

Eduardo V. Teixeira

Professor of Mathematics

November, 2023

Department of Mathematics
University of Central Florida
Orlando, FL 32816

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Personal information

- ◇ Date of Birth: April 9th, 1976
- ◇ Nationality: Brazilian; US Permanent Resident
- ◇ Married, three children

Education

Ph.D. in Mathematics University of Texas at Austin Advisor: Prof. Luis A. CAFFARELLI	2005
M.Sc. in Mathematics Universidade Federal do Ceará	2001
B.Sc. in Mathematics Universidade Federal do Ceará	1999

Appointments

Professor University of Central Florida	2017–
Professor Universidade Federal do Ceará	2010–2017
Assistant Professor Universidade Federal do Ceará	2008–2010
Hill Assistant Professor Rutgers University	2005–2008

Awards and Honors

- 2023 Honorary Citizenship of the State of Ceará – State Law 17.583
- 2023 Awarded Fellow of the Core Academy, Hong Kong
- 2018 Plaque of Honor, Legislative Assembly of the State of Ceará
- 2017 ICTP-IMU Ramanujan Prize
- 2017 Elected Corresponding Member of the Ceara Academy of Mathematics
- 2015 Elected Fellow of the Brazilian National Academy of Sciences
- 2015 Brazilian National Council for Scientific and Technological Development - CNPq Researcher 1B
- 2013 The inaugural Mathematical Congress of the Americas Prize
- 2011 Elected young affiliate of the World Academy of Sciences (TWAS)
- 2009 Elected ICTP associate member
- 2007 Elected affiliate member of the Brazilian National Academy of Sciences

2005 Regent award, University of Texas at Austin

2003 Universidade Federal do Ceará Gold Plaque

Editorial boards

- Interfaces and Free Boundaries
- Partial Differential Equations and Applications (Managing Section Editor)
- Bulletin of the Brazilian Mathematical Society
- Bulletin of Parana's Mathematical Society
- Coleção Fronteiras da Matemática (Editor in Chief)
- Notas em Matemática Aplicada (Executive Editor)

Fundings

- | | |
|--|-----------|
| • DMS-NSF Research Grant | Pending |
| • NSF Grant DMS-2243772 (Co-PI) | 2023–2026 |
| • Programa de Apoio aos Núcleos de Excelência - PRONEX | 2016–2020 |
| • CNPq Researcher Fellowships (2, 1D, 1C, 1B) | 2008–2017 |
| • FAPESP's Distinguished Researcher Program | 2015–2015 |
| • CNPq's Projeto Universal | 2012–2017 |
| • Capes' Sciences without Borders | 2012–2017 |
| • Funcap's International Collaboration Program | 2013–2016 |
| • NSF Research Grant DMS-0600930 | 2006–2008 |

Select lectures

2024 Invited Plenary Speaker at the Free Boundary Problems: Theory and Application.

2023 KAUST Masterclass in Applied Nonlinear PDEs.

2019 Invited Address, American Mathematical Society's Sectional Meeting, Gainesville FL.

2016 Plenary speaker at the 1st Joint Meeting Brazil–Italy in Mathematics, IMPA, Rio de Janeiro.

2015 Keynote speaker at the LXXXIV Encuentro Anual Sociedad de Matemática de Chile, Pucón.

Research interests

- Free boundary problems
- Calculus of Variations
- Regularity theory
- Elliptic and parabolic PDE
- Harmonic and functional analysis
- Issues in higher education

Ph.D. advising

Current Claudia Rodrigues

Current Aelson Sobral (co-advising with A. Araújo)

2023 Thialita do Nascimento 2018–2023

Thesis Publication: Journal de Mathématiques Pures et Appliquées

- 2020 Pedra Andrade (co-advised with E. Pimentel)
Thesis Publication: *Advances in Mathematics*
- 2020 Makson Santos (co-advised with E. Pimentel)
Thesis Publication: *Communications in Partial Differential Equations*
- 2015 João Vitor da Silva
Thesis Publication: *Mathematische Annalen*
- 2014 Disson dos Prazeres
Thesis Publication: *Calc. Var. Partial Differential Equations & Ann. Sc. Norm. Super. Pisa Cl. Sci.*
- 2014 Marcelo Amaral
Thesis Publication: *Communications in Mathematical Physics*
Thesis distinguished at the 2015 Carlos Gutierrez Prize
- 2012 Damião Araújo
Thesis Publication: *Arch. Rational Mech. Anal. & Calc. Var. Partial Differential Equations*
Thesis distinguished at the 2013 Carlos Gutierrez Prize
- 2012 Raimundo Leitão Junior
Thesis Publication: *Ann. Inst. H. Poincaré Anal. Non Linéaire. & Rev. Mat. Iberoam.*
- 2010 Gleydson Ricarte
Thesis Publication: *Journal of Functional Analysis*

