# Pablo Raúl Stinga, PhD

Contact Department of Mathematics

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Ames, IA 50011, USA https://pabloraulstinga.github.io/

Degrees Universidad Autónoma de Madrid, Spain

Ph.D. in Mathematics with European Mention - Summa Cum Laude, Jun 2010

• Thesis: Fractional Powers of Second Order Partial Differential Operators: Extension Problem and Regularity Theory

• Advisor: José L. Torrea

M.Sc. in Mathematics and Applications, Oct 2006 to Nov 2007

Universidad Nacional de San Luis, Argentina

B.Sc., Licenciado en Ciencias Matemáticas, Mar 2000 to Dec 2005

• GPA: 9.90/10.00, Highest College and University Honors

CURRENT Associate Professor

Position Iowa State University Aug 2021 to present

Department of Mathematics

Previous Assistant Professor

Positions Iowa State University Apr 2016 to Jul 2021

Department of Mathematics

Adjunct Assistant Professor

Iowa State University Aug 2015 to Mar 2016

Department of Mathematics

(under J1 Research Scholar Visa until new H1B Visa was approved)

R.H. Bing Fellow in Mathematics No.1 Instructor

The University of Texas at Austin Aug 2012 to Jul 2015

Department of Mathematics (under J1 Research Scholar Visa)

• Supervisor: Luis A. Caffarelli

Researcher

Universidad de La Rioja, Spain May 2011 to Jul 2012

Department of Mathematics and Computation

**Honorary Professor** 

Universidad Autónoma de Madrid, Spain Spring 2011

Department of Mathematics

Researcher

Universidad de Zaragoza, Spain Fall 2010

Department of Mathematics, Area of Mathematical Analysis

PhD Candidate

Universidad Autónoma de Madrid, Spain Oct 2006 to Jun 2010

Department of Mathematics

• Supervisor: José L. Torrea

#### PhD Candidate

Universidad Nacional del Litoral, Argentina Department of Mathematics Mar to Sep 2006

## Undergraduate Teaching Assistant

Universidad Nacional de San Luis, Argentina Department of Mathematics Jun 2002 to Dec 2005

# RESEARCH INTERESTS

Partial Differential Equations and Harmonic Analysis. Nonlocal and fractional equations, regularity estimates, nonlocal Monge–Ampère equations, free boundary and transmission problems, discrete nonlocal equations, geometric equations, analysis on Riemannian manifolds. Classical logic.

# REFEREED PUBLICATIONS

- [1] P. R. Stinga, Fractional derivatives: Fourier, elephants, memory effects, viscoelastic materials and anomalous diffusions, *Notices Amer. Math. Soc.* **70** (2023), no. 4, 576–587.
- [2] P. R. Stinga and M. Vaughan, Fractional elliptic equations in nondivergence form: definition, applications and Harnack inequality, *J. Math. Pures Appl.* (9) **156** (2021), 245–306.
- [3] A. Biswas, M. De León-Contreras and P. R. Stinga, Harnack inequalities and Hölder estimates for master equations, SIAM J. Math. Anal. 53 (2021), 2319–2348.
- [4] A. Biswas and P. R. Stinga, Regularity estimates for nonlocal space-time master equations in bounded domains, *J. Evol. Equ.* **21** (2021), 503–565.
- [5] L. A. Caffarelli, M. Soria-Carro and P. R. Stinga, Regularity for  $C^{1,\alpha}$  interface transmission problems, *Arch. Ration. Mech. Anal.* **240** (2021), 265–294.
- [6] P. R. Stinga and J. L. Torrea, Hölder, Sobolev, weak-type and BMO estimates in mixed-norm with weights for parabolic equations, Sci. China Math. 64 (2021), 129–154.
- [7] Y. Jhaveri and P. R. Stinga, The obstacle problem for a fractional Monge–Ampère equation, Comm. Partial Differential Equations 45 (2020), 457–482.
- [8] P. R. Stinga and M. Vaughan, One-sided fractional derivatives, fractional Laplacians and weighted Sobolev spaces, *Nonlinear Anal.* **193** (2020), 111505.
- [9] P. R. Stinga, User's guide to the fractional Laplacian and the method of semigroups, Handbook of Fractional Calculus with Applications 2, 235–265, De Gruyter, Berlin, 2019.
- [10] P. L. De Nápoli and P. R. Stinga, Fractional Laplacians on the sphere, the Minakshisundaram zeta function and semigroups, New Developments in the Analysis of Nonlocal Operators, 167–189, Contemp. Math. 723, Amer. Math. Soc., Providence, RI, 2019.
- [11] F. Feo, P. R. Stinga and B. Volzone, The fractional nonlocal Ornstein-Uhlenbeck equation, Gaussian symmetrization and regularity, *Discrete Contin. Dyn. Syst.* **38** (2018), 3269–3298.
- [12] Ó. Ciaurri, L. Roncal, P. R. Stinga, J. L. Torrea and J. L. Varona, Nonlocal discrete diffusion equations and the fractional discrete Laplacian, regularity and applications, *Adv. Math.* **330** (2018), 688–738.

- [13] P. R. Stinga and J. L. Torrea, Regularity theory and extension problem for fractional nonlocal parabolic equations and the master equation, SIAM J. Math. Anal. 49 (2017), 3893–3924.
- [14] D. Maldonado and P. R. Stinga, Harnack inequality for the fractional nonlocal linearized Monge–Ampère equation, *Calc. Var. Partial Differential Equations* **56** (2017), 56:103.
- [15] L. Ping, P. R. Stinga and J. L. Torrea, On weighted mixed-norm Sobolev estimates for some basic parabolic equations, *Commun. Pure Appl. Anal.* 16 (2017), 855– 882.
- [16] L. A. Caffarelli and P. R. Stinga, Fractional elliptic equations, Caccioppoli estimates and regularity, Ann. Inst. H. Poincaré Anal. Non Linéaire 33 (2016), 767–807.
- [17] J. Dziubański, M. Preisner, L. Roncal and P. R. Stinga, Hardy spaces for Fourier–Bessel expansions, J. Anal. Math. 128 (2016), 261–287.
- [18] L. Roncal and P. R. Stinga, Fractional Laplacian on the torus, Commun. Contemp. Math. 18 (2016), 1550033, 26pp.
- [19] A. Bernardis, F. J. Martín-Reyes, P. R. Stinga and J. L. Torrea, Maximum principles, extension problem and inversion for nonlocal one-sided equations, J. Differential Equations 260 (2016), 6333–6362.
- [20] Ó. Ciaurri, L. Roncal and P. R. Stinga, Riesz transforms on compact Riemannian symmetric spaces of rank one, *Milan J. Math.* 83 (2015), 345–370.
- [21] P. R. Stinga and B. Volzone, Fractional semilinear Neumann problems arising from a fractional Keller–Segel model, Calc. Var. Partial Differential Equations 54 (2015), 1009–1042.
- [22] L. Roncal and P. R. Stinga, Transference of fractional Laplacian regularity, Special Functions, Partial Differential Equations and Harmonic Analysis. In honor of Calixto P. Calderón, in: Springer Proceedings in Mathematics and Statistics 108, A. M. Stokolos, C. Georgakis and W. Urbina (Eds.) (2014), 203–212.
- [23] J. J. Betancor, A. J. Castro and P. R. Stinga, The fractional Bessel equation in Hölder spaces, *J. Approx. Theory* **184** (2014), 55–99.
- [24] T. Ma, P. R. Stinga, J. L. Torrea and C. Zhang, Regularity estimates in Hölder spaces for Schrödinger operators via a T1 theorem, Ann. Mat. Pura Appl. 193 (2014), 561–589.
- [25] I. Abu-Falahah, P. R. Stinga and J. L. Torrea, A note on the almost everywhere convergence to initial data for some evolution equations, *Potential Anal.* 40 (2014), 195–202.
- [26] I. Gyöngy and P. R. Stinga, Rate of convergence of Wong–Zakai approximations for stochastic partial differential equations, Proceedings of the Seventh Seminar on Stochastic Analysis, Random Fields and Applications, Ascona 2011, in: Progress in Probability 67, R. Dalang, M. Dozzi and F. Russo (Eds), 95–130, Birkhäuser Basel, 2014.
- [27] J. J. Betancor, R. Crescimbeni, J. C. Fariña, P. R. Stinga and J. L. Torrea, A T1 criterion for Hermite-Calderón-Zygmund operators on the  $BMO_H(\mathbb{R}^n)$  space and applications, Ann. Sc. Norm. Super. Pisa Cl. Sci. (5) XII (2013), 157–187.
- [28] J. E. Galé, P. J. Miana and P. R. Stinga, Extension problem for fractional operators: semigroups and wave equations, *J. Evol. Equ.* 13 (2013), 343–368.

