Hinke Maria Osinga

List of Publications by Year
in descending order

87 papers	2,673 citations	201674 27 h-index	197818 49 g-index
88 all docs	88 docs citations	88 times ranked	1200 citing authors

#	Article	IF	Citations
1	Determining the global manifold structure of a continuous-time heterodimensional cycle. Journal of Computational Dynamics, 2022, 9, 393.	1.1	3
2	Preface: Special issue on continuation methods and applications. Journal of Computational Dynamics, 2022, 9, i.	1.1	0
3	Spatiotemporal stability of periodic travelling waves in a heteroclinic-cycle model. Nonlinearity, 2021, 34, 5576-5598.	1.4	2
4	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.	1.7	3
5	Generalized Mandelbrot and Julia Sets in a Family of Planar Angle-Doubling Maps. Springer Proceedings in Mathematics and Statistics, 2020, , 21-54.	0.2	0
6	A Continuation Approach to Computing Phase Resetting Curves. Studies in Systems, Decision and Control, 2020, , 3-30.	1.0	2
7	Computing the Stable Manifold of a Saddle Slow Manifold. SIAM Journal on Applied Dynamical Systems, 2018, 17, 350-379.	1.6	12
8	Understanding the geometry of dynamics: the stable manifold of the Lorenz system. Journal of the Royal Society of New Zealand, 2018, 48, 203-214.	1.9	6
9	Cascades of Global Bifurcations and Chaos near a Homoclinic Flip Bifurcation: A Case Study. SIAM Journal on Applied Dynamical Systems, 2018, 17, 2784-2829.	1.6	10
10	Tangencies Between Global Invariant Manifolds and Slow Manifolds Near a Singular Hopf Bifurcation. SIAM Journal on Applied Dynamical Systems, 2018, 17, 1395-1431.	1.6	12
11	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
12	Existence of blenders in a HÃ©non-like family: geometric insights from invariant manifold computations. Nonlinearity, 2018, 31, R239-R267.	1.4	11
13	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.	1.6	11
14	Parameter-dependent behaviour of periodic channels in a locus of boundary crisis. European Physical Journal: Special Topics, 2017, 226, 1739-1750.	2.6	2
15	Mixed-Mode Oscillations and Twin Canard Orbits in an Autocatalytic Chemical Reaction. SIAM Journal on Applied Dynamical Systems, 2017, 16, 2165-2195.	1.6	18
16	Finding First Foliation Tangencies in the Lorenz System. SIAM Journal on Applied Dynamical Systems, 2017, 16, 2127-2164.	1.6	13
17	Transient spike adding in the presence of equilibria. European Physical Journal: Special Topics, 2016, 225, 2601-2612.	2.6	3
18	Global isochrons of a planar system near a phaseless set with saddle equilibria. European Physical Journal: Special Topics, 2016, 225, 2645-2654.	2.6	4

#	Article	IF	Citations
19	A Codimension-Four Singularity with Potential for Action. Springer Proceedings in Mathematics and Statistics, 2016, , 253-268.	0.2	3
20	Adaptive Topographies and Equilibrium Selection in an Evolutionary Game. PLoS ONE, 2015, 10, e0116307.	2.5	0
21	Î±-flips and T-points in the Lorenz system. Nonlinearity, 2015, 28, R39-R65.	1.4	15
22	Invariant manifolds and global bifurcations. Chaos, 2015, 25, 097604.	2.5	20
23	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.	1.7	5
24	From wild Lorenz-like to wild Rovella-like dynamics. Dynamical Systems, 2015, 30, 525-542.	0.4	5
25	Global organization of phase space in the transition to chaos in the Lorenz system. Nonlinearity, 2015, 28, R113-R139.	1.4	23
26	Forward-Time and Backward-Time Isochrons and Their Interactions. SIAM Journal on Applied Dynamical Systems, 2015, 14, 1418-1453.	1.6	9
27	Bifurcation analysis of a smoothed model of a forced impacting beam and comparison with an experiment. Nonlinear Dynamics, 2014, 77, 951-966.	5.2	19
28	Global invariant manifolds near a Shilnikov homoclinic bifurcation. Journal of Computational Dynamics, 2014, 1, 1-38.	1.1	16
29	Chaos and Wild Chaos in Lorenz-Type Systems. Springer Proceedings in Mathematics and Statistics, 2014, , 75-98.	0.2	5
30	Solving Winfree's puzzle: The isochrons in the FitzHugh-Nagumo model. Chaos, 2014, 24, 013131.	2.5	17
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.	1.6	23
32	Interacting Global Invariant Sets in a Planar Map Model of Wild Chaos. SIAM Journal on Applied Dynamical Systems, 2013, 12, 1280-1329.	1.6	12
33	Continuation-Based Numerical Detection of After-Depolarization and Spike-Adding Thresholds. Neural Computation, 2013, 25, 877-900.	2.2	4
34	Geometric analysis of transient bursts. Chaos, 2013, 23, 046107.	2.5	11
35	The singular limit of a Hopf bifurcation. Discrete and Continuous Dynamical Systems, 2012, 32, 2805-2823.	0.9	7
36	Mixed-Mode Oscillations with Multiple Time Scales. SIAM Review, 2012, 54, 211-288.	9.5	431

