Luis Vega

List of Publications by Year
in descending order

126 papers	6,384 citations	81900 39 h-index	69250 77 g-index
129 all docs	129 docs citations	129 times ranked	1070 citing authors

#	ARTICLE	IF	CITATIONS
1	Carleman type inequalities for fractional relativistic operators. Revista Matematica Complutense, 2023, 36, 301-332.	1.2	4
2	On the one dimensional cubic NLS in a critical space. Discrete and Continuous Dynamical Systems, 2022, 42, 2563.	0.9	2
3	Riemann's Non-differentiable Function and the Binormal Curvature Flow. Archive for Rational Mechanics and Analysis, 2022, 244, 501-540.	2.4	5
4	Vortex Filament Equation for a Regular Polygon in the Hyperbolic Plane. Journal of Nonlinear Science, 2022, 32, 9.	2.1	2
5	A Hardy-type inequality and some spectral characterizations for the Dirac–Coulomb operator. Revista Matematica Complutense, 2020, 33, 1-18.	1.2	9
6	Uniqueness properties of solutions to the Benjamin-Ono equation and related models. Journal of Functional Analysis, 2020, 278, 108396.	1.4	12
7	On the energy of critical solutions of the binormal flow. Communications in Partial Differential Equations, 2020, 45, 820-845.	2.2	4
8	On the Evolution of the Vortex Filament Equation for Regular M-Polygons with Nonzero Torsion. SIAM Journal on Applied Mathematics, 2020, 80, 1034-1056.	1.8	5
9	On the improvement of the Hardy inequality due to singular magnetic fields. Communications in Partial Differential Equations, 2020, 45, 1202-1212.	2.2	6
10	Evolution of Polygonal Lines by the Binormal Flow. Annals of PDE, 2020, 6, 1.	1.8	11
11	On the unique continuation of solutions to non-local non-linear dispersive equations. Communications in Partial Differential Equations, 2020, 45, 872-886.	2.2	5
12	Asymptotics in Fourier space of self-similar solutions to the modified Korteweg-de Vries equation. Journal Des Mathematiques Pures Et Appliquees, 2020, 137, 101-142.	1.6	2
13	Bilinear identities involving the k-plane transform and Fourier extension operators. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2020, 150, 3349-3377.	1.2	1
14	Self-Similar Dynamics for the Modified Korteweg–de Vries Equation. International Mathematics Research Notices, 2020, , .	1.0	1
15	Opening note: third workshop on nonlinear dispersive equations, IMECC-UNICAMP, 2017. Sao Paulo Journal of Mathematical Sciences, 2019, 13, 381-382.	0.4	0
16	Some Lower Bounds for Solutions of Schrödinger Evolutions. SIAM Journal on Mathematical Analysis, 2019, 51, 3324-3336.	1.9	2
17	Spectral stability of Schrödinger operators with subordinated complex potentials. Journal of Spectral Theory, 2018, 8, 575-604.	0.8	28
18	Absence of eigenvalues of two-dimensional magnetic Schrödinger operators. Journal of Functional Analysis, 2018, 275, 2453-2472.	1.4	18

