Brian R Hunt

List of Publications by Year
in descending order

71	5,878	94433 37	91884 69
papers	citations	h-index	g-index

71	71	71	3599
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Efficient data assimilation for spatiotemporal chaos: A local ensemble transform Kalman filter. Physica D: Nonlinear Phenomena, 2007, 230, 112-126.	2.8	1,164
2	A local ensemble Kalman filter for atmospheric data assimilation. Tellus, Series A: Dynamic Meteorology and Oceanography, 2004, 56, 415-428.	1.7	366
3	A local ensemble Kalman filter for atmospheric data assimilation. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 56, 415.	1.7	332
4	Prevalence: a translation-invariant â€œalmost everyâ€•on infinite-dimensional spaces. Bulletin of the American Mathematical Society, 1992, 27, 217-238.	1.5	285
5	Onset of synchronization in large networks of coupled oscillators. Physical Review E, 2005, 71, 036151.	2.1	248
6	Attractor reconstruction by machine learning. Chaos, 2018, 28, 061104.	2.5	222
7	Hybrid forecasting of chaotic processes: Using machine learning in conjunction with a knowledge-based model. Chaos, 2018, 28, 041101.	2.5	212
8	Characterizing the Dynamical Importance of Network Nodes and Links. Physical Review Letters, 2006, 97, 094102.	7.8	199
9	Balance and Ensemble Kalman Filter Localization Techniques. Monthly Weather Review, 2011, 139, 511-522.	1.4	194
10	Differentiable generalized synchronization of chaos. Physical Review E, 1997, 55, 4029-4034.	2.1	172
11	Local Low Dimensionality of Atmospheric Dynamics. Physical Review Letters, 2001, 86, 5878-5881.	7.8	155
12	A local ensemble transform Kalman filter data assimilation system for the NCEP global model. Tellus, Series A: Dynamic Meteorology and Oceanography, 2008, 60, 113-130.	1.7	146
13	Transitions to Bubbling of Chaotic Systems. Physical Review Letters, 1996, 77, 5361-5364.	7.8	122
14	Bubbling transition. Physical Review E, 1996, 54, 1346-1360.	2.1	119
15	Approximating the largest eigenvalue of network adjacency matrices. Physical Review E, 2007, 76, 056119.	2.1	113
16	Optimal Periodic Orbits of Chaotic Systems. Physical Review Letters, 1996, 76, 2254-2257.	7.8	108
17	Regularity of embeddings of infinite-dimensional fractal sets into finite-dimensional spaces. Nonlinearity, 1999, 12, 1263-1275.	1.4	107
18	A comparative study of 4D-VAR and a 4D Ensemble Kalman Filter: perfect model simulations with Lorenz-96. Tellus, Series A: Dynamic Meteorology and Oceanography, 2007, 59, 96-100.	1.7	90

#	ARTICLE	IF	CITATIONS
19	Synchronization in large directed networks of coupled phase oscillators. Chaos, 2006, 16, 015107.	2.5	85
20	How projections affect the dimension spectrum of fractal measures. Nonlinearity, 1997, 10, 1031-1046.	1.4	84
21	A Machine Learning–Based Global Atmospheric Forecast Model. Geophysical Research Letters, 2020, 47, e2020GL087776.	4.0	77
22	Local ensemble Kalman filtering in the presence of model bias. Tellus, Series A: Dynamic Meteorology and Oceanography, 2006, 58, 293-306.	1.7	75
23	Extracting Envelopes of Rossby Wave Packets. Monthly Weather Review, 2003, 131, 1011-1017.	1.4	68
24	Optimal periodic orbits of chaotic systems occur at low period. Physical Review E, 1996, 54, 328-337.	2.1	58
25	Fractal Properties of Robust Strange Nonchaotic Attractors. Physical Review Letters, 2001, 87, 254101.	7.8	55
26	Emergence of synchronization in complex networks of interacting dynamical systems. Physica D: Nonlinear Phenomena, 2006, 224, 114-122.	2.8	54
27	The prevalence of continuous nowhere differentiable functions. Proceedings of the American Mathematical Society, 1994, 122, 711-717.	0.8	50
28	Assessing a local ensemble Kalman filter: perfect model experiments with the National Centers for Environmental Prediction global model. Tellus, Series A: Dynamic Meteorology and Oceanography, 2005, 57, 528-545.	1.7	50
29	Assimilating non-local observations with a local ensemble Kalman filter. Tellus, Series A: Dynamic Meteorology and Oceanography, 2007, 59, 719-730.	1.7	49
30	Assessing a local ensemble Kalman filter: perfect model experiments with the National Centers for Environmental Prediction global model. Tellus, Series A: Dynamic Meteorology and Oceanography, 2005, 57, 528-545.	1.7	48
31	Maximum local Lyapunov dimension bounds the box dimension of chaotic attractors. Nonlinearity, 1996, 9, 845-852.	1.4	46
32	Optimal orbits of hyperbolic systems. Nonlinearity, 1999, 12, 1207-1224.	1.4	46
33	A Preprocessor for Shotgun Assembly of Large Genomes. Journal of Computational Biology, 2004, 11, 734-752.	1.6	46
34	Prevalence. An addendum to: "Prevalence: a translation-invariant 'almost every' on infinite-dimensional spaces"[Bull. Amer. Math. Soc. (N.S.) 27 (1992), no. 2, 217–238; MR1161274 (93k:28018)]. Bulletin of the American Mathematical Society, 1993, 28, 306-307.	1.5	41
35	Spatial patterns of desynchronization bursts in networks. Physical Review E, 2004, 69, 066215.	2.1	41
36	Four-dimensional local ensemble transform Kalman filter: numerical experiments with a global circulation model. Tellus, Series A: Dynamic Meteorology and Oceanography, 2007, 59, 731-748.	1.7	41

