



Constantin Vaillant Tenzer
Graduate student in Cognitive sciences, Mathematics and Deep Learning @ENS-PSL.



45 rue d'Ulm, 75005 Paris, France



cvt8



www.normalesup.org/~tenzer



constantin.tenzer@ens.psl.eu



[constantinvaillanttenzer](https://www.linkedin.com/in/constantinvaillanttenzer)

Education

2020-2024	Diploma of the ENS Cognitive Sciences, Mathematics, and Computer Science	<i>École Normale Supérieure - PSL</i>
2021-2024	MSc in Cognitive Sciences Cogmaster, specialization in modeling.	<i>ENS-UPC-EHESS</i>
2023-2024	MSc in Mathematics Shortlisted for the external aggregation in Mathematics (session 2024).	<i>Sorbonne Université</i>
2018-2021	BSc in Mathematics Completed alongside CPGE, followed by L3 courses at ENS.	<i>Sorbonne Université</i>
2018-2020	<i>Classes préparatoires aux Grandes Écoles (Mathematics-Physics) - CPGE</i> Also attended high school (2015-2018), obtained the Scientific Baccalauréat specializing in Mathematics, with highest honors. See https://en.wikipedia.org/wiki/Classe_préparatoire_aux_grandes_Écoles .	<i>Lycée Henri IV</i>

Teaching Experiences

Since 2021	Teaching Associate in Statistics	<i>Université Paris Cité</i>
2022	Mathematics Examiner in CPGE	<i>Lycée Michelet, Vanves</i>
2021	Introduction to Mathematics Courses	<i>Cours aux Ernest, ENS-PSL</i>
2020-2021	Private Tutor for CPGE Students in Mathematics, Physics, and Industrial Sciences	
Since 2019	Rock-swing dance teacher	<i>Lycée Henri IV, ENS-PSL, International House of New York</i>

Research Experiences

Since 2021	A statistical physics approach to the exploration-exploitation paradigm in adaptive human behavior Supervised by Prof. Etienne Koechlin - M1 and M2 thesis. PDEs, dynamical systems, online experiment programming, deep learning.	<i>LNC2 (INSERM, ENS-PSL)</i>
2023	Applied Mathematics in Behavioral Finance Supervised by Prof. Gur Huberman. PDEs, stochastic processes, complex analysis. 2 articles in progress.	<i>Columbia University in the City of New York</i>
2021	How humans decide to trust someone or not Supervised by Prof. Jean-Baptiste André and Julien Lie. Honest signaling theory and game theory. Article in preparation.	<i>Jean Nicod Institute (CNRS, ENS-PSL, EHESS)</i>
2021	Optimal Transport and Urban Planning Supervised by Prof. Bertrand Maury, Bachelor thesis.	<i>Université Paris Saclay</i>
2019-2020	Modeling Sustainable and Profitable Fishing Mathematics TIPE project. Differential systems, optimization.	<i>Lycée Henri IV</i>

Skills

Languages	French (native), English (C2, proficiency, Cambridge certified), Russian (B1, intermediate).
Programming	Python (includes numpy, scipy, panda, pytorch, matplotlib, seaborn, scikit-learn, psychopy), \LaTeX , Java, HTML, CSS, Javascript (includes PsychoJS), linux shell (familiar with Archlinux, Debian servers and NixOS).
Certifications	Entrepreneurship (Ministerial certificate), first aid (PSC1), mental health first aid.

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Conferences

- March 2022 Poster at the forum of Cognitive sciences in Paris on my work on trust.
- June 2022 Poster at the forum of the Federation of European Neuroscience Societies (FENS) in Paris on Exploration-exploitation dilemma.
- May 2024 General public talk "Trust me it's easy" during the festival Pint of Science in Paris.
- May 2024 Poster presentation on Exploration-exploitation dilemma at the conference "Neuroscience and AI" organized by the French Neuroscience Society in Bordeaux.

Working Papers

All working papers can be found on my Google scholar page: <https://scholar.google.com/citations?user=ddfMh1cAAAAJ&hl=fr>.

- October 2020 "Mathematics of Sustainable and Profitable Management of Fisheries Resources"
- June 2021 "Optimal Transport and Urban Planning" with Leo Wang and Supervised by Bertrand Maury.
- February 2022 "Mesh denoising"
- June 2022 "Language emergence with a dislexic receiver" with Inès Ben Haj Kacem and Hugo Ninou.

Professional association and commitments

- May 2024 Jury member of the French Young Mathematicians Tournament (TFJM2)
- Since 2022 Member of the French neuroscience society and of the Federation of European Neuroscience Societies (FENS)

Other Professional Experiences

- 2022-2023 Deputy Project Manager for Disruptive Innovation and Technological Prospects *Directorate General of Enterprises - Ministry of Economy and Finance*
- 2021-2022 Elected Member of Executive and Pedagogical Councils *Department of Cognitive Studies at ENS-PSL*
- 2017-2018 Summer Camp Counselor *Camp Olson YMCA (Minnesota, USA)*

Associative Experiences

- Since 2021 Founder and Co-President of the Writing Club at ENS
- 2021-2022 President of the Cheese Club at ENS
- 2021 Co-Chief Organizer of *la Nuit de la Rue d'Ulm* (gala event and festival)
- 2012-2018 Director of the High School Newspaper at Henri IV and Founder of the Middle School Newspaper at Victor Duruy

Non-Academic Interests

Piano, violin, trumpet (with the ENS brass band) - both classical and jazz, lyric singing. Composition.
Horseback riding (level 5).
Swing dance, 6-count and 4-count rock, waltz, salsa, and Argentine tango.