

Direzione Ricerca, Innovazione e Internazionalizzazione

ID

VP\_088\_FIS

# **Visiting Professor Program Academic Year 2025/2026**

**TEACHING COMMITMENT: 58 hours** 

#### **COURSE TITLE**

# **Numerical Algorithms for Physics**

#### **TEACHING PERIOD**

I semester

#### **SCIENTIFIC AREA**

Physics, Numerical Methods

### LANGUAGE USED TO TEACH

Italian

#### **COURSE SUMMARY**

The course is aimed at making the students familiar with the use of algorithms to enable them to face various numerical issues that they deal with during their studies. The implementation of various algorithms will be discussed using physical problems introduced in previous courses.

#### **LEARNING OBJECTIVES**

Students will learn to write C++ program with the aim of solving, using numerical algorithms (solution of ordinary differential equations, numerical quadrature, root finders, etc..) relevant problems in several areas of physics, including mechanics, electromagnetism, quantum mechanics, and so forth.

# OTHER ACTIVITIES BESIDE THE COURSE

# **VISITING PROFESSOR PROFILE**

The visiting professor should be a competent and experienced researcher / professor in the field of physics and numerical methods for the solution of scientific problems, with good knowledge in C++, Linux / Mac / Windows operating systems.

He / She should also have some experience in teaching related subjects.

## **CONTACT REFERENT**

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