Terence Tao

List of Publications by Year
in descending order

110 papers	11,246 citations	81900 39 h-index	31849 101 g-index
114 all docs	114 docs citations	114 times ranked	6336 citing authors

#	ARTICLE	IF	CITATIONS
1	Stable signal recovery from incomplete and inaccurate measurements. Communications on Pure and Applied Mathematics, 2006, 59, 1207-1223.	3.1	5,372
2	A sum-product estimate in finite fields, and applications. Geometric and Functional Analysis, 2004, 14, 27-57.	1.8	310
3	A sharp bilinear restriction estimate for paraboloids. Geometric and Functional Analysis, 2003, 13, 1359-1384.	1.8	211
4	Random Matrices: Universality of Local Eigenvalue Statistics up to the Edge. Communications in Mathematical Physics, 2010, 298, 549-572.	2.2	165
5	An inverse theorem for the Gowers U^(s+1)[N]-norm. Annals of Mathematics, 2012, 176, 1231-1372.	4.2	149
6	The Brascampâ€"Lieb Inequalities: Finiteness, Structure and Extremals. Geometric and Functional Analysis, 2008, 17, 1343-1415.	1.8	135
7	GLOBAL WELL-POSEDNESS OF THE BENJAMINâ€"ONO EQUATION IN H1(R). Journal of Hyperbolic Differential Equations, 2004, 01, 27-49.	0.5	131
8	Product set estimates for non-commutative groups. Combinatorica, 2008, 28, 547-594.	1.2	126
9	Global Regularity of Wave MapsÂ¶II. Small Energy in Two Dimensions. Communications in Mathematical Physics, 2001, 224, 443-544.	2.2	125
10	AN INVERSE THEOREM FOR THE GOWERS $U^3(G)$ NORM. Proceedings of the Edinburgh Mathematical Society, 2008, 51, 73-153.	0.3	125
11	Sharp well-posedness and ill-posedness results for a quadratic non-linear SchrÃ¶dinger equation. Journal of Functional Analysis, 2006, 233, 228-259.	1.4	122
12	Norm convergence of multiple ergodic averages for commuting transformations. Ergodic Theory and Dynamical Systems, 2008, 28, 657-688.	0.6	122
13	The structure of approximate groups. Publications Mathematiques De L'Institut Des Hautes Etudes Scientifiques, 2012, 116, 115-221.	4.3	121
14	Approximate Subgroups of Linear Groups. Geometric and Functional Analysis, 2011, 21, 774-819.	1.8	114
15	A variant of the hypergraph removal lemma. Journal of Combinatorial Theory - Series A, 2006, 113, 1257-1280.	0.8	94
16	Outliers in the spectrum of iid matrices with bounded rank perturbations. Probability Theory and Related Fields, 2013, 155, 231-263.	1.8	93
17	Random Matrices: the Distribution of the Smallest Singular Values. Geometric and Functional Analysis, 2010, 20, 260-297.	1.8	91
18	Minimal-mass blowup solutions of the mass-critical NLS. Forum Mathematicum, 2008, 20, .	0.7	85

