

# Eduardo Ventilari Sodré

## Curriculum Vitae

✉ [eduardo\\_ventilari\\_sodre@brown.edu](mailto:eduardo_ventilari_sodre@brown.edu)  
📄 [evsmath.github.io/](https://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, 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

- 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

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

### 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+

#### 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*

#### 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