Christopher K Wikle

List of Publications by Year
in descending order

97 papers	4,146 citations	136950 32 h-index	123424 61 g-index
102 all docs	102 docs citations	102 times ranked	3248 citing authors

#	Article	IF	Citations
1	A Higher-Order Singular Value Decomposition Tensor Emulator for Spatiotemporal Simulators. Journal of Agricultural, Biological, and Environmental Statistics, 2022, 27, 22-45.	1.4	2
2	Bayesian inverse reinforcement learning for collective animal movement. Annals of Applied Statistics, 2022, 16, .	1.1	2
3	Spatio-temporal change of support modeling with R. Computational Statistics, 2021, 36, 749-780.	1.5	3
4	Vizumap: an R package for visualising uncertainty in spatial data. Journal of Open Source Software, 2021, 6, 2409.	4.6	4
5	On the spatial and temporal shift in the archetypal seasonalÂtemperature cycle as driven by annual andÂsemiâ€annual harmonics. Environmetrics, 2021, 32, e2665.	1.4	5
6	Ensemble Kalman Methods for High-Dimensional Hierarchical Dynamic Space-Time Models. Journal of the American Statistical Association, 2020, 115, 866-885.	3.1	37
7	Bayesian Hierarchical Models With Conjugate Full-Conditional Distributions for Dependent Data From the Natural Exponential Family. Journal of the American Statistical Association, 2020, 115, 2037-2052.	3.1	23
8	Measuring, mapping, and uncertainty quantification in the space-time cube. Revista Matematica Complutense, 2020, 33, 643-660.	1.2	0
9	A Bayesian Markov Model with PÃ³lya-Gamma Sampling for Estimating Individual Behavior Transition Probabilities from Accelerometer Classifications. Journal of Agricultural, Biological, and Environmental Statistics, 2020, 25, 365-382.	1.4	4
10	Ecological Dynamics: Integrating Empirical, Statistical, and Analytical Methods. Trends in Ecology and Evolution, 2020, 35, 1090-1099.	8.7	7
11	Statistical Implementations of Agentâ€Based Demographic Models. International Statistical Review, 2020, 88, 441-461.	1.9	13
12	Deep integro-difference equation models for spatio-temporal forecasting. Spatial Statistics, 2020, 37, 100408.	1.9	24
13	Effects of a Government-Academic Partnership: Has the NSF-CENSUS Bureau Research Network Helped Improve the US Statistical System?. Journal of Survey Statistics and Methodology, 2019, 7, 589-619.	1.2	3
14	A Hierarchical Spatiotemporal Statistical Model Motivated by Glaciology. Journal of Agricultural, Biological, and Environmental Statistics, 2019, 24, 669-692.	1.4	3
15	Comparison of Deep Neural Networks and Deep Hierarchical Models for Spatio-Temporal Data. Journal of Agricultural, Biological, and Environmental Statistics, 2019, 24, 175-203.	1.4	13
16	Spatioâ€temporal models for big multinomial data using the conditional multivariate logitâ€beta distribution. Journal of Time Series Analysis, 2019, 40, 363-382.	1.2	11
17	Bayesian Recurrent Neural Network Models for Forecasting and Quantifying Uncertainty in Spatial-Temporal Data. Entropy, 2019, 21, 184.	2.2	64
18	Deep echo state networks with uncertainty quantification for spatioâ€temporal forecasting. Environmetrics, 2019, 30, e2553.	1.4	48