#	Article	IF	Citations
37	Dynamical systems analysis of spike-adding mechanisms in transient bursts. Journal of Mathematical Neuroscience, 2012, 2, 7.	2.4	28
38	Cross-currents between biology and mathematics: The codimension of pseudo-plateau bursting. Discrete and Continuous Dynamical Systems, 2012, 32, 2853-2877.	0.9	37
39	A unified model of CA1/3 pyramidal cells: An investigation into excitability. Progress in Biophysics and Molecular Biology, 2011, 105, 34-48.	2.9	34
40	Global invariant manifolds in the transition to preturbulence in the Lorenz system. Indagationes Mathematicae, 2011, 22, 222-240.	0.4	26
41	Investigating the consequences of global bifurcations for two-dimensional invariant manifolds of vector fields. Discrete and Continuous Dynamical Systems, 2011, 29, 1309-1344.	0.9	21
42	Modeling Mechanisms of Cell Secretion. Acta Biotheoretica, 2010, 58, 315-327.	1.5	13
43	Full system bifurcation analysis of endocrine bursting models. Journal of Theoretical Biology, 2010, 264, 1133-1146.	1.7	84
44	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.	2.8	21
45	Understanding anomalous delays in a model of intracellular calcium dynamics. Chaos, 2010, 20, 045104.	2.5	29
46	Numerical continuation of canard orbits in slowâ€“fast dynamical systems. Nonlinearity, 2010, 23, 739-765.	1.4	53
47	Continuation-based Computation of Global Isochrons. SIAM Journal on Applied Dynamical Systems, 2010, 9, 1201-1228.	1.6	49
48	Codimension-one tangency bifurcations of global PoincarÃ© maps of four-dimensional vector fields. Nonlinearity, 2009, 22, 1091-1121.	1.4	2
49	Arnol$'$d Tongues Arising from a Grazing-Sliding Bifurcation. SIAM Journal on Applied Dynamical Systems, 2009, 8, 1434-1461.	1.6	38
50	Interview with Herbert Bishop Keller. , 2009, , 45-52.		0
51	Visualizing global manifolds during the transition to chaos in the Lorenz system. Mathematics and Visualization, 2009, , 115-126.	0.6	3
52	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.	1.1	18
53	Efficient computation of quasiperiodic oscillations in nonlinear systems with fast rotating parts. Nonlinear Dynamics, 2008, 51, 529-539.	5.2	9
54	Resetting Behavior in a Model of Bursting in Secretory Pituitary Cells: Distinguishing Plateaus from Pseudo-Plateaus. Bulletin of Mathematical Biology, 2008, 70, 68-88.	1.9	43

