

# MaMaSELF

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## Summer school

A 2 weeks summer school is organized for all Mamasef students in the beginning of the second year at the University of Rennes. Objective of the summer school is to obtain a wide background in exploring materials using neutron or synchrotron radiation.

## Status Meeting Mamasef

The Mamasef status meeting is organized in Switzerland during the 4th semester and brings together all second-year Mamasef students and representatives of Partner Institutions. During the status meeting the students will present the preliminary results of their Master-thesis work. Additionally scientific topics will be presented by specialists from research centres.



MaMaSELF is a 2 year ERASMUS MUNDUS Master Course in Materials Science Exploring Large Scale Facilities. It deals with material characterization using neutron and synchrotron radiation with strong synergies between universities, industrial partners and research centres. In an international environment, it offers excellent academic and industrial opportunities to Master Students.

[www.mamasef.eu](http://www.mamasef.eu)

Master in Materials Science  
Exploring Large Scale Facilities  
[www.mamasef.eu](http://www.mamasef.eu)

## Partner institutions

The Master thesis during the 4th semester can be conducted partially/entirely at 3rd country partner institutions outside Europe or at Large Scale Facilities. Third country partners institutions are situated in **Switzerland** (PSI, Zurich), **Japan** (Kyoto University, Tokyo Institute of Technology), **India** (IIT Madras), **USA** (University of Wisconsin, Cornell University, Manhattan Kansas University), **Russia** (Southern Federal University), **Brazil** (University of Sao Paulo).



## Supporting Large Scale Facilities

Several Large Scale Facility partners strongly support the summer school and the Master thesis: **ILL** or **ESRF** (Grenoble, F), **LLB** (CEA-Saclay, F), **FRM-II** (Munich, D), **DESY** (Hamburg, D), **XFEL** (Hamburg, D), **PSI** (Villigen, CH), **Elettra** (Trieste, I).



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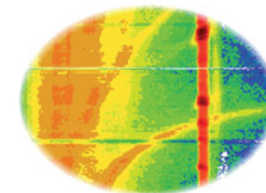
## The Consortium

The Erasmus Mundus Master diploma is delivered from two out of five partner universities :

<b>University of Rennes 1, France</b> Pr P. Rabiller, coordinator <a href="mailto:philippe.rabiller@univ-rennes1.fr">philippe.rabiller@univ-rennes1.fr</a> <a href="http://www.univ-rennes1.fr">www.univ-rennes1.fr</a>	<b>University München, Germany</b> Pr W. Petry <a href="mailto:wpetry@physik.tu-muenchen.de">wpetry@physik.tu-muenchen.de</a> <a href="http://www.tu-muenchen.de">www.tu-muenchen.de</a>
<b>University of Montpellier2, France</b> Pr W. Paulus <a href="mailto:werne.paulus@univ-montp2.fr">werne.paulus@univ-montp2.fr</a> <a href="http://www.univ-montp2.fr">www.univ-montp2.fr</a>	<b>The Ludwig Maximilian Universität</b> Pr W. Schmalz <a href="mailto:wolfgang.schmalz@lmu-muenchen.de">wolfgang.schmalz@lmu-muenchen.de</a> <a href="http://www.lmu.de">www.lmu.de</a>
<b>Contact</b> Christiane CLOAREC Tel +33 (0)2 23 23 58 58 <a href="mailto:mamasef@istes.univ-rennes1.fr">mamasef@istes.univ-rennes1.fr</a>	<b>University of Torino, Italy</b> Pr C. Lamberti <a href="mailto:carlo.lamberti@unito.it">carlo.lamberti@unito.it</a> <a href="http://www.unito.it">www.unito.it</a>

## Application

Electronic submission on : <http://application.mamasef.eu>  
 Application deadlines (for the Erasmus Mundus fellowship)  
 CAT A (Non-EU students) and CAT B (EU and Non-EU students) : 30 January 2015  
 Self-funded students : 30 April 2015  
 (For details see website [www.mamasef.eu](http://www.mamasef.eu))



2015 - 2017



A two year Master's course  
in the Erasmus Mundus framework

FRANCE  
GERMANY  
ITALY



# MaMaSELF

## Mamasef Master Course

The development of new technologies and new materials plays a key role in the technological and scientific competitiveness of highly industrialized countries worldwide. This implies new and additional exigencies for scientists and engineers in the field of scientific and technological advancements. The MaMaSELF Master's Course aims at promoting international collaboration among Universities, Large Scale Facilities and Industry. Its main objective is to form skilled scientists in Materials Science together with an advanced knowledge in the use of Large Scale Facilities for the characterization of high technology materials.

