

Xavier Ros-Oton

List of Publications by Year in descending order

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Version: 2024-02-01

50
papers

1,923
citations

361413

20
h-index

254184

43
g-index

50
all docs

50
docs citations

50
times ranked

631
citing authors

#	ARTICLE	IF	CITATIONS
1	Non-symmetric stable operators: Regularity theory and integration by parts. <i>Advances in Mathematics</i> , 2022, 401, 108321.	1.1	10
2	Global Schauder theory for minimizers of the $H(\hat{\cdot})$ energy. <i>Journal of Functional Analysis</i> , 2022, 283, 109523.	1.4	1
3	Free Boundary Regularity for Almost Every Solution to the Signorini Problem. <i>Archive for Rational Mechanics and Analysis</i> , 2021, 240, 419-466.	2.4	5
4	New boundary Harnack inequalities with right hand side. <i>Journal of Differential Equations</i> , 2021, 288, 204-249.	2.2	8
5	Characterizing compact coincidence sets in the thin obstacle problem and the obstacle problem for the fractional Laplacian. <i>Nonlinear Analysis: Theory, Methods & Applications</i> , 2021, 211, 112473.	1.1	1
6	Geometric Measure Theory and Free Boundary Problems. <i>Lecture Notes in Mathematics</i> , 2021, , .	0.2	0
7	Regularity of Free Boundaries in Obstacle Problems. <i>Lecture Notes in Mathematics</i> , 2021, , 37-88.	0.2	0
8	Obstacle problems for integro-differential operators: Higher regularity of free boundaries. <i>Advances in Mathematics</i> , 2020, 360, 106931.	1.1	19
9	Generic regularity of free boundaries for the obstacle problem. <i>Publications Mathematiques De L'Institut Des Hautes Etudes Scientifiques</i> , 2020, 132, 181-292.	4.3	17
10	The Dirichlet problem for nonlocal elliptic operators with $C^{0,\alpha}$ exterior data. <i>Proceedings of the American Mathematical Society</i> , 2020, 148, 4455-4470.	0.8	5
11	Stable solutions to semilinear elliptic equations are smooth up to dimension $\hat{A}9$. <i>Acta Mathematica</i> , 2020, 224, 187-252.	3.9	30
12	The Boundary Harnack Principle for Nonlocal Elliptic Operators in Non-divergence Form. <i>Potential Analysis</i> , 2019, 51, 315-331.	0.9	8
13	Structure and regularity of the singular set in the obstacle problem for the fractional Laplacian. <i>Revista Matematica Iberoamericana</i> , 2019, 35, 1309-1365.	0.9	12
14	On global solutions to semilinear elliptic equations related to the one-phase free boundary problem. <i>Discrete and Continuous Dynamical Systems</i> , 2019, 39, 6945-6959.	0.9	5
15	Free Boundary Regularity in the Parabolic Fractional Obstacle Problem. <i>Communications on Pure and Applied Mathematics</i> , 2018, 71, 2129-2159.	3.1	21
16	Obstacle problems and free boundaries: an overview. <i>SeMA Journal</i> , 2018, 75, 399-419.	2.0	16
17	The obstacle problem for the fractional Laplacian with critical drift. <i>Mathematische Annalen</i> , 2018, 371, 1683-1735.	1.4	13
18	Global regularity for the free boundary in the obstacle problem for the fractional Laplacian. <i>American Journal of Mathematics</i> , 2018, 140, 415-447.	1.1	19

