Curriculum Vitae – Fall 2022

Family name: Gorini
Given name: Nicola
Gender: male
Date of birth: 22/07/1993
Citizenship: Italian
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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 ½-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++, Phyton, *WordPress*
Good: Pinescript, Wolfram Mathematica, L<small>A</small>TEX
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.