

Born	2000, Zagreb, Croatia
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Education

PhD in Mathematics	ETH Zürich <ul style="list-style-type: none"> Supervisor: Prof. Afonso Bandeira, Second advisor: Prof. Vincent Tassion Interests: Random Matrices, High Dimensional Probability, Statistics, Combinatorics, Optimization, Percolation 	10/2022 - <i>ongoing</i>
MMath (Master of Mathematics)	University of Cambridge, Trinity College <ul style="list-style-type: none"> Honours with Distinction 	09/2021 - 06/2022
BA (Bachelor of Arts) in Mathematics	University of Cambridge, Trinity College <ul style="list-style-type: none"> First Class in each examination session 	09/2018 - 06/2021
Mathematical grammar school	XVth Gymnasium Zagreb <ul style="list-style-type: none"> Best student of generation 2018 	09/2014 - 06/2018

Work Experience

Doctoral Student	ETH Zürich <ul style="list-style-type: none"> → Teaching & Mentoring 	10/2022 - <i>ongoing</i>
Quant Research Intern	G-Research (London) Squarepoint Capital (London) <ul style="list-style-type: none"> Designing a system to detect and present unusual behaviours of the market 	06/2025 - 08/2025 06/2021 - 08/2021
Quant Software Engineer Intern	University of Cambridge, Faculty of Mathematics <ul style="list-style-type: none"> Working on the bunkbed conjecture and proving a limiting result 	06/2020 - 09/2020

Teaching & Mentoring

Teaching Assistant	Courses taught: <ul style="list-style-type: none"> <i>Spring/2025</i>: Mathematics of Signals, Networks, and Learning (course organizer) <i>Fall/2024</i>: Mathematics of Data Science (course organizer) <i>Spring/2024</i>: Mathematics of Signals, Networks, and Learning (course organizer) <i>Fall/2023</i>: Mathematics of Data Science <i>Spring/2023</i>: Mathematics of Signals, Networks, and Learning Seminars organized: <ul style="list-style-type: none"> DACO Seminar, <i>10/2023</i> - <i>ongoing</i> 	
Student Supervision	Students supervised: <ul style="list-style-type: none"> MSc theses: Pavel Kliska, <i>2025</i>; Mael Macuglia, <i>2024</i>; Xinmeng Zeng, <i>2023</i> Semester projects: Swei-Wen Chen, <i>2025</i>; Vlad Burca, <i>2025</i>; Nicolas Hotton, <i>2023</i>; Danielle Ludin, <i>2023</i> BSc theses: Stefan Hadzhistoykov, <i>2024</i> 	

Awards & Competitions

University Awards	Scholarships <ul style="list-style-type: none"> Senior Scholar Award, Cambridge, <i>2021</i> Junior Scholar Award, Cambridge, <i>2019</i> Studentships <ul style="list-style-type: none"> F. J. Woods Fund Studentship, Cambridge, <i>2020</i> CMS Summer Studentship, Cambridge, <i>2020</i> 	
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Competitions	Mathematical Olympiads
	<ul style="list-style-type: none"> • Bronze medal at 59th International Mathematical Olympiad, Romania, 2018 • Bronze medal at 58th International Mathematical Olympiad, Brasil, 2017 • 2×Gold medal at 10th Middle European Mathematical Olympiad, Austria, 2016 • Gold+Silver medal at 9th Middle European Mathematical Olympiad, Slovenia, 2015
	Other International Competitions
	<ul style="list-style-type: none"> • Silver medal at 12th International Junior Science Olympiad, South Korea, 2015 • 1st, 2nd, 2nd place on American Computer Science League, USA, 2015, 2016, 2017

Outreach

Member	Croatian Mathematical Society	09/2021 - <i>ongoing</i>
	<ul style="list-style-type: none"> • Team Selection Test Committee • Deputy Leader at 16th Middle European Mathematical Olympiad, Switzerland, 2022 	
Member	Society Young Gifted Mathematicians 'Marin Getaldić'	07/2018 - 08/2022
	<ul style="list-style-type: none"> • European Mathematical Cup Jury, organizing camps and popularizing mathematics 	
Junior Treasurer	Cambridge University Croatian Society	09/2020 - 06/2022
Instructor	XVth Gymnasium Zagreb	09/2018 - 04/2019
	<ul style="list-style-type: none"> • Preparing students from former high school for national competitions 	

Knowledge and Skills

Languages	English (fluent), Croatian (native), German (basic)
Computer skills	C++ , Python , MATLAB , Q/kdb+ , Latex , GitHub

Communications

[p = poster, t = talk; C = conference, S = seminar, W = workshop]

8. [t, C] 57th Annual ACM Symposium on Theory of Computing, Prague, 06/2025
7. [p, W] Towards a Theory for Typical-Case Algorithmic Hardness, Les Houches, 02/2025
6. [t, S] Seminar za teoriju vjerojatnosti, PMF Zagreb, 11/2024
5. [p, C] Mathematical Aspects of Learning Theory - 20 years later, Barcelona, 09/2024
4. [p, C] Citadel Securities PhD Summit, London, 03/2024
3. [t, S] Research Seminar Noncommutative and Functional Analysis, Saarland University, 11/2023
2. [t, S] Graduate Seminar in Probability, ETH Zurich, 12/2022
1. [t, S] Summer Research Festival 2020, Cambridge, 10/2020

Publications

[J = journal, C = conference; also available at [Google Scholar](#)]

2. [C] A. S. Bandeira, K. Lucca, **P. Nizic-Nikolac**, R. van Handel. Matrix Chaos Inequalities and Chaos of Combinatorial Type. STOC 2025.
1. [J] T. Hutchcroft, A. Kent, **P. Nizić-Nikolac**. The bunkbed conjecture holds in the $p \uparrow 1$ limit. Combinatorics, Probability and Computing. 2023;32(3):363-369. doi:10.1017/S096354832200027X.