#	Article	IF	Citations
19	A hierarchical spatiotemporal analog forecasting model for count data. Ecology and Evolution, 2018, 8, 790-800.	1.9	6
20	A Bayesian Adaptive Ensemble Kalman Filter for Sequential State and Parameter Estimation. Monthly Weather Review, 2018, 146, 373-386.	1.4	42
21	Hierarchical stochastic modelling of large river ecosystems and fish growth across spatio-temporal scales and climate models: the Missouri River endangered pallid sturgeon example. Geological Society Special Publication, 2017, 408, 119-145.	1.3	3
22	Adaptively tuned particle swarm optimization with application to spatial design. Stat, 2017, 6, 145-159.	0.4	0
23	Hierarchical Nonlinear Spatio-temporal Agent-Based Models for Collective Animal Movement. Journal of Agricultural, Biological, and Environmental Statistics, 2017, 22, 294-312.	1.4	10
24	An ensemble quadratic echo state network for nonâ€linear spatioâ€temporal forecasting. Stat, 2017, 6, 315-330.	0.4	42
25	Visualizing uncertainty in areal data with bivariate choropleth maps, map pixelation and glyph rotation. Stat, 2017, 6, 292-302.	0.4	13
26	Hierarchical Models for Uncertainty Quantification: An Overview. , 2017, , 193-218.		2
27	Hierarchical Spatial Models. , 2017, , 837-846.		3
28	Spatio-temporal assimilation of modelled catchment loads with monitoring data in the Great Barrier Reef. Annals of Applied Statistics, 2016, 10, .	1.1	14
29	Bayesian Lattice Filters for Time-Varying Autoregression and Timeâ€“Frequency Analysis. Bayesian Analysis, 2016, 11, .	3.0	14
30	Models for Ecological Models: Ocean Primary Productivity. Chance, 2016, 29, 23-30.	0.2	0
31	Multivariate spatioâ€temporal survey fusion with application to the American Community Survey and Local Area Unemployment Statistics. Stat, 2016, 5, 224-233.	0.4	7
32	A modelâ€based approach for analog spatioâ€temporal dynamic forecasting. Environmetrics, 2016, 27, 70-82.	1.4	23
33	Bayesian Spatial Change of Support for Count-Valued Survey Data With Application to the American Community Survey. Journal of the American Statistical Association, 2016, 111, 472-487.	3.1	41
34	Understanding the Ensemble Kalman Filter. American Statistician, 2016, 70, 350-357.	1.6	117
35	Weak constraint four-dimensional variational data assimilation in a model of the California Current System. Advances in Statistical Climatology, Meteorology and Oceanography, 2016, 2, 171-192.	0.9	4
36	Multivariate spatial hierarchical Bayesian empirical likelihood methods for small area estimation. Stat, 2015, 4, 108-116.	0.4	8

#	Article	IF	Citations
37	Multivariate spatio-temporal models for high-dimensional areal data with application to Longitudinal Employer-Household Dynamics. Annals of Applied Statistics, 2015, 9, .	1.1	54
38	Hierarchical Spatial Models. , 2015, , 1-10.		0
39	Zeros and ones: a case for suppressing zeros in sensitive count data with an application to stroke mortality. Stat, 2015, 4, 227-234.	0.4	8
40	Assimilation of oceanographic observations with estimates of vertical backgroundâ€error covariances by a Bayesian hierarchical model. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 182-194.	2.7	4
41	Spatioâ€temporal change of support with application to American Community Survey multiâ€year period estimates. Stat, 2015, 4, 255-270.	0.4	16
42	Small Area Estimation via Multivariate Fayâ€“Herriot Models with Latent Spatial Dependence. Australian and New Zealand Journal of Statistics, 2015, 57, 15-29.	0.9	28
43	Modern perspectives on statistics for spatioâ€temporal data. Wiley Interdisciplinary Reviews: Computational Statistics, 2015, 7, 86-98.	3.9	41
44	Random set modelling of three-dimensional objects in a hierarchical Bayesian context. Journal of Statistical Computation and Simulation, 2014, 84, 107-123.	1.2	8
45	A Bayesian hierarchical downscaling model for south-west Western Australia rainfall. Journal of the Royal Statistical Society Series C: Applied Statistics, 2014, 63, 715-736.	1.0	7
46	Spatial Fayâ€“Herriot models for small area estimation with functional covariates. Spatial Statistics, 2014, 10, 27-42.	1.9	46
47	Guest Editorâ€™s Introduction to the Special Issue on â€œModern Dimension Reduction Methods for Big Data Problems in Ecologyâ€• Journal of Agricultural, Biological, and Environmental Statistics, 2013, 18, 271-273.	1.4	1
48	Ecological Prediction With Nonlinear Multivariate Time-Frequency Functional Data Models. Journal of Agricultural, Biological, and Environmental Statistics, 2013, 18, 450-474.	1.4	16
49	Hierarchical Bayesian Spatio-Temporal Conwayâ€“Maxwell Poisson Models with Dynamic Dispersion. Journal of Agricultural, Biological, and Environmental Statistics, 2013, 18, 335-356.	1.4	25
50	Modern Statistical Methods in Oceanography: A Hierarchical Perspective. Statistical Science, 2013, 28, .	2.8	19
51	A point process model for tornado reportâ€‰climatology. Stat, 2013, 2, 1-8.	0.4	13
52	Predicting infectious disease outbreak risk via migratory waterfowl vectors. Journal of Applied Statistics, 2013, 40, 656-673.	1.3	5
53	Scienceâ€based parameterizations for dynamical spatiotemporal models. Wiley Interdisciplinary Reviews: Computational Statistics, 2012, 4, 554-560.	3.9	6
54	An approach for identifying and predicting economic recessions in realâ€time using timeâ€“frequency functional models. Applied Stochastic Models in Business and Industry, 2012, 28, 485-499.	1.5	11