Postdoctoral mentoring

- | | |
|-----------------------|-----------|
| • Ginaldo Sá | Current |
| • Ivaldo de Sousa | 2016–2016 |
| • Edgard Pimentel | 2014–2015 |
| • Rafayel Teymurazyan | 2013–2014 |
| • Damião Araújo | 2013–2014 |

Publications

69. D Araújo, A. Sobral, E. Teixeira, M. Urbano *On free boundary problems shaped by oscillatory singularities*. Submitted, 2023.
68. D Araújo, A. Sobral, E. Teixeira, *Regularity in diffusion models with gradient activation*. Submitted, 2023.
67. D. Pellegrino, E. Teixeira *Regularity for quasi-minima of the Alt-Caffarelli functional*. Submitted, 2023.
66. T. Nascimento, E. Teixeira, *On the sharp Hessian integrability conjecture in the plane*. Submitted, 2023.
65. S. Snelson, E. Teixeira, *Optimal domains for elliptic eigenvalue problems with rough coefficients*. Submitted, 2022.
64. S. Snelson, E. Teixeira, *On the Bernoulli problem with unbounded jumps*. Submitted, 2022.
63. T. Nascimento, E. Teixeira *New regularity estimates for fully nonlinear elliptic equations* *J. Math. Pures Appl.* (9) 171 (2023), 1–25.
62. E. Teixeira, *On the critical point regularity for degenerate diffusive equations*. *Arch. Rational Mech. Anal.* 244 (2022), no. 2, 293–316.
61. E. Pimentel, M. Santos, E. Teixeira *Fractional Sobolev regularity for fully nonlinear elliptic equations*. *Comm. Partial Differential Equations* 47 (2022), no. 8, 1539–1558.
60. P. Andrade, D. Pellegrino, E. Pimentel, E. Teixeira *C^1 -regularity for degenerate diffusion equations*. *Adv. Math.* 409 (2022), Paper No. 108667, 34 pp.
59. D. Araujo, JM Urbano, E. Teixeira *Optimal regularity for a two-phase free boundary problem ruled by the infinity Laplacian*. *Israel J. Math.* 245 (2021), no. 2, 773–785.

