Doron Zeilberger

List of Publications by Year
in descending order

117 papers	3,347 citations	257101 24 h-index	174990 52 g-index
121 all docs	121 docs citations	121 times ranked	752 citing authors

#	Article	IF	Citations
1	A holonomic systems approach to special functions identities. Journal of Computational and Applied Mathematics, 1990, 32, 321-368.	1.1	352
2	The method of creative telescoping. Journal of Symbolic Computation, 1991, 11, 195-204.	0.5	298
3	An algorithmic proof theory for hypergeometric (ordinary and "q") multisum/integral identities. Inventiones Mathematicae, 1992, 108, 575-633.	1.3	276
4	A fast algorithm for proving terminating hypergeometric identities. Discrete Mathematics, 1990, 80, 207-211.	0.4	179
5	The method of differentiating under the integral sign. Journal of Symbolic Computation, 1990, 10, 571-591.	0.5	111
6	Rational functions certify combinatorial identities. Journal of the American Mathematical Society, 1990, 3, 147-147.	1.9	106
7	Resurrecting the asymptotics of linear recurrences. Journal of Mathematical Analysis and Applications, 1985, 111, 162-176.	0.5	105
8	Multi-variable Zeilberger and Almkvist–Zeilberger algorithms and the sharpening of Wilf–Zeilberger theory. Advances in Applied Mathematics, 2006, 37, 139-152.	0.4	90
9	A Combinatorial Proof of Bass's Evaluations of the Ihara-Selberg Zeta Function for Graphs. Transactions of the American Mathematical Society, 1999, 351, 2257-2274.	0.5	84
10	Random walk in a Weyl chamber. Proceedings of the American Mathematical Society, 1992, 115, 27-31.	0.4	83
11	A proof of Andrews' q-Dyson conjecture. Discrete Mathematics, 1985, 54, 201-224.	0.4	74
12	Denert's Permutation Statistic Is Indeed Euler–Mahonian. Studies in Applied Mathematics, 1990, 83, 31-59.	1.1	68
13	The Goulden–Jackson cluster method: extensions, applications and implementations. Journal of Difference Equations and Applications, 1999, 5, 355-377.	0.7	64
14	A combinatorial approach to matrix algebra. Discrete Mathematics, 1985, 56, 61-72.	0.4	61
15	A symbolic computation approach to a problem involving multivariate Poisson distributions. Advances in Applied Mathematics, 2010, 44, 359-377.	0.4	56
16	Andre's reflection proof generalized to the many-candidate ballot problem. Discrete Mathematics, 1983, 44, 325-326.	0.4	45
17	Kathy O'Hara's Constructive Proof of the Unimodality of the Gaussian Polynomials. American Mathematical Monthly, 1989, 96, 590.	0.2	35
18	Sister Celine's technique and its generalizations. Journal of Mathematical Analysis and Applications, 1982, 85, 114-145.	0.5	34

#	ARTICLE	IF	CITATIONS
19	Proof of Ira Gessel's lattice path conjecture. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 11502-11505.	3.3	33
20	The quantum MacMahon Master Theorem. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 13928-13931.	3.3	31
21	Sharp upper bounds for the orders of the recurrences output by the Zeilberger and <mml:math altimg="si1.gif" display="inline" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-aff/dtd" xmlns:ce="http://www.elsevier.com/xml/common/dtd" xmlns:xlink="http://www.w3.org/1999/xlink" xmlns:cals="http://www.elsevier.com/xml/common/cals/dtd" xmlns:sa="http://www.elsevier.com/xml/common/struct-aff/dtd">	0.5	30
22	Refined Restricted Permutations. Annals of Combinatorics, 2002, 6, 427-444.	0.3	28
23	A combinatorial proof of Dyson's conjecture. Discrete Mathematics, 1982, 41, 317-321.	0.4	27
24	Enumeration Schemes and, more importantly, their automatic generation. Annals of Combinatorics, 1998, 2, 185-195.	0.3	27
25	The Umbral Transfer-Matrix Method. I. Foundations. Journal of Combinatorial Theory - Series A, 2000, 91, 451-463.	0.5	25
26	Theorems for a price: tomorrow's semi-rigorous mathematical culture. Mathematical Intelligencer, 1994, 16, 11-18.	0.1	24
27	A q-Foata Proof of the q-Saalschütz Identity. European Journal of Combinatorics, 1987, 8, 461-463.	0.5	23
28	Towards computerized proofs of identities. Bulletin of the American Mathematical Society, 1990, 23, 77-83.	0.8	22
29	A proof of Andrews' q-Dyson conjecture. Discrete Mathematics, 2006, 306, 1039-1059.	0.4	22
30	Bijecting Euler's Partitions-Recurrence. American Mathematical Monthly, 1985, 92, 54-55.	0.2	21
31	Six etudes in generating functions. International Journal of Computer Mathematics, 1989, 29, 201-215.	1.0	21
32	A Pentagonal Number Sieve. Journal of Combinatorial Theory - Series A, 1998, 82, 186-192.	0.5	20
33	A Markov chain occurring in enzyme kinetics. Journal of Mathematical Biology, 1982, 15, 351-357.	0.8	19
34	A Proof of the G_2 Case of Macdonald's Root System-Dyson Conjecture. SIAM Journal on Mathematical Analysis, 1987, 18, 880-883.	0.9	18
35	A short Rogers-Ramanujan bijection. Discrete Mathematics, 1982, 38, 313-315.	0.4	17
36	Bijecting Euler's Partitions-Recurrence. American Mathematical Monthly, 1985, 92, 54.	0.2	17

