

Gregory E Fasshauer

List of Publications by Year in descending order

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45
papers

2,666
citations

331538

21
h-index

276775

41
g-index

47
all docs

47
docs citations

47
times ranked

1528
citing authors

#	ARTICLE	IF	CITATIONS
1	On choosing "optimal" shape parameters for RBF approximation. <i>Numerical Algorithms</i> , 2007, 45, 345-368.	1.1	462
2	Solving differential equations with radial basis functions: multilevel methods and smoothing. <i>Advances in Computational Mathematics</i> , 1999, 11, 139-159.	0.8	176
3	Stable Evaluation of Gaussian Radial Basis Function Interpolants. <i>SIAM Journal of Scientific Computing</i> , 2012, 34, A737-A762.	1.3	159
4	Static deformations and vibration analysis of composite and sandwich plates using a layerwise theory and RBF-PS discretizations with optimal shape parameter. <i>Composite Structures</i> , 2008, 86, 328-343.	3.1	151
5	Computation of natural frequencies of shear deformable beams and plates by an RBF-pseudospectral method. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006, 196, 134-146.	3.4	145
6	Newton iteration with multiquadrics for the solution of nonlinear PDEs. <i>Computers and Mathematics With Applications</i> , 2002, 43, 423-438.	1.4	111
7	Analysis of natural frequencies of composite plates by an RBF-pseudospectral method. <i>Composite Structures</i> , 2007, 79, 202-210.	3.1	91
8	A volumetric integral radial basis function method for time-dependent partial differential equations. I. Formulation. <i>Engineering Analysis With Boundary Elements</i> , 2004, 28, 1191-1206.	2.0	58
9	Minimal energy surfaces using parametric splines. <i>Computer Aided Geometric Design</i> , 1996, 13, 45-79.	0.5	40
10	An introduction to the Hilbert-Schmidt SVD using iterated Brownian bridge kernels. <i>Numerical Algorithms</i> , 2015, 68, 393-422.	1.1	39
11	Approximation of stochastic partial differential equations by a kernel-based collocation method. <i>International Journal of Computer Mathematics</i> , 2012, 89, 2543-2561.	1.0	36
12	A stable method for the evaluation of Gaussian radial basis function solutions of interpolation and collocation problems. <i>Computers and Mathematics With Applications</i> , 2016, 72, 178-193.	1.4	35
13	A stabilized radial basis-finite difference (RBF-FD) method with hybrid kernels. <i>Computers and Mathematics With Applications</i> , 2019, 77, 2354-2368.	1.4	33
14	Reproducing kernels of generalized Sobolev spaces via a Green function approach with distributional operators. <i>Numerische Mathematik</i> , 2011, 119, 585-611.	0.9	30
15	Hybrid Gaussian-cubic radial basis functions for scattered data interpolation. <i>Computational Geosciences</i> , 2018, 22, 1203-1218.	1.2	29
16	Natural frequencies of thick plates made of orthotropic, monoclinic, and hexagonal materials by a meshless method. <i>Journal of Sound and Vibration</i> , 2009, 319, 984-992.	2.1	25
17	On Dimension-independent Rates of Convergence for Function Approximation with Gaussian Kernels. <i>SIAM Journal on Numerical Analysis</i> , 2012, 50, 247-271.	1.1	25
18	Multivariate interpolation with increasingly flat radial basis functions of finite smoothness. <i>Advances in Computational Mathematics</i> , 2012, 36, 485-501.	0.8	24