- [29] Ó. Ciaurri, L. Roncal and P. R. Stinga, Fractional integrals on compact Riemannian symmetric spaces of rank one, *Adv. Math.* **235** (2013), 627–647.
- [30] P. R. Stinga and C. Zhang, Harnack's inequalities for fractional nonlocal equations, Discrete Contin. Dyn. Syst. **33** (2013), 3153–3170.
- [31] T. Ma, P. R. Stinga, J. L. Torrea and C. Zhang, Regularity properties of Schrödinger operators, *J. Math. Anal. Appl.* **388** (2012), 817–837.
- [32] I. Abu-Falahah, P. R. Stinga and J. L. Torrea, Square functions associated to Schrödinger operators, *Studia Math.* **203** (2011), 171–194.
- [33] P. R. Stinga and J. L. Torrea, Regularity theory for the fractional harmonic oscillator, J. Funct. Anal. 260 (2011), 3097–3131.
- [34] P. R. Stinga and J. L. Torrea, Extension problem and Harnack's inequality for some fractional operators, Comm. Partial Differential Equations 35 (2010), 2092– 2122.

#### Preprints

- [35] L. A. Caffarelli P. R. Stinga and H. Vivas, Surfaces of minimum mean curvature variation, (2022) submitted.
- [36] M. Soria-Carro and P. R. Stinga, Regularity of viscosity solutions to fully nonlinear elliptic transmission problems, (2022) submitted.
- [37] M. Mazzitelli, P. R. Stinga and J. L. Torrea, Fractional powers of first order differential operators and new families of polynomials associated to inverse measures, (2022) submitted.
- [38] J. J. Colomina-Almiñana and P. R. Stinga, Boolos' Hardest Logic Puzzle Ever in its purest form, (2018) submitted.

# Conference Presentations

- 1. Geometry of Measures and Free Boundaries; a Conference in Honor of Tatiana Toro in Seattle (USA), Jul 2024 (upcoming).
- 2. Nonlinear PDEs at ICMAT, Madrid (Spain), Jul 2023 (upcoming).
- 3. 13th AIMS Conference in Wilmington, NC (USA), May-Jun 2023 (upcoming).
- 4. Joint Mathematics Meeting in Boston (USA), Jan 2023.
- 5. Texas Differential Equations Conference and AuchmutyFest: Research Mini Symposium in honor of Professor Giles Auchmuty, Texas A&M University (USA), Oct 2022.
- 6. Brazil-Portugal Joint Mathematics Meeting, Salvador (Brazil), Aug 2022.
- 7. Theoretical and Applied Aspects for Nonlocal Models, Banff International Research Station (Canada), Jul 2022.
- 8. Joint Mathematics Meeting (USA), Apr 2022.
- 9. AMS Spring Central Virtual Sectional Meeting (USA), Mar 2022.
- 10. 2021 Iowa PDE Seminar at Iowa State University (USA), Oct 2021.
- 11. AMS Fall Central Sectional Meeting (USA), Oct 2021.
- 12. Two nonlinear days in Urbino 2021 at Università degli Studi di Urbino Carlo Bo, Urbino (Italy), Jul 2021.

- 13. 50th Barrett Memorial Lectures, A3N2M: Approximation, applications and analysis of nonlocal, nonlinear models at The University of Tennessee-Knoxville (USA), May 2021.
- 14. Texas Differential Equations Conference at The University of Texas at Austin (USA), Mar 2020.
- 15. Joint Mathematics Meeting in Denver (USA), Jan 2020.
- 16. AMS Fall Southeastern Sectional Meeting at University of Florida, Gainesville (USA), Nov 2019.
- SIAM Central States Section 5th Annual Meeting at Iowa State University (USA), Oct 2019.
- 18. Local and Nonlocal Trends in Analysis and Geometry at University of Pittsburgh (USA), Oct 2019.
- 19. 3rd Fractional Calculus Meeting at Universidad de Zaragoza (Spain), Sep 2019.
- AMS Fall Central Sectional Meeting at University of Wisconsin-Madison (USA), Sep 2019.
- International Conference on Elliptic and Parabolic Problems, Gaeta (Italy), May 2019.
- 22. Nonlinear Analysis and Applications, In honor of Luis A. Caffarelli, Mar del Plata (Argentina), Mar 2019.
- 23. Workshop on Dynamics, Control and Numerics for fractional PDEs, Isla Verde, Puerto Rico (USA), Dec 2018.
- 24. AMS Fall Western Sectional Meeting at San Francisco State University, San Francisco (USA), Oct 2018.
- 25. Fractional PDEs: Theory, Algorithms and Applications at ICERM, Providence, RI (USA), Jun 2018.
- 26. American Philosophical Association 2018 Pacific Division Meeting, Invited Colloquium: Philosophy of Logic, San Diego, (USA), Mar 2018.
- 27. Texas Differential Equations Conference 2018 at University of Texas-San Antonio (USA), Mar 2018.
- 28. Joint Mathematics Meetings in San Diego (USA), Jan 2018.
- 29. **Plenary Speaker** invited by the Real Sociedad Matemática Española RSME (Spain) to deliver a plenary lecture at the *Primer Encuentro Conjunto RSME–UMA*, *Reunión Anual de la UMA*, Buenos Aires (Argentina), Dec 2017.
- Nonlocal Dynamics: Theory, Computation and Applications NSF/CBMS Regional Conference in the Mathematical Sciences at Illinois Institute of Technology, Chicago (USA), Jun 2017.
- 31. SIAM Southeastern Atlantic Section Conference SIAM-SEAS at Florida State University, Tallahassee (USA), Mar 2017.
- 32. AMS Fall Central Sectional Meeting at University of St. Thomas (Minneapolis campus), Minneapolis (USA), Oct 2016.
- 33. 2nd Annual Meeting of SIAM Central States Section at University of Arkansas at Little Rock (USA), Sep 30–Oct 2, 2016.

- 34. 3rd Conference on Nonlocal Operators and Partial Differential Equations at Conference Centre of the Polish Academy of Sciences, Bedlewo (Poland), Jun 27–Jul 1, 2016.
- 35. 39th Annual Texas Partial Differential Equations Conference at Texas State University, San Marcos (USA), Apr 2016.
- 36. 15th New Mexico Analysis Seminar at University of New Mexico, Albuquerque (USA), Feb 2016.
- 37. 2015 SIAM Conference on Analysis of Partial Differential Equations, Scottsdale, Arizona (USA), Dec 2015.
- 38. Thirteenth Prairie Analysis Seminar at Kansas State University (USA), Sep 2015.
- 39. 38th Annual Texas Partial Differential Equations Conference at University of Houston (USA), Mar 2015.
- 40. 10th AIMS International Conference on Dynamical Systems, Differential Equations and Applications in Madrid (Spain), Jul 2014.
- 41. Harmonic Analysis to celebrate Michael Cowling's 65th birthday, Segovia (Spain), Jul 2014.
- 42. International Conference on Free Boundary Problems: Theory and Applications at Isaac Newton Institute of Mathematical Sciences, University of Cambridge (United Kingdom), Jun 2014.
- 43. XV Real and Complex Analysis Meetings 2014 XV EARCO, Girona (Spain), May 2014.
- 44. Kinetics, non standard diffusions and stochastics: emerging challenges in the sciences, FRG Ki-Net Colab Joint Workshop at The University of Texas at Austin (USA), May 2014.
- 45. Distance and measure in analysis and partial differential equations: a meeting in honor of Hugo Aimar's 60th birthday, Santa Fe (Argentina), Jun 2013.
- 46. Special Functions, Partial Differential Equations and Harmonic Analysis, a conference in honor of Calixto P. Calderón at Roosevelt University, Chicago (USA), Nov 2012.
- 47. IV Latinamerican Congress of Mathematicians, CLAM 2012, Córdoba (Argentina), Aug 2012.
- 48. Nonlocal Operators: Analysis, Probability, Geometry and Applications at ZiF Bielefeld (Germany), (poster) Jul 2012.
- 49. 9th International Conference on Harmonic Analysis and Partial Differential Equations, El Escorial 2012, El Escorial (Spain), Jun 2012.
- 50. VI Research Meeting in Approximation Theory, EITA 2011, Canfranc (Spain), Oct 2011.
- 51. Workshop of Young Researchers in Mathematics 2011 at Universidad Complutense de Madrid (Spain), Sep 2011.
- 52. 22nd International Workshop on Operator Theory and its Applications IWOTA 2011, Sevilla (Spain), Jul 2011.
- 53. Harmonic Analysis and Orthogonal Systems IV, Bedlewo (Poland), Sep 2010.

- 54. XII Real and Complex Analysis Meetings 2010 XII EARCO, Haro (Spain), Apr 2010.
- 55. Annual Meeting of the Argentinean Mathematical Union UMA 2009 LIX Scientific Communications Meeting, Mar del Plata (Argentina), Sep 2009.

# Invited mini courses

• "Fractional Laplacians, semigroups and regularity", 4 1/2 hours mini course for undergraduate and graduate students presented at the Annual Meeting of the Argentinean Mathematical Union (UMA) San Luis (Argentina), Sep 2014.

