

# International Master in Computer Science



**Sophia Antipolis, France**  
**<http://computerscience.unice.fr/>**










# CS Master at UNS

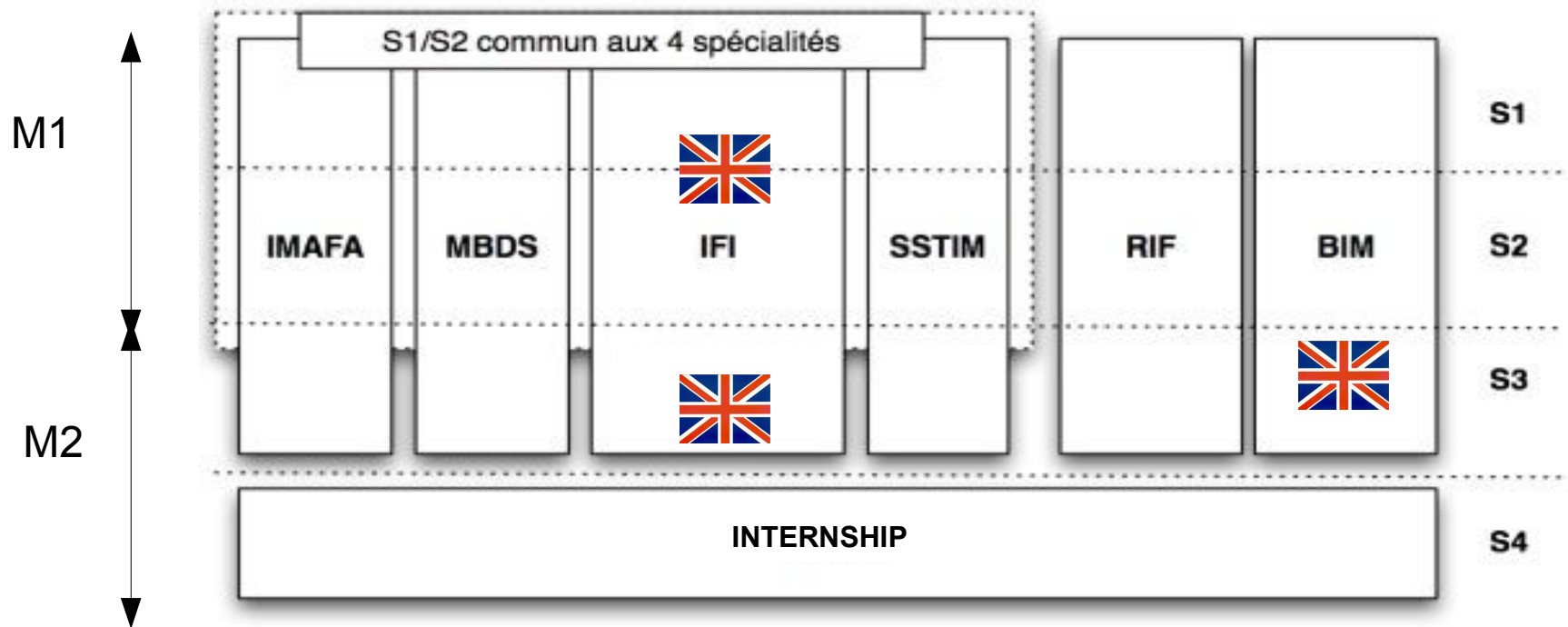
- Two-year program: M1 + M2
- Entry points in first or second year (M1 only, M2 only or M1 + M2)
- Last semester: internship in company or a research lab (INRIA, I3S, LEAT, Eurecom)



# CS Master at UNS

- CS Master features 4 specialities:
  - IMAFA (Mathematics and Finance) 
  - MBDS (Mobiquity, databases) 
  - IFI (Theoretical CS and Engineering) 
    - M1 international track  Labex scholarships
    - M2 Ubinet
  - SSTIM (Image processing and Multimedia) 
- Two related Masters
  - RIF (Resarch in Theoretical CS) 
  - BIM (Bio-informatics)
    - M2 CBB  scholarships

