

# IFIC

INSTITUT DE FÍSICA  
CORPUSCULAR

# INSTITUTO DE FÍSICA CORPUSCULAR

IFIC  
INSTITUT DE FÍSICA  
CORPUSCULAR



EXCELENCIA  
SEVERO  
OCHOA  
2024-2030



CSIC

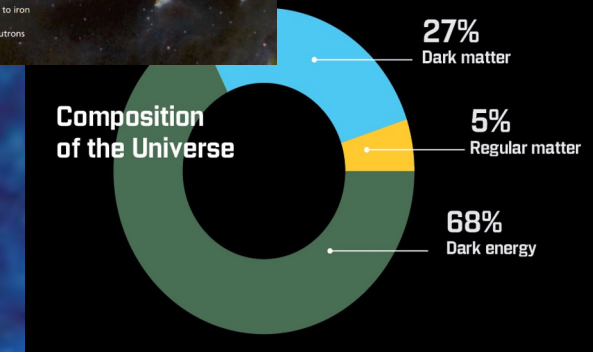
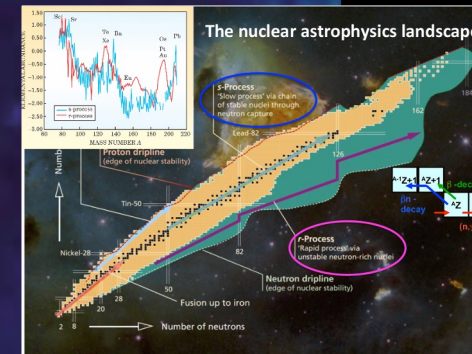
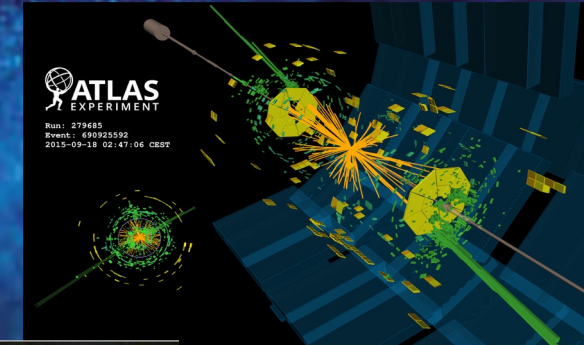


VNIVERSITAT  
DE VALÈNCIA



# Instituto de Física Corpuscular

Joint research institute of the  
**National Research Council (CSIC)**  
and the **University of Valencia (UV)**



Center for **Nuclear, Astroparticle**  
and **Particle Physics**



# A bit of history

- IFIC was created in the 1950s as an appendix to the central CSIC organization in Madrid.

