

# Bernhard A Schmitt

## List of Publications by Year in descending order

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31  
papers

495  
citations

759233

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677142

22  
g-index

32  
all docs

32  
docs citations

32  
times ranked

158  
citing authors

#	ARTICLE	IF	CITATIONS
1	Parallel Two-Step W-Methods with Peer Variables. SIAM Journal on Numerical Analysis, 2004, 42, 265-282.	2.3	59
2	Rapid turnover of DnaA at replication origin regions contributes to initiation control of DNA replication. PLoS Genetics, 2017, 13, e1006561.	3.5	52
3	Superconvergent explicit two-step peer methods. Journal of Computational and Applied Mathematics, 2009, 223, 753-764.	2.0	49
4	Explicit two-step peer methods. Computers and Mathematics With Applications, 2008, 55, 609-619.	2.7	46
5	Rosenbrock-type "Peer"™ two-step methods. Applied Numerical Mathematics, 2005, 53, 409-420.	2.1	39
6	Multi-Implicit Peer Two-Step W-Methods for Parallel Time Integration. BIT Numerical Mathematics, 2005, 45, 197-217.	2.0	34
7	Matrix-free W-methods using a multiple Arnoldi iteration. Applied Numerical Mathematics, 1995, 18, 307-320.	2.1	30
8	Implicit peer methods for large stiff ODE systems. Journal of Applied Mathematics and Computing, 2012, 38, 389-406.	2.5	26
9	Parallel "Peer"™ two-step W-methods and their application to AMOL-systems. Applied Numerical Mathematics, 2004, 48, 425-439.	2.1	24
10	Design, analysis and testing of some parallel two-step W-methods for stiff systems. Applied Numerical Mathematics, 2002, 42, 381-395.	2.1	20
11	Perturbation bounds for matrix square roots and pythagorean sums. Linear Algebra and Its Applications, 1992, 174, 215-227.	0.9	19
12	Linearly-implicit two-step methods and their implementation in Nordsieck form. Applied Numerical Mathematics, 2006, 56, 374-387.	2.1	17
13	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
14	Parallel start for explicit parallel two-step peer methods. Numerical Algorithms, 2010, 53, 363-381.	1.9	8
15	Two-step peer methods with continuous output. BIT Numerical Mathematics, 2013, 53, 717-739.	2.0	8
16	Stability of implicit Runge-Kutta methods for nonlinear stiff differential equations. BIT Numerical Mathematics, 1988, 28, 884-897.	2.0	7
17	Efficient A-stable peer two-step methods. Journal of Computational and Applied Mathematics, 2017, 316, 319-329.	2.0	7
18	W-Methods with Automatic Partitioning by Krylov Techniques for Large Stiff Systems. SIAM Journal on Numerical Analysis, 1995, 32, 260-284.	2.3	6

#	ARTICLE	IF	CITATIONS
19	Order results for Krylov-W-methods. Computing (Vienna/New York), 1998, 61, 69-89.	4.8	6
20	Equilibrium attractivity of Krylov-W-methods for nonlinear stiff ODEs. BIT Numerical Mathematics, 1998, 38, 391-414.	2.0	5
21	Explicit multi-step peer methods for special second-order differential equations. Applied Mathematics and Computation, 2008, 202, 803-813.	2.2	4
22	A Model of Oscillatory Protein Dynamics in Bacteria. Bulletin of Mathematical Biology, 2012, 74, 2183-2203.	1.9	4
23	Peer Two-Step Methods with Embedded Sensitivity Approximation for Parameter-Dependent ODEs. SIAM Journal on Numerical Analysis, 2012, 50, 2182-2207.	2.3	3
24	Peer methods with improved embedded sensitivities for parameter-dependent ODEs. Journal of Computational and Applied Mathematics, 2014, 256, 242-253.	2.0	3
25	Automatic partitioning in linearly-implicit Runge-Kutta methods. Applied Numerical Mathematics, 1993, 13, 41-55.	2.1	2
26	Polynomial preconditioning in Krylov-ROW-methods. Applied Numerical Mathematics, 1998, 28, 427-437.	2.1	2
27	Discrete adjoint implicit Peer methods in optimal control. Journal of Computational and Applied Mathematics, 2022, 416, 114596.	2.0	2
28	A model for spatio-temporal dynamics in a regulatory network for cell polarity. Mathematical Biosciences, 2014, 258, 189-200.	1.9	1
29	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
30	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
31	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