58. E. Teixeira, JM Urbano *Geometric tangential analysis and sharp regularity for degenerate pdes*. Harnack inequalities and nonlinear operators, 175–192, Springer INdAM Ser., 46, Springer, Cham, (2021).
57. E. Teixeira *Regularity theory for nonlinear diffusion processes*. Notices Amer. Math. Soc. 67 (2020), no. 4, 475–483.
56. A. Bronze, E. Pimentel, G. Rampasso, E. Teixeira *Regularity of solutions to a class of variable-exponent fully nonlinear elliptic equations*. J. Funct. Anal. 279 (2020), no. 12, 108781, 31 pp.
55. J. Lamboley, Y. Sire, E. Teixeira *Free boundary variational problems involving singular weights*. Comm. Partial Differential Equations 45 (2020), no. 7, 758–775.
54. D. Pellegrino, W. Cavalcante, E. Teixeira *On the geometry of multilinear forms*. Comm. Contemp. Math. 22 (2020), no. 2, 1950011, 26 pp.
53. R. Aron, D. García, D. Pellegrino, E. Teixeira. *Reflexivity and nonweakly null maximizing sequences*. Proc. Amer. Math. Soc. 148 (2020), no. 2, 741–750.
52. D. Pellegrino, J. Silva, E. Teixeira *On a continuous Gale–Berlekamp switching game*. Annals. Acad. Brasil. Ciênc. 95: e20200660. DOI 10.1590/0001-3765202320200660.
51. E. Teixeira *Nonlinear diffusive problems: geometric insights and beyond*. Intelligencer 2018
50. D. Araujo, JM Urbano, E. Teixeira *A proof of the $C^{p'}$ regularity conjecture in the plane*. Adv. Math. 316 (2017), 541–553.
49. JV Silva, E. Teixeira *Sharp regularity estimates for second order fully nonlinear parabolic equations*. Math. Ann. 369 (2017), no. 3-4, 1623–1648.
48. D. Araujo, JM Urbano, E. Teixeira *Towards the $C^{p'}$ regularity conjecture in higher dimensions*. Int. Math. Res. Not. IMRN. 2018, no. 20, 6481–6495.
47. E. Teixeira *Nonlinear elliptic equations with high order singularities*. Potential Anal. 48 (2018), no. 3, 325–335.
46. D. Pellegrino, E. Teixeira *Towards sharp Bohnenblust–Hille constants*. Comm. Contemp. Math. 20 (2018), no. 3, 1750029, 33 pp.
45. D. Pellegrino, J. Santos, D. Serrano-Rodriguez, E. Teixeira *Regularity principle in sequence spaces and applications*. Bull. Sci. Math. 141 (2017), no. 8, 802–837.
44. D. Araujo, G. Ricarte, E. Teixeira *Singularly perturbed equations of degenerate type*. Ann. Inst. H. Poincaré Anal. Non Linéaire. 34 (2017), no. 3, 655–678.
43. E. Pimentel, E. Teixeira *$W^{2,p}$ estimates for fully nonlinear elliptic equations: an asymptotic approach*. J. Math. Pures Appl. 106 (2016), pp. 744–767.
42. L. Zhang, E. Teixeira *Global Monge-Ampère equations with asymptotically periodic data*. Indiana Univ. Math. J. 65 No. 2 (2016), 399–422.
41. D. dos Prazeres, E. Teixeira *Cavity problems in discontinuous media*. Calc. Var. Partial Differential Equations. 55 (2016), no. 1, 55:10.
40. D. Araújo, R. Leitão, E. Teixeira *Infinity Laplacian equation with strong absorptions*. J. Funct. Anal. 270 (2016), pp. 2249–2267.
39. E. Teixeira *Regularity for the fully nonlinear dead-core problem*. Math. Ann. 364 (2016), no. 3-4, 1121–1134.
38. D. dos Prazeres, E. Teixeira *Asymptotics and regularity for flat solutions to fully nonlinear elliptic problems*. Ann. Sc. Norm. Super. Pisa Cl. Sci. Vol. XV (2016), 485–500.
37. E. Teixeira *Geometric regularity estimates for elliptic equations*. Proceedings of the MCA 2013. Contemp. Math. 656 (2016) 185–204.
36. O. Queiroz, R. Leitão, E. Teixeira *Regularity for degenerate two-phase free boundary elliptic problems*. Ann. Inst. H. Poincaré Anal. Non Linéaire. 32 (2015), pp. 741–762.
35. E. Teixeira *Hessian continuity at degenerate points in nonvariational elliptic problems*. Int. Math. Res. Not. IMRN. (2015) Vol. 2015 6893–6906.

