

# Eduardo V. Sodré

## Curriculum Vitae

✉ [eduvsodre@hotmail.com](mailto:eduvsodre@hotmail.com)  
📄 [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*

### Publications and Preprints

- 2023 E. V. Sodré, *Revisiting Arnold's topological proof of the Morse index theorem*. (arxiv: math.DG/2307.00655)
- 2021 Senoguchi Borges, Victor; Kashuba, Iryina; Sergeichuk, Vladimir V.; Ventilari Sodré, Eduardo; Zaidan, André. *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*. *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)  
*Prof. Claudio Gorodski*
- 2021 **Introduction to Smooth Manifolds** (CNPq)  
*Prof. Claudio Gorodski*
- 2019 – 2020 **Introduction to Discrete Dynamical Systems** (PUB and CNPq)  
*Prof. Sonia Garcia*
- 2018 **Junior Scientific Initiation Program (PIC Jr.)**, *National University of Brasília (UnB)*  
*Prof. Ricardo Ruviano*

### Grants and Scholarships

- 2021 – 2022 **FAPESP Undergraduate Research Scholarship, project 2021/10816-4**  
*Support Foundation to the Research of the State of São Paulo (FAPESP)*
- 2019 – 2021 **CNPq Undergraduate Research Scholarship**  
*Brazilian National Council for Scientific and Technological Development (CNPq)*
- 2020 **IMPA Summer Program Scholarship**  
*Instituto Nacional de Matemática Pura e Aplicada (IMPA)*
- 2019 **PUB Undergraduate Research Scholarship**  
*Unified Scholarship Program (PUB)*

### 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**, *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

## Extracurricular Activities

### Summer Courses

- 2021 **Introduction to Complex Dynamics**, IMPA, Masters Level Course, A+  
Prof. Luciana Lomonaco
- 2020 **Introduction to Number Theory**, IMPA, Masters Level Course, A+  
Prof. Carlos Gustavo Moreira

### Minicourses

- 2023 **Geometry of Painlevé Equations**, 34th Brazilian Colloquium of Mathematics  
Prof. Frank Loray
- 2022 **Introduction to Characteristic Classes**, IME-USP  
Prof. Mateus Moreira de Melo
- 2021 **A Gentle Introduction to the Topology and Geometry of 3-manifolds**, 33rd Brazilian Colloquium of Mathematics  
Profs. André Salles de Carvalho & Rafal Siejakowski

### Seminar Groups

- 2022 **Quasiconformal Maps and Teichmüller Theory**, online  
Profs. Luciana Lomonaco & Lucas Oliveira
- 2020 – 2022 **Organizer and presenter of the S4 Student Seminar Group**, IME-USP  
Student-run Seminar
- 2021 **Exploring the Mandelbrot Set, reading The Orsay Notes**, IMPA, doctoral level reading course, A+  
Prof. Luciana Lomonaco
- 2019 – 2020 **Matrix Problems and Quiver Representations in Linear Algebra**, IME-USP  
Prof. Vladimir Sergeichuk
- 2019 **Aleph 1 Student Seminar on Set Theory**, IME-USP

### Tutoring

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

### 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 (TYAN) 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”
- 2018 **International Congress of Mathematicians (ICM)**, Rio De Janeiro, Brazil

## Languages

- Portuguese Native
- English Fluent      TOEFL iBT Score: 118/120, 2022