



UNIVERSITÀ  
DEGLI STUDI  
FIRENZE

DIPARTIMENTO  
DI FISICA E  
ASTRONOMIA

# Master's degree program in Physical and Astrophysical Sciences

## Overview

The Master's degree program in Physical and Astrophysical Sciences (Class LM-17) is a natural progression from the Bachelor's degree in Physics and Astrophysics.

The primary objective of the program is to train physicists by providing a broad and in depth understanding of various fields in modern physics, in particular: **astrophysics**, **applied physics**, **matter physics**, **nuclear and subnuclear physics**, **complex systems**, and **theoretical physics**—disciplines that are at the forefront of physical sciences worldwide.

The program prepares students for a future career that spans both research (academic and industrial) and applied fields, where physicists trained in advanced experimental techniques and skilled in modeling & problem solving are ideally suited for high-level work in both experimental and theoretical contexts.



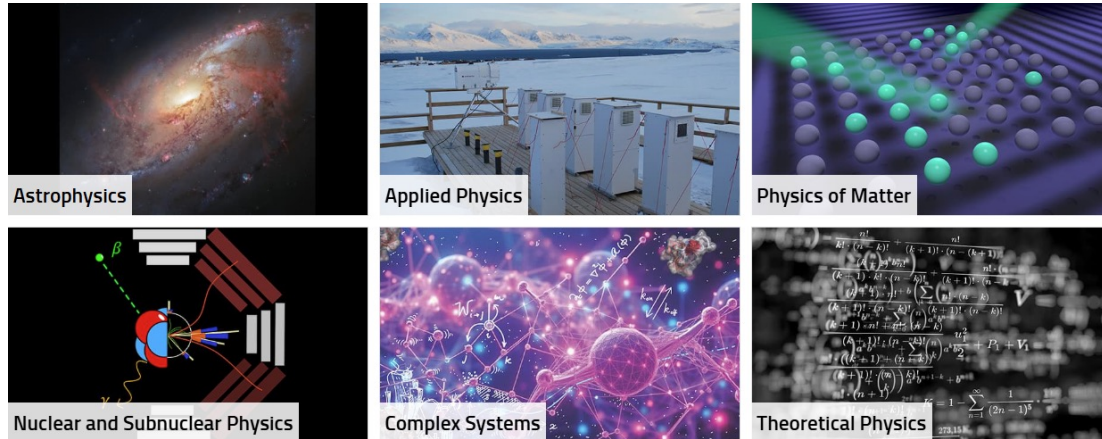
Department of  
Physics and Astronomy  
website.

Master's degree program in  
Physical and Astrophysical  
Sciences website



# Structure of the Program

The degree program is organized into six curricula, each one connected to a key Physics topic:



Each curriculum includes core, related, supplementary, and elective activities corresponding to 84 ECTS. Most study paths incorporate laboratory work, either experimental or computational.

A total of 36 ECTS is reserved to thesis work. While most students will carry out their thesis within the various research laboratories—both experimental and theoretical—of the Department of Physics and Astronomy, the program strongly supports thesis activities carried out in outside research facilities such as, national research institutions, local companies, or foreign universities. Further information on research activities is available on the Department of Physics and Astronomy website.

# Career opportunities

The Master's degree in Physical and Astrophysical Sciences guarantees a solid foundation in the most advanced areas of modern physics.

The skills acquired on completing the program open up a wide range of career opportunities, some of which are listed below:

- **Enrolling in a PhD program**, the first step towards entering academia, engaging in teaching and research at the university level, and working in fundamental and applied research at public or private institutions
- Working for high-tech industries, such as aerospace, biomedical, electronics, optical, quantum technology or energy sectors
- Specializing in medical physics, contributing to advancements in healthcare
- **Working in the financial sector**, including banks or insurance companies, by leveraging your skills in data analysis and complex systems modeling
- **Engaging in environmental protection**, working with agencies committed to building a more sustainable future
- **Pursuing** a career in software development, a rapidly growing and ever-evolving field
- **Teaching in schools**, sharing your passion for science with future generations