Hinke Maria Osinga

List of Publications by Year
in descending order

87	2,673	201575	197736
papers	citations	27 h-index	49 g-index

88	88	88	1200
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Mixed-Mode Oscillations with Multiple Time Scales. SIAM Review, 2012, 54, 211-288.	4.2	431
2	A SURVEY OF METHODS FOR COMPUTING (UN)STABLE MANIFOLDS OF VECTOR FIELDS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2005, 15, 763-791.	0.7	212
3	Growing 1D and Quasi-2D Unstable Manifolds of Maps. Journal of Computational Physics, 1998, 146, 404-419.	1.9	108
4	Continuation of Quasi-periodic Invariant Tori. SIAM Journal on Applied Dynamical Systems, 2005, 4, 459-488.	0.7	98
5	Two-dimensional global manifolds of vector fields. Chaos, 1999, 9, 768-774.	1.0	85
6	Full system bifurcation analysis of endocrine bursting models. Journal of Theoretical Biology, 2010, 264, 1133-1146.	0.8	84
7	Mixed-mode oscillations and slow manifolds in the self-coupled FitzHugh-Nagumo system. Chaos, 2008, 18, 015107.	1.0	81
8	Computing One-Dimensional Stable Manifolds and Stable Sets of Planar Maps without the Inverse. SIAM Journal on Applied Dynamical Systems, 2004, 3, 161-190.	0.7	79
9	A set oriented approach to global optimal control. ESAIM - Control, Optimisation and Calculus of Variations, 2004, 10, 259-270.	0.7	67
10	Fourier methods for quasi-periodic oscillations. International Journal for Numerical Methods in Engineering, 2006, 67, 629-671.	1.5	66
11	Global bifurcations of the Lorenz manifold. Nonlinearity, 2006, 19, 2947-2972.	0.6	64
12	The Geometry of Slow Manifolds near a Folded Node. SIAM Journal on Applied Dynamical Systems, 2008, 7, 1131-1162.	0.7	62
13	Computing Geodesic Level Sets on Global (Un)stable Manifolds of Vector Fields. SIAM Journal on Applied Dynamical Systems, 2003, 2, 546-569.	0.7	61
14	Numerical continuation of canard orbits in slowâ€“fast dynamical systems. Nonlinearity, 2010, 23, 739-765.	0.6	53
15	Continuation-based Computation of Global Isochrons. SIAM Journal on Applied Dynamical Systems, 2010, 9, 1201-1228.	0.7	49
16	Globalizing Two-Dimensional Unstable Manifolds of Maps. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1998, 08, 483-503.	0.7	48
17	Resetting Behavior in a Model of Bursting in Secretory Pituitary Cells: Distinguishing Plateaus from Pseudo-Plateaus. Bulletin of Mathematical Biology, 2008, 70, 68-88.	0.9	43
18	Boundary crisis in quasiperiodically forced systems. Physica D: Nonlinear Phenomena, 2000, 141, 54-64.	1.3	41

#	Article	IF	Citations
19	Arnol$'$d Tongues Arising from a Grazing-Sliding Bifurcation. SIAM Journal on Applied Dynamical Systems, 2009, 8, 1434-1461.	0.7	38
20	Cross-currents between biology and mathematics: The codimension of pseudo-plateau bursting. Discrete and Continuous Dynamical Systems, 2012, 32, 2853-2877.	0.5	37
21	Computing One-Dimensional Global Manifolds of PoincarÃ© Maps by Continuation. SIAM Journal on Applied Dynamical Systems, 2005, 4, 1008-1041.	0.7	34
22	A unified model of CA1/3 pyramidal cells: An investigation into excitability. Progress in Biophysics and Molecular Biology, 2011, 105, 34-48.	1.4	34
23	Computing Invariant Manifolds via the Continuation of Orbit Segments. Understanding Complex Systems, 2007, , 117-154.	0.3	34
24	MULTISTABILITY AND NONSMOOTH BIFURCATIONS IN THE QUASIPERIODICALLY FORCED CIRCLE MAP. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2001, 11, 3085-3105.	0.7	33
25	Visualizing the structure of chaos in the Lorenz system. Computers and Graphics, 2002, 26, 815-823.	1.4	33
26	Crocheting the Lorenz Manifold. Mathematical Intelligencer, 2004, 26, 25-37.	0.1	30
27	Understanding anomalous delays in a model of intracellular calcium dynamics. Chaos, 2010, 20, 045104.	1.0	29
28	Dynamical systems analysis of spike-adding mechanisms in transient bursts. Journal of Mathematical Neuroscience, 2012, 2, 7.	2.4	28
29	Global invariant manifolds in the transition to preturbulence in the Lorenz system. Indagationes Mathematicae, 2011, 22, 222-240.	0.2	26
30	Tangency Bifurcations of Global PoincarÃ© Maps. SIAM Journal on Applied Dynamical Systems, 2008, 7, 712-754.	0.7	24
31	Global Invariant Manifolds Near Homoclinic Orbits to a Real Saddle: (Non)Orientability and Flip Bifurcation. SIAM Journal on Applied Dynamical Systems, 2013, 12, 1803-1846.	0.7	23
32	Global organization of phase space in the transition to chaos in the Lorenz system. Nonlinearity, 2015, 28, R113-R139.	0.6	23
33	COMPUTING TWO-DIMENSIONAL GLOBAL INVARIANT MANIFOLDS IN SLOWâ€“FAST SYSTEMS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2007, 17, 805-822.	0.7	21
34	The role of large-conductance Calcium-activated (BK) channels in shaping bursting oscillations of a somatotroph cell model. Physica D: Nonlinear Phenomena, 2010, 239, 485-493.	1.3	21
35	Investigating Torus Bifurcations in the Forced Van Der Pol Oscillator. The IMA Volumes in Mathematics and Its Applications, 2000, , 199-208.	0.5	21
36	Investigating the consequences of global bifurcations for two-dimensional invariant manifolds of vector fields. Discrete and Continuous Dynamical Systems, 2011, 29, 1309-1344.	0.5	21

