

# Der-Chen Chang

## List of Publications by Year in descending order

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137  
papers

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citations

471061

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docs citations

142  
times ranked

402  
citing authors

#	ARTICLE	IF	CITATIONS
1	Hardy spaces, BMO, and boundary value problems for the Laplacian on a smooth domain in $\mathbb{R}^n$ . Transactions of the American Mathematical Society, 1999, 351, 1605-1661.	0.5	83
2	Pharmacological Role of Functionalized Gold Nanoparticles in Disease Applications. Molecules, 2022, 27, 1551.	1.7	45
3	Heat Kernels for Elliptic and Sub-elliptic Operators. Applied and Numerical Harmonic Analysis, 2011, , .	0.1	36
4	Littlewood-Paley Characterizations of Hardy-Type Spaces Associated with Ball Quasi-Banach Function Spaces. Complex Analysis and Operator Theory, 2020, 14, 1.	0.3	34
5	A note on weighted Bergman spaces and the Cesaro Operator. Nagoya Mathematical Journal, 2000, 159, 25-43.	0.6	33
6	Chrysin alleviates imiquimod-induced psoriasis-like skin inflammation and reduces the release of CCL20 and antimicrobial peptides. Scientific Reports, 2020, 10, 2932.	1.6	31
7	Effect of Neferine on DNCB-Induced Atopic Dermatitis in HaCaT Cells and BALB/c Mice. International Journal of Molecular Sciences, 2021, 22, 8237.	1.8	26
8	The Inhibitory Effects of Gold Nanoparticles on VEGF-A-Induced Cell Migration in Choroid-Retina Endothelial Cells. International Journal of Molecular Sciences, 2020, 21, 109.	1.8	24
9	Geometric analysis on quaternion $\mathfrak{h}_n$ -type groups. Journal of Geometric Analysis, 2006, 16, 265-294.	0.5	23
10	Sub-Lorentzian geometry on anti-de Sitter space. Journal Des Mathematiques Pures Et Appliquees, 2008, 90, 82-110.	0.8	21
11	Estimates for powers of sub-Laplacian on the non-isotropic Heisenberg group. Journal of Geometric Analysis, 2000, 10, 653-678.	0.5	20
12	Fundamental solutions for hermite and subelliptic operators. Journal D'Analyse Mathematique, 2006, 100, 223-248.	0.4	19
13	SubRiemannian Geometry on the Sphere $S^3$ . Canadian Journal of Mathematics, 2009, 61, 721-739.	0.3	18
14	Endpoint boundedness of commutators on spaces of homogeneous type. Applicable Analysis, 2017, 96, 2408-2433.	0.6	18
15	Addendum to the Paper "A note on Weighted bergman Spaces and the cesaro operator". Nagoya Mathematical Journal, 2005, 180, 77-90.	0.6	17
16	Anti-Allergic and Anti-Inflammatory Effects of Neferine on RBL-2H3 Cells. International Journal of Molecular Sciences, 2021, 22, 10994.	1.8	17
17	Sub-Riemannian Geodesics on the 3-D Sphere. Complex Analysis and Operator Theory, 2009, 3, 361-377.	0.3	16
18	Real-variable characterizations of Musielak-Orlicz-Hardy spaces associated with Schrödinger operators on domains. Mathematical Methods in the Applied Sciences, 2016, 39, 533-569.	1.2	16

