Hans-Christoph Grunau

List of Publications by Year
in descending order

81	1,412	430442	329751
papers	citations	18	37
		h-index	g-index

86	86	86	440
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Polyharmonic Boundary Value Problems. Lecture Notes in Mathematics, 2010, , .	0.1	337
2	Hardy inequalities with optimal constants and remainder terms. Transactions of the American Mathematical Society, 2003, 356, 2149-2168.	0.5	110
3	Radial entire solutions for supercritical biharmonic equations. Mathematische Annalen, 2006, 334, 905-936.	0.7	100
4	Positivity for equations involving polyharmonic operators with Dirichlet boundary conditions. Mathematische Annalen, 1997, 307, 589-626.	0.7	99
5	Existence and nonexistence results for critical growth biharmonic elliptic equations. Calculus of Variations and Partial Differential Equations, 2003, 18, 117-143.	0.9	90
6	A Semilinear Fourth Order Elliptic Problem with Exponential Nonlinearity. SIAM Journal on Mathematical Analysis, 2005, 36, 1226-1258.	0.9	74
7	Positive solutions to semilinear polyharmonic Dirichlet problems involving critical Sobolev exponents. Calculus of Variations and Partial Differential Equations, 1995, 3, 243-252.	0.9	46
8	Decay and local eventual positivity for biharmonic parabolic equations. Discrete and Continuous Dynamical Systems, 2008, 21, 1129-1157.	0.5	35
9	Positivity and Almost Positivity of Biharmonic Green's Functions under Dirichlet Boundary Conditions. Archive for Rational Mechanics and Analysis, 2010, 195, 865-898.	1.1	33
10	Critical dimensions and higher order Sobolev inequalities with remainder terms. Nonlinear Differential Equations and Applications, 2001, 8, 35-44.	0.4	28
11	Supercritical biharmonic equations with power-type nonlinearity. Annali Di Matematica Pura Ed Applicata, 2009, 188, 171-185.	0.5	28
12	The Dirichlet problem for supercritical biharmonic equations with power-type nonlinearity. Journal of Differential Equations, 2007, 234, 582-606.	1.1	26
13	Symmetric Willmore surfaces of revolution satisfying arbitrary Dirichlet boundary data. Advances in Calculus of Variations, 2011, 4, 1-81.	0.7	26
14	Boundary value problems for the one-dimensional Willmore equation. Calculus of Variations and Partial Differential Equations, 2007, 30, 293-314.	0.9	24
15	Entire solutions for a semilinear fourth order elliptic problem with exponential nonlinearity. Journal of Differential Equations, 2006, 230, 743-770.	1.1	23
16	Optimal Sobolev and Hardy–Rellich constants under Navier boundary conditions. Annali Di Matematica Pura Ed Applicata, 2010, 189, 475-486.	0.5	23
17	Classical solutions to the Dirichlet problem for Willmore surfaces of revolution. Advances in Calculus of Variations, 2008, 1, .	0.7	20
18	Global solutions for superlinear parabolic equations involving the biharmonic operator for initial data with optimal slow decay. Calculus of Variations and Partial Differential Equations, 2007, 30, 389-415.	0.9	19

