

# Master Informatique

# Faculté des Sciences d'Orsay

# Université Paris-Saclay

**Florent Hivert**

Mél : Florent.Hivert@universite-paris-saclay.fr

Friday 2 September 2022

## Temporary website

Until everyone have access to e-Campus

<https://master-info-orsay.lri.fr/>

The presentation slides and the schedule are at the bottom («Informations diverses»).

## Contacts

Please : by appointment or e-mail.

**Head** : Florent Hivert (PCRI-143)

Florent.Hivert@universite-paris-saclay.fr<sup>1</sup>

**Pedagogical coordinator** : Cindy Bielande (B-207)

**Secretaries**

**Track QDCS, IoT, MPRI et HCI** : Murielle Benard (D-210)

**Track IA et DS** : Alexandre Verrecchia (B-206)

**European Master EIT** : Aurélie Lerasle (D-213)

---

1. emails : prénom.nom@universite-paris-saclay.fr

# The Master Mention Informatique (UFR Orsay)

## Large reorganization in 2020-2021

- Legal and Paris/Saclay cluster motivations :
  - Selection only in M1 (and no more in M2)
  - Unique Master Mention for all Paris-Saclay.
- Pedagogical Motivation :
  - former M1 : too general
  - former M2 : too linear

⇒ 6 tracks sharing courses

# The Master Mention Informatique (UFR Orsay)

## Large reorganization in 2020-2021

- Legal and Paris/Saclay cluster motivations :
  - Selection only in M1 (and no more in M2)
  - Unique Master Mention for all Paris-Saclay.
- Pedagogical Motivation :
  - former M1 : too general
  - former M2 : too linear

⇒ 6 tracks sharing courses

## Track principle

European Credits : 120 ECTS (60 each years)

Disciplinary Courses 70 ECTS 28 UE of 21H for 2.5 ECTS	Soft Skills 20 ECTS	Internship 30 ECTS
--	------------------------	-----------------------

Disciplinary Courses (also called UE for Unité d'Enseignement) :

- Mandatory UE of the chosen track (50% or more)
- Optional UE of the chosen track
- Open UE of the other tracks

## The 6 tracks

- **Artificial Intelligence (AI)**  
classical (English) or european (DsC - EIT Digital)
- **Internet of Things (IoT)**  
classical + apprenticeship (French)
- **Data Science (DS)**  
classical (English)
- **Quantum and Distributed Computer Sci. (QDCS)**  
classical (English)
- **Human-Computer Interaction (HCI)**  
classical (English) or european (DsC - EIT Digital)
- **Theoretical computer science (Mpri)**  
M1 at Orsay, M2 shared with ENS Paris-Saclay

# Artificial Intelligence (AI)

Heads : Caio Corro, Kim Gerdes, Marc Evrard, Francois Landes.

- Classical (English)
- European Master (DsC - EIT Digital)

Théorie et pratique des algorithmes d'IA, apprentissage profond, model de Markov, apprentissage par reforcement, statistique, optimisation, traitement du signal, éthique.

# Internet of Things (IoT)

Head : Steven Martin

- Classical + M2 apprenticeship (French)

Réseau et optimisation pour les réseaux. Modélisation et aspect fondamentaux, algorithmes et systèmes en réseaux. Approche multidisciplinaire : méthode d'apprentissage, théorie des jeux, programmation mathématique (déterministe, robuste, stochastique).

# Data Science (DS)

Head : Silviu Maniu, Fatiha Saïs

- Classical M1 in French et M2 in English

Masses de données du monde réel, bases de données, algorithmes d'analyse de données, données hétérogène, science des données, data mining, apprentissage, stockage, partage, extraction, sécurisation, mise en forme, visualisation.

# Parallel and Distributed Computer Sci. (PDCS)

Heads : Pablo Arrighi, Oguz Kaya, Janna Burman

- Classical (English)

Systèmes distribués, calculs hautes performances, calculs parallèles et distribués, CPU/GPU, architectures hétérogènes, capacité d'adaptation aux évolutions futures.

# Human-Computer Interaction (HCI)

Heads : Sarah Fdili-Alaoui, Ouriel Grynspan

- Classical (English)
- European Master (DsC - EIT Digital)

Designer, interface utilisateur, desktop computer, web, mobile. research, R&D, industry and consulting.

# Theoretical computer science (Mpri)

Head of M1 Orsay : Pablo Arrighi

- M1 à Orsay (in French/English on demand), with some possible UE at the ENS.
- M2 co-operated with ENS Paris / ENS Paris-Saclay / École Polytechnique, Sorbonne université et Université de Paris.