#	ARTICLE	IF	CITATIONS
19	Fourier transform of anisotropic mixed-norm Hardy spaces. <i>Frontiers of Mathematics in China</i> , 2021, 16, 119-139.	0.4	16
20	Analysis and Applications of Extended Kantorovichâ€“Krylov Method. <i>Applicable Analysis</i> , 2003, 82, 713-740.	0.6	15
21	Geometric analysis on $H$ -type groups related to division algebras. <i>Mathematische Nachrichten</i> , 2009, 282, 44-68.	0.4	15
22	On the Cauchyâ€“SzegÅ¶ Kernel for Quaternion Siegel Upper Half-Space. <i>Complex Analysis and Operator Theory</i> , 2013, 7, 1623-1654.	0.3	15
23	Endpoint estimates of linear commutators on Hardy spaces over spaces of homogeneous type. <i>Mathematical Methods in the Applied Sciences</i> , 2018, 41, 5951-5984.	1.2	15
24	Chrysin Inhibits High Glucose-Induced Migration on Chorioretinal Endothelial Cells via VEGF and VEGFR Down-Regulation. <i>International Journal of Molecular Sciences</i> , 2020, 21, 5541.	1.8	15
25	Fourier transform of Hardy spaces associated with ball quasi-Banach function spaces*. <i>Applicable Analysis</i> , 2022, 101, 3825-3840.	0.6	15
26	Sobolev and Lipschitz estimates for weighted Bergman projections. <i>Nagoya Mathematical Journal</i> , 1997, 147, 147-178.	0.6	14
27	Estimates for spectral projection operators of the sub-laplacian on the heisenberg group. <i>Journal D'Analyse Mathematique</i> , 1997, 71, 315-347.	0.4	14
28	Quaternion H-type group and differential operator $\hat{\Gamma}^{\lambda}$ . <i>Science in China Series A: Mathematics</i> , 2008, 51, 523-540.	0.5	14
29	Hopf fibration: Geodesics and distances. <i>Journal of Geometry and Physics</i> , 2011, 61, 986-1000.	0.7	14
30	The edge algebra structure of the Zaremba problem. <i>Journal of Pseudo-Differential Operators and Applications</i> , 2014, 5, 69-155.	0.3	14
31	A zeta function associated to the sub-laplacian on the unit sphere in $\mathbb{H}_N$ . <i>Journal D'Analyse Mathematique</i> , 2002, 86, 25-48.	0.4	13
32	On a Step $2(k + 1)$ sub-Riemannian manifold. <i>Journal of Geometric Analysis</i> , 2004, 14, 1-18.	0.5	13
33	Gradient estimates via rearrangements for solutions of some SchrÅ¶dinger equations. <i>Analysis and Applications</i> , 2018, 16, 339-361.	1.2	13
34	Anisotropic quaternion Carnot groups: Geometric analysis and Green function. <i>Advances in Applied Mathematics</i> , 2007, 39, 345-394.	0.4	12
35	Quercetin inhibits histamine-induced calcium influx in human keratinocyte via histamine H4 receptors. <i>International Immunopharmacology</i> , 2021, 96, 107620.	1.7	12
36	A note on wronskians and linear dependence of entire functions in. <i>Complex Variables and Elliptic Equations</i> , 1994, 24, 131-144.	0.2	11