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19	On the Relationship Between the One-Corner Problem and the M-Corner Problem for the Vortex Filament Equation. Journal of Nonlinear Science, 2018, 28, 2275-2327.	2.1	11
20	Singularity formation for the 1-D cubic NLS and the SchrÃ¶dinger map on ‹inline-formula›‹tex-math id="M1"›egin{document}$mathbb S^2$end{document}‹/tex-math›‹/inline-formula›. Communications on Pure and Applied Analysis, 2018, 17, 1317-1329.	0.8	7
21	A strategy for self-adjointness of Dirac operators: Applications to the MIT bag model and $delta$-shell interactions. Publicacions Matematiques, 2018, 62, 397-437.	0.5	35
22	Uniqueness properties for discrete equations and Carleman estimates. Journal of Functional Analysis, 2017, 272, 4853-4869.	1.4	8
23	An Isoperimetric-Type Inequality for Electrostatic Shell Interactions for Dirac Operators. Communications in Mathematical Physics, 2016, 344, 483-505.	2.2	25
24	Hardy Uncertainty Principle, Convexity and Parabolic Evolutions. Communications in Mathematical Physics, 2016, 346, 667-678.	2.2	10
25	Shell Interactions for Dirac Operators: On the Point Spectrum and the Confinement. SIAM Journal on Mathematical Analysis, 2015, 47, 1044-1069.	1.9	30
26	The Vortex Filament Equation as a Pseudorandom Generator. Acta Applicandae Mathematicae, 2015, 138, 135-151.	1.0	2
27	The initial value problem for the Binormal Flow with rough data. Annales Scientifiques De L'Ecole Normale Superieure, 2015, 48, 1423-1455.	0.8	16
28	The dynamics of vortex filaments with corners. Communications on Pure and Applied Analysis, 2015, 14, 1581-1601.	0.8	8
29	The Evolution of the Local Induction Approximation for a Regular Polygon. ESAIM Proceedings and Surveys, 2014, 45, 447-455.	0.4	0
30	Relativistic Hardy Inequalities in Magnetic Fields. Journal of Statistical Physics, 2014, 154, 866-876.	1.2	1
31	Shell interactions for Dirac operators. Journal Des Mathematiques Pures Et Appliquees, 2014, 102, 617-639.	1.6	45
32	Vortex filament equation for a regular polygon. Nonlinearity, 2014, 27, 3031-3057.	1.4	27
33	A theorem of Paley-Wiener type for SchrÃ¶dinger evolutions. Annales Scientifiques De L'Ecole Normale Superieure, 2014, 47, 539-557.	0.8	4
34	The Gardner equation and the ?Â²-stability of the ?-soliton solution of the Korteweg-de Vries equation. Transactions of the American Mathematical Society, 2013, 365, 195-212.	0.9	24
35	On the stability of self-similar solutions of 1D cubic SchrÃ¶dinger equations. Mathematische Annalen, 2013, 356, 259-300.	1.4	7
36	Stability of the Self-similar Dynamics of a Vortex Filament. Archive for Rational Mechanics and Analysis, 2013, 210, 673-712.	2.4	21

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37	The forward problem for the electromagnetic Helmholtz equation with critical singularities. Advances in Mathematics, 2013, 240, 636-671.	1.1	15
38	Discrete conservation laws and the convergence of long time simulations of the mkdv equation. Journal of Computational Physics, 2013, 235, 274-285.	3.8	11
39	Self-adjoint extensions of Dirac operators with Coulomb type singularity. Journal of Mathematical Physics, 2013, 54, .	1.1	20
40	Lower bounds for non-trivial travelling wave solutions of equations of KdV type. Nonlinearity, 2012, 25, 1235-1245.	1.4	3
41	Carleman estimates and necessary conditions for the existence of waveguides. Indiana University Mathematics Journal, 2012, 61, 15-30.	0.9	2
42	Existence of maximizers for Sobolevâ€"Strichartz inequalities. Advances in Mathematics, 2012, 229, 1912-1923.	1.1	24
43	Unique Continuation for Schrödinger Evolutions, with Applications to Profiles of Concentration and Traveling Waves. Communications in Mathematical Physics, 2011, 305, 487-512.	2.2	17
44	Uncertainty principle of Morgan type and Schrödinger evolutions. Journal of the London Mathematical Society, 2011, 83, 187-207.	1.0	13
45	On the existence of maximizers for a family of restriction theorems. Bulletin of the London Mathematical Society, 2011, 43, 811-817.	0.8	23
46	Scattering for 1D cubic NLS and singular vortex dynamics. Journal of the European Mathematical Society, 2011, 14, 209-253.	1.4	24
47	The sharp Hardy uncertainty principle for Schrödinger evolutions. Duke Mathematical Journal, 2010, 155, .	1.5	44
48	Endpoint Strichartz estimates for the magnetic Schrödinger equation. Journal of Functional Analysis, 2010, 258, 3227-3240.	1.4	71
49	Magnetic virial identities, weak dispersion and Strichartz inequalities. Mathematische Annalen, 2009, 344, 249-278.	1.4	34
50	On the Stability of a Singular Vortex Dynamics. Communications in Mathematical Physics, 2009, 286, 593-627.	2.2	44
51	Weak Dispersive Estimates for Schrödinger Equations with Long Range Potentials. Communications in Partial Differential Equations, 2009, 34, 74-105.	2.2	7
52	A Numerical Study of the Self-Similar Solutions of the Schrödinger Map. SIAM Journal on Applied Mathematics, 2009, 70, 1047-1077.	1.8	16
53	Stability in ?Â¹ of circular vortex patches. Proceedings of the American Mathematical Society, 2009, 137, 4199-4202.	0.8	16
54	Bilinear virial identities and applications. Annales Scientifiques De L'Ecole Normale Superieure, 2009, 42, 261-290.	0.8	90

