

**Master's Degree in
"Physics of the Earth's Interior, Ocean and Atmosphere"**

INTERVIEW TOPICS

PHYSICS

- Kinematics and Dynamics of point particles and rigid bodies
- Principles of Thermodynamics (absolute temperature, ideal gas law, black body)
- Electromagnetism (Maxwell's equations, electromagnetic waves)
- Geometric and physical Optics
- Basic principles of Fluid Mechanics (Archimede's principle, pressure in fluids, Bernoulli's equation)

MATHEMATICS

- Differential and integral calculus
- Trigonometry
- Vector and matrix Algebra
- Differential operators (gradient, divergence, curl)
- Ordinary and partial differential equations

COMPUTER SCIENCE

- Knowledge of a programming language (MatLab, Python, ...)

STATISTICS AND DATA ANALYSIS

- Mean, standard deviation and variance
- Basics of error analysis and propagation
- Statistical techniques for data analysis
- Linear regression