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37	Description of Entire Solutions of Eiconal Type Equations. Canadian Mathematical Bulletin, 2012, 55, 249-259.	0.3	11
38	Estimates for second-order Riesz transforms associated with magnetic Schrödinger operators on Musielak-Orlicz-Hardy spaces. Applicable Analysis, 2014, 93, 2519-2545.	0.6	11
39	REAL AND COMPLEX HAMILTONIAN MECHANICS ON SOME SUBRIEMANNIAN MANIFOLDS. Asian Journal of Mathematics, 2004, 8, 137-160.	0.3	11
40	A Morera type theorem for $L^2$ functions in the Heisenberg group. Journal D'Analyse Mathematique, 1991, 57, 282-296.	0.4	10
41	Quantisation on a manifold with singular edge. Journal of Pseudo-Differential Operators and Applications, 2013, 4, 317-343.	0.3	10
42	Real interpolation of weighted tent spaces. Applicable Analysis, 2016, 95, 2415-2443.	0.6	10
43	Littlewood-Paley Characterizations of Hajlasz-Sobolev and Triebel-Lizorkin Spaces via Averages on Balls. Potential Analysis, 2017, 46, 227-259.	0.4	10
44	Analysis of Bending Vibration of Rectangular Plates Using Two-Dimensional Plate Modes. Journal of Aircraft, 2005, 42, 542-550.	1.7	9
45	Geometric analysis on generalized Hermite operators. Advances in Applied Mathematics, 2011, 47, 710-771.	0.4	9
46	$L_p$ Results for the Pompeiu Problem with Moments on the Heisenberg Group. Journal of Fourier Analysis and Applications, 2004, 10, 545-571.	0.5	8
47	Laguerre calculus and Paneitz operator on the Heisenberg group. Science in China Series A: Mathematics, 2009, 52, 2549-2569.	0.5	7
48	SubRiemannian Geodesics in the Grushin Plane. Journal of Geometric Analysis, 2012, 22, 800-826.	0.5	7
49	Integrability conditions for Heisenberg and Grushin-type distributions. Analysis and Mathematical Physics, 2014, 4, 99-114.	0.6	7
50	Anti-Proliferative and Anti-Migratory Activities of Hispidulin on Human Melanoma A2058 Cells. Biomolecules, 2021, 11, 1039.	1.8	7
51	Commutation properties and lipschitz estimates for the Bergman and Szegő projections. Mathematische Zeitschrift, 1996, 223, 275-302.	0.4	6
52	Moment versions of the Morera problem in $C_n$ and $\mathbb{H}^n$ . Advances in Applied Mathematics, 2003, 31, 273-300.	0.4	6
53	Analysis of Sandwich Plates with Viscoelastic Damping Using Two-Dimensional Plate Modes. AIAA Journal, 2003, 41, 924-932.	1.5	6
54	Pompeiu Problem on Product of Heisenberg Groups. Complex Analysis and Operator Theory, 2010, 4, 619-683.	0.3	6

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55	On the Hodge-type decomposition and cohomology groups of $k$ -Cauchy-Fueter complexes over domains in the quaternionic space. <i>Journal of Geometry and Physics</i> , 2016, 107, 15-34.	0.7	6
56	Utilizing Recent Climate Data in Eastern Texas to Calculate Trends in Measures of Aridity and Estimate Changes in Watering Demand for Landscape Preservation. <i>Journal of Applied Meteorology and Climatology</i> , 2020, 59, 143-152.	0.6	6
57	Nontriviality of Riesz-Morrey spaces. <i>Applicable Analysis</i> , 2022, 101, 6548-6572.	0.6	6
58	The Anti-Inflammatory Effect of Hydrogen Gas Inhalation and Its Influence on Laser-Induced Choroidal Neovascularization in a Mouse Model of Neovascular Age-Related Macular Degeneration. <i>International Journal of Molecular Sciences</i> , 2021, 22, 12049.	1.8	6
59	On the Recursive Sequence $x_{n+1} = \frac{1}{2}(x_n + \frac{1}{x_n})$ . <i>Applicable Analysis</i> , 2003, 82, 145-156.	0.6	5
60	The Heat Kernel for Kolmogorov Type Operators and Its Applications. <i>Journal of Fourier Analysis and Applications</i> , 2009, 15, 816-838.	0.5	5
61	Boundedness of fractional integrals on weighted Orlicz-Hardy spaces. <i>Mathematical Methods in the Applied Sciences</i> , 2013, 36, 2069-2085.	1.2	5
62	Corner Boundary Value Problems. <i>Complex Analysis and Operator Theory</i> , 2015, 9, 1157-1210.	0.3	5
63	Integrability conditions on Engel-type manifolds. <i>Analysis and Mathematical Physics</i> , 2015, 5, 217-231.	0.6	5
64	Characterizations of Sobolev spaces associated to operators satisfying off-diagonal estimates on balls. <i>Mathematical Methods in the Applied Sciences</i> , 2017, 40, 2907-2929.	1.2	5
65	Boundedness of paraproducts on spaces of homogeneous type II. <i>Applicable Analysis</i> , 2022, 101, 2170-2196.	0.6	5
66	The geometry on a step 3 Grushin model. <i>Applicable Analysis</i> , 2005, 84, 111-129.	0.6	4
67	Laguerre expansion on the Heisenberg group and Fourier-Bessel transform on $\hat{\mathfrak{h}}_n$ . <i>Science in China Series A: Mathematics</i> , 2006, 49, 1722-1739.	0.5	4
68	Tauberian theorem for $m$ -spherical transforms on the Heisenberg group. <i>Mathematische Nachrichten</i> , 2007, 280, 815-837.	0.4	4
69	Boundedness of Generalized Riesz Transforms on Orlicz-Hardy Spaces Associated to Operators. <i>Integral Equations and Operator Theory</i> , 2013, 76, 225-283.	0.4	4
70	Geometric Analysis on Ornstein-Uhlenbeck Operators with Quadratic Potentials. <i>Journal of Geometric Analysis</i> , 2014, 24, 1211-1232.	0.5	4
71	Newton's method for variational inequality problems: Smale's point estimate theory under the $\tilde{\beta}$ -condition. <i>Applicable Analysis</i> , 2015, 94, 44-55.	0.6	4
72	Ellipticity on spaces with higher singularities. <i>Science China Mathematics</i> , 2017, 60, 2053-2076.	0.8	4