#	Article	IF	Citations
55	Mixed-mode oscillations and slow manifolds in the self-coupled FitzHugh-Nagumo system. Chaos, 2008, 18, 015107.	2.5	81
56	The Geometry of Slow Manifolds near a Folded Node. SIAM Journal on Applied Dynamical Systems, 2008, 7, 1131-1162.	1.6	62
57	Tangency Bifurcations of Global PoincarÃ© Maps. SIAM Journal on Applied Dynamical Systems, 2008, 7, 712-754.	1.6	24
58	Visualizing curvature on the Lorenz manifold. Journal of Mathematics and the Arts, 2007, 1, 113-123.	0.2	4
59	Unfolding the Cusp-Cusp Bifurcation of Planar Endomorphisms. SIAM Journal on Applied Dynamical Systems, 2007, 6, 403-440.	1.6	7
60	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.	1.7	21
61	Computing Invariant Manifolds via the Continuation of Orbit Segments. Understanding Complex Systems, 2007, , 117-154.	0.6	34
62	Boundary crisis bifurcation in two parameters. Journal of Difference Equations and Applications, 2006, 12, 997-1008.	1.1	12
63	The Geometry of the Solution Set of Nonlinear Optimal Control Problems. Journal of Dynamics and Differential Equations, 2006, 18, 881-900.	1.9	15
64	Fourier methods for quasi-periodic oscillations. International Journal for Numerical Methods in Engineering, 2006, 67, 629-671.	2.8	66
65	Global bifurcations of the Lorenz manifold. Nonlinearity, 2006, 19, 2947-2972.	1.4	64
66	Locus of boundary crisis: Expect infinitely many gaps. Physical Review E, 2006, 74, 035201.	2.1	12
67	NUMERICAL STUDY OF MANIFOLD COMPUTATIONS. , 2005, , .		0
68	Two-dimensional invariant manifolds in four-dimensional dynamical systems. Computers and Graphics, 2005, 29, 289-297.	2.5	10
69	BIFURCATIONS OF STABLE SETS IN NONINVERTIBLE PLANAR MAPS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2005, 15, 891-904.	1.7	17
70	Continuation of Quasi-periodic Invariant Tori. SIAM Journal on Applied Dynamical Systems, 2005, 4, 459-488.	1.6	98
71	Computing One-Dimensional Global Manifolds of PoincarÃ© Maps by Continuation. SIAM Journal on Applied Dynamical Systems, 2005, 4, 1008-1041.	1.6	34
72	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.	1.7	212

#	Article	IF	Citations
73	The Lorenz manifold as a collection of geodesic level sets. Nonlinearity, 2004, 17, C1-C6.	1.4	16
74	A set oriented approach to global optimal control. ESAIM - Control, Optimisation and Calculus of Variations, 2004, 10, 259-270.	1.3	67
75	Crocheting the Lorenz Manifold. Mathematical Intelligencer, 2004, 26, 25-37.	0.2	30
76	Computing One-Dimensional Stable Manifolds and Stable Sets of Planar Maps without the Inverse. SIAM Journal on Applied Dynamical Systems, 2004, 3, 161-190.	1.6	79
77	Computing Geodesic Level Sets on Global (Un)stable Manifolds of Vector Fields. SIAM Journal on Applied Dynamical Systems, 2003, 2, 546-569.	1.6	61
78	NONORIENTABLE MANIFOLDS IN THREE-DIMENSIONAL VECTOR FIELDS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2003, 13, 553-570.	1.7	19
79	Visualizing the structure of chaos in the Lorenz system. Computers and Graphics, 2002, 26, 815-823.	2.5	33
80	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.	1.7	33
81	Boundary crisis in quasiperiodically forced systems. Physica D: Nonlinear Phenomena, 2000, 141, 54-64.	2.8	41
82	Investigating Torus Bifurcations in the Forced Van Der Pol Oscillator. The IMA Volumes in Mathematics and Its Applications, 2000, , 199-208.	0.5	21
83	Two-dimensional global manifolds of vector fields. Chaos, 1999, 9, 768-774.	2.5	85
84	Growing 1D and Quasi-2D Unstable Manifolds of Maps. Journal of Computational Physics, 1998, 146, 404-419.	3.8	108
85	Globalizing Two-Dimensional Unstable Manifolds of Maps. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1998, 08, 483-503.	1.7	48
86	Numerical continuation of spiral waves in heteroclinic networks of cyclic dominance. IMA Journal of Applied Mathematics, 0, , .	1.6	1
87	Matching geometric and expansion characteristics of wild chaotic attractors. European Physical Journal: Special Topics, 0, , 1.	2.6	1