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37	Emergence of Coherence in Complex Networks of Heterogeneous Dynamical Systems. Physical Review Letters, 2006, 96, 254103.	7.8	40
38	Fractal dimensions of chaotic saddles of dynamical systems. Physical Review E, 1996, 54, 4819-4823.	2.1	38
39	Defining chaos. Chaos, 2015, 25, 097618.	2.5	37
40	Anomalous diffusion in infinite horizon billiards. Physical Review E, 2003, 67, 021110.	2.1	34
41	A non-Gaussian Ensemble Filter for Assimilating Infrequent Noisy Observations. Tellus, Series A: Dynamic Meteorology and Oceanography, 2007, 59, 225-237.	1.7	32
42	Extracting Envelopes of Nonzonally Propagating Rossby Wave Packets. Monthly Weather Review, 2006, 134, 1329-1333.	1.4	31
43	Power-law decay and self-similar distributions in stadium-type billiards. Physica D: Nonlinear Phenomena, 2004, 193, 96-127.	2.8	27
44	Intermingled basins for the triangle map. Ergodic Theory and Dynamical Systems, 1996, 16, 651-662.	0.6	23
45	Using data assimilation to train a hybrid forecast system that combines machine-learning and knowledge-based components. Chaos, 2021, 31, 053114.	2.5	23
46	Prevalence. Handbook of Dynamical Systems, 2010, , 43-87.	0.6	19
47	Assessing Predictability with a Local Ensemble Kalman Filter. Journals of the Atmospheric Sciences, 2007, 64, 1116-1140.	1.7	18
48	Ensemble data assimilation for hyperbolic systems. Physica D: Nonlinear Phenomena, 2013, 243, 128-142.	2.8	18
49	A Hybrid Approach to Atmospheric Modeling That Combines Machine Learning With a Physics‐Based Numerical Model. Journal of Advances in Modeling Earth Systems, 2022, 14, .	3.8	18
50	Calculating topological entropy for transient chaos with an application to communicating with chaos. Physical Review E, 1998, 57, 6577-6588.	2.1	16
51	Data assimilation using a climatologically augmented local ensemble transform Kalman filter. Tellus, Series A: Dynamic Meteorology and Oceanography, 2015, 67, 26617.	1.7	14
52	Structure in the parameter dependence of order and chaos for the quadratic map. Journal of Physics A, 1997, 30, 7067-7076.	1.6	13
53	Bifurcation scenarios for bubbling transition. Physical Review E, 2003, 67, 016204.	2.1	13
54	Optimal periodic orbits of continuous time chaotic systems. Physical Review E, 2000, 62, 1950-1959.	2.1	12

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55	Box-counting dimension without boxes: Computing D_0 from average expansion rates. Physical Review E, 1999, 60, 378-385.	2.1	11
56	Formation of multifractal population patterns from reproductive growth and local resettlement. Physical Review E, 2005, 72, 046213.	2.1	10
57	Scale Dependence of Branching in Arterial and Bronchial Trees. Physical Review Letters, 2006, 96, 128101.	7.8	10
58	Hunt and Ott Reply:. Physical Review Letters, 1998, 80, 1791-1791.	7.8	7
59	Scaling of the durations of chaotic transients in windows of attracting periodicity. Physical Review E, 1997, 56, 6508-6515.	2.1	6
60	Long Time Algebraic Relaxation in Chaotic Billiards. Physical Review Letters, 2002, 89, 284101.	7.8	6
61	Localized error bursts in estimating the state of spatiotemporal chaos. Chaos, 2004, 14, 1042-1049.	2.5	5
62	Correcting for Surface Pressure Background Bias in Ensemble-Based Analyses. Monthly Weather Review, 2009, 137, 2349-2364.	1.4	5
63	A composite state method for ensemble data assimilation with multiple limited-area models. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 67, 26495.	1.7	5
64	Simultaneous global and limited-area ensemble data assimilation using joint states. Tellus, Series A: Dynamic Meteorology and Oceanography, 2012, 64, 18407.	1.7	4
65	Ensemble data assimilation with an adjusted forecast spread. Tellus, Series A: Dynamic Meteorology and Oceanography, 2013, 65, 19929.	1.7	4
66	Improving Phrap-Based Assembly of the Rat Using â€œReliableâ€•Overlaps. PLoS ONE, 2008, 3, e1836.	2.5	4
67	Smooth dynamics on Weierstrass nowhere differentiable curves. Transactions of the American Mathematical Society, 1991, 325, 141-154.	0.9	3
68	Coupled skinny baker's maps and the Kaplanâ€"Yorke conjecture. Nonlinearity, 2013, 26, 2641-2667.	1.4	2
69	Absolute Continuity of a Function and Uniform Integrability of Its Divided Differences. American Mathematical Monthly, 2015, 122, 362.	0.3	2
70	Scaling laws for bubbling bifurcations. Nonlinearity, 2009, 22, 2607-2631.	1.4	0
71	Estimating forecast model bias in coupled global and limited-area models. Tellus, Series A: Dynamic Meteorology and Oceanography, 2015, 67, 28040.	1.7	0