34. R. Teymurazyan, E. Teixeira *Optimal design problems with fractional diffusions*. J. Lond. Math. Soc. (2) 92 (2015), no. 2, 338–352.
33. J. Rossi, JM Urbano, E. Teixeira *Optimal regularity at the free boundary for the infinity obstacle problem*. Interface Free Bound. 17 (2015), 381–398.
32. L. Silvestre, E. Teixeira *Regularity estimates for fully non linear equations which are asymptotically convex*. Volume 86 of the series Progr. Nonlinear Differential Equations Appl. (2015) pp 425–438.
31. M. Amaral, E. Teixeira *Free transmission problems*. Comm. Math. Phys. 337 (2015), no. 3, 1465–1489.
30. D. Araujo, G. Ricarte, E. Teixeira *Geometric gradient estimates for solutions to degenerate elliptic equations*. Calc. Var. Partial Differential Equations 53 (2015), no. 3-4, 605–625.
29. R. Leitão, E. Teixeira *Regularity and geometric estimates for minima of discontinuous functionals*. Rev. Mat. Iberoam. 31 (2015), no. 1, 69–108.
28. JM Urbano, E. Teixeira *A geometric tangential approach to sharp regularity for degenerate evolution equations*. Anal. & PDE Vol. 7, No 3 (2014), 733–744.
27. E. Teixeira *Universal moduli of continuity for solutions to fully nonlinear elliptic equations*. Arch. Rational Mech. Anal. 211 (2014), no 3, 911–927.
26. E. Teixeira *Regularity for quasilinear equations on degenerate singular sets*. Math. Ann. 358 (2014), no 1, 241–256.
25. JM Urbano, E. Teixeira *An intrinsic Liouville theorem for degenerate parabolic equations*. Arch. Math. 102 (2014), 483–487.
24. D. Araújo, E. Teixeira *Geometric approach to nonvariational singular elliptic equations*. Arch. Rational Mech. Anal. 209 (2013), no 3, 1019–1054.
23. E. Teixeira *Sharp regularity for general Poisson equations with borderline sources*. J. Math. Pures Appl. (9) 99 (2013), no. 2, 150–164.
22. J. Rossi, E. Teixeira *A limiting free boundary problem ruled by Aronsson’s equation*. Trans. Amer. Math. Soc. 364 (2012), 703–719.
21. L. Zhang, E. Teixeira *An elliptic variational problem involving level surface area on Riemannian manifolds*. Rev. Mat. Iberoam. 28 (2012), no. 3, 759–772.
20. G. Ricarte, E. Teixeira *Fully nonlinear singularly perturbed equations and asymptotic free boundaries*. J. Funct. Anal. vol. 261, 6, 2011, 1624–1673.
19. M. Montenegro, O. Queiroz, E. Teixeira *Existence and regularity properties of non-isotropic singular elliptic equations*. Math. Ann. 351 (1), (2011) 215–250.
18. L. Zhang, E. Teixeira *A local parabolic monotonicity formula on Riemannian manifolds*. J. Geom. Anal. (2011) 21, No. 3, 513–526.
17. L. Zhang, E. Teixeira *Monotonicity theorems for Laplace Beltrami operator on Riemannian manifolds*. Adv. Math. Vol. 226, Issue 2, 30 (2011), 1259–1284.
16. Z. Han, Y. Li, E. Teixeira *Asymptotic behavior of solutions to the σ_k -Yamabe equation near isolated singularities*. Inventiones mathematicae 182, No. 3, (2010) 635–684.
15. M. Montenegro, E. Teixeira *Gradient estimates for viscosity solutions of singular fully nonlinear elliptic equations*. J. Funct. Anal. 259 (2010) 428–452.
14. E. Teixeira *Optimal design problems in rough inhomogeneous media. Existence theory*. Amer. J. Math. 132, No 6, 2010, pp. 1445–1492.
13. D. Pellegrino, E. Teixeira *Norm optimization problem for linear operators in classical Banach spaces*. Bull. Braz. Math. Soc. 30 (2009), no 3, 417–431.
12. A. Swiech, E. Teixeira *Regularity for obstacle problems in infinite dimensional Hilbert spaces*. Adv. Math. 220 (2009) no. 3, pp. 964–983.
11. E. Teixeira *A variational treatment for elliptic equations of the flame propagation type: Regularity of the free boundary*. Ann. Inst. H. Poincaré Anal. Non Linéaire. 25 (2008), pp. 633–658.

10. E. Teixeira *On infinite order and fully nonlinear partial differential evolution equations*. J. Differential Equations 238 (2007), no 1, 43–63.
9. E. Teixeira *Uniqueness, symmetry and full regularity of free boundary in optimization problems with volume constraint*. Interface Free Bound. 9 (2007) no. 1, 133–148.
8. D. Moreira, E. Teixeira *A singular perturbation free boundary problem for elliptic equations in divergence form*. Calc. Var. Partial Differential Equations 29 (2007), no 2, 161–190.
7. E. Teixeira *Optimal regularity of viscosity solutions of fully nonlinear singular equations and their limiting free boundary problems*. Mat. Contemp. 30 (2006), 217–237.
6. K. Oliveira, E. Teixeira *An optimization problem with free boundary governed by a degenerate quasilinear operator*. Differential and Integral Equations 19 (2006), no. 9, 1061–1080.
5. E. Teixeira *The nonlinear optimization problem in heat conduction*. Calc. Var. Partial Differential Equations 24 (2005), no. 1, 21–46.
4. E. Teixeira *Strong solutions for differential equations in abstract spaces*. J. Differential Equations 214, p. 65–91, 2005.
3. D. Moreira, E. Teixeira *On the behavior of weak convergence under nonlinearities and applications*. Proc. Amer. Math. Soc. 133 (2005), 1647–1656.
2. C. Barroso, E. Teixeira *A topological and geometric approach to fixed points results for sum of operators and applications*. Nonlinear Anal. 60 (2005), no. 4, 625–650.
1. D. Moreira, E. Teixeira *Weak convergence under nonlinearities*. An. Acad. Brasil. Ciênc. 75 (2003), no. 1, 9–19.

