

## France :

**4th country** that welcome international students thanks to prestigious institutions & scientific excellence, rich history & culture, quality of life, European union.

## Paris-Sud University :

First laboratories were created by Nobel prize winners Irène (the daughter of Nobel prize winners Pierre and Marie **Curie**) and Frédéric Joliot-**Curie**.

Multi-disciplinary with a strong focus on science and health :

→ **It has 83 internationally-renowned laboratories.**

→ **It employs 4,300 (teacher-)researchers and welcomes 32,000 students.**

- \* One of the most prestigious universities in **France**
- \* 1st university in **Europe** for physics according to « Shanghai Ranking » (2017)
- \* **37** th university according to « Academic Ranking of **World** Universities » (2019)
- \* **78** th university according to « CWUR - **World** University Rankings » (2020)
- \* **181** st university according to « THE **World** University Rankings » (2018)

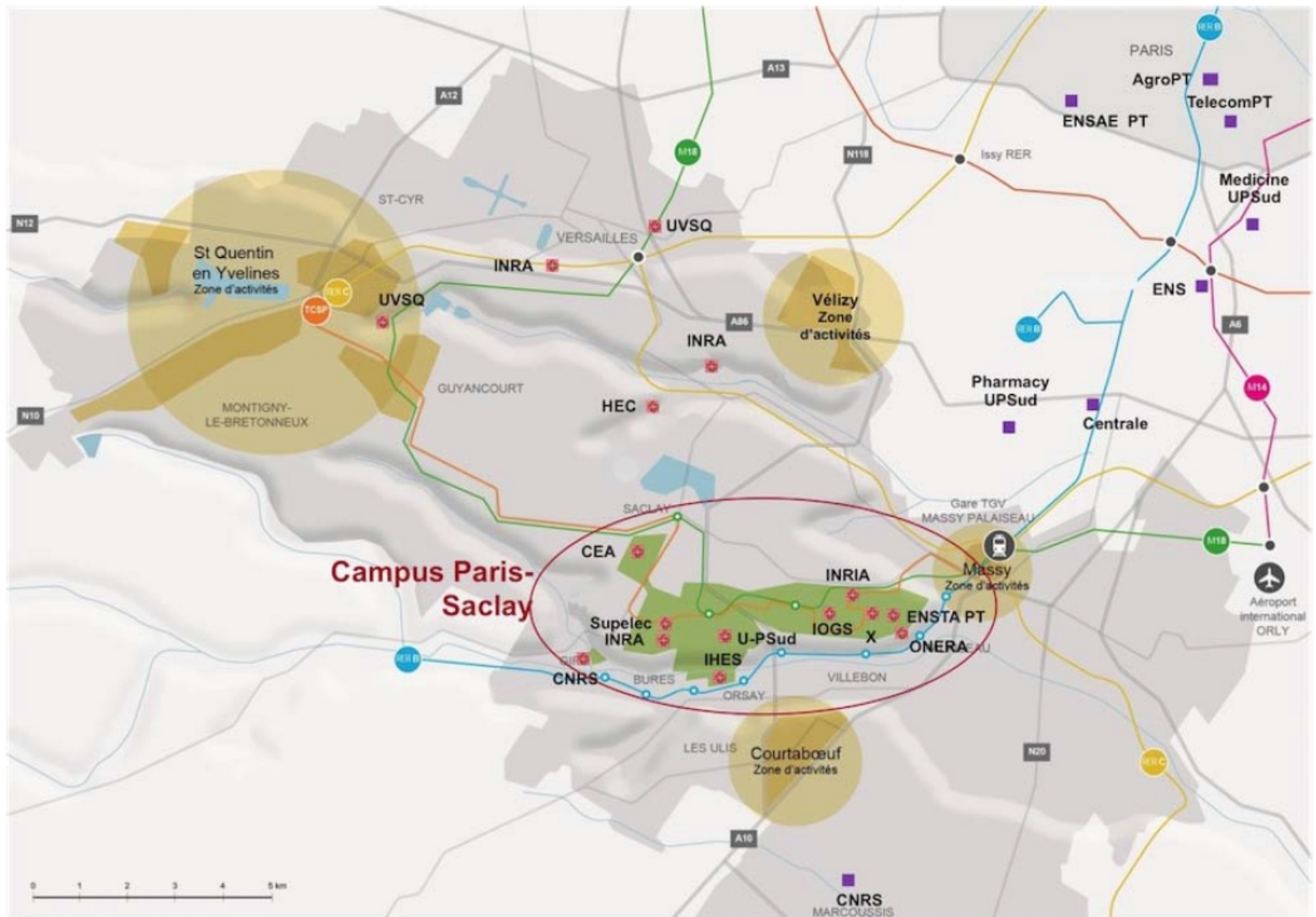
=> attracts **5,000 foreign students** from 136 countries

