J Ac Weideman

List of Publications by Year
in descending order

30 papers	1,353 citations	471371 17 h-index	454834 30 g-index
30 all docs	30 docs citations	30 times ranked	851 citing authors

#	Article	IF	Citations
1	The Exponentially Convergent Trapezoidal Rule. SIAM Review, 2014, 56, 385-458.	4.2	334
2	Parabolic and hyperbolic contours for computing the Bromwich integral. Mathematics of Computation, 2007, 76, 1341-1357.	1.1	180
3	Talbot quadratures and rational approximations. BIT Numerical Mathematics, 2006, 46, 653-670.	1.0	147
4	Optimizing Talbotâ€™s Contours for the Inversion of the Laplace Transform. SIAM Journal on Numerical Analysis, 2006, 44, 2342-2362.	1.1	79
5	Two results on polynomial interpolation in equally spaced points. Journal of Approximation Theory, 1991, 65, 247-260.	0.5	65
6	An improved Talbot method for numerical Laplace transform inversion. Numerical Algorithms, 2015, 68, 167-183.	1.1	65
7	Computing the Hilbert transform on the real line. Mathematics of Computation, 1995, 64, 745-762.	1.1	61
8	A numerical methodology for the PainlevÃ© equations. Journal of Computational Physics, 2011, 230, 5957-5973.	1.9	56
9	Algorithms for Parameter Selection in the Weeks Method for Inverting the Laplace Transform. SIAM Journal of Scientific Computing, 1999, 21, 111-128.	1.3	53
10	Computing the Dynamics of Complex Singularities of Nonlinear PDEs. SIAM Journal on Applied Dynamical Systems, 2003, 2, 171-186.	0.7	30
11	Improved contour integral methods for parabolic PDEs. IMA Journal of Numerical Analysis, 2010, 30, 334-350.	1.5	29
12	A Contour Integral Method for the Blackâ€“Scholes and Heston Equations. SIAM Journal of Scientific Computing, 2011, 33, 763-785.	1.3	25
13	A Computational Exploration of the Second PainlevÃ© Equation. Foundations of Computational Mathematics, 2014, 14, 985-1016.	1.5	25
14	A numerical study of the nonlinear SchrÃ¶dinger equation involving quintic terms. Journal of Computational Physics, 1990, 86, 127-146.	1.9	24
15	Spectral methods and mappings for evolution equations on the infinite line. Computer Methods in Applied Mechanics and Engineering, 1990, 80, 467-481.	3.4	24
16	The Accuracy of the Chebyshev Differencing Method for Analytic Functions. SIAM Journal on Numerical Analysis, 2005, 42, 2176-2187.	1.1	23
17	PadÃ© approximations to the logarithm III: Alternative methods and additional results. Ramanujan Journal, 2006, 12, 299-314.	0.4	20
18	Numerical simulation of solitons and dromions in the Daveyâ€“Stewartson system. Mathematics and Computers in Simulation, 1994, 37, 469-479.	2.4	17

#	Article	IF	Citations
19	On the stability of the nonlinear SchrÃ¶dinger equation. Journal of Computational Physics, 1985, 60, 263-281.	1.9	15
20	An adaptive algorithm for spectral computations on unbounded domains. Journal of Computational Physics, 1992, 102, 398-406.	1.9	15
21	PadÃ© approximations to the logarithm II: Identities, recurrences, and symbolic computation. Ramanujan Journal, 2006, 11, 139-158.	0.4	14
22	PadÃ© Approximations to the Logarithm I: Derivation Via Differential Equations. Quaestiones Mathematicae, 2005, 28, 375-390.	0.2	10
23	Methods for the computation of the multivalued PainlevÃ© transcendents on their Riemann surfaces. Journal of Computational Physics, 2017, 344, 36-50.	1.9	8
24	A computational overview of the solution space of the imaginary PainlevÃ© II equation. Physica D: Nonlinear Phenomena, 2015, 309, 108-118.	1.3	7
25	A computational exploration of the McCoyâ€“Tracyâ€“Wu solutions of the third PainlevÃ© equation. Physica D: Nonlinear Phenomena, 2018, 363, 18-43.	1.3	7
26	Gauss–Hermite Quadrature for the Bromwich Integral. SIAM Journal on Numerical Analysis, 2019, 57, 2200-2216.	1.1	7
27	Optimal Domain Splitting for Interpolation by Chebyshev Polynomials. SIAM Journal on Numerical Analysis, 2014, 52, 1913-1927.	1.1	6
28	Dynamics of Semi-Discretizations of the Defocusing Nonlinear SchrÃ¶dinger Equation. IMA Journal of Numerical Analysis, 1991, 11, 539-552.	1.5	4
29	Contour Integral Solution of Elliptic PDEs in Cylindrical Domains. SIAM Journal of Scientific Computing, 2015, 37, A2630-A2655.	1.3	2
30	High accuracy representation of the free propagator. Applied Numerical Mathematics, 2009, 59, 2937-2949.	1.2	1