Dimitrios Giannakis

List of Publications by Year
in descending order

48 papers	1,184 citations	394421 19 h-index	414414 32 g-index
50 all docs	50 docs citations	50 times ranked	731 citing authors

#	Article	IF	Citations
1	Embedding classical dynamics in a quantum computer. Physical Review A, 2022, 105, .	2.5	10
2	Delay-coordinate maps, coherence, and approximate spectra of evolution operators. Research in Mathematical Sciences, 2021, 8, 1.	1.0	13
3	Kernel Analog Forecasting: Multiscale Test Problems. Multiscale Modeling and Simulation, 2021, 19, 1011-1040.	1.6	13
4	Quantum dynamics of the classical harmonic oscillator. Journal of Mathematical Physics, 2021, 62, 042701.	1.1	1
5	Kernel-based prediction of non-Markovian time series. Physica D: Nonlinear Phenomena, 2021, 418, 132829.	2.8	17
6	Reproducing kernel Hilbert space compactification of unitary evolution groups. Applied and Computational Harmonic Analysis, 2021, 54, 75-136.	2.2	30
7	Spectral analysis of climate dynamics with operator-theoretic approaches. Nature Communications, 2021, 12, 6570.	12.8	13
8	Data-driven Koopman operator approach for computational neuroscience. Annals of Mathematics and Artificial Intelligence, 2020, 88, 1155-1173.	1.3	16
9	Extraction and prediction of coherent patterns in incompressible flows through space–time Koopman analysis. Physica D: Nonlinear Phenomena, 2020, 402, 132211.	2.8	10
10	Koopman spectra in reproducing kernel Hilbert spaces. Applied and Computational Harmonic Analysis, 2020, 49, 573-607.	2.2	23
11	Operator-theoretic framework for forecasting nonlinear time series with kernel analog techniques. Physica D: Nonlinear Phenomena, 2020, 409, 132520.	2.8	29
12	Extended-range statistical ENSO prediction through operator-theoretic techniques for nonlinear dynamics. Scientific Reports, 2020, 10, 2636.	3.3	18
13	Spectral Exterior Calculus. Communications on Pure and Applied Mathematics, 2020, 73, 689-770.	3.1	6
14	Galerkin approximation of dynamical quantities using trajectory data. Journal of Chemical Physics, 2019, 150, 244111.	3.0	51
15	Predicting regional and pan-Arctic sea ice anomalies with kernel analog forecasting. Climate Dynamics, 2019, 52, 5507-5525.	3.8	15
16	Quantum mechanics and data assimilation. Physical Review E, 2019, 100, 032207.	2.1	6
17	Spatiotemporal Pattern Extraction by Spectral Analysis of Vector-Valued Observables. Journal of Nonlinear Science, 2019, 29, 2385-2445.	2.1	11
18	Delay-Coordinate Maps and the Spectra of Koopman Operators. Journal of Statistical Physics, 2019, 175, 1107-1145.	1.2	49

