

# J Ac Weideman

## List of Publications by Year in descending order

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30  
papers

1,353  
citations

535685

17  
h-index

511568

30  
g-index

30  
all docs

30  
docs citations

30  
times ranked

962  
citing authors

#	ARTICLE	IF	CITATIONS
1	Gauss–Hermite Quadrature for the Bromwich Integral. <i>SIAM Journal on Numerical Analysis</i> , 2019, 57, 2200-2216.	1.1	7
2	A computational exploration of the McCoy–Tracy–Wu solutions of the third Painlevé equation. <i>Physica D: Nonlinear Phenomena</i> , 2018, 363, 18-43.	1.3	7
3	Methods for the computation of the multivalued Painlevé transcendents on their Riemann surfaces. <i>Journal of Computational Physics</i> , 2017, 344, 36-50.	1.9	8
4	Contour Integral Solution of Elliptic PDEs in Cylindrical Domains. <i>SIAM Journal of Scientific Computing</i> , 2015, 37, A2630-A2655.	1.3	2
5	A computational overview of the solution space of the imaginary Painlevé II equation. <i>Physica D: Nonlinear Phenomena</i> , 2015, 309, 108-118.	1.3	7
6	An improved Talbot method for numerical Laplace transform inversion. <i>Numerical Algorithms</i> , 2015, 68, 167-183.	1.1	65
7	A Computational Exploration of the Second Painlevé Equation. <i>Foundations of Computational Mathematics</i> , 2014, 14, 985-1016.	1.5	25
8	Optimal Domain Splitting for Interpolation by Chebyshev Polynomials. <i>SIAM Journal on Numerical Analysis</i> , 2014, 52, 1913-1927.	1.1	6
9	The Exponentially Convergent Trapezoidal Rule. <i>SIAM Review</i> , 2014, 56, 385-458.	4.2	334
10	A Contour Integral Method for the Black–Scholes and Heston Equations. <i>SIAM Journal of Scientific Computing</i> , 2011, 33, 763-785.	1.3	25
11	A numerical methodology for the Painlevé equations. <i>Journal of Computational Physics</i> , 2011, 230, 5957-5973.	1.9	56
12	Improved contour integral methods for parabolic PDEs. <i>IMA Journal of Numerical Analysis</i> , 2010, 30, 334-350.	1.5	29
13	High accuracy representation of the free propagator. <i>Applied Numerical Mathematics</i> , 2009, 59, 2937-2949.	1.2	1
14	Parabolic and hyperbolic contours for computing the Bromwich integral. <i>Mathematics of Computation</i> , 2007, 76, 1341-1357.	1.1	180
15	Optimizing Talbot’s Contours for the Inversion of the Laplace Transform. <i>SIAM Journal on Numerical Analysis</i> , 2006, 44, 2342-2362.	1.1	79
16	Padé approximations to the logarithm III: Alternative methods and additional results. <i>Ramanujan Journal</i> , 2006, 12, 299-314.	0.4	20
17	Padé approximations to the logarithm II: Identities, recurrences, and symbolic computation. <i>Ramanujan Journal</i> , 2006, 11, 139-158.	0.4	14
18	Talbot quadratures and rational approximations. <i>BIT Numerical Mathematics</i> , 2006, 46, 653-670.	1.0	147

#	ARTICLE	IF	CITATIONS
19	Pad $\tilde{A}$ Approximations to the Logarithm I: Derivation Via Differential Equations. Quaestiones Mathematicae, 2005, 28, 375-390.	0.2	10
20	The Accuracy of the Chebyshev Differencing Method for Analytic Functions. SIAM Journal on Numerical Analysis, 2005, 42, 2176-2187.	1.1	23
21	Computing the Dynamics of Complex Singularities of Nonlinear PDEs. SIAM Journal on Applied Dynamical Systems, 2003, 2, 171-186.	0.7	30
22	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
23	Computing the Hilbert transform on the real line. Mathematics of Computation, 1995, 64, 745-762.	1.1	61
24	Numerical simulation of solitons and dromions in the Davey-Stewartson system. Mathematics and Computers in Simulation, 1994, 37, 469-479.	2.4	17
25	An adaptive algorithm for spectral computations on unbounded domains. Journal of Computational Physics, 1992, 102, 398-406.	1.9	15
26	Two results on polynomial interpolation in equally spaced points. Journal of Approximation Theory, 1991, 65, 247-260.	0.5	65
27	Dynamics of Semi-Discretizations of the Defocusing Nonlinear Schrödinger Equation. IMA Journal of Numerical Analysis, 1991, 11, 539-552.	1.5	4
28	A numerical study of the nonlinear Schrödinger equation involving quintic terms. Journal of Computational Physics, 1990, 86, 127-146.	1.9	24
29	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
30	On the stability of the nonlinear Schrödinger equation. Journal of Computational Physics, 1985, 60, 263-281.	1.9	15