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55	Energy Concentration and Sommerfeld Condition for Helmholtz Equation with Variable Index at Infinity. Geometric and Functional Analysis, 2008, 17, 1685-1707.	1.8	17
56	Asymptotic Lower Bounds for a Class of Schrödinger Equations. Communications in Mathematical Physics, 2008, 279, 429-453.	2.2	5
57	The Effect of Surface Tension on the Moore Singularity of Vortex Sheet Dynamics. Journal of Nonlinear Science, 2008, 18, 463-484.	2.1	14
58	On the equipartition of energy for the critical NLW. Journal of Functional Analysis, 2008, 255, 726-754.	1.4	5
59	On the Dirac delta as initial condition for nonlinear Schrödinger equations. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 2008, 25, 697-711.	1.4	17
60	Scaling-sharp dispersive estimates for the Korteweg–de Vries group. Comptes Rendus Mathematique, 2008, 346, 845-848.	0.3	3
61	Bounds for the maximal function associated to periodic solutions of one-dimensional dispersive equations. Bulletin of the London Mathematical Society, 2008, 40, 117-128.	0.8	28
62	Hardy's uncertainty principle, convexity and Schrödinger evolutions. Journal of the European Mathematical Society, 2008, 10, 883-907.	1.4	41
63	Some weighted Gagliardo-Nirenberg inequalities and applications. Proceedings of the American Mathematical Society, 2007, 135, 2795-2803.	0.8	9
64	On the local smoothing for a class of conformally invariant Schrodinger equations. Indiana University Mathematics Journal, 2007, 56, 2265-2304.	0.9	3
65	Hardy-type estimates for Dirac operators. Annales Scientifiques De L'Ecole Normale Superieure, 2007, 40, 885-900.	0.8	13
66	Self-similar planar curves related to modified Korteweg–de Vries equation. Journal of Differential Equations, 2007, 235, 56-73.	2.2	13
67	On uniqueness properties of solutions of the k-generalized KdV equations. Journal of Functional Analysis, 2007, 244, 504-535.	1.4	68
68	The initial value problem for nonlinear Schrödinger equations. , 2007, , 303-319.		0
69	On Uniqueness Properties of Solutions of Schrödinger Equations. Communications in Partial Differential Equations, 2006, 31, 1811-1823.	2.2	55
70	On the local smoothing for the Schrödinger equation. Proceedings of the American Mathematical Society, 2006, 135, 119-128.	0.8	8
71	Some dispersive estimates for Schrödinger equations with repulsive potentials. Journal of Functional Analysis, 2006, 236, 1-24.	1.4	39
72	The general quasilinear ultrahyperbolic Schrödinger equation. Advances in Mathematics, 2006, 206, 402-433.	1.1	22

