

Eduardo Ventilari Sodré

Curriculum Vitae

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📄 evsmath.github.io/

Education

- 2023 – **Brown University**, *Ph.D. in Mathematics*, Providence, USA
2019 – 2022 **Universidade de São Paulo (IME-USP)**, *B.Sc. in Mathematics*, São Paulo, Brazil
Weighted average: 9.8/10, 1st in class

Publications and Preprints

- 2023 *Revisiting Arnold's topological proof of the Morse index theorem*. ArXiv.
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.

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**

Awards and Fellowships

- 2024 **Chandler O. Meyer Fellowship Fund in Mathematics**, *Brown University*
2023 **Chancellor Robert Fellow**, *Brown University*
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

Teaching and Tutoring

- 2025 **DRP: Baez and Muniain's *Gauge Fields, Knots and Gravity***, *Brown University*
2025 **TA: "Single Variable Calculus I"**, *Brown University*
2024 **DRP: Lee's *Introduction to Smooth Manifolds***, *Brown University*
2024 **Sheridan Teaching Seminar Program Certificate**, *Brown University*, The Harriet W. Sheridan Center for Teaching and Learning
2024 **TA: "Single Variable Calculus II"**, *Brown University*
2023 **DRP: Devaney's *An Introduction to Discrete Dynamical Systems***, *Brown University*
2021 **TA: "Introduction to Complex Analysis"**, *IME-USP*

Other Activities

Positions

2024 **Secretary of the Brown Chapter of the AMS**

Talks

Feb. 2024 **Graduate Student Seminar at Brown**, *Show and Tell: Birkhoff's Ergodic Theorem*

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*

Extracurricular Courses

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

Doctoral level reading course: A-

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

Masters Level Course: A+

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

Masters level course: A+

Seminar Groups

Teichmüller Theory Learning Seminar, *Brown University*

Organizer and Presenter

Brown University Geometry/Topology Seminar, *Brown University*

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

Quasiconformal Maps and Teichmüller Theory

S4 Student Seminar Group, *IME-USP*

Organizer and Presenter

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

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

Events Organized

2024, 2025 **AMS New England Graduate Student Conference**, *Brown University*

2022 **6th TWAS Young Affiliates Network Thematic Workshop in Mathematics**, *IME-USP*

Events Attended

2023, 2024 **Geometry and Topology Seminar at Brown and Yale (GATSBY)**, *Brown University*

2023 **34th Brazilian Colloquium of Mathematics (CBM)**, *IMPA*

2022 **Complex Dynamics in the Tropics**, *IMPA*

Financial support by CNPq and FAPERJ

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

Poster "The Sasaki Metric and the Geodesic Flow"

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

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

Poster "A Generalization of the Theorem on Tangent Bifurcations"

Languages

Portuguese Native

English Fluent TOEFL iBT Score: 118/120, 2022

Spanish Basic

French Basic