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37	Invariant manifolds and global bifurcations. Chaos, 2015, 25, 097604.	1.0	20
38	NONORIENTABLE MANIFOLDS IN THREE-DIMENSIONAL VECTOR FIELDS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2003, 13, 553-570.	0.7	19
39	Bifurcation analysis of a smoothed model of a forced impacting beam and comparison with an experiment. Nonlinear Dynamics, 2014, 77, 951-966.	2.7	19
40	Mixed-Mode Oscillations and Twin Canard Orbits in an Autocatalytic Chemical Reaction. SIAM Journal on Applied Dynamical Systems, 2017, 16, 2165-2195.	0.7	18
41	The geometry of mixed-mode oscillations in the Olsen model for the Peroxidase-Oxidase reaction. Discrete and Continuous Dynamical Systems - Series S, 2009, 2, 807-827.	0.6	18
42	BIFURCATIONS OF STABLE SETS IN NONINVERTIBLE PLANAR MAPS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2005, 15, 891-904.	0.7	17
43	Solving Winfree's puzzle: The isochrons in the FitzHugh-Nagumo model. Chaos, 2014, 24, 013131.	1.0	17
44	The Lorenz manifold as a collection of geodesic level sets. Nonlinearity, 2004, 17, C1-C6.	0.6	16
45	Global invariant manifolds near a Shilnikov homoclinic bifurcation. Journal of Computational Dynamics, 2014, 1, 1-38.	0.4	16
46	The Geometry of the Solution Set of Nonlinear Optimal Control Problems. Journal of Dynamics and Differential Equations, 2006, 18, 881-900.	1.0	15
47	Î±-flips and T-points in the Lorenz system. Nonlinearity, 2015, 28, R39-R65.	0.6	15
48	Modeling Mechanisms of Cell Secretion. Acta Biotheoretica, 2010, 58, 315-327.	0.7	13
49	Finding First Foliation Tangencies in the Lorenz System. SIAM Journal on Applied Dynamical Systems, 2017, 16, 2127-2164.	0.7	13
50	Boundary crisis bifurcation in two parameters. Journal of Difference Equations and Applications, 2006, 12, 997-1008.	0.7	12
51	Locus of boundary crisis: Expect infinitely many gaps. Physical Review E, 2006, 74, 035201.	0.8	12
52	Interacting Global Invariant Sets in a Planar Map Model of Wild Chaos. SIAM Journal on Applied Dynamical Systems, 2013, 12, 1280-1329.	0.7	12
53	Computing the Stable Manifold of a Saddle Slow Manifold. SIAM Journal on Applied Dynamical Systems, 2018, 17, 350-379.	0.7	12
54	Tangencies Between Global Invariant Manifolds and Slow Manifolds Near a Singular Hopf Bifurcation. SIAM Journal on Applied Dynamical Systems, 2018, 17, 1395-1431.	0.7	12

