



**ijc** Lab  
Irène Joliot-Curie  
Laboratoire de Physique  
des 2 Infinis

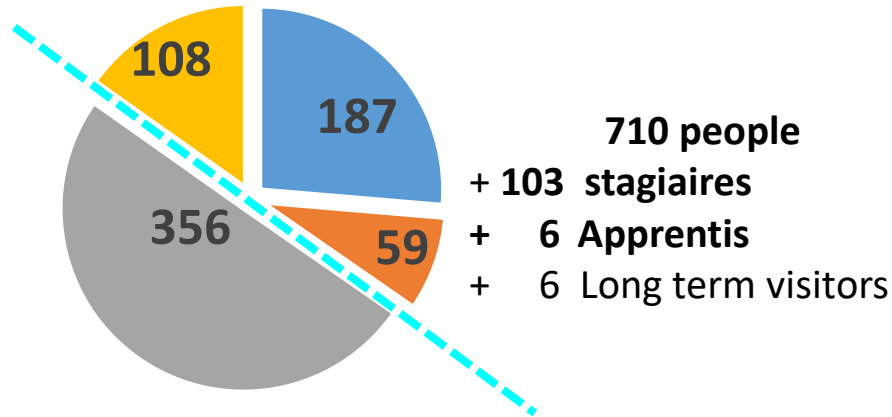
A new European Laboratory.





## IJCLab : Personnel Status (including non permanent)

- Researchers CNRS
- Researchers-Teachers
- Engineers + Technicians
- PHD



All in all >800 people present at the laboratory

## CNRS (Centre National de la Recherche Scientifique)

- ~17000 researchers + 16000 technical staff
- 10 institutes among them **IN2P3 (Institut national de physique nucléaire et de physique des particules)**
- IN2P3 composed by ~20 large-scale laboratories
- IJCLab mainly linked to IN2P3.
- **IJCLab (~700 people) ~1/4 of HR of the IN2P3.**

## University Paris-Saclay

- 275 laboratories : 9000 researchers, 11000 IT (*University and research organism altogether, comprising CNRS and CEA*)
- 13<sup>th</sup> Shanghai ranking (Physics : 9<sup>th</sup> World, 1<sup>st</sup> Europe)
- 48000 students (with 9000 Master, 4000 PHD)

