

CURRICULUM VITAE

EMANUELE LUCREZIA

PhD in Modeling and Data Science

CONTACTS:

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ADDRESS:
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(TO) Italy

EMAIL:
emanuele.lucrezia91@gmail.com

DIGITALS SKILLS:

- Python
- Matlab
- R
- Maple
- Microsoft Office

LANGUAGES:

- Italian: Native
- English: working proficiency
- German: Basic
- Portuguese: Basic

WORK EXPERIENCE

Università di Torino – PhD in Modeling and Data Science
Nov 2019 – Now

Affiliation: Department of Mathematics, Giuseppe Peano; Turin.

Topics: stochastic processes. failure detection, random walks.

Activities: Research, calculation, coding, divulgation and study.

*the applied part of the work consisted in development-implementation of statistical algorithms in the contest of predictive maintenance

*the theoretical part of the work consisted in the elaboration and study of the probabilistic models underlying the analysis of data.

Xpack s.r.l., Bologna – Professionalising Apprenticeship

Jun 2019 – Aug 2019

Area: mechanics / calculus and simulation (Interrupted for PhD)

Istituto Aldo Moro, Rivarolo C.se – Substitute Teacher

Jan 2019 – Jun 2019

Teaching informatics, first class students (14/15 yrs).

* In laboratory: Microsoft Office

* In class: programming fundamentals.

Forschungszentrum, Juelich – Research Assistant

May 2017 – Nov 2018

Affiliation: Institute of Neuroscience and Medicine (INM-6), Institute for Advanced Simulation (IAS-6) and JARA BRAIN Institute I.

Collaboration: Institut de Neurosciences de la Timone, Marseille, France.

* Applied probability and statistics to experimental neuronal data

* Development and implementation of statistical algorithms (python)

* Tutoring at:

- "Advanced Neural Data Analysis Course" (ANDA 2018), Juelich-Barmen

- RWTH Aachen University, (Germany) "Introduction to Computational Neuroscience"

Forschungszentrum, Juelich – Assistant Student

Jun 2016 – Apr 2017

This work was performed in the framework of a research agreement between the Department of Mathematics of the University of Turin and the research center of Juelich, Forschungszentrum.

* Master Thesis: "Rate Latency Ordering in Multi-Dimensional Point Processes, an Application to Neuroscience"

* Course: Advanced Neural Data Analysis Course (ANDA 2017), Juelich-Barmen

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EDUCATION

Università di Torino – Master Degree: Mathematics

Oct 2014 – Apr 2017

- Thesis title: "Rate Latency Ordering in Multi Dimensional Point Processes, an Application to Neuroscience".
- Grade: 110/110 cum Laude

Università di Torino – Bachelor Degree: Mathematics

Oct 2010 – Apr 2014

- Thesis title: "Resolvability of Polynomial Equations and Galois Theory".
- Grade: 96/110

Liceo Scientifico A. Gramsci, Ivrea – Secondary High School

Set 2005 – Jun 2010

- Grade: 78/100

Other Courses

- German Course: *Sprachenteiler Berlin*, Berlin 24/09/2018–05/10/2018,
- English Course: *MalvernHouseDublin*, Dublin 06/2014–07/2014, Ireland

Online courses:

* SQL for Data Science by University of California, Davis. Certificate earned on February 2023 *Cryptography I by Stanford University on Coursera. Certificate earned on October 2019 * Introduction to TCP/IP by Yonsei University on Coursera. Certificate on May 9, 2019 * Advanced Data Science with IBM, a 4-course specialization by IBM on Coursera. Specialization Certificate earned on May 23, 2019 * Machine Learning by Stanford University on Coursera. On February 16, 2019

Publications:

[Ito, J., Lucrezia, E., Palm, G., & Grün, S. (2019).
Detection and evaluation of bursts in terms of novelty and surprise.
Math. Biosci. Eng., 16, 6990-7008.]
doi: [10.3934/mbe.2019351](https://doi.org/10.3934/mbe.2019351)

Poster:

[Rate Latency Patterns Across Neuronal Populations Specific to Behavior]
<https://juser.fz-juelich.de/record/849801>

[Behavior specific rate latency ordering of simultaneously recorded neurons]
https://juser.fz-juelich.de/record/849800/files/lucrezia_INM_ICs_retreat2018.pdf

Website:

<https://manulz3.github.io/>