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- **Companies**: Thales accelerator RF department (France), Thales laser department (France), Amplitude (France).

INTERNSHIP/MASTER THESIS

LOA, Palaiseau, France
Quantum nature of harmonic emission in solid.

ELI ALPS, Szeged, Hungary
Carrier-envelope phase control for a single cycle THz pulse.

CLPU, Salamanca, Spain
Design, implementation and characterization of an imaging optic for ultrafast X-ray Pulses.

Frascati – INFN, Roma, Italy
Beam dynamics Simulations for Eupraxia Project.

LBNL, California, USA
Modeling and Simulation of interaction point in electron-positron colliders with WarpX code.

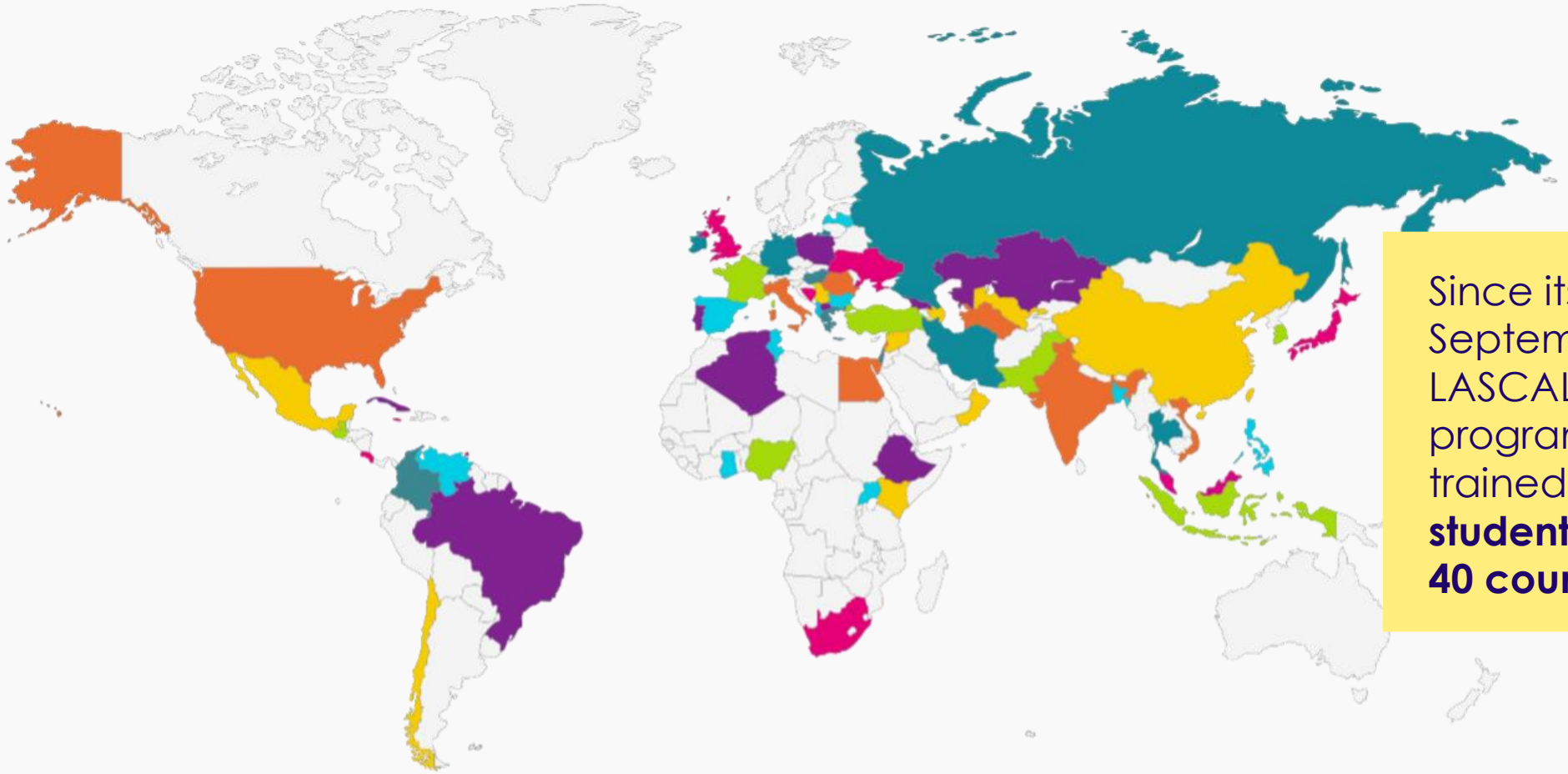
Max Planck Institute IPP Garching, Munich
Investigation of the influence of hydrogen retention on the mechanical properties of tungsten for usage in Tokamaks.

