LUIS ÁNGEL CAFFARELLI   CURRICULUM VITAE

Date of Birth December 08, 1948
Birthplace   Buenos Aires, Argentina
Citizenship USA/Argentina

Current Position: Sid W. Richardson Foundation Regents Chair in Mathematics No. 1
Professor of Mathematics, Department of Mathematics, University of Texas at Austin and
The Institute for Computational Engineering and Sciences

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Academic Degrees
PhD   University of Buenos Aires, 1972
MS   University of Buenos Aires, 1969

Scientific Career
1997-   Professor, University of Texas at Austin
1994-97   Professor, Courant Institute - NYU
1986-96   Professor, Institute for Advanced Study - Princeton
1983-86   Professor, University of Chicago
1980-82   Professor, Courant Institute of Mathematical Sciences, NYU
1979-83   Professor, University of Minnesota!
1977-79   Associate Professor, University of Minnesota
1975-77   Assistant Professor, University of Minnesota
1973-74   Postdoctoral Fellow, University of Minnesota

Professional Memberships
National Academy of Sciences
American Academy of Arts and Sciences
Academy of Medicine, Engineering and Science of Texas
American Mathematical Society
Association for Women in Mathematics
Society for Industrial and Applied Mathematics
Pontifical Academy of Sciences, Vatican City, Italy
Royal Spanish Academy of Sciences
Unión Matemática Argentina
Academia Nacional de Ciencias Exactas, Físicas y Naturales, Argentina
Academia Nacional de Ciencias: Córdoba, Argentina
L'Accademia Nazionale delle Scienze detta dei XL, Italy
L'Accademia Nazionale dei Lincei, Italy
L'Istituto Lombardo Accademia di Scienze e Lettere, Italy

2018 *Asociación Argentina de Mecánica Computacional* (AMCA) Prize to the International Scientific Career

2018 The Shaw Prize in Mathematics, Hong Kong

2016 Honorary Researcher (IMPA), Rio de Janeiro, Brazil

2015 Elected Member Royal Spanish Academy of Sciences, Madrid

2014 Career Research Excellence Award UT Co-op, Austin, Texas

2014 Doctor Honoris Causa Univ Nacional del Litoral, Santa Fe, Argentina

2014 Leroy P. Steele Prize for Seminal Contribution to Research AMS

2013 Solomon Lefschetz Medal Mathematical Congress of the Americas

2013 Honorary Doctor of Science University of Chicago

2012 The Wolf Prize in Mathematics The Wolf Foundation, Tel Aviv, Israel

2012 Doctor Honoris Causa Universidad de Buenos Aires, Argentina

2012 Honorary Doctor of Science University of Notre Dame, Indiana

2012 President of the Jury, International Mathematical Olympiad, Argentina

2009 Leroy P. Steele Prize for Lifetime Achievement AMS

2007 Doctor Honoris Causa Universidad Nacional de San Luis, Argentina

2005 The Rolf Schock Prize Royal Swedish Academy of Sciences, Stockholm

2003 Diamond Konex Science and Technology, Fundación Konex, Argentina

2003 Doctor Honoris Causa École Normale Supérieure, Paris

2003 Doctor Honoris Causa Universidad Nacional de La Plata, Argentina

1997 President of the Jury International Mathematical Olympiad

1994 Elected Member Pontifical Academy of Sciences, Vatican City

1992 Doctor Honoris Causa Universidad Autónoma de Madrid

1991 Elected Member National Academy of Sciences

1988 Pius XI Gold Medal Pontifical Academy of Sciences

1986 Elected Fellow American Academy of Arts & Sciences

1984 Guggenheim Fellowship, New York, NY

1984 Bôcher Memorial Prize American Mathematical Society (AMS)

1982 Stampacchia Prize (co-awarded)

MEMBER: Advisory Board, *Miller Institute for Basic Research in Science*: *UC Berkeley*

MEMBER: TAMEST O'Donnell Awards Selection Committee
     The Academy of Medicine, Engineering and Science of Texas: Science Subcommittee

MEMBER: Scientific Advisory Panel, *The Fields Institute for Research in Mathematical Sciences*