#	ARTICLE	IF	CITATIONS
19	Solving support vector machines in reproducing kernel Banach spaces with positive definite functions. <i>Applied and Computational Harmonic Analysis</i> , 2015, 38, 115-139.	1.1	23
20	The Method of Fundamental Solutions in Solving Coupled Boundary Value Problems for M/EEG. <i>SIAM Journal of Scientific Computing</i> , 2015, 37, B570-B590.	1.3	22
21	A Meshfree Solver for the MEG Forward Problem. <i>IEEE Transactions on Magnetics</i> , 2015, 51, 1-4.	1.2	21
22	Title is missing!. <i>Advances in Computational Mathematics</i> , 1999, 10, 1-27.	0.8	20
23	Reproducing kernels of Sobolev spaces via a green kernel approach with differential operators and boundary operators. <i>Advances in Computational Mathematics</i> , 2013, 38, 891-921.	0.8	19
24	An augmented MFS approach for brain activity reconstruction. <i>Mathematics and Computers in Simulation</i> , 2017, 141, 3-15.	2.4	19
25	Toward approximate moving least squares approximation with irregularly spaced centers. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004, 193, 1231-1243.	3.4	17
26	Hermite interpolation with radial basis functions on spheres. <i>Advances in Computational Mathematics</i> , 1999, 10, 81-96.	0.8	14
27	Newton iteration for partial differential equations and the approximation of the identity. <i>Numerical Algorithms</i> , 2000, 25, 181-195.	1.1	12
28	Approximate Moving Least-Squares Approximation with Compactly Supported Radial Weights. <i>Lecture Notes in Computational Science and Engineering</i> , 2003, , 105-116.	0.1	11
29	Kernel-Based Collocation Methods Versus Galerkin Finite Element Methods for Approximating Elliptic Stochastic Partial Differential Equations. <i>Lecture Notes in Computational Science and Engineering</i> , 2013, , 155-170.	0.1	11
30	Algorithms defined by Nash iteration: some implementations via multilevel collocation and smoothing. <i>Journal of Computational and Applied Mathematics</i> , 2000, 119, 161-183.	1.1	9
31	Optimality and Regularization Properties of Quasi-Interpolation: Deterministic and Stochastic Approaches. <i>SIAM Journal on Numerical Analysis</i> , 2020, 58, 2059-2078.	1.1	9
32	Preconditioning of Radial Basis Function Interpolation Systems via Accelerated Iterated Approximate Moving Least Squares Approximation. , 2009, , 57-75.		9
33	Dual bases and discrete reproducing kernels: a unified framework for RBF and MLS approximation. <i>Engineering Analysis With Boundary Elements</i> , 2005, 29, 313-325.	2.0	7
34	Application of two radial basis function-pseudospectral meshfree methods to three-dimensional electromagnetic problems. <i>IET Science, Measurement and Technology</i> , 2011, 5, 206-210.	0.9	7
35	Application of radial basis functions to represent optical freeform surfaces. <i>Proceedings of SPIE</i> , 2010, , .	0.8	6
36	Iterated Approximate Moving Least Squares Approximation. , 2007, , 221-239.		6

#	ARTICLE	IF	CITATIONS
37	Meshfree approximation methods for free-form surface representation in optical design with applications to head-worn displays. , 2008, , .		3
38	Initiating a Programmatic Assessment Report. Primus, 2014, 24, 403-420.	0.3	3
39	Intraday Load Forecasts with Uncertainty. Energies, 2019, 12, 1833.	1.6	3
40	Refined error estimates for Green kernel-based interpolation. Applied Mathematics Letters, 2022, 133, 108258.	1.5	3
41	A novel numerical meshless approach for electric potential estimation in transcranial stimulation. AIP Conference Proceedings, 2015, , .	0.3	2
42	A Kernel-Based Collocation Method for Elliptic Partial Differential Equations With Random Coefficients. Springer Proceedings in Mathematics and Statistics, 2013, , 331-347.	0.1	1
43	Stable Likelihood Computation for Gaussian Random Fields. Applied and Numerical Harmonic Analysis, 2017, , 917-943.	0.1	1
44	Improved FDTD method around dielectric and PEC interfaces using RBF-FD techniques. , 2018, , .		0
45	Divergence-free quasi-interpolation. Applied and Computational Harmonic Analysis, 2022, 60, 471-488.	1.1	0