# The big picture

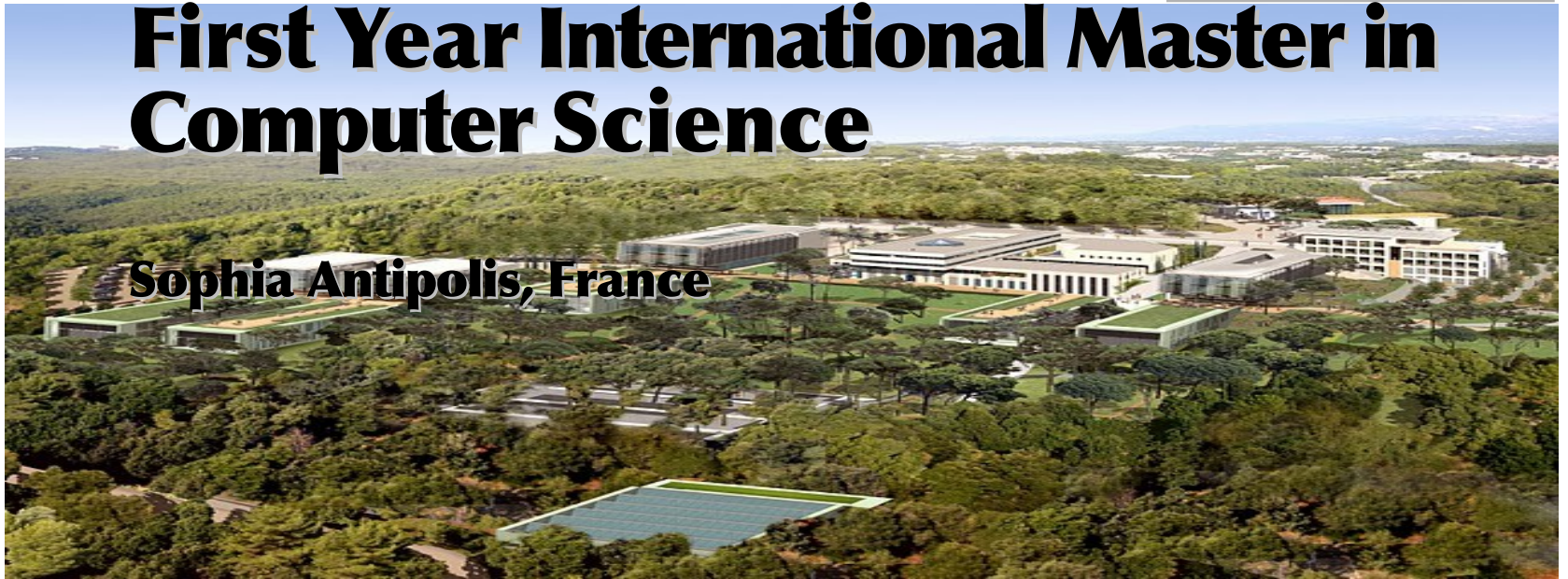


# Administrative information

- Tuition fees per year : 500 euros (includes social security if below 28)
- Scholarships:
  - Eiffel: <http://www.campusfrance.org/en/eiffel>
  - AUF:  
<http://www.auf.org/les-services-de-l-auf/etudiants/bourses/>
  - Labex [UCN@Sophia](#) : M1 int (4,5 keuros) + M2 Ubinet ( 8 keuros inc. 2,4 keuros during internships)
  - ...
- Depending on nationality, you have to apply through Campus France first:  
<http://www.campusfrance.org/en/page/cef-procedure-create-your-file>
- Recommendation letters are essential for Campus France and also while applying to M1int and Ubinet.

# First Year International Master in Computer Science

**Sophia Antipolis, France**



Located in Europe's largest scientific park,  
**Sophia Antipolis, France**

This program is hosted by the University of Nice Sophia Antipolis (Department of Computer Science)

**Web Site:** <http://www.i3s.unice.fr/csmaster/>

# Courses – first semester

## Semester 1, October-February (30 ECTS)

### Core modules 24 ECTS

Concurrency and Parallelism	4 ECTS
Software Engineering	4 ECTS
Networking	2 ECTS
Foreign Language	2 ECTS
Computability and Logic	6 ECTS
Verification and Computer Proof	2 ECTS
Probability and Statistics	2 ECTS
Innovation & Entrepreneurship	2 ECTS

Check web site for  
description of courses

### Optional modules 6 ECTS to be chosen among

Advanced Operating Systems	2 ECTS
C++	2 ECTS
Introduction to Research 1 (winter school)	2 ECTS
Introduction to Research 2 (winter school)	2 ECTS

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# Winter Schools

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## **WS 1: Introduction to Robotics centered on Wire-driven parallel robots**

- Jean-Pierre Merlet (INRIA)
- Jan. 2013

## **WS 2: Computational Geometry Learning**

- Jean Daniel Boissonnat, Frédéric Chazal, Mariette Yvinec
- Jan. 2013

**Opened to MsC but also PhD students**

# Courses – second semester

## Semester 2, February-June (30 ECTS)

### Core modules 22 ECTS

Temporal and Functional Analysis	3 ECTS
XML and Web	3 ECTS
Distributed Programming	4 ECTS
Complexity	2 ECTS
Personal Project	6 ECTS
Internet and Networks	2 ECTS
Image Synthesis	2 ECTS

