

# Luiz Felipe Silva Marques

Born in Natal, RN, Brasil, 15 May 2000

Email: [lfsmarquess@gmail.com](mailto:lfsmarquess@gmail.com)

Webpage: [luizfelipemath.github.io](https://luizfelipemath.github.io)



## EDUCATION

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### DM–UFPB Universidade Federal da Paraíba

PhD in Mathematics

João Pessoa, PB, Brasil

2025–Current

- Research interests include Partial Differential Equations and Geometric Analysis.

### IME–USP Universidade de São Paulo

BSc in Mathematics

São Paulo, SP, Brasil

2020–2024

- Average grade: 9.6/10.
- Undergraduate thesis: Several Complex Variables and Hartog’s Theorem.
- Advisor: Paulo Domingos Cordaro.

## EXPERIENCE

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### IME–USP Universidade de São Paulo

Undergraduate research project in Analysis

São Paulo, SP, Brasil

2022–2024

- Supervised by Prof. Paulo Domingos Cordaro.
- Supported by a grant from the São Paulo Research Foundation (FAPESP).
- Studied several topics in Analysis, including integration theory,  $L^p$  spaces, topological vector spaces, distribution theory, the Fourier transform, and Sobolev spaces. The project was guided by Terence Tao’s book “An Epsilon of Room, I: Real Analysis”.

### ICMC–USP Universidade de São Paulo

Summer program: Mathematics research days for undergraduates

São Paulo, SP, Brasil

Jan–Mar 2024

- Supported by a grant from the São Paulo Research Foundation (FAPESP).
- A highly selective summer program admitting approximately ten undergraduate students and offering a research-oriented experience aimed at achieving original contributions in some mathematical fields. Further information is available on the [program’s website](#).

### TUM Technische Universität München

Exchange semester

Munich, Germany

2023

- Supported by the Merit Scholarship from Universidade de São Paulo.
- Completed two graduate courses during the program: Functional Analysis and Probability Theory.

### IME–USP Universidade de São Paulo

Undergraduate research project in Dynamical Systems

São Paulo, SP, Brasil

2020–2022

- Supervised by Prof. Sônia Regina Leite Garcia and Prof. Manuel Valentim de Pera Garcia.
- Supported by the PUB Scholarship from Universidade de São Paulo (USP).
- Studied some topics in discrete dynamical systems, including hyperbolicity, the quadratic family, symbolic dynamics, topological conjugacy, chaos, structural stability, Sharkovsky’s theorem, the Schwarzian derivative, and bifurcation theory.

## TEACHING

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<b>Teaching Assistant</b> at IME–USP Calculus I, 1st semester undergraduate course	2024.1
<b>Teaching Assistant</b> at IME–USP Analysis on $\mathbb{R}^n$ , 4th semester undergraduate course	2023.2
<b>Teaching Assistant</b> at IME–USP General Topology, graduate course	2023.1
<b>Teaching Assistant</b> at IME–USP Introduction to Number Theory, 1st semester undergraduate course	2022.1
<b>Teaching Assistant</b> at IF–USP Calculus II for Physics, 2nd semester undergraduate course	2021.2

## SCHOLARSHIPS AND AWARDS

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<b>FAPESP Scientific Initiation Scholarship</b> Undergraduate research project in Analysis	2022–2023 Grant <a href="#">22/01477-4</a>
<b>ICMC–USP Summer Program Scholarship</b> Mathematics research days for undergraduates	2024
<b>USP Merit Scholarship</b> Exchange program at Technische Universität München, Germany	2023
<b>USP Scientific Initiation Scholarship</b> Undergraduate research project in Dynamical Systems	2020–2022
<b>IMECC–UNICAMP Summer Program Scholarship</b> Linear Algebra course, grade obtained: A+	2022
<b>Bronze Medal Elon Lages Lima Math Competition</b> Organized by the Brazilian Mathematical Society (SBM)	2021

## TALKS

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<b>Locally convex topological vector spaces</b> 31° <a href="#">SIICUSP</a> International Symposium on Scientific and Technological Research, USP	2023
<b>The Krein-Milman theorem and some applications</b> Functional Analysis student seminar group, IME–USP	2023
<b>Recurrence and transience in simple random walks</b> S4 student seminar group, IME–USP	2023
<b>Symbolic dynamics: an introduction through the logistic function</b> S4 student seminar group, IME–USP	2022

## EVENTS ATTENDED

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<b>31° SIICUSP International Symposium on Scientific and Technological Research</b> IME–USP, São Paulo, SP, Brasil	2023
<b>34th CBM Brazilian Colloquium of Mathematics</b> IMPA, Rio de Janeiro, RJ, Brasil	2023
<b>XXIV Undergraduate Mathematics Symposium</b> ICMC–USP, São Carlos, SP, Brasil	2021

## EXTRACURRICULAR ACTIVITIES

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<b>1st Pure Mathematics Week at IME–USP</b> Co-founder and organizer. <ul style="list-style-type: none"><li>First edition of an undergraduate-led academic event promoting pure mathematics within the IME–USP community.</li></ul>	2024
<b>Elected Student Representative</b> Undergraduate Mathematics Program Committee at IME–USP <ul style="list-style-type: none"><li>The committee consists of one student and four professors. It is responsible for discussing and enhancing program logistics.</li></ul>	2022
<b>Volunteer math tutor at Salvaguarda</b> Provided tutoring for Brazilian public high school students. <ul style="list-style-type: none"><li><a href="#">Salvaguarda</a> is a national program which provides free tutoring for public school students.</li></ul>	2021–2023

## LANGUAGES

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- **English:** C1
- **Portuguese:** Native
- **French:** A2, currently learning

## REFERENCES

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- **Prof. Paulo Domingos Cordaro**  
*Department of Applied Mathematics IME–USP*  
[cordaro@ime.usp.br](mailto:cordaro@ime.usp.br)