Pedro Freitas

List of Publications by Year
in descending order

80	1,147	430874 18	454955 30
papers	citations	h-index	g-index

81	81	81	403
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	From Neumann to Steklov and beyond, via Robin: The Weinberger way. American Journal of Mathematics, 2021, 143, 969-994.	1.1	8
2	A Gelfand-Levitan trace formula for generic quantum graphs. Analysis and Mathematical Physics, 2021, 11, 1.	1.3	2
3	Optimal unions of scaled copies of domains and PÃ³lya's conjecture. Arkiv for Matematik, 2021, 59, 11-51.	0.5	2
4	Bessel quotients and Robin eigenvalues. Pacific Journal of Mathematics, 2021, 315, 75-87.	0.5	0
5	Extremal eigenvalues of the Dirichlet biharmonic operator on rectangles. Proceedings of the American Mathematical Society, 2020, 148, 1109-1120.	0.8	2
6	From Steklov to Neumann and Beyond, via Robin: The SzegÅ‘ Way. Canadian Journal of Mathematics, 2020, 72, 1024-1043.	0.6	9
7	The damped wave equation with singular damping. Proceedings of the American Mathematical Society, 2020, 148, 4273-4284.	0.8	1
8	The determinant of one-dimensional polyharmonic operators of arbitrary order. Journal of Functional Analysis, 2020, 279, 108783.	1.4	3
9	Extremal Domains and PÃ³lya-type Inequalities for the Robin Laplacian on Rectangles and Unions of Rectangles. International Mathematics Research Notices, 2019, , .	1.0	1
10	On the Behavior of Clamped Plates under Large Compression. SIAM Journal on Applied Mathematics, 2019, 79, 1872-1891.	1.8	3
11	A remark on PÃ³lyaâ€™s conjecture at low frequencies. Archiv Der Mathematik, 2019, 112, 305-311.	0.5	3
12	The damped wave equation with unbounded damping. Journal of Differential Equations, 2018, 264, 7023-7054.	2.2	9
13	Decay of solutions for a class of nonlinear SchrÃ¶dinger equations in $ ewcommand{R}{mathbb{R}} R$ and the stability of shock profiles for a quasilinear Benney system. Nonlinearity, 2018, 31, 1110-1119.	1.4	1
14	The spectral determinant of the isotropic quantum harmonic oscillator in arbitrary dimensions. Mathematische Annalen, 2018, 372, 1081-1101.	1.4	3
15	Eigenvalue asymptotics for the damped wave equation on metric graphs. Journal of Differential Equations, 2017, 263, 2780-2811.	2.2	6
16	Asymptotic Behaviour of Extremal Averages of Laplacian Eigenvalues. Journal of Statistical Physics, 2017, 167, 1511-1518.	1.2	7
17	Bounds and extremal domains for Robin eigenvalues with negative boundary parameter. Advances in Calculus of Variations, 2017, 10, 357-379.	1.2	31
18	Sharp bounds for the modulus and phase of Hankel functions with applications to Jaeger integrals. Mathematics of Computation, 2017, 87, 289-308.	2.1	5