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37	A Stembridge-Stanton style elementary proof of the Habsieger-Kadell q-Morris identity. Discrete Mathematics, 1990, 79, 313-322.	0.4	17
38	Three-Rowed CHOMP. Advances in Applied Mathematics, 2001, 26, 168-179.	0.4	17
39	The Holonomic Ansatz II. Automatic Discovery(!) And Proof(!!) of Holonomic Determinant Evaluations. Annals of Combinatorics, 2007, 11, 241-247.	0.3	17
40	A Unified Approach to Macdonald's Root-System Conjectures. SIAM Journal on Mathematical Analysis, 1988, 19, 987-1013.	0.9	16
41	Rational function certification of multisum/integral/"?"•identities. Bulletin of the American Mathematical Society, 1992, 27, 148-153.	0.8	16
42	On the asymptotic statistics of the number of occurrences of multiple permutation patterns. Electronic Journal of Combinatorics, 2015, 6, 117-143.	0.1	16
43	Generalized Rogers-Ramanujan bijections. Advances in Mathematics, 1989, 78, 42-75.	0.5	14
44	A Short Proof of Jacobi's Formula for the Number of Representations of an Integer as a Sum of Four Squares. American Mathematical Monthly, 1993, 100, 274.	0.2	14
45	The Collector?s Brotherhood Problem using the Newman-Shepp symbolic method. Algebra Universalis, 2003, 49, 387-395.	0.2	14
46	Garsia and Milne's bijective proof of the inclusion-exclusion principle. Discrete Mathematics, 1984, 51, 109-110.	0.4	13
47	Automated discovery and proof of congruence theorems for partial sums of combinatorial sequences. Journal of Difference Equations and Applications, 2016, 22, 780-788.	0.7	13
48	The Algebra of Linear Partial Difference Operators and Its Applications. SIAM Journal on Mathematical Analysis, 1980, 11, 919-932.	0.9	12
49	How to do Monthly Problems With Your Computer. American Mathematical Monthly, 1997, 104, 505-519.	0.2	12
50	On Fraenkel's N-Heap Wythoff's Conjectures. Annals of Combinatorics, 2004, 8, 225-238.	0.3	12
51	Symbolic Moment Calculus I: Foundations and Permutation Pattern Statistics. Annals of Combinatorics, 2004, 8, 369-378.	0.3	12
52	Disturbing the Dyson Conjecture (in a GOOD Way). Experimental Mathematics, 2006, 15, 187-191.	0.5	12
53	The C-finite ansatz. Ramanujan Journal, 2013, 31, 23-32.	0.4	12
54	The J.C.P. miller recurrence for exponentiating a polynomial, and its q- analog. Journal of Difference Equations and Applications, 1995, 1, 57-60.	0.7	11