#	Article	IF	Citations
19	Boggio's formula for fractional polyharmonic Dirichlet problems. Annali Di Matematica Pura Ed Applicata, 2017, 196, 1327-1344.	0.5	19
20	ON A CONJECTURE OF P. PUCCI AND J. SERRIN. Analysis (Germany), 1996, 16, 399-404.	0.2	15
21	Classical solutions for some higher order semilinear elliptic equations under weak growth conditions. Nonlinear Analysis: Theory, Methods & Applications, 1997, 28, 799-807.	0.6	15
22	Sign Change for the Green Function¶and for the First Eigenfunction¶of Equations of Clamped-Plate Type. Archive for Rational Mechanics and Analysis, 1999, 150, 179-190.	1.1	15
23	Some new properties of biharmonic heat kernels. Nonlinear Analysis: Theory, Methods & Applications, 2009, 70, 2965-2973.	0.6	14
24	A Navier boundary value problem for Willmore surfaces of revolution. Analysis (Germany), 2009, 29, .	0.2	13
25	Optimal estimates from below for biharmonic Green functions. Proceedings of the American Mathematical Society, 2010, 139, 2151-2161.	0.4	13
26	Stability and Symmetry in the Navier Problem for the One-Dimensional Willmore Equation. SIAM Journal on Mathematical Analysis, 2009, 40, 2055-2076.	0.9	12
27	Eventual local positivity for a biharmonic heat equation in <I>R</I><SUP><I>N</I></SUP>. Discrete and Continuous Dynamical Systems - Series S, 2008, 1, 83-87.	0.6	12
28	The Paneitz equation in hyperbolic space. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 2008, 25, 847-864.	0.7	11
29	The second bifurcation branch for radial solutions of the Brezis-Nirenberg problem in dimension four. Nonlinear Differential Equations and Applications, 2008, 15, 69-90.	0.4	11
30	In any dimension a "clamped plate" with a uniform weight may change sign. Nonlinear Analysis: Theory, Methods & Applications, 2014, 97, 119-124.	0.6	11
31	On the existence of Hermitian-harmonic maps from complete Hermitian to complete Riemannian manifolds. Mathematische Zeitschrift, 2005, 249, 297-327.	0.4	9
32	Existence for Willmore surfaces of revolution satisfying non-symmetric Dirichlet boundary conditions. Advances in Calculus of Variations, 2019, 12, 333-361.	0.7	9
33	Minimising a relaxed Willmore functional for graphs subject to boundary conditions. Interfaces and Free Boundaries, 2017, 19, 109-140.	0.2	9
34	Regions of positivity for polyharmonic Green functions in arbitrary domains. Proceedings of the American Mathematical Society, 2007, 135, 3537-3547.	0.4	8
35	Nonlinear Questions in Clamped Plate Models. Milan Journal of Mathematics, 2009, 77, 171-204.	0.7	8
36	ON THE ROLE OF SPACE DIMENSION [xxx] IN THE SEMILINEAR BREZIS-NIRENBERG EIGENVALUE PROBLEM. Analysis (Germany), 2000, 20, 395-400.	0.2	7

#	Article	IF	Citations
37	Boundedness for large |x| of suitable weak solutions of the Navier-Stokes equations with prescribed velocity at infinity. Communications in Mathematical Physics, 1993, 151, 577-587.	1.0	6
38	Positivity of solutions to the Cauchy problem for linear and semilinear biharmonic heat equations. Advances in Nonlinear Analysis, 2020, 10, 353-370.	1.3	6
39	Boundary value problems for a special Helfrich functional for surfaces of revolution: existence and asymptotic behaviour. Calculus of Variations and Partial Differential Equations, 2021, 60, 1.	0.9	5
40	Linear Problems. Lecture Notes in Mathematics, 2010, , 27-60.	0.1	5
41	Nonexistence of local minima of supersolutions for the circular clamped plate. Pacific Journal of Mathematics, 2001, 198, 437-442.	0.2	5
42	A clamped plate with a uniform weight may change sign. Discrete and Continuous Dynamical Systems - Series S, 2014, 7, 761-766.	0.6	5
43	Differences between fundamental solutions of general higher order elliptic operators and of products of second order operators. Mathematische Annalen, 2020, , 1.	0.7	4
44	Regularity of weak solutions of semilinear parabolic systems of arbitrary order. Journal D'Analyse Mathematique, 1994, 62, 307-322.	0.4	3
45	The Asymptotic Shape of a Boundary Layer of Symmetric Willmore Surfaces of Revolution. International Series of Numerical Mathematics, 2012, , 19-29.	1.0	3
46	Positive solutions to semilinear polyharmonic Dirichlet problems involving critical Sobolev exponents. Calculus of Variations and Partial Differential Equations, 1995, 3, 243-252.	0.9	3
47	Optimal estimates from below for Green functions of higher order elliptic operators with variable leading coefficients. Archiv Der Mathematik, 2021, 117, 95-104.	0.3	2
48	Boundedness of the negative part of biharmonic Green's functions under Dirichlet boundary conditions in general domains. Comptes Rendus Mathematique, 2009, 347, 163-166.	0.1	1
49	Models of Higher Order. Lecture Notes in Mathematics, 2010, , 1-25.	0.1	1
50	The Reynolds number and large time behaviour for weak solutions of the Navier-Stokes equations. Zeitschrift Fur Angewandte Mathematik Und Physik, 1993, 44, 587-593.	0.7	0
51	Uniqueness of Small Solutions to the Dirichlet Problem for the Higher Dimensional H-system. Rocky Mountain Journal of Mathematics, 1997, 27, 801.	0.2	0
52	Vorwort Heft 2-10. Deutsche Mathematiker Vereinigung Jahresbericht, 2010, 112, 71-72.	0.4	0
53	Vorwort Heft 3-10. Deutsche Mathematiker Vereinigung Jahresbericht, 2010, 112, 117-118.	0.4	0
54	Vorwort Heft 4-10. Deutsche Mathematiker Vereinigung Jahresbericht, 2010, 112, 193-194.	0.4	0