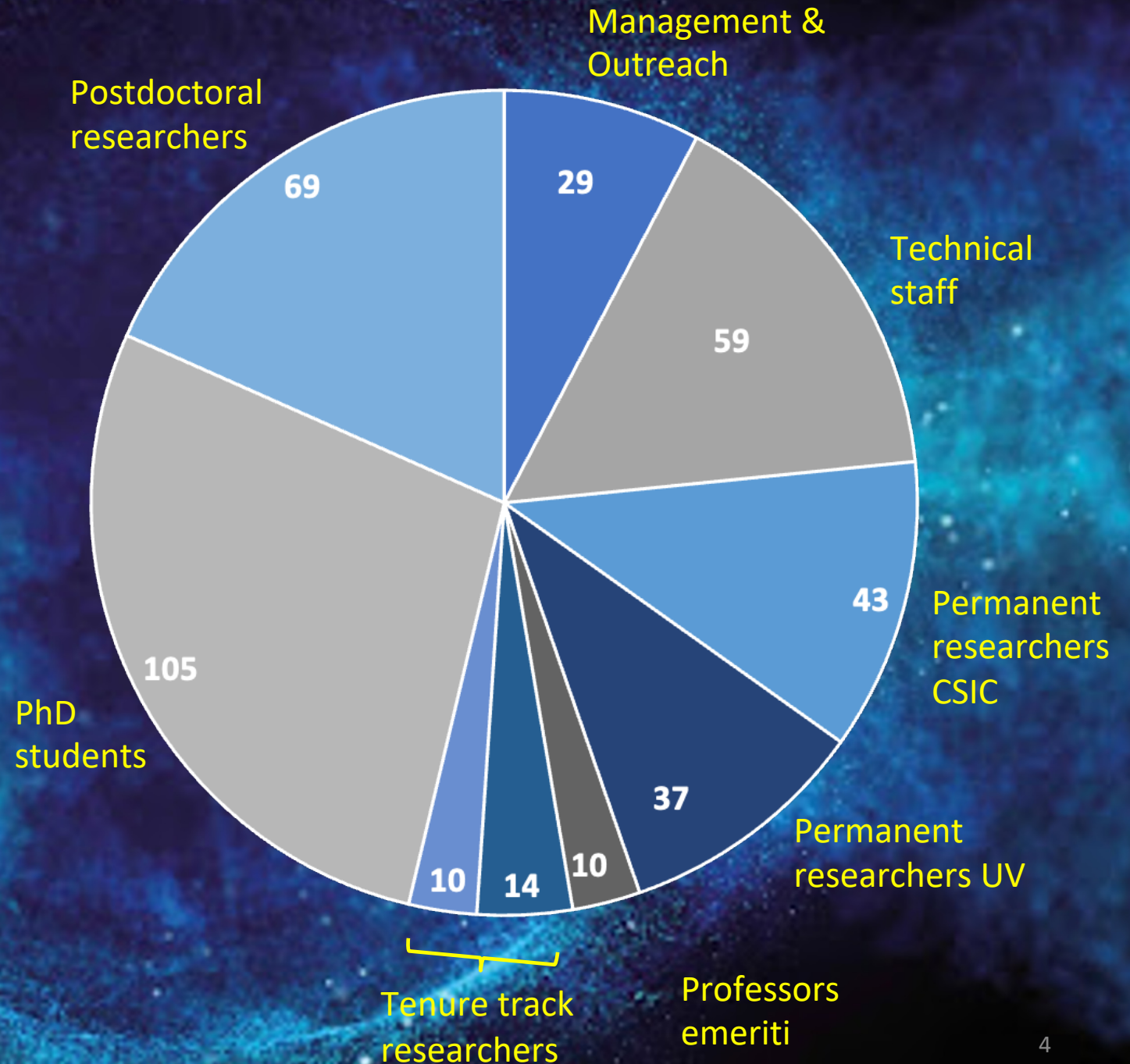
This year, **75th anniversary !!!** **BIG CELEBRATION IN THE FALL**

- For several years, IFIC was the only place in Spain with experimental activity in Nuclear and Particle physics.
- Spain rejoins CERN in 1984. In 1985 IFIC becomes a joint institute with the University of Valencia.
- Today, IFIC dedicates its efforts to theoretical and experimental research in Nuclear, Particle and Astroparticle Physics and their applications in both Medical Physics and other fields of Science and Technology.
- Twice Severo Ochoa Center of Excellence: 2014-2019 & 2024-2030



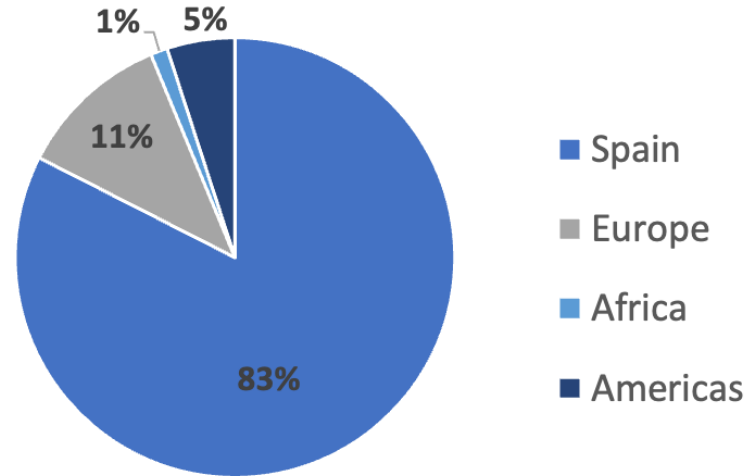
# Personnel

- 376 members
- 288 researchers (incl. PhD students)
- 80 Permanent scientific staff
  - 43 CSIC (32 exp, 11 theory)
  - 37 UV (12 exp, 25 theory)

