

Sheehan Olver

List of Publications by Year in descending order

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47
papers

1,152
citations

430442

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32
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all docs

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docs citations

50
times ranked

432
citing authors

#	ARTICLE	IF	CITATIONS
1	Orthogonal Polynomials on Planar Cubic Curves. Foundations of Computational Mathematics, 2023, 23, 1-31.	1.5	5
2	Orthogonal structure on a quadratic curve. IMA Journal of Numerical Analysis, 2021, 41, 206-246.	1.5	12
3	Spectra of Jacobi Operators via Connection Coefficient Matrices. Communications in Mathematical Physics, 2021, 382, 657-707.	1.0	11
4	Non-homogeneous wave equation on a cone. Integral Transforms and Special Functions, 2021, 32, 604-619.	0.8	2
5	Sparse spectral methods for partial differential equations on spherical caps. Transactions of Mathematics and Its Applications, 2021, 5, .	1.6	0
6	Orthogonal polynomials in and on a quadratic surface of revolution. Mathematics of Computation, 2020, 89, 2847-2865.	1.1	12
7	Sparse spectral and finite element methods for partial differential equations on disk slices and trapeziums. Studies in Applied Mathematics, 2020, 145, 3-35.	1.1	10
8	A Sparse Spectral Method for Volterra Integral Equations Using Orthogonal Polynomials on the Triangle. SIAM Journal on Numerical Analysis, 2020, 58, 1993-2018.	1.1	5
9	Fast algorithms using orthogonal polynomials. Acta Numerica, 2020, 29, 573-699.	6.3	19
10	Recurrence Relations for a Family of Orthogonal Polynomials on a Triangle. Lecture Notes in Computational Science and Engineering, 2020, , 79-92.	0.1	4
11	Orthogonal Structure on a Wedge and on the Boundary of a Square. Foundations of Computational Mathematics, 2019, 19, 561-589.	1.5	10
12	A Sparse Spectral Method on Triangles. SIAM Journal of Scientific Computing, 2019, 41, A3728-A3756.	1.3	13
13	Fast polynomial transforms based on Toeplitz and Hankel matrices. Mathematics of Computation, 2018, 87, 1913-1934.	1.1	35
14	Evidence of the Poisson/Gaudin-Mehta phase transition for band matrices on global scales. Random Matrices: Theory and Application, 2018, 07, 1850002.	0.5	1
15	A Fast and Spectrally Convergent Algorithm for Rational-Order Fractional Integral and Differential Equations. SIAM Journal of Scientific Computing, 2018, 40, A2456-A2491.	1.3	14
16	A fast and well-conditioned spectral method for singular integral equations. Journal of Computational Physics, 2017, 332, 290-315.	1.9	21
17	Numerical methods for the computation of the confluent and Gauss hypergeometric functions. Numerical Algorithms, 2017, 74, 821-866.	1.1	40
18	Tensor calculus in polar coordinates using Jacobi polynomials. Journal of Computational Physics, 2016, 325, 53-73.	1.9	28

#	ARTICLE	IF	CITATIONS
19	Numerical Methods for the Discrete Map Z^a , 2016, , 151-176.		0
20	Sampling unitary ensembles. Random Matrices: Theory and Application, 2015, 04, 1550002.	0.5	6
21	On The Use of Conformal Maps for the Acceleration of Convergence of the Trapezoidal Rule and Sinc Numerical Methods. SIAM Journal of Scientific Computing, 2015, 37, A676-A700.	1.3	6
22	A Riemann–Hilbert approach to Jacobi operators and Gaussian quadrature. IMA Journal of Numerical Analysis, 2015, , dru061.	1.5	0
23	The automatic solution of partial differential equations using a global spectral method. Journal of Computational Physics, 2015, 299, 106-123.	1.9	44
24	Levin Quadrature. , 2015, , 785-786.		0
25	A Practical Framework for Infinite-Dimensional Linear Algebra. , 2014, , .		20
26	Nonlinear Steepest Descent and Numerical Solution of Riemann–Hilbert Problems. Communications on Pure and Applied Mathematics, 2014, 67, 1353-1389.	1.2	23
27	Numerical Solution of Riemann–Hilbert Problems: Random Matrix Theory and Orthogonal Polynomials. Constructive Approximation, 2014, 39, 101-149.	1.8	14
28	Universality in numerical computations with random data. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 14973-14978.	3.3	21
29	Change of variable formulas for regularizing slowly decaying and oscillatory Cauchy and Hilbert transforms. Analysis and Applications, 2014, 12, 369-384.	1.2	6
30	Numerical inverse scattering for the focusing and defocusing nonlinear Schrödinger equations. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2013, 469, 20120330.	1.0	19
31	A Fast and Well-Conditioned Spectral Method. SIAM Review, 2013, 55, 462-489.	4.2	147
32	A general framework for solving Riemann–Hilbert problems numerically. Numerische Mathematik, 2012, 122, 305-340.	0.9	44
33	Superinterpolation in Highly Oscillatory Quadrature. Foundations of Computational Mathematics, 2012, 12, 203-228.	1.5	26
34	Numerical inverse scattering for the Korteweg–de Vries and modified Korteweg–de Vries equations. Physica D: Nonlinear Phenomena, 2012, 241, 1003-1025.	1.3	41
35	Computing the Hilbert transform and its inverse. Mathematics of Computation, 2011, 80, 1745-1767.	1.1	34
36	Numerical Solution of Riemann–Hilbert Problems: Painlevé. Foundations of Computational Mathematics, 2011, 11, 153-179.	1.5	33

#	ARTICLE	IF	CITATIONS
37	Computation of equilibrium measures. <i>Journal of Approximation Theory</i> , 2011, 163, 1185-1207.	0.5	14
38	Shifted GMRES for oscillatory integrals. <i>Numerische Mathematik</i> , 2010, 114, 607-628.	0.9	18
39	Fast, numerically stable computation of oscillatory integrals with stationary points. <i>BIT Numerical Mathematics</i> , 2010, 50, 149-171.	1.0	40
40	GMRES for the Differentiation Operator. <i>SIAM Journal on Numerical Analysis</i> , 2009, 47, 3359-3373.	1.1	19
41	On the convergence rate of a modified Fourier series. <i>Mathematics of Computation</i> , 2009, 78, 1629-1645.	1.1	18
42	Moment-free numerical approximation of highly oscillatory integrals with stationary points. <i>European Journal of Applied Mathematics</i> , 2007, 18, 435-447.	1.4	44
43	Numerical approximation of vector-valued highly oscillatory integrals. <i>BIT Numerical Mathematics</i> , 2007, 47, 637-655.	1.0	47
44	Moment-free numerical integration of highly oscillatory functions. <i>IMA Journal of Numerical Analysis</i> , 2006, 26, 213-227.	1.5	151
45	On the Quadrature of Multivariate Highly Oscillatory Integrals Over Non-polytope Domains. <i>Numerische Mathematik</i> , 2006, 103, 643-665.	0.9	34
46	Fast computation of Gauss quadrature nodes and weights on the whole real line. <i>IMA Journal of Numerical Analysis</i> , 0, , drv002.	1.5	5
47	Computing equilibrium measures with power law kernels. , 0, , .		7