### Optional modules ( 8 ECTS) to be chosen among

Scientific English Writing	2 ECTS
Cryptography and Security	2 ECTS
Protocol Engineering	2 ECTS
Geometric Algorithms	2 ECTS
Signal Processing	2 ECTS
Problem Solving	2 ECTS
Combinatorial Optimization	2 ECTS

# Current Class

- **15 students:**

**2 Albany, 1 Italy, 1 Macedonia, 2 Libanon, 1 Iran, 1 Ethiopia, 1 Nigeria , 2 India, 1 Cambodia, 2 Pakistan, 1 Sri Lanka + one ERASMUS (Germany).**

# Second Year International Master in Computer Science: Ubinet

**Sophia Antipolis, France**



Located in Europe's largest scientific park,  
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This program is hosted by the University of Nice Sophia Antipolis

**Web Site:** <http://ubinet.unice.fr>

# Ubinet: 2<sup>nd</sup> year of IFI Master

- Several tracks inside IFI
- Ubinet is the only one in English
  
- Architecture Logicielle (AL)
- Cryptographie, Systèmes, Sécurité et Réseaux (CSSR)
- Informatique Ambiante et Mobile (IAM)
- Interfaces Homme-Machine (IHM)
- Knowledge and Information System (KIS)
- Système Complexe (SC)
- **Ubiquitous Networking (UBINET)**

# Scientific Program of Ubinet

**M2 Semester 1, October-February - 30 ECTS (European Credits Transfer System)**

- 12 courses (24 ECTS)
- A personal project (6 ECTS)

**M2 Semester 2, March-August - 30 ECTS**

**6-month paid full time internship** in one of the research team at I3S, INRIA or Eurecom or with one of our renowned industrial partners Orange Labs, SAP, THALES, AMADEUS, etc.

**Teaching language:** English

A french course is organized for foreign students during the first semester.

# Courses (1<sup>st</sup> semester)

## ■ Period 1 (12 ETCS):

- Evolving Internet : Architectural Challenges I
- Algorithms for Telecommunication I
- Performance Evaluation of Networks I
- Wireless Networks I
- An algorithmic approach of Distributed Systems
- Foundations and models for the design of on-chip systems and networks.

## ■ Period 2 (12 ETCS) :

- Mandatory Courses : (4 ETCS)
  - Large scale distributed systems
  - Middleware for ubiquitous computing
- Menu Courses : (4 courses to be chosen among 7)
  - Evolving Internet II
  - Performance Evaluation II
  - From BitTorrent to privacy
  - Algorithms for Telecoms II
  - Application security and intrusion detection
  - Wireless networks II
  - Compute and Data Clouds

Check web site for  
description of courses

# Alumni

- **In 2009/2010**, ~40 applications, 13 students accepted from: Argentina, China, France, India, Italy, Lebanon, Morocco, Pakistan, Poland, Tunisia, Vietnam, Cameroon, Ivory Coast
- **In 2010/2011**, ~60 applications, 18 students accepted from: Vietnam, Columbia, Bangladesh, Argentina, Ethiopia, Sri-Lanka, Lebanon, Madagascar, India, Tunisia, Benin, France
- **In 2011/2012**, 72 applications, 15+2 students accepted from: Cambodge (3), Canada, Colombie, Cote d'Ivoire, Ethiopie, Italie (2), Maroc, Sri-lanka, Ukraine (2), Vietnam (2).
- **In 2012/2013** , 70 applications 15 +1 accepted from France, Allemagne, Italie(2), Roumanie, Russie, Ukraine(4), maroc (2), Liban, Syrie, Vietnam (2)



# Ubinet: Origin of students

Year	Total	France	Europe	Asia	Africa	Middle-East	South America	North America	Erasmus
09-10	13	1	3	3	4	1	1	-	
10-11	18	1	0	10	4	1	2	-	
11-12	15+(2)	-	4	6	3	-	1	1	(2)
12-13	15+(1)	1	8	2	2	2	-	-	(1)

# Ubinet: a research oriented track

Year	Class	PhD Sophia	PhD France	PhdD Other countries	Engineers Sophia	Engineers france	Engineers Other countries	Other
09-10	12	5	3	1	1	1	1	
10-11	14	5	3	2	2		2	
11-12	13	5		1	1	1	1	4

**Over 50% Ubinetters start a PhD!**

# The Labex scholarship program

- Labex is a virtual lab on Sophia federating INRIA, I3S, LEAT and Eurecom : <http://www.ucnlab.eu/>
- Foster Research and Teaching
- Offers scholarships for outstanding students
- Last year: 6 scholarships for M1 int and 7 for Ubinet



UCNLAB

