

John Strain

List of Publications by Year in descending order

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22
papers

1,204
citations

566801

15
h-index

642321

23
g-index

23
all docs

23
docs citations

23
times ranked

693
citing authors

#	ARTICLE	IF	CITATIONS
1	The Fast Gauss Transform. <i>SIAM Journal on Scientific and Statistical Computing</i> , 1991, 12, 79-94.	1.5	355
2	Tree Methods for Moving Interfaces. <i>Journal of Computational Physics</i> , 1999, 151, 616-648.	1.9	130
3	Semi-Lagrangian Methods for Level Set Equations. <i>Journal of Computational Physics</i> , 1999, 151, 498-533.	1.9	108
4	A fast algorithm for the evaluation of heat potentials. <i>Communications on Pure and Applied Mathematics</i> , 1990, 43, 949-963.	1.2	91
5	Fast Tree-Based Redistancing for Level Set Computations. <i>Journal of Computational Physics</i> , 1999, 152, 664-686.	1.9	79
6	Locally Corrected Multidimensional Quadrature Rules for Singular Functions. <i>SIAM Journal of Scientific Computing</i> , 1995, 16, 992-1017.	1.3	63
7	A Fast Modular Semi-Lagrangian Method for Moving Interfaces. <i>Journal of Computational Physics</i> , 2000, 161, 512-536.	1.9	55
8	A boundary integral approach to unstable solidification. <i>Journal of Computational Physics</i> , 1989, 85, 342-389.	1.9	50
9	Piecewise-polynomial discretization and Krylov-accelerated multigrid for elliptic interface problems. <i>Journal of Computational Physics</i> , 2008, 227, 7503-7542.	1.9	41
10	Fast potential theory. II. layer potentials and discrete sums. <i>Journal of Computational Physics</i> , 1992, 99, 251-270.	1.9	40
11	The Fast Gauss Transform with Variable Scales. <i>SIAM Journal on Scientific and Statistical Computing</i> , 1991, 12, 1131-1139.	1.5	38
12	Fast Adaptive Methods for the Free-Space Heat Equation. <i>SIAM Journal of Scientific Computing</i> , 1994, 15, 185-206.	1.3	27
13	A Fast Semi-Lagrangian Contouring Method for Moving Interfaces. <i>Journal of Computational Physics</i> , 2001, 170, 373-394.	1.9	21
14	2D Vortex Methods and Singular Quadrature Rules. <i>Journal of Computational Physics</i> , 1996, 124, 131-145.	1.9	16
15	Fast Adaptive 2D Vortex Methods. <i>Journal of Computational Physics</i> , 1997, 132, 108-122.	1.9	15
16	Locally corrected semi-Lagrangian methods for Stokes flow with moving elastic interfaces. <i>Journal of Computational Physics</i> , 2008, 227, 3896-3920.	1.9	15
17	Linear stability of planar solidification fronts. <i>Physica D: Nonlinear Phenomena</i> , 1988, 30, 297-320.	1.3	14
18	Velocity Effects in Unstable Solidification. <i>SIAM Journal on Applied Mathematics</i> , 1990, 50, 1-15.	0.8	13

#	ARTICLE	IF	CITATIONS
19	Fast spectrally-accurate solution of variable-coefficient elliptic problems. Proceedings of the American Mathematical Society, 1994, 122, 843-843.	0.4	11
20	Locally-corrected spectral methods and overdetermined elliptic systems. Journal of Computational Physics, 2007, 224, 1243-1254.	1.9	9
21	A geometric nonuniform fast Fourier transform. Journal of Computational Physics, 2009, 228, 7086-7108.	1.9	7
22	Fast Fourier transforms of piecewise polynomials. Journal of Computational Physics, 2018, 373, 346-369.	1.9	5