

Christian Táfula

Curriculum Vitae (08/2026)

* 21 March 1996

✉ tafula@ime.usp.br

🌐 ime.usp.br/~tafula

🆔 0000-0002-8748-9755

Academic Appointments

2026–present **Postdoctoral Researcher**, *University of São Paulo*, São Paulo, Brazil
Funded by FAPESP. Supervisor: Prof. Sinai Robins.

Education

2020–2025 **Ph.D. in Mathematics**, *Université de Montréal*, Montréal, Canada
Supervisor: Prof. Andrew Granville

2018–2020 **M.Sc. in Mathematics**, *Kyoto University*, Kyoto, Japan
Supervisor: Prof. Shinichi Mochizuki

2013–2016 **B.Sc. in Mathematics**, *University of São Paulo*, São Paulo, Brazil

Research Interests

Analytic number theory; Additive combinatorics.

Honors and Scholarships

2024–2025 **Doctoral Finishing Grant (ESP)**, *Université de Montréal*
Competitive scholarship awarded by the Études supérieures et postdoctorales (ESP) to PhD candidates in their final year of thesis writing.

2017–2020 **MEXT Scholarship**, *Japanese Ministry of Education*
Full merit-based scholarship for international graduate students (Japanese Embassy recommendation track).

2013–2015 **PICME Research Scholarship**, *CNPq*, Brazil
Undergraduate research fellowship awarded by the National Council for Scientific and Technological Development (CNPq) to prior Math Olympiad medalists.

Publications and Preprints

- [16] C. Sabuncu and C. Táfula. The multiplication table problem in large dimensions. Submitted for publication. Available at [arXiv:2608.16163](https://arxiv.org/abs/2608.16163), 2026+.
- [15] C. Táfula. On Vu's restricted box estimate in Waring's problem. Submitted for publication. Available at [arXiv:2605.15067](https://arxiv.org/abs/2605.15067), 2026+.
- [14] C. Táfula. Thin subbases of Piatetski-Shapiro sequences. Submitted for publication. Available at [arXiv:2605.04411](https://arxiv.org/abs/2605.04411), 2026+.
- [13] C. Táfula. Conjugacy classes in central commutativity-preserving extensions. Submitted for publication, 2026+.
- [12] S.-K. Leung and C. Táfula. Multiplicative recurrence of Möbius transformations.

Submitted for publication. Available at [arXiv:2409.12936](#), 2026+.

- [11] C. Táfula. Waring and Waring–Goldbach subbases with prescribed representation function. Submitted for publication. Available at [arXiv:2501.08371](#), 2026+.
- [10] C. Táfula. Representation functions with prescribed rates of growth. *Random Structures & Algorithms*, 69(1):e70088, 2026.
- [9] C. Táfula. Infinite Sidon-type sets for zero-sum linear forms. To appear in *Monatshefte für Mathematik*. Available at [arXiv:2607.20753](#), 2026+.
- [8] C. Táfula. A note on the Cramér–Granville model. *Archiv der Mathematik*, 126(3):275–283, 2026.
- [7] C. Táfula. Zeros near $s = 1$ and the constant term of L'/L for L -functions in the Selberg class. *Indagationes Mathematicae*, 36(4):979–987, 2025.
- [6] C. Táfula. On the size and structure of t -representable sumsets. *Discrete Mathematics*, 348(1):114295, 2025.
- [5] C. Táfula. Classification of the conjugacy classes of $\widetilde{SL}(2, R)$. *Expositiones Mathematicae*, 42(6):125626, 2024.
- [4] C. Táfula. Knights are 24/13 times faster than the king. *The Fibonacci Quarterly*, 62(3):208–214, 2024.
- [3] C. Táfula. On Landau–Siegel zeros and heights of singular moduli. *Acta Arithmetica*, 201(1):1–28, 2021.
- [2] C. Táfula. An elementary heuristic for Hardy–Littlewood extended Goldbach’s conjecture. *São Paulo Journal of Mathematical Sciences*, 14(1):391–405, 2020.
- [1] C. Táfula. An extension of the Erdős–Tetali theorem. *Random Structures & Algorithms*, 55(1):173–214, 2019.

Books

Translations

- [1] D. B. Zagier, *Funções zeta e corpos quadráticos*, Textuniversitários, vol. 29, LF Editorial, São Paulo, 2025, Portuguese translation by C. Táfula.

Outreach and Popularization

- [1] C. Táfula. Cavalier contre le roi sur l’échiquier infini : Qui est le plus rapide ? *Accromath*, 21(1):18–23, 2026. In French.

Selected Talks

- 05/2025 Waring and Waring–Goldbach subbases with prescribed representation function. *Combinatorial and Additive Number Theory (CANT 2025)*, New York, USA.
- 04/2024 Representation functions with prescribed rates of growth. *Canadian Number Theory Association (CNTA XVI)*, Toronto, Canada.

- 05/2023 On the structure of t -representable sumsets. *Combinatorial and Additive Number Theory (CANT 2023)*, New York, USA.
- 09/2021 From ABC to L: On singular moduli and Siegel zeros. *Inter-universal Teichmüller Theory (IUT) Summit*, Kyoto, Japan.

Teaching Experience

- Winter 2023 **Teaching Assistant**, *Université de Montréal*
MAT 1000 – Analyse 1. Led tutorial sessions; held office hours; graded examinations.
- Autumn 2021 **Teaching Assistant**, *Université de Montréal*
MAT 3632 – Théorie des nombres. Assisted with coursework and problem sessions; graded assignments and examinations.

Skills

- Languages Portuguese (Native), English (Fluent), French (Intermediate), Japanese (Basic)
- Programming C/C++, Python, $\text{\LaTeX}$

Mathematical Olympiads

- 2006–2012 **Brazilian Mathematical Olympiad for Public Schools (OBMEP)**
Received 7 consecutive awards: 4 Silver Medals, 2 Bronze Medals, and 1 Honorable Mention.
- 2009 **São Paulo Mathematical Olympiad (OPM)**
Silver Medal.