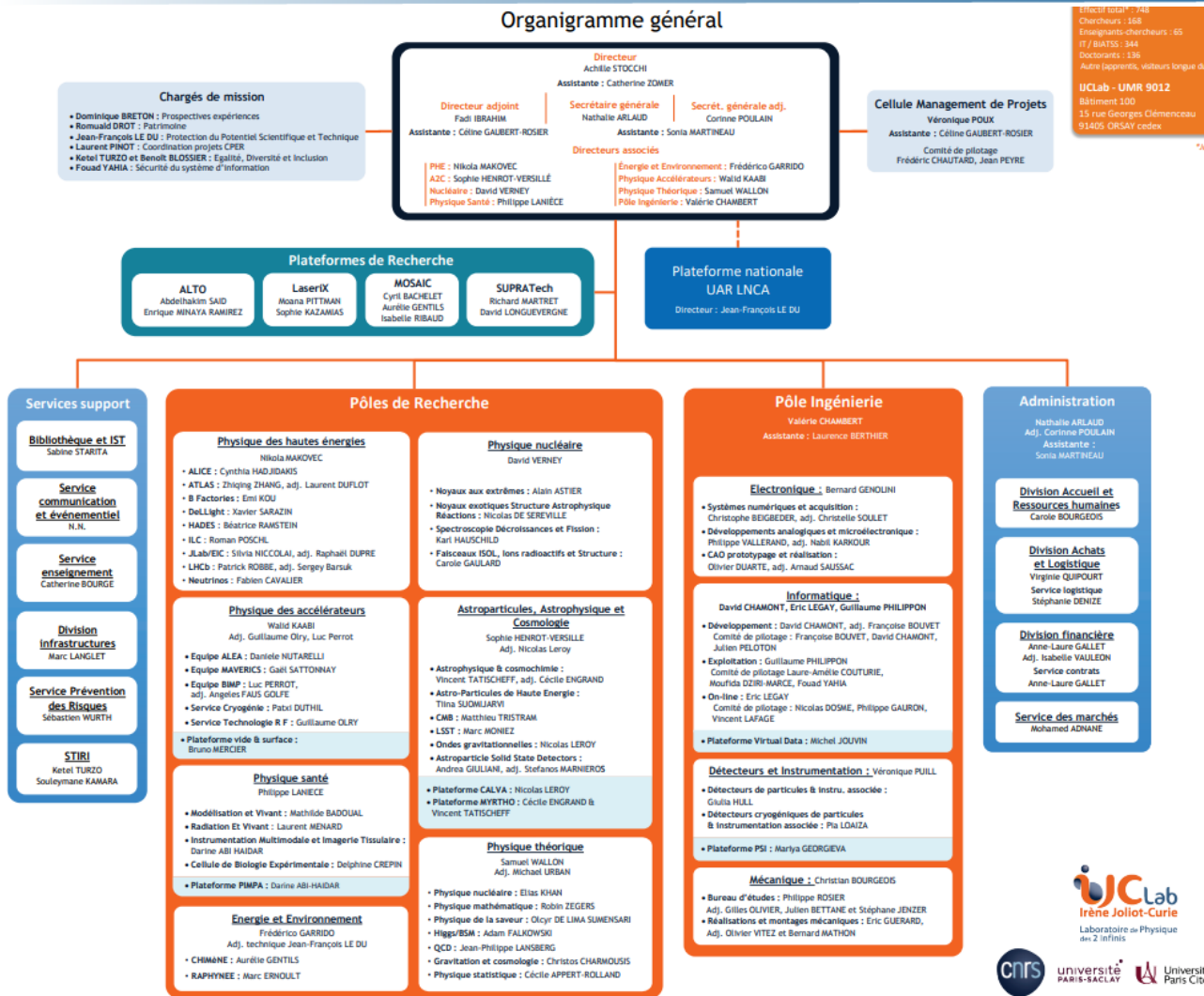
## University de Paris

- Specific links with IJCLab in Health Physics



# IJCLab in a nutshell - I

## Organigramme général



**~710 membres (530 permanents)**  
One of the biggest laboratory in  
CNRS / Paris-Saclay / Université de Paris  
In the network of major European laboratories (LDG)

**7 Research Poles**  
31 research teams et 2 services

**1 Engineering Pole**  
4 Departments with 10 Services

**1 Administration Pole**  
3 Divisions + 1 Service

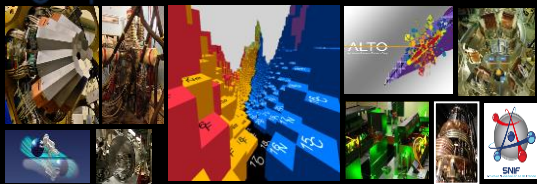
**8 Support Services**  
4 Platforms (with external users)  
+ several technical platforms





# IJCLab in a nutshell - II

 **PHYSIQUE NUCLÉAIRE**  
**NUCLEAR PHYSICS** ~ 67



~ 107

 **A2C** Astroparticles, Astrophysics  
& Cosmology ~ 64



**Théorie** ~ 52



**Santé** ~ 23



**7 Pôle Scientifiques**



**Accelerator Physics** ~ 87



Including RF and cryogenic services

 **Energie et Environnement** ~ 40



**~ 110 PhD**



~170 staff members

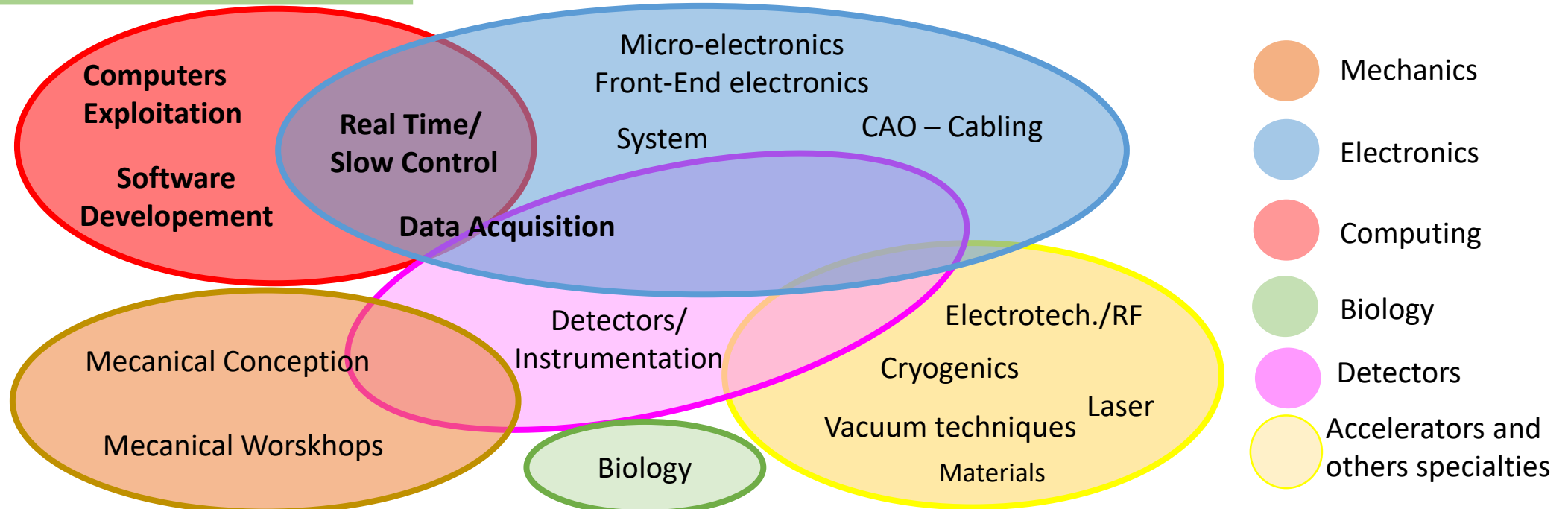
4 Departments :