# INVITED SEMINARS AND COLLOQUIUMS

- 1. "Fractional derivatives and applications", Graduate Students Seminar, Department of Mathematics, Iowa State University (USA), Mar 2023.
- 2. "Surfaces of minimum curvature variation", PDE Seminar, Wayne State University (USA), Mar 2023.
- 3. "Surfaces of minimum curvature variation", Analysis Seminar, The University of Texas at Austin (USA), Feb 2023.
- 4. "Fractional derivatives: Fourier, memory effects and recent advances", Analysis Seminar, Iowa State University (USA), Sep 2022.
- 5. "Harnack inequality for fractional nondivergence form elliptic equations", Virtual Analysis and PDE Seminar (VAPS), organized by Brown, Columbia, Georgia Tech, Wisconsin-Madison, Purdue, UCLA, UCSD, UT Austin (USA), Jun 2022.
- 6. "Regularity for  $C^{1,\alpha}$  interface transmission problems", Applied Analysis Seminar, Louisiana State University (USA), Apr 2022.
- 7. "Regularity in transmission problems for harmonic functions", Rubio de Francia Seminar, Universidad de Zaragoza (Spain), Mar 2022.
- 8. "Regularity for transmission problems", Analysis and Applications Seminar, Universidad Autónoma de Madrid (Spain), Mar 2022.
- 9. "Harnack inequality for fractional nondivergence form elliptic equations", Applied Mathematics Seminar, Universidad Complutense de Madrid (Spain), Mar 2022.
- 10. "Intro to fractional derivatives and applications", Graduate Students Seminar, Department of Mathematics, Iowa State University (USA), Mar 2022.
- 11. "Regularity for  $C^{1,\alpha}$  interface transmission problems", Geometric Analysis Seminar, Iowa State University (USA), Sep 2021.
- 12. "Nonlocal fractional Monge-Ampère equations", Colloquium, African Institute for Mathematical Sciences AIMS-Cameroon (Cameroon), Feb 2021.
- 13. "Ecuaciones de Monge-Ampère no locales", Colloquium at Café Matemático, Universidad Nacional de Mar del Plata (Argentina), Nov 2020.
- 14. "Introducción al Cálculo Fraccionario", Matemáticas en Español Seminar, University of Nebraska-Lincoln (USA), Oct 2020.
- 15. "Nonlocal fractional Monge-Ampère equations", Colloquium, Department of Mathematics, University of Nebraska-Lincoln (USA), Oct 2020.
- 16. "What is a fractional derivative?", Graduate Students Seminar, Department of Mathematics, Iowa State University (USA), Oct 2020.

- 17. "Nonlocal fractional Monge-Ampère equations", Colloquium, Department of Mathematics, Iowa State University (USA), Sep 2020.
- 18. "What is a fractional derivative?", Graduate Students Seminar, Department of Mathematics, Iowa State University (USA), Feb 2020.
- 19. "On nonlocal Monge-Ampère equations", PDE & Analysis Seminar, University of Pittsburgh (USA), Feb 2019.
- "What is a fractional derivative?", Colloquium, Wayne State University (USA), Feb 2019.
- 21. "How to approximate the fractional Laplacian by the fractional discrete Laplacian", Computational and Applied Mathematics Seminar, Oak Ridge National Laboratory (USA), Jan 2019.
- 22. "What is a fractional derivative?", Graduate Students Seminar, Department of Mathematics, Iowa State University (USA), Apr 2018.
- 23. "On nonlocal Monge-Ampère equations", Analysis Seminar, Universidad Autónoma de Madrid (Spain), Mar 2018
- 24. "On some nonlocal elliptic problems", Analysis Seminar, The University of Texas at Austin (USA), Feb 2018.
- 25. "How to approximate the fractional Laplacian by the fractional discrete Laplacian", Applied Mathematics Seminar at Brigham Young University (USA), Nov 2017.
- 26. "What is a fractional derivative?", Colloquium at University of Nebraska-Lincoln (USA), Nov 2017.
- 27. "How to approximate the fractional Laplacian by the fractional discrete Laplacian", Continuum Mechanics Seminar, University of Nebraska-Lincoln (USA), Nov 2017.
- 28. "Extension problem for fractional heat equations and applications", Department of Mathematics, The University of Tennessee, Knoxville (USA), Mar 2017.
- 29. "Extension problem for fractional heat equations and applications", Division of Applied Mathematics, Brown University (USA), Feb 2017.
- 30. "Calderón-Zygmund estimates for parabolic equations", Computational and Applied Mathematics Seminar, Department of Mathematics, Iowa State University (USA), Feb 2017.
- 31. "What is a fractional derivative?", Graduate Students Seminar, Department of Mathematics, Iowa State University (USA), Feb 2017.
- 32. "Calderón–Zygmund estimates for parabolic equations", Department of Mathematics, Kansas State University (USA), Nov 2016.
- 33. "Extension problem for fractional powers of parabolic operators and applications", Department of Mathematics, George Mason University (USA), Sep 2016.
- 34. "Ecuaciones no locales en espacio-tiempo", Departamento de Matemáticas, Universidad Autónoma de Madrid (Spain), Jun 2016.
- 35. "Fractional nonlocal space-time equations", Department of Mathematics, Stanford University (USA), Apr 2016.
- 36. "One-sided nonlocal equations", Department of Mathematics, The University of Texas at Austin (USA), Apr 2016.

- 37. "Regularity of fractional nonlocal equations and the language of semigroups", School of Mathematics, University of Minnesota (USA), Feb 2016.
- 38. "Discrete and space-time fractional nonlocal equations", Department of Mathematics, University of Houston (USA), Feb 2016.
- 39. "What is a fractional derivative?", Orientation for Mathematics Graduate Students, Iowa State University (USA), Feb 2016.
- 40. "The language of semigroups in nonlocal equations", Analysis Seminar, Department of Mathematics, Iowa State University (USA), Nov 2015.
- 41. "The language of semigroups in harmonic analysis", Analysis Seminar, Department of Mathematics, Iowa State University (USA), Nov 2015.
- 42. "Discrete and space-time fractional nonlocal equations", Computational and Applied Mathematics Seminar, Department of Mathematics, Iowa State University (USA), Nov 2015.
- 43. "Discrete and space-time fractional nonlocal equations", Department of Mathematics, Kansas State University (USA), Oct 2015.
- 44. "Discrete and space-time fractional nonlocal equations", Department of Mathematics, The University of Texas at Austin (USA), Sep 2015.
- 45. "How to understand fractional Laplacians: the language of semigroups and applications", Colloquium at Department of Mathematics at Pontificia Universidade Católica do Rio de Janeiro PUC-Rio (Brazil), Jul 2015.
- 46. "What are the fractional Laplacians? The language of semigroups and some applications", Colloquium at Department of Mathematics at Universidad Federico Santa María, Valparaíso (Chile), Jul 2015.
- 47. "Regularity of fractional nonlocal equations and the language of semigroups", Department of Mathematics at Columbia University (USA), Apr 2015.
- 48. "Regularity of fractional Laplacians and the language of semigroups", Department of Mathematics at Kansas State University (USA), Apr 2015.
- 49. "How to understand fractional Laplacians: the language of semigroups. Some applications", Colloquium at Department of Mathematics at Iowa State University (USA), Mar 2015.
- 50. "Fractional Laplacians, the language of semigroups and regularity", Department of Mathematics at University of Tennessee, Knoxville (USA), Nov 2014.
- 51. "Fractional Laplacians and the language of semigroups", Department of Mathematics at Texas A&M University (USA), Oct 2014.
- 52. "Ecuaciones fraccionarias no locales: aplicaciones, semigrupos y regularidad", Department of Mathematics, Universidad Autónoma de Madrid (Spain), Jul 2014.
- 53. "Regularity for fractional nonlocal equations", School of Mathematics, The University of Edinburgh (United Kingdom), May 2014.
- 54. "The (discrete and continuous) fractional Laplacian", Department of Mathematics, The University of Texas at Austin (USA), Feb 2014.
- 55. "The fractional Laplacian understood with the semigroup language", Department of Mathematics, The University of Texas at Austin (USA), Jan 2013.

