Davide Paolino

M.Sc. Physics of Complex Systems

Birth: Italy, 15 October 2001
Current city: Torino, Italy
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Education

Sep 2023 - Jul 2025 (expected) — **Master of Science in Physics of Complex Systems** / Politecnico di Torino, SISSA/ICTP (Trieste), Université Paris Cité (Paris)
Ongoing, GPA: 28.48/30, Thesis "Boltzmann Inversion and force inference"

International double-degree program across Italy and France, with coursework between theoretical physics, computational science and stochastic processes.

Jul 2020 - Sep 2023 — **Bachelor of Science in Physical Engineering** / Politecnico di Torino
Final Grade: 107/110, Thesis "Monte Carlo Simulations of 2D Ising Model"

2020 — **Maturità Scientifica** / I.I.S. Copernico-Luxemburg, Torino
Final Grade: 100/100

Research Experience

March 2025 - Jul 2025 — **Research Intern** under Prof. Berthier / Gulliver Lab, ESPCI Paris
Developing methods to infer particle interactions directly from experimental data. Possible applications in equilibrium and non-equilibrium physics, including active matter and disordered systems.

Jul 2023 - Sep 2023 — **Bachelor Thesis Research** under Prof. Tocchio / Politecnico di Torino
Simulations of the 2D Ising model performed to study phase transitions using Monte Carlo techniques.

Academic Projects and Events

Spring 2025 — **Spring College in the Physics of Complex Systems** / ICTP, Trieste
Spring College Official Website
Selected participant for intensive coursework and collaboration with international researchers. Focus: Advanced Statistical Physics.

Work Experience

Sep 2022 - Present — **Teaching Tutor** / Politecnico di Torino
Project's aim was to assist first-year students with Mathematical Analysis I and Physics I through frontal exercise sessions. Improved communication and mentoring skills.

2018 - Present — **Volunteer Work** / Torino
The hundreds of hours dedicated to community service led to developing teamwork, problem-solving, and leadership abilities.

Technical Skills

Programming: Python (NumPy, Torch, SciPy), Java, MATLAB, LaTeX, HTML

Languages

Italian: Native
English: Proficient (C1)
French: Beginner (A2)
Common European Framework of Reference for Languages