Brandon Livio Annesi

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EDUCATION

UNIVERSITÀ BOCCONI
PhD in Statistics and Computer Science
2020 - present | Milan, Italy

LA SAPIENZA UNIVERSITY
Laurea Magistrale in Theoretical Physics
2017 - 2019 | Rome, Italy
110/110 cum laude

Laurea Triennale in Physics
2012 - 2015 | Rome, Italy
110/110 cum laude

IMPERIAL COLLEGE
MSc in Physics
2015 - 2016 | London, U.K.
Distinction

COURSEWORK

GRADUATE
Bayesian and Frequentist Statistical Theory
Theoretical Computer Science
Statistical Field Theory
Statistical Physics of Disordered Systems
Non-Equilibrium Statistical Physics
Quantum Information
Computational Stochastic Processes

UNDERGRADUATE
Condensed Matter
Scientific Computation
Astrophysics
General Relativity

SKILLS

PROGRAMMING
C/C++ • Julia • Python • Matlab • Mathematica • SQL

LANGUAGE
I am bilingual in Italian and English, as my mother is American and my father Italian

PROBLEM SOLVING
Throughout my studies, research and work in consulting I have been exposed to a wide variety of problems, and have acquired the necessary skills and tools to approach and solve them.

RESEARCH AND PROJECTS

ENERGY LANDSCAPE OF THE CONTINOUS NEGATIVE PERCEPTRON | together with C.Lauditi, C.Lucibello, E.Malatesta, G.Perugini ,F.Pittorino, L.Saglietti
Current research
In this soon-to-be published paper, we investigate the energy barriers between solutions of the negative perceptron, and identify a particular geometry for these solutions, which form star-shaped domains.

A SURVEY OF MESSAGE PASSING ALGORITHMS FOR THE SOLUTION OF CONSTRAINT SATISFACTION PROBLEMS | Supervisor: Prof. Ricci Tersenghi
Final Year Dissertation at La Sapienza| 2019
I surveyed and tested the most efficient message passing algorithms, Belief Propagation and Survey Propagation, on instances of Random K-SAT and Hypergraph Bicoloring.

COVARIANCE OF THE RUNNING RANGE OF A BROWNIAN TRAJECTORY | Supervisor: Prof. Enzo Marinari
Research Project at La Sapienza | 2018
Together with professors Gleb Oshanin and Enzo Marinari we derived for the first time the analytical form of the covariance function of the running range for Brownian Motion, and compared it to simulations. This research has led to an **article published on Journal of Physics A: Mathematical and Theoretical** (J. Phys. A: Math. Theor. 52 345003)

WORK EXPERIENCE

TEACHING ASSISTANT Università Bocconi
September 2021 - present | Milan, Italy
- I am the Teaching Assistant for the following modules: *Foundations of Physics II , Computer Systems and Databases, Stochastic Processes and Simulations in Natural Sciences.* Duties involve teaching exercise and lab sessions, preparing exercises and solutions for students, and answering their questions.

DATA SCIENTIST | Engineering365 (www.eng365.it)
November 2019 - April 2020 | Milan, Italy

- I was part of the Data Platform, BI & AI division of e365, a consulting firm specialized on Data Science and Business Intelligence solutions.

TOUR GUIDE | Angel Tours (www.angeltours.eu)
2017 - present | Rome, Italy

- I worked as a tour guide, giving a number of English tours throughout Rome.

AWARDS

2016   Winner of the **Blackett Laboratory MSc in Physics prize**.
This prize is awarded to the best student of the MSc.

INTERESTS

- I am a passionate musician: I have taken lessons in piano, guitar and singing.
- I also love sports: I go indoor rock climbing every week and have played tennis since I was a child.