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73	Global solution to initial boundary value problem for gas dynamics in thermal nonequilibrium. Journal of Differential Equations, 2018, 265, 1875-1893.	1.1	4
74	Relations Between Product and Flag Hardy Spaces. Journal of Geometric Analysis, 2021, 31, 6601-6623.	0.5	4
75	A CR Analogue of Yau's Conjecture on Pseudoharmonic Functions of Polynomial Growth. Canadian Journal of Mathematics, 2019, 71, 1367-1394.	0.3	4
76	Boundedness of paraproducts on spaces of homogeneous type I. Applicable Analysis, 2022, 101, 2144-2169.	0.6	4
77	Generalized Hamilton-Jacobi Equation and Heat Kernel on Step Two Nilpotent Lie Groups. , 2009, , 49-76.		4
78	Anti-Inflammatory Effects of Cycloheterophyllin on Dinitrochlorobenzene-Induced Atopic Dermatitis in HaCaT Cells and BALB/c Mice. Molecules, 2022, 27, 2610.	1.7	4
79	Commutation properties and lipschitz estimates for the Bergman and Szegő projections. Mathematische Zeitschrift, 1996, 223, 275-302.	0.4	3
80	The uniqueness problem and meromorphic solutions of partial differential equations. Journal D'Analyse Mathématique, 1999, 77, 51-68.	0.4	3
81	Heat kernels for a class of degenerate elliptic operators using stochastic method. Complex Variables and Elliptic Equations, 2012, 57, 155-168.	0.4	3
82	The Laguerre calculus on the nilpotent Lie groups of step two. Journal of Mathematical Analysis and Applications, 2019, 475, 1855-1882.	0.5	3
83	MOMENT CONDITIONS FOR POMPEIU PROBLEM EXTENDED TO GENERAL RADIAL SURFACES. , 2002, , .		3
84	Nonholonomic Systems and Sub-Riemannian Geometry. Communications in Information and Systems, 2010, 10, 293-316.	0.3	3
85	Mathematical analysis of pricing of lookback performance options. Applicable Analysis, 2003, 82, 937-959.	0.6	2
86	Hausdorff operator on the unit polydisk in. Complex Variables and Elliptic Equations, 2006, 51, 329-345.	0.4	2
87	Heat Kernels for Differential Operators with Radical Function Coefficients. Taiwanese Journal of Mathematics, 2011, 15, .	0.2	2
88	THE POSITIVITY OF THE HEAT KERNEL ON HEISENBERG GROUP. Analysis and Applications, 2013, 11, 1350019.	1.2	2
89	Poincaré's lemma on the Heisenberg group. Advances in Applied Mathematics, 2014, 60, 90-102.	0.4	2
90	Ball Average Characterizations of Variable Besov-type Spaces. Taiwanese Journal of Mathematics, 2019, 23, .	0.2	2

