

Enrico Valdinoci

CURRICULUM VITAE

Qualifications.

Master's Degree in Mathematics Università degli Studi Roma Tre,
February 1998

Ph.D. in Mathematics, University of Texas at Austin 2002

Current academic position. Full Professor, University of Western Australia.

Previous academic positions.

- 7/16-8/17 Full Professor, University of Melbourne
- 6/13-7/16 ERC Group Leader, Weierstraß-Institut für Angewandte Analysis und Stochastik,
- 12/11-5/13 Full Professor, University of Milan,
- 1/07-11/11 Associate Professor, Università di Roma Tor Vergata,
- 11/02-12/06 Assistant Professor, Università di Roma Tor Vergata,
- 1/02-11/02 PostDoc, Scuola Normale Superiore di Pisa.

Teaching activities.

- 1996-1998** Tutoring at Università degli Studi Roma Tre (Mathematical Analysis and Mathematical Analysis 2)
- 1998-2001** Graduate Research Assistant and Teaching Assistant at University of Texas at Austin. Advanced Calculus and Applications and Real Analysis (PhD course)
- 2002** Mathematical Analysis 7 (master's degree (laurea specialistica)/PhD course), Università degli Studi Roma Tre
- 2002-2003** Teaching support for Mathematical Analysis 2 (degree in Mathematics), Università degli Studi Roma Tre. Mathematical Analysis 1 (degree in Informatics) and Mathematics (degree in Cell Biology), Università degli Studi di Roma Tor Vergata
- 2003-2004** Calculus 3 (degree in Physics) and Mathematics (degree in Biotechnology), Università degli Studi di Roma Tor Vergata
- 2004-2005** Mathematical Analysis 3 (degree in Mathematics), Mathematical Analysis 2 (degree in Chemistry), Phase transitions and elliptic PDE (PhD course), Università degli Studi di Roma Tor Vergata
- 2005-2006** Mathematical Analysis 3 (degree in Mathematics), Mathematical Analysis 1 (degree in Media and Communication Science), Università degli Studi di Roma Tor Vergata
- 2006-2007** Mathematical Analysis 3 (degree in Mathematics), Mathematics (degree in Biotechnology), Università degli Studi di Roma Tor Vergata
- 2007-2008** Mathematical Analysis 2 and Fourier Analysis (degree in Media and Communication Science), Università degli Studi di Roma Tor Vergata
- 2008-2009** Mathematical Analysis 2 and Fourier Analysis (degree in Media and Communication Science), Università degli Studi di Roma Tor Vergata

- 2009-2010** Calculus 2 and Fourier Analysis (degree in Media and Communication Science), Università degli Studi di Roma Tor Vergata, Geometric features of elliptic PDEs, Université Catholique de Louvain, Belgium (master's courses and seminars for the Erasmus Project).
- 2010-2011** Fourier Analysis (degree in Media and Communication Science and in Science and Technology for the Media), Mathematical Analysis 1 (degree in Mathematics), Università degli Studi di Roma Tor Vergata. Phase transitions and (non)local minimal surfaces (PhD course), Università degli Studi della Calabria, Cosenza
- 2011-2012** Fourier Analysis (degree in Media and Communication Science and in Science and Technology for the Media) and Differential Equations (master's degree (laurea magistrale) in Mathematics), Università degli Studi di Roma Tor Vergata. Nonlocal nonlinear variational problems, SISSA, Trieste. (Non)local phase transition equations, Universitat Politècnica de Catalunya, Barcelona. Advanced topics in partial differential equations, Università degli Studi di Milano.
- 2012-2013** Mathematical Analysis 1 (degree in Physics), Advanced topics in partial differential equations (degree in Mathematics), Continuum Mathematics (degree in Computer Science), Università degli Studi di Milano. Symmetry and rigidity properties for solutions of elliptic PDEs Rencontres d'Analyse, Université Lyon I. Nonlocal equations of elliptic type, Summer School, Cortona. Periodic Structures in Applied Mathematics, Summer School, Georg-August-Universität Göttingen. Nonlocal phase transitions and minimal surfaces, Università degli Studi di Pisa.
- 2013-2014** Nonlocal diffusion and applications, Spring school, INdAM, Roma. Fractional Laplacian and nonlocal minimal surfaces, Universidad de Chile, Santiago.
- 2014-2015** Nonlocal problems in analysis and geometry, Universidad Autónoma, Madrid. Nonlocal problems – theory and applications, Università degli Studi di Bologna. Phase transition problems and nonlinear PDEs, Nonlocal problems and applications, Porquerolles. Corso Intensivo di Calcolo delle Variazioni, Nonlocal problems in analysis and geometry, Catania.
- 2015-2016** Nonlinear PDEs and related problems, AIMS Centre in Mbour, Senegal. Calculus of Variations and Nonlinear Partial Differential Equations, Columbia University, New York. Nonlocal Variational Problems and PDEs, Pacific Institute for the Mathematical Sciences, University of British Columbia, Vancouver.
- 2016-2017** School on Nonlinear PDEs, Universidad de Santiago de Chile, Santiago.
- 2017-2018** Alcuni problemi nonlocali dal punto di vista dell'analisi, della geometria e della fisica matematica, Università degli Studi di Milano. Some perspectives in nonlocal equations, INdAM Intensive Period, Università degli Studi di Bari Aldo Moro. Advanced School & Workshop on Nonlocal Partial Differential Equations and Applications to Geometry, Physics and Probability, ICTP, Trieste. Complex Analysis, University of Melbourne. Mathematical Analysis for Media Sciences, Advanced Mathematical Analysis for Physics, Advanced Topics of Partial Differential Equations, Università degli Studi di Milano.

- 2018-2019** Nonlocal minimal surfaces, Università degli Studi di Milano. Geometry, University of Western Australia. A Gentle Introduction to Partial Differential Equations (AMSI ACE Course), University of Western Australia. Nonlocal equations and nonlocal minimal surfaces, Central South University, Changsha. Classical and fractional partial differential equations under different perspectives, Università degli Studi di Milano.
- 2019-2020** Continuous Geometry and Analysis, University of Western Australia. Measure Theory, University of Western Australia (AMSI ACE Course).
- 2020-2021** A broad look at elliptic partial differential equations, Universidade Federal de Sergipe and Pontifícia Universidade Católica do Rio de Janeiro. Continuous Geometry and Analysis, University of Western Australia. Elliptic partial differential equations from an elementary viewpoint (AMSI ACE Course), University of Western Australia. Elliptic partial differential equations from an elementary viewpoint, Indian Institute of Technology Gandhinagar. Analytical aspects of local and nonlocal minimal surfaces, Università degli Studi di Milano.
- 2021-2022** Continuous Geometry and Analysis, University of Western Australia. Analytical Methods for Scientists, University of Western Australia. Mathematical Models and Partial Differential Equations, Ukrainian Catholic University. Summer School in Nonlinear analysis, Università degli Studi della Tuscia.
- 2022-2023** A basic introduction to elliptic partial differential equations, Politecnico di Milano. Forensic Mathematics, University of Western Australia. Mathematical Analysis, University of Western Australia. Long-range capillarity theory, Columbia University. Nonlinear Elliptic and Parabolic PDEs, Universidad Autónoma de Madrid.
- 2023-2024** Complex and Fourier Analysis, University of Western Australia. Nonlinear Partial Differential Equations, Swansea University.
- 2024-2025** Elliptic Partial Differential Equations from an elementary viewpoint: a glance at the classical theory, AMSI Summer School, University of Sydney.

Students and PostDocs.

Bachelor of Philosophy Research Placement.

- *Jacob Smith*, University of Western Australia, 2020.

Bachelor students.

- *Diego Castellaneta*, Università di Roma Tor Vergata, *Minimal surfaces and a conjecture of De Giorgi*, 2006.

Research Internships.

- *David Adams*, Australian Mathematical Sciences Institute and University of Western Australia, 2020.
- *Josh Troy*, Australian Mathematical Sciences Institute and University of Western Australia, 2022.

Master's students.

- *Diego Castellaneta*, Università di Roma Tor Vergata, *Pointwise gradient estimates for solutions of singular or degenerate elliptic equations in proper domains with nonnegative mean curvature*, 2009.

- *Matteo Cozzi*, Università di Milano, *Plane-like minimizers for an Allen-Cahn-type functional with an extension to the non-local case*, 2012.
- *Davide Piazzoli*, Università di Milano and Université Paris Sud in Orsay, *Optimal transport for concave costs*, co-advised with Filippo Santambrogio, 2013.
- *Claudia Dalia Bucur*, Università di Milano, *Representation formulas for solutions of fractional Laplacian equations*, 2015.
- *Luca Lombardini*, Università di Milano, *Fractional perimeter and nonlocal minimal surfaces*, 2015.
- *Julien Brasseur*, Université Lyon 1, *Nonlocal equations and slicing properties of fractional spaces*, co-advised with Petru Mironescu, 2015.
- *Raffaele Grande*, Università del Salento, co-advised with Diego Pallara, 2016.
- *Roberto Colomboni*, Università di Milano.
- *Luigi Pollastro*, Università di Milano.
- *Hamish Blanchard*, University of Western Australia.

Honours students.

- *Benjamin Baronowitz*, University of Western Australia.
- *Josh Troy*, University of Western Australia.
- *Adam Robbins*, University of Western Australia.
- *Sebastian Vearncombe*, University of Western Australia.

External mentor.

- *Nicola Vassena*, Berlin Mathematical School.
- *Nicolò Forcillo*, University of Bologna.
- *Aleksandr Dzhugan*, INdAM/University of Bologna.
- *Fumihiko Onoue*, Scuola Normale Superiore di Pisa.
- *Alessandra De Luca*, University of Milan Bicocca.
- *Edoardo Proietti Lippi*, University of Florence.
- *Luigi Pollastro*, University of Milan.
- *Carlo Alberto Antonini*, University of Milan.
- *Mirco Piccinini*, University of Parma.
- *Riccardo Villa*, University of Milan Bicocca.

PhD students.

- *Alessio Fiscella*, Università di Milano, *Variational problems involving non-local elliptic operators*, co-advised with Raffaella Servadei, 2014.
- *Nicola Abatangelo*, Université de Picardie Jules Verne, *Large solutions for fractional Laplacian operators*, co-advised with Louis Dupaigne, 2015.
- *Matteo Cozzi*, Università di Milano, *Qualitative properties of solutions of nonlinear anisotropic PDEs in local and nonlocal settings*, co-advised with Alberto Farina, 2016.
- *Claudia Dalia Bucur*, *Some nonlocal operators and effects due to nonlocality*, Università di Milano, 2017.
- *Julien Brasseur*, Aix Marseille Université, co-advised with Jérôme Coville and François Hamel, 2018.
- *Luca Lombardini*, Università di Milano, co-advised with Alberto Farina, 2019.

- *Pietro Miraglio*, Università di Milano, co-advised with Xavier Cabré, 2020.
- *Elisa Affili*, Università di Milano, co-advised with Henri Berestycki and Luca Rossi.
- *Alessandro Carbotti*, Università di Lecce, co-advised with Antonio Leaci.
- *Miaomiao Cai*, Dalian University of Technology, China Scholarship Council Joint Doctoral Program.
- *Hui Zhang*, Jinling Institute of Technology, China Scholarship Council Joint Doctoral Program.
- *Jack Thompson*, University of Western Australia.
- *Giovanni Giacomini*, University of Western Australia.
- *Francesco De Pas*, University of Western Australia.
- *João Gonçalves da Silva*, University of Western Australia.
- *Jiwen Zhang*, Beijing Normal University.

PostDocs.

- *Giampiero Palatucci*, Università di Roma Tor Vergata.
- *Annalisa Massaccesi*, Università di Milano.
- *Stefania Patrizi*, Weierstrass Institute for Applied Analysis and Stochastics.
- *Jamil Viana Pereira*, Weierstrass Institute for Applied Analysis and Stochastics.
- *Matteo Muratori*, Università di Milano.
- *Eleonora Cinti*, Weierstrass Institute for Applied Analysis and Stochastics.
- *Abdelrazek Dieb*, Weierstrass Institute for Applied Analysis and Stochastics.
- *Joaquim Serra Montolí*, Weierstrass Institute for Applied Analysis and Stochastics.
- *Matteo Cozzi*, Weierstrass Institute for Applied Analysis and Stochastics.
- *Carina Geldhauser*, Weierstrass Institute for Applied Analysis and Stochastics.
- *Hassan Farshbaf-Shaker*, Weierstrass Institute for Applied Analysis and Stochastics.
- *Claudia Bucur*, University of Melbourne.
- *María Medina*, Università di Milano.
- *Giorgio Poggesi*, University of Western Australia.
- *Caterina Sportelli*, University of Western Australia.
- *Edoardo Proietti Lippi*, University of Western Australia.
- *Mary Vaughan*, University of Western Australia.

OTHER MENTORING ACTIVITIES

WIMSIG Mentor. Fogarty Scholars and Winthrop Leaders Mentor. Mentorloop Mentor.

SCIENTIFIC ACTIVITIES

Seminars.

- June 1998** Astronomie et Systemes Dynamique, Aussois, France
May 1999 Giornate di Analisi Nonlineare, SISSA, Trieste
July 1999 AMS Summer Research Institute on Smooth Ergodic Theory and Applications, University of Washington, Seattle, Washington, D.C.

- March 2000** Spring 2000 Midwest Dynamical Systems Conference, University of Florida, Gainesville, Florida
- March 2000** Spring Topology and Dynamical Systems Conference, University of Texas at San Antonio, Texas
- June 2000** Problemi di trasporto ottimale, Università degli Studi Roma Tre, Roma
- October 2000** Dynamical Systems and Related Topics Workshop, Penn State University, State College, Pennsylvania
- November 2000** Southwestern Regional Workshop in Dynamics, University of Southern California, Los Angeles
- April 2001** Solutions of PDE's in Periodic Media, University of Arkansas, Fayetteville
- May-June 2001** Seminari de sistemes dynamics, Universitat de Barcelona, Spain
- June 2001** CELMEC III Meeting on Celestial Mechanics, Monteporzio Catone (RM)
- December 2001** Sistemi dinamici, geodetiche e superfici minime, Scuola Normale Superiore, Pisa
- February 2002** Metodi geometrici, probabilistici e variazionali in sistemi dinamici, SISSA, Trieste
- March 2002** Research Trimester on Dynamical Systems, Scuola Normale Superiore, Pisa
- March 2002** Plane-like minimizers in periodic media: jet flows and Ginzburg-Landau models, Università degli Studi Roma Tre, Roma
- May 2002** Workshop on Nonlinear Models and Analysis, International Erwin Schrödinger Institute, Vienna, Austria
- June 2002** Advances on Nonlinear PDEs, l'Aquila
- September 2002** International Conference on Dynamical Methods for Differential Equations, Castillo de la Mota, Valladolid, Spain
- January 2003** Winter School on NonLinear Partial Differential Equations, Instituto Superior Técnico, Lisbon, Portugal
- June 2003** Strutture (quasi)periodiche in problemi di fisica matematica, Università degli Studi di Roma La Sapienza, Roma
- June 2003** Conferenza sulla Dinamica in Italia, Scuola Normale Superiore, Pisa
- June 2003** (Quasi)periodic structures in problems arising from mathematical physics, California Institute of Technology, Pasadena
- July 2003** New connections between dynamical systems and PDE's, American Institute of Mathematics, Palo Alto
- July 2003** Equadiff 2003, Hasselt, Belgium
- September 2003** XVII Congresso dell'Unione Matematica Italiana, Milano
- January 2004** Orbitas periodicas y quasi-periodicas en el sistema de los tres cuerpos, Universitat de Barcelona, Spain
- April 2004** Quasi-periodic orbits in the planar many body problem, Instituto Superior Técnico, Lisbon, Portugal
- September 2004** INdAM Workshop on Dissipative models in phase transitions, Cortona
- January 2005** International Symposium on Variational Methods and Nonlinear Differential Equations on the Occasion of the 60th Birthday of Antonio Ambrosetti
- March 2005** Proprietà qualitative di transizioni di fase guidate da equazioni ellittiche, Seminario HaM, Università degli Studi di Roma La Sapienza, Roma
- May 2005** Variational problems in nonlinear analysis, SISSA, Trieste
- May 2005** Geometric features of some models related with phase transitions and fluid jets, Università degli Studi di Pisa
- May 2005** Recent Advances in Homogenization, INdAM, Roma