Books and lecture notes

- E. Teixeira *Elliptic regularity and free boundary problems: an introduction* IMPA Mathematical Publications 205 pages. ISBN 978-85-244-0252-4.
- G. Botelho, D. Pellegrino, E. Teixeira *Fundamentos de análise funcional*. Textos Universitários. Braz. Math. Soc. ISBN 978-85-8337-209-7. 303 pages.
- E. Teixeira *Um convite à análise geométrica de EDPs elípticas de 2a ordem*. IV Escola Brasileira de Equações Diferenciais.
- E. Teixeira *Introdução à teoria de regularidade elíptica: uma visão geométrica*. III ENAMA. Universidade de Maringá.

Services

- Numerous committees at University of Central Florida, including: Searching Committee, Mid-Career Advisory Committee, Graduate and Undergraduate Programs Committee, Calculus Redesign Project, among many others.
- Refereed more than 100 papers, monographies, and book proposals for some of the best mathematical journals and publishers.
- Scientific consultant and panelist for NSF-USA; CNPq, Capes, Fapesp, Funcap, and Institute Serrapilheira (Brazil); FCT of Portugal; CONICET of Argentina; CONICYT of Chile; NCSTE of Kazakhstan, Science, Technology & Research Trust (Puerto Rico).
- Member Capes' Journals Evaluation Board (QUALIS)
- Member of the Brazilian team organizing the 2018 International Congress of Mathematicians in Rio de Janeiro.
- Election Committee for Affiliate Member of the Brazilian Academy of Sciences from 2016 to 2019
- President of Capes Prize Committee for best Ph.D. thesis in 2014
- Head Director, Mathematics Research Division and Graduate Studies Program. Department of Mathematics at Universidade Federal do Ceará, from 2012 to 2014

- Vice-head, Department of Mathematics at UFC, from 2009 to 2012

Scientific and organizing committees

- 2024 Co-organizer (joint with L. Zhang), AMS Sectional Meeting Special Session in Tallahassee.
- 2022 Member of the Scientific Committee of the series: Congresso Brasileiro de Jovens Pesquisadores em Matemática Pura, Aplicada e Estatística.
- 2020 Co-organizer of the TWAS Virtual Thematic Workshops in Mathematics
- 2019 Co-organizer (joint with M.Allen), AMS Sectional Meeting Special Session in Gainesville
- 2018 Chair of the 2018 International Congress of Mathematicians Satellite Events Committee
- 2017 Co-organizer (joint with L. Silvestre), AMS Sectional Meeting Special Session in Orlando
- 2016 Co-organizer Nonlinear PDE @ IMPA, Rio de Janeiro, Brazil
- 2016 Member of the Scientific Committee ICMC Summer Meeting
- 2015 Member of the Scientific Committee of the 30th Brazilian Colloquium of Mathematics (IMPA)
- 2015 Organizing Committee, Current Trends in Analysis and Partial Differential Equations (IMPA)
- 2015 PI of the Capes School of High Studies, featuring L. Caffarelli (IMPA)
- 2014 Co-organizer, XV International Conference on Hyperbolic Problems

Select mini-courses

- 2024 3-hour mini-course at the Latin American and Caribbean Mathematics Congress (CLAM), João Pessoa, Brazil.
- 2023 3-lecture mini-course at the Potential Theory Workshop: Intersections in Harmonic Analysis, Partial Differential Equations and Probability. CIMAT, Guanajuato, Mexico.
- 2023 3-lecture mini-course at the King Abdullah University of Science and Technology (KAUST), Saudi Arabia.
- 2015 5-lecture mini-course at Universidade de São Paulo, São Carlos, Brazil.
- 2011 5-lecture mini-course at the IV Escola Brasileira de Equações Diferenciais, João Pessoa, Brazil
- 2009 3-lecture mini-course at the Encontro Nacional de Análise Matemática e Aplicações, Maringá, Brazil
- 2007 5-lecture mini-course at the 26th Brazilian Colloquium of Mathematics, IMPA, Rio de Janeiro, Brazil.

