Bernhard A Schmitt

List of Publications by Year
in descending order

31 papers	495 citations	759233 12 h-index	677142 22 g-index
32 all docs	32 docs citations	32 times ranked	158 citing authors

#	Article	IF	Citations
1	Discrete adjoint implicit Peer methods in optimal control. Journal of Computational and Applied Mathematics, 2022, 416, 114596.	2.0	2
2	Krylov methods for adjoint–free singular vector based perturbations in dynamical systems. Quarterly Journal of the Royal Meteorological Society, 2020, 146, 225-239.	2.7	1
3	Efficient A-stable peer two-step methods. Journal of Computational and Applied Mathematics, 2017, 316, 319-329.	2.0	7
4	Rapid turnover of DnaA at replication origin regions contributes to initiation control of DNA replication. PLoS Genetics, 2017, 13, e1006561.	3.5	52
5	A model for spatio-temporal dynamics in a regulatory network for cell polarity. Mathematical Biosciences, 2014, 258, 189-200.	1.9	1
6	Reprint of: Peer methods with improved embedded sensitivities for parameter-dependent ODEs. Journal of Computational and Applied Mathematics, 2014, 262, 25-36.	2.0	0
7	Peer methods with improved embedded sensitivities for parameter-dependent ODEs. Journal of Computational and Applied Mathematics, 2014, 256, 242-253.	2.0	3
8	Dew drops on spider webs: A symmetry breaking bifurcation for a parabolic differential-algebraic equation. Journal of Computational and Applied Mathematics, 2013, 254, 99-115.	2.0	0
9	Two-step peer methods with continuous output. BIT Numerical Mathematics, 2013, 53, 717-739.	2.0	8
10	Peer Two-Step Methods with Embedded Sensitivity Approximation for Parameter-Dependent ODEs. SIAM Journal on Numerical Analysis, 2012, 50, 2182-2207.	2.3	3
11	A Model of Oscillatory Protein Dynamics in Bacteria. Bulletin of Mathematical Biology, 2012, 74, 2183-2203.	1.9	4
12	Implicit peer methods for large stiff ODE systems. Journal of Applied Mathematics and Computing, 2012, 38, 389-406.	2.5	26
13	Parallel start for explicit parallel two-step peer methods. Numerical Algorithms, 2010, 53, 363-381.	1.9	8
14	Superconvergent explicit two-step peer methods. Journal of Computational and Applied Mathematics, 2009, 223, 753-764.	2.0	49
15	Explicit multi-step peer methods for special second-order differential equations. Applied Mathematics and Computation, 2008, 202, 803-813.	2.2	4
16	Explicit two-step peer methods. Computers and Mathematics With Applications, 2008, 55, 609-619.	2.7	46
17	Linearly-implicit two-step methods and their implementation in Nordsieck form. Applied Numerical Mathematics, 2006, 56, 374-387.	2.1	17
18	Rosenbrock-type 'Peer' two-step methods. Applied Numerical Mathematics, 2005, 53, 409-420.	2.1	39

#	Article	IF	Citations
19	Multi-Implicit Peer Two-Step W-Methods for Parallel Time Integration. BIT Numerical Mathematics, 2005, 45, 197-217.	2.0	34
20	Parallel â€˜Peerâ€™ two-step W-methods and their application toÂMOL-systems. Applied Numerical Mathematics, 2004, 48, 425-439.	2.1	24
21	Parallel Two-Step W-Methods with Peer Variables. SIAM Journal on Numerical Analysis, 2004, 42, 265-282.	2.3	59
22	Design, analysis and testing of some parallel two-step W-methods for stiff systems. Applied Numerical Mathematics, 2002, 42, 381-395.	2.1	20
23	Polynomial preconditioning in Krylov-ROW-methods. Applied Numerical Mathematics, 1998, 28, 427-437.	2.1	2
24	Order results for Krylov-W-methods. Computing (Vienna/New York), 1998, 61, 69-89.	4.8	6
25	Equilibrium attractivity of Krylov-W-methods for nonlinear stiff ODEs. BIT Numerical Mathematics, 1998, 38, 391-414.	2.0	5
26	Matrix-free W-methods using a multiple Arnoldi iteration. Applied Numerical Mathematics, 1995, 18, 307-320.	2.1	30
27	W-Methods with Automatic Partitioning by Krylov Techniques for Large Stiff Systems. SIAM Journal on Numerical Analysis, 1995, 32, 260-284.	2.3	6
28	Automatic partitioning in linearly-implicit Runge-Kutta methods. Applied Numerical Mathematics, 1993, 13, 41-55.	2.1	2
29	Perturbation bounds for matrix square roots and pythagorean sums. Linear Algebra and Its Applications, 1992, 174, 215-227.	0.9	19
30	An Algebraic Approximation for the Matrix Exponential in Singularly Perturbed Boundary Value Problems. SIAM Journal on Numerical Analysis, 1990, 27, 51-66.	2.3	11
31	Stability of implicit Runge-Kutta methods for nonlinear stiff differential equations. BIT Numerical Mathematics, 1988, 28, 884-897.	2.0	7