- June 2005** Proprietà geometriche delle soluzioni di alcuni problemi ellittici, Università degli Studi di Perugia
- February 2006** Proprietà geometriche delle soluzioni di alcune equazioni ellittiche, MeMo-Mat, Università degli Studi di Roma La Sapienza, Roma
- March 2006** Entropy penalization methods for Hamilton-Jacobi equations, Instituto de Sistemas e Robótica, Lisbon, Portugal
- March 2006** Some geometric properties of the solutions of the Allen-Cahn equation, University of Texas at Austin
- April 2006** Ground states and critical points for generalized Aubry-Mather theory, University of Texas at Austin
- June 2006** AIMS Sixth International Conference on Dynamical Systems, Differential Equations and Applications, Université de Poitiers, France
- July 2006** Joint Meeting on Mathematics and its Applications, Torino
- July 2006** New Trends in Viscosity Solutions and Nonlinear PDEs, Instituto Superior Técnico, Lisbon, Portugal
- December 2006** Soluzioni di equilibrio per il modello di Frenkel-Kontorova e generalizzazioni, Università degli Studi di Napoli Federico II, Napoli
- December 2006** Soluzioni di equilibrio per il modello di Frenkel-Kontorova e generalizzazioni, Università degli Studi Roma Tre, Roma
- January 2007** Geometric properties of solutions to some elliptic PDEs, Mathematische Kolloquium, Albert-Ludwigs-Universität Freiburg, Friburgo, Germany
- January 2007** Equilibria and ground states for the Frenkel-Kontorova model, Oberseminar über Differentialgeometrie, Albert-Ludwigs-Universität Freiburg, Friburgo, Germany
- May 2007** Geometric properties of solutions of the Allen-Cahn equation, Gerhard-Mercator-Universität Duisburg-Essen, Duisburg, Germany
- June 2007** Periodic and quasiperiodic motions in the many body planetary problem, Symmetry and Perturbation Theory, Otranto
- October 2007** Dalle eterocline del pendolo alle transizioni di fase, e ritorno, Università degli Studi di Camerino
- November 2007** One-dimensional symmetry for solutions of semilinear and quasilinear elliptic equations, University of Texas at Austin
- February 2008** Risultati di simmetria per alcune equazioni ellittiche, Università degli Studi di Bologna
- February 2008** Workshop GREFI-MEFI: from dynamical systems to statistical mechanics, CIRM, Luminy, Marsiglia, France
- February 2008** Simmetria unidimensionale per soluzioni di equazioni ellittiche, Università degli Studi di Pisa
- April 2008** Qualche osservazione su alcuni problemi di De Giorgi, Moser e Bangert, Università degli Studi Roma Tre, Roma
- April 2008** Un approccio geometrico alle equazioni quasilineari, Università degli Studi di Roma La Sapienza, Roma
- May 2008** One dimensional symmetry for solutions of elliptic PDEs, Universität Zürich, Zurich, Switzerland
- September 2008** 1D symmetry for phase transitions, Primo incontro delle Donne del Laplaciano, Cortona
- September 2008** One dimensional symmetry for solutions of elliptic PDEs, SIMAI Congress, Roma

- October 2008** Geometric properties of semilinear PDEs, Centre de Recerca Matemàtica, Bellaterra, Spain
- October 2008** Simmetria unidimensionale per alcune transizioni di fase, Università degli Studi dell'Aquila
- November 2008** Zwei-Städte Kolloquium Erlangen-Regensburg, Universität Regensburg, Germany
- December 2008** Equations elliptiques non-linéaires: symétrie, singularités et classification, Amiens, France
- February 2009** Nice Weak KAM Methods in Nice, Nizza, France
- April 2009** Geometric features and pointwise bounds of some elliptic PDEs, University of Texas at Austin
- April 2009** Equilibrium solutions for some variational problems with group symmetries, Texas A&M University
- September 2009** Regularity for non-linear PDEs, Centro Ennio De Giorgi, Pisa
- October 2009** Pointwise gradient estimates for solutions of elliptic PDEs, Centre de Mathématiques et d'Informatique, Université de Provence, Marsiglia, France
- October 2009** Lack of compactness in nonlinear problems, CIRM, Luminy, Marsiglia, France
- October 2009** Geometric properties of semilinear PDEs and applications, Carnegie Mellon University, Pittsburgh
- October 2009** A pointwise gradient estimate for solutions of PDEs, University of Texas at Austin
- November 2009** Stime puntuali per equazioni ellittiche in domini con curvatura media non-negativa, Università degli Studi di Padova
- November 2009** Giornata di lavoro in ricordo di Bruno Pini, Accademia delle Scienze e Università degli Studi di Bologna
- December 2009** SIAM Conference on Analysis of Partial Differential Equations, Miami, Florida
- December 2009** Some nonlocal minimal surfaces: asymptotics and regularity results, Columbia University, New York
- May 2010** On some problems posed by De Giorgi, Moser and Bangert, Amiens, France
- May 2010** Geometric properties of elliptic PDEs arising from a variational problem, Instituto Superior Técnico, Lisbon, Portugal
- June 2010** Risultati di rigidità, Gamma-convergenza e densità per transizioni di fase alla Gagliardo, Università degli Studi Roma Tre, Roma
- August 2010** Recent Advances on De Giorgi's Conjecture and the Study of Entire Solutions of Nonlinear Scalar Equations: Interaction of PDEs and Differential Geometry, Banff International Research Station, Canada
- August 2010** Pointwise gradient estimates for solutions of elliptic PDEs, Universidade Estadual de Campinas, Brazil
- October 2010** PDE ellittiche e frazionarie: una rapida motivazione e alcuni recenti risultati, Università degli Studi di Perugia
- October 2010** Simmetria 1D per l'equazione di Allen-Cahn, e questioni collegate, Università degli Studi di Firenze
- November 2010** Problemi frazionari di superfici minime e transizioni di fase, Università degli Studi Roma Tre, Roma
- December 2010** Un approccio geometrico alle transizioni di fase frazionarie, Università degli Studi di Roma La Sapienza, Roma

- January 2011** Variational and perturbative methods for nonlinear differential equations: joint meeting of the research projects, Venice
- March 2011** Phase Transitions driven by nonlocal operators, University of Texas at Austin
- May 2011** Phase transitions and minimal surfaces in (non)local setting, Amiens, France
- June 2011** Calibrations and Laminations, Albert-Ludwigs-Universität Freiburg, Friburgo, Germany
- June 2011** Nonlinear PDEs workshop, Instituto Superior Técnico, Lisbon, Portugal
- June 2011** Geometric properties for Parabolic and Elliptic PDE's, Cortona
- June 2011** Transizioni di fase e superfici minime (non)locali, Università degli Studi della Calabria, Cosenza
- September 2011** XIX Congresso dell'Unione Matematica Italiana, Bologna
- October 2011** Equazioni semilineari e superfici minime (non)locali, Università degli Studi di Milano
- November 2011** Semilinear equations and (non)local minimal surfaces, Universidad Autónoma, Madrid, Spain
- December 2011** Superfici minime locali e non locali e operatori ellittici frazionari Università degli Studi di Trento
- December 2011** Dynamical Optimization in PDE and Geometry Applications to Hamilton-Jacobi Ergodic Optimization, Weak KAM, Université Bordeaux, France
- January 2012** A week on fractional diffusion, Politecnico di Milano
- February 2012** PDEs in real and complex spaces, Università degli Studi di Padova
- March 2012** Regularity issues for nonlocal minimal surfaces, University of Texas at Austin
- April 2012** Local and nonlocal phase transition interfaces, Instituto Superior Técnico, Lisbon, Portugal
- May 2012** Un risultato generale di monotonia e simmetria, Università degli Studi di Milano–Bicocca
- May 2012** Topics on Nonlinear Partial Differential Equations, POSTECH–Pohang University of Science and Technology, Pohang, Corea
- May 2012** Variational analysis and applications, International school of mathematics “Guido Stampacchia”, Erice
- May 2012** Analisi geometrica di equazioni ellittiche non-locali, Università degli Studi di Milano
- May 2012** Sistemes Dinàmics i Equacions en Derivades Parcials, Universitat Politècnica de Catalunya, Barcelona, Spain
- June 2012** Progress in Nonlinear Partial Differential Equations, Zhejiang University, Hangzhou, China
- June 2012** Fractional Laplacian and partial differential equations, Academy of Mathematics and Systems Science, Chinese Academy of Sciences, Pechino, China
- July 2012** Recent Trends in Nonlinear Diffusion, Centro Ennio De Giorgi, Pisa
- July 2012** Nonlocal Operators: Analysis, Probability, Geometry and Applications, ZiF, Universität Bielefeld, Bielefeld, Germany
- July 2012** Second Sino-Chilean Conference on Nonlinear Partial Differential Equations and Nonlinear Analysis, Pontificia Universidad Católica, Santiago, Chile.
- August 2012** Nonlocal nonlinear problems: integrodifferential equations and fractional perimeters, Universidade Federal do Ceara, Fortaleza, Brazil

- September 2012** Mostly Maximum Principle, Università degli Studi di Roma La Sapienza, Roma
- September 2012** PDEs for multiphase advanced materials, Cortona
- September 2012** New perspectives in nonlinear PDEs, Università degli Studi Roma Tre, Roma
- October 2012** Two Days on Nonlocal Operators and Applications, Università degli Studi di Parma
- November 2012** A fractional framework for perimeters and phase transitions, Seminario Matematico e Fisico di Milano, Politecnico di Milano, Milano
- January 2013** Regularity of nonlocal minimal cones in the plane, SISSA, Trieste
- February 2013** A fractional framework for perimeters and phase transitions, Langenbach Seminar, Weierstraß Institut für Angewandte Analysis und Stochastik, Berlin, Germany
- April 2013** Transizioni di fase e superfici minime nonlocali, Università degli Studi di Padova
- August 2013** Bernstein's theorem for fractional minimal surface, Centro de Modelamiento Matemático, Universidad de Chile, Santiago, Chile
- August 2013** Nonlocal minimal surfaces in the plane, Pontificia Universidad Católica, Santiago, Chile
- September 2013** Concentration phenomena for nonlocal equations, Università degli Studi Roma Tre, Roma
- September 2013** Dispersive PDEs: Models and Dynamics, Università degli Studi di Pisa
- October 2013** Phase separation and minimal surfaces: from local to nonlocal, Max-Planck-Institut für Mathematik in den Naturwissenschaften, Leipzig, Germany
- October 2013** Workshop on nonlinear equations, Universidad Carlos III, Madrid, Spain
- November 2013** Local and nonlocal features of some differential equations, African Institute for Mathematical Sciences, Dakar, Senegal
- November 2013** Phase separation and minimal surfaces: from local to nonlocal, Ruhr-Universität Bochum, Germany
- December 2013** Concentration phenomena for a nonlocal Schrödinger equation, Universidad Autónoma de Madrid, Madrid, Spain
- December 2013** Regularity of nonlocal minimal surfaces in low dimension, Università degli Studi di Pisa
- January 2014** Some nonlocal aspects of partial differential equations and free boundary problems, Institutskolloquium, Weierstraß Institut für Angewandte Analysis und Stochastik, Berlin, Germany
- February 2014** Workshop on Partial Differential Equations and Applications, Università degli Studi di Pisa
- March 2014** Nonlinear Phenomena in Biology, Physics and Mechanics, Helmholtz Zentrum, München, Germany
- March 2014** Spring school on nonlinear PDEs, INdAM, Roma
- April 2014** Dislocation dynamics in crystals, Columbia University, New York
- May 2014** Kinetics, non standard diffusion and the mathematics of networks: emerging challenges in the sciences, University of Texas at Austin
- May 2014** Dislocation dynamics in crystals: nonlocal effects and a macroscopic theory in a fractional Laplace setting, Università degli Studi di Padova

- May 2014** Geometric Aspects of Semilinear Elliptic and Parabolic Equations: Recent Advances and Future Perspectives, Banff International Research Station, Canada
- June 2014** Nonlinear partial differential equations and stochastic methods, Jyväskylän yliopiston, Jyväskylä, Finland
- June 2014** Recent advances in non-local and non-linear analysis: theory and applications, ETH Zürich, Zurich, Switzerland
- July 2014** AIMS Conference Series on Dynamical Systems and Differential Equations, Instituto de Ciencias Matemáticas and Universidad Autónoma de Madrid, Madrid, Spain
- August 2014** ICM 2014 Satellite Conference on Variational methods in nonlinear elliptic PDEs, Gyeongju, Corea
- September 2014** Méthodes géométriques et variationnelles pour des EDPs non-linéaires, Université Lyon I.
- October 2014** Dislocation dynamics and fractional equations, Heriot-Watt University, Edinburgh, UK
- November 2014** Dislocation dynamics and fractional equations, University of Texas at Austin
- November 2014** Nonlocal equations and applications, Universidad de Granada, Granada, Spain
- December 2014** Dislocation dynamics in crystals, Università di Torino
- March 2015** Nonlocal minimal surfaces, Università degli Studi di Firenze
- March 2015** Phase transition problems and nonlinear PDEs, ICTP, Trieste.
- March 2015** Minimal surfaces and phase transitions with nonlocal interactions, University of Edinburgh
- May 2015** Perlen-Kolloquium, What is the (fractional) Laplacian?, Universität Basel, Basel, Switzerland
- June 2015** Boundary stickiness of nonlocal minimal surfaces, Universidad Autónoma, Madrid, Spain
- September 2015** Mostly Maximum Principle, Castello di Agropoli, Salerno
- September 2015** Workshop on Trends in Nonlinear Analysis, Università degli Studi di Cagliari
- November 2015** Quantitative results for nonlocal minimal surfaces, University of Texas at Austin
- December 2015** Nonlocal minimal surfaces and phase transitions, University of Melbourne
- December 2015** Sixth Trilateral Meeting on Nonlinear Partial Differential Equations and Applications, Università degli Studi di Parma
- January 2016** Nonlocal minimal surfaces, a geometric and analytic insight, Otto-von-Guericke-Universität Magdeburg, Germany
- February 2016** Nonlocal minimal surfaces, Justus-Liebig-Universität Gießen, Germany
- February 2016** Interior and boundary properties of nonlocal minimal surfaces, Institut de Mathématiques de Marseille, France
- March 2016** Crystal dislocation dynamics, collisions, relaxation times and asymptotics, Università degli Studi di Pisa
- March 2016** Nonlocal equations in phase transitions, minimal surfaces, crystallography and life sciences, University of Western Australia, Perth
- April 2016** Nonlocal minimal surfaces, phase transitions and applications, University of Leeds
- May 2016** Dislocation dynamics for the Peierls-Nabarro model, Università degli Studi Roma Tre

- May 2016** Nonlocal minimal surfaces, Università degli Studi di Roma Tor Vergata
- May 2016** A geometric and analytic insight nonlocal minimal surfaces, Università degli Studi di Napoli Federico II, Napoli
- May 2016** EDP e Dintorni, Università degli Studi di Bari Aldo Moro
- May 2016** Calculus of Variations and Nonlinear Partial Differential Equations, Columbia University, New York
- June 2016** Conference on Recent Trends on Elliptic Nonlocal Equations, Fields Institute for Research in Mathematical Science, Toronto
- June 2016** A notion of fractional perimeter and nonlocal minimal surfaces, Università del Salento, Lecce
- June 2016** Conference on Nonlocal Operators and Partial Differential Equations, Banach Center, Institute of Mathematics of the Polish Academy, Będlewo
- July 2016** Topics in geometric analysis, Potsdam University
- August 2016** Nonlocal minimal surfaces, Monash University, Melbourne
- August 2016** Nonlocal equations from different points of view, SISSA, Trieste
- September 2016** Capillarity problems with nonlocal surface tension energies, Columbia University, New York
- September 2016** Asymptotic Patterns in Variational Problems: PDE and Geometric Aspects, BIRS-CMO Casa Matemática Oaxaca
- October 2016** Quantitative regularity results for nonlocal minimal surfaces, Universidad de Chile, Santiago, Chile
- December 2016** Annual Meeting of the Australian Mathematical Society, Geometric Analysis Session, Australian National University, Canberra
- December 2016** Annual Meeting of the Australian Mathematical Society, Partial Differential Equations Session, Australian National University, Canberra
- December 2016** Nonlinear & Geometric Partial Differential Equations, Australian National University, Kioloa Coastal Campus
- January 2017** Nonlocal phase transitions and minimal surfaces, Università degli Studi di Pisa
- March 2017** Nonlocal phase transitions and minimal surfaces, Universidad de Chile, Santiago, Chile
- March 2017** Regularity of nonlocal minimal surfaces in the plane, University of Sydney
- April 2017** Barcelona Mathematical Days 2017, Societat Catalana de Matemàtiques, Barcelona
- May 2017** Conference in non-local equations and fractional diffusion, Warwick University
- May 2017** New trends in Partial Differential Equations, Universidad de Granada
- June 2017** Llavefest: A broad perspective on finite and infinite dimensional dynamical systems, Universitat de Barcelona
- July 2017** International Conference on Free Boundary Problems: Theory and Applications, Shanghai Jiao Tong University
- July 2017** Various perspectives on nonlocal equations, Colloquium, University of Melbourne
- September 2017** III Workshop on Trends in Nonlinear Analysis, Università degli Studi di Cagliari
- September 2017** Clay Mathematics Institute Workshop on PDE, Clay Research Conference, University of Oxford

