



Lorenzo Piccinini

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● WORK EXPERIENCE

01/11/2023 - CURRENT - BOLOGNA, ITALY

PHD IN MATHEMATICS DEPARTMENT OF MATHEMATICS, ALMA MATER STUDIORUM - UNIVERSITÀ DI BOLOGNA

Supervisor: prof. Valeria Simoncini

Topics:

- Numerical Linear Algebra
- Matrix equations
- Tensor equations
- Mixed-precision

01/10/2022 - CURRENT - BOLOGNA, ITALY

TUTOR FOR THE COURSE NUMERICAL ANALYSIS DEPARTMENT OF MATHEMATICS, ALMA MATER STUDIORUM - UNIVERSITÀ DI BOLOGNA

- Exercise sessions for students
- Introduction to MATLAB
- Proctoring

01/03/2022 - 01/09/2022 - BOLOGNA, ITALY

TUTOR FOR THE COURSE NUMERICAL ANALYSIS AND GEOMETRICAL MODELLING DEPARTMENT OF ENGINEERING, ALMA MATER STUDIORUM - UNIVERSITÀ DI BOLOGNA

- Exercise sessions for students
- Proctoring

● EDUCATION & TRAINING

16/06/2025 - 20/06/2025 - NAPOLI, ITALY

CINI HPC SUMMER SCHOOL- CNR-IAC, UNIVERSITÀ DEGLI STUDI DI NAPOLI FEDERICO II, UNIVERSITÀ DEGLI STUDI DI NAPOLI PARTHENOPE

28/02/2024 - 29/02/2024 - GENOVA, ITALY

PARALLEL PROGRAMMING - LEONARDO- CINECA AND GENOVA SIIT

05/03/2023 - 08/03/2023 - BOLOGNA, ITALY

INTRODUCTION TO PARALLEL COMPUTING WITH MPI AND OPENMP- CINECA

BOLOGNA, ITALY

(2021 - 2023) MASTER OF SCIENCE IN ADVANCED MATHEMATICS FOR APPLICATION- ALMA MATER STUDIORUM - UNIVERSITÀ DI BOLOGNA

Final grade: Cum Laude | **Thesis:** Least square methods for Sylvester-like linear matrix equations

BOLOGNA, ITALY

(2018 - 2021) BACHELOR OF SCIENCE IN MATHEMATICS- ALMA MATER STUDIORUM - UNIVERSITÀ DI BOLOGNA

Thesis: Metodi numerici per l'equazione matriciale di Sylvester

● **CONFERENCES & SEMINARS**

02/02/2026 - 06/02/2026 ICERM, Providence

Randomized Numerical Linear Algebra workshop

07/01/2026 - 09/01/2026 METT XI, 11th Workshop on Matrix Equations and Tensor Techniques, Leuven, Belgium

Talk "Randomized biorthogonalization through a two-sided Gram-Schmidt process"

07/10/2025 - 10/10/2025 Workshop on Approximate Computing in Numerical Linear Algebra, Paris, France

Talk "Randomized two-sided Gram-Schmidt process with applications"

31/08/2025 - 05/09/2025 Workshop: Low-rank Structures and Numerical Methods in Matrix and Tensor Computations, Cortona

Poster "Randomized biorthogonalization through a two-sided Gram-Schmidt process"

07/07/2025 - 12/07/2025 PVD75 workshop in honor of the 75th birthday of Paul Van Dooren, Selva di Fasano, Italy

Talk "Tensor-oriented LSQR for tensor least squares problems"

10/02/2025 - 11/02/2025 GNCS-SIAM Chapters Meeting for Young Researchers in Numerical Analysis and Applied Mathematic Pavia

Talk "Numerical methods for matrix and tensor least squares problems"

20/01/2025 - 21/01/2025 Due Giorni di Algebra Lineare Numerica, Pisa, Italy

Talk "Truncated LSQR for least squares problems"

20/10/2024 Seminar at the PYSANUM group (University of Pisa and SNS), Pisa, Italy

Talk "Truncated LSQR for matrix and tensor least squares problems"

16/09/2024 - 20/09/2024 CIRM Numerical Linear Algebra Conference in Luminy, Marseille, France

Talk "Truncated LSQR for matrix and tensor least squares problems"

19/06/2024 One day of numerical linear algebra, EPFL, Lausanne, Switzerland

Talk "Truncated matrix-oriented LSQR for matrix least squares problems"

13/05/2024 - 17/05/2024 Minisymposium at the SIAM LA24, Paris, France

Talk "Truncated LSQR for matrix least squares problems"

20/04/2024 Cycle of seminars "SCUBE", University of Bologna, Bologna, Italy

Talk "Truncated LSQR for matrix least squares problems and application to dictionary learning"

● **SCIENTIFIC VISITS**

07/04/2026 - 18/04/2026

Visiting period at the MPI, Magdeburg (D), hosted by prof. Jens Saak

01/03/2025 - 01/06/2025

Visiting period at the EPFL, Lausanne (CH), hosted by prof. Laura Grigori

28/05/2024 - 29/06/2024

Visiting period at the EPFL, Lausanne (CH), hosted by prof. Laura Grigori

- **PUBLICATIONS**

[\(Submitted\) Subspace gradient descent method for linear tensor equations](#) 2026

Martina Iannacito, Lorenzo Piccinini, and Valeria Simoncini ArXiv 2602.21974.

[\(Submitted\) Randomized biorthogonalization through a two-sided Gram-Schmidt process](#) 2025

Laura Grigori, Lorenzo Piccinini, and Igor Simunec ArXiv 2509.04386.

[\(Published\) TT-LSQR for tensor least squares problems and application to data mining](#) 2025

Lorenzo Piccinini, and Valeria Simoncini. Numerical Algorithms, Volume 100, 2069-2093.

[\(Published\) Truncated LSQR for matrix least squares problems](#) 2024

Lorenzo Piccinini, and Valeria Simoncini. Computational Optimization and Application (COAP), Volume 91, 905-932.

- **SKILLS**

MATLAB | Latex | Python | Julia | C++ (basic) | OpenMP (basic) | MPI (basic) | Linux | Matlab | Git

- **LANGUAGE SKILLS**

Mother tongue(s): **ITALIAN**

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C2	C2	C2	C2	C2
GREEK	A2	A2	A2	A2	A2