Lund Laser Center, Lund,
Spatial beam shaping for femtosecond laser pulse post-compression.

CERN, Geneva, Switzerland
Design and Performance Evaluation of a Positron Polarization Ring.

LISN/CEA, Palaiseau, France
Data analysis for anomaly detection and noise reduction in Turn by Turn BPMs signals of SuperKEKB main rings.

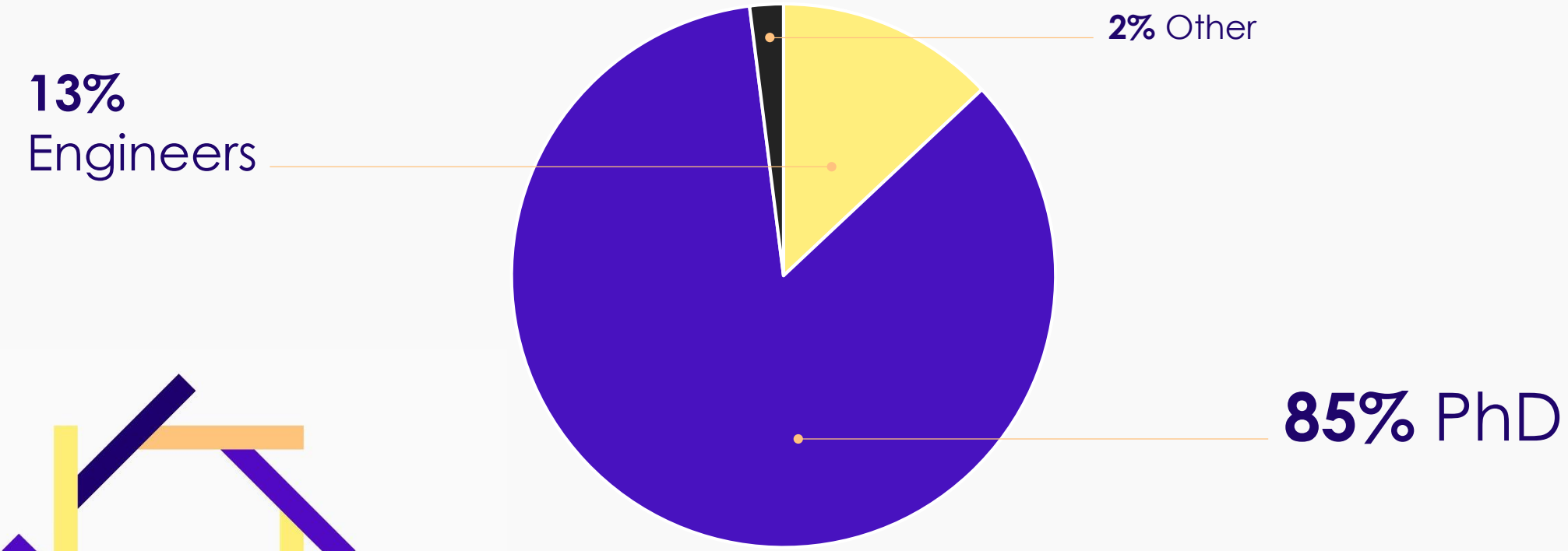
INTERNATIONAL RECRUITMENT



Since its opening in September 2021, the LASCALA master's programme, has trained **more than 80 students from more than 40 countries**.

AFTER LASCALA?

After two years of master's studies, LASCALA graduates pursue diverse career paths in academia and industry. Within three months of graduation, **90% secure positions**:



AFTER LASCALA?

CNRS, France
Laser Engineer

Instituto Superior Técnico, Portugal
PhD student

LOA/ENSTA/IPP, France
PhD student

Manchester University, United Kingdom
PhD student

Università di Padova, Italy
PhD student

Max Planck Institute, Germany
PhD student

INFN Milano/LASA lab, Italy
PhD student

Institute of Photonic Sciences, Spain
PhD student

Synchrotron SOLEIL, France
PhD student

École polytechnique fédérale de Lausanne, Switzerland
PhD student

SCHOLARSHIPS & FUNDING

ERASMUS MUNDUS SCHOLARSHIPS

(About 12 scholarships per cohort)

1400€/month x 24 month + fee waiving

ERASMUS MOBILITY SCHOLARSHIPS

(Bachelor's students from UPSaclay, Lund, Sapienza and Salamanca)

Up to 600€ per month

Funding for up to 12 months (360 days)
Request to be made upon enrollment in the program

LASCALA PARTIAL SCHOLARSHIPS

(About 12 scholarships per cohort)