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19	An Incidence Theorem in Higher Dimensions. Discrete and Computational Geometry, 2012, 48, 255-280.	0.6	74
20	On random ±1 matrices: Singularity and determinant. Random Structures and Algorithms, 2006, 28, 1-23.	1.1	72
21	Endpoint bilinear restriction theorems for the cone, and some sharp null form estimates. Mathematische Zeitschrift, 2001, 238, 215-268.	0.9	69
22	On the asymptotic behavior of large radial data for a focusing non-linear Schrödinger equation. Dynamics of Partial Differential Equations, 2004, 1, 1-47.	0.9	67
23	Long gaps between primes. Journal of the American Mathematical Society, 2018, 31, 65-105.	3.9	64
24	On Sets Defining Few Ordinary Lines. Discrete and Computational Geometry, 2013, 50, 409-468.	0.6	57
25	Sumset and Inverse Sumset Theory for Shannon Entropy. Combinatorics Probability and Computing, 2010, 19, 603-639.	1.3	55
26	RANDOM MATRICES: UNIVERSAL PROPERTIES OF EIGENVECTORS. Random Matrices: Theory and Application, 2012, 01, 1150001.	1.1	54
27	Scattering for the quartic generalised Korteweg–de Vries equation. Journal of Differential Equations, 2007, 232, 623-651.	2.2	52
28	THE LOGARITHMICALLY AVERAGED CHOWLA AND ELLIOTT CONJECTURES FOR TWO-POINT CORRELATIONS. Forum of Mathematics, Pi, 2016, 4, .	2.0	51
29	Eigenvectors from eigenvalues: A survey of a basic identity in linear algebra. Bulletin of the American Mathematical Society, 2021, 59, 31-58.	1.5	49
30	Velocity averaging, kinetic formulations, and regularizing effects in quasi-linear PDEs. Communications on Pure and Applied Mathematics, 2007, 60, 1488-1521.	3.1	48
31	An Inverse Theorem for the Uniformity Seminorms Associated with the Action of $$\mathbb{F}^{\infty}_{p}$$. Geometric and Functional Analysis, 2010, 19, 1539-1596.	1.8	48
32	Local Universality of Zeroes of Random Polynomials. International Mathematics Research Notices, 2015, 2015, 5053-5139.	1.0	48
33	GLOBAL REGULARITY FOR A LOGARITHMICALLY SUPERCRITICAL DEFOCUSING NONLINEAR WAVE EQUATION FOR SPHERICALLY SYMMETRIC DATA. Journal of Hyperbolic Differential Equations, 2007, 04, 259-265.	0.5	46
34	A priori bounds and weak solutions for the nonlinear Schrödinger equation in Sobolev spaces of negative order. Journal of Functional Analysis, 2008, 254, 368-395.	1.4	43
35	A Finitary Version of Gromov's Polynomial Growth Theorem. Geometric and Functional Analysis, 2010, 20, 1502-1547.	1.8	43
36	Effective Limiting Absorption Principles, and Applications. Communications in Mathematical Physics, 2015, 333, 1-95.	2.2	43

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37	A (concentration-)compact attractor for high-dimensional non-linear Schrödinger equations. Dynamics of Partial Differential Equations, 2007, 4, 1-53.	0.9	43
38	Local well-posedness of the Yang–Mills equation in the temporal gauge below the energy norm. Journal of Differential Equations, 2003, 189, 366-382.	2.2	41
39	Global Regularity for the Maxwell-Klein-Gordon Equation with Small Critical Sobolev Norm in High Dimensions. Communications in Mathematical Physics, 2004, 251, 377-426.	2.2	39
40	Testability and repair of hereditary hypergraph properties. Random Structures and Algorithms, 2010, 36, 373-463.	1.1	38
41	The Inverse Conjecture for the Gowers Norm over Finite Fields in Low Characteristic. Annals of Combinatorics, 2012, 16, 121-188.	0.6	38
42	New bounds for Kakeya problems. Journal D'Analyse Mathematique, 2002, 87, 231-263.	0.8	37
43	L p estimates for the biest II. The Fourier case. Mathematische Annalen, 2004, 329, 427.	1.4	35
44	THE KAKEYA SET AND MAXIMAL CONJECTURES FOR ALGEBRAIC VARIETIES OVER FINITE FIELDS. Mathematika, 2010, 56, 1-25.	0.5	35
45	Spacetime bounds for the energy-critical nonlinear wave equation in three spatial dimensions. Dynamics of Partial Differential Equations, 2006, 3, 93-110.	0.9	35
46	Random matrices have simple spectrum. Combinatorica, 2017, 37, 539-553.	1.2	34
47	The weak-type (1,1) of Fourier integral operators of order –(n–1)/2. Journal of the Australian Mathematical Society, 2004, 76, 1-22.	0.4	32
48	A correspondence principle between (hyper)graph theory and probability theory, and the (hyper)graph removal lemma. Journal D'Analyse Mathematique, 2007, 103, 1-45.	0.8	31
49	A sharp inverse Littlewood-Offord theorem. Random Structures and Algorithms, 2010, 37, 525-539.	1.1	30
50	Multiple Recurrence in Quasirandom Groups. Geometric and Functional Analysis, 2014, 24, 1-48.	1.8	29
51	Low regularity semi—linear wave equations1. Communications in Partial Differential Equations, 1999, 24, 599-629.	2.2	28
52	A Strichartz Inequality for the Schrödinger Equation on Nontrapping Asymptotically Conic Manifolds. Communications in Partial Differential Equations, 2005, 30, 157-205.	2.2	28
53	Freiman's Theorem in Finite Fields via Extremal Set Theory. Combinatorics Probability and Computing, 2009, 18, 335-355.	1.3	26
54	An equivalence between inverse sumset theorems and inverse conjectures for theU3norm. Mathematical Proceedings of the Cambridge Philosophical Society, 2010, 149, 1-19.	0.4	25