- 56. "Fractional Laplacian on the torus", Department of Mathematics and Applications "Renato Caccioppoli", Università degli Studi di Napoli "Federico II" of Naples (Italy), Jul 2012.
- 57. "Semigroups and Hardy and Hölder spaces", Department of Mathematical Analysis, Universidad de Málaga (Spain), Jun 2012.
- 58. "Regularidad para ecuaciones diferenciales locales y fraccionarias", José Luis Rubio de Francia Seminar, Universidad de Zaragoza (Spain), Feb 2012.
- 59. "Regularity estimates through semigroups and harmonic analysis: The case of the Schrödinger operator", Department of Mathematics and Computation, Universidad de La Rioja (Spain), Jan 2012.
- "Regularity of fractional Schrödinger operators through Harmonic Analysis techniques", Department of Mathematical Analysis, Universidad de La Laguna (Spain), Nov 2011.
- 61. "Square functions for Schrödinger operators", Department of Mathematical Analysis, Universidad de La Laguna (Spain), Jun 2011.
- 62. "Fractional powers of second order partial differential operators: extension problem and regularity theory", Institute of Applied Mathematics San Luis (IMASL), Universidad Nacional de San Luis (Argentina), May 2011.
- 63. "Regularity for fractional operators", Department of Mathematics and Computation, Universidad de La Rioja (Spain), May 2011.
- 64. "Funciones cuadrado asociadas a operadores de Schrödinger", José Luis Rubio de Francia Seminar, Universidad de Zaragoza (Spain), Dec 2010.
- 65. "Fractional Laplacians: extension problem and regularity theory", Department of Mathematics, Universidad de Buenos Aires (Argentina), Nov 2010.
- 66. "Fractional powers of second order partial differential operators: extension problem and regularity theory", TU Delft Applied Mathematics Colloquium (Netherlands), Sep 2010.
- 67. "Fractional powers of second order partial differential operators: extension problem and regularity theory", Department of Mathematics, Universidad Autónoma de Madrid (Spain), May 2010.
- 68. "El rol del semigrupo del calor en problemas que involucran operadores fraccionarios", José Luis Rubio de Francia Seminar, U. de Zaragoza (Spain), May 2010.
- 69. "Extension problem and Harnack's inequality for some fractional operators", Department of Mathematics, Universidad Autónoma de Madrid (Spain), Feb 2010.
- 70. "The extension problem for fractional powers of general second order partial differential operators", Institute of Applied Mathematics of Litoral (IMAL), Universidad Nacional del Litoral (Argentina), Feb 2010.
- 71. "The fractional harmonic oscillator: characterization via an extension problem, Harnack's inequality and regularity theory", Department of Mathematical Analysis, Universidad de La Laguna (Spain), Dec 2009.
- 72. "Sobolev spaces associated to the harmonic oscillator", Institute of Applied Mathematics San Luis (IMASL), U. Nacional de San Luis (Argentina), Mar 2009.

#### Training

## PhD in Mathematics Students

- Mitchell Haeuser (2022–present) Iowa State University. Expected: 2024.
- María Soria-Carro (2018–2022) The University of Texas at Austin. Co-advised with Luis A. Caffarelli. Graduated on June 6, 2022.
  2023 Association for Women in Mathematics Dissertation Prize Current position: postdoc at Rutgers University.
- Animesh Biswas (2016–2020) Iowa State University. Graduated on July 1, 2020. Current position: postdoc at University of Nebraska-Lincoln.
- Mary Vaughan (2017–2020) Iowa State University. Graduated on May 13, 2020. Current position: postdoc at The University of Texas at Austin.

## Undergraduate Dissertation Advisees

• Christopher Kunz (Spring 2022) – Iowa State University. Graduated May 12, 2022. Current position: MSc student in mathematics at Iowa State University.

# $Research\ with\ Undergraduate\ Students$

• Thomas Ruminski (Fall 2020) – Iowa State University, Honors Program.

## Temporary Advisor and Mentor of Graduate Students

- Christopher Kunz (2022–present) Iowa State University.
- Cyna Nguyen (2022–present) Iowa State University.
- Gabriela Lara (2019–2021) Iowa State University.
- Max Bacharach (2016–2018) Iowa State University.
- Stephanie Reinders (2015–2016) Iowa State University.

## EDITORIAL SERVICE

# Applied Mathematics and Optimization

Associate Editor (Jan 2022–present).

## ACADEMIC SERVICE

# Director of Diversity, Equity and Inclusion

Department of Mathematics, Iowa State University (Jun 2021–present).

Chair of Mathematics Diversity, Equity and Inclusion Committee.

Member of the ISU College of Liberal Arts and Sciences Diversity, Equity and Inclusion Chairs Council (Aug 2021–present).

## Geometric Analysis Seminar

Department of Mathematics, Iowa State University. Co-founder and co-organizer (Aug 2021–present).

## Analysis and Probability Seminar

Department of Mathematics, Iowa State University. Co-chair (Jan 2021–present).

# Awards and Honors Committee

Department of Mathematics, Iowa State University (Aug 2019–Dec 2021).

# 3rd Year Review of Tenure-Track Faculty Committee

Department of Mathematics, Iowa State University (Aug 2022-present).

#### ISU-UNL Analysis Graduate Students Seminar Series

This program interchanges graduate students in analysis between Iowa State University and University of Nebraska-Lincoln to present seminars on their research. ISU organizer: Pablo Raúl Stinga. UNL organizers: Petronela Radu, Mikil Foss. The program was created in Jan 2018.

## ISU Junior Analysis Seminar

Founder and Faculty Mentor (Fall 2019–present).

https://sites.google.com/view/junior-analysis-seminar/home

## Applied Mathematics I and II Graduate Qualifying Exam Committee

Department of Mathematics, Iowa State University (Apr 2016–Jun 2022). Chair (Aug 2018–Aug 2019; and Aug 2021–Jun 2022).

## Colloquium and Lectures Committee

Department of Mathematics, Iowa State University.

Chair: May 2017–Aug 2020; Co-Chair: Aug 2015–May 2017.

#### PhD in Mathematics Committee

- Kean Fallon ISU (Advisor: Joey Iverson). 2023–present.
- Chad Berner ISU (Advisor: Eric Weber). 2022–present.
- Jina Hyoungji Kim ISU (Advisor: David Herzog). Graduated on 06/23/2022.
- Evan Camrud ISU (Advisor: David Herzog). Graduated on 06/21/2022.
- Anna Aboud ISU (Advisor: Eric Weber). Graduated on 06/26/2019.
- Stephanie Reinders ISU (Advisor: Jennifer Newman). 2016–2019.

## MSc in Mathematics Committee

- Joanna Held ISU (Advisor: James Rossmanith). Fall 2022–present.
- Chad Berner ISU (Advisor: Joey Iverson). Graduated on 04/15/2021.
- Jessica Hulzebos ISU (Advisor: Jue Yan). Graduated on 06/23/2017.
- Erica Johnson ISU (Advisor: James Rossmanith). Graduated on 04/10/2017.

# St. Cecilia Catholic School Board

Elected Board Member, St. Cecilia Catholic School, Ames, IA (Jun 2018–Jun 2022). Co-chair, Aug 2020–Jun 2021.

Elections Committee, Feb 2021-Jun 2022.

Representative to the Faith Formation Commission, Aug 2021–Jun 2022.

Strategic Planning Committee, Sep 2019–Jun 2022.

Scholarship Committee, Fall 2019.

Representative to the Finance Council, Jun 2018–Nov 2019.

## External reviewer of Ph.D. thesis

- Alberto Arenas Gómez U. de La Rioja, Spain (Advisor: Óscar Ciaurri) Sep 2019.
- Edgar Labarga Varona U. de La Rioja, Spain (Advisor: Óscar Ciaurri) Sep 2019.
- Marta De León-Contreras Universidad Autónoma de Madrid (Advisor: José L. Torrea) May 2019.

#### External Ph.D. committee member

- Ignacio Tomasetti The University of Texas at Austin, USA (Advisor: L. Caffarelli) 2019–2022.
- Luis Sánchez Lajusticia Universidad de Zaragoza, Spain (Advisors: José E. Galé and Pedro J. Miana) Sep 2019.

MENTORING OF DIVERSITY STUDENTS

#### Lazos: Latino Organization for Student Success

Founding Faculty Member - Active Mentor

Aug 2016 to present

• Lazos is a mentoring program that I co-created with a group of Latino/Hispanic faculty at ISU to support and ensure the success of Latino students on campus. Monthly meetings are held with Latino students at ISU and a distinguished invited speaker for mentorship and support and to encourage success.

# Latinx Student Initiatives – 11th Annual Latinx Leadership Retreat

Invited Panelist Oct 2022

 On Oct 15th, 2022, the ISU student organization Latinx Student Initiatives held their annual leadership retreat. I participated as one of the three Latinx panelists, presenting our perspectives a servant-leaders, sharing our experience and wisdom, and answering questions from students in the audience.

## Sonia Kovalevsky Day 2022

Faculty Volunteer Apr 2022

Department of Mathematics, Iowa State University.

## Latino Family Visit Day

Faculty Speaker Apr 2022

• Latino families with prospectives students visited Iowa State University. With a team of Lazos mentors and students, we hosted an information and recruitment table in the resources fair.

# Lambda Theta Phi: Resources and Community Building Among Hispanic Students

Faculty Panelist Nov 2021

• On Nov 15th, 2021, members of the Lambda Theta Phi fraternity at ISU hosted a panel with Dr. Eliseo de León, Dr. Lisa Rizo and I, where we shared our personal experiences and encouraged students to engage in community resources for Latinx students at ISU.

## Al Éxito (Towards Success)

Faculty Speaker Apr 2019

• On April 19th, 2019, Latinx high school students from Marshalltown, IA, visited ISU to learn about career opportunities and the research and extension work carried out by Latinx faculty on campus. I hosted their visit to the Department of Mathematics and shared with them a lecture entitled *La matemática moderna (Modern mathematics)* on the role of mathematics in science and career opportunities for mathematicians.

# Midwest Mathematics Inclusion and Diversity Workshop for Undergraduates MMIDWU 2018

Lead Organizer Oct 2018

 This workshop was organized with a team of ISU mathematics graduate students, and was funded by a grant from the ISU Office of the Vice President for Diversity and Inclusion. One of the objectives of the workshop was to bring awareness to and reflect on experiences of underrepresented groups in math through awareness sessions.

