Michael B Richman

List of Publications by Year
in descending order

81 papers	3,992 citations	279798 23 h-index	118850 62 g-index
89 all docs	89 docs citations	89 times ranked	3228 citing authors

#	Article	IF	Citations
1	Rotation of principal components. Journal of Climatology, 1986, 6, 293-335.	0.7	1,526
2	On the Application of Cluster Analysis to Growing Season Precipitation Data in North America East of the Rockies. Journal of Climate, 1995, 8, 897-931.	3.2	282
3	Obliquely Rotated Principal Components: An Improved Meteorological Map Typing Technique?. Journal of Applied Meteorology, 1981, 20, 1145-1159.	1.1	192
4	Climatic Pattern Analysis of Three- and Seven-Day Summer Rainfall in the Central United States: Some Methodological Considerations and a Regionalization. Journal of Climate and Applied Meteorology, 1985, 24, 1325-1343.	1.0	183
5	Climate regionalization and rotation of principal components. International Journal of Climatology, 1991, 11, 1-25.	3.5	164
6	Euclidean Distance as a Similarity Metric for Principal Component Analysis. Monthly Weather Review, 2001, 129, 540-549.	1.4	97
7	Can principal component analysis provide atmospheric circulation or teleconnection patterns?. International Journal of Climatology, 2008, 28, 703-726.	3.5	93
8	Interannual Variability of Tropical Cyclones in the Australian Region: Role of Large-Scale Environment. Journal of Climate, 2008, 21, 1083-1103.	3.2	90
9	An Observational Study of Derecho-Producing Convective Systems. Weather and Forecasting, 2004, 19, 320-337.	1.4	85
10	Spatial Coherence of Monthly Precipitation in the United States. Monthly Weather Review, 1982, 110, 272-286.	1.4	80
11	Observed Nonlinearities of Monthly Teleconnections between Tropical Pacific Sea Surface Temperature Anomalies and Central and Eastern North American Precipitation. Journal of Climate, 1998, 11, 1812-1835.	3.2	79
12	Title is missing!. Climatic Change, 1999, 42, 31-43.	3.6	79
13	Rotation of principal components: A reply. Journal of Climatology, 1987, 7, 511-520.	0.7	61
14	Relationships between the Definition of the Hyperplane Width to the Fidelity of Principal Component Loading Patterns. Journal of Climate, 1999, 12, 1557-1576.	3.2	54
15	Synoptic Composites of Tornadic and Nontornadic Outbreaks. Monthly Weather Review, 2012, 140, 2590-2608.	1.4	54
16	Seasonality in the Associations between Surface Temperatures over the United States and the North Pacific Ocean. Monthly Weather Review, 1981, 109, 767-783.	1.4	52
17	Weekly precipitation cycles? Lack of evidence from United States surface stations. Geophysical Research Letters, 2007, 34, .	4.0	49
18	Objective Classification of Tornadic and Nontornadic Severe Weather Outbreaks. Monthly Weather Review, 2009, 137, 4355-4368.	1.4	45