ADVISORY PANEL MEMBER: *Simons Foundation Fellows and Math+X Investigators*

REVIEWER: European Research Council Advanced Grants & Consolidator Grants

REFEREE ANVUR Agenzia di Valutazione del Sistema Universitario e della Ricerca
     The National Agency for Evaluation of Universities & Research Institutes in Italy

MEMBER: Scientific Council, Centro Internacional de Matemática, Coimbra, Portugal

Co-DIRECTOR UT-Portugal Program in Mathematics - CoLab
     Portuguese Science & Technology Foundation (FCT) Lisbon

PEER REVIEWER EPSRC Engineering & Physical Sciences Research Council, UK

SCIENTIFIC STEERING COMMITTEE OxPDE: Mathematical Institute
     University of Oxford, Centre for Nonlinear PDE CDT

REVIEWER CONICET Consejo Nacional de Investigaciones Científicas y Técnicas
     National Research Council: Scientific and Technical, Argentina

MEMBER: INTERNATIONAL SCIENTIFIC COMMITTEE CMM
     Center for Mathematical Modeling, Universidad de Chile, Santiago

MEMBER: DEPARTMENT OF MATHEMATICAL SCIENCES ADVISORY BOARD
     Carnegie Mellon University, Pittsburg, PA

INTERNATIONAL EXPERT: National Center for Educational Quality Enrichment
     Republic of Georgia

Advances in Nonlinear Studies (ANS) Editorial Board

Analysis & PDE Board of Editors

Annales de L'institut Henri Poincare Analyse Non Lineaire Editorial Board

Annali di Matematica Pura ed Applicata Editor

Bulletin of the Brazilian Mathematical Society Editorial Board

Bulletin of the Institute of Mathematics, Academia Sinica Editor

Calculus of Variations and Partial Differential Equations Editorial Board

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Communications in Contemporary Mathematics Editor

Communications in Mathematical Physics Editorial Board

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Interfaces and Free boundaries (IFB) Associate Editor

Journal of Evolution Equations (JEE) Editorial Board

Journal of Fourier Analysis and Applications Executive Editor

Journal of Geometric Analysis (JGA) Executive Editor

MAT. Série A Editorial & Scientific Committee

Conferencias, seminarios y trabajos de matemática

Mathematical Models & Methods in Applied Sciences Associate Editor

Milan Journal of Mathematics Editorial Board

Proceedings of the National Academy of Sciences (PNAS) Editor

Rendiconti Lincei: Matematica e Applicazioni Advisory Committee

Revista del la Unión Matemática Argentina Editorial Board

Revista Matemática Iberoamericana Editorial Board

2019 Invited Speaker: "The Interaction of Local and Non-Local Phenomena" and "Diffusion-type Equations: From the Heat Equation to Long Distance Interactions," Thirteenth Annual Baylor Lecture Series in Mathematics, Baylor University

2019 Invited Lecturer: Conference in Partial Differential Equations and Applications University of Ann Arbor, Michigan

2019 "Aspects of diffusion theory: infinitesimal, integral and their interactions," Bergman Lectures, Stanford University

2018 Invited speaker: Conference "PDEs and Geometric Measure Theory," ETH Zurich

2018 "The Mathematics of Phase Transition" The Shaw Prize Lecture on Mathematical Sciences, Hong Kong (award recipient)

2018 International Congress of Mathematicians (ICM), Fields Medal Awards, Rio de Janeiro

2018 "Some models of segregation," Institute of Mathematics, Jagiellonian University, Kraków

2018 "Segregation Models," Zhejiang University, Hangzhou

2018 Distinguished Lecture: "Some Models of Segregation" at Carnegie Mellon University

2017 Invited Lecture: "Models of Segregation" at the V International Symposium on Nonlinear PDEs and Free Boundary Problems, University of Buenos Aires

2017 "Diverse models on segregation" 75 years of Mathematics: Mexico City
The Instituto de Matemáticas of the National Autonomous University of Mexico (UNAM)

2017 Reaction-diffusion, Propagation, Modelling, Institut Henri Poincaré, Paris
"Some Segregation Problems: Nonlinear, nonLocal"