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91	On an initial boundary value problem for gas dynamics in thermal nonequilibrium. Journal of Mathematical Physics, 2019, 60, 121505.	0.5	2
92	The heat kernel of sub-Laplace operator on nilpotent Lie groups of step two. Applicable Analysis, 2021, 100, 17-36.	0.6	2
93	Utilizing homogenized observation records and reconstructed time series data to estimate recent trends in Mid-Atlantic soil moisture scarcity. Theoretical and Applied Climatology, 2021, 143, 1063-1076.	1.3	2
94	Analysis on Regular Corner Spaces. Journal of Geometric Analysis, 2021, 31, 9199-9240.	0.5	2
95	Inhibition of UVA Damage on Human Skin Dermis Fibroblasts by the Isoflavonoid Intermediate Deoxybenzoin-3A. Chemical Research in Toxicology, 2021, 34, 1133-1139.	1.7	2
96	Corner Operators with Symbol Hierarchies. Advances in Applied Clifford Algebras, 2021, 31, 1.	0.5	2
97	Exact Bounds and Approximating Solutions to the Fredholm Integral Equations of Chandrasekhar Type. Taiwanese Journal of Mathematics, 2019, 23, .	0.2	2
98	POMPEIU PROBLEM FOR SETS OF HIGHER CODIMENSION IN EUCLIDEAN AND HEISENBERG SETTINGS. Taiwanese Journal of Mathematics, 2008, 12, .	0.2	2
99	Determining a surface breaking crack from steady-state electrical boundary measurements-numerical results. Inverse Problems in Science and Engineering, 1997, 5, 279-308.	0.5	1
100	An identity related to the riesz transforms on the heisenberg group. Complex Variables and Elliptic Equations, 2000, 40, 395-421.	0.2	1
101	A Difference Equation Arising from Logistic Population Growth. Applicable Analysis, 2004, 83, 579-598.	0.6	1
102	Geometric analysis on a family of pseudoconvex hypersurfaces. Complex Variables and Elliptic Equations, 2005, 50, 803-835.	0.2	1
103	Mathematical analysis of the two-color partial rainbow options. Applicable Analysis, 2005, 84, 737-757.	0.6	1
104	Geometric analysis on quaternion anisotropic Carnot groups. Doklady Mathematics, 2008, 77, 124-129.	0.1	1
105	Generalized Calderón-Zygmund operators on homogeneous groups and applications. Applicable Analysis, 2008, 87, 531-554.	0.6	1
106	Geometric mechanics on product Heisenberg groups. Applicable Analysis, 2009, 88, 243-283.	0.6	1
107	Trace of heat kernel, spectral zeta function and isospectral problem for sub-laplacians. Science in China Series A: Mathematics, 2009, 52, 2570-2589.	0.5	1
108	Mathematical modelling and analysis of Asian options with stochastic strike price. Applicable Analysis, 2012, 91, 91-104.	0.6	1

