

# Eduardo V. Sodré

## Curriculum Vitae

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

### Education

- 2023 – **PhD in Mathematics**, *Brown University*, Providence, USA
- 2019 – 2022 **Bachelor's Degree in Mathematics**, *Mathematics and Statistics Institute of the University of São Paulo (IME USP)*, São Paulo, Brazil  
Weighted average: 9.8/10, 1<sup>st</sup> in class  
*Undergraduate Thesis: Introduction to Riemannian Geometry*  
*Advisor: Prof. Claudio Gorodski*

### Publications and Preprints

- 2023 *Revisiting Arnold's topological proof of the Morse index theorem.* (arxiv: math.DG/2307.00655)
- 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. <https://doi.org/10.1016/j.laa.2020.12.005>

### Scientific Initiation Projects

- 2021 – 2022 **Introduction to Riemannian Geometry** (FAPESP project 2021/10816-4)
- 2021 **Introduction to Smooth Manifolds** (CNPq)
- 2019 – 2020 **Introduction to Discrete Dynamical Systems** (PUB and CNPq)
- 2018 **Axiomatic Synthetic Geometry** (PIC Jr.)

### Grants and Scholarships

- 2021 – 2022 **FAPESP Undergraduate Research Scholarship** (project 2021/10816-4)
- 2019 – 2021 **CNPq Undergraduate Research Scholarship**
- 2020 **IMPA Summer Program Scholarship**
- 2019 **PUB Undergraduate Research Scholarship**

### Prizes and Awards

- 2023 **Institute of Mathematics and Statistics Best Student Prize**, *IME-USP*, Class of 2022
- Olympiads and Competitions**
- International Mathematics Competition (IMC)**, *UCL*
- 2022 First Prize
- 2021 First Prize
- 2020 Second Prize
- Competencia Iberoamericana Interuniversitaria de Matemáticas (CIIM)**, *UAN*
- 2022 Gold Medal
- 2020 Silver Medal
- Brazilian University Mathematics Olympiad (OBMU)**, *SBM & IMPA*
- 2023 Silver Medal
- 2022 Gold Medal
- 2020 Silver Medal
- 2019 Silver Medal
- Elon Lages Lima Mathematics Competition**, *SBM & IMPA*
- 2022 Gold Medal
- 2021 Gold Medal
- 2020 Silver Medal

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## Other Activities

### Invited Talks

August 2023 **Geometry Research Group Seminar at IME-USP**

### Summer Courses

2021 **Introduction to Complex Dynamics**, *IMPA*, Masters Level Course, A+

2020 **Introduction to Number Theory**, *IMPA*, Masters Level Course, A+

### Minicourses

2023 **Geometry of Painlevé Equations**, *34th Brazilian Colloquium of Mathematics*

2022 **Introduction to Characteristic Classes**, *IME-USP*

2021 **A Gentle Introduction to the Topology and Geometry of 3-manifolds**, *33rd Brazilian Colloquium of Mathematics*

### Seminar Groups

2022 **Geometry Research Group Seminar at IME-USP**

2022 **Quasiconformal Maps and Teichmüller Theory**, *online*

2020 – 2022 **Organizer and presenter of the S4 Student Seminar Group**, *IME-USP*

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*

### Teaching and Tutoring

2021 **Volunteer TA to the Course “Introduction to Complex Analysis”**, *IME-USP*

### Events Attended

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

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)**, *online*

2020 **International Symposium of Scientific Initiation and Technology of USP**, *online*  
Poster “A Generalization of the Theorem on Tangent Bifurcations”

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## Languages

Portuguese Native

English Fluent TOEFL iBT Score: 118/120, 2022