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55	A REMARK ON PRIMALITY TESTING AND DECIMAL EXPANSIONS. Journal of the Australian Mathematical Society, 2011, 91, 405-413.	0.4	25
56	Uniform estimates on multi-linear operators with modulation symmetry. Journal D'Analyse Mathematique, 2002, 88, 255-309.	0.8	23
57	L p estimates for the biest I. The Walsh case. Mathematische Annalen, 2004, 329, 401.	1.4	23
58	Strongly dense free subgroups of semisimple algebraic groups. Israel Journal of Mathematics, 2012, 192, 347-379.	0.8	22
59	ENDPOINT MAPPING PROPERTIES OF SPHERICAL MAXIMAL OPERATORS. Journal of the Institute of Mathematics of Jussieu, 2003, 2, .	0.7	21
60	SIGN PATTERNS OF THE LIOUVILLE AND MÃ–BIUS FUNCTIONS. Forum of Mathematics, Sigma, 2016, 4, .	0.7	21
61	Random matrices: tail bounds for gaps between eigenvalues. Probability Theory and Related Fields, 2017, 167, 777-816.	1.8	21
62	The Gaussian primes contain arbitrarily shaped constellations. Journal D'Analyse Mathematique, 2006, 99, 109-176.	0.8	20
63	A nilpotent Freiman dimension lemma. European Journal of Combinatorics, 2013, 34, 1287-1292.	0.8	20
64	RANDOM MATRICES: SHARP CONCENTRATION OF EIGENVALUES. Random Matrices: Theory and Application, 2013, 02, 1350007.	1.1	20
65	COUNTING THE NUMBER OF SOLUTIONS TO THE ERDÅSâ€"STRAUS EQUATION ON UNIT FRACTIONS. Journal of the Australian Mathematical Society, 2013, 94, 50-105.	0.4	20
66	L p bounds for a maximal dyadic sum operator. Mathematische Zeitschrift, 2004, 246, 321-337.	0.9	19
67	AN INVERSE THEOREM FOR THE GOWERS U4-NORM. Glasgow Mathematical Journal, 2011, 53, 1-50.	0.3	18
68	Correlations of the von Mangoldt and higher divisor functions I. Long shift ranges. Proceedings of the London Mathematical Society, 2019, 118, 284-350.	1.3	18
69	A REMARK ON PARTIAL SUMS INVOLVING THE MÃ–BIUS FUNCTION. Bulletin of the Australian Mathematical Society, 2010, 81, 343-349.	0.5	17
70	New bounds for SzemerÃ©di's theorem, I: progressions of length 4 in finite field geometries. Proceedings of the London Mathematical Society, 2009, 98, 365-392.	1.3	16
71	A physical space approach to wave equation bilinear estimates. Journal D'Analyse Mathematique, 2002, 87, 299-336.	0.8	15
72	The asymptotic distribution of a single eigenvalue gap of a Wigner matrix. Probability Theory and Related Fields, 2013, 157, 81-106.	1.8	15

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73	Finite Time Blowup for Lagrangian Modifications of the Three-Dimensional Euler Equation. Annals of PDE, 2016, 2, 1.	1.8	15
74	Structure and Randomness in Combinatorics. , 2007, , .		14
75	Large values of the Gowers-Host-Kra seminorms. Journal D'Analyse Mathematique, 2012, 117, 133-186.	0.8	14
76	A quantitative version of the Besicovitch projection theorem via multiscale analysis. Proceedings of the London Mathematical Society, 2009, 98, 559-584.	1.3	13
77	AN INTEGRATION APPROACH TO THE TOEPLITZ SQUARE PEG PROBLEM. Forum of Mathematics, Sigma, 2017, 5, .	0.7	13
78	A global compact attractor for high-dimensional defocusing non-linear SchrÃ¶dinger equations with potential. Dynamics of Partial Differential Equations, 2008, 5, 101-116.	0.9	13
79	The Littlewood-Offord problem in high dimensions and a conjecture of Frankl and FÃ¼redi. Combinatorica, 2012, 32, 363-372.	1.2	12
80	Scale-oblivious metric fragmentation and the nonlinear Dvoretzky theorem. Israel Journal of Mathematics, 2012, 192, 489-504.	0.8	12
81	NEW BOUNDS FOR SZEMERÃ‰DI'S THEOREM, III: A POLYLOGARITHMIC BOUND FOR. Mathematika, 2017, 63, 944-1040.	0.5	12
82	THE DE BRUIJNâ€"NEWMAN CONSTANT IS NON-NEGATIVE. Forum of Mathematics, Pi, 2020, 8, .	2.0	12
83	A NOTE ON THE FREIMAN AND BALOGâ€"SZEMERÃ‰Dâ€"GOWERS THEOREMS IN FINITE FIELDS. Journal of the Australian Mathematical Society, 2009, 86, 61-74.	0.4	11
84	Cancellation for the multilinear Hilbert transform. Collectanea Mathematica, 2016, 67, 191-206.	0.9	10
85	A quantitative formulation of the global regularity problem for the periodic Navier-Stokes equation. Dynamics of Partial Differential Equations, 2007, 4, 293-302.	0.9	10
86	Correlations of the von Mangoldt and higher divisor functions II: divisor correlations in short ranges. Mathematische Annalen, 2019, 374, 793-840.	1.4	9
87	Fourier uniformity of bounded multiplicative functions in short intervals on average. Inventiones Mathematicae, 2020, 220, 1-58.	2.5	9
88	Uniform estimates on paraproducts. Journal D'Analyse Mathematique, 2002, 87, 369-384.	0.8	8
89	A multi-dimensional SzemerÃ©di theorem for the primes via a correspondence principle. Israel Journal of Mathematics, 2015, 207, 203-228.	0.8	8
90	Multiple recurrence and convergence results associated to $${ext{F}}_P^omega $$ -actions. Journal D'Analyse Mathematique, 2015, 127, 329-378.	0.8	7

