

Stefan Klus

List of Publications by Year in descending order

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34
papers

986
citations

687220

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434063

31
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all docs

34
docs citations

34
times ranked

573
citing authors

#	ARTICLE	IF	CITATIONS
1	Data-Driven Model Reduction and Transfer Operator Approximation. <i>Journal of Nonlinear Science</i> , 2018, 28, 985-1010.	1.0	192
2	Data-driven approximation of the Koopman generator: Model reduction, system identification, and control. <i>Physica D: Nonlinear Phenomena</i> , 2020, 406, 132416.	1.3	128
3	Koopman operator-based model reduction for switched-system control of PDEs. <i>Automatica</i> , 2019, 106, 184-191.	3.0	114
4	Variational Koopman models: Slow collective variables and molecular kinetics from short off-equilibrium simulations. <i>Journal of Chemical Physics</i> , 2017, 146, 154104.	1.2	100
5	On the numerical approximation of the Perron-Frobenius and Koopman operator. <i>Journal of Computational Dynamics</i> , 2016, 3, 1-12.	0.4	76
6	Eigendecompositions of Transfer Operators in Reproducing Kernel Hilbert Spaces. <i>Journal of Nonlinear Science</i> , 2020, 30, 283-315.	1.0	52
7	Tensor-based dynamic mode decomposition. <i>Nonlinearity</i> , 2018, 31, 3359-3380.	0.6	41
8	Deeptime: a Python library for machine learning dynamical models from time series data. <i>Machine Learning: Science and Technology</i> , 2022, 3, 015009.	2.4	37
9	Transition Manifolds of Complex Metastable Systems. <i>Journal of Nonlinear Science</i> , 2018, 28, 471-512.	1.0	36
10	Multidimensional Approximation of Nonlinear Dynamical Systems. <i>Journal of Computational and Nonlinear Dynamics</i> , 2019, 14, .	0.7	31
11	Kernel-Based Approximation of the Koopman Generator and Schrödinger Operator. <i>Entropy</i> , 2020, 22, 722.	1.1	26
12	Kernel methods for detecting coherent structures in dynamical data. <i>Chaos</i> , 2019, 29, 123112.	1.0	17
13	A kernel-based approach to molecular conformation analysis. <i>Journal of Chemical Physics</i> , 2018, 149, 244109.	1.2	15
14	Towards tensor-based methods for the numerical approximation of the Perron-Frobenius and Koopman operator. <i>Journal of Computational Dynamics</i> , 2016, 3, 139-161.	0.4	12
15	Tensor-Based Algorithms for Image Classification. <i>Algorithms</i> , 2019, 12, 240.	1.2	11
16	Diffusion maps tailored to arbitrary non-degenerate Itô processes. <i>Applied and Computational Harmonic Analysis</i> , 2020, 48, 242-265.	1.1	11
17	Nearest-neighbor interaction systems in the tensor-train format. <i>Journal of Computational Physics</i> , 2017, 341, 140-162.	1.9	10
18	A Set-Oriented Numerical Approach for Dynamical Systems with Parameter Uncertainty. <i>SIAM Journal on Applied Dynamical Systems</i> , 2017, 16, 120-138.	0.7	9

#	ARTICLE	IF	CITATIONS
19	Symmetric and antisymmetric kernels for machine learning problems in quantum physics and chemistry. <i>Machine Learning: Science and Technology</i> , 2021, 2, 045016.	2.4	9
20	Dimensionality Reduction of Complex Metastable Systems via Kernel Embeddings of Transition Manifolds. <i>Journal of Nonlinear Science</i> , 2021, 31, 1.	1.0	9
21	An efficient algorithm for the parallel solution of high-dimensional differential equations. <i>Journal of Computational and Applied Mathematics</i> , 2011, 235, 3053-3062.	1.1	8
22	Data-driven model reduction of agent-based systems using the Koopman generator. <i>PLoS ONE</i> , 2021, 16, e0250970.	1.1	6
23	Sensing and control in symmetric networks. <i>Dynamical Systems</i> , 2017, 32, 61-79.	0.2	5
24	Koopman analysis of quantum systems*. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2022, 55, 314002.	0.7	5
25	Estimation of Koopman Transfer Operators for the Equatorial Pacific SST. <i>Journals of the Atmospheric Sciences</i> , 2021, 78, 1227-1244.	0.6	4
26	Tensor-based computation of metastable and coherent sets. <i>Physica D: Nonlinear Phenomena</i> , 2021, 427, 133018.	1.3	4
27	Feedback Control of Nonlinear PDEs Using Data-Efficient Reduced Order Models Based on the Koopman Operator. <i>Lecture Notes in Control and Information Sciences</i> , 2020, , 257-282.	0.6	4
28	Continuous relaxations for the traveling salesman problem. <i>Nonlinear Dynamics</i> , 2019, 97, 2003-2022.	2.7	3
29	Learning Chemical Reaction Networks from Trajectory Data. <i>SIAM Journal on Applied Dynamical Systems</i> , 2019, 18, 2000-2046.	0.7	3
30	GraphKKE: graph Kernel Koopman embedding for human microbiome analysis. <i>Applied Network Science</i> , 2020, 5, .	0.8	3
31	Feature space approximation for kernel-based supervised learning. <i>Knowledge-Based Systems</i> , 2021, 221, 106935.	4.0	3
32	A spectral assignment approach for the graph isomorphism problem. <i>Information and Inference</i> , 2018, , .	0.9	2
33	On the equivariance properties of self-adjoint matrices. <i>Dynamical Systems</i> , 2020, 35, 197-215.	0.2	0
34	Singular Value Decomposition of Operators on Reproducing Kernel Hilbert Spaces. <i>Studies in Systems, Decision and Control</i> , 2020, , 109-131.	0.8	0