- October 2017** Analysis and Dynamics, Congress in honour of Luigi Chierchia's 60th Birthday, Marina di San Gregorio, Patù, Lecce
- October 2017** Nonlocal minimal surfaces, Opening Ceremony of the Collaborative Research Centre, Universität Bielefeld
- January 2018** Atom dislocation in crystals: nonlocal effects and connections with dynamical systems, Università degli Studi di Napoli Federico II, Napoli
- January 2018** Nonlocal phase transitions and minimal surfaces, Università Politecnica delle Marche, Ancona
- February 2018** Nonlocal phase transitions and minimal surfaces, Gran Sasso Science Institute, L'Aquila
- February 2018** Atom dislocation in crystals: nonlocal effects and connections with dynamical systems, Università degli Studi di Trento
- March 2018** Atom dislocation in crystals: nonlocal effects and connections with dynamical systems, Università degli Studi di Milano
- April 2018** IMAR Seminar, Institute of Mathematics "Simion Stoilow" of the Romanian Academy, Bucharest
- April 2018** Fractional day on nonlocal operators, Université Libre de Bruxelles
- June 2018** Nonlocal interactions: Dislocations and beyond, University of Bath
- June 2018** Special Materials and Complex Systems SMACS 2018, Palazzo Feltrinelli, Gargnano
- June 2018** Perspectives in Hamiltonian Dynamics, Venice
- June 2018** A PDE day at CAMS, École des Hautes Études en Sciences Sociales, Paris
- July 2018** ICM Satellite Conference on Nonlinear Partial Differential Equations, Fortaleza
- August 2018** ICM Satellite conference, Universidade Federal de São Carlos, São Carlos
- August 2018** Inverse problems, PDE and geometry, Jyväskylän yliopiston, Jyväskylä
- August 2018** From the fractional Laplacian to the nonlocal minimal surfaces, Mathematics and Statistics Colloquium, University of Western Australia, Perth
- September 2018** Nonlinear Analysis and PDEs, Università della Campania "Luigi Vanvitelli", Caserta
- September 2018** Variational and Set-valued Methods in Differential Problems, UMI-SIMAI-PTM Joint Meeting, Wrocław
- September 2018** Geometric Properties of Solutions of PDEs and Nonlocal Equations, UMI-SIMAI-PTM Joint Meeting, Wrocław
- September 2018** Stochastic Analysis and Nonlocal PDEs, UMI-SIMAI-PTM Joint Meeting, Wrocław
- September 2018** Workshop on nonlinear PDEs, Porquerolles
- September 2018** Fractional Calculus, Probability and Non-Local Operators: Applications and Recent Developments, Basque Center for Applied Mathematics, Bilbao
- October 2018** Chaotic orbits for nonlocal equations and applications to atom dislocation dynamics in crystals, Universität Zürich, Zurich, Switzerland
- November 2018** Recent Trends on Nonlinear PDEs of Elliptic and Parabolic Type, MATRIX Centre, University of Melbourne
- December 2018** Nonlocal minimal surfaces, phase coexistence models and geometric flows, Università degli Studi di Padova
- December 2018** Nonlocal minimal surfaces, phase coexistence models and geometric flows, Politecnico di Torino

- December 2018** Chaotic orbits for nonlocal equations and applications to atom dislocation dynamics in crystals, Politecnico di Bari
- January 2019** Nonlocal minimal surfaces, Colloquium, Purdue University
- April 2019** Various perspectives on anomalous diffusion, Tandon School of Engineering, New York University
- May 2019** Nonlocal minimal surfaces, University of Maryland
- May 2019** Nonlocal minimal surfaces, Colloquium, Wayne State University
- June 2019** Something about nonlinear problems, Università degli Studi di Bologna
- November 2019** The nonlocal world: problems, perspectives, and possibilities, Physics Colloquium, University of Western Australia, Perth
- December 2019** Annual Meeting of the Australian Mathematical Society, Geometric Analysis Session, Monash University, Melbourne
- December 2019** Chaotic orbits, nonlocal equations, and atom dislocation dynamics in crystals, Central South University, Changsha
- December 2019** Winter workshop on elliptic and parabolic equations, Universidad Autónoma de Madrid
- January 2020** Nonlinear PDEs and related topics, Università della Calabria
- January 2020** Workshop on Variational problems, PDEs and applications, Università degli Studi di Pisa
- February 2020** Nonlinear Geometric Partial Differential Equations, Okinawa Institute of Science and Technology
- June 2020** International Workshop on Fractional Calculus, Ghent University
- September 2020** From Conservative to Dissipative: Dynamics and Variational Method of QuasiHamiltonian Systems, Chinese Academy of Sciences
- October 2020** 2020 Fields Medal Symposium in honour of Alessio Figalli, Fields Institute for Research in Mathematical Science, Toronto
- October 2020** Nonlocal Operators and Markov Processes I, Wrocław University of Science and Technology
- November 2020** One World PDE Seminar, University of Bath and Università degli Studi di Roma La Sapienza
- November 2020** Civil wars: a new Lotka-Volterra competitive system, Université de Picardie Jules Verne
- November 2020** Webinar on PDE and related areas, Indian Institute of Technology, TIFR-CAM, IISER-Pune and IISER-Kolkata
- December 2020** International Symposium on Nonlinear Analysis and Simulations, National Tianyuan Center, Jilin University
- January 2021** Lisbon WADE - Webinar in Analysis and Differential Equations, Universidade de Lisboa
- March 2021** (Non)local phase coexistence models, Chair in Applied Analysis Seminar, the Friedrich-Alexander-Universität Erlangen-Nürnberg
- March 2021** What is the fractional Laplacian (and why is it relevant)?, ANZIAMWA Seminar, University of Western Australia
- March 2021** A mathematical model for civil wars: a new Lotka-Volterra competitive system, Webinar Series on Nonlinear Differential Problems, Università di Messina
- June 2021** 8th European Congress of Mathematics
- July 2021** Mathematical Congress of the Americas

- July 2021** RISM Congress on PDEs and Continuum Mechanics, Riemann International School of Mathematics
- July 2021** SIAM Annual Meeting
- August 2021** Variational Methods and Applications to Partial Differential Equations, 33rd Brazilian Mathematics Colloquium, Instituto Nacional de Matemática Pura e Aplicada
- September 2021** Nonlinear Elliptic PDEs in Ancona, Università Politecnica delle Marche, Ancona
- September 2021** Free Boundary Problems: Theory and Applications, Berlin
- September 2021** Two days Workshop in Nonlinear Analysis
- October 2021** Long-range phase coexistence models, Nonlinear Analysis Seminar, Rutgers University
- November 2021** In Memory of Luciano Modica, Università degli Studi di Pisa.
- November 2021** AIMS-Cameroon Research Center Colloquium
- December 2021** Annual Meeting of the Australian Mathematical Society, Geometric and Harmonic Analysis Session, Australian National University, Newcastle
- January 2022** Joint Mathematics Meeting of the American Mathematical Society, Seattle
- February 2022** Nonlocal Equations: Analysis and Numerics, Universität Bielefeld
- May 2022** Nonlocal equations in phase transitions, minimal surfaces, crystallography, finance, life sciences, and beyond, University of Western Australia
- June 2022** Mostly Maximum Principle, Cortona
- June 2022** Classical and long-range phase coexistence models, Università degli Studi della Tuscia
- August 2022** Encontro Conjunto Brasil-Portugal em Matemática, Universidade Federal da Bahia
- September 2022** Why do we all like the Laplacian?, Mathematics and Statistics Colloquium, University of Western Australia, Perth
- September 2022** International Workshop on Nonlinear Differential Problems, Taormina
- September 2022** Australian Conference on Science and Mathematics Education, University of Western Australia
- October 2022** Analysis, Numerics and Applications, Lorentz Center, Leiden
- October 2022** Atom dislocation in crystals: a combination of partial differential equations and dynamical systems, Colloquium Talk, Central South University
- October 2022** Geometric aspects of nonlinear partial differential equations, Institut Mittag-Leffler
- November 2022** Long-range phase coexistence models, University of Melbourne
- November 2022** Why do we all like the Laplacian?, Colloquium Talk, Tianyuan Mathematical Center
- November 2022** International Conference on Nonlinear Partial Differential Equations, University of Sydney
- December 2022** Harmonic analysis and Hyperbolic PDE, Keynote speaker, Annual Meeting of the Australian Mathematical Society
- January 2023** ANZIAM 2023, Cairns
- March 2023** Nonlocal Equations: Analysis and Numerics, Universität Bielefeld, Bielefeld, Germany
- June 2023** Plenary speaker, 13th AIMS Conference, University of North Carolina Wilmington

- June 2023** Remembering Ireneo. An International Conference on Nonlinear Elliptic and Parabolic PDE, Universidad Autónoma de Madrid
- August 2023** Recent progress in nonlocal variational problems, International Congress on Industrial and Applied Mathematics, Waseda University, Tokyo
- November 2023** Some crazy idea about bushfire models, University of Western Australia
- December 2023** Australia-China Joint Conference on Partial Differential Equations, University of Sydney
- December 2023** Diffusion, Geometry, Probability and Free Boundaries, Universidad Autónoma de Madrid
- March 2024** Classical and long-range phase coexistence models in light of a conjecture by Ennio De Giorgi, Macquarie University
- April 2024** RISM Congress on PDEs and Continuum Mechanics, Riemann International School of Mathematics, Varese
- May 2024** Modern Methods in Nonlinear Elliptic and Parabolic PDE, Bulgarian Academy of Sciences
- June 2024** Perspectives in PDEs, Global and Functional Analysis, Università degli Studi dell'Insubria
- June 2024** Nonlocal minimal surfaces: regularity, stickiness, sheeting phenomena, Seminario Matematico e Fisico di Milano, Politecnico di Milano, Milano
- July 2024** Phase coexistence models, minimal surfaces and long-range interactions, Gran Sasso Science Institute, L'Aquila
- July 2024** The Laplacian and beyond: Celebrating the mathematics of Luis Caffarelli, Palacio de la Magdalena, Santander
- August 2024** Free Boundaries in Fractional Diffusion, João Pessoa City
- October 2024** EDP and Applied Mathematics Seminar, Universidade Federal Fluminense Niterói-Rio de Janeiro, lecture in celebration of session number 100 of the seminar

Other seminars. Seminars and series of seminars held at University of Texas at Austin and at Università degli Studi di Roma Tor Vergata.

Participation at various international conferences, like Midwest Dynamical System Seminar (September 1999, Northwestern University, Evanston, Illinois) AMS Meeting (January 2000, San Antonio, Texas), Optimal Transportation and Applications CIME 2001 (September 2001, Martina Franca, Taranto), AMS-UMI Joint International Meeting (June 2002, Pisa), Summer School on Analysis and Applied Mathematics (September 2004, Roma), Summer School on Calculus of Variations (July 2005, Roma).

Public lectures.

- *Il mondo in una sfera. Riflessioni su Borges, Eco ed Escher* (December 2018, Bari).
- A journey across history, maths, computers, and chess (September 2019, Forrest Hall Public Lecture, Crawley).
- *Qual e' la tua prossima mossa? Un viaggio tra storia, matematica, computer e scacchi* (December 2019, Bari).
- *The maths behind pandemics* (July 2020, Forrest Hall Public Lecture, Crawley).
- *The maths behind pandemics* (July 2020, University of Western Australia, Crawley).

- *What happens before my paper is submitted?* (January 2022, Forrest Hall Public Lecture, Crawley).
- *What happens before my paper is submitted?* (February 2022, University of Western Australia).
- *Dialogue about Life, the Universe and Everything, with applications to the so-called open access* (March 2022, University of Western Australia).
- *5th Italian Research Day* (May 2022, Consulate of Italy in Perth).
- *Network meeting of Senior Maths leaders from the Association of Independent Schools of Western Australia* (May 2022, AISWA, Perth).
- *UWA Maths Union Careers in Maths* (August 2022, Perth).
- *Qual è la tua prossima mossa?* (October 2022, Università di Urbino).
- *What's your next move?* (April 2023, University of Western Australia).
- *What's your next move?* (July 2023, City of Perth Library).
- *Peer review in an age of open science: a transdisciplinary debate* (September 2023, University of Milan).
- *Quel gran matematico di Sherlock Holmes!* (December 2023, University of Bari).
- *Cos'è la diffusione anomala (e perché è così consueta)* (June 2024, Istituto Lombardo Accademia di Scienze e Lettere).

Organizer of the Roundtable Discussion *Diamond Open Access and Journal Transformation*, (June 2023, University of North Carolina Wilmington).

Articles on magazines for the general public.

- *Ricerca, publish or perish, open access e altre quisquillie*, Civiltà delle macchine.
<https://www.civiltadellemacchine.it/it/news-and-stories-detail/-/detail/ricerca-publish-or-perish-open-access-e-altre-quisquillie>

Fellowships and fundings.

- Fellowship CNR for undergraduates.
- Fellowship INdAM for abroad.
- Post-Doc Fellowship at Scuola Normale Superiore di Pisa.
- SISSA Spring School Fellowship.
- Oden Visiting Professor at University of Texas at Austin (appointed several times).
- Chercheur Associé en Mathématiques et Interaction Centre National de la Recherche Scientifique at l'Université de Picardie Jules Verne at Amiens.
- Participation as a member of PRIN, GNAMPA and FIRB projects.
- PI GNAMPA projects 2009 and 2010 *Nonlinear equations on manifolds: qualitative properties and classification of solutions*.
- Principal Investigator European Research Council grant 2011-2015 277749 *ϵ Elliptic Pde's and Symmetry of Interfaces and Layers for Odd Nonlinearities*.
- Coordinator for the PRIN project 2012 *Critical Point Theory and Perturbative Methods for Nonlinear Differential Equations* for the University of Milan unit.
- Funded organizer of the 2014 CIME Centro Internazionale Matematico Estivo Summer School.

- External expert of PRONEX-FUNCAP/CNPq project 2015 for the Universidade Federal do Ceará at Fortaleza.
- Chief Investigator Australian Research Council grant DP170104880 NEW *Nonlocal Equation at Work*.
- Primary Coordinator Contact of the Marie Skłodowska-Curie Horizon 2020 Fellowship *NONLOCAL PHENOMENA* of María Medina.
- Member of the GNAMPA Projects “Nonlocal Problems in Continuum Mechanics” and “Asymptotic Problems and Singular Phenomena in Continuum Mechanics”. External expert for the GNAMPA Project “Regularity properties of viscosity solutions with applications to free boundary problems”, and external expert of the European Commission Project H2020-MSCA-RISE-2017-777822 GHATA “Geometric and harmonic analysis with interdisciplinary applications”.
- Australian Laureate Fellowship “Minimal surfaces, free boundaries and partial differential equations”.
- International member of a Simons Foundation Collaboration Grant with the University of Texas at Austin.
- Research Leader in the Research Pursuit “Seek Meaning in a Complex and Connected World”.
- Member of the Japanese Fund for the Promotion of Joint International Research FY 2021-2026.
- Member of the UMI working group CLIMATH “Mathematical modeling for the study of climate, climate change, and its impact”.

Awards and recognitions.

- 2016, 2017, 2018, 2019, 2020, 2021, 2022 Thomson Reuters / Clarivate highly cited researcher
<https://clarivate.com/hcr/researchers-list/archived-lists/>
- Most quoted mathematician according to the graduation year (subject: Analysis)
<https://sites.google.com/view/mathematiciancitations/home>
- Most quoted mathematician according to the graduation year (all subjects)
<https://sites.google.com/view/mathematiciancitations/home>
- Included in the “Updated science-wide author databases of standardized citation indicators” based on the top percentile rank of 2% or above by c-score
<https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/3>
- Included in the “Top 1000 Scientists in the field of Mathematics”
<https://research.com/scientists-rankings/mathematics>
- Included in the “Top Scientists in the field of Mathematics”
<https://research.com/scientists-rankings/mathematics>
- Most cited author of Bulletin des Sciences Mathématiques in all years
<https://exaly.com/author/584928/enrico-valdinoci/rankings>
- 2018 James S. W. Wong JMAA Prize
<https://www.journals.elsevier.com/journal-of-mathematical-analysis-and-applications/news/winners-of-2018-jmaa-wong-prize-announced>
- Australian Laureate Fellow
- 2022 Mahony-Neumann-Room Prize
<https://austms.org.au/publications/mahony-neumann-room-prize/>

- 2022 UWA/PMC Research Award.
- 2023 Plenary speaker, Conference of the American Institute of Mathematical Sciences
<https://www.aimsconference.org/conferences/2023/index.html>
- 2023 Orazio Arena Prize of the Italian Mathematical Union
- 2023 Guild's Best Units Guide
- 2023 UWA/PMC Programs that Enhance Learning Award
- 2023 UWA/PMC Award for Research Mentorship
- 2024 Book Prize of the Unione Matematica Italiana
- 2024 Luigi and Wanda Amerio Medal of the Istituto Lombardo Accademia di Scienze e Lettere

Organizational activities. Organization of the analysis seminars and of the junior mathematics seminars at Università degli Studi di Roma Tor Vergata. Organization of the Langenbach Seminar at the Weierstrass Institute for Applied Analysis and Stochastics. Collaboratuion to the organization of the Pure Maths Seminar at the University of Melbourne.

Organizer of the Asia-Pacific Analysis and PDE Seminar.

Organizer of the UWA Analysis Seminar.

Organization of mathematics competitions and lessons for the project *Progetto Olimpiadi*.

Member of the Committee of *Premio Nazionale di Divulgazione Scientifica*.

Member of the Committee of *Junior Video Contest di Divulgazione Scientifica*.

Member of the *Research and Industry Committee* of the University of Melbourne.

Member of the *Executive Committee* of the Seminario Matematico e Fisico, Milan.

Member of the *Management and Planning Committee* of the School of Physics, Mathematics and Computing, University of Western Australia.

Member of the *Outreach Committee*, Department of Mathematics and Statistics, University of Western Australia.

Member of the *UWA Climate Change Community of Practice*.

UWA Diversity, Equity, and Inclusion Contact Officer.

Member of the executive board and *WA representative of ANZIAM*.

QS World University Rankings Assessor.

Assessor for Australian Laureate Fellowships.

Assessor for Australian Research Council Centres of Excellence.

Assessor for the Young Mathematician Prize of the St. Petersburg Mathematical Society.

Assessor for the Established Principal Investigator Grant in the Star Plus Programme.

Assessor for UK Research and Innovation Future Leaders Fellowships.

Assessor for the Indian Academy of Sciences.

Program Advisory Board of the Council of the Australian Mathematical Society.

National Representative of the Australia and New Zealand Industrial and Applied Mathematics.