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91	An Inverse Theorem for an Inequality of Kneser. Proceedings of the Steklov Institute of Mathematics, 2018, 303, 193-219.	0.3	7
92	Zarankiewicz's problem for semilinear hypergraphs. Forum of Mathematics, Sigma, 2021, 9, .	0.7	7
93	The effective potential of an <i>M</i>-matrix. Journal of Mathematical Physics, 2021, 62, .	1.1	7
94	THE IONESCU–WAINGER MULTIPLIER THEOREM AND THE ADELES. Mathematika, 2021, 67, 647-677.	0.5	7
95	Sum-free sets in groups: a survey. Electronic Journal of Combinatorics, 2017, 8, 541-552.	0.1	7
96	Almost all orbits of the Collatz map attain almost bounded values. Forum of Mathematics, Pi, 2022, 10, .	2.0	7
97	Some light on Littlewood-Paley theory. Mathematische Annalen, 2001, 321, 885-888.	1.4	6
98	An uncountable Moore–Schmidt theorem. Ergodic Theory and Dynamical Systems, 2023, 43, 2376-2403.	0.6	6
99	MIXING FOR PROGRESSIONS IN NONABELIAN GROUPS. Forum of Mathematics, Sigma, 2013, 1, .	0.7	5
100	FAILURE OF THE POINTWISE AND MAXIMAL ERGODIC THEOREMS FOR THE FREE GROUP. Forum of Mathematics, Sigma, 2015, 3, .	0.7	5
101	POLYNOMIAL PATTERNS IN THE PRIMES. Forum of Mathematics, Pi, 2018, 6, .	2.0	5
102	Analysis and applications: The mathematical work of Elias Stein. Bulletin of the American Mathematical Society, 2020, 57, 523-594.	1.5	5
103	Effective approximation of heat flow evolution of the Riemann $$\xi$$ function, and a new upper bound for the de Bruijn–Newman constant. Research in Mathematical Sciences, 2019, 6, 1.	1.0	4
104	SHARP BOUNDS FOR MULTILINEAR CURVED KAKEYA, RESTRICTION AND OSCILLATORY INTEGRAL ESTIMATES AWAY FROM THE ENDPOINT. Mathematika, 2020, 66, 517-576.	0.5	4
105	On the universality of potential well dynamics. Dynamics of Partial Differential Equations, 2017, 14, 219-238.	0.9	4
106	Finite time blowup for high dimensional nonlinear wave systems with bounded smooth nonlinearity. Communications in Partial Differential Equations, 2016, 41, 1204-1229.	2.2	2
107	Structure and Randomness in Combinatorics. , 2007, , .		2
108	VALUE PATTERNS OF MULTIPLICATIVE FUNCTIONS AND RELATED SEQUENCES. Forum of Mathematics, Sigma, 2019, 7, .	0.7	1

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109	Optimal Sine and Sawtooth Inequalities. Journal of Fourier Analysis and Applications, 2022, 28, 1.	1.0	1
110	Singmaster's Conjecture In The Interior Of Pascal's Triangle. Quarterly Journal of Mathematics, 2022, 73, 1137-1177.	0.8	1