#	Article	IF	Citations
55	Rejoinder â€“ An approach for identifying and predicting economic recessions in realâ€time using timeâ€“frequency functional models. Applied Stochastic Models in Business and Industry, 2012, 28, 504-505.	1.5	0
56	Advances in statistical methods for climate analysis. Environmetrics, 2012, 23, 363-363.	1.4	0
57	Semiparametric bivariate zeroâ€inflated Poisson models with application to studies of abundance for multiple species. Environmetrics, 2012, 23, 183-196.	1.4	14
58	Polynomial nonlinear spatioâ€temporal integroâ€difference equation models. Journal of Time Series Analysis, 2011, 32, 339-350.	1.2	35
59	Assessing First-Order Emulator Inference for Physical Parameters in Nonlinear Mechanistic Models. Journal of Agricultural, Biological, and Environmental Statistics, 2011, 16, 475-494.	1.4	42
60	Ocean ensemble forecasting. Part I: Ensemble Mediterranean winds from a Bayesian hierarchical model. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 858-878.	2.7	36
61	Ocean ensemble forecasting. Part II: Mediterranean Forecast System response. Quarterly Journal of the Royal Meteorological Society, 2011, 137, 879-893.	2.7	20
62	A general science-based framework for dynamical spatio-temporal models. Test, 2010, 19, 417-451.	1.1	147
63	Rejoinder on: A general science-based framework forÂdynamical spatio-temporal models. Test, 2010, 19, 466-468.	1.1	2
64	Modeling Complex Phenotypes: Generalized Linear Models Using Spectrogram Predictors of Animal Communication Signals. Biometrics, 2010, 66, 914-924.	1.4	19
65	Statistical Agent-Based Models for Discrete Spatio-Temporal Systems. Journal of the American Statistical Association, 2010, 105, 236-248.	3.1	65
66	Low-Rank Representations for Spatial Processes. Chapman & Hall/CRC Interdisciplinary Statistics Series, 2010, , 107-118.	0.4	69
67	Bayesian Irt Models Incorporating General and Specific Abilities. Behaviormetrika, 2009, 36, 27-48.	1.3	19
68	A Bayesian Hierarchical Nonoverlapping Random Disc Growth Model. Journal of the American Statistical Association, 2009, 104, 274-283.	3.1	7
69	A hierarchical Bayesian non-linear spatio-temporal model for the spread of invasive species with application to the Eurasian Collared-Dove. Environmental and Ecological Statistics, 2008, 15, 59-70.	3.5	125
70	Zeroâ€Inflated Modeling of Fish Catch per Unit Area Resulting from Multiple Gears: Application to Channel Catfish and Shovelnose Sturgeon in the Missouri River. North American Journal of Fisheries Management, 2008, 28, 1044-1058.	1.0	33
71	Interpolating fields of carbon monoxide data using a hybrid statistical-physical model. Annals of Applied Statistics, 2008, 2, .	1.1	12
72	Population Influences on Tornado Reports in the United States. Weather and Forecasting, 2007, 22, 571-579.	1.4	72

