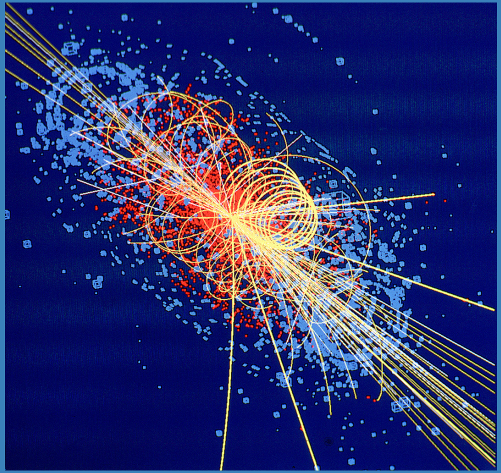
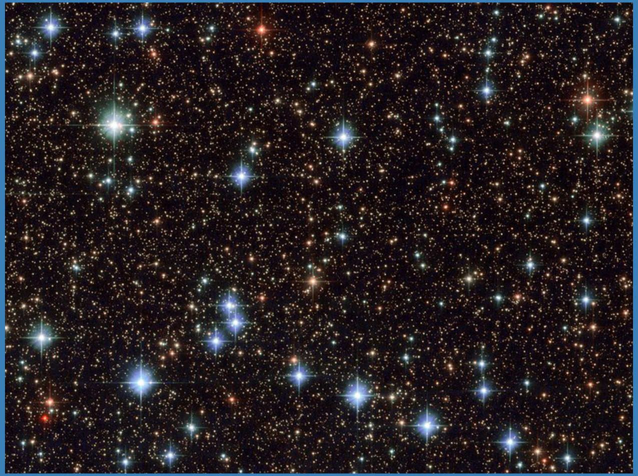
CPAN
Ingenio 2010

CPAN Association for particle, astroparticle and nuclear physics in Spain





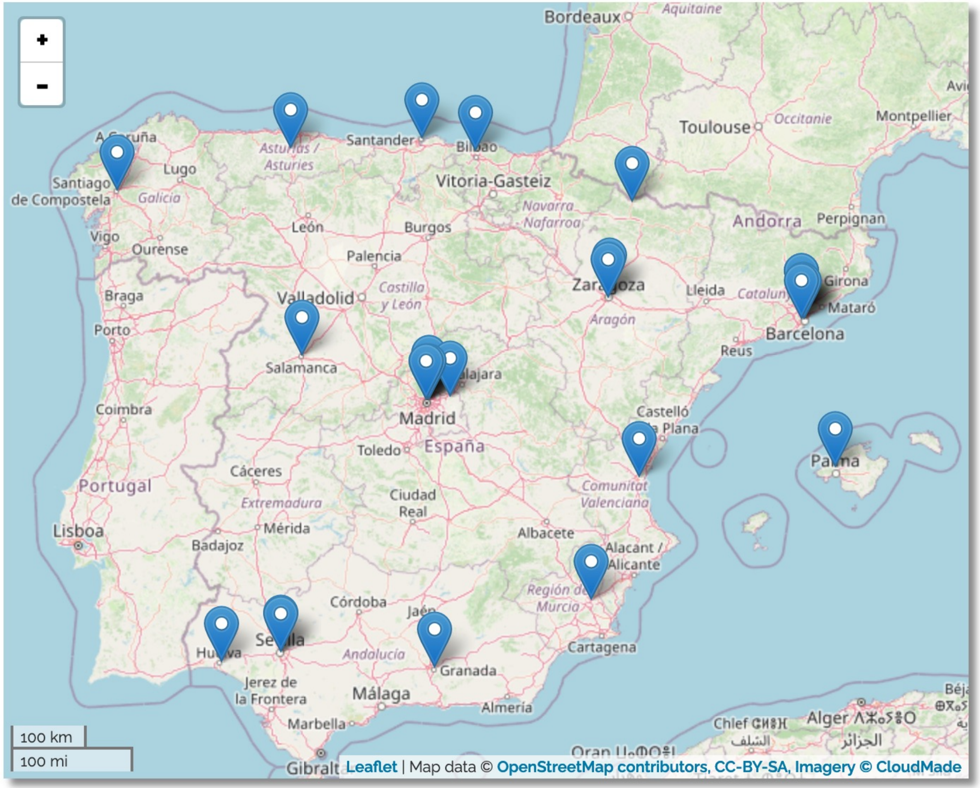
Director: María José Costa (IFIC, CSIC-UV)
Vice-Director: Carlos Salgado (IGFAE)

