

Eduardo Ventilari Sodré

Curriculum Vitae

✉ eduardo_ventilari_sodre@brown.edu
📁 [evsmath.github.io/](https://github.com/evsmath)

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

- 2023-2024 **Chandler O. Meyer Fellowship Fund in Mathematics**, *Brown University*
2023-2024 **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 for "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 for "Single Variable Calculus II"**, *Brown University*
2023 **DRP: Devaney's *An Introduction to Discrete Dynamical Systems***, *Brown University*
2021 **TA for "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 **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