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109	Global connectivity and optimization on an infinite step distribution. <i>Advances in Applied Mathematics</i> , 2013, 50, 634-644.	0.4	1
110	Heat kernel asymptotic expansions for the Heisenberg sub-Laplacian and the Grushin operator. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2015, 471, 20140943.	1.0	1
111	Integrability conditions on a sub-Riemannian structure on $\mathbb{S}^3$ . <i>Analysis and Mathematical Physics</i> , 2017, 7, 9-18.	0.6	1
112	Periodic solutions for Hamiltonian equation associated with Gaussian potential. <i>Analysis and Mathematical Physics</i> , 2017, 7, 459-477.	0.6	1
113	Variational Analysis for Generalized Kolmogorov Operators. <i>Journal of Geometric Analysis</i> , 2018, 28, 2477-2502.	0.5	1
114	The utilization of a recursive algorithm to determine trends of soil moisture deficits in the Mid-Atlantic United States. <i>Climatic Change</i> , 2020, 163, 217-235.	1.7	1
115	Existence, uniqueness, and approximation solutions to linearized Chandrasekhar equation with sharp bounds. <i>Analysis and Mathematical Physics</i> , 2020, 10, 1.	0.6	1
116	CR Li-Yau gradient estimate for Witten Laplacian via Bakry-Emery pseudohermitian Ricci curvature. <i>Asian Journal of Mathematics</i> , 2018, 22, 223-256.	0.3	1
117	Heat kernels for a family of Grushin operators. <i>Methods and Applications of Analysis</i> , 2014, 21, 291-312.	0.1	1
118	Applications of the Poincaré inequality to extended Kantorovich method. <i>Journal of Inequalities and Applications</i> , 2006, 2006, 1-21.	0.5	0
119	Schrödinger equation with quartic potential and nonlinear filtering problem. , 2009, , .		0
120	Stochastic regression in terms of Brownian motion. <i>Applicable Analysis</i> , 2011, 90, 899-919.	0.6	0
121	Variational analysis and related topics: preface. <i>Applicable Analysis</i> , 2011, 90, 861-864.	0.6	0
122	Heat kernels for generalized Ornstein-Uhlenbeck operators. <i>Applicable Analysis</i> , 2014, 93, 2277-2311.	0.6	0
123	Initial Value Problem and the Heat Kernel for a Mixed Type Operator. <i>Journal of Geometric Analysis</i> , 2017, 27, 3285-3301.	0.5	0
124	Poincaré Lemma on Quaternion-like Heisenberg Groups. <i>Canadian Mathematical Bulletin</i> , 2018, 61, 495-508.	0.3	0
125	Volterra operators in the edge-calculus. <i>Analysis and Mathematical Physics</i> , 2018, 8, 551-570.	0.6	0
126	Evolution equations and diffusion operators for demographic dynamics. <i>Applicable Analysis</i> , 2019, , 1-16.	0.6	0



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127	A NOTE ON GENERALIZED CESÀRO OPERATORS. , 2003, , .		0
128	SUBRIEMANNIAN GEOMETRY AND SUBELLIPTIC PARTIAL DIFFERENTIAL EQUATIONS. , 2004, , .		0
129	Geometric Analysis on SubRiemannian Manifolds. , 2005, , .		0
130	10.1007/s11472-008-1031-2. , 2010, 77, 124.		0
131	Deconvolution for the Pompeiu Problem on the Heisenberg Group, I. Springer Proceedings in Mathematics, 2012, , 61-94.	0.5	0
132	LP solutions to the parameterized Fredholm integral equations associated with Chandrasekhar kernels. Applicable Analysis, 0, , 1-18.	0.6	0
133	Construction of Frames on the Heisenberg Groups. Analysis and Geometry in Metric Spaces, 2020, 8, 382-395.	0.2	0
134	On Liâ€Yau gradient estimate for sum of squares of vector fields up to higher step. Communications in Analysis and Geometry, 2020, 28, 565-606.	0.2	0
135	Methodology to quantify the role of intense precipitation runoff in soil moisture scarcity: a case study in the U.S. South from 1980-2020. J Agricultural Meteorology, 2022, 78, 78-87.	0.8	0
136	A twoâ€weight boundedness criterion on spaces of homogeneous type with its application to some elliptic boundary value problems. Mathematical Methods in the Applied Sciences, 0, , .	1.2	0
137	Vanishing theorem of Kohnâ€Rossi cohomology class and rigidity of Sasakian space form. Pure and Applied Mathematics Quarterly, 2022, 18, 411-436.	0.2	0