The CPAN group

- CPAN is a scientific association whose primary objective is to **establish a stable collaboration framework between institutions in the field** of research, innovation and technological development in Particle Physics, Astroparticles and Nuclear Physics.
  - **Promote a coordinated participation** to consolidate its presence in the international context, optimize resources and increase the weight and visibility of the Spanish community.
  - **Defend scientific priorities** and interests in international collaborations and projects, as well as in front of funding agencies.
  - **Advice Spanish authorities** (when needed).
- **The legal representatives of the corresponding institutions signed a Memorandum of Understanding** in Madrid, on June 14, 2016, which was expanded in 2020 (Addendum), valid until June 13, 2024 (renewal process almost completed).
- **Funding** comes from a National Strategic Network (IP: Antonio Pich as previous CPAN Director and founder of CPAN)

Composition

- The Group is made up of **28 Centres, Laboratories, Departments or Research Groups** belonging to the institutions that signed the Memorandum.
- It includes some **Spanish ICTS** (Unique Science and Technology Infrastructures).



CIEMAT
CNA (CSIC-US-JA)
ICE (CSIC)
IEM (CSIC)
IFAE
IFCA (CSIC-UC)
IFF (CSIC)
IFIC (CSIC-UV)
IFT (CSIC-UAM)
IGFAE
IMB-CNM (CSIC)
ITAINNOVA
LSC
UAH
UAM
UB
UCM
UGR
UHU
UIB
UM
UO
UPC
UPV/EHU
URL
US
USAL
CAPA-UNIZAR

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National Center of Accelerators (CNA): a Van de Graaff 3 MV Tandem accelerator, a 18/9 MeV Cyclotron accelerator, an Accelerator 1MV Mass Spectrometer, a PET / CT scanner, a new radiocarbon dating system called MiCaDaS, and a 60Co Irradiator.

Canfranc Underground Laboratory (LSC)
800 m underground
Hosts experiments dedicated to neutrino physics or dark matter searches, clean room, mechanical workshop and gas storage room.

Micro and Nanofabrication Clean Room (CNM)
dedicated to the development and application of innovative technologies in the field of Microelectronics together with other emerging Micro/Nanotechnologies.

Organisation

Scientific Strategy Board
(composed by representatives of the 28 groups)

Director: M.J. Costa – IFIC (CSIC-UV)
Vice-director: C. Salgado – IGFAE

Theoretical Particle Physics
G. Rodrigo - IFIC-(CSIC-UV)
D. Blas - IFAE

Experimental Particle Physics
C. Santamarina - IGFAE
I. González - UO

Astroparticles
M. Martínez - CAPA-UNIZAR
C. Palomares - CIEMAT

Nuclear Physics
J.E. Ramos - UHU
T. Kurtukian – IEM (CSIC)

Executive Board

<u>Work in collaboration with:</u>

- Our representatives at international committees:

- RECFA (European Committee for Future Accelerators): C. Martínez – IFCA (CSIC-UC)
- ApPEC (Astroparticle Physics European Consortium): C. Peña - LSC
- NuPPEC (Nuclear Physics European Collaboration): J. Gómez - CNA
- CERN Council Advisor: N. Colino (CIEMAT)
- LDG (Large Particle Physics Laboratory Directors Group): N. Colino - CIEMAT

- Coordinator of the FPN Panel Spanish Research Agency: P. Hernández – IFIC (CSIC-UV)

- Coordinators of topical networks such as LHC, Astroparticles, Computing, Nuclear Physics, Future Colliders or Instrumentation.