Organizer of the following events:

- *Indam School on symmetry for elliptic PDEs: 30 years after a conjecture of De Giorgi and related problems*, Rome, 2009,

<http://www.mat.uniroma2.it/valdinoc/scuola-indam.html>

- *Three days in PDEs*, Rome, 2011,
http://www.mat.uniroma2.it/pdes/Three_days_in_PDEs/Home.html
- *Variational and geometric methods in PDE's*, Ancona, 2012,
<http://dipmat.univpm.it/lectures-in-ancona/contacts.php>
- *ERC Workshop on Geometric Partial Differential Equations*, Pisa, 2012,
<http://www.crm.sns.it/event/244/>
- *Spring School on Rate-independent evolutions and hysteresis modelling*, Milan, 2013
<http://www.mat.unimi.it/users/eleuteri/hystri2013.html>
- *Recent advances in partial differential equations and applications*, Milan, 2013,
<http://www.mat.unimi.it/users/rocca/AdvPDE>
- *Conference on qualitative and geometric aspects of elliptic PDE's*, Barcelona, 2013,
<http://www.crm.cat/en/Activities/Pages/ActivityFoldersAndPages/Curs%202013-2014/cellipticpdes.aspx>
- *Workshop on nonlinear equations*, Madrid, 2013,
<https://sites.google.com/site/nonlinearmadri2013/>
- *Workshop on Partial Differential Equations and Applications*, Pisa, 2014,
<http://palatucci.altervista.org/pisa2014/contact/index.html>
- *Partial Differential Equations and Geometric Measure Theory*, CIME School, Cetraro, 2014,
<http://web.math.unifi.it/users/cime/>
- *Méthodes géométriques et variationnelles pour des EDPs non-linéaires*, Lyon, 2014,
<http://www.ma.utexas.edu/users/enrico/webpage.pdf>
- *Theory and Applications of Partial Differential Equations*, Berlin, 2015,
<http://www.wias-berlin.de/workshops/PDE2015/>
- *Otto-von-Guericke-School in partial differential equations*, Magdeburg, 2016,
<https://www.ma.utexas.edu/users/enrico/OTTO-School.html>
- *Special Session at the 11th AIMS Conference on Dynamical Systems, Differential Equations and Applications*, Orlando, 2016,
<http://www.aims sciences.org/conferences/2016/>

- *Research meeting on nonlocal operators*, Cagliari, 2016,
<http://sites.unica.it/rmnlo/>
- *Recent Trends in the Analysis of PDEs*, Pavia, 2016,
<https://pdeoctober2016.wordpress.com>
- *Free boundary, partial differential equations and related topics*, Berlin, 2016,
<https://www.ma.utexas.edu/users/enrico/wias/wias2016-12.html>
- *James Serrin: from His legacy to the new frontiers*, Perugia, 2017,
<http://www.dmi.unipg.it/serrinconference2017/ScientificCommittee.htm>
- *PDE Day in Unimelb*, Melbourne, 2017,
<https://www.ma.utexas.edu/users/enrico/miniworkshop-jan17.txt>
- *Barcelona Mathematical Days 2017 – new perspectives in PDEs and applications*, Barcelona, 2017,
<http://bmd2017.espais.iec.cat/schedule/new-perspectives-in-pdes-and-applications>
- *Analysis of dislocation models for crystal defects*, BIRS-CMO Casa Matemática Oaxaca,
<https://www.birs.ca/events/2017/5-day-workshops/17w5024>
- *Workshop on Free Boundaries, Phase Transitions and Interfaces*, Melbourne, 2017,
<https://sites.google.com/site/melbournepdeworkshop/home>
- *Elliptic partial differential equations of second order: celebrating 40 years of Gilbard and Trudinger's book*, Matrix Centre, Creswick, 2017,
<http://www.matrix-inst.org.au/events/elliptic-differential-equations-of-second-order/>
- *A two-days PDE event*, Milano, 2019,
https://drive.google.com/file/d/1xT5C5a_RRI2w7l2a4MelcizvfoKv-rJU/view
- *Minisymposium on Nonlocal free boundary problems. Free Boundary Problems: Theory and Applications*, Berlin, 2021,
https://fbp2021.de/files/conference_booklet.pdf
- *Minimal surfaces and geometric flows: interaction between the local and the nonlocal worlds*, Matrix Centre, Creswick, 2021.
- *Elliptic Partial Differential Equations, Geometry, and the Calculus of Variations*, Matrix Centre, Creswick, 2021.

- *8th Trilateral Meeting (Australia - Italy - Taiwan) on Nonlinear PDEs and Applications*, University of Western Australia, 2022
- *Elliptic Partial Differential Equations and Free Boundary Problems*, CIME School, Cetraro, 2022.
- *XII Forum of Partial Differential Equations*, Banach Center, Będlewo, 2022.
<https://www.impan.pl/en/activities/banach-center/conferences/21-xiiforumpde/komitet-naukowy>
- *Different perspectives on free boundary problems*, João Pessoa City, 2024.
<http://www.mat.ufpb.br/fbp2024/>

Member of the Scientific Committee of the 11th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Orlando, 2016.

<http://aims sciences.org/conferences/2016/index.html>

Member of the Global Organizing Committee for the 12th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Taipei, 2018.

<http://www.aims sciences.org/conferences/2018/index.html>

Speaker of popular and technical conferences at high-schools, at *Scienza Orienta* (Università degli Studi di Roma Tor Vergata), at *Science Café*, at *Science Experience* (University of Western Australia) at *Pensa-Orienta-Progetta*, at the MATRIX program “Doing Maths like a Research Mathematician”, at the Scientists in Schools program “Mathematicians in School”, Research mentor “Elizabeth Blackburn School of Sciences” (University of Melbourne).

Member of the Scientific Committee of the Department (Università degli Studi di Roma Tor Vergata and Università degli Studi di Milano) and of the Math Olympic Committee (Università degli Studi di Roma Tor Vergata), of the Graduate College for the PhD course (Università degli Studi di Roma Tor Vergata, Università degli Studi Roma Tre and Università degli Studi di Milano), of the Graduate Doctoral Committee (Università degli Studi di Milano), of the “Commissione per la Valutazione Quinquennale della Ricerca” (Università degli Studi di Milano), and of the “Commissione ALGANT” <http://www.algant.eu> (Università degli Studi di Milano), member of the Swinburne University STEM Games Project http://scienceqanda.com/blog/?page_id=6919

Organizer for group sessions of the WIAS Day 2015 <http://www.wias-berlin.de>

Referee for ANVUR (Italian board of research quality evaluation), PRIN, FIRB, SIR and FARE (Italian board of research grants). Referee for research proposals for Università della Calabria. Assessor of qualifications, scientific/professional curriculum and research projects for Università di Milano.

Referee for the allocation of research funds in Chile (National Research Funding Competition, Fondecyt), Switzerland (Swiss National Science Foundation), Croatia (Croatian Science Foundation), France (Aix-Marseille Excellence Initiative, University of Lille ERC Generator Programme), Germany (Freiburg Institute for Advanced Studies), Kazakhstan (National Center for Science and Technology Evaluation), Poland (National Science Centre), Argentina (Agencia Nacional de

Promoción Científica y Técnica, FONCyT), Australia (Australian Research Council, Discovery Projects, ARC Centres of Excellence), Belgium (Research Foundation Flanders), Czech Republic (Czech Science Foundation), Canada (Natural Sciences and Engineering Research Council), Italy (University of Padua Funding Programme), Belgium (FSR Incoming Fellowships Université Catholique de Louvain), Romania (Executive Agency for Higher Education, Research, Development and Innovation Funding), for the Marie Curie fellowships, for the Swiss National Science Foundation, for the Israel Science Foundation, for the Freiburg Institute for Advanced Studies COFUND Fellowships, for the PISCOPIA-COFUND Fellowships, for the Research Foundation Flanders, for the Austrian Science Fund, for the Dutch Research Council, and for the proposals at the Fields Institute.

Referee for the allocation of MATH AmSud funds and STIC-MATH-CLIMAT-AmSud funds (France, Argentina, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay and Venezuela).

Mathematical Sciences Project Panelist of the Research Foundation Flanders.

Referee for tenure and promotion assessment at Barnard College, Columbia University, University College Dublin, African Institute for Mathematical Sciences, University of Texas at Austin, University of Texas at San Antonio, University of Sydney, University of Lodz, University of Freiburg, Iowa State University, Higher Institute of Science Computer and Mathematics of Monastir, Purdue University, University of Tennessee, University of Newcastle, Okinawa Institute of Science and Technology, University of Trento, Centre de Recerca Matemàtica Barcelona, University of Macau.

Strategic assessment contact for University of Glasgow, Monash University and Ruhr-Universität Bochum.

Referee for appointments to Professor of Mathematics at the African Institute for Mathematical Sciences Senegal.

Referee for scientific programs at the Isaac Newton Institute for Mathematical Sciences.

Referee for several international mathematical journals, such as: *Nonlinearity*, *Journal of the European Mathematical Society*, *Calculus of Variations and Partial Differential Equations*, *Communications in Mathematical Physics*, *Advances in Mathematics*, *Transactions of the American Mathematical Society*, *Journal of Functional Analysis*, *Geometric and Functional Analysis*, *SIAM Journal on Mathematical Analysis*, *Proceedings of the American Mathematical Society*, *Analysis & PDE*, *Proceedings of the London Mathematical Society*, *Journal of the London Mathematical Society*, *Communications on Pure and Applied Mathematics*, *Annali di Matematica Pura ed Applicata*, *Journal of Differential Equations*, *Ann. Inst. H. Poincaré Anal. Non Linéaire*, *Duke Mathematical Journal*, *Mathematical Research Letters*, *Ergodic Theory and Dynamical Systems*, *Archive for Rational Mechanics and Analysis*, *Journal of the American Mathematical Society*, *Annali della Scuola Normale Superiore di Pisa*, *Journal of Statistical Physics*, *Proceedings of the Royal Society of Edinburgh Section A*, *Journal d'Analyse Mathématique*, *Revista Matemática Iberoamericana*, *American Journal of Mathematics*, *Journal of Differential Geometry*, *Communications in Partial Differential Equations*, *Mathematische Annalen*, *Journal de Mathématiques Pures et Appliquées*, *Journal of Nonlinear Science*, *Acta Mathematica*, *Annales de l'Institut Fourier*, *Memoirs of the American Mathematical Society*, *Journal of Evolution Equations*, *Bulletin of*

the American Mathematical Society, *Inventiones Mathematicae*, Proceedings of the National Academy of Sciences of the United States of America, *Philosophical Transactions of the Royal Society A*, *Physica A*, etc.

Referee for monographs edited by Birkhäuser, De Gruyter, Wiley, CRC Press-Taylor & Francis Group, Cambridge University Press, University of Chicago Press, and Springer.

EDITORIAL WORK

A. Farina and E. Valdinoci Eds., *Symmetry for elliptic PDEs (30 years after a conjecture of De Giorgi, and related problems)*, *Contemp. Math.* (2010)
<http://www.ams.org/books/conm/528/conm528-endmatter.pdf>

A. Chambolle, M. Novaga and E. Valdinoci Eds., *Geometric Partial Differential Equations*, CRM Series, Pubblicazioni del Centro di ricerca matematica Ennio De Giorgi (2013)
<http://edizioni.sns.it/it/catalogo/scienze/crm-series/geometric-partial-differential-equations.html>

S. Bosia, M. Eleuteri, E. Rocca and E. Valdinoci Eds., *Proceedings of the School and Workshop on Rate-independent Evolutions and Hysteresis Modelling*, *Rend. Semin. Mat. Univ. Politec. Torino* (2014)
<http://www.seminariomatematico.unito.it/rendiconti/72-12.html>
<http://www.seminariomatematico.unito.it/rendiconti/72-12/0.pdf>

S. Bosia, M. Eleuteri, E. Rocca and E. Valdinoci Eds., *Special issue on rate-independent evolutions and hysteresis modelling*, *Discrete Contin. Dyn. Syst., Ser. S* (2015)
<https://aimsciences.org/journals/contentsListnew.jsp?pubID=722>

E. Valdinoci Ed., *Special issue on contemporary PDEs between theory and applications*, *Discrete Contin. Dyn. Syst.* (2015)
<http://aimsciences.org/journals/contentsListnew.jsp?pubID=778>

Y. Giga, P. Kloeden, I. Lasiecka, P. Markowich, E. Rocca, E. Valdinoci, E. Zuazua and K. Ciepliński Ed., *Special issue on PDEs and their applications at DEA 2019*, *Discrete Contin. Dyn. Syst. Ser. B* 25 (2020)
<https://www.aimsciences.org/journal/1531-3492/2020/25/10>

Previous member of the Editorial Board of *Nonlinear Analysis*.

Member of the Editorial Board of

- *Communications on Pure and Applied Analysis*
- *Discrete and Continuous Dynamical Systems - Series A*
- *Topological Methods in Nonlinear Analysis*
- *Advanced Nonlinear Studies* (till 2022, I decided to step down from the board once the journal became “Gold Open Access”, i.e. charging publication fees to authors)
- *Milan Journal of Mathematics*
- *Open Statistics* (till 2022)
- *Advances in Calculus of Variations*

- *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*

Guest Editor for Springer Nature Partial Differential Equations and Applications.

Chief Editor of *Mathematics in Engineering*.

Chief Editor of *Nonlinear Analysis*.

Chief Editor of *Ars Inveniendi Analytica*.

The journals *Open Statistics*, *Mathematics in Engineering* and *Ars Inveniendi Analytica* are “Diamond Open Access”, meaning that these journals do not have article processing charges, nor article submission charges, and are completely free for both authors and readers.

LIST OF PUBLICATIONS FROM MATHSCINET

(updated November 7, 2023)

- [1] Serena Dipierro, Ovidiu Savin, and Enrico Valdinoci, *Boundary continuity of nonlocal minimal surfaces in domains with singularities and a problem posed by Borthagaray, Li, and Nochetto*, Calc. Var. Partial Differential Equations **62** (2023), no. 9, Paper No. 255, DOI 10.1007/s00526-023-02606-3. MR4659390
- [2] Serena Dipierro, Edoardo Proietti Lippi, and Enrico Valdinoci, *(Non)local logistic equations with Neumann conditions*, Ann. Inst. H. Poincaré C Anal. Non Linéaire **40** (2023), no. 5, 1093–1166, DOI 10.4171/aihpc/57. MR4651677
- [3] Serena Dipierro, Giovanni Giacomini, and Enrico Valdinoci, *Analysis of the Lévy flight foraging hypothesis in \mathbb{R}^n and unreliability of the most rewarding strategies*, SIAM J. Appl. Math. **83** (2023), no. 5, 1935–1968, DOI 10.1137/22M1526563. MR4645663
- [4] Stefano Biagi, Serena Dipierro, Enrico Valdinoci, and Eugenio Vecchi, *A Faber-Krahn inequality for mixed local and nonlocal operators*, J. Anal. Math. **150** (2023), no. 2, 405–448, DOI 10.1007/s11854-023-0272-5. MR4645045
- [5] Serena Dipierro, Aram Karakhanyan, and Enrico Valdinoci, *Classification of global solutions of a free boundary problem in the plane*, Interfaces Free Bound. **25** (2023), no. 3, 455–490, DOI 10.4171/ifb/494. MR4642020
- [6] Serena Dipierro and Enrico Valdinoci, *Some perspectives on (non)local phase transitions and minimal surfaces*, Bull. Math. Sci. **13** (2023), no. 1, Paper No. 2330001, 77, DOI 10.1142/S1664360723300013. MR4581189
- [7] Giulio Ciraolo, Serena Dipierro, Giorgio Poggesi, Luigi Pollastro, and Enrico Valdinoci, *Symmetry and quantitative stability for the parallel surface fractional torsion problem*, Trans. Amer. Math. Soc. **376** (2023), no. 5, 3515–3540, DOI 10.1090/tran/8837. MR4577340
- [8] Serena Dipierro, Jack Thompson, and Enrico Valdinoci, *On the Harnack inequality for antisymmetric s -harmonic functions*, J. Funct. Anal. **285** (2023), no. 1, Paper No. 109917, 49, DOI 10.1016/j.jfa.2023.109917. MR4567494
- [9] G. M. Coclite, S. Dipierro, G. Fanizza, F. Maddalena, M. Romano, and E. Valdinoci, *Qualitative aspects in nonlocal dynamics*, J. Peridyn. Nonlocal Model. **5** (2023), no. 1, 1–19, DOI 10.1007/s42102-021-00064-z. MR4552125
- [10] Benjamin Baronowitz, Serena Dipierro, and Enrico Valdinoci, *The stickiness property for antisymmetric nonlocal minimal graphs*, Discrete Contin. Dyn. Syst. **43** (2023), no. 3-4, 1006–1025, DOI 10.3934/dcds.2022103. MR4548844
- [11] Claudia Bucur, Serena Dipierro, Luca Lombardini, José M. Mazón, and Enrico Valdinoci, *(s, p) -harmonic approximation of functions of least $W^{s,1}$ -seminorm*, Int. Math. Res. Not. IMRN **2** (2023), 1173–1235, DOI 10.1093/imrn/rnab284. MR4537323
- [12] Serena Dipierro, Stefania Patrizi, and Enrico Valdinoci, *A fractional glance to the theory of edge dislocations*, Geometric and Functional Inequalities and Recent Topics in Nonlinear PDEs, Contemp. Math., vol. 781, Amer. Math. Soc., [Providence], RI, 2023, pp. 103–135, DOI 10.1090/conm/781/15710. MR4531940
- [13] Serena Dipierro, Giovanni Giacomini, and Enrico Valdinoci, *The fractional Malmheden theorem*, Math. Eng. **5** (2023), no. 2, Paper No. 024, 28, DOI 10.3934/mine.2023024. MR4411363

