

LORENZO COSTANTINI

Date of birth: 09/08/1996

Nationality: Italian

Phone: +39 366 2721232

Email: lcostantini1@icloud.com

[linkedin.com/in/lorenzo-costantini-453108183](https://www.linkedin.com/in/lorenzo-costantini-453108183)

<https://scholar.google.com/citations?user=l8CvW40AAAAJ&hl=it&oi=ao>

EDUCATION

NOVEMBER 2020 – PRESENT

PHD STUDENT IN ENVIRONMENTAL ENGINEERING, POLITECNICO DI TORINO

Topics: **complex networks**, **data science**, **economics**, **environmental impacts**, and **statistics**.

Aim: to define **new approaches** to understanding **countries' development** and **sustainability**.

Supervisors: Francesco Laio and Luca Ridolfi.

MARCH 2023 – MAY 2023

VISITING SCHOLAR, URPP SOCIAL NETWORKS (UNIVERSITY OF ZURICH)

Collaboration with Dr. Manuel Sebastian Mariani on a research project linking complex network-based approaches to international trade to countries' environmental impacts.

OCTOBER 2018 – JULY 2020

MASTER'S DEGREE IN PHYSICS OF COMPLEX SYSTEMS, UNIVERSITY OF TURIN

Final grade: 110/110 cum laude.

Topics: agent-based modeling, artificial intelligence, complex networks, data mining, dynamical systems, statistical mechanics, and stochastic processes.

OCTOBER 2015 – SEPTEMBER 2018

BACHELOR DEGREE IN PHYSICS, UNIVERSITY OF BOLOGNA

Final grade: 110/110 cum laude.

JULY 2015

HIGH SCHOOL DIPLOMA, LICEO SCIENTIFICO F. PAOLUCCI DI CALBOLI (FORLÌ)

Final grade: 100.

PEER REVIEW PUBLICATIONS

Costantini, L., Laio, F., Mariani, M.S., Ridolfi, L., & Sciarra, C. (2023). The role of Economic Complexity in countries' future environmental impact. **(In preparation)**

Costantini, L., Laio, F., Ridolfi, L., & Sciarra, C. (2023). An R&D perspective on international trade and sustainable development. **Scientific Reports**, 13(1), 8038.

Costantini, L., Sciarra, C., Ridolfi, L., & Laio, F. (2022). Measuring node centrality when local and global measures overlap. **Physical Review E**, 105(4), 044317.

INTERNATIONAL CONFERENCES (ORAL PRESENTATIONS)

EGU General Assembly (Wien, 2023): Costantini, L., Laio, F., Ridolfi, L., & Sciarra, C. (2023). Investigating the R&D-CO₂ nexus in the international trade (No. EGU23-11904). Copernicus Meetings.

Complex Networks and Their Applications X (Madrid, 2021): Costantini, L., Sciarra, C., Ridolfi, L., & Laio, F. (2021). Mining new information from high spectral gap networks. (Page 548 of the book of abstract, available at <https://2021.complexnetworks.org/>).

ATTENDED SCHOOLS

May 2022: Spring School “Complex Networks: Theory, Methods, and Applications”, Fondazione Alessandro Volta and Lake Como School of Advanced Studies.

June 2021: “Second (virtual) summer school. Alternative methods in science: towards model complexity”, Fondazione Alessandro Volta and Lake Como School of Advanced Studies.

SKILLS

Technical skills:

- Programming skills in **MATLAB, Python**, LabView, and C++
- Good **knowledge of English** (IELTS Academic grade: 6.5, July 2020)
- Office and Latex

Personal skills:

- Team-work
- Communication
- Leadership

EXPERIENCES

JULY 2023 – PRESENT

REVIEWER FOR JOURNAL OF PHYSICS: COMPLEXITY

JUNE 2022 – PRESENT

DISSEMINATOR, WATER TO FOOD

Dissemination activities of the **CWASI project** results (<https://www.watertofood.org/>).

JUNE 2020 – OCTOBER 2020

COLLABORATOR, NEXT-LEVEL

Project “**NEXT-LAND CAMP**”: laboratories for school students (collaboration with INFN).

Project “**Proud of you**”: catalog of online learning material for school professors.

MARCH 2020 – JUNE 2020

HIGH SCHOOL TUTOR, UNIVERSITY OF TURIN-CITTA’ DI TORINO

Project “**Scuola dei Compiti**”: two physics afternoon courses for Liceo Gobetti’s students.

OCTOBER 2019 – JANUARY 2020

COLLABORATOR, INFN

Project “**AggiornaMenti**”: assistant to a physics course for school professors.

NON-PROFESSIONAL ACTIVITIES

I have always been part of the scout movement. When I turned 18, I was a Boy Scout unit leader, planning and implementing all the activities during the year.

I enjoy hiking, jogging, and playing sports (for example, playing basketball).

31/08/2023

Luca Costantini