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19	4 The Robin problem. , 2017, , 78-119.		15
20	The spectrum of geodesic balls on spherically symmetric manifolds. Communications in Analysis and Geometry, 2017, 25, 507-544.	0.4	2
21	A lower bound to the spectral threshold in curved quantum layers. , 2017, , 261-269.		0
22	Summation formula inequalities for eigenvalues of SchrÃ¶dinger operators. Journal of Spectral Theory, 2016, 6, 483-503.	0.8	1
23	Optimisation of Eigenvalues of the Dirichlet Laplacian with a Surface Area Restriction. Applied Mathematics and Optimization, 2016, 73, 313-328.	1.6	13
24	The first Robin eigenvalue with negative boundary parameter. Advances in Mathematics, 2015, 280, 322-339.	1.1	53
25	Alexandrov's isodiametric conjecture and the cut locus of a surface. Tohoku Mathematical Journal, 2015, 67, .	0.2	0
26	Spectra of graphene nanoribbons with armchair and zigzag boundary conditions. Reviews in Mathematical Physics, 2014, 26, 1450018.	1.7	13
27	Optimal Ball Placement in Rugby Conversions. SIAM Review, 2014, 56, 673-690.	9.5	0
28	Spherical symmetrization and the first eigenvalue of geodesic disks on manifolds. Calculus of Variations and Partial Differential Equations, 2014, 51, 701-724.	1.7	18
29	Asymptotics for the Expected Lifetime of Brownian Motion on Thin Domains in â„•n. Journal of Theoretical Probability, 2013, 26, 284-309.	0.8	5
30	Asymptotic behaviour of optimal spectral planar domains with fixed perimeter. Journal of Mathematical Physics, 2013, 54, 053504.	1.1	18
31	Optimal spectral rectangles and lattice ellipses. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2013, 469, 20120492.	2.1	17
32	Asymptotic behaviour and numerical approximation of optimal eigenvalues of the Robin Laplacian. ESAIM - Control, Optimisation and Calculus of Variations, 2013, 19, 438-459.	1.3	13
33	On the spectrum of deformations of compact double-sided flat hypersurfaces. Analysis and PDE, 2013, 6, 1051-1088.	1.4	2
34	Eigenvalue asymptotics for almost flat compact hypersurfaces. Doklady Mathematics, 2012, 85, 18-22.	0.6	1
35	On the role of spectral markers and stability in spine models. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 14, 19-28.	3.1	0
36	Numerical Optimization of Low Eigenvalues of the Dirichlet and Neumann Laplacians. Journal of Optimization Theory and Applications, 2012, 154, 235-257.	1.5	59

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37	Sharp estimates and saturation phenomena for a nonlocal eigenvalue problem. Advances in Mathematics, 2011, 228, 2352-2365.	1.1	12
38	A spectral Bernstein theorem. Annali Di Matematica Pura Ed Applicata, 2011, 190, 77-90.	1.0	0
39	On the inverse spectral problem for Euclidean triangles. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2011, 467, 1546-1562.	2.1	7
40	Characterization and Parameterization ofÂtheÂSingular Manifold ofÂaÂSimpleÂ6â€“6ÂStewartÂPlatform. , 2011, , 255-262.		0
41	On the Characterization of Harmonic and Subharmonic Functions via Mean-value Properties. Potential Analysis, 2010, 32, 189-200.	0.9	15
42	Asymptotics of Dirichlet eigenvalues and eigenfunctions of the Laplacian on thin domains in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:msup><mml:mi mathvariant="double-struck">R</mml:mi><mml:mi>d</mml:mi></mml:msup></mml:math>. Journal of Functional Analysis, 2010, 258, 893-912.	1.4	39
43	Bounds for the first Dirichlet eigenvalue of triangles and quadrilaterals. ESAIM - Control, Optimisation and Calculus of Variations, 2010, 16, 648-676.	1.3	9
44	On the effect of sharp rises in blood pressure in the Shahâ€“Humphrey model for intracranial saccular aneurysms. Biomechanics and Modeling in Mechanobiology, 2009, 8, 457-471.	2.8	3
45	Eigenvalue asymptotics, inverse problems and a trace formula for the linear damped wave equation. Journal of Differential Equations, 2009, 247, 3028-3039.	2.2	18
46	Singular asymptotic expansions for Dirichlet eigenvalues and eigenfunctions of the Laplacian on thin planar domains. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 2009, 26, 547-560.	1.4	37
47	Hearing the weights of weighted projective planes. Annals of Global Analysis and Geometry, 2008, 33, 373-395.	0.6	3
48	A numerical study of the spectral gap. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 055201.	2.1	16
49	A sharp upper bound for the first Dirichlet eigenvalue and the growth of the isoperimetric constant of convex domains. Proceedings of the American Mathematical Society, 2008, 136, 2997-3006.	0.8	20
50	Location of the nodal set for thin curved tubes. Indiana University Mathematics Journal, 2008, 57, 343-376.	0.9	31
51	Precise bounds and asymptotics for the first Dirichlet eigenvalue of triangles and rhombi. Journal of Functional Analysis, 2007, 251, 376-398.	1.4	31
52	On convex surfaces with minimal moment of inertia. Journal of Mathematical Physics, 2007, 48, 122902.	1.1	5
53	Waveguides with Combined Dirichlet and Robin Boundary Conditions. Mathematical Physics Analysis and Geometry, 2007, 9, 335-352.	1.0	13
54	Unbounded planar domains whose second nodal line does not touch the boundary. Mathematical Research Letters, 2007, 14, 107-111.	0.5	9

