SAVERIO QUARANTA

CURRICULUM VITAE
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EDUCATION

PhD in Nuclear Reactor Physics   2024 – Present
Alma Mater Studiorum, University of Bologna.
PhD scholarship titled *"Neutronic Design of a Lead-Cooled Fast Reactor Core Optimized for Fuel Cycle Closure"*
funded through the Italian PNRR initiative (NextGenerationEU) and supported by Newcleo.

Master's Degree in Energy and Nuclear Engineering   2022 – 2024
Alma Mater Studiorum, University of Bologna
Grade: 110/110 cum laude
Thesis: *Benchmarking Activities on the ALFRED core with the deterministic neutronic code ERANOS*

Bachelor's Degree in Energy Engineering   2019 – 2022
Alma Mater Studiorum, University of Bologna
Grade: 110/110 cum laude
Thesis: *Optimization of a sterilization process using non-thermal plasma*

High School Diploma, Scientific High School (Applied Sciences)   2019

ADDITIONAL TRAINING ACTIVITIES

HPC Course   2025
Introduction to Python programming, CINECA

Scholarship   2024
Core Modeling for Transients, Gre@t Pioneer, Valencia

Scholarship   2023
ENEEP Autumn Reactor Physics Courses
Fundamentals of Neutron Detection, Jozef Stefan Institute, Ljubljana

WORK EXPERIENCE

Internship at ENEA   04/2024 – 09/2024
Deterministic neutronic study using ERANOS code on lead-cooled fast reactors.

Internship at Alma Mater Studiorum (Data Analysis)   02/2024 – 03/2024
Analysis of experimental/numerical data with Python, Pandas, Numpy, Matplotlib.

Internship at DEI Department, University of Bologna   10/2021 – 02/2022
Research on plasma fluid-dynamic actuators and sterilization reactors.

Basketball Referee (Italian Basketball Federation)   09/2019 – 12/2022
Regional referee in Emilia-Romagna, national training activities.

Projects and Research

Applying knowledge management methodology to enhance
nuclear science programme   IAEA Conference Paper Jan - May 2024

I.M. PAPONETTI, E. GHEDINI, F. ZACCARINI, A. ANCHINI, S. BALDINI, S. QUARANTA, D. RIMONDINI

Co-supervisor of 5 Bachelor's theses

Programming and Software Skills

- **Neutronic codes:** ERANOS (Intermediate), OpenMC (Basic)

- **Numerical analysis software:** MATLAB, OpenModelica, Mathematica (Intermediate), ParaView (Intermediate)

- **Programming languages:** Python (Intermediate), C++ (Basic)

Languages

- Italian: Native

- English: Intermediate (B2)

Other Information

Driving license B, car owner.