The two-year MaMaSELF Master's Course covers 120 ECTS credit points. Successful candidates obtain a double or multiple diploma.

## Mobility

The two year Mamasef programme is split in 4 semesters : The first year (SEM 1 & SEM 2) is entirely enrolled at one out of the five universities of the consortium, SEM 3 at a different university. SEM 4 is dedicated to the Master thesis and can be carried out at any university or Large scale facility or at partner institutions situated in Switzerland, Japan and India, USA, Russia.  
(For details refer to our website [www.mamasef.eu](http://www.mamasef.eu))

## Erasmus Mundus

The European ERASMUS-MUNDUS programme stands for the promotion of the European Union as a Centre of Excellence in the field of higher education. It strongly supports high-quality Master Courses to enhance visibility and attractiveness of European higher education all around the world. It can provide EU-funded scholarships for non-EU and EU students participating in these Master Courses. Additional scholarships are foreseen for visiting non-EU Academics. The Master Mamasef is part of the Erasmus Mundus 2 framework.

## Erasmus Mundus website:

[http://ec.europa.eu/education/programmes/mundus/index\\_en.html](http://ec.europa.eu/education/programmes/mundus/index_en.html)

## Principal teaching programmes

### RENNES

#### Materials science

Basics in solid state Chemistry and Physics, quantum mechanics, electrochemistry and corrosion, thin films, nano- and bio-materials, interfaces, semiconductors, polymers, sensors

Management: Entrepreneurial project, marketing

### MUNICH

#### TUM Engineering physics

Bio-materials, polymers, theoretical physics, nuclear physics, neutron physics, reactor physics

#### LMU Mineralogy

Interfaces, geo-materials, bio-minerals, crystallography, spectroscopy, petrology

### TURIN

#### Chemistry and nano-materials

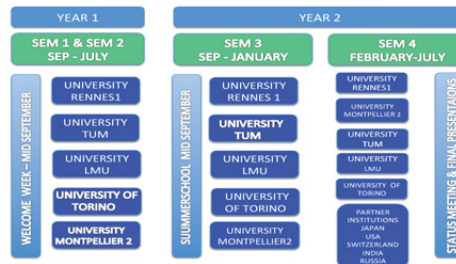
Catalysis, metallurgy, surface science, biomaterials, polymers, quantum chemistry, ceramics, superconductivity

### MONTPELLIER

#### Materials science

Cristallography, quantum mechanics, materials for energy transfer & storage, catalysis, surface science, ceramics, metallurgy, management & entrepreneurship

## MAMASELF MOBILITY PROGRAM



## Grants

For each academic year the consortium selects a limited number of non-EU and EU students, who will receive a grant up to

**CAT A (Non-EU students): 22.000€ per year**

**CAT B (EU and Non-EU students): 9.000€ per year + 3000€** (mobility grant for an internship at a Non-EU partner institution).

Selected students can participate in the Master's course even without EM grant or apply for other grants (for more information see website).

## Tuition fees

**CAT A (Non-EU students): 6000/year**

**CAT B (EU and Non-EU students): 3000/year**

Health insurance, language courses.... are already included in the tuition fees.

## Admission criteria

Students must have a Bachelor (180 ECTS or equivalent) in Materials Science or related disciplines (chemistry, physics, geo-science, ...); and good English competencies, e.g. TOEFL 210/550, IELTS 6.5 or equivalent.

## Language policy

Instruction language is English for lectures and any other business. We offer level-adapted language courses of about 48 hours in each semester in French, German and Italian language at the respective consortium site.