Recherche en informatique fondamentale : Logique, preuve, langages de programmation, systèmes distribués, algorithmes, combinatoires, complexité, modélisations, optimisations, graphes, cryptographie...

## Validating my Master

Européens Credits : 120 ECTS (60 par an)

Disciplinary Courses 70 ECTS 28 UE of 21H for 2.5 ECTS	Soft Skills 20 ECTS	Internship 30 ECTS
--	------------------------	-----------------------

- **Master 1 :** 4 periods  
at each period 4 disciplinary UE + 1 soft skill
- **Master 2 :** 3 periods  
at each period 3 disciplinary UE + 1 soft skill  
1 internship

## Schedule (EdT = Emploi du temps)

<https://sites.google.com/view/mastersagenda/>

7 periods of 6 weeks (except T1) + one exam week

T1...T4 for M1 and T5...T7 for M2 :

- T1,T5 : 5 September to 21 October
- T2,T6 : 31 October to 16 December
- T3,T7 : 2 January to 24 February
- T4 : 6 March au 28 April

The course are all of 21H : generally 6 classes of 3h1/2.

## UEs choices

Depending on your track, several disciplinary UEs are mandatory (at least 2 each periods). The other UEs are to be chosen in the open courses of the other tracks.

- Explanation this afternoon during track presentations
- Please fill in the shared files (link received by e-mail yesterday from Cindy Bielande)  
**before September the 15 for T1 and T2**  
Second poll in December for T3 and T4
- To be precised and checked with your track head
- If there are any change, please inform Cindy Bielande and your track secretary

Note : exceptionally, under the supervision of the track head, we allow to take an open UE on another period; eg : 3 UE at T2 and 5 UE at T3...

## Soft Skills UEs choices

Choose one for each period (mandatory language for T1 and T2).

- Languages (English / French / other) T1 and T2
- Business life training
- Innovation and Entrepreneurship
- Computer Science and sustainable development
- Sport

<https://sports.universite-paris-saclay.fr/>

- Arts and Culture (Ateliers culturels) :

[https://www.universite-paris-saclay.fr/vie-de-campus/art-culture-science-et-societe/  
arts-et-culture](https://www.universite-paris-saclay.fr/vie-de-campus/art-culture-science-et-societe/arts-et-culture)

## Practical informations : facilities

- Cafeteriat (entrance of the building), Lieu de Vie
- Students Bureau (C112) / BdE (for Bureau des Élèves)
- Free computer room (currently E-211)

**Please respect the equipment !**

# CoViD-19 Safety Instructions

CoViD is still there ! Don't take any chance !

- <https://www.universite-paris-saclay.fr/en/coronavirus-university-instructions>
  
- <https://www.universite-paris-saclay.fr/vie-de-campus/medecine-preventive>

## In-person and online teaching

### Warning !

A few courses are still online, and more can become online unexpectedly.

- ECampus / Collaborate.

This will be specified on the schedule.

**Warning ! Please watch for update of the schedule.**

# Gender discrimination and moral or sexual harassment

## This is not acceptable !

Do not hesitate to talk to the secretaries or e-mails us!

Relais Étudiant : Taissir Marce

harcelements@universite-paris-saclay.fr

*Vous êtes **victimes**  
ou **témoins**  
de **harcèlements**,  
de **violences sexistes**  
**ou sexuelles** ?*

*Pour plus d'information :*



# Victimes ou témoins harcèlementS

Retrouvez dans ce dépliant l'ensemble des lieux ressources et adresses utiles externes et internes à  
l'Université Paris-Saclay

## Osez alerter Libérons la parole !

Cellule de veille et d'écoute  
contre les harcèlementS  
à l'Université Paris-Saclay

[harclements@universite-paris-saclay.fr](mailto:harclements@universite-paris-saclay.fr)



Pour  
+ d'infos

université  
PARIS-SACLAY

TODO as soon as possible!!!

Thank you to register to the  
university !

## What next ???

- Entrepreneurship soft skill presentation (Emmanuel Waller)
- Maturation project (Ezzahra Loukili)
- Computers and sustainable development (Anne-Laure Ligozat)
- Computer Sciences Graduate School (Gwenaelle Boujard)
- Students Office / BdE Bureau des Élèves (Yacine Mokhtari)

## Pot du département à 12h !

- Afternoon : Track presentations