- [14] Stefano Biagi, Serena Dipierro, Enrico Valdinoci, and Eugenio Vecchi, *A Hong-Kahn-Szegő inequality for mixed local and nonlocal operators*, Math. Eng. **5** (2023), no. 1, Paper No. 014, 25, DOI 10.3934/mine.2023014. MR4391102
- [15] Giuseppe Maria Coclite, Serena Dipierro, Giuseppe Fanizza, Francesco Maddalena, and Enrico Valdinoci, *Dispersive effects in a scalar nonlocal wave equation inspired by peridynamics*, Nonlinearity **35** (2022), no. 11, 5664–5713, DOI 10.1088/1361-6544/ac8fd9. MR4500878
- [16] Xifeng Su, Enrico Valdinoci, Yuanhong Wei, and Jiwen Zhang, *Regularity results for solutions of mixed local and nonlocal elliptic equations*, Math. Z. **302** (2022), no. 3, 1855–1878, DOI 10.1007/s00209-022-03132-2. MR4492518
- [17] Serena Dipierro, Giovanni Giacomini, and Enrico Valdinoci, *Efficiency functionals for the Lévy flight foraging hypothesis*, J. Math. Biol. **85** (2022), no. 4, 33, DOI 10.1007/s00285-022-01808-1. MR4484924
- [18] Serena Dipierro, Edoardo Proietti Lippi, and Enrico Valdinoci, *Linear theory for a mixed operator with Neumann conditions*, Asymptot. Anal. **128** (2022), no. 4, 571–594, DOI 10.3233/asy-211718. MR4438596
- [19] Serena Dipierro, Aleksandr Dzhugan, and Enrico Valdinoci, *Integral operators defined “up to a polynomial”*, Fract. Calc. Appl. Anal. **25** (2022), no. 1, 60–108, DOI 10.1007/s13540-021-00005-z. MR4437273
- [20] Serena Dipierro, Francesco Maggi, and Enrico Valdinoci, *Minimizing cones for fractional capillarity problems*, Rev. Mat. Iberoam. **38** (2022), no. 2, 635–658, DOI 10.4171/rmi/1289. MR4404780
- [21] Serena Dipierro, Xavier Ros-Oton, Joaquim Serra, and Enrico Valdinoci, *Non-symmetric stable operators: regularity theory and integration by parts*, Adv. Math. **401** (2022), Paper No. 108321, 100, DOI 10.1016/j.aim.2022.108321. MR4395952
- [22] Serena Dipierro, Fumihiko Onoue, and Enrico Valdinoci, *(Dis)connectedness of nonlocal minimal surfaces in a cylinder and a stickiness property*, Proc. Amer. Math. Soc. **150** (2022), no. 5, 2223–2237, DOI 10.1090/proc/15796. MR4392355
- [23] Stefano Biagi, Serena Dipierro, Enrico Valdinoci, and Eugenio Vecchi, *Mixed local and nonlocal elliptic operators: regularity and maximum principles*, Comm. Partial Differential Equations **47** (2022), no. 3, 585–629, DOI 10.1080/03605302.2021.1998908. MR4387204
- [24] Xavier Cabré, Serena Dipierro, and Enrico Valdinoci, *The Bernstein technique for integro-differential equations*, Arch. Ration. Mech. Anal. **243** (2022), no. 3, 1597–1652, DOI 10.1007/s00205-021-01749-x. MR4381148
- [25] Serena Dipierro, Giorgio Poggesi, and Enrico Valdinoci, *Radial symmetry of solutions to anisotropic and weighted diffusion equations with discontinuous nonlinearities*, Calc. Var. Partial Differential Equations **61** (2022), no. 2, Paper No. 72, 31, DOI 10.1007/s00526-021-02157-5. MR4380032
- [26] Cecilia Cavaterra, Serena Dipierro, Zu Gao, and Enrico Valdinoci, *Global gradient estimates for a general type of nonlinear parabolic equations*, J. Geom. Anal. **32** (2022), no. 2, Paper No. 65, 37, DOI 10.1007/s12220-021-00812-z. MR4360444
- [27] Stefano Biagi, Eugenio Vecchi, Serena Dipierro, and Enrico Valdinoci, *Semilinear elliptic equations involving mixed local and nonlocal operators*,

- Proc. Roy. Soc. Edinburgh Sect. A **151** (2021), no. 5, 1611–1641, DOI 10.1017/prm.2020.75. MR4313576
- [28] Serena Dipierro, Ovidiu Savin, and Enrico Valdinoci, *On divergent fractional Laplace equations*, Ann. Fac. Sci. Toulouse Math. (6) **30** (2021), no. 2, 255–265, DOI 10.5802/afst.1673 (English, with English and French summaries). MR4297378
- [29] Annalisa Cesaroni, Serena Dipierro, Matteo Novaga, and Enrico Valdinoci, *Heteroclinic connections and Dirichlet problems for a nonlocal functional of oscillation type*, Ann. Mat. Pura Appl. (4) **200** (2021), no. 5, 1999–2041, DOI 10.1007/s10231-021-01068-8. MR4285108
- [30] Serena Dipierro and Enrico Valdinoci, *Description of an ecological niche for a mixed local/nonlocal dispersal: an evolution equation and a new Neumann condition arising from the superposition of Brownian and Lévy processes*, Phys. A **575** (2021), Paper No. 126052, 20, DOI 10.1016/j.physa.2021.126052. MR4249816
- [31] Serena Dipierro, Zu Gao, and Enrico Valdinoci, *Global gradient estimates for nonlinear parabolic operators*, ESAIM Control Optim. Calc. Var. **27** (2021), Paper No. 21, 37, DOI 10.1051/cocv/2021016. MR4238774
- [32] Serena Dipierro, Giorgio Poggesi, and Enrico Valdinoci, *A Serrin-type problem with partial knowledge of the domain*, Nonlinear Anal. **208** (2021), Paper No. 112330, 44, DOI 10.1016/j.na.2021.112330. MR4230553
- [33] ———, *A quantitative rigidity result for a two-dimensional Frenkel-Kontorova model*, Phys. D **419** (2021), Paper No. 132871, 44, DOI 10.1016/j.physd.2021.132871. MR4224860
- [34] Serena Dipierro, Benedetta Pellacci, Enrico Valdinoci, and Gianmaria Verzini, *Time-fractional equations with reaction terms: fundamental solutions and asymptotics*, Discrete Contin. Dyn. Syst. **41** (2021), no. 1, 257–275, DOI 10.3934/dcds.2020137. MR4182321
- [35] Cecilia Cavaterra, Serena Dipierro, Alberto Farina, Zu Gao, and Enrico Valdinoci, *Pointwise gradient bounds for entire solutions of elliptic equations with non-standard growth conditions and general nonlinearities*, J. Differential Equations **270** (2021), 435–475, DOI 10.1016/j.jde.2020.08.007. MR4150380
- [36] Serena Dipierro, Pietro Miraglio, and Enrico Valdinoci, *Symmetry results for the solutions of a partial differential equation arising in water waves*, 2018 MATRIX annals, MATRIX Book Ser., vol. 3, Springer, Cham, 2020, pp. 229–248, DOI 10.1007/978-3-030-38230-8_15. MR4294713
- [37] Elisa Affili, Serena Dipierro, and Enrico Valdinoci, *Decay estimates in time for classical and anomalous diffusion*, 2018 MATRIX annals, MATRIX Book Ser., vol. 3, Springer, Cham, 2020, pp. 167–183, DOI 10.1007/978-3-030-38230-8_12. MR4294710
- [38] Serena Dipierro, Aram Karakhanyan, and Enrico Valdinoci, *A free boundary problem driven by the biharmonic operator*, Pure Appl. Anal. **2** (2020), no. 4, 875–942, DOI 10.2140/paa.2020.2.875. MR4229229
- [39] Claudia Bucur, Serena Dipierro, Luca Lombardini, and Enrico Valdinoci, *Minimisers of a fractional seminorm and nonlocal minimal surfaces*, Interfaces Free Bound. **22** (2020), no. 4, 465–504, DOI 10.4171/ifb/447. MR4184583
- [40] Serena Dipierro, Ovidiu Savin, and Enrico Valdinoci, *Boundary properties of fractional objects: flexibility of linear equations and rigidity of minimal graphs*,

- J. Reine Angew. Math. **769** (2020), 121–164, DOI 10.1515/crelle-2019-0045. MR4178752
- [41] Eleonora Cinti, Carlo Sinestrari, and Enrico Valdinoci, *Convex sets evolving by volume-preserving fractional mean curvature flows*, Anal. PDE **13** (2020), no. 7, 2149–2171, DOI 10.2140/apde.2020.13.2149. MR4175821
- [42] Pietro Miraglio and Enrico Valdinoci, *Energy asymptotics of a Dirichlet to Neumann problem related to water waves*, Nonlinearity **33** (2020), no. 11, 5997–6025, DOI 10.1088/1361-6544/ab9dcb. MR4164669
- [43] Claudia Bucur, Serena Dipierro, and Enrico Valdinoci, *On the mean value property of fractional harmonic functions*, Nonlinear Anal. **201** (2020), 112112, 25, DOI 10.1016/j.na.2020.112112. MR4149297
- [44] Serena Dipierro, Joaquim Serra, and Enrico Valdinoci, *Improvement of flatness for nonlocal phase transitions*, Amer. J. Math. **142** (2020), no. 4, 1083–1160, DOI 10.1353/ajm.2020.0032. MR4124116
- [45] Stefano Biagi, Enrico Valdinoci, and Eugenio Vecchi, *A symmetry result for cooperative elliptic systems with singularities*, Publ. Mat. **64** (2020), no. 2, 621–652, DOI 10.5565/PUBLMAT6422010. MR4119263
- [46] Giuseppe Maria Coclite, Serena Dipierro, Francesco Maddalena, and Enrico Valdinoci, *Singularity formation in fractional Burgers’ equations*, J. Nonlinear Sci. **30** (2020), no. 4, 1285–1305, DOI 10.1007/s00332-020-09608-x. MR4113328
- [47] Serena Dipierro, Veronica Felli, and Enrico Valdinoci, *Unique continuation principles in cones under nonzero Neumann boundary conditions*, Ann. Inst. H. Poincaré Anal. Non Linéaire **37** (2020), no. 4, 785–815, DOI 10.1016/j.anihpc.2020.01.005. MR4104826
- [48] Serena Dipierro, Ovidiu Savin, and Enrico Valdinoci, *Nonlocal minimal graphs in the plane are generically sticky*, Comm. Math. Phys. **376** (2020), no. 3, 2005–2063, DOI 10.1007/s00220-020-03771-8. MR4104542
- [49] Serena Dipierro, Pietro Miraglio, and Enrico Valdinoci, *(Non)local Γ -convergence*, Something about nonlinear problems, Bruno Pini Math. Anal. Semin., vol. 11, Univ. Bologna, Alma Mater Stud., Bologna, 2020, pp. 68–93 (English, with English and Italian summaries). MR4096832
- [50] Serena Dipierro, Aleksandr Dzhugan, Nicolò Forcillo, and Enrico Valdinoci, *Enhanced boundary regularity of planar nonlocal minimal graphs and a butterfly effect*, Something about nonlinear problems, Bruno Pini Math. Anal. Semin., vol. 11, Univ. Bologna, Alma Mater Stud., Bologna, 2020, pp. 44–67 (English, with English and Italian summaries). MR4096831
- [51] Alessandro Carbotti, Serena Dipierro, and Enrico Valdinoci, *Local density of Caputo-stationary functions of any order*, Complex Var. Elliptic Equ. **65** (2020), no. 7, 1115–1138, DOI 10.1080/17476933.2018.1544631. MR4095547
- [52] Matteo Cozzi and Enrico Valdinoci, *On the growth of nonlocal catenoids*, Atti Accad. Naz. Lincei Rend. Lincei Mat. Appl. **31** (2020), no. 1, 237–248, DOI 10.4171/rlm/888. MR4082938
- [53] Eleonora Cinti, Pietro Miraglio, and Enrico Valdinoci, *One-Dimensional Symmetry for the Solutions of a Three-Dimensional Water Wave Problem*, J. Geom. Anal. **30** (2020), no. 2, 1804–1835, DOI 10.1007/s12220-019-00279-z. MR4081332

- [54] Serena Dipierro, Andrea Pinamonti, and Enrico Valdinoci, *Rigidity Results for Elliptic Boundary Value Problems: Stable Solutions for Quasilinear Equations with Neumann or Robin Boundary Conditions*, Int. Math. Res. Not. IMRN **5** (2020), 1366–1384, DOI 10.1093/imrn/rny055. MR4073943
- [55] Serena Dipierro and Enrico Valdinoci, *Long-range phase coexistence models: recent progress on the fractional Allen-Cahn equation*, Topics in applied analysis and optimisation—partial differential equations, stochastic and numerical analysis, CIM Ser. Math. Sci., Springer, Cham, [2019] ©2019, pp. 121–138, DOI 10.1007/978-3-030-33116-0_5. MR4410572
- [56] Alessandro Carbotti, Serena Dipierro, and Enrico Valdinoci, *Local density of solutions to fractional equations*, De Gruyter Studies in Mathematics, vol. 74, De Gruyter, Berlin, 2019. MR4321143
- [57] Serena Dipierro, Stefania Patrizi, and Enrico Valdinoci, *Heteroclinic connections for nonlocal equations*, Math. Models Methods Appl. Sci. **29** (2019), no. 14, 2585–2636, DOI 10.1142/S0218202519500556. MR4053239
- [58] Alberto Farina and Enrico Valdinoci, *Flatness results for nonlocal minimal cones and subgraphs*, Ann. Sc. Norm. Super. Pisa Cl. Sci. (5) **19** (2019), no. 4, 1281–1301. MR4050198
- [59] Serena Dipierro, Aram L. Karakhanyan, and Enrico Valdinoci, *Limit behaviour of a singular perturbation problem for the biharmonic operator*, Appl. Math. Optim. **80** (2019), no. 3, 679–713, DOI 10.1007/s00245-019-09598-7. MR4026596
- [60] Annalisa Cesaroni, Serena Dipierro, Matteo Novaga, and Enrico Valdinoci, *Minimizers of the p -oscillation functional*, Discrete Contin. Dyn. Syst. **39** (2019), no. 12, 6785–6799, DOI 10.3934/dcds.2019231. MR4026168
- [61] ———, *Fattening and nonfattening phenomena for planar nonlocal curvature flows*, Math. Ann. **375** (2019), no. 1-2, 687–736, DOI 10.1007/s00208-018-1793-6. MR4000255
- [62] Serena Dipierro, Ovidiu Savin, and Enrico Valdinoci, *Definition of fractional Laplacian for functions with polynomial growth*, Rev. Mat. Iberoam. **35** (2019), no. 4, 1079–1122, DOI 10.4171/rmi/1079. MR3988080
- [63] Eleonora Cinti, Joaquim Serra, and Enrico Valdinoci, *Quantitative flatness results and BV-estimates for stable nonlocal minimal surfaces*, J. Differential Geom. **112** (2019), no. 3, 447–504, DOI 10.4310/jdg/1563242471. MR3981295
- [64] Alberto Farina and Enrico Valdinoci, *Gradient estimates for a class of anisotropic nonlocal operators*, NoDEA Nonlinear Differential Equations Appl. **26** (2019), no. 4, Paper No. 25, 13, DOI 10.1007/s00030-019-0571-9. MR3975834
- [65] Nicola Abatangelo and Enrico Valdinoci, *Getting acquainted with the fractional Laplacian*, Contemporary research in elliptic PDEs and related topics, Springer INdAM Ser., vol. 33, Springer, Cham, 2019, pp. 1–105. MR3967804
- [66] Serena Dipierro and Enrico Valdinoci, *Alessio Figalli’s contributions to nonlocal minimal surfaces*, Mat. Cult. Soc. Riv. Unione Mat. Ital. (I) **4** (2019), no. 2, 119–124 (English, with English and Italian summaries). MR3965684
- [67] Stefano Biagi, Enrico Valdinoci, and Eugenio Vecchi, *A symmetry result for elliptic systems in punctured domains*, Commun. Pure Appl. Anal. **18** (2019), no. 5, 2819–2833, DOI 10.3934/cpaa.2019126. MR3962200

