Claude Brezinski

List of Publications by Year
in descending order

129 papers	3,035 citations	186265 28 h-index	189892 50 g-index
160 all docs	160 docs citations	160 times ranked	739 citing authors

#	Article	IF	Citations
1	Shanks and Anderson-type acceleration techniques for systems of nonlinear equations. IMA Journal of Numerical Analysis, 2022, 42, 3058-3093.	2.9	4
2	Extrapolation and prediction of sequences in a vector space. Journal of Computational and Applied Mathematics, 2022, 409, 114164.	2.0	2
3	The Legacy of Peter Wynn. Mathematics, 2021, 9, 1240.	2.2	4
4	A Survey of Shanks' Extrapolation Methods and Their Applications. Computational Mathematics and Mathematical Physics, 2021, 61, 699-718.	0.8	2
5	Some unusual results on extrapolation methods. Numerical Algorithms, 2020, 84, 1241-1264.	1.9	0
6	Extrapolation and Rational Approximation. , 2020, , .		10
7	Vitæ. , 2020, , 311-338.		0
8	The Works of Peter Wynn. , 2020, , 85-168.		0
9	The Mathematical Landscape up to the Mid-Twentieth Century. , 2020, , 49-77.		0
10	Commentaries and Further Developments. , 2020, , 169-215.		0
11	The genesis and early developments of Aitken's process, Shanks' transformation, the ε-algorithm, and related fixed point methods. Numerical Algorithms, 2019, 80, 11-133.	1.9	25
12	Reminiscences of Peter Wynn. Numerical Algorithms, 2019, 80, 5-10.	1.9	3
13	Extrapolation methods for the numerical solution of nonlinear Fredholm integral equations. Journal of Integral Equations and Applications, 2019, 31, .	0.6	10
14	Zeros of quadratic quasi-orthogonal order 2 polynomials. Applied Numerical Mathematics, 2019, 135, 143-145.	2.1	4
15	Shanks Sequence Transformations and Anderson Acceleration. SIAM Review, 2018, 60, 646-669.	9.5	38
16	The simplified topological ε-algorithms: software and applications. Numerical Algorithms, 2017, 74, 1237-1260.	1.9	14
17	Shanks function transformations in a vector space. Applied Numerical Mathematics, 2017, 116, 57-63.	2.1	3
18	New representations of Padé, Padé-type, and partial Padé approximants. Journal of Computational and Applied Mathematics, 2015, 284, 69-77.	2.0	25

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19	Convergence acceleration of Kaczmarzâ€™s method. Journal of Engineering Mathematics, 2015, 93, 3-19.	1.2	15
20	The Simplified Topological $varepsilon$-Algorithms for Accelerating Sequences in a Vector Space. SIAM Journal of Scientific Computing, 2014, 36, A2227-A2247.	2.8	21
21	Multistep $?$â€"algorithm, Shanksâ€™ transformation, and the Lotkaâ€"Volterra system by Hirotaâ€™s method. Mathematics of Computation, 2012, 81, 1527-1549.	2.1	17
22	Moments of a linear operator, with applications to the trace of the inverse of matrices and the solution of equations. Numerical Linear Algebra With Applications, 2012, 19, 937-953.	1.6	18
23	A rational Arnoldi approach for ill-conditioned linear systems. Journal of Computational and Applied Mathematics, 2012, 236, 2063-2077.	2.0	6
24	Confluent Form of the Multistep É›â€'Algorithm, and the Relevant Integrable System. Studies in Applied Mathematics, 2011, 127, 191-209.	2.4	6
25	Extensions of Drummond's process for convergence acceleration. Applied Numerical Mathematics, 2010, 60, 1231-1241.	2.1	5
26	A generalization of the G-transformation and the related algorithms. Applied Numerical Mathematics, 2010, 60, 1221-1230.	2.1	5
27	From numerical quadrature to PadÃ© approximation. Applied Numerical Mathematics, 2010, 60, 1209-1220.	2.1	7
28	Nonlinear functional equations satisfied by orthogonal polynomials. Journal of Approximation Theory, 2010, 162, 2290-2302.	0.8	0
29	Extended procedures for extrapolation to the limit. Journal of Computational and Applied Mathematics, 2010, 235, 631-645.	2.0	3
30	Cross rules of some extrapolation algorithms. Inverse Problems, 2010, 26, 095013.	2.0	2
31	Cross rules and non-Abelian lattice equations for the discrete and confluent non-scalar Î¼-algorithms. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 205201.	2.1	7
32	Error estimates for the regularization of least squares problems. Numerical Algorithms, 2009, 51, 61-76.	1.9	51
33	A review of vector convergence acceleration methods, with applications to linear algebra problems. International Journal of Quantum Chemistry, 2009, 109, 1631-1639.	2.0	5
34	Some pioneers of extrapolation methods. , 2009, , 1-22.		5
35	Error estimates for linear systems with applications to regularization. Numerical Algorithms, 2008, 49, 85-104.	1.9	57
36	Rational extrapolation for the PageRank vector. Mathematics of Computation, 2008, 77, 1585-1598.	2.1	26