#	ARTICLE	IF	CITATIONS
19	Higher-order boundary regularity estimates for nonlocal parabolic equations. <i>Calculus of Variations and Partial Differential Equations</i> , 2018, 57, 1.	1.7	4
20	A one-dimensional symmetry result for a class of nonlocal semilinear equations in the plane. <i>Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire</i> , 2017, 34, 469-482.	1.4	13
21	Boundary regularity estimates for nonlocal elliptic equations in C^1 and $C^{1,\alpha}$. <i>Annali Di Matematica Pura Ed Applicata</i> , 2017, 196, 1637-1668.	1.0	27
22	On the regularity of the free boundary in the p-Laplacian obstacle problem. <i>Journal of Differential Equations</i> , 2017, 263, 1931-1945.	2.2	8
23	Regularity theory for general stable operators: Parabolic equations. <i>Journal of Functional Analysis</i> , 2017, 272, 4165-4221.	1.4	43
24	The structure of the free boundary in the fully nonlinear thin obstacle problem. <i>Advances in Mathematics</i> , 2017, 316, 710-747.	1.1	11
25	Pohozaev identities for anisotropic integrodifferential operators. <i>Communications in Partial Differential Equations</i> , 2017, 42, 1290-1321.	2.2	13
26	Obstacle problems for integro-differential operators: regularity of solutions and free boundaries. <i>Inventiones Mathematicae</i> , 2017, 208, 1155-1211.	2.5	46
27	Infinite Speed of Propagation and Regularity of Solutions to the Fractional Porous Medium Equation in General Domains. <i>Communications on Pure and Applied Mathematics</i> , 2017, 70, 1472-1508.	3.1	27
28	Boundary Regularity, Pohozaev Identities and Nonexistence Results. , 2017, , 335-358.		5
29	Nonlocal problems with Neumann boundary conditions. <i>Revista Matematica Iberoamericana</i> , 2017, 33, 377-416.	0.9	138
30	Sharp isoperimetric inequalities via the ABP method. <i>Journal of the European Mathematical Society</i> , 2016, 18, 2971-2998.	1.4	37
31	Regularity theory for general stable operators. <i>Journal of Differential Equations</i> , 2016, 260, 8675-8715.	2.2	91
32	Boundary regularity for fully nonlinear integro-differential equations. <i>Duke Mathematical Journal</i> , 2016, 165, .	1.5	65
33	The Dirichlet problem for nonlocal operators with singular kernels: Convex and nonconvex domains. <i>Advances in Mathematics</i> , 2016, 288, 732-790.	1.1	20
34	Boundary regularity for the fractional heat equation. <i>Revista De La Real Academia De Ciencias Exactas, Fisicas Y Naturales - Serie A: Matematicas</i> , 2016, 110, 49-64.	1.2	28
35	Nonlocal elliptic equations in bounded domains: a survey. <i>Publicacions Matematiques</i> , 2016, 60, 3-26.	0.5	135
36	Nonexistence Results for Nonlocal Equations with Critical and Supercritical Nonlinearities. <i>Communications in Partial Differential Equations</i> , 2015, 40, 115-133.	2.2	33

#	ARTICLE	IF	CITATIONS
37	Local integration by parts and Pohozaev identities for higher order fractional Laplacians. <i>Discrete and Continuous Dynamical Systems</i> , 2015, 35, 2131-2150.	0.9	30
38	The extremal solution for the fractional Laplacian. <i>Calculus of Variations and Partial Differential Equations</i> , 2014, 50, 723-750.	1.7	75
39	Regularity for the fractional Gelfand problem up to dimension 7. <i>Journal of Mathematical Analysis and Applications</i> , 2014, 419, 10-19.	1.0	9
40	The Dirichlet problem for the fractional Laplacian: Regularity up to the boundary. <i>Journal Des Mathematiques Pures Et Appliquees</i> , 2014, 101, 275-302.	1.6	496
41	The Pohozaev Identity for the Fractional Laplacian. <i>Archive for Rational Mechanics and Analysis</i> , 2014, 213, 587-628.	2.4	196
42	Sobolev and isoperimetric inequalities with monomial weights. <i>Journal of Differential Equations</i> , 2013, 255, 4312-4336.	2.2	60
43	Regularity of Stable Solutions up to Dimension 7 in Domains of Double Revolution. <i>Communications in Partial Differential Equations</i> , 2013, 38, 135-154.	2.2	37
44	Existence of periodic solutions with nonconstant sign in a class of generalized Abel equations. <i>Discrete and Continuous Dynamical Systems</i> , 2013, 33, 1603-1614.	0.9	2
45	Euclidean balls solve some isoperimetric problems with nonradial weights. <i>Comptes Rendus Mathematique</i> , 2012, 350, 945-947.	0.3	18
46	On a factorization of Riemann's ζ function with respect to a quadratic field and its computation. <i>Revista De La Real Academia De Ciencias Exactas, Fisicas Y Naturales - Serie A: Matematicas</i> , 2012, 106, 419-427.	1.2	0
47	Fractional Laplacian: Pohozaev identity and nonexistence results. <i>Comptes Rendus Mathematique</i> , 2012, 350, 505-508.	0.3	29
48	Stable inversion of Abel equations: Application to tracking control in DC-DC nonminimum phase boost converters. <i>Automatica</i> , 2011, 47, 221-226.	5.0	31
49	Periodic solutions with nonconstant sign in Abel equations of the second kind. <i>Journal of Mathematical Analysis and Applications</i> , 2011, 381, 582-589.	1.0	4
50	Approximate tracking of periodic references in a class of bilinear systems via stable inversion. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2011, 15, 197-215.	0.9	2