

Richard P Brent

List of Publications by Citations

Source: <https://exaly.com/author-pdf/6461001/richard-p-brent-publications-by-citations.pdf>

Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

100
papers

2,666
citations

23
h-index

50
g-index

116
ext. papers

2,995
ext. citations

1.5
avg, IF

4.96
L-index

#	Paper	IF	Citations
100	The Parallel Evaluation of General Arithmetic Expressions. <i>Journal of the ACM</i> , 1974 , 21, 201-206	2	518
99	Fast solution of toeplitz systems of equations and computation of Padé approximants. <i>Journal of Algorithms</i> , 1980 , 1, 259-295		272
98	Fast Multiple-Precision Evaluation of Elementary Functions. <i>Journal of the ACM</i> , 1976 , 23, 242-251	2	220
97	The Solution of Singular-Value and Symmetric Eigenvalue Problems on Multiprocessor Arrays. <i>SIAM Journal on Scientific and Statistical Computing</i> , 1985 , 6, 69-84		191
96	A Fortran Multiple-Precision Arithmetic Package. <i>ACM Transactions on Mathematical Software</i> , 1978 , 4, 57-70	2.3	150
95	Some Efficient Algorithms for Solving Systems of Nonlinear Equations. <i>SIAM Journal on Numerical Analysis</i> , 1973 , 10, 327-344	2.4	131
94	An improved Monte Carlo factorization algorithm. <i>BIT Numerical Mathematics</i> , 1980 , 20, 176-184	1.7	114
93	Modern Computer Arithmetic 2010 ,		105
92	Solving Triangular Systems on a Parallel Computer. <i>SIAM Journal on Numerical Analysis</i> , 1977 , 14, 1101-1113	1.3	64
91	Systolic VLSI Arrays for Polynomial GCD Computation. <i>IEEE Transactions on Computers</i> , 1984 , C-33, 731-736	1.6	61
90	Reducing the retrieval time of scatter storage techniques. <i>Communications of the ACM</i> , 1973 , 16, 105-109	1.5	54
89	Algorithm 488: A Gaussian pseudo-random number generator. <i>Communications of the ACM</i> , 1974 , 17, 704-706	2.5	53
88	MULTIPLE-PRECISION ZERO-FINDING METHODS AND THE COMPLEXITY OF ELEMENTARY FUNCTION EVALUATION 1976 , 151-176		49
87	Factorization of the eighth Fermat number. <i>Mathematics of Computation</i> , 1981 , 36, 627-627	1.6	41
86	On the periods of generalized Fibonacci recurrences. <i>Mathematics of Computation</i> , 1994 , 63, 389-389	1.6	33
85	On the zeros of the Riemann zeta function in the critical strip. <i>Mathematics of Computation</i> , 1979 , 33, 1361-1361	1.6	33
84	Algorithm 524: MP, A Fortran Multiple-Precision Arithmetic Package [A1]. <i>ACM Transactions on Mathematical Software</i> , 1978 , 4, 71-81	2.3	28

83	Random Krylov Spaces over Finite Fields. <i>SIAM Journal on Discrete Mathematics</i> , 2003 , 16, 276-287	0.7	26
82	Minimum-energy all-to-all multicasting in wireless ad hoc networks. <i>IEEE Transactions on Wireless Communications</i> , 2009 , 8, 5490-5499	9.6	25
81	Faster Multiplication in $GF(2)[x]$. <i>Lecture Notes in Computer Science</i> , 2008 , 153-166	0.9	24
80	Determinants and ranks of random matrices over Z_m . <i>Discrete Mathematics</i> , 1987 , 66, 35-49	0.7	23
79	Optimal iterative processes for root-finding. <i>Numerische Mathematik</i> , 1972 , 20, 327-341	2.2	23
78	On the Precision Attainable with Various Floating-Point Number Systems. <i>IEEE Transactions on Computers</i> , 1973 , C-22, 601-607	2.5	23
77	Computation Of The Generalized Singular Value Decomposition Using Mesh-Connected Processors 1983 , 0431, 66		20
76	Recent Progress and Prospects for Integer Factorisation Algorithms. <i>Lecture Notes in Computer Science</i> , 2000 , 3-22	0.9	19
75	Algorithmic Fault Tolerance Using the Lanczos Method. <i>SIAM Journal on Matrix Analysis and Applications</i> , 1992 , 13, 312-332	1.5	18
74	Fast local convergence with single and multistep methods for nonlinear equations 1975 , 19, 173-199		18
73	The first occurrence of large gaps between successive primes. <i>Mathematics of Computation</i> , 1973 , 27, 959-959	1.6	15
72	Irregularities in the distribution of primes and twin primes. <i>Mathematics of Computation</i> , 1975 , 29, 43-43	1.6	14
71	Note on Marsaglia's Xorshift Random Number Generators. <i>Journal of Statistical Software</i> , 2004 , 11,	7.3	14
70	Factorization of the tenth Fermat number. <i>Mathematics of Computation</i> , 1999 , 68, 429-452	1.6	13
69	Algorithms for finding almost irreducible and almost primitive trinomials 2004 , 91-102		13
68	Error bounds on complex floating-point multiplication. <i>Mathematics of Computation</i> , 2007 , 76, 1469-1482	2.6	12
67	Stability analysis of a general toeplitz systems solver. <i>Numerical Algorithms</i> , 1995 , 10, 225-244	2.1	12
66	Some New Algorithms for High-Precision Computation of Euler's Constant. <i>Mathematics of Computation</i> , 1980 , 34, 305	1.6	11