*Université Paris-Sud is a founding member of Univ. **Paris-Saclay**, a consortium of institutions pooling their academic & reseach programmes at the world class level.*

# Paris-Saclay University



- The Paris-Saclay University brings together exceptional scientific potential with its institutions: universities, university-level colleges and research organizations (= 15% of the french **research**).
- Several large international **companies** have already located their research & development and education centers on the Paris-Saclay site (including Danone, Air Liquide, Thales and EDF) or in the Paris-Saclay business area (Alcatel-Lucent Bell Labs, Dassault Systèmes, Ipsen, General Electric).
- The Paris-Saclay University offers a wide range of **courses**, from bachelor's degree to doctorate, all of a high international level, within the fields of natural, human and social sciences.
- **=> Goal: Create a dense network in research, business, education.**



**Figure 1:** The Paris-Saclay territory at end of 2015. The following institution : AgroParisTech, Télécom ParisTech, ENSAE ParisTech, ENS Cachan, Centrale, CNRS Marcoussis, UPSud/Pharmacy, will move to the Campus Paris-Saclay (green area) from 2016 (ENSAE) to 2021 (UPSud faculty of Pharmacy). The gray colored area represents the territory of the Paris-Saclay "Operation d'intérêt national" (OIN).

Technologie de l'Information et de la Communication

## TIC

37 000 salariés  
400 établissements

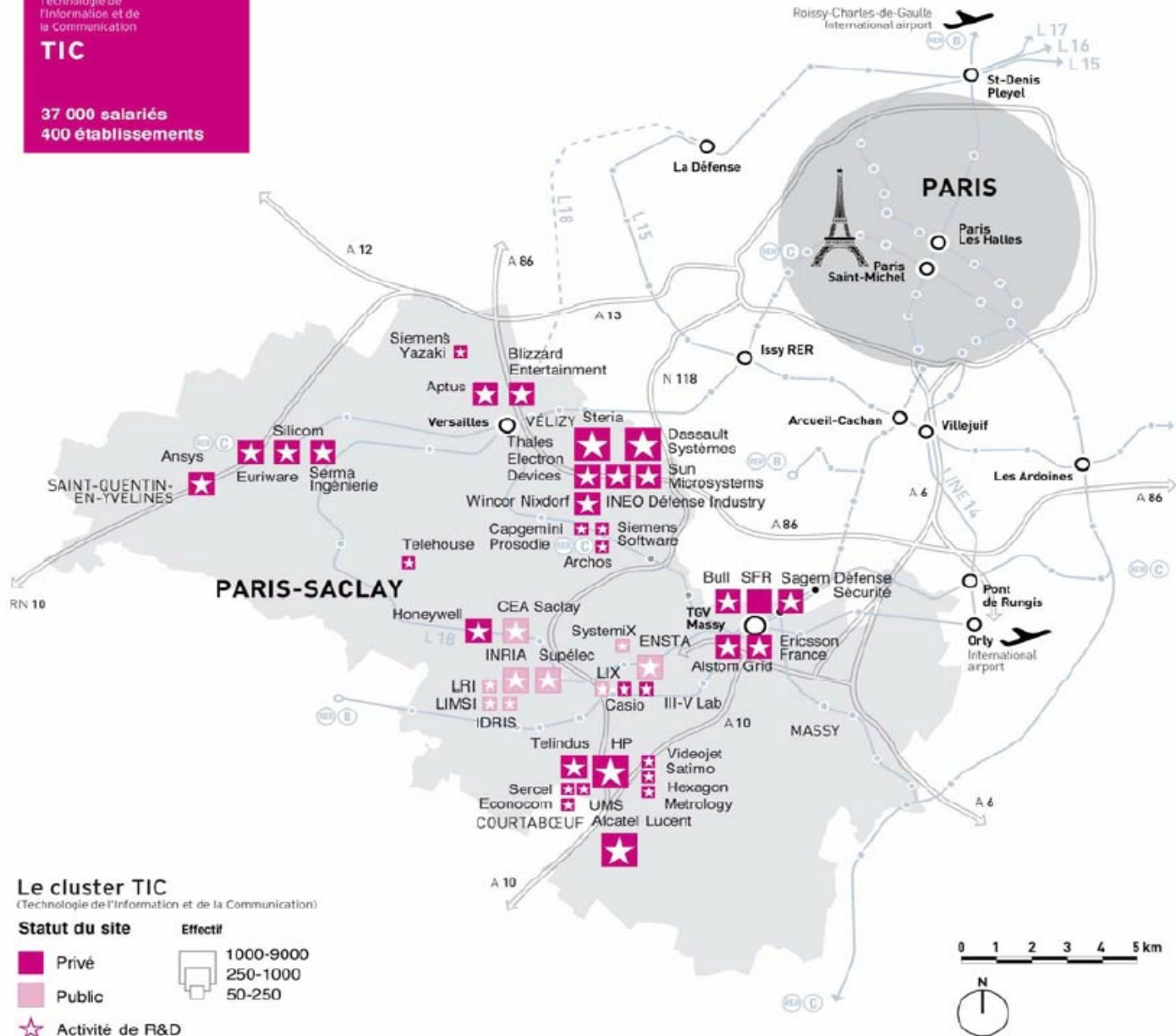


Figure 11: The ICT partners in the Paris-Saclay territory

# 1st year Master of Physics

*The M1 General Physics is one of the 1st year tracks in the Master of Physics program at the Paris-Saclay University:*

