

Lorenzo Beretta

Webpage: lorenzo2beretta.github.io

E-mail: lorenzo2beretta@gmail.com

EDUCATION

Ph.D. Basic Algorithm Research Copenhagen (BARC) 2020 – now
Supervisors: Mikkel Thorup & Mikkel Abrahamsen.

Scuola Normale Superiore (Honor Class) 2015 – 2020
I took 115 ECTS (~ 2 years workload) of additional math and physics courses.

M.S. Computer Science, University of Pisa 2018 – 2020
Grade 110/110 cum Laude.

B.S. Mathematics, University of Pisa 2015 – 2018
Grade 110/110 cum Laude.

RESEARCH PAPERS

1. “Min-Weight Bipartite Matching and Earth-Mover Distance in Sublinear Time”; with Aviad Rubinfeld. *To be submitted to STOC 2024.*
2. “Multi-Swap k -Means++”; with Vincent Cohen-Addad, Silvio Lattanzi, Nikos Parotsidis. *Submitted to NeurIPS 2023.*
3. “Locally Uniform Hashing”; with Ioana Bercea, Jonas Klausen, Jakob Bæk Tejs Houen and Mikkel Thorup. **FOCS 2023.**
4. “Online Sorting and Translational Packing of Convex Polygons”; with Anders Aamand, Mikkel Abrahamsen and Linda Kleist. **SODA 2023.**
5. “Better Sum Estimation via Weighted Sampling”; with Jakub Tetek. **SODA 2022. Best Student Paper Award.**
Invited to HALG 2022 and TALG special issue.
6. “Online Packing to Minimize Area or Perimeter”; with Mikkel Abrahamsen. **SoCG 2021.**
7. “An Optimal Algorithm to Find Champions of Tournament Graphs”; with Franco Maria Nardini, Roberto Trani and Rossano Venturini.
IEEE Transactions on Knowledge and Data Engineering (TKDE)
(A preliminary version appeared at SPIRE 2019).

FELLOWSHIPS AND SCHOLARSHIPS

EU TALENT Doctoral Fellowship Grant 2020 – 2023
Horizon 2020 program, Marie Skłodowska-Curie grant agreement No 801199.

Undergraduate Full Scholarship 2015 – 2020

Admitted to honor classes in math (Scuola Normale Superiore) and engineering (Scuola Superiore Sant'Anna). Scuola Normale Superiore provided me with a full scholarship which covered tuition and boarding throughout my bachelor and master in Pisa.

INTERNSHIPS AND TEACHING

Student Researcher, Google Research 2022

As a research intern I worked on clustering problems both in theory and practice.

Teaching Assistant, Copenhagen University 2021 - 2022

I served twice as a T.A. in the "Randomized Algorithm" course at Copenhagen University.

Quantitative Investment Internship, Société Générale, London 2019

Ten weeks internship spent working on the "optimal intraday execution" problem.

High School Teacher 2018

Teaching additional math lectures at a local high school in Pisa.

MISCELLANEA

ACM ICPC Programming Contest: SWERC 2018

Representing Scuola Normale Superiore, Bronze Medal, 10th place.

Scout Leader Volunteer 2017 – 2020

Leading a troop of about 30 teenagers.

National Mathematics and Physics Olympiads 2015

Silver medal in Mathematics and Bronze medal in Physics.