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73	Pointwise convergence of solutions to the nonelliptic Schr"odinger equation. Indiana University Mathematics Journal, 2006, 55, 1893-1906.	0.9	22
74	Variable coefficient Schrödinger flows for ultrahyperbolic operators. Advances in Mathematics, 2005, 196, 373-486.	1.1	25
75	Self-similar solutions of the localized induction approximation: singularity formation. Nonlinearity, 2004, 17, 2091-2136.	1.4	13
76	The Cauchy problem for quasi-linear Schrï¿½dinger equations. Inventiones Mathematicae, 2004, 158, 343-388.	2.5	88
77	An analytical proof of Hardy-like inequalities related to the Dirac operator. Journal of Functional Analysis, 2004, 216, 1-21.	1.4	43
78	A real space method for averaging lemmas. Journal Des Mathematiques Pures Et Appliquees, 2004, 83, 1309-1351.	1.6	26
79	On the Interaction of Nearly Parallel Vortex Filaments. Communications in Mathematical Physics, 2003, 243, 471-483.	2.2	20
80	Sommerfeld condition for a Liouville equation and concentration of trajectories. Bulletin of the Brazilian Mathematical Society, 2003, 34, 43-57.	0.8	3
81	On unique continuation for nonlinear Schrödinger equations. Communications on Pure and Applied Mathematics, 2003, 56, 1247-1262.	3.1	45
82	Averaging lemmas and the X-ray transform. Comptes Rendus Mathematique, 2003, 337, 505-510.	0.3	9
83	Energy concentration and Sommerfeld condition for Helmholtz and Liouville equations. Comptes Rendus Mathematique, 2003, 337, 587-592.	0.3	7
84	Formation of Singularities and Self-Similar Vortex Motion Under the Localized Induction Approximation€. Communications in Partial Differential Equations, 2003, 28, 927-968.	2.2	65
85	On the unique continuation of solutions to the generalized KdV equation. Mathematical Research Letters, 2003, 10, 833-846.	0.5	25
86	Kink solutions of the binormal flow. Journées Équations Aux Dérivées Partielles, 2003, , 1-10.	0.2	0
87	On the support of solutions to the generalized KdV equation. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 2002, 19, 191-208.	1.4	36
88	Global wellposedness for 1D non-linear Schrödinger equation for data with an infinite L2 norm. Journal Des Mathematiques Pures Et Appliquees, 2001, 80, 1029-1044.	1.6	55
89	Carleman inequalities and the heat operator II. Indiana University Mathematics Journal, 2001, 50, 0-0.	0.9	40
90	A NOTE ON THE NONLINEAR SCHRÃ—DINGER EQUATION IN WEAK LpSPACES. Communications in Contemporary Mathematics, 2001, 03, 153-162.	1.2	25