- General Physics (Paris-Sud University)
- High Energy Physics (Ecole Polytechnique : X)
- MOlecular NAno Bio PHOTonics (Ecole Normale Supérieure : ENS)
- « Physique et Applications » (Paris-Sud University)
- « Physique Fondamentale & Magistère » (Paris-Sud University)
- « Irène Joliot-Curie » (ENS, X and *Institut d'Optique Graduate School*)

The completion of the **first year Master** of General Physics allows to attend various **second year Masters** of Physics at the Paris-Saclay University:

<http://www.m1generalphysics.u-psud.fr/spip.php?article6>

# M2 admission 2015-19

- *Previous year students have applied for 2nd year Master programs. All the students that successfully passed the M1GP have been accepted in an M2 program.*
- **Some M2 programs [english taught] where M1GP students have been admitted in Paris-Saclay :**
  - Nuclei, Particles, Astroparticles and Cosmology (NPAC)
  - Theoretical Physics (International Centre for Fundamental Physics) at «Ecole Normale Supérieure»
  - Condensed Matter Physics (ICFP) at ENS
  - Physics of Complex Systems (i-PCS)
  - High Energy Physics (HEP) at «Ecole Polytechnique»
  - Laser Optics Matter (LOM) at *Institut d'Optique Graduate School (IOGS)*
  - Nanosciences : International Track
  - "Grands Instruments"
  - etc...

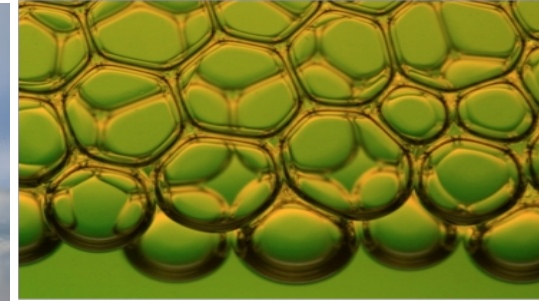
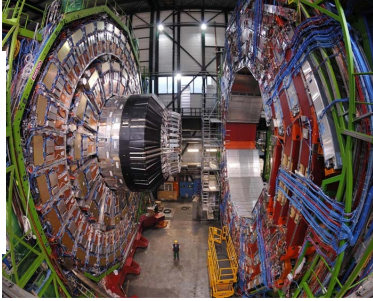
## **And M2 outside Paris-Saclay University :**

Theoretical & Mathematical Physics, Particle Physics & Astroparticles [Aix Marseille Univ.],  
SPaCE [Aix Marseille Univ.], Master program in Theoretical Physics and Applications [Cergy-Pontoise Univ.],...