#	Article	IF	Citations
73	Bayesian Estimation of Stochastic Parameterizations in a Numerical Weather Forecasting Model. Monthly Weather Review, 2007, 135, 4045-4059.	1.4	11
74	Estimation of parameterized spatio-temporal dynamic models. Journal of Statistical Planning and Inference, 2007, 137, 567-588.	0.6	43
75	Hierarchical Spatiotemporal Matrix Models for Characterizing Invasions. Biometrics, 2007, 63, 558-567.	1.4	78
76	Mapping pre-European settlement vegetation at fine resolutions using a hierarchical Bayesian model and GIS. Plant Ecology, 2007, 191, 85-94.	1.6	21
77	Shifts in the spatio-temporal growth dynamics of shortleaf pine. Environmental and Ecological Statistics, 2007, 14, 207-227.	3.5	20
78	A Bayesian tutorial for data assimilation. Physica D: Nonlinear Phenomena, 2007, 230, 1-16.	2.8	296
79	A Bayesian Quantitative Precipitation Nowcast Scheme. Weather and Forecasting, 2005, 20, 264-275.	1.4	35
80	SPACE-TIME MODELLING OF SYDNEY HARBOUR WINDS. Australian and New Zealand Journal of Statistics, 2005, 47, 3-17.	0.9	10
81	Dynamic design of ecological monitoring networks for non-Gaussian spatio-temporal data. Environmetrics, 2005, 16, 507-522.	1.4	40
82	Providing distributed forecasts of precipitation using a Bayesian nowcast scheme. Atmospheric Science Letters, 2005, 6, 59-65.	1.9	0
83	Efficient statistical mapping of avian count data. Environmental and Ecological Statistics, 2005, 12, 225-243.	3.5	67
84	A Kernel-Based Spatio-Temporal Dynamical Model for Nowcasting Weather Radar Reflectivities. Journal of the American Statistical Association, 2005, 100, 1133-1144.	3.1	77
85	Combining Information Across Spatial Scales. Technometrics, 2005, 47, 80-91.	1.9	76
86	Title is missing!. Landscape Ecology, 2003, 18, 487-502.	4.2	62
87	Hierarchical Models in Environmental Science. International Statistical Review, 2003, 71, 181-199.	1.9	199
88	Bayesian hierarchical modeling of air-sea interaction. Journal of Geophysical Research, 2003, 108, .	3.3	68
89	Climatological analysis of tornado report counts using a hierarchical Bayesian spatiotemporal model. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	54
90	HIERARCHICAL BAYESIAN MODELS FOR PREDICTING THE SPREAD OF ECOLOGICAL PROCESSES. Ecology, 2003, 84, 1382-1394.	3.2	322

#	Article	IF	Citations
91	Winds from a Bayesian Hierarchical Model: Computation for Atmosphere-Ocean Research. Journal of Computational and Graphical Statistics, 2003, 12, 781-807.	1.7	11
92	Hierarchical Bayesian Approach to Boundary Value Problems with Stochastic Boundary Conditions. Monthly Weather Review, 2003, 131, 1051-1062.	1.4	31
93	A kernel-based spectral model for non-Gaussian spatio-temporal processes. Statistical Modelling, 2002, 2, 299-314.	1.1	74
94	Spatiotemporal Hierarchical Bayesian Modeling Tropical Ocean Surface Winds. Journal of the American Statistical Association, 2001, 96, 382-397.	3.1	283
95	Long-Lead Prediction of Pacific SSTs via Bayesian Dynamic Modeling. Journal of Climate, 2000, 13, 3953-3968.	3.2	161
96	Hierarchical Bayesian space-time models. Environmental and Ecological Statistics, 1998, 5, 117-154.	3.5	323
97	Spatio-Temporal Statistics with R. , 0, , .		132