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55	Saddle Slow Manifolds and Canard Orbits in R 4 $mathbb{R}^{4}$ and Application to the Full Hodgkinâ€“Huxley Model. Journal of Mathematical Neuroscience, 2018, 8, 5.	2.4	12
56	Geometric analysis of transient bursts. Chaos, 2013, 23, 046107.	1.0	11
57	Saddle Invariant Objects and Their Global Manifolds in a Neighborhood of a Homoclinic Flip Bifurcation of Case B. SIAM Journal on Applied Dynamical Systems, 2017, 16, 640-686.	0.7	11
58	Existence of blenders in a HÃ©non-like family: geometric insights from invariant manifold computations. Nonlinearity, 2018, 31, R239-R267.	0.6	11
59	Two-dimensional invariant manifolds in four-dimensional dynamical systems. Computers and Graphics, 2005, 29, 289-297.	1.4	10
60	Cascades of Global Bifurcations and Chaos near a Homoclinic Flip Bifurcation: A Case Study. SIAM Journal on Applied Dynamical Systems, 2018, 17, 2784-2829.	0.7	10
61	Efficient computation of quasiperiodic oscillations in nonlinear systems with fast rotating parts. Nonlinear Dynamics, 2008, 51, 529-539.	2.7	9
62	Forward-Time and Backward-Time Isochrons and Their Interactions. SIAM Journal on Applied Dynamical Systems, 2015, 14, 1418-1453.	0.7	9
63	Unfolding the Cusp-Cusp Bifurcation of Planar Endomorphisms. SIAM Journal on Applied Dynamical Systems, 2007, 6, 403-440.	0.7	7
64	The singular limit of a Hopf bifurcation. Discrete and Continuous Dynamical Systems, 2012, 32, 2805-2823.	0.5	7
65	Understanding the geometry of dynamics: the stable manifold of the Lorenz system. Journal of the Royal Society of New Zealand, 2018, 48, 203-214.	1.0	6
66	Chaos and Wild Chaos in Lorenz-Type Systems. Springer Proceedings in Mathematics and Statistics, 2014, , 75-98.	0.1	5
67	Interactions of the Julia Set with Critical and (Un)Stable Sets in an Angle-Doubling Map on â„‚{0}. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2015, 25, 1530013.	0.7	5
68	From wild Lorenz-like to wild Rovella-like dynamics. Dynamical Systems, 2015, 30, 525-542.	0.2	5
69	Visualizing curvature on the Lorenz manifold. Journal of Mathematics and the Arts, 2007, 1, 113-123.	0.1	4
70	Continuation-Based Numerical Detection of After-Depolarization and Spike-Adding Thresholds. Neural Computation, 2013, 25, 877-900.	1.3	4
71	Global isochrons of a planar system near a phaseless set with saddle equilibria. European Physical Journal: Special Topics, 2016, 225, 2645-2654.	1.2	4
72	Transient spike adding in the presence of equilibria. European Physical Journal: Special Topics, 2016, 225, 2601-2612.	1.2	3

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73	Visualizing global manifolds during the transition to chaos in the Lorenz system. Mathematics and Visualization, 2009, , 115-126.	0.4	3
74	A Codimension-Four Singularity with Potential for Action. Springer Proceedings in Mathematics and Statistics, 2016, , 253-268.	0.1	3
75	A Surface of Heteroclinic Connections Between Two Saddle Slow Manifolds in the Olsen Model. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2020, 30, 2030048.	0.7	3
76	Determining the global manifold structure of a continuous-time heterodimensional cycle. Journal of Computational Dynamics, 2022, 9, 393.	0.4	3
77	Codimension-one tangency bifurcations of global PoincarÃ© maps of four-dimensional vector fields. Nonlinearity, 2009, 22, 1091-1121.	0.6	2
78	Parameter-dependent behaviour of periodic channels in a locus of boundary crisis. European Physical Journal: Special Topics, 2017, 226, 1739-1750.	1.2	2
79	Spatiotemporal stability of periodic travelling waves in a heteroclinic-cycle model. Nonlinearity, 2021, 34, 5576-5598.	0.6	2
80	A Continuation Approach to Computing Phase Resetting Curves. Studies in Systems, Decision and Control, 2020, , 3-30.	0.8	2
81	Numerical continuation of spiral waves in heteroclinic networks of cyclic dominance. IMA Journal of Applied Mathematics, 0, , .	0.8	1
82	Matching geometric and expansion characteristics of wild chaotic attractors. European Physical Journal: Special Topics, 0, , 1.	1.2	1
83	NUMERICAL STUDY OF MANIFOLD COMPUTATIONS. , 2005, , .		0
84	Interview with Herbert Bishop Keller. , 2009, , 45-52.		0
85	Adaptive Topographies and Equilibrium Selection in an Evolutionary Game. PLoS ONE, 2015, 10, e0116307.	1.1	0
86	Generalized Mandelbrot and Julia Sets in a Family of Planar Angle-Doubling Maps. Springer Proceedings in Mathematics and Statistics, 2020, , 21-54.	0.1	0
87	Preface: Special issue on continuation methods and applications. Journal of Computational Dynamics, 2022, 9, i.	0.4	0