

# MARZIA CANZANIELLO

PhD student in Mathematics and Applications @ University of Naples Federico II

📍 NA, 26.02.1997    ✉ Traversa Piave 64    @ inst: marzia.canzaniello@unina.it  
📧 pvt: marzia.canzaniello@libero.it    ☎ +39 346 636 6303    🌐 marziacanzaniello    🌐 marziacanzaniello



## EDUCATION

Ph.D. in Mathematics and Applications

University of Naples Federico II

📅 Jan 2023 – ongoing

Main research focus: Machine Learning, Deep Learning, Statistical Learning.

M.Sc. in Mathematics and Applications

University of Naples Federico II

📅 Sept 2020 – Oct 2022

Main subjects studied: Mathematical modelling, statistical physics, multivariate analysis.

## PUBLICATIONS

### 📄 Journal Articles

- F. Piccialli, M. Canzaniello, D. Chiaro, S. Izzo, and P. Qi, "Graphite-generative reasoning and analysis for predictive handling in traffic efficiency," *Information Fusion*, p. 102 265, 2024.
- M. Canzaniello, S. Izzo, D. Chiaro, A. Longo, F. Piccialli, "CAP-TURE - Computational Analysis and Predictive Techniques for Urban Resource Efficiency," Under Review by Expert Systems: The Journal of Knowledge Engineering
- A. Sahila, B. Canfora, M. Canzaniello, A. Trucchia, G. Pagnini, "Statistical dynamics of wildfire burned area from cellular-automata simulators," Under Review by Scientific Reports

### 👥 Conference Proceedings

- D. Annunziata, M. Canzaniello, D. Chiaro, S. Izzo, M. Savoia, and F. Piccialli, "On the dynamics of non-iid data in federated learning and high-performance computing," in *2024 32nd Euromicro International Conference on Parallel, Distributed and Network-Based Processing (PDP)*, IEEE, 2024, pp. 230–237.
- D. Annunziata, M. Canzaniello, M. Savoia, S. Cuomo, and F. Piccialli, "Benchmarking federated learning on high-performance computing: Aggregation methods and their impact," in *2024 32nd Euromicro International Conference on Parallel, Distributed and Network-Based Processing (PDP)*, IEEE, 2024, pp. 207–214.
- S. Izzo, M. Canzaniello, M. Savoia, F. Giampaolo, and F. Piccialli, "Graph neural networks in emergency management: A case study on fire call assignment," in *2023 IEEE Intl Conf on Dependable, Autonomic and Secure Computing, Intl Conf on Pervasive Intelligence and Computing, Intl Conf on Cloud and Big Data Computing, Intl Conf on Cyber Science and Technology Congress (DASC/PiCom/CBDCoM/CyberSciTech)*, IEEE, 2023, pp. 0651–0658.

## MY LIFE PHILOSOPHY

*"Strive for balance, embrace change, and cherish each moment as an opportunity for growth."*

## MOST PROUD OF



**Accepted to OxML summer school**

Selected by the Oxford Machine Learning Summer School, London-United Kingdom, to participate in the course "MLx GENERATIVE AI (Theory, Agents, Products)".



**"GRAPHITE" was accepted at Information Fusion**

It is a research project that I am particularly enthusiastic about, and I'm pleased that it was accepted to such an important journal (to those who do research in the field).



**Internship at BCAM**

Selected by the Basque Center for Applied Mathematics, Bilbo-Spain, to participate in the project "Ensemble Forecasting for Predicting Wildfire Propagation" (PID2019-107685RB-I00).

## STRENGTHS

Hard-working

Eye for detail

Motivator & Leader

Versatility & Adaptation

Statistics

Deep Learning

Machine Learning

Python

## LANGUAGES

English  
Python  
MATLAB  
R



- M. Canzaniello, S. Amitrano, E. Prezioso, F. Giampaolo, S. Cuomo, F. Piccialli, "Leveraging Digital Twins and Generative AI for Effective Urban Mobility Management," Accepted by 2024 IEEE Intl Conf on Dependable, Autonomic and Secure Computing, Intl Conf on Pervasive Intelligence and Computing, Intl Conf on Cloud and Big Data Computing, Intl Conf on Cyber Science and Technology Congress (DASC/PiCom/CBDCom/CyberSciTech).

## REFEREES

---

**Prof. Francesco Piccialli**

@ University of Naples Federico II

✉ francesco.piccialli@unina.it

Department of Mathematics and Applications "Renato Caccioppoli", Campus of Monte S. Angelo, via Cintia, Napoli.

---

### Attendance at Conferences and Summer Schools

- *Participation as co-author at pdp - 32nd euromicro international conference on parallel, distributed, and network-based processing*, March 2024. [Online]. Available: <https://pdp2024.org>.
- *Participation as speaker at ital-ia the 4th cini national conference on artificial intelligence, thematic workshop: Genai*, May 2024. [Online]. Available: <https://ital-ia2024.it/workshop/ai-generativa>.
- *Participation in the oxford machine learning summer school, course: Mlx gen. ai (theory, agents, products) (london, uk)*, July 2024. [Online]. Available: <https://www.oxfordml.school>.