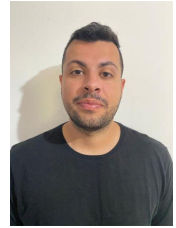


# Reinaldo Resende

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## Academic appointments

### Employment history

Sep/23 – 🏢 Postdoctoral Researcher at **Carnegie Mellon University (CMU)**.  
Mentor: *Robin Neumayer*.

### Education

Ago/19 – Jul/23 🎓 Ph.D. in Mathematics at **University of São Paulo (USP)**.  
Scholarship: *CAPES*.  
Advisors: *Camillo De Lellis and Stefano Nardulli*.

Ago/17 – Jul/19 🎓 Master Degree in Sciences at **University of São Paulo (USP)**.  
Scholarship: *CNPq*.  
Advisors: *Stefano Nardulli and Gláucio Terra*.

Jan/14 – Jul/17 🎓 Bachelor Degree in Mathematics at **University of São Paulo (USP)**.  
Advisor: *Gláucio Terra*.

### Research periods

Jan/23-May/23 📅 Visiting Student Research Collaborators (VSRC). **Princeton University**.

Sep/22-Dec/22 📅 Thematic Program on Nonsmooth Riemannian and Lorentzian Geometry, Visiting Research. **Fields Institute**.

## Research publications

### Preprints

- ① De Rosa, A., & Resende, R. (2023). *Boundary regularity for anisotropic minimal Lipschitz graphs*. arXiv: 2305.11258
- ② Resende, R. (2023). *Lipschitz approximation for general almost area minimizing currents*. arXiv: 2306.12530
- ③ Andrade, J. H., Conrado, J., Nardulli, S., Piccione, P., & Resende, R. (2022). *Multiplicity of solutions to the multiphasic Allen-Cahn-Hilliard system with a small volume constraint on closed parallelizable manifolds*. arXiv: arXiv:2203.05034
- ④ Nardulli, S., & Resende, R. (2022). *Density of the boundary regular set of 2d area minimizing currents with arbitrary codimension and multiplicity*. arXiv: arXiv:2204.11947

### Published articles

- ① Resende de Oliveira, R. (2022). On Clusters and the Multi-isoperimetric Profile in Riemannian Manifolds with Bounded Geometry. *Journal of Dynamical and Control Systems*, 1–23.

### Academic texts

- ① Resende, R. (2019). *Regularity of almost minimizing sets* (Master thesis).

- ② Resende, R. (2017). *Minimal and maximal surfaces* (Bachelor thesis).

## Services



### Refereeing

- Ongoing ✓ Referee for the following journals.  
*Calculus of Variations and Partial Differential Equations, Proceedings of the International Geometry Center.*

### Committee of conferences


- 2023 ✓ Thematic Session on Geometric Measure Theory, IMPA, Brazil.  
*Organizing committee: Stefano Nardulli, Paolo Piccione, and Reinaldo Resende.*

## Memberships


- Since 2023  Member of the American Mathematical Society (AMS).  
 Member of the Brazilian Mathematical Society (SBM, Sociedade Brasileira de Matemática).

## Events attended



### Talks

- 2022  Isoperimetric Problems at University of Pisa (UniPi). *Talk title: On compactness and generalized existence results for clusters in Riemannian manifolds with bounded geometry.*





### Seminar Talks

- 2023  PDE-Applied Math Seminar at University of Maryland (UMD). *Talk title: Regularity results for area minimizing  $m$ -currents in  $\mathbb{R}^{m+n}$ .*






### Research schools

- 2022  Hausdorff School on Geometric Analysis and Nonlinear Partial Differential Equations at Hausdorff Center for Mathematics (HCM). *Poster title: Density of the boundary regular set of 2d area minimizing currents with arbitrary codimension and multiplicity.*  
 CIMPA Research school: Singularities and Applications at University of São Paulo (USP), Campus São Carlos. *Poster title: Density of the boundary regular set of 2d area minimizing currents with arbitrary codimension and multiplicity.*

### Conferences, symposiums and workshops



- 2023  Rutgers Geometric Analysis Conference at Rutgers University.  
 37th Geometry Festival at Princeton University.  
 Recent trends in nonlinear and geometric analysis at CUNY Graduate Center.  
2022  Point Configurations: Deformations and Rigidity at University College of London (UCL). *Poster title: Density of the boundary regular set of 2d area minimizing currents with arbitrary codimension and multiplicity.*

## Events attended (continued)












-  Shape Optimization, related topics and applications at Roscoff Biological Center, France. *Poster title: Density of the boundary regular set of 2d area minimizing currents with arbitrary codimension and multiplicity.*
- 2019  Workshop on Submanifold Theory and Geometric Analysis at Federal University of São Carlos (UFSCAR). *Poster title: On  $(\Lambda, r)$ -minimizing sets.*
- 2018  III Brazilian congress of young researches in pure and applied mathematics and statistics at Federal University of Parana (UFPR). *Poster title: Geometric measure theory.*
-  Modern Trends in Differential Geometry at University of São Paulo (USP).
-  Symposium in Harmonic Analysis and Geometric Measure Theory at University of São Paulo (USP), Campus Ribeirão Preto.

## Teaching

### Teaching

- Jan/23-Feb/23  Linear Algebra at University of São Paulo.
- Jan/22-Feb/22  Metric spaces at University of São Paulo.

### Teaching assistant

- Mar/22-Jul/22  Differential and integral calculus I at University of São Paulo.
- Ago/21-Dec/21  Differential geometry at University of São Paulo.
- Feb/21-Jul/21  Series and differentiable functions at University of São Paulo.
- Aug/20-Dec/20  Calculus of multivariable functions II at University of São Paulo.
- Feb/20-Jul/20  Differential and integral calculus I at University of São Paulo.
- Jan/20-Feb/20  Summer course: metric spaces at University of São Paulo.
- Feb/19-Jul/19  Analytic geometry at University of São Paulo.
- Jan/19-Feb/19  Summer course: Linear algebra at University of São Paulo.
- Aug/18-Dec/18  Measure and integration at University of São Paulo.
- Feb/18-Jul/18  Linear algebra II at University of São Paulo.
- Aug/17-Dec/17  Introduction to linear algebra at University of São Paulo.