Electronics / Computing  
Instrumentation / Mechanics  
with 10 Services

# IJCLab in a nutshell – III : Technical Skills

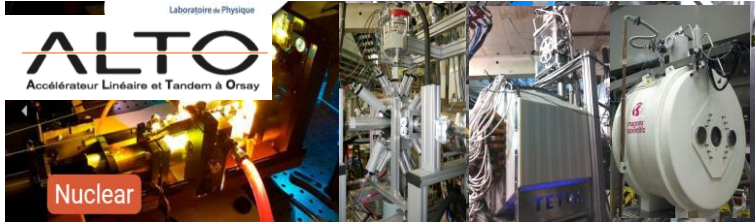
**Technical staff with technical skills/expertise  
essential pillars for the laboratory to design, draw and build instruments.**

- Technical services are fuelled by the challenges of research (R&D and projects)
- The proximity of technical and research teams (integrated teams)
- The ability to combine and make coexist versatility and specialization





# IJCLab in a nutshell – IV : The Platforms



- **15 MV Tandem** (from proton to aggregates)
- **electron linac** -> radioactive beams by photofission

**Nuclear, Health physics, Irradiation**

Opened to external users



**Several MeV protons, multicharged atomic ions, gold molecules and nanoparticles**

**Nuclear/A2C, Health physics, Irradiation**

Opened to external users



**Ion irradiation / implantation and *in situ* characterization techniques (TEM, IBA)**

**Energy, nuclear materials, Health physics, Irradiation physics and chemistry**

Opened to external users

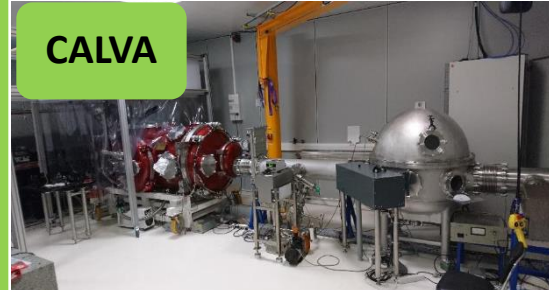


## A2C Research themes

### Semiconductor Platform : Silicon Detector Characterisation/Production



### CALVA



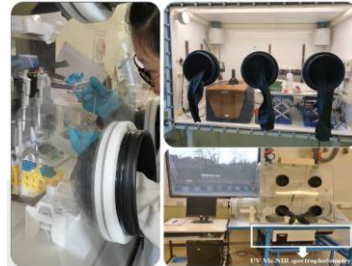
Cavity locking/Squeezing for VIRGO and ET



### Myrtho

$\gamma$  Detectors  
development /  
characterization

### Radiochemistry laboratory Actinides - Bat 107



## Les Plateformes IJClab

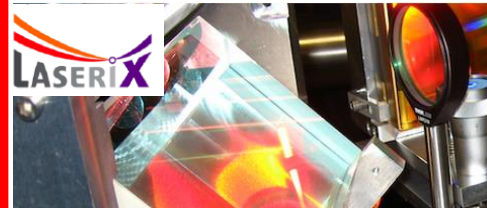
### Accelerators research themes/technologies

Opening to Materials, atomic physics, detectors



### SUPRATECH

**R&D on the superconducting cavities** (prepare, package, assemble & test of the superconducting RF cavities).



### LaseriX

**coherent, intense, brief (50fs to 10 ps) sources in near-infrared (800nm) and EUV (30 to 90 eV)**



**Vide et Surfaces**  
*In construction*

### VIRTUAL DATA Advanced computing resources infrastructure Grid / Cloud







# IJCLab a student place : Attractiveness based upon education / research

## Teaching

### Academic, Technical, Platforms

*~60 Researchers-Teachers + ~30 Researches-CNRS are involved in University teaching.  
~60 Technical staff teach different skills and specialities (university / Schools..)  
Research Installations/ Platforms -> Educational platforms with dedicated lines*

## Internships for students

### Internships: the gateway for students to discover research

*Internships at different level (from L1 to M2 and international.) :  
~110 internships in 2021 corresponding to approximatively ~600 months*

## Thesis

### PhD Training by research and for research

*~110 PhD students in the ensemble of the laboratories (from 30 different nationalities)  
Number of technical theses rapidly increasing*

## International Schools

### Participation and creation of international/national schools

*Participation/creation of international/national schools  
School : WISHEPP (Palestine), TESHEP (Ukraine...), QCD, School at L3 level...  
IJCLab leads Erasmus+ MIC Colombia / Georgia / Ukraine / Palestine and Erasmus Mundus Lascala*



Welcome to the HTCondor Workshop 2023  
Have a nice meeting !