



ALMA MATER STUDIORUM  
UNIVERSITÀ DI BOLOGNA

# OpenSource programming tools for scientific purposes

**Beatrice Pulvirenti**

Doctorate DIMSAI - AA 2024-2025

# Summary

This series of seminars offered to all PhD students enrolled at the University of Bologna covers some aspects of open-source programming tools, with a focus to the very known code Python.

Python programming language is a general-purpose programming language that has gained significant popularity in today's digital world. Developers use this coding language to build scripts and create object-oriented frameworks for large-scale software development projects.

This Python programming training course will provide the essential skills to develop and maintain Python scripts and platform-independent applications. The basis of Python programming will be introduced, such as variables declaration and initialization, construction of expressions with arithmetic, logical and relational operators, manipulation of text and images and other programming skills.



# Contents of the seminars

- Introduction to Python
- Matrices and calculation
- Graphics and image analysis
- File manipulation



# Time table

Date	Room	Title of the seminar
10/04/2025 15.00-18.00	Room A* and online	Introduction to Python
17/04/2025 15.00-18.00	Room A* and online	Matrices and calculation
15/05/2025 15.00-18.00	Room A* and online	Graphics and images
22/05/2025 15.00-18.00	Room A* and online	File manipulation

**Room A\* : “Sala riunioni” at Fisica Tecnica Division, Industrial Engineering Department  
Via Risorgimento, 2, Bologna – At first floor, at the end of the corridor**



# Link for online lessons:

Microsoft Teams [Need help?](#)

[Join the meeting now](#)

Meeting ID: 394 762 031 134

Passcode: qz3T3FJ3





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**Thank you!**

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For any question: [beatrice.pulvirenti@unibo.it](mailto:beatrice.pulvirenti@unibo.it)