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37	A brief introduction to integrable systems. International Journal of Computing Science and Mathematics, 2007, 1, 98.	0.3	3
38	Cauchyâ€"Schwarz and Kantorovich type inequalities for scalar and matrix moment sequences. Advances in Computational Mathematics, 2007, 26, 71-80.	1.6	3
39	The PageRank Vector: Properties, Computation, Approximation, and Acceleration. SIAM Journal on Matrix Analysis and Applications, 2006, 28, 551-575.	1.4	47
40	Schur Complements and Applications in Numerical Analysis. , 2005, , 227-258.		6
41	New vector sequence transformations. Linear Algebra and Its Applications, 2004, 389, 189-213.	0.9	7
42	Extrapolation Algorithms for Filtering Series of Functions, and Treating the Gibbs Phenomenon. Numerical Algorithms, 2004, 36, 309-329.	1.9	55
43	Quasi-orthogonality with applications to some families of classical orthogonal polynomials. Applied Numerical Mathematics, 2004, 48, 157-168.	2.1	60
44	Altman's methods revisited. Applicationes Mathematicae, 2004, 31, 353-368.	0.1	0
45	A Classification of Quasi-Newton Methods. Numerical Algorithms, 2003, 33, 123-135.	1.9	29
46	A Tribute. Numerical Algorithms, 2003, 33, 3-9.	1.9	0
47	A Schur complement approach to a general extrapolation algorithm. Linear Algebra and Its Applications, 2003, 368, 279-301.	0.9	19
48	A review of formal orthogonality in Lanczos-based methods. Journal of Computational and Applied Mathematics, 2002, 140, 81-98.	2.0	8
49	Biorthogonal vector sequence transformations and PadÃ© approximation of vector series. Applied Numerical Mathematics, 2002, 41, 437-442.	2.1	3
50	Block Descent Methods and Hybrid Procedures for Linear Systems. Numerical Algorithms, 2002, 29, 21-32.	1.9	9
51	Block Projection Methods for Linear Systems. Numerical Algorithms, 2002, 29, 33-43.	1.9	3
52	Numerical analysis in the twentieth century. , 2001, , 1-40.		5
53	Convergence acceleration during the 20th century. Journal of Computational and Applied Mathematics, 2000, 122, 1-21.	2.0	131
54	The matrix and polynomial approaches to Lanczos-type algorithms. Journal of Computational and Applied Mathematics, 2000, 123, 241-260.	2.0	7

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55	Acceleration procedures for matrix iterative methods. Numerical Algorithms, 2000, 25, 63-73.	1.9	5
56	Variations on Lanczos' tridiagonalization process. Calcolo, 2000, 37, 159-179.	1.1	2
57	Multiparameter descent methods. Linear Algebra and Its Applications, 1999, 296, 113-141.	0.9	14
58	Krylov subspace methods, biorthogonal polynomials and Padé-type approximants. Numerical Algorithms, 1999, 21, 97-107.	1.9	4
59	Error Estimates for the Solution of Linear Systems. SIAM Journal of Scientific Computing, 1999, 21, 764-781.	2.8	34
60	Multiparameter Iterative Schemes for the Solution of Systems of Linear and Nonlinear Equations. SIAM Journal of Scientific Computing, 1999, 20, 2140-2159.	2.8	16
61	Transpose-free Lanczos-type algorithms for nonsymmetric linear systems. Numerical Algorithms, 1998, 17, 67-103.	1.9	15
62	Vector sequence transformations: Methodology and applications to linear systems. Journal of Computational and Applied Mathematics, 1998, 98, 149-175.	2.0	18
63	Nonlinear hybrid procedures and fixed point iterations. Numerical Functional Analysis and Optimization, 1998, 19, 465-487.	1.4	26
64	Projection methods for linear systems. Journal of Computational and Applied Mathematics, 1997, 77, 35-51.	2.0	13
65	Guido Walz,Asymptotics and Extrapolation. Journal of Approximation Theory, 1997, 90, 457-458.	0.8	0
66	The algebra of linear functionals on polynomials, with applications to Padé approximation. Numerical Algorithms, 1996, 11, 25-33.	1.9	7
67	A look-ahead strategy for the implementation of some old and new extrapolation methods. Numerical Algorithms, 1996, 11, 35-55.	1.9	4
68	A derivation of extrapolation algorithms based on error estimates. Journal of Computational and Applied Mathematics, 1996, 66, 5-26.	2.0	24
69	Extrapolation algorithms and Padé approximations: a historical survey. Applied Numerical Mathematics, 1996, 20, 299-318.	2.1	73
70	The methods of Vorobyev and Lanczos. Linear Algebra and Its Applications, 1996, 234, 21-41.	0.9	5
71	Vector and matrix sequence transformations based on biorthogonality. Applied Numerical Mathematics, 1996, 21, 353-373.	2.1	16
72	Acceleration properties of the hybrid procedure for solving linear systems. Applicationes Mathematicae, 1996, 23, 417-432.	0.1	1