#	Article	IF	Citations
19	Evaluation of WRF Forecasts of Tornadic and Nontornadic Outbreaks When Initialized with Synoptic-Scale Input. Monthly Weather Review, 2009, 137, 1250-1271.	1.4	43
20	Data mining techniques for improved WSR-88D rainfall estimation. Computers and Industrial Engineering, 2002, 43, 775-786.	6.3	32
21	Pattern analysis of growing season precipitation in Southern Canada. Atmosphere - Ocean, 1987, 25, 137-158.	1.6	31
22	Evaluation of WRF Model Simulations of Tornadic and Nontornadic Outbreaks Occurring in the Spring and Fall. Monthly Weather Review, 2010, 138, 4098-4119.	1.4	27
23	A cautionary note concerning a commonly applied eigenanalysis procedure. Tellus, Series B: Chemical and Physical Meteorology, 1988, 40B, 50-58.	1.6	26
24	Statistical Modeling of Downslope Windstorms in Boulder, Colorado. Weather and Forecasting, 2008, 23, 1176-1194.	1.4	24
25	Range-Correcting Azimuthal Shear in Doppler Radar Data. Weather and Forecasting, 2013, 28, 194-211.	1.4	23
26	Comments on: â€˜The effect of domain shape on principal components analysesâ€™. International Journal of Climatology, 1993, 13, 203-218.	3.5	22
27	Reducing Tropical Cyclone Prediction Errors Using Machine Learning Approaches. Procedia Computer Science, 2017, 114, 314-323.	2.0	22
28	Classification and regionalization through kernel principal component analysis. Physics and Chemistry of the Earth, 2010, 35, 316-328.	2.9	21
29	Missing Data Imputation Through Machine Learning Algorithms. , 2009, , 153-169.		21
30	Adaptive Machine Learning Approaches to Seasonal Prediction of Tropical Cyclones. Procedia Computer Science, 2012, 12, 276-281.	2.0	20
31	Cluster Analysis of North Atlantic Tropical Cyclones. Procedia Computer Science, 2014, 36, 293-300.	2.0	20
32	Seasonal-to-Interannual Variability of Ethiopia/Horn of Africa Monsoon. Part II: Statistical Multimodel Ensemble Rainfall Predictions. Journal of Climate, 2015, 28, 3511-3536.	3.2	20
33	Recent hydroclimatic fluctuations and their effects on water resources in Illinois. Climatic Change, 1993, 24, 249-269.	3.6	19
34	Machine-learning classifiers for imbalanced tornado data. Computational Management Science, 2014, 11, 403-418.	1.3	18
35	The Modulating Influence of Indian Ocean Sea Surface Temperatures on Australian Region Seasonal Tropical Cyclone Counts. Journal of Climate, 2017, 30, 4843-4856.	3.2	18
36	Active Learning with Support Vector Machines for Tornado Prediction. Lecture Notes in Computer Science, 2007, , 1130-1137.	1.3	18

#	ARTICLE	IF	CITATIONS
37	Seasonal Tropical Cyclone Predictions Using Optimized Combinations of ENSO Regions: Application to the Coral Sea Basin. Journal of Climate, 2014, 27, 8527-8542.	3.2	16
38	Tornado Detection with Support Vector Machines. Lecture Notes in Computer Science, 2003, , 289-298.	1.3	16
39	Uniqueness and Causes of the California Drought. Procedia Computer Science, 2015, 61, 428-435.	2.0	15
40	The use of Procrustes Target Analysis to discriminate dominant source regions of fine sulfur in the western U.S.A.. Atmospheric Environment Part A General Topics, 1993, 27, 475-481.	1.3	14
41	Statistical Differences of Quasigeostrophic Variables, Stability, and Moisture Profiles in North American Storm Tracks. Monthly Weather Review, 2007, 135, 2312-2338.	1.4	14
42	Attribution and Prediction of Maximum Temperature Extremes in SE Australia. Procedia Computer Science, 2014, 36, 612-617.	2.0	14
43	Classifying Drought in Ethiopia Using Machine Learning. Procedia Computer Science, 2016, 95, 229-236.	2.0	14
44	The 2015-2017 Cape Town Drought: Attribution and Prediction Using Machine Learning. Procedia Computer Science, 2018, 140, 248-257.	2.0	13
45	Identification of severe weather outbreaks using kernel principal component analysis. Procedia Computer Science, 2011, 6, 231-236.	2.0	12
46	Procrustes target analysis: A multivariate tool for identification of climate fluctuations. Journal of Geophysical Research, 1988, 93, 10989-11003.	3.3	11
47	A cautionary note concerning a commonly applied eigenanalysis procedure. Tellus, Series B: Chemical and Physical Meteorology, 2022, 40, 50.	1.6	11
48	Reaching Scientific Consensus Through a Competition. Bulletin of the American Meteorological Society, 2010, 91, 1423-1427.	3.3	10
49	An automated technique to categorize storm type from radar and near-storm environment data. Atmospheric Research, 2012, 111, 104-113.	4.1	9
50	Teaching Mathematics with Classroom Voting With and Without Clickers. , 2011, , .		9
51	The influence of synoptic scale meteorology on transport of urban air to remote locations in the SouthWestern United States Of America. Atmospheric Environment, 1995, 29, 1609-1618.	4.1	7
52	Title is missing!. Climatic Change, 2000, 44, 89-121.	3.6	7
53	An Assessment of Areal Coverage of Severe Weather Parameters for Severe Weather Outbreak Diagnosis. Weather and Forecasting, 2012, 27, 809-831.	1.4	7
54	Assessing Atmospheric Variability using Kernel Principal Component Analysis. Procedia Computer Science, 2012, 12, 288-293.	2.0	7

