

Eduardo Ventilari Sodré

Curriculum Vitae

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📄 [evsmath.github.io/](https://github.com/evsmath)

Education

- 2023 – **Brown University**, *Ph.D. in Mathematics*, Providence, USA
- 2019 – 2022 **University of São Paulo (IME-USP)**, *B.Sc. in Mathematics*, São Paulo, Brazil
Weighted average: 9.8/10, 1st in class
Undergraduate thesis: Introduction to Riemannian Geometry
Undergraduate advisor: Prof. Claudio Gorodski

Publications and Preprints

- 2023 *Revisiting Arnold's topological proof of the Morse index theorem.* (arxiv: math.DG/2307.00655)
- 2021 *Classification of linear operators satisfying $(Au, v) = (u, A^r v)$ or $(Au, A^r v) = (u, v)$ on a vector space with indefinite scalar product* (with V. S. Borges, I. Kashyba, V. V. Sergeichuk & A. Zaidan). *Linear Algebra and its Applications*, v. 611, p. 118-134, 2021. <https://doi.org/10.1016/j.laa.2020.12.005>

Scientific Initiation Projects

- 2021 – 2022 **Introduction to Riemannian Geometry** (FAPESP project 2021/10816-4)
- 2021 **Introduction to Smooth Manifolds** (CNPq)
- 2019 – 2020 **Introduction to Discrete Dynamical Systems** (PUB and CNPq)
- 2018 **Axiomatic Synthetic Geometry** (PIC Jr.)

Grants and Scholarships

- 2021 – 2022 **FAPESP Undergraduate Research Scholarship**
- 2019 – 2021 **CNPq Undergraduate Research Scholarship**
- 2020 **IMPA Summer Program Scholarship**
- 2019 **PUB Undergraduate Research Scholarship**

Prizes and Awards

- 2023 **Institute of Mathematics and Statistics Best Student Prize**, IME-USP, Class of 2022
- Olympiads and Competitions**
- International Mathematics Competition**, University College London
First Prize: 2022, 2021
Second Prize: 2020
- Competencia Iberoamericana Interuniversitaria de Matemáticas**, Universidad Antonio Nariño
Gold Medal: 2022
Silver Medal: 2020
- Brazilian University Mathematics Olympiad**, SBM & IMPA
Gold Medal: 2022
Silver Medal: 2023, 2020, 2019
- Elon Lages Lima Mathematics Competition**, SBM & IMPA
Gold Medal: 2022, 2021
Silver Medal: 2020

Other Activities

Talks

- Sep. 2023 **Graduate Student Seminar at Brown**, *A Glimpse on Holomorphic Dynamics*
- Aug. 2023 **Geometry Research Group Seminar at IME-USP**, *Revisiting Arnold's Topological Proof of the Morse Index Theorem*

Summer Courses

2021 **Introduction to Complex Dynamics**, *IMPA*

Masters Level Course: A+

2020 **Introduction to Number Theory**, *IMPA*

Masters level course: A+

Minicourses

2023 **Geometry of Painlevé Equations**, *34th Brazilian Colloquium of Mathematics*

2022 **Introduction to Characteristic Classes**, *IME-USP*

2021 **A Gentle Introduction to the Topology and Geometry of 3-manifolds**, *33rd Brazilian Colloquium of Mathematics*

Seminar Groups

2023 **Brown University Geometry/Topology Seminar**

2022 **Geometry Research Group Seminar at IME-USP**

2022 **Quasiconformal Maps and Teichmüller Theory**, *online*

2020 – 2022 **S4 Student Seminar Group**, *IME-USP*

Organizer and presenter

2021 **Exploring the Mandelbrot Set**, reading *The Orsay Notes*, *IMPA*

Doctoral level reading course: A-

2019 – 2020 **Matrix Problems and Quiver Representations in Linear Algebra**, *IME-USP*

2019 **Aleph 1 Student Seminar on Set Theory**, *IME-USP*

Teaching and Tutoring

2021 **TA in “Introduction to Complex Analysis”**, *IME-USP*

Events Attended

2023 **34th Brazilian Colloquium of Mathematics (CBM)**, *IMPA*, Rio de Janeiro, Brazil

2022 **Complex Dynamics in the Tropics**, *IMPA*, Rio de Janeiro, Brazil

Financial support by CNPq and FAPERJ

2022 **6th TWAS Young Affiliate Network Thematic Workshop in Mathematics**, *IME-USP*, São Paulo, Brazil

Local organizing committee

2022 **São Carlos Conference in Geometry**, *ICMC-USP*, São Carlos, Brazil

Poster “The Sasaki Metric and the Geodesic Flow”

2021 **33rd Brazilian Colloquium of Mathematics (CBM)**, *IMPA*, online

2020 **International Symposium of Scientific Initiation and Technology of USP**, *USP*, online

Poster “A Generalization of the Theorem on Tangent Bifurcations”

Languages

Portuguese Native

English Fluent TOEFL iBT Score: 118/120, 2022