

Bruno D Welfert

List of Publications by Year in descending order

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49
papers

1,035
citations

567281

15
h-index

414414

32
g-index

49
all docs

49
docs citations

49
times ranked

577
citing authors

#	ARTICLE	IF	CITATIONS
1	A class of iterative methods for solving saddle point problems. <i>Numerische Mathematik</i> , 1989, 56, 645-666.	1.9	180
2	A Posteriori Error Estimates for the Stokes Problem. <i>SIAM Journal on Numerical Analysis</i> , 1991, 28, 591-623.	2.3	114
3	Stability of ADI schemes applied to convection-diffusion equations with mixed derivative terms. <i>Applied Numerical Mathematics</i> , 2007, 57, 19-35.	2.1	96
4	Unconditional stability of second-order ADI schemes applied to multi-dimensional diffusion equations with mixed derivative terms. <i>Applied Numerical Mathematics</i> , 2009, 59, 677-692.	2.1	95
5	Generation of Pseudospectral Differentiation Matrices I. <i>SIAM Journal on Numerical Analysis</i> , 1997, 34, 1640-1657.	2.3	85
6	A posteriori error estimates for the Stokes equations: A comparison. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1990, 82, 323-340.	6.6	53
7	The Newton Iteration on Lie Groups. <i>BIT Numerical Mathematics</i> , 2000, 40, 121-145.	2.0	49
8	Two-Step Runge-Kutta: Theory and Practice. <i>BIT Numerical Mathematics</i> , 2000, 40, 775-799.	2.0	29
9	A comparison between the mini-element and the Petrov-Galerkin formulations for the generalized stokes problem. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1990, 83, 61-68.	6.6	28
10	Numerical solution of a Fredholm integro-differential equation modelling neural networks. <i>Applied Numerical Mathematics</i> , 2006, 56, 423-432.	2.1	26
11	Numerical solution of a Fredholm integro-differential equation modelling -neural networks. <i>Applied Mathematics and Computation</i> , 2008, 195, 523-536.	2.2	21
12	Transition to complex dynamics in the cubic lid-driven cavity. <i>Physical Review Fluids</i> , 2017, 2, .	2.5	20
13	A static, physical VDMOS model based on the charge-sheet model. <i>IEEE Transactions on Electron Devices</i> , 1996, 43, 157-164.	3.0	18
14	Order conditions for general linear methods. <i>Journal of Computational and Applied Mathematics</i> , 2015, 290, 44-64.	2.0	18
15	Influence of Unsaturated Soil Properties Uncertainty on Moisture Flow Modeling. <i>Geotechnical and Geological Engineering</i> , 2011, 29, 161-169.	1.7	17
16	Complex dynamics in a stratified lid-driven square cavity flow. <i>Journal of Fluid Mechanics</i> , 2018, 855, 43-66.	3.4	17
17	Analysis of iterated ADI-FDTD schemes for Maxwell curl equations. <i>Journal of Computational Physics</i> , 2007, 222, 9-27.	3.8	15
18	Application of the MOS charge-sheet model to nonuniform doping along the channel. <i>Solid-State Electronics</i> , 1995, 38, 1497-1503.	1.4	14