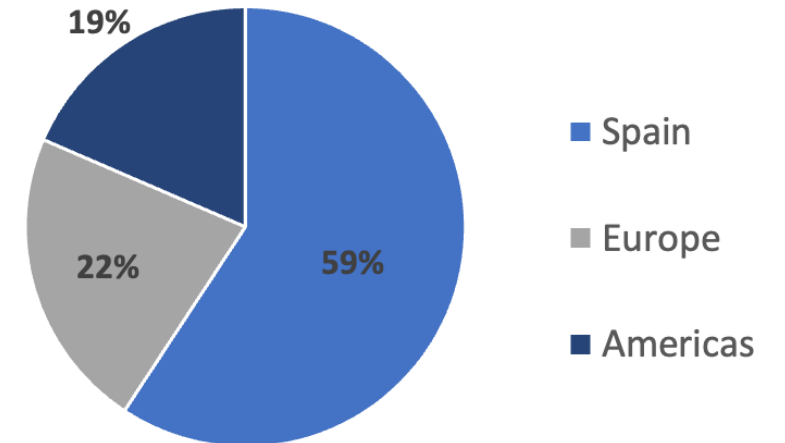


# Scientific personnel (nationality)

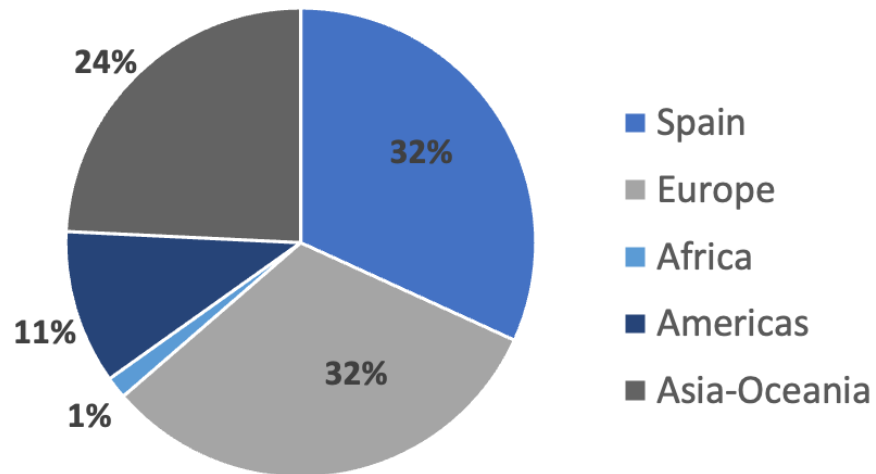
## Scientific staff



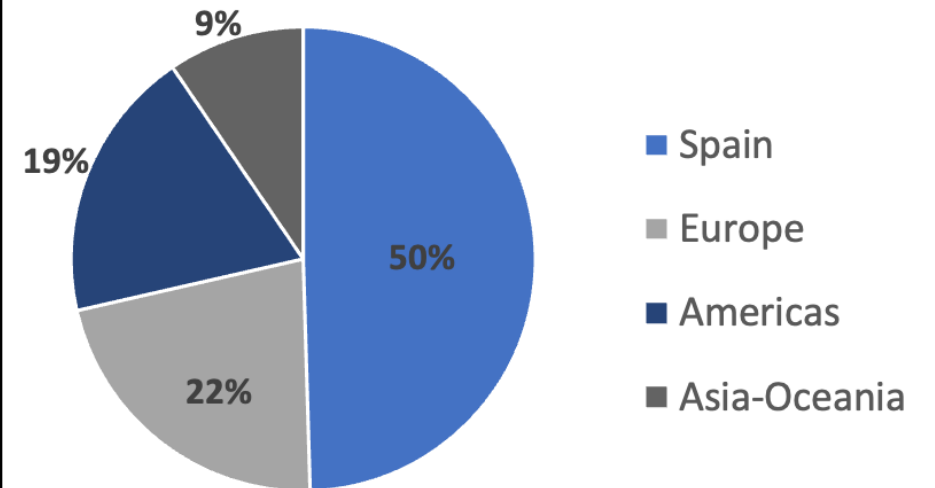
## Tenure track



## Postdoctoral researchers

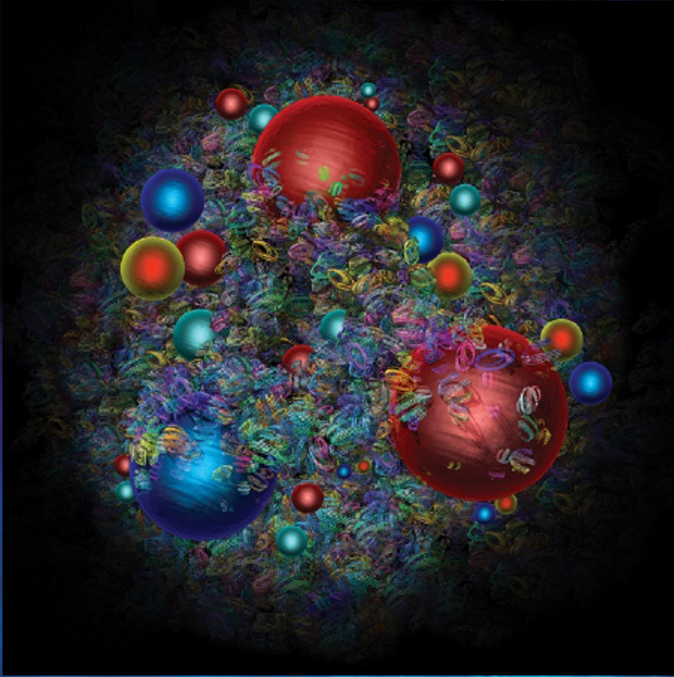


## PhD students

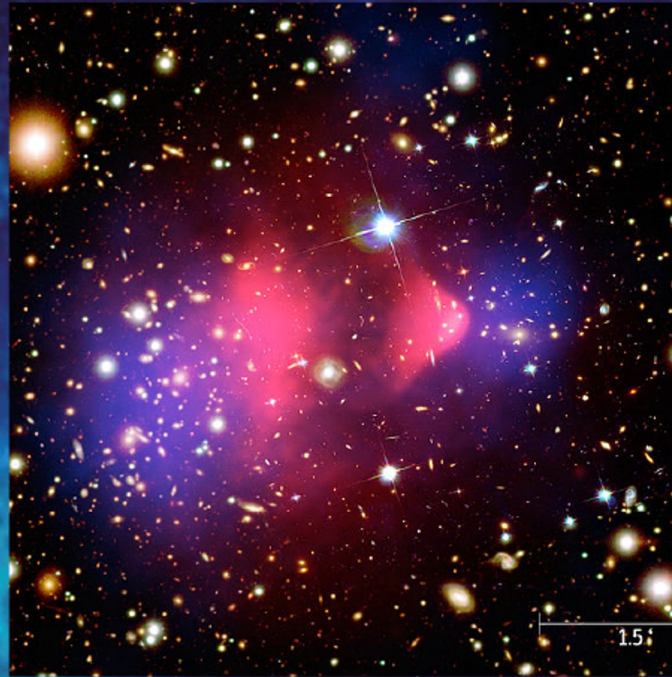




# IFIC RESEARCH LINES



Origin of mass:  
understanding the  
fundamental laws of  
physics



Origin of matter:  
understanding the  
Universe



Advanced instrumentation  
and computing: from  
fundamental physics to  
society



# EXPERIMENTAL RESEARCH IN FUNDAMENTAL PHYSICS





# THEORETICAL RESEARCH IN FUNDAMENTAL PHYSICS

- Model building to explain the elementary particles and their interactions
- Analysis and interpretation of the experimental data: LHC, neutrino oscillations, nuclear physics, etc., in close collaboration with the experimental groups
- Aim to understand the structure and evolution of our Universe



Cosmology,

Dark Matter: 24%



Ordinary Matter: 5%

Origin of the matter-antimatter asymmetry: Baryogenesis

Dark Energy: 71%

The accelerated expansion of the Universe



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# INSTITUTO DE FÍSICA CORPUSCULAR

Welcome to Valencia and enjoy the Workshop on  
Small-Scale Structure of the Universe and Self-  
Interacting Dark Matter !

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