Talks at Conferences and Workshops

- 2023
 - XII Workshop on Nonlinear Differential Equations, Brasília, Brazil
 - Advances in nonlinear elliptic and parabolic PDEs, AIUla, KSA
 - 13th Americas Conference on Diff. Equations and Nonlinear Analysis, São Carlos, Brazil
- 2022
 - 6th YTAN Thematics Workshop in Mathematics, São Paulo, Brazil
 - Plenary Speaker, ICMC Summer Meeting on Differential Equations, São Carlos, Brazil
 - II B_1^- Analysis and PDE from the South, Aracaju, Brazil
- 2021
 - 15th International Conference on Free Boundary Problems, Berlin Germany
 - UFSCar Summer Webinar on PDEs (virtual), São Carlos, Brazil
 - ICMC Summer Meeting on Differential Equations, São Carlos, Brazil
- 2020
 - Keynote Speaker SIAM-Knights, Orlando, USA
 - 5th Meeting of the Instituto Serrapilheira, Rio de Janeiro, Brazil
 - AMS-MAA Joint Mathematical Meeting, Denver, USA

- 2019 – 32nd Brazilian Colloquium of Mathematics, IMPA - Rio de Janeiro, Brazil
- 2018 – Invited Speaker, UT CoLab Conference University of Texas at Austin, USA
 - AMS Special Session, University of Michigan, USA
 - International Congress of Mathematicians Satellite Event, Fortaleza, Brazil
- 2017 – V International Symposium on Nonlinear Equations and Free Boundary Problems, Buenos Aires, Argentina
 - Ramanujan Prize Ceremony - ICTP, Trieste, Italy
- 2016 – Plenary speaker, First Joint Meeting Brazil–Italy in Mathematics
 - Plenary Speaker, ICMC Summer Meeting on Differential Equations, São Carlos, Brazil
- 2015 – Keynote speaker, Annual Meeting of the Sociedad de Matemática de Chile
 - Analysis Seminar, University of Texas at Austin
 - Invited Speaker, X Americas Conference on Differential Equations and Nonlinear Analysis
 - Plenary Speaker, ICMC Summer Meeting on Differential Equations, São Carlos, Brazil
- 2014 – Plenary Speaker, SBM’s Biental da Matemática, Maceio, Brazil
 - Speaker, Variational Methods for Nonlinear Elliptic PDEs, Daejeon, South Korea
 - Plenary Speaker, Isaac Newton Institute for Mathematical Sciences, Cambridge, UK
 - Plenary Speaker, ICMC Meeting in honor to Djairo de Figueiredo, São Carlos, Brazil
- 2013 – Invited Speaker, 1st Mathematical Congress of the Americas, Guanajuato, Mexico
 - Special Lecture, Conference on Nonlinear Elliptic Equations, Rutgers University
 - Invited Speaker, Fully nonlinear equations in Valparaiso, Valparaiso, Chile
- 2012 – Plenary Speaker International Workshop in Nonlinear Differential Equations, João Pessoa, Brazil
 - Invited Speaker, Nonlinear PDE @ IMPA, Rio de Janeiro, Brazil
 - Plenary Speaker, XVII Brazilian School of Differential Geometry, Manaus, Brazil
 - Invited Speaker, IV Congress of Latin American Mathematicians, Cordoba, Argentina
 - Invited Speaker, ICMC Summer Meeting on Differential Equations, São Carlos, Brazil
- 2011 – Invited Speaker, Conference of TWAS-ROLAC Young Scientists, Trinidad & Tobago
 - Plenary Speaker, IV Escola Brasileira de Equações Diferenciais, João Pessoa, Brazil
 - Special talk for general audience, 28th Brazilian Colloquium of Mathematics - IMPA, Brazil
 - Invited Speaker, Special PDE Session - IMPA, Brazil
 - Plenary Speaker, Encontro Nacional de Análise Matemática e Aplicações, Aracaju, Brazil
- 2010 – Invited Speaker, V Simpósio Nacional e Jornadas de Iniciação Científica, IMPA, Brazil
 - Invited Speaker, Workshop on Nonlinear Differential Equations, Verbania, Italy
 - Invited Speaker, Nonlinear PDE @ IMPA, Rio de Janeiro, Brazil
 - Invited Speaker, Encontro Nacional de Análise Matemática e Aplicações, Belem, Brazil
- 2009 – Invited Speaker, V Escola Brasileira de Equações Diferenciais, São Paulo, Brazil
 - Invited Speaker, ICMC Summer Meeting on Differential Equations, São Carlos, Brazil
- 2008 – Invited Speaker, Encontro Nacional de Análise Matemática e Aplicações, João Pessoa, Brazil
 - Invited Speaker, Workshop on Nonlinear Differential Equations, Rio de Janeiro, Brazil
 - Invited Speaker, Nonlinear PDE @ IMPA, Rio de Janeiro, Brazil
 - Session Invited Speaker, Workshop on Nonlinear Differential Equations, Rio de Janeiro, Brazil