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91	On the ill-posedness of some canonical dispersive equations. Duke Mathematical Journal, 2001, 106, .	1.5	247
92	On the Initial Value Problem for the Ishimori System. Annales Henri Poincare, 2000, 1, 341-384.	1.7	13
93	Global well-posedness for semi-linear wave equations. Communications in Partial Differential Equations, 2000, 25, 1741-1752.	2.2	44
94	Restriction theorems and maximal operators related to oscillatory integrals in ℝ3. Duke Mathematical Journal, 1999, 96, 547.	1.5	80
95	Morrey–Campanato Estimates for Helmholtz Equations. Journal of Functional Analysis, 1999, 164, 340-355.	1.4	74
96	Smoothing effects and local existence theory for the generalized nonlinear Schrödinger equations. Inventiones Mathematicae, 1998, 134, 489-545.	2.5	128
97	A bilinear approach to the restriction and Kakeya conjectures. Journal of the American Mathematical Society, 1998, 11, 967-1000.	3.9	158
98	A Semilinear Dirac Equation inHs(R3) fors> 1. SIAM Journal on Mathematical Analysis, 1997, 28, 338-362.	1.9	65
99	Global Solutions for the KdV Equation with Unbounded Data. Journal of Differential Equations, 1997, 139, 339-364.	2.2	14
100	Weighted Estimates for the Helmholtz Equation and Some Applications. Journal of Functional Analysis, 1997, 150, 356-382.	1.4	60
101	A bilinear estimate with applications to the KdV equation. Journal of the American Mathematical Society, 1996, 9, 573-603.	3.9	532
102	Spherical Means and Weighted Inequalities. Journal of the London Mathematical Society, 1996, 53, 343-353.	1.0	19
103	On the Ill-Posedness of the IVP for the Generalized Korteweg-De Vries and Nonlinear Schrödinger Equations. Journal of the London Mathematical Society, 1996, 53, 551-559.	1.0	61
104	Quadratic forms for the 1-D semilinear Schrödinger equation. Transactions of the American Mathematical Society, 1996, 348, 3323-3353.	0.9	97
105	On the Zakharov and Zakharov-Schulman Systems. Journal of Functional Analysis, 1995, 127, 204-234.	1.4	83
106	On the Hierarchy of the Generalized KdV Equations. NATO ASI Series Series B: Physics, 1994, , 347-356.	0.2	11
107	On the generalized Benjamin-Ono equation. Transactions of the American Mathematical Society, 1994, 342, 155-172.	0.9	63
108	Local regularity of solutions to wave equations with time-dependent potentials. Duke Mathematical Journal, 1994, 76, 913.	1.5	30

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109	Higher-order nonlinear dispersive equations. Proceedings of the American Mathematical Society, 1994, 122, 157-166.	0.8	56
110	On the Generalized Benjamin-Ono Equation. Transactions of the American Mathematical Society, 1994, 342, 155.	0.9	15
111	Higher-Order Nonlinear Dispersive Equations. Proceedings of the American Mathematical Society, 1994, 122, 157.	0.8	16
112	Well-posedness and scattering results for the generalized korteweg-de vries equation via the contraction principle. Communications on Pure and Applied Mathematics, 1993, 46, 527-620.	3.1	929
113	On local regularity of Schrödinger equations. International Mathematics Research Notices, 1993, 1993, 13.	1.0	50
114	The Cauchy problem for the Korteweg-de Vries equation in Sobolev spaces of negative indices. Duke Mathematical Journal, 1993, 71, 1.	1.5	289
115	Small solutions to nonlinear Schrödinger equations. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 1993, 10, 255-288.	1.4	165
116	Well-posedness of the initial value problem for the Korteweg-de Vries equation. Journal of the American Mathematical Society, 1991, 4, 323-347.	3.9	450
117	Title is missing!. Indiana University Mathematics Journal, 1991, 40, 33.	0.9	434
118	Well-Posedness of the Initial Value Problem for the Korteweg-de Vries Equation. Journal of the American Mathematical Society, 1991, 4, 323.	3.9	47
119	Unique continuation for Schrödinger operators with potential in Morrey spaces. Publicacions Matematiques, 1991, 35, 291-298.	0.5	38
120	Unique continuation for the solutions of the laplacian plus a drift. Annales De L'Institut Fourier, 1991, 41, 651-663.	0.6	5
121	The initial value problem for a class of nonlinear dispersive equations. Lecture Notes in Mathematics, 1990, , 141-156.	0.2	9
122	Nonlinear small data scattering for the generalized Korteweg-de Vries equation. Journal of Functional Analysis, 1990, 90, 445-457.	1.4	46
123	On the (generalized) Korteweg-de Vries equation. Duke Mathematical Journal, 1989, 59, 585.	1.5	116
124	Schrodinger Equations: Pointwise Convergence to the Initial Data. Proceedings of the American Mathematical Society, 1988, 102, 874.	0.8	100
125	Almost Everywhere Summability of Fourier Integrals. Journal of the London Mathematical Society, 1988, s2-38, 513-524.	1.0	50
126	Schrodinger Maps and their Associated Frame Systems. International Mathematics Research Notices, 0, , .	1.0	7