Graeme Fairweather

List of Publications by Year
in descending order

25 papers	1,204 citations	687363 13 h-index	642732 23 g-index
25 all docs	25 docs citations	25 times ranked	501 citing authors

#	Article	IF	Citations
1	The method of fundamental solutions for elliptic boundary value problems. Advances in Computational Mathematics, 1998, 9, 69-95.	1.6	797
2	The method of fundamental solutions for axisymmetric potential problems. International Journal for Numerical Methods in Engineering, 1999, 44, 1653-1669.	2.8	56
3	Matrix decomposition algorithms for elliptic boundary value problems: a survey. Numerical Algorithms, 2011, 56, 253-295.	1.9	41
4	Algorithms for Almost Block Diagonal Linear Systems. SIAM Review, 2004, 46, 49-58.	9.5	40
5	ADI orthogonal spline collocation methods for parabolic partial integro-differential equations. IMA Journal of Numerical Analysis, 2010, 30, 248-276.	2.9	38
6	The method of fundamental solutions for axisymmetric acoustic scattering and radiation problems. Journal of the Acoustical Society of America, 1998, 104, 3212-3218.	1.1	36
7	Compact optimal quadratic spline collocation methods for the Helmholtz equation. Journal of Computational Physics, 2011, 230, 2880-2895.	3.8	24
8	Orthogonal spline collocation methods for biharmonic problems. Numerische Mathematik, 1998, 80, 267-303.	1.9	23
9	The solution of almost block diagonal linear systems arising in spline collocation at Gaussian points with monomial basis functions. ACM Transactions on Mathematical Software, 1992, 18, 193-204.	2.9	22
10	Algorithm 704: ABDPACK and ABBPACK-FORTRAN programs for the solution of almost block diagonal linear systems arising in spline collocation at Gaussian points with monomial basis functions. ACM Transactions on Mathematical Software, 1992, 18, 205-210.	2.9	22
11	Potential field based geometric modelling using the method of fundamental solutions. International Journal for Numerical Methods in Engineering, 2006, 68, 1257-1280.	2.8	18
12	Matrix Decomposition Algorithms for Modified Spline Collocation for Helmholtz Problems. SIAM Journal of Scientific Computing, 2003, 24, 1733-1753.	2.8	15
13	Orthogonal spline collocation methods for the stream function-vorticity formulation of the Navier–Stokes equations. Numerical Methods for Partial Differential Equations, 2008, 24, 449-464.	3.6	14
14	A matrix decomposition MFS algorithm for axisymmetric biharmonic problems. Advances in Computational Mathematics, 2005, 23, 55-71.	1.6	13
15	Optimal Superconvergent One Step Nodal Cubic Spline Collocation Methods. SIAM Journal of Scientific Computing, 2005, 27, 575-598.	2.8	9
16	Matrix decomposition algorithms for the C 0-quadratic finite element Galerkin method. BIT Numerical Mathematics, 2009, 49, 509-526.	2.0	8
17	Numerical solutions of the orbital equations for diatomic molecules. Molecular Physics, 2000, 98, 1175-1184.	1.7	6
18	A quadratic spline collocation method for the Dirichlet biharmonic problem. Numerical Algorithms, 2020, 83, 165-199.	1.9	6

#	Article	IF	Citations
19	High‐order discrete‐time orthogonal spline collocation methods for singularly perturbed 1D parabolic reaction‐diffusion problems. Numerical Methods for Partial Differential Equations, 2020, 36, 495-523.	3.6	4
20	Matrix decomposition algorithms for the finite element Galerkin method with piecewise Hermite cubics. Numerical Algorithms, 2009, 52, 1-23.	1.9	3
21	High-order orthogonal spline collocation methods for two-point boundary value problems with interfaces. Mathematics and Computers in Simulation, 2020, 174, 102-122.	4.4	3
22	A fourth‐order orthogonal spline collocation method for two‐dimensional Helmholtz problems with interfaces. Numerical Methods for Partial Differential Equations, 2020, 36, 1811-1829.	3.6	2
23	The Crank‐Nicolson orthogonal spline collocation method for one-dimensional parabolic problems with interfaces. Journal of Computational and Applied Mathematics, 2021, 383, 113119.	2.0	2
24	OPTIMAL SUPERCONVERGENT ONE STEP QUADRATIC SPLINE COLLOCATION METHODS FOR HELMHOLTZ PROBLEMS. , 2008, , .		2
25	An optimal two-step quadratic spline collocation method for the Dirichlet biharmonic problem. Numerical Algorithms, 0, , 1.	1.9	0