- Plenary Speaker, II Encontro de Equações Diferenciais Parciais e Análise Geométrica, Fortaleza, Brazil
- 2007 – Invited Speaker, Prairie Analysis Seminar, Kansa, USA
- Invited Speaker, 2nd Regional Conference of Young Scientists TWAS-ROLAC, Rio de Janeiro, Brazil

Talks at University Colloquia and Seminars

- 2022 – Nonlinear Analysis Seminar, Rutgers University
- 2021 – Colloquium Talk, Universidade de Santa Catarina
- PDE seminar, Universidade de Campinas
- PDE seminar, University of Nebraska-Lincoln
- 2020 – Mathematical Physics and Harmonic Analysis Seminar, Texas A&M
- Colloquium Talk, Universidade de Santa Catarina
- Colloquium Talk, Universidade Federal da Paraíba
- PUC-Rio Webinar on Analysis and PDEs
- 2019 – PDE seminar, Columbia University
- CAMP seminar, University of Chicago
- Colloquium Talk, Wayne State University
- Colloquium Talk, Emory University
- 2018 – PDE seminar, Brown University
- Colloquium Talk, Temple University
- PDE seminar, Indiana University
- Colloquium Talk, Florida Institute of Technology
- 2017 – PDE seminar, Georgia Institute of Technology
- Colloquium Talk, University of Central Florida
- 2015 – Analysis Seminar, University of Texas at Austin
- Colloquium Talk, ICMC - USP
- Colloquium Talk, Universidade Federal de São Carlos
- Colloquium Talk, Universidade de São Paulo
- Colloquium Talk, Universidade de São Paulo - Ribeirão Preto
- Colloquium Talk, PUC-Rio - Rio de Janeiro
- 2014 – Colloquium Talk, University of Lisbon
- CAMP Seminar, University of Chicago
- PDE Seminar, University of Florida
- Colloquium Talk, Universidade Federal da Paraíba
- 2013 – Colloquium Talk, Universidade de Brasília
- Colloquium Talk, University of Coimbra
- Analysis Seminar, University of Texas at Austin
- Colloquium Talk, Universidad de Chile
- 2012 – PDE Seminar, University of Lisbon

- Colloquium Talk, Universidade Federal da Paraíba
- 2011 – CAMP Seminar, University of Chicago
- Analysis Seminar, University of Texas at Austin
- Colloquium Talk, University of Coimbra
- Colloquium Talk, University of Lisbon
- Colloquium Talk, Universidade Federal de Alagoas
- 2010 – Colloquium Talk, Universidade de Brasilia
- Colloquium Talk, Politecnico di Milano
- Analysis Seminar, University of Texas at Austin
- 2009 – PDE seminar, Universidade de Campinas
- Colloquium Talk, Universidade Federal de Alagoas
- 2008 – PDE seminar, Universidade de Campinas
- Colloquium Talk, Trinity University
- 2007 – Colloquium Talk, Universidade Federal de Pernambuco
- 2006 – PDE seminar, University of Wisconsin Madison
- 2005 – Nonlinear Analysis Seminar, Rutgers University