Research lines and human resources

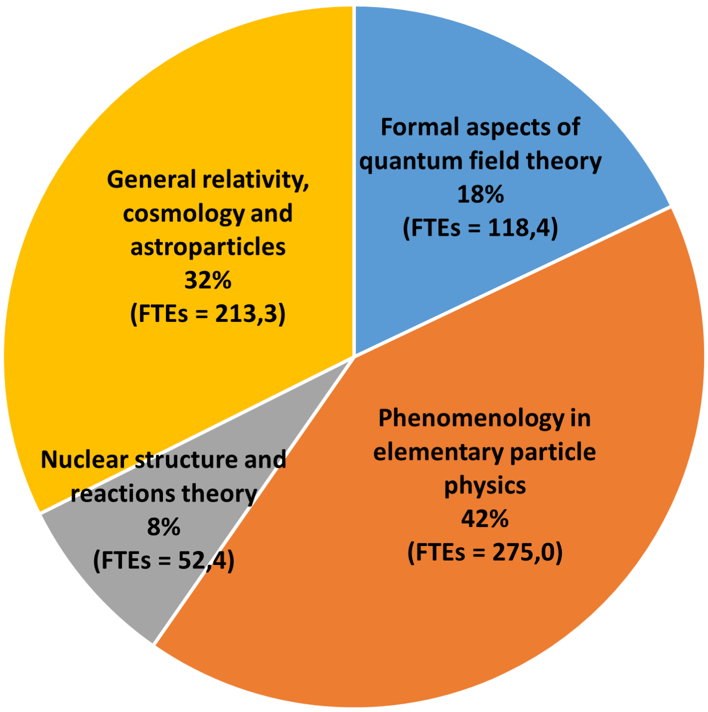
Theoretical Physics:
- Formal aspects of quantum field theory.
- Elementary particles phenomenology.
- Nuclear structure and reactions theory
- General Relativity, Cosmology and Astroparticles.

Experimental Physics:
- Particle physics collider experiments.
- Neutrino experiments
- Telescopes of neutrinos, gamma rays and cosmic rays
- Observational Cosmology
- Dark matter direct detection and axions experiments
- Gravitational wave experiments
- Nuclear physics experiments.
- Applications

Around 1500 physicists, engineers and technicians distributed in the 28 CPAN nodes