- [68] Julien Brasseur, Jérôme Coville, François Hamel, and Enrico Valdinoci, *Liouville type results for a nonlocal obstacle problem*, Proc. Lond. Math. Soc. (3) **119** (2019), no. 2, 291–328, DOI 10.1112/plms.12229. MR3959045
- [69] Mariel Sáez and Enrico Valdinoci, *On the evolution by fractional mean curvature*, Comm. Anal. Geom. **27** (2019), no. 1, 211–249, DOI 10.4310/CAG.2019.v27.n1.a6. MR3951024
- [70] Serena Dipierro, Enrico Valdinoci, and Vincenzo Vespi, *Decay estimates for evolutionary equations with fractional time-diffusion*, J. Evol. Equ. **19** (2019), no. 2, 435–462, DOI 10.1007/s00028-019-00482-z. MR3950697
- [71] Nicola Soave and Enrico Valdinoci, *Overdetermined problems for the fractional Laplacian in exterior and annular sets*, J. Anal. Math. **137** (2019), no. 1, 101–134, DOI 10.1007/s11854-018-0067-2. MR3937999
- [72] Serena Dipierro, Ovidiu Savin, and Enrico Valdinoci, *Local approximation of arbitrary functions by solutions of nonlocal equations*, J. Geom. Anal. **29** (2019), no. 2, 1428–1455, DOI 10.1007/s12220-018-0045-z. MR3935264
- [73] Claudia Bucur, Luca Lombardini, and Enrico Valdinoci, *Complete stickiness of nonlocal minimal surfaces for small values of the fractional parameter*, Ann. Inst. H. Poincaré Anal. Non Linéaire **36** (2019), no. 3, 655–703, DOI 10.1016/j.anihpc.2018.08.003. MR3926519
- [74] Serena Dipierro, Andrea Pinamonti, and Enrico Valdinoci, *Classification of stable solutions for boundary value problems with nonlinear boundary conditions on Riemannian manifolds with nonnegative Ricci curvature*, Adv. Nonlinear Anal. **8** (2019), no. 1, 1035–1042, DOI 10.1515/anona-2018-0013. MR3918416
- [75] Elisa Affili and Enrico Valdinoci, *Decay estimates for evolution equations with classical and fractional time-derivatives*, J. Differential Equations **266** (2019), no. 7, 4027–4060, DOI 10.1016/j.jde.2018.09.031. MR3912710
- [76] Annalisa Cesaroni, Marco Cirant, Serena Dipierro, Matteo Novaga, and Enrico Valdinoci, *On stationary fractional mean field games*, J. Math. Pures Appl. (9) **122** (2019), 1–22, DOI 10.1016/j.matpur.2017.10.013 (English, with English and French summaries). MR3912635
- [77] Serena Dipierro, Matteo Novaga, and Enrico Valdinoci, *On a Minkowski geometric flow in the plane: evolution of curves with lack of scale invariance*, J. Lond. Math. Soc. (2) **99** (2019), no. 1, 31–51, DOI 10.1112/jlms.12162. MR3909247
- [78] Serena Dipierro, Andrea Pinamonti, and Enrico Valdinoci, *Rigidity results in diffusion Markov triples*, J. Funct. Anal. **276** (2019), no. 3, 785–814, DOI 10.1016/j.jfa.2018.06.005. MR3906292
- [79] Giuseppe Maria Coclite, Serena Dipierro, Francesco Maddalena, and Enrico Valdinoci, *Wellposedness of a nonlinear peridynamic model*, Nonlinearity **32** (2019), no. 1, 1–21, DOI 10.1088/1361-6544/aae71b. MR3884619
- [80] Serena Dipierro, Aram Karakhanyan, and Enrico Valdinoci, *Classification of irregular free boundary points for non-divergence type equations with discontinuous coefficients*, Discrete Contin. Dyn. Syst. **38** (2018), no. 12, 6073–6090, DOI 10.3934/dcds.2018262. MR3917801

- [81] Serena Dipierro, Alberto Farina, and Enrico Valdinoci, *Density Estimates for Degenerate Double-Well Potentials*, SIAM J. Math. Anal. **50** (2018), no. 6, 6333–6347, DOI 10.1137/17M114933X. MR3890785
- [82] Carina Geldhauser and Enrico Valdinoci, *Optimizing the fractional power in a model with stochastic PDE constraints*, Adv. Nonlinear Stud. **18** (2018), no. 4, 649–669, DOI 10.1515/ans-2018-2031. MR3871425
- [83] Serena Dipierro, Luca Lombardini, Pietro Miraglio, and Enrico Valdinoci, *The Phillip Island penguin parade (a mathematical treatment)*, ANZIAM J. **60** (2018), no. 1, 27–54, DOI 10.1017/S1446181118000147. MR3853350
- [84] Serena Dipierro and Enrico Valdinoci, *Nonlocal minimal surfaces: interior regularity, quantitative estimates and boundary stickiness*, Recent developments in nonlocal theory, De Gruyter, Berlin, 2018, pp. 165–209. MR3824212
- [85] Matteo Cozzi and Enrico Valdinoci, *Planelike minimizers of nonlocal Ginzburg-Landau energies and fractional perimeters in periodic media*, Nonlinearity **31** (2018), no. 7, 3013–3056, DOI 10.1088/1361-6544/aab89d. MR3816747
- [86] Serena Dipierro and Enrico Valdinoci, *A simple mathematical model inspired by the Purkinje cells: from delayed travelling waves to fractional diffusion*, Bull. Math. Biol. **80** (2018), no. 7, 1849–1870, DOI 10.1007/s11538-018-0437-z. MR3814763
- [87] Boumediene Abdellaoui, Abdelrazek Dieb, and Enrico Valdinoci, *A nonlocal concave-convex problem with nonlocal mixed boundary data*, Commun. Pure Appl. Anal. **17** (2018), no. 3, 1103–1120, DOI 10.3934/cpaa.2018053. MR3809115
- [88] Enrico Valdinoci, *All functions are (locally) s -harmonic (up to a small error)—and applications*, Partial differential equations and geometric measure theory, Lecture Notes in Math., vol. 2211, Springer, Cham, 2018, pp. 197–214. MR3790948
- [89] Eleonora Cinti, Carlo Sinestrari, and Enrico Valdinoci, *Neckpinch singularities in fractional mean curvature flows*, Proc. Amer. Math. Soc. **146** (2018), no. 6, 2637–2646, DOI 10.1090/proc/14002. MR3778164
- [90] Serena Dipierro, Nicola Soave, and Enrico Valdinoci, *On stable solutions of boundary reaction-diffusion equations and applications to nonlocal problems with Neumann data*, Indiana Univ. Math. J. **67** (2018), no. 1, 429–469, DOI 10.1512/iumj.2018.67.6282. MR3776028
- [91] Annalisa Cesaroni, Serena Dipierro, Matteo Novaga, and Enrico Valdinoci, *Minimizers for nonlocal perimeters of Minkowski type*, Calc. Var. Partial Differential Equations **57** (2018), no. 2, Art. 64, 40, DOI 10.1007/s00526-018-1335-9. MR3775182
- [92] Fabio Punzo and Enrico Valdinoci, *Prescribed conditions at infinity for fractional parabolic and elliptic equations with unbounded coefficients*, ESAIM Control Optim. Calc. Var. **24** (2018), no. 1, 105–127, DOI 10.1051/cocv/2016077. MR3764136

- [93] Serena Dipierro, Alberto Farina, and Enrico Valdinoci, *A three-dimensional symmetry result for a phase transition equation in the genuinely nonlocal regime*, Calc. Var. Partial Differential Equations **57** (2018), no. 1, Art. 15, 21, DOI 10.1007/s00526-017-1295-5. MR3740395
- [94] Serena Dipierro and Enrico Valdinoci, *(Non)local and (non)linear free boundary problems*, Discrete Contin. Dyn. Syst. Ser. S **11** (2018), no. 3, 465–476, DOI 10.3934/dcdss.2018025. MR3732177
- [95] Alessio Figalli, Ireneo Peral, and Enrico Valdinoci, *Partial differential equations and geometric measure theory*, Lecture Notes in Mathematics, vol. 2211, Springer, Cham; Fondazione C.I.M.E., Florence, 2018. Cetraro, Italy, 2014; Lectures given at the CIME course held June 2–7, 2014; Edited by Enrico Valdinoci and Alberto Farina; Fondazione CIME/CIME Foundation Subseries. MR3728335
- [96] Luca Rossi, Andrea Tellini, and Enrico Valdinoci, *The effect on Fisher-KPP propagation in a cylinder with fast diffusion on the boundary*, SIAM J. Math. Anal. **49** (2017), no. 6, 4595–4624, DOI 10.1137/17M1125388. MR3724253
- [97] Francesco Maggi and Enrico Valdinoci, *Capillarity problems with nonlocal surface tension energies*, Comm. Partial Differential Equations **42** (2017), no. 9, 1403–1446, DOI 10.1080/03605302.2017.1358277. MR3717439
- [98] Serena Dipierro, Nicola Soave, and Enrico Valdinoci, *On fractional elliptic equations in Lipschitz sets and epigraphs: regularity, monotonicity and rigidity results*, Math. Ann. **369** (2017), no. 3-4, 1283–1326, DOI 10.1007/s00208-016-1487-x. MR3713542
- [99] Serena Dipierro and Enrico Valdinoci, *Continuity and density results for a one-phase nonlocal free boundary problem*, Ann. Inst. H. Poincaré Anal. Non Linéaire **34** (2017), no. 6, 1387–1428, DOI 10.1016/j.anihpc.2016.11.001. MR3712006
- [100] Serena Dipierro, Francesco Maggi, and Enrico Valdinoci, *Asymptotic expansions of the contact angle in nonlocal capillarity problems*, J. Nonlinear Sci. **27** (2017), no. 5, 1531–1550, DOI 10.1007/s00332-017-9378-1. MR3707346
- [101] Serena Dipierro, Aram Karakhanyan, and Enrico Valdinoci, *A nonlinear free boundary problem with a self-driven Bernoulli condition*, J. Funct. Anal. **273** (2017), no. 11, 3549–3615, DOI 10.1016/j.jfa.2017.07.014. MR3706611
- [102] Alberto Farina and Enrico Valdinoci, *A rigidity result for non-local semilinear equations*, Proc. Roy. Soc. Edinburgh Sect. A **147** (2017), no. 5, 1009–1018, DOI 10.1017/S0308210516000391. MR3705316
- [103] Xavier Ros-Oton, Joaquim Serra, and Enrico Valdinoci, *Pohozaev identities for anisotropic integrodifferential operators*, Comm. Partial Differential Equations **42** (2017), no. 8, 1290–1321, DOI 10.1080/03605302.2017.1349148. MR3704988
- [104] Stefania Patrizi and Enrico Valdinoci, *Long-time behavior for crystal dislocation dynamics*, Math. Models Methods Appl. Sci. **27** (2017), no. 12, 2185–2228, DOI 10.1142/S0218202517500427. MR3703556

- [105] Alessio Figalli and Enrico Valdinoci, *Regularity and Bernstein-type results for nonlocal minimal surfaces*, J. Reine Angew. Math. **729** (2017), 263–273, DOI 10.1515/crelle-2015-0006. MR3680376
- [106] Serena Dipierro, Aram Karakhanyan, and Enrico Valdinoci, *A class of unstable free boundary problems*, Anal. PDE **10** (2017), no. 6, 1317–1359, DOI 10.2140/apde.2017.10.1317. MR3678490
- [107] Matteo Cozzi, Serena Dipierro, and Enrico Valdinoci, *Planelike interfaces in long-range Ising models and connections with nonlocal minimal surfaces*, J. Stat. Phys. **167** (2017), no. 6, 1401–1451, DOI 10.1007/s10955-017-1783-1. MR3652519
- [108] Serena Dipierro, Xavier Ros-Oton, and Enrico Valdinoci, *Nonlocal problems with Neumann boundary conditions*, Rev. Mat. Iberoam. **33** (2017), no. 2, 377–416, DOI 10.4171/RMI/942. MR3651008
- [109] Serena Dipierro, Aram Karakhanyan, and Enrico Valdinoci, *New trends in free boundary problems*, Adv. Nonlinear Stud. **17** (2017), no. 2, 319–332, DOI 10.1515/ans-2017-0002. MR3641645
- [110] Hans-Christoph Kaiser, Dorothee Knees, Alexander Mielke, Joachim Rehberg, Elisabetta Rocca, Marita Thomas, and Enrico Valdinoci, *Preface [Issue on PDE 2015: Theory and applications of partial differential equations]*, Discrete Contin. Dyn. Syst. Ser. S **10** (2017), no. 4, i–iv, DOI doi:10.3934/dcdss.201704i. Held at the Weierstrass Institute, Berlin, November 30–December 4, 2015. MR3641185
- [111] Serena Dipierro, Matteo Novaga, and Enrico Valdinoci, *Rigidity of critical points for a nonlocal Ohta-Kawasaki energy*, Nonlinearity **30** (2017), no. 4, 1523–1535, DOI 10.1088/1361-6544/aa6167. MR3636309
- [112] Serena Dipierro, María Medina, Ireneo Peral, and Enrico Valdinoci, *Bifurcation results for a fractional elliptic equation with critical exponent in \mathbb{R}^n* , Manuscripta Math. **153** (2017), no. 1-2, 183–230, DOI 10.1007/s00229-016-0878-3. MR3635980
- [113] Alberto Farina and Enrico Valdinoci, *Regularity and rigidity theorems for a class of anisotropic nonlocal operators*, Manuscripta Math. **153** (2017), no. 1-2, 53–70, DOI 10.1007/s00229-016-0875-6. MR3635973
- [114] Serena Dipierro, Ovidiu Savin, and Enrico Valdinoci, *All functions are locally s -harmonic up to a small error*, J. Eur. Math. Soc. (JEMS) **19** (2017), no. 4, 957–966, DOI 10.4171/JEMS/684. MR3626547
- [115] Matteo Cozzi, Serena Dipierro, and Enrico Valdinoci, *Nonlocal phase transitions in homogeneous and periodic media*, J. Fixed Point Theory Appl. **19** (2017), no. 1, 387–405, DOI 10.1007/s11784-016-0359-z. MR3625078
- [116] Matteo Cozzi and Enrico Valdinoci, *Plane-like minimizers for a non-local Ginzburg-Landau-type energy in a periodic medium*, J. Éc. polytech. Math. **4** (2017), 337–388 (English, with English and French summaries). MR3623357

- [117] Serena Dipierro, María Medina, and Enrico Valdinoci, *Fractional elliptic problems with critical growth in the whole of \mathbb{R}^n* , Appunti. Scuola Normale Superiore di Pisa (Nuova Serie) [Lecture Notes. Scuola Normale Superiore di Pisa (New Series)], vol. 15, Edizioni della Normale, Pisa, 2017. MR3617721
- [118] François Hamel, Xavier Ros-Oton, Yannick Sire, and Enrico Valdinoci, *A one-dimensional symmetry result for a class of nonlocal semilinear equations in the plane*, Ann. Inst. H. Poincaré Anal. Non Linéaire **34** (2017), no. 2, 469–482, DOI 10.1016/j.anihpc.2016.01.001. MR3610941
- [119] Serena Dipierro, Ovidiu Savin, and Enrico Valdinoci, *Boundary behavior of nonlocal minimal surfaces*, J. Funct. Anal. **272** (2017), no. 5, 1791–1851, DOI 10.1016/j.jfa.2016.11.016. MR3596708
- [120] Serena Dipierro, Stefania Patrizi, and Enrico Valdinoci, *Chaotic orbits for systems of nonlocal equations*, Comm. Math. Phys. **349** (2017), no. 2, 583–626, DOI 10.1007/s00220-016-2713-9. MR3594365
- [121] Annalisa Massaccesi and Enrico Valdinoci, *Is a nonlocal diffusion strategy convenient for biological populations in competition?*, J. Math. Biol. **74** (2017), no. 1-2, 113–147, DOI 10.1007/s00285-016-1019-z. MR3590678
- [122] Jürgen Sprekels and Enrico Valdinoci, *A new type of identification problems: optimizing the fractional order in a nonlocal evolution equation*, SIAM J. Control Optim. **55** (2017), no. 1, 70–93, DOI 10.1137/16M105575X. MR3590646
- [123] Luis Caffarelli, Serena Dipierro, and Enrico Valdinoci, *A logistic equation with nonlocal interactions*, Kinet. Relat. Models **10** (2017), no. 1, 141–170, DOI 10.3934/krm.2017006. MR3579567
- [124] S. Dipierro, J. Serra, and E. Valdinoci, *Nonlocal phase transitions: rigidity results and anisotropic geometry*, Rend. Semin. Mat. Univ. Politec. Torino **74** (2016), no. 2, 135–149. MR3772607
- [125] Serena Dipierro, Ovidiu Savin, and Enrico Valdinoci, *Graph properties for nonlocal minimal surfaces*, Calc. Var. Partial Differential Equations **55** (2016), no. 4, Paper No. 86, 25, DOI 10.1007/s00526-016-1020-9. MR3516886
- [126] Stefania Patrizi and Enrico Valdinoci, *Relaxation times for atom dislocations in crystals*, Calc. Var. Partial Differential Equations **55** (2016), no. 3, Art. 71, 44, DOI 10.1007/s00526-016-1000-0. MR3511786
- [127] Alberto Farina and Enrico Valdinoci, *1D symmetry for semilinear PDEs from the limit interface of the solution*, Comm. Partial Differential Equations **41** (2016), no. 4, 665–682, DOI 10.1080/03605302.2015.1135165. MR3488250
- [128] Juan Dávila, Manuel del Pino, Serena Dipierro, and Enrico Valdinoci, *Nonlocal Delaunay surfaces*, Nonlinear Anal. **137** (2016), 357–380, DOI 10.1016/j.na.2015.10.009. MR3485130
- [129] Matteo Cozzi, Alberto Farina, and Enrico Valdinoci, *Monotonicity formulae and classification results for singular, degenerate, anisotropic PDEs*, Adv. Math. **293** (2016), 343–381, DOI 10.1016/j.aim.2016.02.014. MR3474325