65	Note on best possible bounds for determinants of matrices close to the identity matrix. <i>Linear Algebra and Its Applications</i> , 2015 , 466, 21-26	0.9	10
64	Some Area-Time Tradeoffs for VLSI. <i>SIAM Journal on Computing</i> , 1982 , 11, 737-747	1.1	10
63	The first occurrence of certain large prime gaps. <i>Mathematics of Computation</i> , 1980 , 35, 1435-1435	1.6	9
62	A new lower bound for odd perfect numbers. <i>Mathematics of Computation</i> , 1989 , 53, 431	1.6	8
61	The distribution of small gaps between successive primes. <i>Mathematics of Computation</i> , 1974 , 28, 315-315	1.6	8
60	Reproducibility in Computational Science: A Case Study: Randomness of the Digits of Pi. <i>Experimental Mathematics</i> , 2017 , 26, 298-305	0.5	7
59	4. Stability of Fast Algorithms for Structured Linear Systems 1999 , 103-116		7
58	Table errata: {it Algorithms for minimization without derivatives} (Prentice-Hall, Englewood Cliffs, N. J., 1973). <i>Mathematics of Computation</i> , 1975 , 29, 1166	1.6	7
57	High-Performance Pseudo-Random Number Generation on Graphics Processing Units. <i>Lecture Notes in Computer Science</i> , 2012 , 609-618	0.9	7
56	Root optimization of polynomials in the number field sieve. <i>Mathematics of Computation</i> , 2015 , 84, 2447-2457	1.6	6
55	On computing factors of cyclotomic polynomials. <i>Mathematics of Computation</i> , 1993 , 61, 131-131	1.6	6
54	Multiple-Precision Zero-Finding Methods and the Complexity of Elementary Function Evaluation 1975 ,		6
53	Parallel Algorithms for Toeplitz Systems 1991 , 75-92		6
52	Parallel MCGLS and ICGLS Methods for Least Squares Problems on Distributed Memory Architectures. <i>Journal of Supercomputing</i> , 2004 , 29, 145-156	2.5	5
51	Random Number Generators with Period Divisible by a Mersenne Prime. <i>Lecture Notes in Computer Science</i> , 2003 , 1-10	0.9	5
50	A fast algorithm for testing reducibility of trinomials mod 2 and some new primitive trinomials of degree 3021377. <i>Mathematics of Computation</i> , 2002 , 72, 1443-1453	1.6	5
49	Computation of the Regular Continued Fraction for Euler's Constant. <i>Mathematics of Computation</i> , 1977 , 31, 771	1.6	5
48	The Computational Complexity of Iterative Methods for Systems of Nonlinear Equations 1972 , 61-71		5

47	Parallel Algorithms for Digital Signal Processing 1991 , 93-110		5
46	A comparative study of algorithms for computing continued fractions of algebraic numbers. <i>Lecture Notes in Computer Science</i> , 1996 , 35-47	0.9	5
45	Fast Computation of Bernoulli, Tangent and Secant Numbers. <i>Springer Proceedings in Mathematics and Statistics</i> , 2013 , 127-142	0.2	5
44	Algebraic Independence of Mahler Functions via Radial Asymptotics. <i>International Mathematics Research Notices</i> , 2015 , rnv139	0.8	4
43	Ten new primitive binary trinomials. <i>Mathematics of Computation</i> , 2008 , 78, 1197-1199	1.6	4
42	Fast and Reliable Random Number Generators for Scientific Computing. <i>Lecture Notes in Computer Science</i> , 2006 , 1-10	0.9	4
41	Old And New Algorithms For Toeplitz Systems 1988 , 0975, 2		4
40	An AUGMENT Interface for Brent's Multiple Precision Arithmetic Package. <i>ACM Transactions on Mathematical Software</i> , 1980 , 6, 146-149	2.3	4
39	Succinct proofs of primality for the factors of some Fermat numbers. <i>Mathematics of Computation</i> , 1982 , 38, 253-253	1.6	4
38	Correction to: Irregularities in the distribution of primes and twin primes [Math. Comp. {bf 29} (1975), 43B6]. <i>Mathematics of Computation</i> , 1976 , 30, 198	1.6	4
37	Computation of the regular continued fraction for Euler's constant. <i>Mathematics of Computation</i> , 1977 , 31, 771-771	1.6	4
36	Analysis of the Binary Euclidean Algorithm 1976 ,		4
35	$O((n \log n)^{3/2})$ ALGORITHMS FOR COMPOSITION AND REVERSION OF POWER SERIES 1976 , 217-225		4
34	Discrete analogues of Macdonald-Mehta integrals. <i>Journal of Combinatorial Theory - Series A</i> , 2016 , 144, 80-138	1	4
33	Adaptive AT2 optimal algorithms on reconfigurable meshes. <i>Parallel Computing</i> , 2000 , 26, 1447-1458	1	3
32	Random number generation and simulation on vector and parallel computers. <i>Lecture Notes in Computer Science</i> , 1998 , 1-20	0.9	3
31	A GENERAL-PURPOSE PARALLEL SORTING ALGORITHM. <i>International Journal of High Speed Computing</i> , 1995 , 07, 285-301		3
30	A Theoretical Foundation For The Weighted Checksum Scheme 1988 , 0975, 10		3

