

# William D Kalies

## List of Publications by Year in descending order

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28  
papers

675  
citations

687363

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g-index

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28  
docs citations

28  
times ranked

374  
citing authors

#	ARTICLE	IF	CITATIONS
1	Lattice Structures for Attractors III. Journal of Dynamics and Differential Equations, 2022, 34, 1729-1768.	1.9	9
2	Complexity in a Hybrid van der Pol System. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2021, 31, .	1.7	0
3	Topological portraits of multiscale coordination dynamics. Journal of Neuroscience Methods, 2020, 339, 108672.	2.5	15
4	Analytic Continuation of Local (Un)Stable Manifolds with Rigorous Computer Assisted Error Bounds. SIAM Journal on Applied Dynamical Systems, 2018, 17, 157-202.	1.6	15
5	An Algorithmic Approach to Lattices and Order in Dynamics. SIAM Journal on Applied Dynamical Systems, 2018, 17, 1617-1649.	1.6	6
6	Chaos near a resonant inclination-flip. Physica D: Nonlinear Phenomena, 2016, 334, 141-157.	2.8	2
7	Lattice Structures for Attractors II. Foundations of Computational Mathematics, 2016, 16, 1151-1191.	2.5	15
8	Efficient computation of Lyapunov functions for Morse decompositions. Discrete and Continuous Dynamical Systems - Series B, 2015, 20, 2419-2451.	0.9	11
9	Lattice structures for attractors I. Journal of Computational Dynamics, 2014, 1, 307-338.	1.1	17
10	Rigorous Computation of the Global Dynamics of Integrodifference Equations with Smooth Nonlinearities. SIAM Journal on Numerical Analysis, 2013, 51, 2957-2983.	2.3	26
11	A Database Schema for the Analysis of Global Dynamics. , 2009, , .		0
12	Three-Dimensional Analysis of Solid Oxide Fuel Cell Ni-YSZ Anode Interconnectivity. Microscopy and Microanalysis, 2009, 15, 71-77.	0.4	85
13	A Database Schema for the Analysis of Global Dynamics of Multiparameter Systems. SIAM Journal on Applied Dynamical Systems, 2009, 8, 757-789.	1.6	79
14	Verified Homology Computations for Nodal Domains. Multiscale Modeling and Simulation, 2009, 7, 1695-1726.	1.6	17
15	Closed characteristics on singular energy levels of second-order Lagrangian systems. Journal of Differential Equations, 2008, 244, 555-581.	2.2	1
16	Probabilistic and numerical validation of homology computations for nodal domains. Electronic Research Announcements in Mathematical Sciences, 2007, 13, 60-74.	0.7	9
17	Polygonal approximation of flows. Topology and Its Applications, 2007, 154, 2501-2520.	0.4	21
18	Topological Horseshoes of Traveling Waves for a Fast-Slow Predator-Prey System. Journal of Dynamics and Differential Equations, 2007, 19, 623-654.	1.9	12

#	ARTICLE	IF	CITATIONS
19	On the detection of simple points in higher dimensions using cubical homology. IEEE Transactions on Image Processing, 2006, 15, 2462-2469.	9.8	11
20	A Computational Approach to Conley's Decomposition Theorem. Journal of Computational and Nonlinear Dynamics, 2006, 1, 312-319.	1.2	47
21	An Algorithmic Approach to Chain Recurrence. Foundations of Computational Mathematics, 2005, 5, 409-449.	2.5	79
22	Topological characterization of spatial-temporal chaos. Physical Review E, 2004, 70, 035203.	2.1	32
23	Closed characteristics of second-order Lagrangians. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2004, 134, 143-158.	1.2	5
24	Slow motion in higher-order systems and $\hat{\Gamma}$ -convergence in one space dimension. Nonlinear Analysis: Theory, Methods & Applications, 2001, 44, 33-57.	1.1	12
25	Homotopy Classes for Stable Periodic and Chaotic Patterns in Fourth-Order Hamiltonian Systems. Communications in Mathematical Physics, 2000, 214, 573-592.	2.2	30
26	Homotopy Classes for Stable Connections between Hamiltonian Saddle-Focus Equilibria. Communications in Mathematical Physics, 1998, 193, 337-371.	2.2	66
27	On the asymptotic behavior of a phase-field model for elastic phase transitions. Journal of Dynamics and Differential Equations, 1997, 9, 289-306.	1.9	0
28	Multitransition Homoclinic and Heteroclinic Solutions of the Extended Fisher-Kolmogorov Equation. Journal of Differential Equations, 1996, 131, 209-228.	2.2	53