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55	New Bounds for the Principal Dirichlet Eigenvalue of Planar Regions. Experimental Mathematics, 2006, 15, 333-342.	0.7	29
56	A LI-TYPE CRITERION FOR ZERO-FREE HALF-PLANES OF RIEMANN'S ZETA FUNCTION. Journal of the London Mathematical Society, 2006, 73, 399-414.	1.0	10
57	Upper and lower bounds for the first Dirichlet eigenvalue of a triangle. Proceedings of the American Mathematical Society, 2006, 134, 2083-2089.	0.8	17
58	Instability results for the damped wave equation in unbounded domains. Journal of Differential Equations, 2005, 211, 168-186.	2.2	13
59	Geometrically induced discrete spectrum in curved tubes. Differential Geometry and Its Applications, 2005, 23, 95-105.	0.5	69
60	Extension of Abel's Lemma with q-Series Implications. Ramanujan Journal, 2005, 10, 137-152.	0.7	12
61	Integrals of polylogarithmic functions, recurrence relations, and associated Euler sums. Mathematics of Computation, 2005, 74, 1425-1441.	2.1	49
62	A lower bound to the spectral threshold in curved tubes. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2004, 460, 3457-3467.	2.1	33
63	On the First Twisted Dirichlet Eigenvalue. Communications in Analysis and Geometry, 2004, 12, 1083-1104.	0.4	12
64	Memory Driven Instability in a Diffusion Process. SIAM Journal on Mathematical Analysis, 2002, 33, 1090-1106.	1.9	26
65	On the Invariant Spectrum of S 1 -Invariant Metrics on S 2. Proceedings of the London Mathematical Society, 2002, 84, 213-230.	1.3	18
66	On Minimal EigenvaluesÂ¶of SchrÃ¶dinger Operators on Manifolds. Communications in Mathematical Physics, 2001, 217, 375-382.	2.2	7
67	Lyapunov Functionals and Stability for FitzHughâ€“Nagumo Systems. Journal of Differential Equations, 2001, 169, 208-227.	2.2	16
68	Delay-induced Instabilities in Gyroscopic Systems. SIAM Journal on Control and Optimization, 2000, 39, 196-207.	2.1	14
69	Spectral sequences for quadratic pencils and the inverse spectral problem for the damped wave equation. Journal Des Mathematiques Pures Et Appliquees, 1999, 78, 965-980.	1.6	7
70	On the Optimal Value of the Spectral Abscissa for a System of Linear Oscillators. SIAM Journal on Matrix Analysis and Applications, 1999, 21, 195-208.	1.4	21
71	Optimizing the Rate of Decay of Solutions of the Wave Equation Using Genetic Algorithms: A Counterexample to the Constant Damping Conjecture. SIAM Journal on Control and Optimization, 1999, 37, 376-387.	2.1	19
72	Positivity results for a nonlocal elliptic equation. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 1998, 128, 697-715.	1.2	14

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73	The linear damped wave equation, Hamiltonian symmetry, and the importance of being odd. Discrete and Continuous Dynamical Systems, 1998, 4, 635-640.	0.9	1
74	Eigenvalue problems for the wave equation with strong damping. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 1997, 127, 755-771.	1.2	6
75	Some Results on the Stability and Bifurcation of Stationary Solutions of Delay-Diffusion Equations. Journal of Mathematical Analysis and Applications, 1997, 206, 59-82.	1.0	5
76	On Some Eigenvalue Problems Related to the Wave Equation with Indefinite Damping. Journal of Differential Equations, 1996, 127, 320-335.	2.2	34
77	Stability Results for the Wave Equation with Indefinite Damping. Journal of Differential Equations, 1996, 132, 338-352.	2.2	60
78	Bifurcation and stability of stationary solutions of nonlocal scalar reaction-diffusion equations. Journal of Dynamics and Differential Equations, 1994, 6, 613-629.	1.9	18
79	A nonlocal Sturmâ€“Liouville eigenvalue problem. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 1994, 124, 169-188.	1.2	42
80	Maximal determinants of SchrÃ¶dingerÂoperators on bounded intervals. Journal De L'Ecole Polytechnique - Mathematiques, 0, 7, 803-829.	0.0	1