

Eurom Photonics-POESII

International Master in Optics and Photonics



Photonics Engineering . Biomedical Imaging. Advanced Imaging . Quantum Optics
Laser Optics . Optics for Astronomy. Nanophotonics . Biophotonics



Erasmus+



A*Midex
Initiative d'excellence Aix-Marseille



International Partners



Laboratories



2 years Master Degree in Photonics

M1 (first year) - M2 (second year)

Possibility to join the M2 directly under certain conditions (see website)

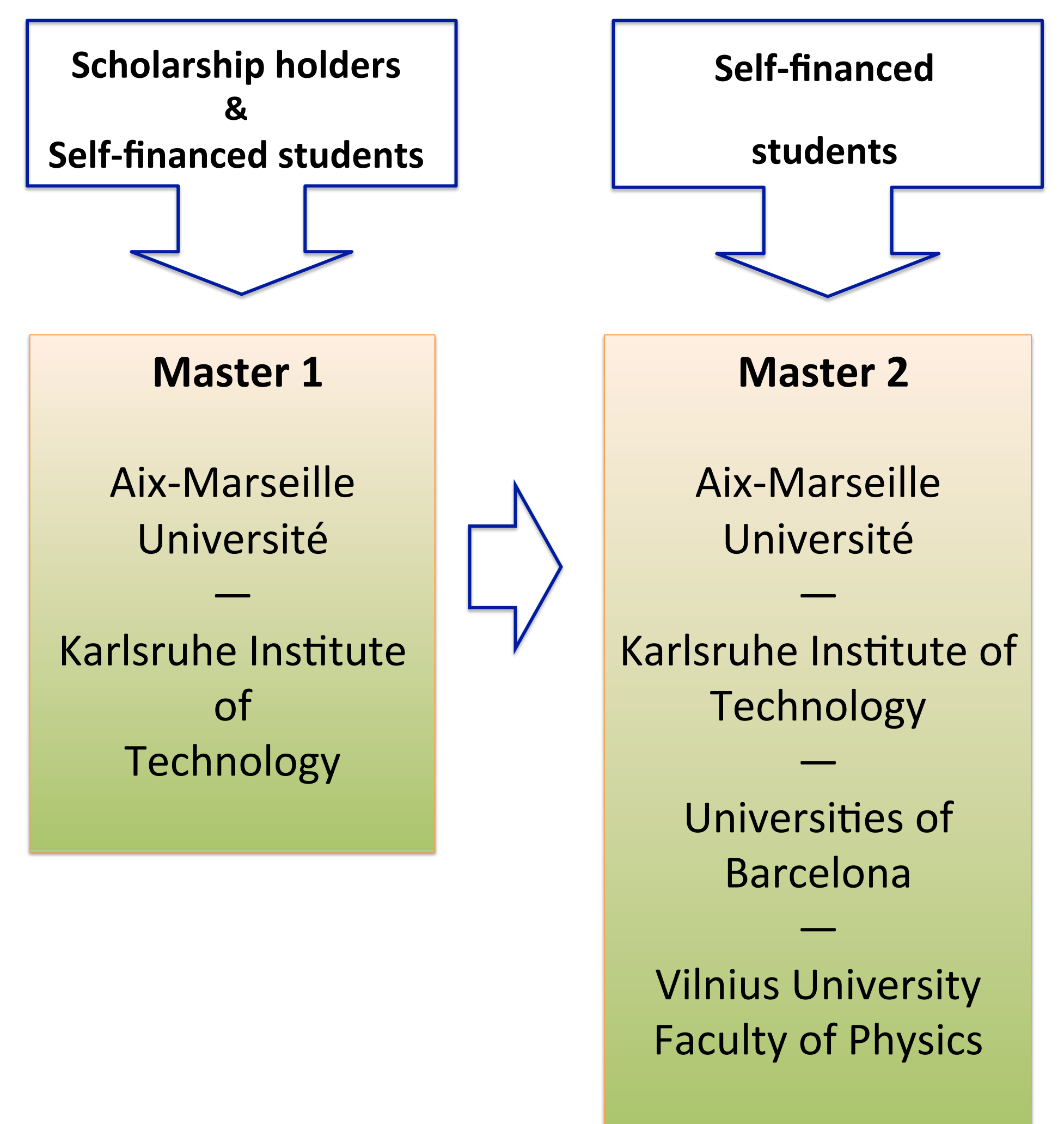
Which students are concerned?

Bachelor degree (foreign countries)
L3/M1 Physique (French Universities)
Polytech (Aix Marseille University)
Ecole Centrale Marseille

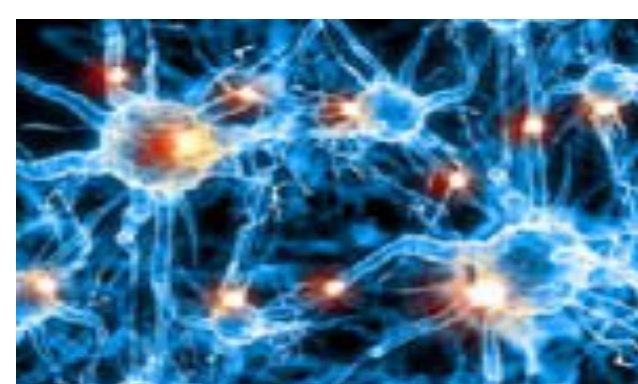
Scholarships

from A*Midex Foundation or European Agency
(800 to 1000 € / month) can be obtained
Conditions detailed on the website

Mobility Scheme



First Year Program



Second Year Program



The first year is devoted to the basics in photonics
Lectures, Laboratory Practices and Personal
Research. Projects give a real first experience

Semester 1 - in Marseille

- Fundamentals in optics & Tutorials
- Light emission, Lasers sources
- Imaging and systems in optics
- Laboratory practice
- Personal Projects
- Physics for photonics part I
- Language



Semester 2 - in Marseille

- Signal and images analysis
 - Guided Optics / optics in Tele-communications
 - Physics for photonics part II
 - Basics in optoelectronics
 - Spectroscopy
 - Numerical methods and software
- Tools
- Non linear optics
 - Language
 - Internship

Semester 2 - in Karlsruhe

- Theoretical optics
- Nonlinear optics
- Optoelectronic components
- Spectroscopic components
- Micro-optics and lithography
- Lab courses
- German language
- Internship

Semester 3 - in Marseille

(mandatory for students joining the program at the M2 level)

- Quantum optics
- Advanced electromagnetics
- Laser sources & applications/light matter interaction
- Optical components and optoelectronics
- Photonics for biomedical applications
- Advanced methods for optical instrumentation
- Nanophotonics
- Numerical methods for Electromagnetics
- Instrumentation for astronomy from ground to space
- Experimental projects
- Language
- Analysis on Research Topic or Technological Intelligence

Semester 3 - in Barcelona or Karlsruhe

See website

<http://www.eurom Photonics.org/>

Semester 4- Master Thesis

- Spring School
- Training in Laboratory or Company (6 months)

Contacts

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