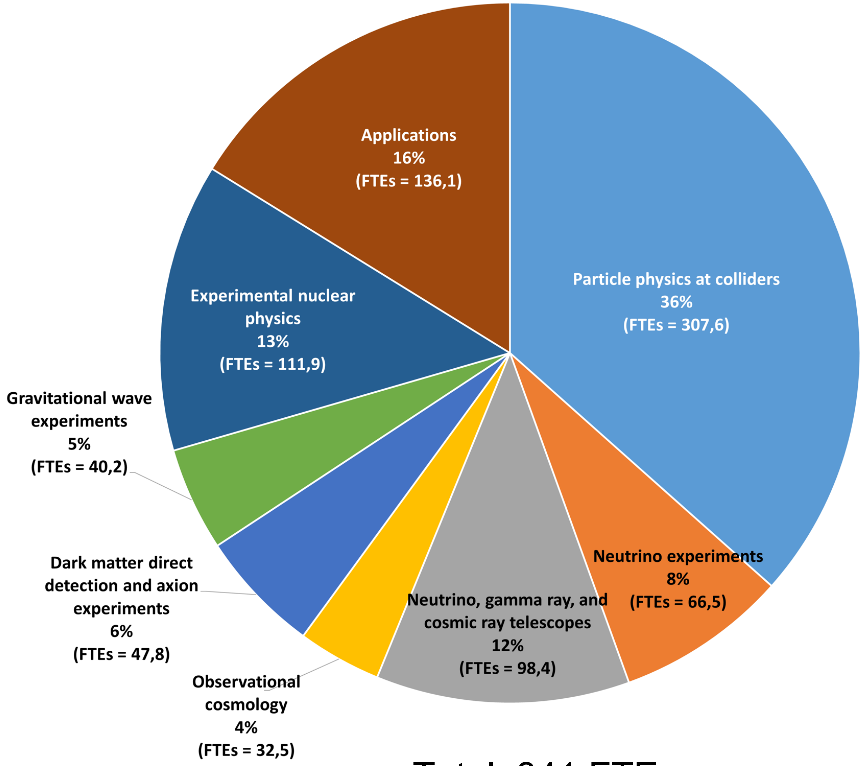
Human resources

Theoretical Physics



Total: 659 FTE

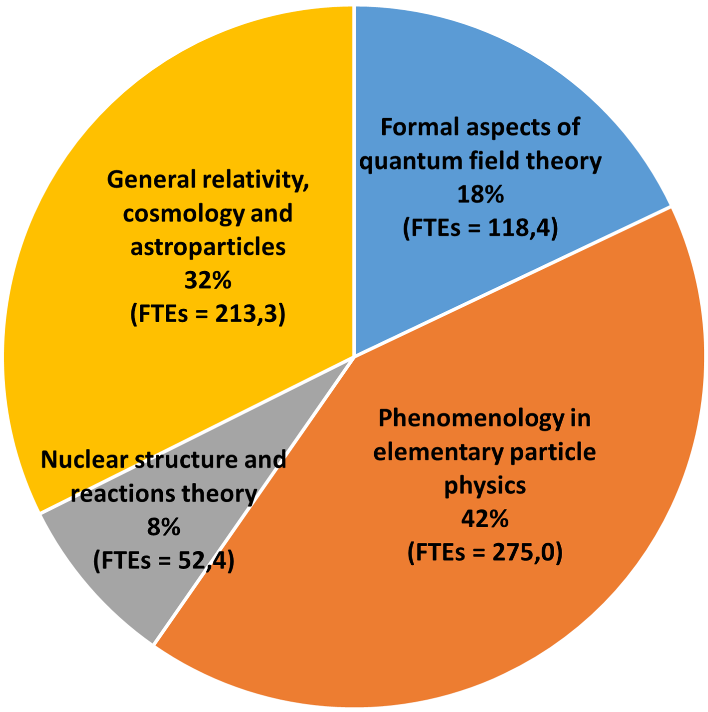
Experimental Physics



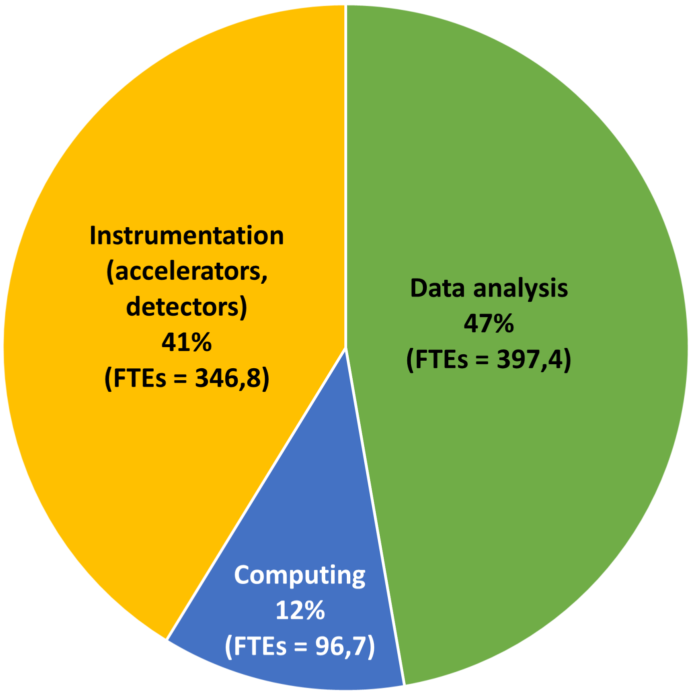
Total: 841 FTE

Human resources

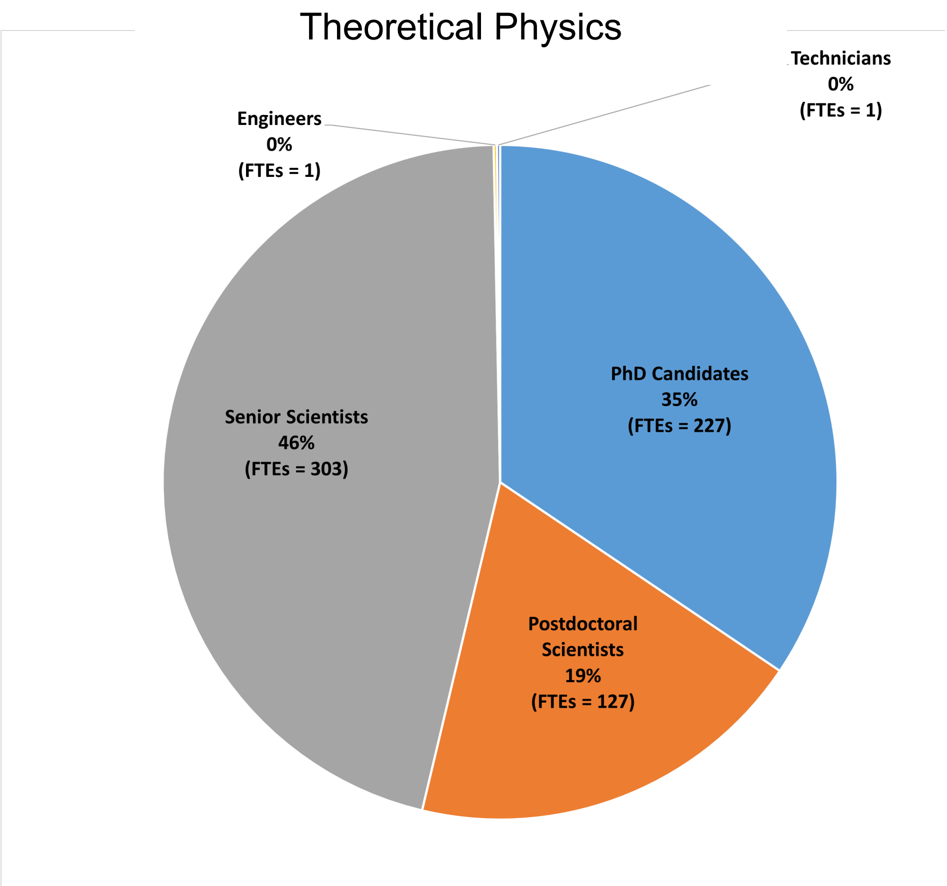
Theoretical Physics

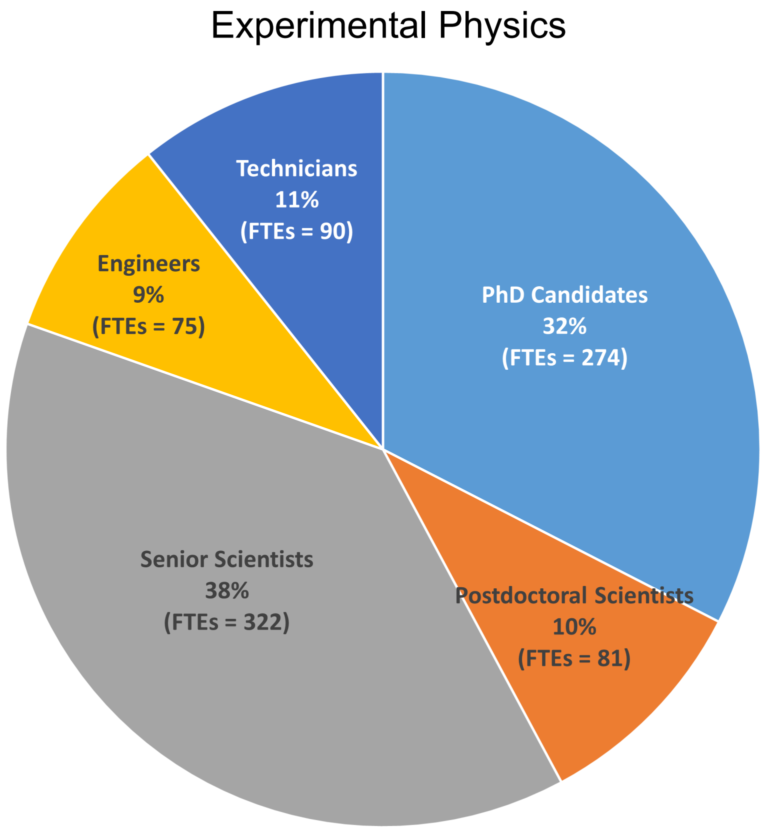


Experimental Physics



Human resources





Activities in 2024

The **XVI CPAN Days** in Madrid will be the next occasion for the full community to meet and discuss about the status of our research activities as well as about coordinated future strategies.

- Special emphasis on discussing the **input to the Particle Physics European Strategy Update** for which additional dedicated meetings are planned or have already taken place (such as one on FCC in October 2024 and others organised by the networks) and a meeting on Future Colliders for early-career scientists.

Other supported activities:

- CPAN Network on Instrumentation and Detectors (May 8-10, Valencia)
- LI - International Meeting on Fundamental Physics (Sep 9-14, Benasque)
- TAE 2024 High Energy Physics School for PhD students (Sept 1-14, Benasque)