Fee waiving

Can be combined with IDEX, Erasmus Mobility scholarships

PARIS-SACLAY SCHOLARSHIPS (IDEX)

(About 3 scholarships per cohort)

Up to 17 500€

Bachelor's students from outside Paris-Saclay University

TUITION FEES

PARTNER COUNTRY STUDENTS	PROGRAMME COUNTRY STUDENTS
8 000€/Year	**4 500€/Year**
All other nationalities	27 EU countries + Iceland, Macedonia, Liechtenstein, Norway, Turkey, Serbia

APPLICATION

ADMISSION CRITERIA

Bachelor degree (180 ECTS or equivalent) in Physics and related topics.
English skills (TOEFL, IELTS or other proof).

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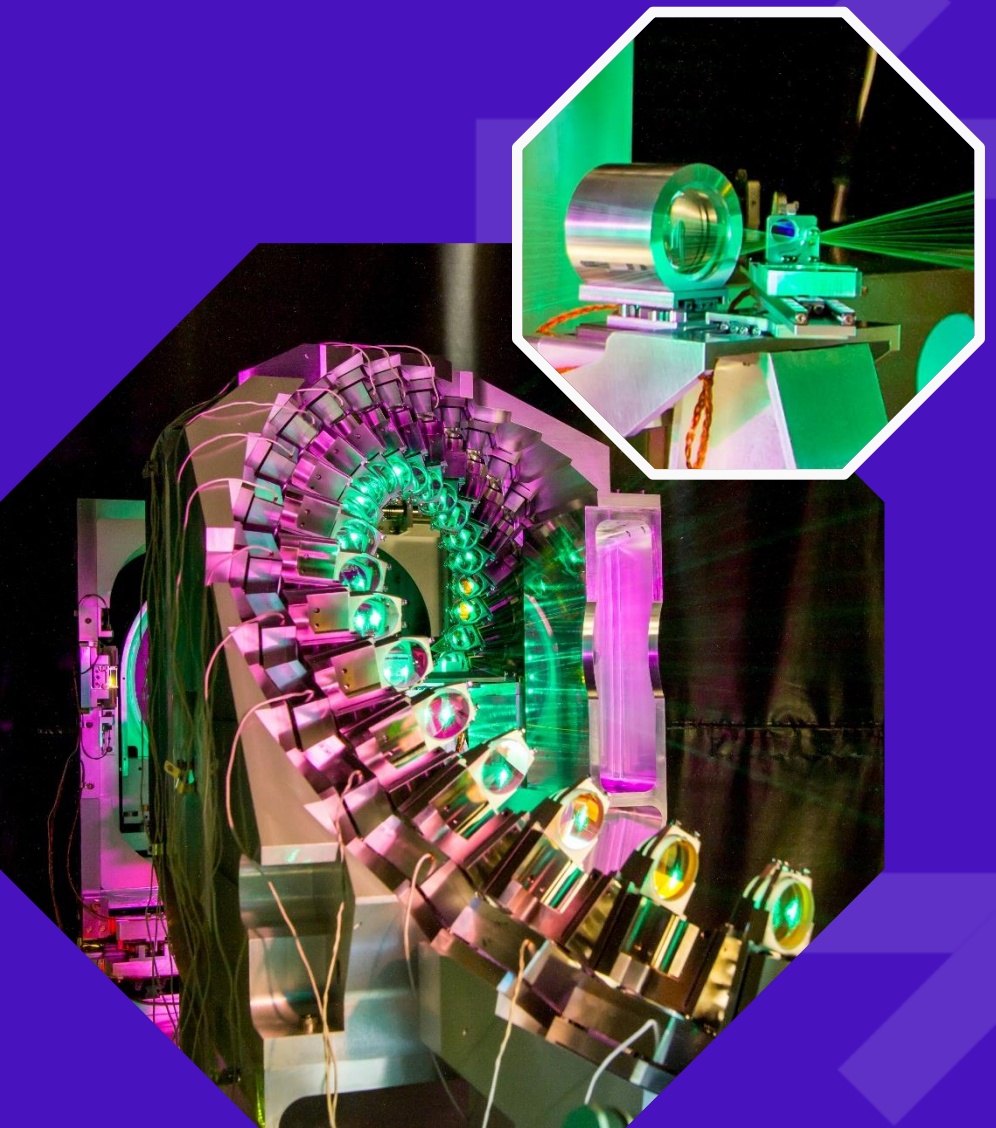
APPLICATION DEADLINE

Scholarships: 14 February 2026
Self-financed students: 30 April 2026

CONTACT US



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Lascala

Erasmus Mundus Master