

MaMaSELF

Summer school

A 2 weeks summer school is organized for all Mamaself 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 Mamaself

The Mamaself status meeting is organized in Switzerland during the 4th semester and brings together all second-year Mamaself 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.

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 (ETH Zurich, PSI), Japan (Kyoto University), India (IIT Madras), USA (University of Wisconsin), Russia (Southern Federal University).



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), **PSI** (Villigen, CH), **Elettra** (Trieste, I).



MaMaSELF



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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.mamaself.eu

**Master in Materials Science
Exploring Large Scale Facilities**
www.mamaself.eu

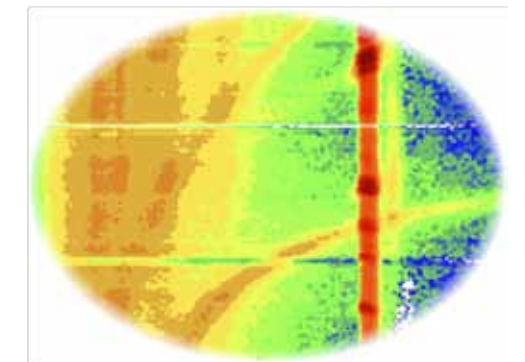
The Consortium

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

 University of Rennes 1, France Prof. S.Di Matteo, coordinator sergio.dimatteo@univ-rennes1.fr www.univ-rennes1.fr	 University München, Germany Prof. W. Petry wpetry@physik.tu-muenchen.de www.tu-muenchen.de
 University of Montpellier2, France Prof. Werner Paulus werner.paulus@univ-montp2.fr www.univ-montp2.fr	 The Ludwig Maximilian Universität Prof. W. Schmahl wolfgang.schmahl@lrz.uni-muenchen.de www.lmu.de
Contact Christiane CLOAREC Tel +33 (0)2 23 23 58 58 mamaself@listes.univ-rennes1.fr	 University of Torino, Italy Prof. C. Lamberti carlo.lamberti@unito.it www.unito.it

Application

Electronic submission on : <http://application.mamaself.eu>
Application deadlines (for the Erasmus Mundus fellowship)
CAT A (Non-EU students) and CAT B (EU and Non-EU students) : 26 January 2012
Self-funded students: 18 Mai 2012
(For details see website www.mamaself.eu)



2012 - 2014



A two year Master's course
in the Erasmus Mundus 2 framework

**FRANCE
GERMANY
ITALY**



Mamaself 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 Mamaself 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.mamaself.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 Mamaself is part of the Erasmus Mundus 2 framework.

Erasmus Mundus website:

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 Programme

YEAR 1

SEM 1 & SEM 2
SEP - JULY

INTEGRATION WEEK - MID SEPTEMBER

- UNIVERSITY RENNES 1
- UNIVERSITY TUM
- UNIVERSITY LMU
- UNIVERSITY OF TORINO
- UNIVERSITY MONTPELLIER 2

YEAR 2

SEM 3
SEP - JANUARY

SUMMERSCHOOL MID SEPTEMBER

- UNIVERSITY RENNES 1
- UNIVERSITY TUM
- UNIVERSITY LMU
- UNIVERSITY OF TORINO
- UNIVERSITY MONTPELLIER 2

SEM 4
FEBRUARY-JULY

STATUS MEETING & FINAL PRESENTATIONS

- UNIVERSITY RENNES 1
- UNIVERSITY TUM
- UNIVERSITY LMU
- UNIVERSITY OF TORINO
- UNIVERSITY MONTPELLIER
- PARTNER INSTITUTIONS
JAPAN
SWITZERLAND
INDIA
USA
RUSSIA

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.

Grants

For each academic year the consortium selects a limited number of non-EU and EU students, who will receive a grant (see our website)

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.

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.