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73	Look-ahead in Bi-CGSTAB and other product methods for linear systems. BIT Numerical Mathematics, 1995, 35, 169-201.	2.0	29
74	Matrix and vector sequence transformations revisited. Proceedings of the Edinburgh Mathematical Society, 1995, 38, 495-510.	0.3	12
75	A Taste of Padé Approximation. Acta Numerica, 1995, 4, 53-103.	10.7	30
76	Padé approximations. Handbook of Numerical Analysis, 1994, 3, 47-222.	1.8	24
77	Extrapolation methods. Applied Numerical Mathematics, 1994, 15, 123-131.	2.1	29
78	Treatment of near-breakdown in the CGS algorithm. Numerical Algorithms, 1994, 7, 33-73.	1.9	29
79	Biorthogonal polynomials and the bordering method for linear systems. Milan Journal of Mathematics, 1994, 64, 85-98.	0.1	2
80	On the kernel of sequence transformations. Applied Numerical Mathematics, 1994, 16, 239-244.	2.1	10
81	A general extrapolation procedure revisited. Advances in Computational Mathematics, 1994, 2, 461-477.	1.6	23
82	The Reverse Bordering Method. SIAM Journal on Matrix Analysis and Applications, 1994, 15, 922-937.	1.4	8
83	Orthogonal polynomials and the Lanczos method. Banach Center Publications, 1994, 29, 19-33.	0.1	0
84	Lanczos-type algorithms for solving systems of linear equations. Applied Numerical Mathematics, 1993, 11, 443-473.	2.1	58
85	The Mellin transformation and Fuchsian type partial differential equations. Mathematics and Computers in Simulation, 1993, 35, 188.	4.4	0
86	Least-squares orthogonal polynomials. Journal of Computational and Applied Mathematics, 1993, 46, 229-239.	2.0	14
87	Some vector sequence transformations with applications to systems of equations. Numerical Algorithms, 1992, 3, 75-80.	1.9	12
88	Addendum to "Avoiding breakdown and near-breakdown in Lanczos type algorithms". Numerical Algorithms, 1992, 2, 133-136.	1.9	20
89	Implementing the jackknife. Applied Mathematics and Computation, 1991, 42, 111-119.	2.2	1
90	Sequences of transformations and triangular recursion schemes, with applications in numerical analysis. Journal of Computational and Applied Mathematics, 1991, 34, 361-383.	2.0	33