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55	Babson–Steingrímsson Statistics are Indeed Mahonian (and Sometimes Even Euler–Mahonian). Advances in Applied Mathematics, 2001, 27, 390-404.	0.4	11
56	The quasi-holonomic ansatz and restricted lattice walks. Journal of Difference Equations and Applications, 2008, 14, 1119-1126.	0.7	11
57	Using the "Freshman's Dream" to Prove Combinatorial Congruences. American Mathematical Monthly, 2017, 124, 597.	0.2	11
58	Enumeration of words by their number of mistakes. Discrete Mathematics, 1981, 34, 89-91.	0.4	10
59	Chomp, Recurrences and Chaos(?). Journal of Difference Equations and Applications, 2004, 10, 1281-1293.	0.7	10
60	Curing the andrews syndrome. Journal of Difference Equations and Applications, 1998, 4, 299-310.	0.7	9
61	A case study in meta-automation: automatic generation of congruence automata for combinatorial sequences. Journal of Difference Equations and Applications, 2014, 20, 973-988.	0.7	9
62	Explicit expressions for the expectation, variance and higher moments of the size of a (2n + 1,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 2017, 23, 1241-1254.	0.7	8
63	A WZ PROOF OF RAMANUJAN'S FORMULA FOR ϊ€. , 1995, , 107-108.		8
64	A new basis for discrete analytic polynomials. Journal of the Australian Mathematical Society, 1977, 23, 95-104.	0.3	7
65	Proof of a conjecture on multisets of hook numbers. Annals of Combinatorics, 1997, 1, 391-394.	0.3	7
66	Automatic discovery of irrationality proofs and irrationality measures. International Journal of Number Theory, 2021, 17, 815-825.	0.2	7
67	A 21st century proof of Dougall's hypergeometric sum identity. Journal of Mathematical Analysis and Applications, 1990, 147, 610-611.	0.5	6
68	The Goulden–Jackson Cluster Method for Cyclic Words. Advances in Applied Mathematics, 2000, 25, 228-232.	0.4	6
69	How to generate as many Somos-like miracles as you wish[∗]. Journal of Difference Equations and Applications, 2014, 20, 852-858.	0.7	6
70	Integrals Involving Rudin–Shapiro Polynomials and Sketch of a Proof of Saffari's Conjecture. Springer Proceedings in Mathematics and Statistics, 2017, , 253-265.	0.1	6
71	The Automatic Central Limit Theorems Generator (and Much More!). , 2009, , 165-174.		6
72	Identities in search of identity. Theoretical Computer Science, 1993, 117, 23-38.	0.5	5

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73	The Holonomic Ansatz I. Foundations and Applications to Lattice Path Counting. Annals of Combinatorics, 2007, 11, 227-239.	0.3	5
74	Rademacher's infinite partial fraction conjecture is (almost certainly) false. Journal of Difference Equations and Applications, 2013, 19, 680-689.	0.7	5
75	The irrationality measure of Ï€ is at most 7.103205334137â€¦. Moscow Journal of Combinatorics and Number Theory, 2020, 9, 407-419.	0.2	5
76	Partial difference equations in m1â©¾m2â©¾â‾â©¾mnâ©¾0 and their applications to combinatorics. Discrete Mathematics, 1980, 31, 65-77.	0.4	4
77	A maple program that finds, and proves, recurrences and differential equations satisfied by hyperexponential definite integrals. SIGSAM Bulletin: A Quarterly Publication of the Special Interest Group on Symbolic & Algebraic Manipulation, 1991, 25, 14-17.	0.3	4
78	Proof of a q-analog of a constant term identity conjectured by forrester. Journal of Combinatorial Theory - Series A, 1994, 66, 311-312.	0.5	4
79	Using Rota's Umbral calculus to enumerate Stanley's P-partitions. Advances in Applied Mathematics, 2008, 41, 206-213.	0.4	4
80	The 1958 Pekeris-Accad-WEIZAC Ground-Breaking Collaboration that Computed Ground States of Two-Electron Atoms (and its 2010 Redux). Mathematical Intelligencer, 2011, 33, 52-57.	0.1	4
81	Using Noonanâ€"Zeilberger Functional Equations to enumerate (in polynomial time!) generalized Wilf classes. Advances in Applied Mathematics, 2013, 50, 356-366.	0.4	4
82	A combinatorial-probabilistic analysis of bitcoin attacks. Journal of Difference Equations and Applications, 2019, 25, 56-63.	0.7	4
83	An Enquiry Concerning Human (and Computer!) [Mathematical] Understanding. , 2007, , 383-410.		4
84	How likely is Polya's drunkard to stay in x? y?z?. Journal of Statistical Physics, 1989, 57, 1129-1135.	0.5	3
85	Automated counting of lego towers. Journal of Difference Equations and Applications, 1999, 5, 323-333.	0.7	3
86	A fast algorithm for proving terminating hypergeometric identities. Discrete Mathematics, 2006, 306, 1072-1075.	0.4	3
87	A Translation Method for Finding Combinatorial Bijections. Annals of Combinatorics, 2009, 13, 383-402.	0.3	3
88	Automatic Generation of Theorems and Proofs on Enumerating Consecutive-Wilf Classes. , 2013, , 121-138.		3
89	Towards a WZ Evolution of the Mehta Integral. SIAM Journal on Mathematical Analysis, 1994, 25, 812-814.	0.9	2
90	Experiments with a Positivity-Preserving Operator. Experimental Mathematics, 2008, 17, 341-345.	0.5	2