Workshop webpage: https://sites.google.com/iastate.edu/mmidwu18/home

# Clock Award (2) from the Services for Students with Disabilities The University of Texas at Austin

• See "Honors and Recognitions" below.

# TEACHING EXPERIENCE

# Iowa State University, Ames, IA

Associate Professor

Aug 2021 to present

• Spring 2023 Partial Differential Equations II MATH 656 (Graduate course, 6 students).

- Fall 2022 Partial Differential Equations I MATH 655 (Graduate course, 10 students).
- Fall 2022 Introduction to Partial Differential Equations MATH 385 (25 students).
- Spring 2022 Methods of Applied Mathematics II MATH 520 (Graduate core course, 10 students).
- Spring 2022 Undergraduate Thesis Advisor MATH 491 (1 student).
- Spring 2022 Regularity theory for elliptic equations MATH 590 (Graduate reading course).
- Fall 2021 Methods of Applied Mathematics I MATH 519 (Graduate core course, 20 students).
- Fall 2021 Matrices and Linear Algebra MATH 207 (60 students).

## Assistant Professor

## Apr 2016 to Jul 2021

- Spring 2021 Partial Differential Equations II MATH 656 (Graduate course, 10 students).
- Fall 2020 Harmonic Analysis MATH 631 (Graduate course, 10 students).
- Fall 2020 Introduction to Proofs MATH 201 (25 students).
- Spring 2020 Real Analysis II MATH 516 (Graduate course, 10 students).
- Fall 2019 Calculus III MATH 265 (two large lectures, 200 students each one).
- Spring 2019 Partial Differential Equations II MATH 656 (Graduate course, 10 students).
- Fall 2018 Partial Differential Equations I MATH 655 (Graduate course, 20 students).
- Fall 2018 Matrices and Linear Algebra MATH 207 (50 students).
- Spring 2018 Advanced Topics in Differential Equations MATH 680E Regularity theory for elliptic PDEs (Graduate topics course, 10 students).
- Fall 2017 Calculus II MATH 166 (40 students).
- Fall 2017 Regularity theory for elliptic equations MATH 590 (Graduate reading course).
- Spring 2017 Methods of Applied Mathematics II MATH 520 (Graduate core course, 10 students).
- Fall 2016 Methods of Applied Mathematics I MATH 519 (Graduate core course, 15 students).
- Fall 2016 Fourier analysis MATH 590 (Graduate reading course).

## Adjunct Assistant Professor (on J1 with pending H1B) Aug 2015 to Mar 2016

- Spring 2016 Introduction to Partial Differential Equations MATH 385 (35 students).
- Fall 2015 Calculus I MATH 165 (two sections, 40 students each section).

## The University of Texas at Austin, Austin, TX

# R. H. Bing Instructor No.1

# $Aug\ 2012\ to\ Aug\ 2015$

- Spring 2015 Topics in Partial Differential Equations M393C (15 students), Graduate Topics Course.
- Fall 2014 Matrices and Matrix Calculations M340L (120 students).
- Spring 2014 Linear Algebra and Matrix Theory M341 (30 students).
- Fall 2013 Integral Calculus for Science M408S and Sequences, Series and Multivariable Calculus M408D (120 students each class). M408S is a "flipped classroom" class.
- Spring 2013 Linear Algebra and Matrix Theory M341 (30 students).
- Fall 2012 Integral Calculus for Science M408S (two sections, 120 students each). M408S is a "flipped classroom" class.

### Universidad Autónoma de Madrid, Madrid, Spain

Honorary Professor

Spring 2011

• Spring 2011 Calculus in Several Variables (1st year of Physics Degree).

# Universidad Nacional de San Luis, San Luis, Argentina

Undergraduate Teaching Assistant

Jun 2002 to Dec 2005

• Discrete Mathematics (1st year of Mathematics Degree); Probability and Statistics (2nd year of Mathematics Degree).

Undergraduate Tutor for Freshmen

Mar 2004 to Dec 2005

• Orientation for new students in the University.

# San Luis, Argentina

Professor of Italian Language and Culture, Società Dante Alighieri

High School Teacher Assistant of Mathematics

2001

2002-2004

## Professional Service

# Conferences Organization

- Co-organizer of the special session Local and Nonlocal Fully Nonlinear Partial Differential Equations of Elliptic and Parabolic Type at the 13th AIMS Conference on Dynamical Systems, Differential Equations and Applications 2023 (joint with Fernando Charro) – (upcoming).
- Lead organizer of the second edition of the Nonlocal School on Fractional Equations NSFE 2022, to be held at Iowa State University, Ames, IA (USA), Jun 9–11, 2022 (joint with H. Antil and P. Sacks).

NSFE 2022 held the "in Cooperation with the Association for Women in Mathematics" honorific status.

School webpage: https://pabloraulstinga.github.io/NSFE2022.html

• Co-organizer of the *Midwest Geometry Conference* at Wichita State University, KS (USA), Mar 11–13, 2022.

Conference webpage: https://www.wichita.edu/mgc2022

- Co-organizer of the *Midwest Geometry Conference* at the Department of Mathematics, Iowa State University, Ames, IA (USA), Sep 2019 (joint with X. Hien Nguyen). Conference webpage: https://pabloraulstinga.github.io/MGC2019.html
- Co-organizer of the special session Recent Trends on Local, Nonlocal and Fractional Partial Differential Equations at the AMS Fall Central Sectional Meeting 2018, University of Michigan-Ann Arbor, MI (USA), Oct 20–21, 2018 (joint with Jiuyi Zhu and Pei-Yong Wang).
- Lead organizer of the Nonlocal School on Fractional Equations NSFE 2017, held at Iowa State University, Ames, IA (USA), Aug 17–19, 2017 (joint with H. Antil and P. Sacks, with the collaboration of A. Biswas).

NSFE 2017 held the "in Cooperation with the Association for Women in Mathematics" honorific status.

School webpage: https://pabloraulstinga.github.io/NSFE2017.html

## Referee for peer-reviewed journals

- Abstract and Applied Analysis
- Advanced Nonlinear Studies
- Advances in Calculus of Variations
- Advances in Continuous and Discrete Models
- Advances in Mathematics (3)

- Analysis and Mathematical Physics
- Analysis & PDE
- Annales de l'Institut Henri Poincaré (C) Analyse Non Linéaire (5)
- Annali di Matematica Pura ed Applicata
- Annals of PDE
- Applied and Computational Harmonic Analysis
- Banach Journal of Mathematical Analysis
- Calculus of Variations and Partial Differential Equations (8)
- Communications in Contemporary Mathematics (2)
- Communications in Mathematical Physics
- Communications in Mathematical Sciences (2)
- Communications in Partial Differential Equations (4)
- Communications in Pure and Applied Analysis
- Comptes rendus Mathématique (2) (Recognized reviewer status Apr 2019)
- Contemporary Mathematics
- DeGruyter volumes
- Discrete and Continuous Dynamical Systems (3)
- Duke Mathematical Journal (2)
- Electronic Journal of Differential Equations (2)
- ESAIM: Mathematical Modelling and Numerical Analysis (M2AN)
- Forum Mathematicum
- Integral Equations and Applications
- International Mathematics Research Notices (2)
- Journal d'Analyse Mathématique
- Journal de Mathématiques Pures et Appliquées (5)
- Journal of Applied Mathematics
- Journal of Differential Equations
- Journal of Evolution Equations (3)
- Journal of Fourier Analysis and Applications
- Journal of Functional Analysis (Recognized reviewer status Apr 2019) (2)
- Journal of Mathematical Analysis and Applications (8) (Outstanding Reviewer Status Feb 2016)
- Journal of Pseudo-Differential Operators and Applications
- Mathematical Models and Methods in Applied Sciences (M3AS) (2)
- Mathematics
- Mathematische Annalen
- Mathematische Nachrichten
- Nonlinear Analysis (3) (Recognized reviewer status Apr 2019)
- Positivity (2)
- Proceedings of the International Workshop on Operator Theory and its Applications IWOTA
- Proceedings of the London Mathematical Society
- Proceedings of the Royal Society of Edinburgh Section A: Mathematics
- Revista Matemática Iberoamericana (3)
- Revista de la Unión Matemática Argentina
- Science China Mathematics
- SIAM Journal of Mathematical Analysis (4)
- SIAM Review (book review)
- Springer Books (2)
- Symmetry, Integrability and Geometry: Methods and Applications (SIGMA)
- TEMat
- Transactions of the American Mathematical Society (3)

#### Reviewer for abstract indexes

- American Mathematical Society Mathematical Reviews (total: 45, 2011–2017).
- Zentralblatt MATH (Mar 2013–Feb 2016).