- [130] Claudia Bucur and Enrico Valdinoci, *Nonlocal diffusion and applications*, Lecture Notes of the Unione Matematica Italiana, vol. 20, Springer, [Cham]; Unione Matematica Italiana, Bologna, 2016. MR3469920
- [131] Xavier Ros-Oton and Enrico Valdinoci, *The Dirichlet problem for nonlocal operators with singular kernels: Convex and nonconvex domains*, Adv. Math. **288** (2016), 732–790, DOI 10.1016/j.aim.2015.11.001. MR3436398
- [132] Serena Dipierro, Ovidiu Savin, and Enrico Valdinoci, *A Nonlocal Free Boundary Problem*, SIAM J. Math. Anal. **47** (2015), no. 6, 4559–4605, DOI 10.1137/140999712. MR3427047
- [133] Alessio Fiscella, Raffaella Servadei, and Enrico Valdinoci, *Asymptotically linear problems driven by fractional Laplacian operators*, Math. Methods Appl. Sci. **38** (2015), no. 16, 3551–3563, DOI 10.1002/mma.3438. MR3423714
- [134] Serena Dipierro and Enrico Valdinoci, *A density property for fractional weighted Sobolev spaces*, Atti Accad. Naz. Lincei Rend. Lincei Mat. Appl. **26** (2015), no. 4, 397–422, DOI 10.4171/RLM/712. MR3420496
- [135] Agnese Di Castro, Matteo Novaga, Berardo Ruffini, and Enrico Valdinoci, *Nonlocal quantitative isoperimetric inequalities*, Calc. Var. Partial Differential Equations **54** (2015), no. 3, 2421–2464, DOI 10.1007/s00526-015-0870-x. MR3412379
- [136] Juan Dávila, Manuel del Pino, Serena Dipierro, and Enrico Valdinoci, *Concentration phenomena for the nonlocal Schrödinger equation with Dirichlet datum*, Anal. PDE **8** (2015), no. 5, 1165–1235, DOI 10.2140/apde.2015.8.1165. MR3393677
- [137] Enrico Valdinoci, *Contemporary PDES between theory and applications*, Discrete Contin. Dyn. Syst. **35** (2015), no. 12, i, DOI 10.3934/dcds.2015.35.12i. MR3393246
- [138] Luis Caffarelli, Ovidiu Savin, and Enrico Valdinoci, *Minimization of a fractional perimeter-Dirichlet integral functional*, Ann. Inst. H. Poincaré Anal. Non Linéaire **32** (2015), no. 4, 901–924, DOI 10.1016/j.anihpc.2014.04.004. MR3390089
- [139] Raffaella Servadei and Enrico Valdinoci, *Fractional Laplacian equations with critical Sobolev exponent*, Rev. Mat. Complut. **28** (2015), no. 3, 655–676, DOI 10.1007/s13163-015-0170-1. MR3379042
- [140] Mouhamed Moustapha Fall, Fethi Mahmoudi, and Enrico Valdinoci, *Ground states and concentration phenomena for the fractional Schrödinger equation*, Nonlinearity **28** (2015), no. 6, 1937–1961, DOI 10.1088/0951-7715/28/6/1937. MR3350616
- [141] Stefania Patrizi and Enrico Valdinoci, *Crystal dislocations with different orientations and collisions*, Arch. Ration. Mech. Anal. **217** (2015), no. 1, 231–261, DOI 10.1007/s00205-014-0832-z. MR3338445
- [142] Guglielmo Albanese, Alessio Fiscella, and Enrico Valdinoci, *Gevrey regularity for integro-differential operators*, J. Math. Anal. Appl. **428** (2015), no. 2, 1225–1238, DOI 10.1016/j.jmaa.2015.04.002. MR3334976

- [143] Stefania Patrizi and Enrico Valdinoci, *Homogenization and Orowan's law for anisotropic fractional operators of any order*, *Nonlinear Anal.* **119** (2015), 3–36, DOI 10.1016/j.na.2014.07.010. MR3334171
- [144] Serena Dipierro and Enrico Valdinoci, *On a fractional harmonic replacement*, *Discrete Contin. Dyn. Syst.* **35** (2015), no. 8, 3377–3392, DOI 10.3934/dcds.2015.35.3377. MR3320130
- [145] Alessio Fiscella, Raffaella Servadei, and Enrico Valdinoci, *Density properties for fractional Sobolev spaces*, *Ann. Acad. Sci. Fenn. Math.* **40** (2015), no. 1, 235–253, DOI 10.5186/aasfm.2015.4009. MR3310082
- [146] Serena Dipierro, Giampiero Palatucci, and Enrico Valdinoci, *Dislocation dynamics in crystals: a macroscopic theory in a fractional Laplace setting*, *Comm. Math. Phys.* **333** (2015), no. 2, 1061–1105, DOI 10.1007/s00220-014-2118-6. MR3296170
- [147] Fabio Punzo and Enrico Valdinoci, *Uniqueness in weighted Lebesgue spaces for a class of fractional parabolic and elliptic equations*, *J. Differential Equations* **258** (2015), no. 2, 555–587, DOI 10.1016/j.jde.2014.09.023. MR3274769
- [148] Raffaella Servadei and Enrico Valdinoci, *The Brezis-Nirenberg result for the fractional Laplacian*, *Trans. Amer. Math. Soc.* **367** (2015), no. 1, 67–102, DOI 10.1090/S0002-9947-2014-05884-4. MR3271254
- [149] Begoña Barrios, Alessio Figalli, and Enrico Valdinoci, *Bootstrap regularity for integro-differential operators and its application to nonlocal minimal surfaces*, *Ann. Sc. Norm. Super. Pisa Cl. Sci. (5)* **13** (2014), no. 3, 609–639. MR3331523
- [150] Serena Dipierro, Alessio Figalli, and Enrico Valdinoci, *Strongly nonlocal dislocation dynamics in crystals*, *Comm. Partial Differential Equations* **39** (2014), no. 12, 2351–2387, DOI 10.1080/03605302.2014.914536. MR3259559
- [151] Raffaella Servadei and Enrico Valdinoci, *On the spectrum of two different fractional operators*, *Proc. Roy. Soc. Edinburgh Sect. A* **144** (2014), no. 4, 831–855, DOI 10.1017/S0308210512001783. MR3233760
- [152] Matteo Cozzi, Alberto Farina, and Enrico Valdinoci, *Gradient bounds and rigidity results for singular, degenerate, anisotropic partial differential equations*, *Comm. Math. Phys.* **331** (2014), no. 1, 189–214, DOI 10.1007/s00220-014-2107-9. MR3231999
- [153] Nicola Abatangelo and Enrico Valdinoci, *A notion of nonlocal curvature*, *Numer. Funct. Anal. Optim.* **35** (2014), no. 7-9, 793–815, DOI 10.1080/01630563.2014.901837. MR3230079
- [154] Begoña Barrios, Ireneo Peral, Fernando Soria, and Enrico Valdinoci, *A Widder's type theorem for the heat equation with nonlocal diffusion*, *Arch. Ration. Mech. Anal.* **213** (2014), no. 2, 629–650, DOI 10.1007/s00205-014-0733-1. MR3211862
- [155] Mouhamed Moustapha Fall and Enrico Valdinoci, *Uniqueness and nondegeneracy of positive solutions of $(-\Delta)^s u + u = u^p$ in \mathbb{R}^N when s is close to 1*, *Comm. Math. Phys.* **329** (2014), no. 1, 383–404, DOI 10.1007/s00220-014-1919-y. MR3207007

- [156] Annalisa Cesaroni, Matteo Novaga, and Enrico Valdinoci, *A symmetry result for the Ornstein-Uhlenbeck operator*, Discrete Contin. Dyn. Syst. **34** (2014), no. 6, 2451–2467, DOI 10.3934/dcds.2014.34.2451. MR3177642
- [157] Alberto Farina and Enrico Valdinoci, *Gradient bounds for anisotropic partial differential equations*, Calc. Var. Partial Differential Equations **49** (2014), no. 3-4, 923–936, DOI 10.1007/s00526-013-0605-9. MR3168616
- [158] Raffaella Servadei and Enrico Valdinoci, *Weak and viscosity solutions of the fractional Laplace equation*, Publ. Mat. **58** (2014), no. 1, 133–154. MR3161511
- [159] Ovidiu Savin and Enrico Valdinoci, *Density estimates for a variational model driven by the Gagliardo norm*, J. Math. Pures Appl. (9) **101** (2014), no. 1, 1–26, DOI 10.1016/j.matpur.2013.05.001 (English, with English and French summaries). MR3133422
- [160] Alessio Fiscella and Enrico Valdinoci, *A critical Kirchhoff type problem involving a nonlocal operator*, Nonlinear Anal. **94** (2014), 156–170, DOI 10.1016/j.na.2013.08.011. MR3120682
- [161] Alberto Farina, Luciano Mari, and Enrico Valdinoci, *Splitting theorems, symmetry results and overdetermined problems for Riemannian manifolds*, Comm. Partial Differential Equations **38** (2013), no. 10, 1818–1862, DOI 10.1080/03605302.2013.795969. MR3169764
- [162] Andrea Pinamonti and Enrico Valdinoci, *A Lewy-Stampacchia estimate for variational inequalities in the Heisenberg group*, Rend. Istit. Mat. Univ. Trieste **45** (2013), 23–45. MR3168296
- [163] Alberto Farina and Enrico Valdinoci, *On partially and globally overdetermined problems of elliptic type*, Amer. J. Math. **135** (2013), no. 6, 1699–1726, DOI 10.1353/ajm.2013.0052. MR3145008
- [164] Luis Caffarelli and Enrico Valdinoci, *Regularity properties of nonlocal minimal surfaces via limiting arguments*, Adv. Math. **248** (2013), 843–871, DOI 10.1016/j.aim.2013.08.007. MR3107529
- [165] Alessio Fiscella, Raffaella Servadei, and Enrico Valdinoci, *A resonance problem for non-local elliptic operators*, Z. Anal. Anwend. **32** (2013), no. 4, 411–431, DOI 10.4171/ZAA/1492. MR3106468
- [166] Ovidiu Savin and Enrico Valdinoci, *Regularity of nonlocal minimal cones in dimension 2*, Calc. Var. Partial Differential Equations **48** (2013), no. 1-2, 33–39, DOI 10.1007/s00526-012-0539-7. MR3090533
- [167] Raffaella Servadei and Enrico Valdinoci, *Lewy-Stampacchia type estimates for variational inequalities driven by (non)local operators*, Rev. Mat. Iberoam. **29** (2013), no. 3, 1091–1126, DOI 10.4171/RMI/750. MR3090147
- [168] Marcelo Montenegro and Enrico Valdinoci, *Pointwise estimates and monotonicity formulas without maximum principle*, J. Convex Anal. **20** (2013), no. 1, 199–220. MR3086448
- [169] Giampiero Palatucci, Ovidiu Savin, and Enrico Valdinoci, *Local and global minimizers for a variational energy involving a fractional norm*, Ann. Mat. Pura Appl. (4) **192** (2013), no. 4, 673–718, DOI 10.1007/s10231-011-0243-9. MR3081641

- [170] Alberto Farina, Yannick Sire, and Enrico Valdinoci, *Stable solutions of elliptic equations on Riemannian manifolds*, J. Geom. Anal. **23** (2013), no. 3, 1158–1172, DOI 10.1007/s12220-011-9278-9. MR3078347
- [171] Raffaella Servadei and Enrico Valdinoci, *A Brezis-Nirenberg result for non-local critical equations in low dimension*, Commun. Pure Appl. Anal. **12** (2013), no. 6, 2445–2464, DOI 10.3934/cpaa.2013.12.2445. MR3060890
- [172] S. Dipierro, G. Palatucci, and E. Valdinoci, *Existence and symmetry results for a Schrödinger type problem involving the fractional Laplacian*, Matematiche (Catania) **68** (2013), no. 1, 201–216. MR3060858
- [173] Luis Caffarelli and Enrico Valdinoci, *A priori bounds for solutions of a nonlocal evolution PDE*, Analysis and numerics of partial differential equations, Springer INdAM Ser., vol. 4, Springer, Milan, 2013, pp. 141–163, DOI 10.1007/978-88-470-2592-9_10. MR3051400
- [174] Giovanni Franzina and Enrico Valdinoci, *Geometric analysis of fractional phase transition interfaces*, Geometric properties for parabolic and elliptic PDE's, Springer INdAM Ser., vol. 2, Springer, Milan, 2013, pp. 117–130, DOI 10.1007/978-88-470-2841-8_8. MR3050230
- [175] Alberto Farina and Enrico Valdinoci, *Pointwise estimates and rigidity results for entire solutions of nonlinear elliptic PDE's*, ESAIM Control Optim. Calc. Var. **19** (2013), no. 2, 616–627, DOI 10.1051/cocv/2012024. MR3049726
- [176] Enrico Valdinoci, *A fractional framework for perimeters and phase transitions*, Milan J. Math. **81** (2013), no. 1, 1–23, DOI 10.1007/s00032-013-0199-x. MR3046979
- [177] Ovidiu Savin and Enrico Valdinoci, *Some monotonicity results for minimizers in the calculus of variations*, J. Funct. Anal. **264** (2013), no. 10, 2469–2496, DOI 10.1016/j.jfa.2013.02.005. MR3035063
- [178] Serena Dipierro, Alessio Figalli, Giampiero Palatucci, and Enrico Valdinoci, *Asymptotics of the s -perimeter as $s \searrow 0$* , Discrete Contin. Dyn. Syst. **33** (2013), no. 7, 2777–2790, DOI 10.3934/dcds.2013.33.2777. MR3007726
- [179] Raffaella Servadei and Enrico Valdinoci, *Variational methods for non-local operators of elliptic type*, Discrete Contin. Dyn. Syst. **33** (2013), no. 5, 2105–2137. MR3002745
- [180] Alberto Farina and Enrico Valdinoci, *Partially and globally overdetermined problems of elliptic type*, Adv. Nonlinear Anal. **1** (2012), no. 1, 27–45, DOI 10.1515/ana-2011-0002. MR3033175
- [181] Andrea Pinamonti and Enrico Valdinoci, *A geometric inequality for stable solutions of semilinear elliptic problems in the Engel group*, Ann. Acad. Sci. Fenn. Math. **37** (2012), no. 2, 357–373, DOI 10.5186/aasfm.2012.3733. MR2987073
- [182] Marcelo Montenegro and Enrico Valdinoci, *Minimizers of a variational problem inherit the symmetry of the domain*, Electron. J. Differential Equations (2012), No. 145, 6. MR2967210

- [183] Yannick Sire and Enrico Valdinoci, *Density estimates for phase transitions with a trace*, *Interfaces Free Bound.* **14** (2012), no. 2, 153–165, DOI 10.4171/IFB/277. MR2956322
- [184] Alberto Farina and Enrico Valdinoci, *Some results on minimizers and stable solutions of a variational problem*, *Ergodic Theory Dynam. Systems* **32** (2012), no. 4, 1302–1312, DOI 10.1017/S0143385711000198. MR2955315
- [185] Ovidiu Savin and Enrico Valdinoci, *Γ -convergence for nonlocal phase transitions*, *Ann. Inst. H. Poincaré Anal. Non Linéaire* **29** (2012), no. 4, 479–500, DOI 10.1016/j.anihpc.2012.01.006. MR2948285
- [186] Eleonora Di Nezza, Giampiero Palatucci, and Enrico Valdinoci, *Hitchhiker’s guide to the fractional Sobolev spaces*, *Bull. Sci. Math.* **136** (2012), no. 5, 521–573, DOI 10.1016/j.bulsci.2011.12.004. MR2944369
- [187] Diego Castellaneta, Alberto Farina, and Enrico Valdinoci, *A pointwise gradient estimate for solutions of singular and degenerate PDE’s in possibly unbounded domains with nonnegative mean curvature*, *Commun. Pure Appl. Anal.* **11** (2012), no. 5, 1983–2003, DOI 10.3934/cpaa.2012.11.1983. MR2911121
- [188] Raffaella Servadei and Enrico Valdinoci, *Mountain pass solutions for nonlocal elliptic operators*, *J. Math. Anal. Appl.* **389** (2012), no. 2, 887–898, DOI 10.1016/j.jmaa.2011.12.032. MR2879266 (2012k:35095)
- [189] Giampiero Palatucci and Enrico Valdinoci, *A weighted gradient theory of phase transitions with a possibly singular and degenerate spatial inhomogeneity*, *J. Differential Equations* **252** (2012), no. 5, 3381–3402, DOI 10.1016/j.jde.2011.12.005. MR2876657 (2012k:49024)
- [190] Alberto Farina, Yannick Sire, and Enrico Valdinoci, *Stable solutions of elliptic equations on Riemannian manifolds with Euclidean coverings*, *Proc. Amer. Math. Soc.* **140** (2012), no. 3, 927–930, DOI 10.1090/S0002-9939-2011-11241-3. MR2869076
- [191] Alberto Farina and Enrico Valdinoci, *Rigidity results for elliptic PDEs with uniform limits: an abstract framework with applications*, *Indiana Univ. Math. J.* **60** (2011), no. 1, 121–141, DOI 10.1512/iumj.2011.60.4433. MR2952412
- [192] Diogo A. Gomes and Enrico Valdinoci, *Duality theory, representation formulas and uniqueness results for viscosity solutions of Hamilton-Jacobi equations*, *Dynamics, games and science. II*, *Springer Proc. Math.*, vol. 2, Springer, Heidelberg, 2011, pp. 361–386, DOI 10.1007/978-3-642-14788-3_28. MR2883292 (2012j:49090)
- [193] Ovidiu Savin and Enrico Valdinoci, *Density estimates for a nonlocal variational model via the Sobolev inequality*, *SIAM J. Math. Anal.* **43** (2011), no. 6, 2675–2687, DOI 10.1137/110831040. MR2873236 (2012m:35342)
- [194] Annalisa Cesaroni, Matteo Novaga, and Enrico Valdinoci, *Curve shortening flow in heterogeneous media*, *Interfaces Free Bound.* **13** (2011), no. 4, 485–505, DOI 10.4171/IFB/269. MR2863468

