Ambrogio Maria Bernardelli

CURRICULUM VITAE ET STUDIORUM

Education

High school

September 2011 - July 2016

From September 2011 to July 2016 I was enrolled at Liceo Scientifico Statale Torquato Taramelli. I obtained my high school diploma on the 11th of July 2016, with the following results: 100 / 100, discussing the essay "I barbari. Saggio sulla mutazione" by Alessandro Baricco. During high school, I participated in several students competitions, such as the ANISN Natural Science Olympiads (regional phase in 2013, 2014, 2015), the Gran Premio di Matematica Applicata (7th place in 2016), and the Italian Mathematical Olympiad (team semifinalist in 2016, team finalist and 35th place in 2015).

Bachelor's degree

October 2016 - September 2019

From October 2016 to September 2019 I was enrolled in the Bachelor's degree Course in Mathematics at the University of Pavia. I graduated on the 19th of September 2019 with the following result: 110 / 110 cum laude. On that date, I discussed my Bachelor's Thesis "Rappresentazioni Lineari di Gruppi Finiti" ("Linear Representations of Finite Groups"), written under the supervision of Professor Alberto Canonaco.

Master's degree

October 2019 - September 2021

From October 2019 to September 2021 I was enrolled in the Master's degree Course in Mathematics at the University of Pavia. During this period, I benefited from a scholarship awarded to me following an evaluation of my qualifications, an oral and a written test, and the achievement of objectives concerning grades in the Master's degree course exams and obtaining my degree within a set timeframe. I graduated on the 23rd of September 2021 with the following result: 110 / 110 cum laude. On that date, I discussed my Master's Thesis "Aspetti Algebrici e Combinatori della Teoria degli Operad" ("Algebraic and Combinatorial Aspects of Operad Theory"), written under the supervision of Professor Alberto Canonaco.

Ph.D. course

January 2022 - present

I am currently enrolled in a Ph.D. course in Computational Mathematics and Decision Sciences in a joint programme between the University of Pavia and the Università della Svizzera Italiana.

Conferences and Workshops

July 2022 — ICCOPT / MOPTA 2022, Lehigh University, Bethlehem, Pennsylvania.

September 2022 — YAMC 2022, Arenzano, Italy.

November 2022 — Matematica per l'Intelligenza Artificiale e il Machine Learning - Giovani ricercatori, Torino, Italy.

February 2023 — 7th AIROYoung Workshop, coauthor of two works, one presented by Simone Milanesi. The Mathematics of Machine Learning, presented by Simone Milanesi, Pisa, Italy.

June 2023 — LION17 Conference, Nice, France.

October 2023 — 2023 INFORMS Annual Meeting, presented by Stefano Gualandi, Phoenix, Arizona†.

May 2024 — ISCO 2024, San Cristóbal de La Laguna, Spain.

June 2024 — The HEXAGON Workshop on power grids, Bergamo, Italy†. EURO 2024, presented by Simone Milanesi, Copenhagen, Denmark†.

July 2024 — ISMP 2024, presented by Simone Milanesi, Copenhagen, Denmark†. IPCO 2024 poster session, Wrocław, Poland.

† invited talk

Publications

Conference Proceedings

October 2023 — Bernardelli, A.M., Gualandi, S., Lau, H.C., Milanesi, S. (2023). The BeMi Stardust: A Structured Ensemble of Binarized Neural Networks. In: Sellmann, M., Tierney, K. (eds) Learning and Intelligent Optimization. LION 2023. Lecture Notes in Computer Science, vol 14286. Springer, Cham.

Journal Articles

June 2024 — Bernardelli, A.M., Bonasera, L., Duma, D., Vercesi, E. (2024). Multi-objective stochastic scheduling of inpatient and outpatient surgeries. Flex Serv Manuf J.

September 2024 — Bernardelli, A. M., Gualandi, S., Milanesi, S., Lau, H. C., Yorke-Smith, N. (2024). Multiobjective Linear Ensembles for Robust and Sparse Training of Few-Bit Neural Network. INFORMS Journal on Computing.

Awards

September 2019 — Department scholarship for the Master's degree Course in Mathematics.

July 2022 — 2nd place out of 13 submissions at the 14th AIMMS-MOPTA Optimization Modeling Competition.

April 2023 — Grant awarded by the TAILOR Connectivity Fund for a one-month visiting period.

Visiting Periods

Mid April 2023 - Mid May 2023

I spent one month in TU Delft, Delft, Netherlands, with my colleague Simone Milanesi, under the supervision of Dr. Neil Yorke-Smith, studying Integer Neural Networks.

September 2023 - February 2024

I spent six months, from September 2023 to February 2024, in USI, Lugano, Switzerland, as part of my Ph.D. joint program, working on integrality gap problems with Professor Luca Maria Gambardella.

Teaching Activities

Tutoring

February 2022 - July 2022

Tutoring activity for first-year students attending the Bachelor's degree program in Mathematics at the University of Pavia.

October 2022 - February 2023

Tutoring activity for the course "Geometria e Algebra" held by Professor Francesco Bonsante for the Bachelor's degree program "Bioingegneria" at University of Pavia.

Supervising

July 2023

Analisi di architetture per Binarized Neural Networks, Andrea Panno, Bachelor's Thesis in Bioengineering at University of Pavia, co-supervisor.

July 2023

On the exactness of Jabr-like models and distributionally robust stochastic optimal power flow, Gabor Riccardi, Master's Thesis in Mathematics at University of Pavia, co-supervisor.

September 2024

The Cloven Travelling Salesman: a new Approach to the ATSP Integrality Gap Estimation, Alessandro Sosso, Master's Thesis in Mathematics at University of Pavia, co-supervisor.

Personal informations

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Signature 

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