#### Invited visitors to ISU

- Fall 2022: Antonio de Rosa (Maryland), Fernando Charro (Wayne State), Animesh Biswas (U. Nebraska-Lincoln), Monica Torres (Purdue). Spring 2023: Stefan Steinerberger (U. Washington, Seattle), Armin Schikorra (Pittsburgh).
- Summer 2022: Ovidiu Savin (Columbia), Mahamadi Warma (George Mason), Christian Glusa (Sandia), Robert Lipton (LSU), Petronela Radu (U. Nebraska-Lincoln), Armin Schikorra (Pittsburgh), Mary Vaughan (UT Austin).
- 2021–2022: Rodolfo Torres (UC Riverside), Virginia Naibo (KSU), Lee Przybylski (Washington Nationals), Connor Mooney (UC Irvine), Mikil Foss (U. Nebraska-Lincoln), Simon Bortz (U. Alabama), Juan C. Meza (NSF).
- 2020–2021: Mahamadi Warma (George Mason), Nicole Buczkowski (U. Nebraska-Lincoln), Anh Thuong Vo (U. Nebraska-Lincoln), Hayley Olson (U. Nebraska-Lincoln), Harbir Antil (George Mason).
- 2019–2020: Logan Stokols (UT Austin), Pablo Seleson (Oak Ridge National Laboratory), Hayley Olson (U. Nebraska-Lincoln), Nicole Buczkowski (U. Nebraska-Lincoln).
- 2018–2019: María Soria-Carro (UT Austin), Fernando Charro (Wayne State), Matthew Novack (UT Austin), Niles Armstrong (Kansas State), Maja Taskovic (U. Penn).
- 2017–2018: Dennis Kriventsov (Courant), Luis Duque (UT Austin), Filippo Cagnetti (U. of Sussex, UK), Russell Schwab (Michigan State), María Soria-Carro (UT Austin).
- Summer 2017: Luis A. Caffarelli (UT Austin), Ricardo H. Nochetto (Maryland, College Park), Alexis F. Vasseur (UT Austin), Marta D'Elia (Sandia), Marta De León-Contreras (UAM, Spain), Pablo Seleson (Oak Ridge), Abner Salgado (Tennessee, Knoxville), Mahamadi Warma (Puerto Rico).
- 2016–2017: Hongjie Dong (Brown), Harbir Antil (George Mason), Yash Jhaveri (ETH Zurich), Mark Allen (BYU), Giles Auchmuty (Houston), Tadele Mengesha (Tennessee, Knoxville), Diego Maldonado (Kansas State), Filomena Feo (Napoli Parthenope), Juan J. Colomina-Almiñana (UT Austin).
- 2015–2016: Nikolai V. Krylov (Minnesota), Camelia A. Pop (Minnesota), Ovidiu Savin (Columbia), Raul Curto (Iowa), Harbir Antil (George Mason), Yash Jhaveri (UT Austin).

# Professional Memberships

## American Mathematical Society (AMS)

• Member (2019–present).

# Ames Chamber of Commerce FUEL Story County (Organization for Young Professionals)

- President (Jan 2023–present).
- President Elect (Jan 2022–Dec 2022).
- Marketing Committee co-chair (Dec 2021–Dec 2022).
- Elected to the Board of Directors (Nov 2019–present).
- Leadership and Professional Development Committee co-chair (Dec 2019–Dec 2021).
- Social Committee Member (2019)
- Member (2018–present).

# HONORS AND RECOGNITIONS

## Ames Chamber of Commerce

• Nov 2021. FUEL Story County 4 Under 40 Award, for "outstanding leadership, professionalism, and community involvement in Ames, Iowa."

## Iowa State University

• May 2019. ISU College of Liberal Arts and Science *Inclusive Excellence Award*, for "advancing the college's mission of diversity, equity, and inclusion outside of their

compensated responsibilities."

## Latinxs and Hispanics in the Mathematical Sciences (Lathisms)

• On Sunday October 14, 2018 (Hispanic Heritage Month), I was featured as *Mathematician of the Day* by Lathisms (http://www.lathisms.org/index.html).

For the article: https://www.lathisms.org/calendar-2018/pablo-stinga

Iowa State Daily article:

 $http://www.iowastatedaily.com/news/assistant-professor-earns-mathematics-honors/article\\ ae 409 ea 4-d8 a 6-11 e8-95 db-3336 ca 66 d5 21.html$ 

## Journal of Mathematical Analysis and Applications

• Feb 2016. Outstanding Reviewer Status for being "in the top 10th percentile in terms of the number of reviews completed for the journal in the past two years."

## The University of Texas at Austin

- Dec 2013. *Clock Award* from the Services for Students with Disabilities, for "going above and beyond the call of duty to help students with disabilities."
- May 2013. *Clock Award* from the Services for Students with Disabilities, for "being someone who offered support and guidance to students with disabilities."

## Universidad Nacional de San Luis

- Dec 2005. *University Honors Award* for highest GPA among all undergraduate students across campus: 9.90/10.00
- Dec 2005. College Honors Award for highest GPA among all undergraduate students across the College: 9.90/10.00

# GRANTS: AWARDED

# National Science Foundation (NSF)

- May 2022 (co-PI) DMS Computational Mathematics Program. Award 2213723 for *Nonlocal School on Fractional Equations NSFE 2022* at ISU campus. Amount: \$24,121.
- Nov 2018 (co-PI) DMS Geometric Analysis Program. Award 1855766 for *Midwest Geometry Conference 2019* at ISU campus. Amount: \$19,999.

### **Simons Foundation**

• Sep 2018 to Aug 2023 (PI) – Collaboration Grants for Mathematicians. Project title: Regularity theory for fractional nonlocal equations. Amount: \$42,000.

## Institute for Mathematics and its Applications (IMA)

- Feb 2022 (PI) IMA Participating Institutions Conferences Award for the *Nonlocal School on Fractional Equations NSFE 2022.* Amount: \$2,500.
- Feb 2017 (PI) IMA Participating Institutions Conferences Award for the *Nonlocal School on Fractional Equations NSFE 2017*. Amount: \$5,000.

## FONCyT, Argentina

• Feb 2021 (co-PI) – RAICES Equipos de Trabajo. PICT-2019-2019-03530. Project title: Problemas analíticos y geométricos en ecuaciones integro-diferenciales no lineales (Analytic and geometric problems in nonlinear integro-differential equations). Research in collaboration with Universidad de Buenos Aires (Argentina), Universidad Nacional de Mar del Plata (Argentina), The University of Texas at Austin (USA) and Iowa State University (USA). Amount: 1,950,000 ARS ~ \$22,000.

#### Big 12 Conference

- Oct 2022 Big 12 Faculty Fellowship to visit Luis A. Caffarelli at The University of Texas at Austin. Amount: \$2,500.
- Jun 2018 Big XII Faculty Fellowship for research in Philosophy of Logic at ISU with visiting faculty J. J. Colomina-Alminana (UT Austin). Amount: \$1,800.

• Jun 2016 – Big XII Faculty Fellowship for research in Philosophy of Logic at ISU with visiting faculty J. J. Colomina-Alminana (UT Austin). Amount: \$1,800.

## Iowa State University

- Feb 2019 (PI) Foreign Travel Grant (FTG). Second Round 2018–2019. To deliver invited presentation at *Nonlinear Analysis and its Applications In Honor of Luis A. Caffarelli 2019* in Mar del Plata, Argentina, and to create a collaboration program and recruitment pipeline between Universidad Nacional de Mar del Plata (Argentina), The University of Texas at Austin and Iowa State University. Amount: \$1.261.
- Sep 2018 (PI) Office of the Vice President for Diversity and Inclusion Award for Midwest Geometry Conference 2019. Amount: \$500.
- May 2018 (PI) Office of the Vice President for Diversity and Inclusion, Inclusion Initiatives Grant (IIG) Program Award for Midwest Mathematics Inclusion and Diversity Workshop for Undergraduates MMIDWU 2018. Amount: \$1,580.
- Jul 2017 (PI) Office of the Vice President for Diversity and Inclusion Award for Nonlocal School on Fractional Equations – NSFE 2017. Amount: \$500.
- Feb 2017 (PI) College of Liberal Arts and Sciences Award for the *Nonlocal School on Fractional Equations NSFE 2017*. Amount: \$2,000.
- Jul 2016 (PI) Department of Mathematics Award for Nonlocal School on Fractional Equations – NSFE 2017. Amount: \$5,000.

## Government of Spain

- Jan 2016 Dec 2019 (External researcher) "Fractional Laplacians. Spectral Theory. Semigroups" funded by Spanish Ministry of Economy and Competitiveness. PI: J. L. Torrea.
- Oct 2012 Dec 2015 (External researcher) "Spectral theory. Semigroups and applications to PDEs" funded by Spanish Ministry of Economy and Competitiveness. PI: J. L. Torrea.
- Oct 2010 Dec 2010 (Researcher) "Mathematical analysis and applications" funded by Aragón's Government Direction, Spain. PI: J. Bastero.
- Jan 2009 Dec 2011 (External researcher) "Spectral theory of semigroups and its impact in harmonic analysis" funded by Spanish Ministry of Science and Innovation. PI: J. L. Torrea.
- Dec 2005 Dec 2008 (External researcher) "Vector and spectral methods in harmonic analysis" funded by Spanish Ministry of Education and Science. PI: J. L. Torrea.
- Oct 2006 Sep 2010 (PI) Grant for graduate studies "Formación de Personal Investigador (FPI)" ("Formation of Research Personnel") funded by Spanish Ministry of Education and Science.

#### The University of Texas at Austin

 Nov 2012 (PI) – Rom Rhome International Professional Development Fund from the College of Natural Sciences.