#	Article	IF	Citations
19	The Antarctic circumpolar wave and its seasonality: Intrinsic travelling modes and El Niño–Southern Oscillation teleconnections. International Journal of Climatology, 2019, 39, 1026-1040.	3.5	12
20	Data-driven spectral decomposition and forecasting of ergodic dynamical systems. Applied and Computational Harmonic Analysis, 2019, 47, 338-396.	2.2	89
21	Indo-Pacific Variability on Seasonal to Multidecadal Time Scales. Part II: Multiscale Atmosphere–Ocean Linkages. Journal of Climate, 2018, 31, 693-725.	3.2	9
22	A New Approach to Signal Processing of Spatiotemporal Data. , 2018, , .		2
23	Data-driven spectral decomposition of ECoG signal from an auditory oddball experiment in a marmoset monkey: Implications for EEG data in humans. , 2018, , .		3
24	Koopman analysis of the long-term evolution in a turbulent convection cell. Journal of Fluid Mechanics, 2018, 847, 735-767.	3.4	42
25	Kernel Analog Forecasting of Tropical Intraseasonal Oscillations. Journals of the Atmospheric Sciences, 2017, 74, 1321-1342.	1.7	17
26	Extraction and prediction of indices for monsoon intraseasonal oscillations: an approach based on nonlinear Laplacian spectral analysis. Climate Dynamics, 2017, 49, 3031-3050.	3.8	16
27	The Seasonality and Interannual Variability of Arctic Sea Ice Reemergence. Journal of Climate, 2017, 30, 4657-4676.	3.2	19
28	Indo-Pacific Variability on Seasonal to Multidecadal Time Scales. Part I: Intrinsic SST Modes in Models and Observations. Journal of Climate, 2017, 30, 5265-5294.	3.2	18
29	Data-driven prediction strategies for low-frequency patterns of North Pacific climate variability. Climate Dynamics, 2017, 48, 1855-1872.	3.8	21
30	Reply to "Comment on 'Nonparametric forecasting of low-dimensional dynamical systems'". Physical Review E, 2016, 93, 036202.	2.1	0
31	Analog forecasting with dynamics-adapted kernels. Nonlinearity, 2016, 29, 2888-2939.	1.4	48
32	Extraction and predictability of coherent intraseasonal signals in infrared brightness temperature data. Climate Dynamics, 2016, 46, 1473-1502.	3.8	20
33	Dynamics-Adapted Cone Kernels. SIAM Journal on Applied Dynamical Systems, 2015, 14, 556-608.	1.6	33
34	Sea–ice reemergence in a model hierarchy. Geophysical Research Letters, 2015, 42, 5337-5345.	4.0	21
35	Kernel and Information-Theoretic Methods for the Extraction and Predictability of Organized Tropical Convection. , 2015, , 147-159.		0
36	Nonparametric forecasting of low-dimensional dynamical systems. Physical Review E, 2015, 91, 032915.	2.1	74

#	Article	IF	Citations
37	Arctic Sea Ice Reemergence: The Role of Large-Scale Oceanic and Atmospheric Variability*. Journal of Climate, 2015, 28, 5477-5509.	3.2	46
38	Mathematical Methods for Large Geophysical Data Sets. , 2015, , 845-850.		0
39	Reemergence Mechanisms for North Pacific Sea Ice Revealed through Nonlinear Laplacian Spectral Analysis*. Journal of Climate, 2014, 27, 6265-6287.	3.2	23
40	Symmetric and Antisymmetric Convection Signals in the Maddenâ€"Julian Oscillation. Part I: Basic Modes in Infrared Brightness Temperature. Journals of the Atmospheric Sciences, 2014, 71, 3302-3326.	1.7	25
41	Nonlinear Laplacian spectral analysis: capturing intermittent and lowâ€frequency spatiotemporal patterns in highâ€dimensional data. Statistical Analysis and Data Mining, 2013, 6, 180-194.	2.8	34
42	Quantifying the Predictive Skill in Long-Range Forecasting. Part I: Coarse-Grained Predictions in a Simple Ocean Model. Journal of Climate, 2012, 25, 1793-1813.	3.2	23
43	Quantifying the Predictive Skill in Long-Range Forecasting. Part II: Model Error in Coarse-Grained Markov Models with Application to Ocean-Circulation Regimes. Journal of Climate, 2012, 25, 1814-1826.	3.2	26
44	Nonlinear Laplacian spectral analysis for time series with intermittency and low-frequency variability. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 2222-2227.	7.1	163
45	Comparing lowâ€frequency and intermittent variability in comprehensive climate models through nonlinear Laplacian spectral analysis. Geophysical Research Letters, 2012, 39, .	4.0	23
46	Limits of predictability in the North Pacific sector of a comprehensive climate model. Geophysical Research Letters, 2012, 39, .	4.0	11
47	Information theory, model error, and predictive skill of stochastic models for complex nonlinear systems. Physica D: Nonlinear Phenomena, 2012, 241, 1735-1752.	2.8	17
48	A spectral Galerkin method for the coupled Orrâ€"Sommerfeld and induction equations for free-surface MHD. Journal of Computational Physics, 2009, 228, 1188-1233.	3.8	18