#	Article	IF	Citations
55	Vorwort Heft 1-2011. Deutsche Mathematiker Vereinigung Jahresbericht, 2011, 113, 1-2.	0.4	0
56	Vorwort Heft 2-2011. Deutsche Mathematiker Vereinigung Jahresbericht, 2011, 113, 55-56.	0.4	0
57	Vorwort Heft 3-2011. Deutsche Mathematiker Vereinigung Jahresbericht, 2011, 113, 121-122.	0.4	0
58	Vorwort Heft 4-2011. Deutsche Mathematiker Vereinigung Jahresbericht, 2011, 113, 183-184.	0.4	0
59	Preface Issue 3-2012. Deutsche Mathematiker Vereinigung Jahresbericht, 2012, 114, 117-118.	0.4	0
60	Preface Issue 4-2012. Deutsche Mathematiker Vereinigung Jahresbericht, 2012, 114, 187-188.	0.4	0
61	Preface Issue 1-2012. Deutsche Mathematiker Vereinigung Jahresbericht, 2012, 114, 1-2.	0.4	0
62	Preface Issue 2-2012. Deutsche Mathematiker Vereinigung Jahresbericht, 2012, 114, 57-58.	0.4	0
63	Preface Issue 1-2013. Deutsche Mathematiker Vereinigung Jahresbericht, 2013, 115, 1-2.	0.4	0
64	Preface Issue 2-2013. Deutsche Mathematiker Vereinigung Jahresbericht, 2013, 115, 61-62.	0.4	0
65	Preface Issue 4-2014. Deutsche Mathematiker Vereinigung Jahresbericht, 2014, 116, 199-200.	0.4	0
66	Preface Issue 3/4-2013. Deutsche Mathematiker Vereinigung Jahresbericht, 2014, 115, 127-128.	0.4	0
67	Preface Issue 3-2014. Deutsche Mathematiker Vereinigung Jahresbericht, 2014, 116, 135-136.	0.4	0
68	Preface Issue 1-2014. Deutsche Mathematiker Vereinigung Jahresbericht, 2014, 116, 1-2.	0.4	0
69	Preface Issue 2-2014. Deutsche Mathematiker Vereinigung Jahresbericht, 2014, 116, 85-85.	0.4	0
70	Uniform estimates and convexity in capillary surfaces. Nonlinear Analysis: Theory, Methods & Applications, 2014, 97, 83-93.	0.6	0
71	Preface Issue 2-2015. Deutsche Mathematiker Vereinigung Jahresbericht, 2015, 117, 91-92.	0.4	0
72	Preface Issue 4-2015. Deutsche Mathematiker Vereinigung Jahresbericht, 2015, 117, 231-231.	0.4	0

#	Article	IF	Citations
73	Preface Issue 1-2015. Deutsche Mathematiker Vereinigung Jahresbericht, 2015, 117, 1-2.	0.4	0
74	Preface Issue 3-2015. Deutsche Mathematiker Vereinigung Jahresbericht, 2015, 117, 171-171.	0.4	0
75	Preface Issue 1-2016. Deutsche Mathematiker Vereinigung Jahresbericht, 2016, 118, 1-1.	0.4	0
76	Preface Issue 2-2016. Deutsche Mathematiker Vereinigung Jahresbericht, 2016, 118, 73-74.	0.4	0
77	Preface Issue 3-2016. Deutsche Mathematiker Vereinigung Jahresbericht, 2016, 118, 141-141.	0.4	0
78	Preface Issue 4-2016. Deutsche Mathematiker Vereinigung Jahresbericht, 2016, 118, 245-246.	0.4	0
79	Positivity and Lower Order Perturbations. Lecture Notes in Mathematics, 2010, , 147-185.	0.1	0
80	Dominance of Positivity in Linear Equations. Lecture Notes in Mathematics, 2010, , 187-226.	0.1	0
81	I.11 Variational Identities and their Applications. , 2014, , 663-718.		0