

Matías Andrés Palumbo

Based in Rosario, Argentina

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SUMMARY

Graduate from the five-year integrated Bachelor's Degree in Mathematics (*Licenciatura en Matemática*), a Master's-equivalent program offered by the National University of Rosario in Argentina. Proven track record of outstanding academic performance and participation in a number of extracurricular academic activities. Currently continuing the research carried out for my degree thesis, which includes topics from functional analysis, complex analysis and topological dynamics.

EDUCATION

National University of Rosario

2019 - 2024

Five-year integrated Bachelor's Degree in Mathematics (Licenciatura en Matemática)

Rosario, Argentina

- Finished degree with an academic average of 9.73 out of 10 (equivalent to 4.0 GPA).
- Degree thesis: "The Dynamics of Linear Operators in the Hardy Space of Dirichlet Series". Topics covered include functional analysis, complex analysis and topological dynamics.

WORK EXPERIENCE

Research Assistant

Sep. 2023 – Present

National University of Rosario

Rosario, Argentina

- Participant in the [CIFASIS-CONICET](#) (National Scientific and Technical Research Council) research project titled "Dynamics of Linear Operators and Operator Semigroups".

Junior Engineer

Mar. 2022 – Present

Paddle

Rosario, Argentina

- Support Engineer in charge of troubleshooting customer issues and fixing bugs within the company's codebase.

Teaching Assistant

Mar. 2023 – Aug. 2023

National University of Rosario

Rosario, Argentina

- Assistantship carried out in the Mathematical Analysis I course organized by the Department of Mathematics in the Faculty of Exact Sciences, Engineering and Surveying (National University of Rosario).

Test Engineer

Apr. 2021 – Jan. 2022

RWS Language Services & Technology

Rosario, Argentina

- Member of the Testing Data team, in charge of compiling and delivering data packages for clients' software testing efforts.

Volunteer at NGO

Feb. 2019 – Nov. 2021

Asociación Conciencia

Rosario, Argentina

- Asociación Conciencia is an NGO aimed at heightening high school students' social awareness and civic participation through projects such as Mock UN.
- Member of the General Coordination team in charge of event logistics. Member of the administrative committee within the General Coordination team in 2020.

CERTIFICATIONS

TOEFL iBT English Exam

Dec. 2023

C1 Level (score: 113/120)

Cambridge Certificate of Proficiency in English (CPE)

Nov. 2018

C2 Level (Grade A)

PUBLICATIONS

(*In preparation*) **Hypercyclic operators on Hardy spaces of Dirichlet series** (2024). Cardeccia R., Muro S., Palumbo M.

- Current version available in [my personal webpage](#).

TECHNICAL SKILLS

- Advanced knowledge of the **Python** programming language.
 - Experience using most common scientific libraries (numpy, matplotlib, scikit-learn) as well as the Manim library (for rendering programmatic mathematical animations) and the Django framework.
 - Experience working with large-scale codebases and knowledge of common software engineering design patterns.
- 120-hour Computer Science college courses taken: **Python & C Programming** and **Data Structures & Algorithms**.
- Advanced knowledge of the **LaTeX** typesetting language.
- Experience working with **Octave**, **Maxima** and **SageMath**.

AWARDS & SCHOLARSHIPS

EVC-CIN Scholarship

Sep. 2023 - Aug. 2024

Awarded by the National Interuniversity Council of Argentina

- Research scholarship for participation in the “Dynamics of Linear Operators and Operator Semigroups” CIFASIS-CONICET research project.

First Prize in National Monograph Contest

Sep. 2022

Awarded by the Mathematical Union of Argentina

- First prize as author of “Transcendental Number Theory”, a survey of the main results in transcendental number theory with a focus on proofs involving analytical number theory.

Friends of Fulbright Scholarship

Jan. 2022 - Mar. 2022

Awarded by Fulbright Association

- Seven-week academic exchange program in the University of Arkansas, United States.

GIVEN SCIENTIFIC PRESENTATIONS & WORKSHOPS

Dynamics of Multiplication Operators in Hardy Spaces of Dirichlet Series

Sep. 2024

At the Annual Conference of the Mathematical Union of Argentina (in Catamarca, Argentina)

- Presented a characterization of hypercyclic and chaotic adjoint multiplication operators acting on Hardy spaces \mathcal{H}_p of Dirichlet series.

LaTeX Workshop

Sep. 2024

At the National University of Rosario

- Three-hour workshop on intermediate-to-advanced LaTeX techniques. Workshop contents available in [Github repository](#).

Transcendental Number Theory

Sep. 2022

At the Annual Conference of the Mathematical Union of Argentina (in Neuquén, Argentina)

- Presented a survey of the main results in transcendental number theory. Contents adapted from the monograph of my authorship submitted to the National Monograph Contest organized by the Mathematical Union of Argentina.

ATTENDED FORUMS & CONFERENCES

Applied Mathematics Summer School

Jan. 2025 - Feb. 2025

Fundação Getúlio Vargas EMap (Rio de Janeiro, Brazil)

- Courses taken: *Introduction to Optimal Control* (8 hours), *Introduction to Multiobjective Optimization* (10 hours), *The Machine Learning Behind Recommendation Systems* (12 hours), *Computational Methods for Optimization in Julia* (12 hours) and *Dynamics in Complex Networks with Applications to Epidemiology* (18 hours).

Annual Conference of the Mathematical Union of Argentina

Sep. 2024

National University of Catamarca, Catamarca, Argentina

Escuela de Ciencias Informáticas

Jul. 2024

University of Buenos Aires

- Two 15-hour courses taken: *Modeling and Analysis of Complex Systems* and *Large Language Models*.

10th Heidelberg Laureate Forum (HLF)

Sep. 2023

Heidelberg, Germany

- The HLF is a selective networking conference where 200 young researchers in mathematics and computer science across the world spend a week interacting with Abel Prize and Fields Medal laureates, among other award recipients.

IX Congress in Applied, Computational and Industrial Mathematics

May. 2023

National University of The Litoral, Santa Fe, Argentina

- 6-hour course taken: *Statistical Machine Learning*.

Annual Conference of the Mathematical Union of Argentina

Sep. 2022

National University of Comahue, Neuquén, Argentina