Alessandro Serra

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🔗 Alessandro Serra

Education

High School	**Liceo Scientifico A. Pacinotti**, Cagliari (Italy)	Sept 2014 – June 2019

- High School Scientific Diploma

BSc	**Cagliari State University**, Physics	Sept 2019 – july 2023

- Graduated with 110/110 *cum laude*
- **Dissertation Thesis**
  Applications of Nano-Granular Gold Clusters in Neuromorhic Computing:
  a Computational Approach

MSc	**Cagliari State University**, Computational Condensed Matter Physics	Oct 2023 – Present

- MSc in the Department of Physics "Excellence Track"

Experience

Private, Math & Physics Tutor — Cagliari, Italy — Sept 2019 – Present

- Self employed tutor for high school and bachelor degree students in the fields of Mathematics and Physics

Cagliari State University, "Computational Physics" Course Teaching Assistant — Cagliari, Italy — March 2024 – July 2024

- Teaching Assistant of the Bachelor Degree course "Computational Physics" regarding the application of Python and Data Analysis to Physics

Istituto Nazionale di Fisica Nucleare (INFN), Tutor — Cagliari, Italy — July 2024 – Present

- III Mission INFN Tutor for the Cagliari Division.

Projects

"Computational Physics" Course Tutoring Repository — github.com/AlessandroSerra/FFC_2024 ↗

- Repository created and maintained to help students develop their Python skills for applications in Physics
- Tools Used: Python, Jupiter Notebooks, LaTeX

DynaPhoPy Quick Use Guide — github.com/AlessandroSerra/DynaPhoPy ↗

- Repository created and maintained in order to give a practical guide for using the Phonon-Calculation-Software DynaPhoPy (github.com/abelcarreras/DynaPhoPy ↗) to students and researchers of my university
- Tools Used: Python, Bash, Latex

Scholarship and Awards

Excellence Course - Department of Physics — Oct 2024

- Winner of the "Excellence Course" for the Master Degree in Physics for the year 2023/2024 issued by the Department of Physics, Cagliari State University

Programming Languages and Tools

Python Excellent Knowledge
Shell Good Knowledge
C++ Good Knowledge
HTML & CSS Basic Knowledge

Linux Good Knowledge
Machine Learning Basic Knowledge
OpenMPI Basic Knowledge
LAMMPS Good Knowledge
Quantum Espresso Good Knowledge

Languages

Italian Native Speaker
English C1 Level
Spanish A2 Level