# Eduardo V. Sodré

# Curriculum Vitae

# 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, 1st 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  $(Au,v)=(u,A^rv)$  or  $(Au,A^rv)=(u,v)$  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 Ruviaro

# 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 2	2022
	Olympiads			

## 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 Universitary 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

French Basic