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91	A symbolic finite-state approach for automated proving of theorems in combinatorial game theory. Journal of Difference Equations and Applications, 2009, 15, 111-118.	0.7	2
92	A new algorithm for proving global asymptotic stability of rational difference equations. Journal of Difference Equations and Applications, 2012, 18, 1853-1873.	0.7	2
93	Zeroless arithmetic: representing integers ONLY using ONE. Journal of Difference Equations and Applications, 2013, 19, 1921-1926.	0.7	2
94	A Short Proof of McDougallâ€™s Circle Theorem. American Mathematical Monthly, 2014, 121, 263.	0.2	2
95	The (Ordinary) Generating Functions Enumerating 123-Avoiding Words with r Occurrences of Each of 1, 2, . . . , n Are Always Algebraic. Annals of Combinatorics, 2016, 20, 387-396.	0.3	2
96	D.H. Lehmerâ€™s Tridiagonal Determinant: An Ã‰tude in (Andrews-Inspired) Experimental Mathematics. Annals of Combinatorics, 2019, 23, 717-724.	0.3	2
97	A Simple Rederivation of Onsagerâ€™s Solution of the 2D Ising Model Using Experimental Mathematics. Mathematical Intelligencer, 2019, 41, 1-6.	0.1	2
98	Increasing consecutive patterns in words. Journal of Algebraic Combinatorics, 2020, 51, 89-101.	0.4	2
99	Tweaking the Beukers integrals in search of more miraculous irrationality proofs a la ApÃ©ry. Ramanujan Journal, 2022, 58, 973-994.	0.4	2
100	Enumerating totally clean words. Discrete Mathematics, 1987, 64, 313-315.	0.4	1
101	The Odlyzko conjecture and Oâ€™Haraâ€™s unimodality proof. Proceedings of the American Mathematical Society, 1989, 107, 39-39.	0.4	1
102	How joe gillis discovered combinatorial special function theory. Mathematical Intelligencer, 1995, 17, 65-66.	0.1	1
103	Deconstructing the Zeilberger algorithmâ€. Journal of Difference Equations and Applications, 2005, 11, 851-856.	0.7	1
104	Identities in character tables ofSn. Journal of Difference Equations and Applications, 2016, 22, 272-279.	0.7	1
105	An Experimental Mathematics Approach to the Area Statistic of Parking Functions. Mathematical Intelligencer, 2019, 41, 1-8.	0.1	1
106	Two Definite Integrals That Are Definitely (and Surprisingly!) Equal. Mathematical Intelligencer, 2020, 42, 10-11.	0.1	1
107	Automatic conjecturing and proving of exact values of some infinite families of infinite continued fractions. Ramanujan Journal, 0, , 1.	0.4	1
108	Factorization of C-Finite Sequences. Springer Proceedings in Mathematics and Statistics, 2018, , 131-147.	0.1	1

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109	A discrete analogue of the Paley-Wiener theorem for bounded analytic functions in a half plane. Journal of the Australian Mathematical Society, 1977, 23, 376-378.	0.3	0
110	Teaching the computer how to discover(!) and then prove(!!) (all by itself(!!!)) analogues of Collatz's notorious 3xâ€,+â€,1 conjecture. Journal of Difference Equations and Applications, 2011, 17, 375-386.	0.7	0
111	How to gamble if you're in a hurry. Journal of Difference Equations and Applications, 2013, 19, 520-526.	0.7	0
112	Numerical and Symbolic Studies of the Peaceable Queens Problem. Experimental Mathematics, 2019, , 1-11.	0.5	0
113	A multi-computational exploration of some games of pure chance. Journal of Symbolic Computation, 2021, 104, 38-68.	0.5	0
114	ENCAPSULATE!. , 2002, , .		0
115	FIVE APPLICATIONS OF WILF-ZEILBERGER THEORY TO ENUMERATION AND PROBABILITY. , 2007, , .		0
116	Identities. The IMA Volumes in Mathematics and Its Applications, 1989, , 35-44.	0.5	0
117	Untying the Gordian Knot via Experimental Mathematics. Texts and Monographs in Symbolic Computation, 2020, , 387-410.	0.4	0