29	The Solution Of Singular Value Problems Using Systolic Arrays 1984 , 0495, 7		3
28	Some high-order zero-finding methods using almost orthogonal polynomials 1975 , 19, 1-29		3
27	Algorithms for Minimization Without Derivatives. <i>Mathematics of Computation</i> , 1974 , 28, 865	1.6	3
26	Some Parallel Algorithms for Integer Factorisation. <i>Lecture Notes in Computer Science</i> , 1999 , 1-22	0.9	3
25	A bound for the error term in the Brent-McMillan algorithm. <i>Mathematics of Computation</i> , 2015 , 84, 2351-2359	1.6	2
24	Extracting Significant Phrases from Text 2007 ,		2
23	High Precision Coefficients Related to the Zeta Function.. <i>Mathematics of Computation</i> , 1977 , 31, 803	1.6	2
22	A CLASS OF OPTIMAL-ORDER ZERO-FINDING METHODS USING DERIVATIVE EVALUATIONS 1976 , 59-73		2
21	A multi-level blocking distinct-degree factorization algorithm. <i>Contemporary Mathematics</i> , 2008 , 47-58	1.6	2
20	Constant Time Algorithms for Computing the Contour of Maximal Elements on a Reconfigurable Mesh. <i>Parallel Processing Letters</i> , 1998 , 08, 351-361	0.3	1
19	Choosing Small Weights For Multiple Error Detection 1989 , 1058, 130		1
18	Analysis of the binary Euclidean algorithm. <i>SIGSAM Bulletin: A Quarterly Publication of the Special Interest Group on Symbolic & Algebraic Manipulation</i> , 1976 , 10, 6-7		1
17	A note on continuation methods for the solution of nonlinear equations 1977 , 20, 157-164		1
16	FFT Extension for Algebraic-Group Factorization Algorithms 189-205		1
15	A HARMONIC SUM OVER NONTRIVIAL ZEROS OF THE RIEMANN ZETA-FUNCTION. <i>Bulletin of the Australian Mathematical Society</i> , 2020 , 1-7	0.4	1
14	A primitive trinomial of degree 6972593. <i>Mathematics of Computation</i> , 2004 , 74, 1001-1003	1.6	0
13	Some new algorithms for high-precision computation of Euler's constant. <i>Mathematics of Computation</i> , 1980 , 34, 305-305	1.6	0
12	BOUNDS ON MINORS OF BINARY MATRICES. <i>Bulletin of the Australian Mathematical Society</i> , 2013 , 88, 280-285	0.4	

- 11 Review of modern computer arithmetic, by Richard Brent and Paul Zimmermann. *ACM SIGACT News*, **2012**, 43, 49-51 0.3
- 10 Fast local convergence with single and multistep methods for nonlinear equations **1977**, 20, 254-254
- 9 Some New Algorithms for High-Precision Computation of Euler's Constant **2000**, 448-455
- 8 Fast Multiple-Precision Evaluation of Elementary Functions **2004**, 424-433
- 7 Some New Algorithms for High-Precision Computation of Euler's Constant **2004**, 448-455
- 6 The Borwein Brothers, Pi and the AGM. *Springer Proceedings in Mathematics and Statistics*, **2020**, 323-347 0.2
- 5 Computing Aurifeuillian Factors **1995**, 201-212
- 4 Fast Multiple-Precision Evaluation of Elementary Functions **1997**, 424-433
- 3 Fast multiple-precision evaluation of elementary functions (1976) **2016**, 9-20
- 2 Some New Algorithms for High-Precision Computation of Euler's Constant **1980**, 448-455
- 1 ON THE ACCURACY OF ASYMPTOTIC APPROXIMATIONS TO THE LOG-GAMMA AND RIEMANN'S SIEGEL THETA FUNCTIONS. *Journal of the Australian Mathematical Society*, **2019**, 107, 319-337 0.5