Welcome to IJCLab for the Workshop QCD@LHC2022
IJCLab : Located in Orsay Campus, 30 Km South-Paris, Campus Paris-Saclay

IJCLab is occupying a large part of the Orsay Campus (~50000m²)

A new European Laboratory.

Formed on 2020 by the merging of 5 Laboratories in Orsay-France

CSNSM Centre de Sciences Nucléaires et de Sciences de la Matière
IPN Institut de Physique Nucléaire
IMNC Imagerie et Modélisation en Neurobiologie et Cancérologie
LAL Laboratoire de l’Accélérateur Linéaire
LPT Laboratoire de Physique Théorique
IJClab in a nutshell - 1

Direction du laboratoire

Plateformes de Recherche

ALTO ANDROMÈDE JANRE/SCALP SUPRATech LaserIX

Pôles de Recherche

PHYSIQUE DES HAUTES ÉNERGIES
- ALICE
- ATLAS
- BA Factory
- DELPHI
- KDS
- LHC

PHYSIQUE NUCLEAIRE
- Noyaux aux extrêmes
- Noyaux exotiques structures astro physique réactions
- Noyaux ions matière
- Physique nucléaire théorique
- Spectroscopie décohérences et fusion
- Fauteuil ISOL, ions radioactifs et structure

PHYSIQUE DES ACCÉLÉRATEURS
- ALFA
- MAXICO
- RMF
- Plateforme PANAMA
- Cryogénie

PHYSIQUE SANTÉ
- Modélisation et vivant
- Radiations et vivant
- Instrumentation Multimédia et image
- Traislatiole
- Cellule de biologie expérimentale

PHYSIQUE THÉORIQUE
- CEICA

ENVIRONNEMENT
- ENERGIE

Pôle Ingénierie

ÉLECTRONIQUE
- Systèmes numériques et acquisition
- Développements analogiques et microélectronique
- CAD prototypage et réalisation

INFORMATIQUE
- Développement
- Exploitation
- On-line

DÉTECTEURS ET INSTRUMENTATION
- DéTECTEURS de particules et instrumentations associées
- DéTECTEURS cryogéniques de particules et instrumentation associée

ASTROPARTICULES, ASTROPHYSIQUE ET COSMOLOGIE
- Astrophysique & cosmologie
- Astro-particules de haute énergie
- CASI
- GREN

MÉCANIQUE
- Bureau d’études
- Réalisations et montages mécaniques

Physiologie

Services support

Documentation
Communication & Événementiel
Enseignement
Infrastructures
Prévention des risques
Qualité
STIR

7 Research Poles
- 31 research teams et 2 services

1 Engineering Pole
- 4 Departments with 11 Services

1 Administration Pole
- 3 Divisions + 1 Service

8 Support Services
- 5 Platforms (with external users)
  + several technical platforms

~720 membres (530 permanents)
One of the biggest laboratory in CNRS / Paris-Saclay / Université de Paris
In the network of major European laboratories (LDG)

IJClab
in a nutshell

- ~720 membres (530 permanents)
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The ensemble of all the themes of “the physics of the two infinities” with the presence of strong historical/existing poles, of emerging poles and of activities at the interfaces.

Including RF and cryogenic services

IJClab in a nutshell - II

116 PHD student @october 2022
~180 staff members

4 Departments:
- Electronics / Computing
- Instrumentation / Mechanics

with 10 Services

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
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

Opening to Materials, atomic physics, detectors
IJCLab in the largest projects

In the majority of the projects there is a strong technical implications.
IJCLab has been created for:

- **Contributing to projects at all stages**: proposal, design, construction, operation, data analysis, theory

- **Playing a major role in the conception, design and construction of current and future accelerators.**

- **Developing and operating research infrastructures and technological platforms** supporting these research areas as well as original research in health physics and energy

- **Promoting the development of new technologies for science for the benefit of society** and thus supporting national and European industrial competitiveness

- **Welcoming students that the laboratory trains through and for research** in the heart of a world-class academic environment.
Welcome to IJCLab for this workshop that I hope will be productive and fruitfull.