## YPF Foundation, Argentina

- Grant "José A. Estenssoro" for graduate school, Argentina (2006).
- Grant for undergraduate mathematics degree, Argentina (Mar 2002 to Mar 2006).

## CONICET, Argentina

• Graduate studies grant (2005).

#### Universidad Nacional de San Luis, Argentina

• Grant for undergraduate mathematics degree from UNSL for best GPA in high school (Mar 2001 to Dec 2001).

## Other travel grants

- Grant to participate at the Third Mathematical Engineering Summer School at University of Concepción, Chile (Jan 2006).
- Grant to participate at IMPA Mathematical Summer School at Istituto de Matematica Pura e Aplicada (IMPA), Rio de Janeiro, Brazil (Jan–Feb 2005).

# CONTINUED PROFESSIONAL TRAINING

## Iowa State University

- Mar 2022 College of Liberal Arts and Sciences *Maintaining Excellence Beyond Tenure* (2 hr).
- Sep 2021 Center for Excellence in Teaching and Learning *Inclusive Classroom Training* (2 hr).
- Oct 2020 Office of the Senior Vice President and Provost *Preparing Effective Award Nominations* (1 hr).
- Feb 2019 Center for Excellence in Teaching and Learning *Inclusive Classroom Training* (4 hr).
- Oct 2018 College of Liberal Arts and Sciences Workshop on the Preliminary 3rd Year Review Process (2 hr).
- Aug 2018 Graduate College Inclusion Workshop for Graduate Faculty (2 hr).
- Oct 2017 College of Liberal Arts and Sciences Workshop on the Preliminary 3rd Year Review Process (2 hr).
- Oct 2017 Graduate College Mentoring Graduate Students Workshop (2 hr).
- Aug 2015 Center for Excellence in Learning and Teaching CELT Teaching Symposium (1/2 day).
- Aug 2015 Office of the Senior Vice President and Provost New Faculty Orientation (1 day).

## **FUEL Story County**

- Feb 2021 Diversity, equity and inclusion in the workplace and the community panel, presented by nicci port, Javier Vela and Michael Jackson (1 hr).
- Nov 2020 How to be an Effective Board Member, presented by Sarah Buck (1 hr).
- Jul 2020 Mental Health During COVID-19 Crisis, presented by Jean Muhammad and Christine Krause (1 hr).
- Feb 2020 Networking: The Ties That Bind, presented by Danny Beyer (1 hr).
- Feb 2019 How to Live out your Passion and Achieve your Goals, presented by Kevin Dresser, Head Coach of Iowa State University Wrestling Team (1 hr).
- Jan 2019 *Grow Your Influence*, presented by Jim Summers, Associate Professor of Management at Iowa State University (1 hr).
- Oct 2018 Ames Chamber of Commerce Leadership Series Capstone, presented by Dr. Simon Estes (1 hr).
- Feb 2018 Getting the Most Out of Your Team, presented by Jon Heacock, Defensive Coordinator and Safeties Coach of Iowa State University Football Team (1 hr).

## The University of Texas at Austin

• Aug 2012 – New Faculty Orientation (2 days) including: workshops on Becoming an Effective Teacher, How to Help Students Success in your Classes and The Flipped Classroom Teaching Method.

## Other

- Feb 2021 Nonprofit Board of Directors Legal Compliance Training, by Iowa Legal Aid. Presented by Chantelle Smith (Iowa Attorney General Office), Samantha Wagner (Iowa Legal Aid) and Willard L. Boyd III (Nyemaster Goode, P.C.) (3 hrs).
- Jun 2020 First in series: Taking the Lead... 2020 Policing and Justice, by the Ames, Iowa Branch of the National Association for the Advancement of Colored People NAACP (1hr).
- Jun 2020 For a Time Like This: The Catholic School Response to Systematic Racism, by the National Catholic Educational Association NCEA (1hr).

#### Research Visits

- Mar 2023. The University of Texas at Austin (USA).
- Feb 2023. The University of Texas at Austin (USA).
- Jan 2023. Universidad Autónoma de Madrid (Spain).
- Nov 2019. The University of Texas at Austin (USA).
- May 2019. Stanford University (USA).
- Mar-Apr 2019. The University of Texas at Austin (USA).
- Jan 2019. Oak Ridge National Laboratory (USA).
- Jan 2019. George Mason University (USA).
- Sep 2018. The University of Texas at Austin (USA).
- Aug 2018. Universidad de Puerto Rico, Río Piedras (Puerto Rico).
- Jul 2018. Universitat de Barcelona (Spain).
- Jul 2018. Università degli Studi di Napoli "Parthenope" (Italy).
- Jul 2018. Universidad Autónoma de Madrid (Spain).
- Mar 2018. Universidad Autónoma de Madrid (Spain).
- Jan-Feb 2018. The University of Texas at Austin (USA).
- Nov 2017. FIM-ETH Zürich (Switzerland).
- Jul-Aug 2017. Universidad Autónoma de Madrid (Spain).
- Mar 2017. University of Tennessee, Knoxville (USA).
- Feb 2017. Division of Applied Mathematics, Brown University (USA).
- Nov 2016. Kansas State University (USA).
- Sep 2016. George Mason University (USA).
- Aug 2016. The University of Texas at Austin (USA).
- Jun 2016. Universidad Autónoma de Madrid (Spain).
- Apr 2016. The University of Texas at Austin (USA).
- Oct 2015. University of Tennessee, Knoxville (USA).
- Oct 2015. Kansas State University (USA).
- Sep 2015. The University of Texas at Austin (USA).
- Jul 2015. Pontifícia Universidade Católica do Rio de Janeiro PUC-Rio (Brazil).
- Jul 2015. Universidad Técnica Federico Santa María (Chile).
- Apr 2015. Columbia University, New York (USA).
- Nov 2014. University of Tennessee, Knoxville (USA).
- Jul 2014. Universidad de La Rioja (Spain).
- Jul 2014. Università degli Studi di Napoli "Parthenope" (Italy).
- Jul 2014. Universidad Autónoma de Madrid (Spain).
- May-Jun 2014. 6 weeks at Isaac Newton Institute of Mathematical Sciences, University of Cambridge (United Kingdom).
- May 2014. University of Edinburgh (United Kingdom).
- Jul 2013. Universidad Autónoma de Madrid (Spain).
- Jul 2013. Universidad de La Rioja (Spain).
- Jun 2013. Università degli Studi di Napoli "Parthenope" (Italy).
- Jan 2013. Universidad Autónoma de Madrid (Spain).
- Dec 2012. Universidad de La Rioja (Spain).
- Jun 2012. Università degli Studi di Napoli "Federico II" and Università degli Studi di Napoli "Parthenope" (Italy).
- Jun 2012. Universidad de Málaga (Spain).
- Feb 2012. Universidad de Zaragoza (Spain).
- Nov 2011. Universidad Autónoma de Madrid (Spain).
- Nov 2011. Universidad de La Laguna (Spain).
- Jun 2011. Universidad de La Laguna (Spain).
- Jun 2011. Universidad de Buenos Aires (Argentina).
- Nov 2010. Universidad de Buenos Aires (Argentina).
- Sep 2010. Delft Institute of Applied Mathematics, TU Delft (The Netherlands).
- Jul 2010. University of Edinburgh (United Kingdom).
- May 2010. Universidad de Zaragoza (Spain).

- Apr 2010. One month at Isaac Newton Institute of Mathematical Sciences, University of Cambridge (United Kingdom).
- Mar 2010. One month at University of Edinburgh (United Kingdom).
- Feb 2010. Two weeks at Applied Mathematics Institute of Litoral (IMAL), Universidad Nacional del Litoral (Argentina).
- Dec 2009. Universidad de La Laguna (Spain).
- Sep 2009. Applied Mathematics Institute of Litoral (IMAL), Universidad Nacional del Litoral (Argentina).
- Feb-Mar 2008. Two months at University of Edinburgh (United Kingdom).