- [195] Rafael de la Llave and Enrico Valdinoci, *L^p -bounds for quasi-geostrophic equations via functional analysis*, J. Math. Phys. **52** (2011), no. 8, 083101, 12, DOI 10.1063/1.3621828. MR2858052 (2012k:35428)
- [196] Alberto Farina and Enrico Valdinoci, *A pointwise gradient bound for elliptic equations on compact manifolds with nonnegative Ricci curvature*, Discrete Contin. Dyn. Syst. **30** (2011), no. 4, 1139–1144, DOI 10.3934/dcds.2011.30.1139. MR2812957 (2012k:35138)
- [197] Fausto Ferrari and Enrico Valdinoci, *Density estimates for a fluid jet model in the Heisenberg group*, J. Math. Anal. Appl. **382** (2011), no. 1, 448–468, DOI 10.1016/j.jmaa.2011.04.057. MR2805525 (2012d:49011)
- [198] Luis Caffarelli and Enrico Valdinoci, *Uniform estimates and limiting arguments for nonlocal minimal surfaces*, Calc. Var. Partial Differential Equations **41** (2011), no. 1-2, 203–240, DOI 10.1007/s00526-010-0359-6. MR2782803 (2012i:49064)
- [199] Matteo Novaga and Enrico Valdinoci, *Closed curves of prescribed curvature and a pinning effect*, Netw. Heterog. Media **6** (2011), no. 1, 77–88, DOI 10.3934/nhm.2011.6.77. MR2777010 (2012e:53128)
- [200] Isabeau Birindelli and Enrico Valdinoci, *On the Allen-Cahn equation in the Grushin plane: a monotone entire solution that is not one-dimensional*, Discrete Contin. Dyn. Syst. **29** (2011), no. 3, 823–838, DOI 10.3934/dcds.2011.29.823. MR2773153 (2012d:35045)
- [201] Timothy Blass, Rafael De La Llave, and Enrico Valdinoci, *A comparison principle for a Sobolev gradient semi-flow*, Commun. Pure Appl. Anal. **10** (2011), no. 1, 69–91, DOI 10.3934/cpaa.2011.10.69. MR2746528 (2012a:35034)
- [202] Matteo Novaga and Enrico Valdinoci, *Bump solutions for the mesoscopic Allen-Cahn equation in periodic media*, Calc. Var. Partial Differential Equations **40** (2011), no. 1-2, 37–49, DOI 10.1007/s00526-010-0332-4. MR2745195 (2012b:35077)
- [203] Alberto Farina and Enrico Valdinoci, *1D symmetry for solutions of semilinear and quasilinear elliptic equations*, Trans. Amer. Math. Soc. **363** (2011), no. 2, 579–609, DOI 10.1090/S0002-9947-2010-05021-4. MR2728579 (2011j:35081)
- [204] ———, *Overdetermined problems in unbounded domains with Lipschitz singularities*, Rev. Mat. Iberoam. **26** (2010), no. 3, 965–974, DOI 10.4171/RMI/623. MR2789372 (2012i:35270)
- [205] Yannick Sire and Enrico Valdinoci, *Some elliptic PDEs on Riemannian manifolds with boundary*, Pacific J. Math. **248** (2010), no. 2, 475–492, DOI 10.2140/pjm.2010.248.475. MR2741258 (2011m:53059)
- [206] Alberto Farina and Enrico Valdinoci, *A pointwise gradient estimate in possibly unbounded domains with nonnegative mean curvature*, Adv. Math. **225** (2010), no. 5, 2808–2827, DOI 10.1016/j.aim.2010.05.008. MR2680184 (2011j:35080)
- [207] Daniela De Silva and Enrico Valdinoci, *A fully nonlinear problem with free boundary in the plane*, Ann. Sc. Norm. Super. Pisa Cl. Sci. (5) **9** (2010), no. 1, 111–132. MR2668875 (2011i:35264)

- [208] Milena Chermisi and Enrico Valdinoci, *A symmetry result for a general class of divergence form PDEs in fibered media*, *Nonlinear Anal.* **73** (2010), no. 3, 695–703, DOI 10.1016/j.na.2010.04.002. MR2653742 (2011e:35120)
- [209] Alberto Farina, Berardino Sciunzi, and Enrico Valdinoci, *On a Poincaré type formula for solutions of singular and degenerate elliptic equations*, *Manuscripta Math.* **132** (2010), no. 3-4, 335–342, DOI 10.1007/s00229-010-0349-1. MR2652436 (2011g:35141)
- [210] Rafael de la Llave and Enrico Valdinoci, *Ground states and critical points for Aubry-Mather theory in statistical mechanics*, *J. Nonlinear Sci.* **20** (2010), no. 2, 153–218, DOI 10.1007/s00332-009-9055-0. MR2608835 (2011j:37123)
- [211] Alberto Farina and Enrico Valdinoci, *Flattening results for elliptic PDEs in unbounded domains with applications to overdetermined problems*, *Arch. Ration. Mech. Anal.* **195** (2010), no. 3, 1025–1058, DOI 10.1007/s00205-009-0227-8. MR2591980 (2011a:35092)
- [212] Isabeau Birindelli, Fausto Ferrari, and Enrico Valdinoci, *Semilinear PDEs in the Heisenberg group: the role of the right invariant vector fields*, *Nonlinear Anal.* **72** (2010), no. 2, 987–997, DOI 10.1016/j.na.2009.07.039. MR2579363 (2010k:35506)
- [213] Enrico Valdinoci, *From the long jump random walk to the fractional Laplacian*, *Bol. Soc. Esp. Mat. Apl. SēMA* **49** (2009), 33–44. MR2584076 (2011a:60174)
- [214] Rafael de la Llave and Enrico Valdinoci, *Symmetry for a Dirichlet-Neumann problem arising in water waves*, *Math. Res. Lett.* **16** (2009), no. 5, 909–918. MR2576707 (2011b:35350)
- [215] Matteo Novaga and Enrico Valdinoci, *Multibump solutions and asymptotic expansions for mesoscopic Allen-Cahn type equations*, *ESAIM Control Optim. Calc. Var.* **15** (2009), no. 4, 914–933, DOI 10.1051/cocv:2008058. MR2567252 (2010j:35189)
- [216] Yannick Sire and Enrico Valdinoci, *Rigidity results for some boundary quasilinear phase transitions*, *Comm. Partial Differential Equations* **34** (2009), no. 7-9, 765–784, DOI 10.1080/03605300902892402. MR2560300 (2010k:35161)
- [217] Fausto Ferrari and Enrico Valdinoci, *Geometric PDEs in the Grushin plane: weighted inequalities and flatness of level sets*, *Int. Math. Res. Not. IMRN* **22** (2009), 4232–4270, DOI 10.1093/imrn/rnp088. MR2552303 (2010j:35025)
- [218] ———, *Some weighted Poincaré inequalities*, *Indiana Univ. Math. J.* **58** (2009), no. 4, 1619–1637, DOI 10.1512/iumj.2009.58.3601. MR2542975 (2010j:35010)
- [219] Rafael de la Llave and Enrico Valdinoci, *A generalization of Aubry-Mather theory to partial differential equations and pseudo-differential equations*, *Ann. Inst. H. Poincaré Anal. Non Linéaire* **26** (2009), no. 4, 1309–1344, DOI 10.1016/j.anihpc.2008.11.002. MR2542727 (2011d:37106)

- [220] Lucio Damascelli, Alberto Farina, Bernardino Sciunzi, and Enrico Valdinoci, *Liouville results for m -Laplace equations of Lane-Emden-Fowler type*, Ann. Inst. H. Poincaré Anal. Non Linéaire **26** (2009), no. 4, 1099–1119, DOI 10.1016/j.anihpc.2008.06.001. MR2542716 (2010j:35058)
- [221] Alberto Farina and Enrico Valdinoci, *The state of the art for a conjecture of De Giorgi and related problems*, Recent progress on reaction-diffusion systems and viscosity solutions, World Sci. Publ., Hackensack, NJ, 2009, pp. 74–96, DOI 10.1142/9789812834744_0004. MR2528756 (2011d:35156)
- [222] Milena Chermisi and Enrico Valdinoci, *Fibered nonlinearities for $p(x)$ -Laplace equations*, Adv. Calc. Var. **2** (2009), no. 2, 185–205, DOI 10.1515/ACV.2009.008. MR2523126 (2010m:35127)
- [223] Hannes Junginger-Gestrich and Enrico Valdinoci, *Some connections between results and problems of De Giorgi, Moser and Bangert*, Z. Angew. Math. Phys. **60** (2009), no. 3, 393–401, DOI 10.1007/s00033-008-7093-3. MR2505410 (2010i:49003)
- [224] Yannick Sire and Enrico Valdinoci, *Fractional Laplacian phase transitions and boundary reactions: a geometric inequality and a symmetry result*, J. Funct. Anal. **256** (2009), no. 6, 1842–1864, DOI 10.1016/j.jfa.2009.01.020. MR2498561 (2010c:35201)
- [225] Ovidiu Savin and Enrico Valdinoci, *Elliptic PDEs with fibered nonlinearities*, J. Geom. Anal. **19** (2009), no. 2, 420–432, DOI 10.1007/s12220-008-9064-5. MR2481968 (2009m:35165)
- [226] Fausto Ferrari and Enrico Valdinoci, *A geometric inequality in the Heisenberg group and its applications to stable solutions of semilinear problems*, Math. Ann. **343** (2009), no. 2, 351–370, DOI 10.1007/s00208-008-0274-8. MR2461257 (2009j:35044)
- [227] Alberto Farina, Bernardino Sciunzi, and Enrico Valdinoci, *Bernstein and De Giorgi type problems: new results via a geometric approach*, Ann. Sc. Norm. Super. Pisa Cl. Sci. (5) **7** (2008), no. 4, 741–791. MR2483642 (2009j:58020)
- [228] Luca Biasco and Enrico Valdinoci, *(Quasi)periodic solutions in (in)finite dimensional Hamiltonian systems with applications to celestial mechanics and wave equation*, Port. Math. **65** (2008), no. 4, 431–445, DOI 10.4171/PM/1820. MR2483346 (2010b:37199)
- [229] Isabeau Birindelli and Enrico Valdinoci, *The Ginzburg-Landau equation in the Heisenberg group*, Commun. Contemp. Math. **10** (2008), no. 5, 671–719, DOI 10.1142/S0219199708002946. MR2446895 (2009g:35026)
- [230] Alberto Farina and Enrico Valdinoci, *Geometry of quasiminimal phase transitions*, Calc. Var. Partial Differential Equations **33** (2008), no. 1, 1–35, DOI 10.1007/s00526-007-0146-1. MR2413100 (2009h:35074)
- [231] Massimiliano Berti, Michele Matzeu, and Enrico Valdinoci, *On periodic elliptic equations with gradient dependence*, Commun. Pure Appl. Anal. **7** (2008), no. 3, 601–615, DOI 10.3934/cpaa.2008.7.601. MR2379444 (2009c:35104)

- [232] Rafael de la Llave and Enrico Valdinoci, *Ground states and critical points for generalized Frenkel-Kontorova models in \mathbb{Z}^d* , *Nonlinearity* **20** (2007), no. 10, 2409–2424, DOI 10.1088/0951-7715/20/10/008. MR2356117 (2009e:82053)
- [233] ———, *Multiplicity results for interfaces of Ginzburg-Landau-Allen-Cahn equations in periodic media*, *Adv. Math.* **215** (2007), no. 1, 379–426, DOI 10.1016/j.aim.2007.03.013. MR2354993 (2009b:35121)
- [234] Diogo A. Gomes and Enrico Valdinoci, *Entropy penalization methods for Hamilton-Jacobi equations*, *Adv. Math.* **215** (2007), no. 1, 94–152, DOI 10.1016/j.aim.2007.04.001. MR2354987 (2009e:49007)
- [235] Rafael de la Llave and Enrico Valdinoci, *Critical points inside the gaps of ground state laminations for some models in statistical mechanics*, *J. Stat. Phys.* **129** (2007), no. 1, 81–119, DOI 10.1007/s10955-007-9345-6. MR2349521 (2009e:82052)
- [236] Matteo Novaga and Enrico Valdinoci, *The geometry of mesoscopic phase transition interfaces*, *Discrete Contin. Dyn. Syst.* **19** (2007), no. 4, 777–798, DOI 10.3934/dcds.2007.19.777. MR2342272 (2009b:35057)
- [237] Enrico Valdinoci, *Flatness of Bernoulli jets*, *Math. Z.* **254** (2006), no. 2, 257–298, DOI 10.1007/s00209-006-0947-5. MR2262703 (2007g:49002)
- [238] Enrico Valdinoci, Berardino Sciunzi, and Vasile Ovidiu Savin, *Flat level set regularity of p -Laplace phase transitions*, *Mem. Amer. Math. Soc.* **182** (2006), no. 858, vi+144. MR2228294 (2007a:35050)
- [239] Enrico Valdinoci, *Bernoulli jets and the zero mean curvature equation*, *J. Differential Equations* **225** (2006), no. 2, 710–736, DOI 10.1016/j.jde.2005.08.017. MR2225806 (2007a:35047)
- [240] ———, *Geometric features of p -Laplace phase transitions*, *Dissipative phase transitions*, *Ser. Adv. Math. Appl. Sci.*, vol. 71, World Sci. Publ., Hackensack, NJ, 2006, pp. 289–300, DOI 10.1142/9789812774293_0015. MR2223384
- [241] Luca Biasco, Luigi Chierchia, and Enrico Valdinoci, *N -dimensional elliptic invariant tori for the planar $(N + 1)$ -body problem*, *SIAM J. Math. Anal.* **37** (2006), no. 5, 1560–1588 (electronic), DOI 10.1137/S0036141004443646. MR2215277 (2006k:37161)
- [242] Berardino Sciunzi and Enrico Valdinoci, *Mean curvature properties for p -Laplace phase transitions*, *J. Eur. Math. Soc. (JEMS)* **7** (2005), no. 3, 319–359, DOI 10.4171/JEMS/31. MR2156604 (2006m:35055)
- [243] Arshak Petrosyan and Enrico Valdinoci, *Density estimates for a degenerate/singular phase-transition model*, *SIAM J. Math. Anal.* **36** (2005), no. 4, 1057–1079 (electronic), DOI 10.1137/S0036141003437678. MR2139200 (2006e:35115)
- [244] ———, *Geometric properties of Bernoulli-type minimizers*, *Interfaces Free Bound.* **7** (2005), no. 1, 55–77, DOI 10.4171/IFB/113. MR2126143 (2006a:49056)

- [245] Raffaella Servadei and Enrico Valdinoci, *A multiplicity result for a class of nonlinear variational inequalities*, *Nonlinear Stud.* **12** (2005), no. 1, 37–48. MR2116874 (2005k:35162)
- [246] Vadim Kaloshin, John N. Mather, and Enrico Valdinoci, *Instability of resonant totally elliptic points of symplectic maps in dimension 4*, *Astérisque* **297** (2004), 79–116 (English, with English and French summaries). *Analyse complexe, systèmes dynamiques, sommabilité des séries divergentes et théories galoisiennes. II.* MR2135676 (2006a:37047)
- [247] Enrico Valdinoci, *Plane-like minimizers in periodic media: jet flows and Ginzburg-Landau-type functionals*, *J. Reine Angew. Math.* **574** (2004), 147–185, DOI 10.1515/crll.2004.068. MR2099113 (2005m:58037)
- [248] Diogo A. Gomes and Enrico Valdinoci, *Lack of integrability via viscosity solution methods*, *Indiana Univ. Math. J.* **53** (2004), no. 4, 1055–1071, DOI 10.1512/iumj.2004.53.2464. MR2095448 (2005e:37126)
- [249] Massimiliano Berti, Luca Biasco, and Enrico Valdinoci, *Periodic orbits close to elliptic tori and applications to the three-body problem*, *Ann. Sc. Norm. Super. Pisa Cl. Sci. (5)* **3** (2004), no. 1, 87–138. MR2064969 (2005e:37130)
- [250] Luca Biasco, Luigi Chierchia, and Enrico Valdinoci, *Elliptic two-dimensional invariant tori for the planetary three-body problem*, *Arch. Ration. Mech. Anal.* **170** (2003), no. 2, 91–135, DOI 10.1007/s00205-003-0269-2. MR2017886 (2005m:70052)
- [251] Ugo Bessi, Luigi Chierchia, and Enrico Valdinoci, *Upper bounds on Arnold diffusion times via Mather theory*, *J. Math. Pures Appl. (9)* **80** (2001), no. 1, 105–129, DOI 10.1016/S0021-7824(00)01188-0. MR1810511 (2002a:37093)
- [252] Enrico Valdinoci, *Times of diffusion in Hamiltonian systems*, *Proceedings of the 2000 Topology and Dynamics Conference (San Antonio, TX), 2000*, pp. 309–320. MR1875601
- [253] ———, *Estimates for non-resonant normal forms in Hamiltonian perturbation theory*, *J. Statist. Phys.* **101** (2000), no. 3-4, 905–919, DOI 10.1023/A:1026428203514. MR1804900 (2002k:37111)
- [254] ———, *Families of whiskered tori for a-priori stable/unstable Hamiltonian systems and construction of unstable orbits*, *Math. Phys. Electron. J.* **6** (2000), Paper 2, 31 pp. (electronic). MR1743519 (2000m:37125)
- [255] Luigi Chierchia and Enrico Valdinoci, *A note on the construction of Hamiltonian trajectories along heteroclinic chains*, *Forum Math.* **12** (2000), no. 2, 247–255, DOI 10.1515/form.2000.006. MR1740891 (2000m:37126)

CITATIONS ACCORDING TO MATHSCINET

(updated November 7, 2023)

Cited 9700 times by 3290 authors.
 Most cited paper with 2357 citations.
 17 papers cited more than 100 times.