NucPhys Career Orientation Day 2026

Research opportunities in France

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After NucPhys:

Research opportunities in France

- **Fundamental and applied research** is performed in research labs that are associated to national research agencies (**CNRS-In2p3 and CEA for NucPhys**)

- They might be also associated to a local university but they are research centers

- **3-years research contracts** (gross salary ~ 2135€/month) in a research lab allowing preparing a thesis for a PhD degree are financed by different public institutions/agencies (MESR, CNRS, CEA, Regions, ANR, EU…)

- An additional non-compulsory teaching mission (64h/y) can be added (43,5€/h) ⇒ better know french if you want it!

- The research topic is established by the research team

- You typically need a CV and a focused motivation letter (research statement) to apply

- The candidate selection has the form of a **job interview**

- The selection committee is formed by:
  - The research team for projects that have obtained tagged funding (always the case in Caen)
  - The local doctoral school for untagged positions

- Offers are published **on the labs websites** and some national platforms
  https://doctorat.campusfrance.org/phd/offers

- In the same websites you can find Master thesis offers

- **Master theses** in France are what we call an **internship in a research lab** (4 to 6 months) and are:
  - Ruled by an internship agreement
  - Remunerated 4,35€/h ⇒ ~ 670€/month (budget allocated by the research team)
  - Not all offers are published in your NucPhys Master catalogue, but they are all accessible to you as Master thesis from Unicaen

- Research teams offer Master thesis proposals often as a doorway towards a PhD contract
  ⇒ candidate selection procedure is similar to the PhD one

TYPICAL CALENDAR:

- Master + PhD offers appear in **October - December of year 0**
- Candidates are selected in **December - January**
- PhD contracts might be secured only in the following May - June
- PhD contracts start on **October 1st of year + 1**

⇒ You can have a PhD contract in France even if you make your master thesis elsewhere, but you should not wait for your graduation to look for it

After PhD:

Research and teaching opportunities in France

- A permanent (CDI: civil servant) research and/or teaching job (*chargé de recherche, maitre des conférences, chercheur-ingénieur, ingénieur de recherche*) requires a PhD (and some postdoctoral research experience)

- The **postdoctoral offer** is rich, but quite international ⇒ you must be open to travel

- **In fundamental research in our field, the *average** CDI employment age is 32y, experience is PhD + 4y (CNRS data)**

- Fluctuating offer: ~1-3 positions/y in a given field (ex: experimental nuclear physics) with around 5-10 applicants for each competition

- More opportunities in experimental than in theoretical

- **Out of academia**: younger employment age, more local opportunities but strongly dependent on your PhD content ⇒ *see next presentations*

- Many opportunities in **highschool teaching** (CDD: *enseignant contractuel*) even after the Master, but you need to know well French and the french education system; permanent (CDI) positions require an extra diploma (CAPES, Agrégation)

*distribution ranging from PhD + 0y – PhD + 7y

Fundamental research in the NucPhys field:

“two infinities physics”

- **Nuclear physics and astrophysics** which study the structure and dynamics of atomic nuclei, thus providing essential elements for astrophysical modelling and for a wide range of **applications**;

- **Astroparticle physics** ***and cosmology*** which study the physics of Universe using different cosmic messengers (photons, cosmic rays, neutrinos, gravitational waves) to better understand its dynamics and evolution from its origins right up to the present day.

- ***Particle and hadronic physics*** which focuses on the most elementary components of matter (quarks, leptons and bosons) and their interactions;

- **Accelerators** - instruments which generate and accelerate beams of particles or atomic nuclei and make them collide or propel them into targets;

- **Detectors** which, according to their nature, are used to identify and characterize the mass, speed, energy and origins of the products generated by collisions or emitted by cosmic phenomena;

- **Computing and data science** for processing, storing and probing the huge data flows generated by scientific experiments.

red: closely corresponding to your competence
black: a little aside but accessible to you
grey: need extra formation before/after NucPhys

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CNRS-In2p3 research labs

- **GANIL, Caen**
- **LPCC, Caen**
- **IJCLab, Orsay**
- **Subatech, Nantes**
- **CENBG, Bordeaux**
- **IP2I, Lyon**
- **IPHC, Strasbourg**
- **L2IT, Toulouse**
- APC, Paris
- CPPM, Marseille
- LAPP/LapTh, Annecy
- LPC, Clermont
- LPNHE, Paris
- LPSC, Grenoble
- LLR, Paris
- LUPM, Montpellier

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Less accessible to you: more particle physics and/or cosmology oriented

NucPhys – compatible research labs in Caen

