Bruno D Welfert

List of Publications by Year
in descending order

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	Oblique instability of a stratified oscillatory boundary layer. Journal of Fluid Mechanics, 2022, 933, .	3.4	1
2	Stably stratified square cavity subjected to horizontal oscillations: responses to small amplitude forcing. Journal of Fluid Mechanics, 2021, 915, .	3.4	5
3	Parametric instabilities of a stratified shear layer. Journal of Fluid Mechanics, 2021, 918, .	3.4	2
4	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
5	Dynamics in a stably stratified tilted squareÂcavity. Journal of Fluid Mechanics, 2020, 883, .	3.4	10
6	Parametrically forced stably stratified flow in a three-dimensional rectangular container. Journal of Fluid Mechanics, 2020, 900, .	3.4	5
7	Reflections and focusing of inertial waves in a librating cube with the rotation axis oblique to its faces. Journal of Fluid Mechanics, 2020, 896, .	3.4	9
8	Precessing cube: resonant excitation of modes and triadic resonance. Journal of Fluid Mechanics, 2020, 887, .	3.4	9
9	Parametrically forced stably stratified cavity flow: complicated nonlinear dynamics near the onset of instability. Journal of Fluid Mechanics, 2019, 871, 1067-1096.	3.4	9
10	Modal reduction of a parametrically forced confined viscous flow. Physical Review Fluids, 2019, 4, .	2.5	4
11	Librational forcing of a rapidly rotating fluid-filled cube. Journal of Fluid Mechanics, 2018, 842, 469-494.	3.4	12
12	Complex dynamics in a stratified lid-driven square cavity flow. Journal of Fluid Mechanics, 2018, 855, 43-66.	3.4	17
13	QX factorization of centrosymmetric matrices. Applied Numerical Mathematics, 2018, 134, 11-16.	2.1	2
14	Vertically forced stably stratified cavity flow: instabilities of the basic state. Journal of Fluid Mechanics, 2018, 851, .	3.4	8
15	Order reduction phenomenon for general linear methods. Applied Numerical Mathematics, 2017, 119, 94-114.	2.1	5
16	Numerical Issues Arising in Determination of Interlayer Conductivities in Layered Unsaturated Soils. International Journal of Geomechanics, 2017, 17, 04016078.	2.7	2
17	Evaluation of closure strategies for a periodically-forced Duffing oscillator with slowly modulated frequency subject to Gaussian white noise. Communications in Nonlinear Science and Numerical Simulation, 2017, 44, 144-158.	3.3	6
18	Comparison of Averaging Methods for Interface Conductivities in One-Dimensional Unsaturated Flow in Layered Unsaturated Soils. , 2017, , .		2

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19	Transition to complex dynamics in the cubic lid-driven cavity. Physical Review Fluids, 2017, 2, .	2.5	20
20	Unsaturated Soil Mechanics Principles to Remove and Replace Mitigation for Expansive Clays. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2016, 142, .	3.0	4
21	Order conditions for general linear methods. Journal of Computational and Applied Mathematics, 2015, 290, 44-64.	2.0	18
22	Influence of Unsaturated Soil Properties Uncertainty on Moisture Flow Modeling. Geotechnical and Geological Engineering, 2011, 29, 161-169.	1.7	17
23	Unconditional stability of second-order ADI schemes applied to multi-dimensional diffusion equations with mixed derivative terms. Applied Numerical Mathematics, 2009, 59, 677-692.	2.1	95
24	Numerical solution of a Fredholm integro-differential equation modelling -neural networks. Applied Mathematics and Computation, 2008, 195, 523-536.	2.2	21
25	Stability of ADI schemes applied to convection–diffusion equations with mixed derivative terms. Applied Numerical Mathematics, 2007, 57, 19-35.	2.1	96
26	Analysis of iterated ADI-FDTD schemes for Maxwell curl equations. Journal of Computational Physics, 2007, 222, 9-27.	3.8	15
27	Numerical solution of a Fredholm integro-differential equation modelling neural networks. Applied Numerical Mathematics, 2006, 56, 423-432.	2.1	26
28	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
29	Stability of Gauss–Radau Pseudospectral Approximations of the One-Dimensional Wave Equation. Journal of Scientific Computing, 2003, 18, 287-313.	2.3	11
30	A nonstandard Euler scheme for $y''' + g(y)y'' + f(y)y = 0$. Journal of Computational and Applied Mathematics, 2003, 151, 335-353.	2.0	5
31	Adaptive modified covariance algorithms for spectral analysis. Signal Processing, 2002, 82, 715-720.	3.7	1
32	The Newton Iteration on Lie Groups. BIT Numerical Mathematics, 2000, 40, 121-145.	2.0	49
33	Two-Step Runge-Kutta: Theory and Practice. BIT Numerical Mathematics, 2000, 40, 775-799.	2.0	29
34	Block-Toeplitz preconditioning for static and dynamic linear systems. Linear Algebra and Its Applications, 1998, 279, 51-74.	0.9	3
35	Pseudospectra of waveform relaxation operators. Computers and Mathematics With Applications, 1998, 36, 67-85.	2.7	9
36	Generation of Pseudospectral Differentiation Matrices I. SIAM Journal on Numerical Analysis, 1997, 34, 1640-1657.	2.3	85

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37	A static, physical VDMOS model based on the charge-sheet model. IEEE Transactions on Electron Devices, 1996, 43, 157-164.	3.0	18
38	Applied numerical methods and graphical visualization. Computer Applications in Engineering Education, 1996, 4, 127-143.	3.4	2
39	Application of the MOS charge-sheet model to nonuniform doping along the channel. Solid-State Electronics, 1995, 38, 1497-1503.	1.4	14
40	Zero-flee regions for a rational function with applications. Advances in Computational Mathematics, 1995, 3, 265-289.	1.6	0
41	Zero-flee regions for a rational function with applications. Advances in Computational Mathematics, 1995, 3, 265-289.	1.6	1
42	On the eigenvalues of second-order pseudospectral differentiation operators. Computer Methods in Applied Mechanics and Engineering, 1994, 116, 281-292.	6.6	6
43	A Posteriori Error Estimates for the Stokes Problem. SIAM Journal on Numerical Analysis, 1991, 28, 591-623.	2.3	114
44	A comparison between the mini-element and the Petrov-Galerkin formulations for the generalized stokes problem. Computer Methods in Applied Mechanics and Engineering, 1990, 83, 61-68.	6.6	28
45	A posteriori error estimates for the Stokes equations: A comparison. Computer Methods in Applied Mechanics and Engineering, 1990, 82, 323-340.	6.6	53
46	A class of iterative methods for solving saddle point problems. Numerische Mathematik, 1989, 56, 645-666.	1.9	180
47	A new physical power MOSFET model for improved simulation in power electronic design. , 0, , .		2
48	An adaptive modified covariance algorithm for spectral analysis. , 0, , .		1
49	Video: Resonant collapse in a harmonically forced stratified cavity. , 0, , .		1