#	ARTICLE	IF	CITATIONS
19	Librational forcing of a rapidly rotating fluid-filled cube. <i>Journal of Fluid Mechanics</i> , 2018, 842, 469-494.	3.4	12
20	Stability of Gauss-Radau Pseudospectral Approximations of the One-Dimensional Wave Equation. <i>Journal of Scientific Computing</i> , 2003, 18, 287-313.	2.3	11
21	Dynamics in a stably stratified tilted square cavity. <i>Journal of Fluid Mechanics</i> , 2020, 883, .	3.4	10
22	Pseudospectra of waveform relaxation operators. <i>Computers and Mathematics With Applications</i> , 1998, 36, 67-85.	2.7	9
23	Parametrically forced stably stratified cavity flow: complicated nonlinear dynamics near the onset of instability. <i>Journal of Fluid Mechanics</i> , 2019, 871, 1067-1096.	3.4	9
24	Reflections and focusing of inertial waves in a librating cube with the rotation axis oblique to its faces. <i>Journal of Fluid Mechanics</i> , 2020, 896, .	3.4	9
25	Precessing cube: resonant excitation of modes and triadic resonance. <i>Journal of Fluid Mechanics</i> , 2020, 887, .	3.4	9
26	Vertically forced stably stratified cavity flow: instabilities of the basic state. <i>Journal of Fluid Mechanics</i> , 2018, 851, .	3.4	8
27	On the eigenvalues of second-order pseudospectral differentiation operators. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1994, 116, 281-292.	6.6	6
28	Evaluation of closure strategies for a periodically-forced Duffing oscillator with slowly modulated frequency subject to Gaussian white noise. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2017, 44, 144-158.	3.3	6
29	A nonstandard Euler scheme for $y''' + g(y)y'' + f(y)y = 0$. <i>Journal of Computational and Applied Mathematics</i> , 2003, 151, 335-353.	2.0	5
30	Order reduction phenomenon for general linear methods. <i>Applied Numerical Mathematics</i> , 2017, 119, 94-114.	2.1	5
31	Parametrically forced stably stratified flow in a three-dimensional rectangular container. <i>Journal of Fluid Mechanics</i> , 2020, 900, .	3.4	5
32	Stably stratified square cavity subjected to horizontal oscillations: responses to small amplitude forcing. <i>Journal of Fluid Mechanics</i> , 2021, 915, .	3.4	5
33	Unsaturated Soil Mechanics Principles to Remove and Replace Mitigation for Expansive Clays. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2016, 142, .	3.0	4
34	Modal reduction of a parametrically forced confined viscous flow. <i>Physical Review Fluids</i> , 2019, 4, .	2.5	4
35	Block-Toeplitz preconditioning for static and dynamic linear systems. <i>Linear Algebra and Its Applications</i> , 1998, 279, 51-74.	0.9	3
36	A new physical power MOSFET model for improved simulation in power electronic design. , 0, , .		2

#	ARTICLE	IF	CITATIONS
37	Applied numerical methods and graphical visualization. Computer Applications in Engineering Education, 1996, 4, 127-143.	3.4	2
38	Modelling, simulation, animation, and real-time control (MoSART) for a class of electromechanical systems: a system-theoretic approach. International Journal of Mathematical Education in Science and Technology, 2004, 35, 877-896.	1.4	2
39	Numerical Issues Arising in Determination of Interlayer Conductivities in Layered Unsaturated Soils. International Journal of Geomechanics, 2017, 17, 04016078.	2.7	2
40	Comparison of Averaging Methods for Interface Conductivities in One-Dimensional Unsaturated Flow in Layered Unsaturated Soils. , 2017, , .		2
41	QX factorization of centrosymmetric matrices. Applied Numerical Mathematics, 2018, 134, 11-16.	2.1	2
42	Parametric instabilities of a stratified shear layer. Journal of Fluid Mechanics, 2021, 918, .	3.4	2
43	Zero-free regions for a rational function with applications. Advances in Computational Mathematics, 1995, 3, 265-289.	1.6	1
44	An adaptive modified covariance algorithm for spectral analysis. , 0, , .		1
45	Adaptive modified covariance algorithms for spectral analysis. Signal Processing, 2002, 82, 715-720.	3.7	1
46	Reduced Model of One-Dimensional Unsaturated Flow in Heterogeneous Soils with Spatially Stochastic Soil Hydraulic Conductivities. International Journal of Geomechanics, 2020, 20, .	2.7	1
47	Video: Resonant collapse in a harmonically forced stratified cavity. , 0, , .		1
48	Oblique instability of a stratified oscillatory boundary layer. Journal of Fluid Mechanics, 2022, 933, .	3.4	1
49	Zero-free regions for a rational function with applications. Advances in Computational Mathematics, 1995, 3, 265-289.	1.6	0