# MEETINGS ATTENDANCE (IN CHRONOLOGICAL ORDER)

- Annual Meeting of Argentinean Mathematical Union of 2003, Argentina.
- Annual Meeting of Argentinean Mathematical Union of 2004, Argentina.
- Annual Meeting of Argentinean Mathematical Union of 2005, Argentina.
- IMPA Summer School 2005, at Rio de Janeiro, Brazil.
- Second Meeting of Differential Geometry 2005, at La Falda, Argentina.
- Second International Meeting of nonlinear PDEs 2005, at Buenos Aires, Argentina.
- Numerical Methods for PDE 2005, at Buenos Aires, Argentina.
- First School of Mathematical Models and Economical Behavior 2005, at Merlo, San Luis, Argentina.
- Recent developments in Real and Harmonic Analysis Meeting in Honor of Carlos Segovia 2005, at Buenos Aires, Argentina.
- Third Summer School of PhD Program in Applied Sciences and Mathematical Engineering 2006, at University of Concepción, Chile.
- Harmonic Analysis and Applications 8th National Meeting of Analysts "A.P. Calderón" 2006, at Merlo, San Luis, Argentina.
- Harmonic Analysis and Applications 2007, at University of Seville, Spain.
- X Real and Complex Analysis Meetings EARCO 2007, at Palma de Mallorca, Spain.
- SMI Summer School 2007, at Perugia, Italy.
- SIMUMAT Summer School 2007, at Castro Urdiales, Spain.
- International Multidisciplinary Workshop on Stochastic Modeling 2007, University of Seville, Spain.
- III International Course of Mathematical Analysis in Andalucía 2007, at La Rábida, Spain.
- Harmonic Analysis and Orthogonal Systems 2007, at Miraflores de la Sierra, Spain.
- Topics in PDEs and Applications 2008, at Granada, Spain.
- CIMPA School "Real analysis and applications" 2008, at La Falda, Argentina.
- 8th International Conference on Harmonic Analysis and PDE 2008, at El Escorial, Spain.
- Bio-Math Summer School and Workshop 2008 Stochastic Differential Equation Models with Applications to the Insulin-Glucose System and Neuronal Modeling, at Middelfart, Denmark.
- SPDEs: Computations and Applications 2008, at ICMS, Edinburgh, UK.
- IV International Symposium on Nonlinear PDEs and Free Boundary Problems 2009, at Mar del Plata, Argentina.
- XI Real and Complex Analysis Meetings XI EARCO 2009, at Chinchón, Spain.
- INdAM Intensive Period "Geometric properties of nonlinear local and nonlocal problems" 2009, at Pavia, Italy.
- Phase Variations 2009, at Pavia, Italy.
- C.I.M.E. Summer Course "Regularity estimates for nonlinear elliptic and parabolic problems" 2009, at Cetraro, Italy.
- Annual Meeting of Argentinean Mathematical Union of 2009, Argentina.
- XII Real and Complex Analysis Meetings XII EARCO 2010, at Haro, Spain.
- Harmonic Analysis and Orthogonal Systems IV 2010, at Bedlewo, Poland.
- V Research Meeting on Approximation Theory 2010, at Benasque, Spain.

- XIII Real and Complex Analysis Meetings XIII EARCO 2011, at Zarautz, Spain.
- Fabes Lectures 2011 Conference on Real Analysis and PDEs, at Buenos Aires, Argentina.
- 22nd International Workshop on Operator Theory and its Applications IWOTA 2011, at Sevilla, Spain.
- Workshop of Young Researchers in Mathematics 2011, at Universidad Complutense de Madrid, Spain.
- VI Research Meeting on Approximation Theory 2011, at Canfranc, Spain.
- 9th International Conference on Harmonic Analysis and Partial Differential Equations El Escorial 2012, at El Escorial, Spain.
- Summer School 2012 on Nonlocal Operators, at Bielefeld University, Germany.
- Nonlocal Operators: Analysis, Probability, Geometry and Applications 2012, at ZiF Bielefeld, Germany.
- IV Congreso Latinoamericano de Matemáticos CLAM 2012, at National University of Córdoba, Argentina.
- Special Functions, Partial Differential Equations and Harmonic Analysis, a conference in honor of Calixto P. Calderón 2012, at Roosevelt University, Chicago, USA.
- Distance and measure in analysis and partial differential equations: a meeting in honor of Hugo Aimar's 60th birthday, at Universidad Nacional del Litoral, Santa Fe, Argentina.
- Kinetics, non standard diffusions and stochastics: emerging challenges in the sciences, FRG Ki-Net Colab Joint Workshop 2014, at The University of Texas at Austin, USA.
- XV Real and Complex Analysis Meetings XV EARCO 2014, at Girona, Spain.
- Recent Advances in Non-local and Non-linear Analysis: Theory and Applications 2014, at ETH Zürich, Switzerland.
- International Conference on Free Boundary Problems: Theory and Applications 2014, at Isaac Newton Institute of Mathematical Sciences, University of Cambridge, United Kingdom.
- Harmonic Analysis to celebrate Michael Cowling's 65th birthday 2014, at Segovia, Spain.
- 10th AIMS International Conference on Dynamical Systems, Differential Equations and Applications 2014, at Madrid, Spain.
- Annual Meeting of Argentinean Mathematical Union of 2014, Argentina.
- 38th Annual Texas Partial Differential Equations Conference 2015, at Houston, USA.
- Geometric Partial Differential Equations Special Day 2015, at Columbia University, USA
- Calculus of Variations and Nonlinear Partial Differential Equations 2015, at Austin, Texas, USA.
- 6th Symposium on Analysis and PDEs 2015, at Purdue University, USA.
- Escola de Altos Estudos de Capes 2015, Curso: Free Boundary Problems: Common Aspects and Methods, by Luis Caffarelli, at IMPA, Brazil.
- Thirteenth Prairie Analysis Seminar 2015, at Kansas State University, USA.
- Nonlocal Models in Mathematics, Computation, Science, and Engineering 2015, at Oak Ridge, Tennessee, USA.
- 2015 SIAM Conference on Analysis of Partial Differential Equations, at Scottsdale, Arizona, USA.
- 15th New Mexico Analysis Seminar 2016, at Albuquerque, New Mexico, USA.
- 39th Annual Texas Partial Differential Equations Conference 2016, at San Marcos, Texas, USA.
- The Nineteenth Rivière-Fabes Symposium on Analysis and PDE 2016, at University of Minnesota, USA.
- Calculus of Variations and Partial Differential Equations 2016, Columbia University, New York, USA.

- 10th International Conference in Harmonic Analysis and Partial Differential Equations 2016, at El Escorial, Madrid, Spain.
- 3rd Conference on Nonlocal Operators and Partial Differential Equations 2016, at Conference Centre of the Polish Academy of Sciences, Bedlewo, Poland.
- 2nd Annual Meeting of SIAM Central States Section 2016, at University of Arkansas at Little Rock, Little Rock, Arkansas, USA.
- AMS Fall Central Sectional Meeting 2016, at University of St. Thomas (Minneapolis campus), Minneapolis, Minnesota, USA.
- SIAM-SEAS Southeastern Atlantic Section Conference 2017, at Florida State University, Tallahassee, Florida, USA.
- KUMUNU Conference in PDE, Dynamical Systems and Applications 2017, at University of Nebraska-Lincoln, Nebraska, USA.
- Nonlocal Dynamics: Theory, Computation and Applications NSF/CBMS Regional Conference in the Mathematical Sciences 2017, at Illinois Institute of Technology, Chicago, Illinois, USA.
- Nonlocal School on Fractional Equations 2017, at Iowa State University, USA.
- Primer Encuentro Conjunto RSME-UMA, Reunión Anual de la UMA 2017, at Universidad de Buenos Aires, Argentina.
- Joint Mathematics Meetings 2018, at San Diego, California, USA.
- Texas Differential Equations Conference 2018, The University of Texas at San Antonio, USA.
- American Philosophical Association 2018 Pacific Division Meeting, San Diego, USA.
- Fractional PDEs: Theory, Algorithms and Applications 2018, at ICERM Brown University, Providence, Rhode Island, USA.
- AMS Fall Central Sectional Meeting 2018, University of Michigan, USA.
- AMS Fall Western Sectional Meeting 2018, San Francisco State University, USA.
- Workshop on Dynamics, Control and Numerics for fractional PDEs 2018, Puerto Rico, USA.
- Nonlinear Analysis and its Applications In Honor of Luis A. Caffarelli 2019, Mardel Plata, Argentina.
- International Conference on Elliptic and Parabolic Problems 2019, Gaeta, Italy.
- Midwest Geometry Conference 2019, Iowa State University, Ames, Iowa, USA.
- AMS Fall Central Sectional Meeting 2019, University of Wisconsin-Madison, USA.
- 3rd Fractional Calculus Meeting 2019, Universidad de Zaragoza, Spain.
- Local and Nonlocal Trends in Analysis and Geometry 2019, U. of Pittsburgh, USA.
- SIAM Central States Section 5th Annual Meeting 2019, Iowa State U., USA.
- AMS Fall Southeastern Sectional Meeting 2019, U. of Florida, Gainesville, USA.
- Joint Mathematics Meetings 2020, Denver, Colorado, USA.
- Texas Differential Equations Conference 2020, UT Austin, Texas, USA.
- 50th Barrett Lectures 2021, The University of Tennessee-Knoxville, USA.
- AMS Fall Central Virtual Sectional Meeting 2021, USA.
- AMS Spring Central Virtual Sectional Meeting 2022, USA.
- Joint Mathematics Meetings 2022, virtual, USA.
- Nonlocal School on Fractional Equations 2022, at Iowa State University, USA.
- Theoretical and Applied Aspects for Nonlocal Models 2022, at Banff International Research Station, Canada.
- Texas Differential Equations Conference 2022, Texas A&M, Texas USA.
- Iowa PDE Conference 2022, University of Iowa, USA.
- Joint Mathematics Meetings 2023, Boston, Massachusetts, USA.

More Information More information and auxiliary documents can be found at https://pabloraulstinga.github.io/

Google Scholar profile

 $https://scholar.google.com/citations?user=gT-jYVwAAAAJ\&hl=en\&oi=ao\ \ \, \textbf{Google Scholar Citations: 1582-H-index: 18}$ 

Mathscinet Citations: 778 by 722 authors.