



Lorenzo Posti



born: 16/10/1988 — Perugia (IT)



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Strasbourg (FR)



LinkedIn



ML_blog



lposti



Scholar



Publications

About me

Research scientist with a Ph.D. in astrophysics and 10+ years experience in data science, machine learning, creative modelling, software development, statistics, and communication.

Seeking new challenges as a data scientist & eager to lend my research methodology to build together something new, for a better future for all.

Skills

Programming:

- **python**, jupyter, C++, LaTeX, bash, git
- **pytorch**, numpy, scipy, pandas, scikit-learn, numpyro
- MPI/OpenMP, SQL (basics)

Technical:

- descriptive/predictive/generative/data driven modelling
- **machine learning**, **neural networks**, MCMC, autoencoders, diffusion models, gaussian processes
- project planning, problem solving

Soft:

- positive attitude, constructive criticism
- worked in multi-cultural environments in 5 countries
- leadership & collaborative roles in teams
- public speaking, paper writing & reviewing

Languages

Italian — native language
English — fluent (C1/C2)
French — intermediate (B1/B2)

Other

Popular science articles: [L'Astronomie Afrique](#), [NOVA](#), [Observatoire de Strasbourg](#)

Experience

Research scientist — 7 years

2023-
2019

University of Strasbourg (FR)

2019-
2016

University of Groningen (NL)

- [38 peer-reviewed papers](#), [9 code repositories](#), [5 data catalogs](#), 60+ talks
- Modelling large astronomical datasets with **machine learning** techniques
- Analysis of terabytes of data with Bayesian modelling
- Started a [deep learning blog](#), used in internal group meetings
- **Leading** small international teams successfully producing research output
- **Mentoring** of students, **organisation** of international meetings

Ph.D. researcher — 3 years

2016-
2012

University of Bologna (IT)

- Pioneered new **generative models** of galaxies based on distribution theory
- Used **HPC facilities** to perform computer simulations of galaxies
- Worked in prestigious institutes abroad for ~10 months (UK, USA)

- I curate a [deep learning blog](#), coding cutting-edge algorithms from scratch
- I taught classes of **python**, classical **machine learning**, and astronomy
- Over the years, I strived to stay up-to-date on the latest tech completing numerous courses: e.g. MPI/OpenMP, GPUs, pytorch, [fast.ai](#)

Education

2015-
2012

Ph.D. in Astrophysics — University of Bologna (IT)

[Thesis](#): "On the luminous and dark matter distribution in early-type galaxies"

2012-
2010

M.Sc. in Astrophysics — University of Bologna (IT)

Grade: 110/110 cum laude

2010-
2007

B.Sc. in Astrophysics — University of Bologna (IT)

Grade: 110/110 cum laude

Research Funding

Grants awarded:

- CNES fellowship | Strasbourg (FR), 2019 — 50 k€
- Ph.D. fellowship | Bologna (IT), 2012 — 40 k€
- CNRS grant for conferences | Strasbourg (FR) — 10 k€
- Travel grants from IAU | Groningen (NL) — 4 k€

Computing & Telescope time awarded:

- 200 khr of computing time at [CINECA](#) HPC facilities
- 125 hr of observing time at the most competitive telescopes in the world

Honours & Prizes

- ISSNAF - INAF prize funding an internship at STScI, Baltimore (USA), 2011
- Qualification for lecturer in physics & astronomy, France, 2020
- Invitation as an expert panel **reviewer** for the Spanish Space Agency, 2020
- Reviewer for professional journals e.g. Nature, Astrophysical Journal