2017 CAS President's International Fellowship for Distinguished Scientists
Chinese Academy of Sciences (CAS); Beijing, China

2017 ICTP Colloquium Lecture: Nonlocal Partial Differential Equations and Applications to Geometry, Physics and Probability Abdus Salam International Centre for Theoretical Physics (ICTP); Trieste, Italy

2017 Kempf Lecture Series: In honor of George Kempf

Department of Mathematics, Johns Hopkins University, Baltimore, MD

2016 Coxeter Lecture Series: In conjunction with a Focus Program on Nonlocal PDE
The Fields Institute for Research in Mathematical Sciences, Toronto, Canada

2016 Invited Speaker: Concluding the Special Program on Nonlinear Equations
Center of Mathematical Sciences & Applications, Harvard University, Cambridge, MA

2016 Distinguished Lecture Series: Gergen Lectures, Department of Mathematics, Duke
University, Durham, NC

2016 Plenary Speaker: 27th Nordic Congress of Mathematics, Celebrating the 100th
anniversary of Institut Mittag-Leffler: Stockholm University, Stockholm, Sweden

2016 Invited Speaker: Workshop Analysis in Lyon, ENS de Lyon and Université Claude-
Bernard Lyon 1, Lyon, France

2015 Distinguished Lecture Series: CAPES School of High Studies, Instituto Nacional de
Matemática Pura e Aplicada (IMPA) Rio de Janeiro, Brazil

2014 Master Lectures on Mathematics: Tsinghua Sanya International Mathematics Forum,
Sanya, China

2014 Plenary Speaker: Plenary Session, Evolving Concepts of Nature, Pontificia Accademia
delle Scienze, Vatican City, Rome

2014 Radó Lecture Series: Ohio State University, Columbus, Ohio

2014 Invited Speaker: Recent advances in nonlocal and nonlinear analysis theory
Institute for Mathematical Research (FIM) ETH Zurich, Switzerland

2014 Rothschild Distinguished Visiting Fellow: Program on Free Boundary Problems
Isaac Newton Institute, Cambridge, UK

2014 Distinguished Lecture Series: Center for Mathematical Sciences Lectures
Technion - Israel Institute of Technology, Haifa, Israel

2014 Maseeh Lecture: Fariborz Maseeh Department of Mathematics and Statistics
Portland State University

2013 Invited Speaker: 51st Conference of the Society for Natural Philosophy:
'Mathematics and Mechanics in the Physical Sciences: A Tribute to James Serrin'
University of Minnesota & IMA

2013 Plenary Lecture: Mathematical Congress of the Americas (MCA)

Guanajuato, Mexico

2013 President's Distinguished Visiting Lecture: KAUST Center
The King Abdullah University of Science and Technology; Jeddah, Saudi Arabia

2013 Colloquium Magenes: Applied Mathematics Seminar, dell'Università di Pavia, l'Istituto di Matematica Applicata e Tecnologie Informatiche (IMATI) del CNR, Pavia, Italy

2012 Plenary Speaker: Complexity and Analogy in Science: Theoretical, Methodological and Epistemological Aspects: Pontifical Academy of Sciences Vatican City, Rome

2012 Plenary Lecture: IMPA, 60 years: Rio de Janeiro, Brazil

2012 Summer Course UIMP: Frontiers of Mathematics and Applications III Santander, Spain

2012 Wolf Prize Lecture: The Knesset Building, Jerusalem, Israel

2011 Plenary Lecture: III MACI 2011Third Conference on Applied, Computational and Industrial Mathematics: Department of Mathematics of the Universidad Nacional del Sur, Argentinean Section of the Society for Industrial and Applied Mathematics (AR-SIAM) and Argentinean Association for Industrial, Computational and Applied Mathematics (ASAMACI)

2011 Invited Speaker: Celebration of Mathematical Sciences in Memory of Shiing-Shen Chern's 100th birthday: Academia Sinica: Taipei, Taiwan

2011 Invited Speaker: Analysis & Applications: In Honor of Elias M. Stein Princeton University, Department of Mathematics, Princeton, NJ