## **Other possible M2 programs to attend in Paris-Saclay :**

Quantum Physics: from atom to solid state (ICFP), Soft matter and biological physics (ICFP),  
Molecular nano- and bio-photonics for telecommunications and biotechnologies (MONABIPHOT),...

*Presentation  
of the  
M1 General Physics  
Program*



# M1 General Physics

Master of Physics  
Paris-Saclay University

[www.m1generalphysics.u-psud.fr](http://www.m1generalphysics.u-psud.fr)

**International 1st year master program for foreign and French students**

Includes also international double degree programs with Politecnico di Torino, Italy, Università di Ferrara, Italy and Tomsk Polytechnic University, Russia.

- General concepts in Fundamental Physics.
- Wide range of tracks: Particle, Nuclear and Atomic Physics, Astrophysics, Condensed Matter Physics, Optics, Lasers and Plasma Physics and Theoretical Physics.
- Large number of second year master programs on various Physics topics.
- Strong link to Paris-Saclay research laboratories.



# M1 GP program

## Major courses

Nuclei, Particles and Universe    Solid State Physics    Atoms, molecules and optics  
Statistical and Quantum Mechanics

## Minor courses

Astrophysics and Astroparticles    Nuclear and Particle Physics    Soft Matter  
Plasma Physics and applications  
Quantum Effects at Macroscopic Scale    General Relativity and Cosmology

## Tools

Computing tools    Sensors, measurements and signal processing    Mathematical and statistical methods  
Advanced mathematical methods

## Experimental Physics: Mini-experiments

Language course: French or another language

Seminars, Research project  
Internship in laboratory

# Study Plan for the M1 GP



- Major courses (70h): 2-3 x 8 ECTS
- Minor courses (50h): 2-3 x 6 ECTS
- Tools (30h): 1-2 x 3 ECTS [*+ Computing Tools*]
- Experimental Physics: 2-3 experiments = 6 ECTS
- Language course (24h): 3 ECTS
- Training in laboratory (8 weeks) / Research project (10 w.): 6-9 ECTS
- **TOTAL: 60 ECTS**

## Courses:

- to be selected today together,
- to be confirmed on the 15th of september,
- on a document to be signed at the end of september.



# Study Plan M1GP 2019-2020



Fichier Édition Afficher Insertion Format Données Outils Modules complémentaires Aide Toutes les modifications ont été enregistr...



Partager



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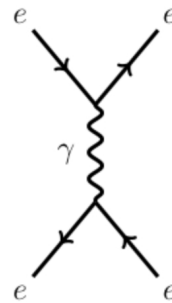
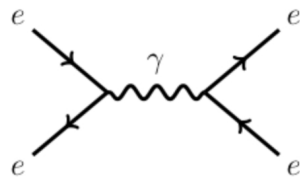
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7	AlShamsi Maitha																						0	0	0	X			
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10	Bezard Malo																						0	0	0				
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26	Kharbanda Bhavesh																						0	0	0				
27	Le Thi Ngoc Khanh	1	1					1	1				1	1	1	1	1	1			1	1	61	31	30	X			



# Inscriptions / practical informations

- For non-european students, subscribe online for a **free healthcare** insurance.
- Your (pre-)**registration** will be at the Paris-Sud University (B.336) [=> student card]  
Tuition fees : 243€ + CVEC tax [online => number] : 91€ / year
- Get help - by being connected to a local student : *Buddy Program*
- - from the *GATE* team (Building 311)
- Your master **diploma** will be delivered by the Paris-Saclay Univ.
- Contact person for VISA [=> titre de séjour] / administration help :
- *Kalidiouma Sidibe* [kalidiouma.sidibe@u-psud.fr](mailto:kalidiouma.sidibe@u-psud.fr)
-



## Nuclear and Particle Physics

This Minor course proposes to explain general topics in Elementary Particle Physics. First the theoretical context necessary to describe spin-1/2 particles is presented in details, including...

[READ MORE](#)

## 1st YEAR MASTER PROGRAM in GENERAL PHYSICS



### SECTIONS

**Admission**

**After the 1st year Master**

**E-learning**

**Paris-Saclay University**

**Practical Aspects**

