

# 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 **Universidade de São Paulo (IME-USP)**, *B.Sc. in Mathematics*, São Paulo, Brazil  
Weighted average: 9.8/10, 1<sup>st</sup> 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

- Jun. 2024 **Topics in Complex Dynamics 2025**, *Thurston Iteration On The Rees Space*, Barcelona  
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*

## 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

**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*

## 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*

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## Languages

Portuguese Native  
English Fluent TOEFL iBT Score: 118/120, 2022  
Spanish Basic  
French Basic