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91	Generalizations of the Christoffel-Darboux identity for adjacent families of orthogonal polynomials. Applied Numerical Mathematics, 1991, 8, 193-199.	2.1	3
92	Construction of extrapolation processes. Applied Numerical Mathematics, 1991, 8, 11-23.	2.1	13
93	Optimal linear contractive sequence transformations. Journal of Computational and Applied Mathematics, 1991, 38, 45-59.	2.0	2
94	Avoiding breakdown in the CGS algorithm. Numerical Algorithms, 1991, 1, 199-206.	1.9	38
95	A new presentation of orthogonal polynomials with applications to their computation. Numerical Algorithms, 1991, 1, 207-221.	1.9	30
96	Avoiding breakdown and near-breakdown in Lanczos type algorithms. Numerical Algorithms, 1991, 1, 261-284.	1.9	77
97	Duality in Padé-type approximation. Journal of Computational and Applied Mathematics, 1990, 30, 351-357.	2.0	6
98	A direct proof of the Christoffel-Darboux identity and its equivalence to the recurrence relationship. Journal of Computational and Applied Mathematics, 1990, 32, 17-25.	2.0	17
99	Procedures for Estimating the Error in Pade Approximation. Mathematics of Computation, 1989, 53, 639.	2.1	9
100	On the asymptotic behaviour of continued fractions. Applied Numerical Mathematics, 1988, 4, 231-239.	2.1	2
101	Partial Padé approximation. Journal of Approximation Theory, 1988, 54, 210-233.	0.8	27
102	Other manifestations of the Schur complement. Linear Algebra and Its Applications, 1988, 111, 231-247.	0.9	72
103	Quasi-Linear Extrapolation Processes. International Series of Numerical Mathematics, 1988, , 61-78.	1.1	12
104	Successive modifications of limit periodic continued fractions. Journal of Computational and Applied Mathematics, 1987, 19, 67-74.	2.0	8
105	The linear convergence of limit periodic continued fractions. Journal of Computational and Applied Mathematics, 1987, 19, 75-77.	2.0	11
106	Acceleration of extended fibonacci sequences. Applied Numerical Mathematics, 1986, 2, 1-8.	2.1	13
107	On interpolatory multivariate Padé-type approximants. BIT Numerical Mathematics, 1986, 26, 254-258.	2.0	4
108	Prediction properties of some extrapolation methods. Applied Numerical Mathematics, 1985, 1, 457-462.	2.1	20

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109	Some determinantal identities in a vector space, with applications. Lecture Notes in Mathematics, 1984, , 1-11.	0.2	15
110	Recursive interpolation, extrapolation and projection. Journal of Computational and Applied Mathematics, 1983, 9, 369-376.	2.0	53
111	Convergence Acceleration by Extraction of Linear Subsequences. SIAM Journal on Numerical Analysis, 1983, 20, 1099-1105.	2.3	20
112	Error Control in Convergence Acceleration Processes. IMA Journal of Numerical Analysis, 1983, 3, 65-80.	2.9	26
113	Some new convergence acceleration methods. Mathematics of Computation, 1982, 39, 133-133.	2.1	33
114	A general extrapolation algorithm. Numerische Mathematik, 1980, 35, 175-187.	1.9	228
115	The mÃ¼hlbach-neville-aitken algorithm and some extensions. BIT Numerical Mathematics, 1980, 20, 443-451.	2.0	39
116	PadÃ©-Type Approximation and General Orthogonal Polynomials. International Series of Numerical Mathematics, 1980, , .	1.1	384
117	Approximants de Pade.. Mathematics of Computation, 1980, 35, 1034.	2.1	1
118	Rational approximation to formal power series. Journal of Approximation Theory, 1979, 25, 295-317.	0.8	54
119	Limiting relationships and comparison theorems for sequences. Rendiconti Del Circolo Matematico Di Palermo, 1979, 28, 273-280.	1.3	8
120	Sur le calcul de certains rapports de determinants. Lecture Notes in Mathematics, 1979, , 184-210.	0.2	7
121	Computation of PadÃ© approximants and continued fractions. Journal of Computational and Applied Mathematics, 1976, 2, 113-123.	2.0	22
122	Generalisations de la transformation de shanks, de la table de Pade et de l'Îµ-algorithme. Calcolo, 1975, 12, 317-360.	1.1	102
123	Numerical stability of a quadratic method for solving systems of non linear equations. Computing (Vienna/New York), 1975, 14, 205-211.	4.8	11
124	Computation of the Eigenelements of a matrix by the Îµ-algorithm. Linear Algebra and Its Applications, 1975, 11, 7-20.	0.9	22
125	Forme confluente de l'?-algorithme topologique. Numerische Mathematik, 1974, 23, 363-370.	1.9	7
126	Some results in the theory of the vector Îµ-algorithm. Linear Algebra and Its Applications, 1974, 8, 77-86.	0.9	26

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127	The solution of systems of equations using the ?-algorithm, and an application to boundary-value problems. Mathematics of Computation, 1974, 28, 731-741.	2.1	21
128	Etudes sur les ?- et ?-algorithmes. Numerische Mathematik, 1971, 17, 153-162.	1.9	27
129	Matrix Shanks Transformations. Electronic Journal of Linear Algebra, 0, 35, 248-265.	0.6	2