

Eduardo Ventilari Sodré

Curriculum Vitae

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↗ evsmath.github.io/

Education

- 2023 – **Brown University**, *Ph.D. in Mathematics*, Providence, USA
2025 **Brown University**, *M.Sc. 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

- Fall 2025 **DRP: Beardon's Iteration of Rational Functions**, *Brown University*
Fall 2025 **TA: "Multivariable Calculus"**, *Brown University*
Spring 2025 **DRP: Baez and Muniain's Gauge Fields, Knots and Gravity**, *Brown University*
Spring 2025 **TA: "Single Variable Calculus I"**, *Brown University*
Fall 2024 **DRP: Lee's Introduction to Smooth Manifolds**, *Brown University*
Fall 2024 **Sheridan Teaching Seminar Program Certificate**, *Brown University*, The Harriet W. Sheridan Center for Teaching and Learning
Fall 2024 **TA: "Single Variable Calculus II"**, *Brown University*
Spring 2023 **DRP: Devaney's An Introduction to Discrete Dynamical Systems**, *Brown University*

Other Activities

Positions

2024-2025 **Secretary of the Brown Chapter of the AMS**

Talks

Sep. 2025 **Graduate Student Seminar at Brown, When Two Polynomials Love Each Other**

Jun. 2025 **Topics in Complex Dynamics 2025, Thurston Iteration On The Rees Space**, Barcelona

Feb. 2025 **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**

Posters

2025 **JHH80 Dynamical Developments: Degenerations of Flat Surfaces and Rational Maps, IMT**

Poster "Thurston Iteration On The Rees Space"

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

Poster "The Sasaki Metric and the Geodesic Flow"

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

Poster "A Generalization of the Theorem on Tangent Bifurcations"

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

Fall 2025 **Arithmetic, Algebraic & Complex Dynamics Seminar at Brown, Brown University**

Co-organizer and Presenter

Spring 2025 **Teichmuller 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**

Other 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

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

Languages

Portuguese Native

English Fluent TOEFL iBT Score: 118/120, 2022

Spanish Basic