2011 MSRI-Evans Lecture: University of California, Berkeley

2011 The Rouse Ball Lecture: Centre for Mathematical Sciences: Cambridge, UK

2010 The Abel Symposium: The Norwegian Mathematical Society: Oslo, Norway

2009 Minicourse: Geometric PDE: Institute for Advanced Study: Princeton University

2007 ICIAM07 Plenary Lecture: 6th ICIAM: Zurich, Switzerland

2005 The Milliman Lectures: University of Washington

2005 Lecture Series: Mathematical Sciences Research Institute (MSRI): Berkeley, CA

[315] Caffarelli, L.A.; Roquejoffre, J.M. The leading edge of a free boundary interacting with a line of fast diffusion. *jour Algebra i Analiz* 32 (2020), no. 3, 149-179.

[314] Caffarelli, Luis, Teymurazyan, Rafayel; Urbano, José Miguel. Fully nonlinear integro-differential equations with deforming kernels. *Comm. Partial Differential Equations* 45 (2020), no. 8, 847–871.

[313] Caffarelli, Luis; Cagnetti, Filippo; Figalli, Alessio. Optimal regularity and structure of the free boundary for minimizers in cohesive zone models. *Arch. Ration. Mech. Anal.* 237 (2020), no. 1, 299–345.

[312] Caffarelli, Luis A.; Sire, Yannick Minimal surfaces and free boundaries: recent developments. *Bull. Amer. Math. Soc. (N.S.)* 57 (2020), no. 1, 91–106.

[311] Arapostathis, Ari; Biswas, Anup; Caffarelli, Luis. On uniqueness of solutions to viscous HJB equations with a subquadratic nonlinearity in the gradient. *Communications in Partial Differential Equations* 44 (2019), no. 12, 1466-1480.

[310] Athanasopoulos, Ioannis; Caffarelli, Luis; Milakis, Emmanouil Parabolic obstacle problems, quasi-convexity and regularity. *Ann. Sc. Norm. Super. Pisa Cl. Sci. (5)* 19 (2019), no. 2, 781–825.

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[306] Caffarelli, Luis; Duque, Luis; Vivas, Hernán. The two membranes problem for fully nonlinear operators. *Discrete Contin. Dyn. Syst.* 38 (2018), no. 12, 6015–6027.

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[304] Athanasopoulos, Ioannis; Caffarelli, Luis; Milakis, Emmanouil On the regularity of the non-dynamic parabolic fractional obstacle problem. *J. Differential Equations* 265 (2018), no. 6, 2614–2647.

[303] Caffarelli, L.; De Silva, D.; Savin, O. Two-phase anisotropic free boundary problems and applications to the Bellman equation in 2D. *Arch. Ration. Mech. Anal.* 228 (2018), no. 2, 477–493.

[302] Caffarelli, Luis A.; Yu, Hui A curvature flow in the plane with a nonlocal term. *Calc. Var. Partial Differential Equations* 57 (2018), no. 2, Art. 29, 8 pp.

[301] Caffarelli, Luis A.; Sire, Yannick Bounds on the Green function for integral operators and fractional harmonic measure with applications to boundary Harnack. *Proc. Amer. Math. Soc.* 146 (2018), no. 3, 1207–1216.

[300] Caffarelli, L.; Patrizi, S.; Quitalo, V. On a long range segregation model. *J. Eur. Math. Soc. (JEMS)* 19 (2017), no. 12, 3575–3628.

[299] Caffarelli, L.; De Silva, D.; Savin, O. The two membranes problem for different operators. Ann. Inst. H.Poincaré Anal. Non Linéaire 34 (2017), no. 4, 899--932.

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[280] Caffarelli, Luis A.; Leitão, Raimundo; Urbano, José Miguel Regularity for anisotropic fully nonlinear integro-differential equations. Math. Ann. 360 (2014), no. 3-4, 681--714.

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Granada, Granada, April 7--11 and at the Centre de Recerca Matemàtica in Bellaterra, May 5--9, 2008. Edited by Xavier Cabré and Juan Soler. Advanced Courses in Mathematics. CRM Barcelona. Birkhäuser/Springer Basel AG, Basel, 2012. viii+149 pp.

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