

Curriculum Vitae – Fall 2022

Family name: Gorini
Given name: Nicola
Gender: male
Date of birth: 22/07/1993
Citizenship: Italian
email address: nicola.gorini@phd.unibocconi.it

Qualifications

- 2022–2026 (ongoing)
Ph.D. in Statistics and Computer Science, *Bocconi University*, Department of Decision Sciences, Milan, Italy.
- 2018–2022
Ph.D. in Theoretical Physics, *University of Milano-Bicocca*, Department of Physics and Astronomy, Milan, Italy.
Thesis title: *Aspects of Three-dimensional Quantum Field Theories*.
Thesis advisor: Prof. Silvia Penati.
Thesis defence: Feb 2022.
- 2015–2017
M.Sc. in Theoretical Physics (cum laude), *University of Padua*, Department of Physics and Astronomy, Padua, Italy.
Thesis title: *Discrete Symmetries of $N = 4$ String Models*.
Thesis advisor: Prof. Roberto Volpato.
Thesis discussion: Oct 2017.
- 2012–2015
B.Sc. in Physics, *University of Padua*, Department of Physics and Astronomy, Padua, Italy.
Thesis title: *Study of Dark Energy models through the linear growth factor of cosmological structures*.
Thesis advisor: Prof. Michele Liguori.
Thesis discussion: Jul 2015.
- 2007–2012
High School Diploma, *Liceo Scientifico A. Calini*, Brescia, Italy.

Research Interests

Geometric Machine Learning, Applied Machine Learning for Statistical Physics.

Publications

- N. G., L. Griguolo, L. Guerrini, S. Penati, D. Seminara, P. Soresina,
The topological line of $ABJ(M)$ theory. In: *JHEP* 06 (2021), p. 091. doi: 10.1007/JHEP06(2021)091. arXiv: 2012.11613 [hep-th].
- V. Bashmakov, N. G.,
Phases of $N = 1$ Quivers in $2 + 1$ Dimensions. In: (set. 2021). *JHEP* 010P 0222. arXiv: 2109.11862 [hep-th].

Work in Progress

- N. G., L. Griguolo, L. Guerrini, S. Penati, D. Seminara, P. Soresina,
Constant primary operators and where to find them: The case of $\frac{1}{2}$ -BPS defects in $ABJ(M)$ theory.

Work Experience

- 11/2017–02/2018
Teaching Assistant, Bocconi University, Milan, Italy, Department of Decision Sciences, *Advanced Mathematics for Economics and Social Sciences*.
Arguments: elements of Topology and Functional Analysis.
- 03/2020–09/2020
Teaching Assistant, University of Milano-Bicocca, Milan, Italy, Department of Environmental Sciences and Technologies, *General Physics*.
Arguments: Mechanics, Fluidodynamics and Thermodynamics.
- 10/2020–09/2021
Teaching Assistant, University of Milano-Bicocca, Milan, Italy,, Department of Physics and Astronomy, *Mathematics for Physics*.
Arguments: Complex Analysis and elements of Functional Analysis.

Language Skills

- **Italian**: Native speaker
- **English**: Advanced
Fluent in communicative and academic aspects.
IELTS Certification: Overall Score 6.5 - B2/C1 (CEFR)
- **French**: Basic
Basic words and phrases only.

IT Skills

Fairly good: C++, Python, WordPress

Good: Pinescript, Wolfram Mathematica, LATEX

Excellent: Microsoft Office

Other Activities

- 2016–Present **Private Tutoring**, for high school and university students.
High School: Maths and Physics.
University: Mathematical Analysis I and II, Complex Analysis, Physics I and II.
- 2020–Present **"Nonsoloteoria" Learning Platform (under development)**, for high school and university students:
Development of an online learning platform aimed at improving students' confidence with physics and mathematics.
- 2020–Present **Quant Trading Project**, for the Forex and Cryptocurrency markets:
Development of mathematical algorithms for automated and semi-automated profitable strategies.