#	Article	IF	Citations
55	Spatial coherence of rainfall variations using the Oklahoma Mesonet. International Journal of Climatology, 2012, 32, 843-853.	3.5	7
56	Machine Learning for Attribution of Heat and Drought in Southwestern Australia. Procedia Computer Science, 2020, 168, 3-10.	2.0	6
57	Prediction of Rainfall from WSR-88D Radar Using Kernel-Based Methods. International Journal of Smart Engineering System Design, 2003, 5, 429-438.	0.2	5
58	Learning networks in rainfall estimation. Computational Management Science, 2005, 2, 229-251.	1.3	5
59	Identification of Intraseasonal Modes of Variability Using Rotated Principal Components. , 0, , .		5
60	Data selection using support vector regression. Advances in Atmospheric Sciences, 2015, 32, 277-286.	4.3	5
61	Machine Learning Methods for Data Assimilation. , 2010, , 105-112.		5
62	Statistics Education in the Atmospheric Sciences. Bulletin of the American Meteorological Society, 1999, 80, 2087-2097.	3.3	3
63	The Added Value of Surface Data to Radar-Derived Rainfall-Rate Estimation Using an Artificial Neural Network. Journal of Atmospheric and Oceanic Technology, 2010, 27, 1547-1554.	1.3	3
64	A principal component analysis of sulfur concentrations in the Western United States. Atmospheric Environment, 1985, 19, 1972-1973.	1.0	2
65	Learning networks for tornado detection. International Journal of General Systems, 2006, 35, 93-107.	2.5	2
66	Classification of Changes in Extreme Heat Over Southeastern Australia. Procedia Computer Science, 2013, 20, 148-155.	2.0	2
67	A data-driven kernel method assimilation technique for geophysical modelling. Optimization Methods and Software, 2017, 32, 237-249.	2.4	2
68	Constructing an Efficient Machine Learning Model for Tornado Prediction. International Journal of Information Technology and Decision Making, 2020, 19, 1177-1187.	3.9	2
69	Machine Learning Techniques for Imbalanced Data: An Application for Tornado Detection. , 2010, , 509-516.		2
70	High Dimensional Dataset Compression Using Principal Components. Open Journal of Statistics, 2013, 03, 356-366.	0.7	2
71	A principal component analysis of sulfur concentrations in the western United States. Atmospheric Environment, 1986, 20, 606-607.	1.0	1
72	Damaging Weather Conditions in the United States: A Selection of Data Quality and Monitoring Issues. Climatic Change, 1999, 42, 69-87.	3.6	1

#	Article	IF	Citations
73	Determination of the optimal batch size in incremental approaches: an application to tornado detection. , 0, , .		1
74	The Role of Atmospheric Conditions in Determining Intensity of Crepuscular and Anticrepuscular Rays. Monthly Weather Review, 2010, 138, 2883-2894.	1.4	1
75	Ocean Surface Wind Vector Forecasting Using Support Vector Regression. , 2007, , 333-338.		1
76	Machine Learning Classifiers for Tornado Detection: Sensitivity Analysis on Tornado Data Sets. , 2006, , 679-684.		1
77	POTENTIAL EFFECTS OF CLIMATE CHANGE ON AQUATIC ECOSYSTEMS OF THE GREAT PLAINS OF NORTH AMERICA. Hydrological Processes, 1997, 11, 993-1021.	2.6	1
78	Linear classification tikhonov regularization knowledge-based support vector machine for tornado forecasting. Computational Management Science, 2011, 8, 281-297.	1.3	0
79	Real-Time Prediction Using Kernel Methods and Data Assimilation. , 2009, , 35-42.		0
80	Active Learning with Kernel Machines for Tornado Detection. , 0, , 131-137.		0
81	A Pipeline Support Vector Regression Method to Thin Large Ocean Surface Wind Data On-Line. , 0, , 203-210.		0