Brian R Hunt

List of Publications by Year
in descending order

71 papers	5,878 citations	94433 37 h-index	91884 69 g-index
71 all docs	71 docs citations	71 times ranked	3599 citing authors

#	Article	IF	Citations
1	A local ensemble Kalman filter for atmospheric data assimilation. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 56, 415.	1.7	332
2	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
3	A Hybrid Approach to Atmospheric Modeling That Combines Machine Learning With a Physicsâ€Based Numerical Model. Journal of Advances in Modeling Earth Systems, 2022, 14, .	3.8	18
4	Using data assimilation to train a hybrid forecast system that combines machine-learning and knowledge-based components. Chaos, 2021, 31, 053114.	2.5	23
5	A Machine Learningâ€Based Global Atmospheric Forecast Model. Geophysical Research Letters, 2020, 47, e2020GL087776.	4.0	77
6	Hybrid forecasting of chaotic processes: Using machine learning in conjunction with a knowledge-based model. Chaos, 2018, 28, 041101.	2.5	212
7	Attractor reconstruction by machine learning. Chaos, 2018, 28, 061104.	2.5	222
8	Estimating forecast model bias in coupled global and limited-area models. Tellus, Series A: Dynamic Meteorology and Oceanography, 2015, 67, 28040.	1.7	0
9	Data assimilation using a climatologically augmented local ensemble transform Kalman filter. Tellus, Series A: Dynamic Meteorology and Oceanography, 2015, 67, 26617.	1.7	14
10	Absolute Continuity of a Function and Uniform Integrability of Its Divided Differences. American Mathematical Monthly, 2015, 122, 362.	0.3	2
11	Defining chaos. Chaos, 2015, 25, 097618.	2.5	37
12	Ensemble data assimilation for hyperbolic systems. Physica D: Nonlinear Phenomena, 2013, 243, 128-142.	2.8	18
13	Coupled skinny baker's maps and the Kaplanâ€“Yorke conjecture. Nonlinearity, 2013, 26, 2641-2667.	1.4	2
14	Ensemble data assimilation with an adjusted forecast spread. Tellus, Series A: Dynamic Meteorology and Oceanography, 2013, 65, 19929.	1.7	4
15	Simultaneous global and limited-area ensemble data assimilation using joint states. Tellus, Series A: Dynamic Meteorology and Oceanography, 2012, 64, 18407.	1.7	4
16	Balance and Ensemble Kalman Filter Localization Techniques. Monthly Weather Review, 2011, 139, 511-522.	1.4	194
17	Prevalence. Handbook of Dynamical Systems, 2010, , 43-87.	0.6	19
18	Scaling laws for bubbling bifurcations. Nonlinearity, 2009, 22, 2607-2631.	1.4	0

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19	Correcting for Surface Pressure Background Bias in Ensemble-Based Analyses. Monthly Weather Review, 2009, 137, 2349-2364.	1.4	5
20	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
21	Improving Phrap-Based Assembly of the Rat Using â€œReliableâ€•Overlaps. PLoS ONE, 2008, 3, e1836.	2.5	4
22	Assessing Predictability with a Local Ensemble Kalman Filter. Journals of the Atmospheric Sciences, 2007, 64, 1116-1140.	1.7	18
23	Approximating the largest eigenvalue of network adjacency matrices. Physical Review E, 2007, 76, 056119.	2.1	113
24	Efficient data assimilation for spatiotemporal chaos: A local ensemble transform Kalman filter. Physica D: Nonlinear Phenomena, 2007, 230, 112-126.	2.8	1,164
25	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
26	A non-Gaussian Ensemble Filter for Assimilating Infrequent Noisy Observations. Tellus, Series A: Dynamic Meteorology and Oceanography, 2007, 59, 225-237.	1.7	32
27	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
28	Assimilating non-local observations with a local ensemble Kalman filter. Tellus, Series A: Dynamic Meteorology and Oceanography, 2007, 59, 719-730.	1.7	49
29	Extracting Envelopes of Nonzonally Propagating Rossby Wave Packets. Monthly Weather Review, 2006, 134, 1329-1333.	1.4	31
30	Local ensemble Kalman filtering in the presence of model bias. Tellus, Series A: Dynamic Meteorology and Oceanography, 2006, 58, 293-306.	1.7	75
31	Emergence of synchronization in complex networks of interacting dynamical systems. Physica D: Nonlinear Phenomena, 2006, 224, 114-122.	2.8	54
32	Characterizing the Dynamical Importance of Network Nodes and Links. Physical Review Letters, 2006, 97, 094102.	7.8	199
33	Emergence of Coherence in Complex Networks of Heterogeneous Dynamical Systems. Physical Review Letters, 2006, 96, 254103.	7.8	40
34	Scale Dependence of Branching in Arterial and Bronchial Trees. Physical Review Letters, 2006, 96, 128101.	7.8	10
35	Synchronization in large directed networks of coupled phase oscillators. Chaos, 2006, 16, 015107.	2.5	85
36	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

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37	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
38	Onset of synchronization in large networks of coupled oscillators. Physical Review E, 2005, 71, 036151.	2.1	248
39	Formation of multifractal population patterns from reproductive growth and local resettlement. Physical Review E, 2005, 72, 046213.	2.1	10
40	A Preprocessor for Shotgun Assembly of Large Genomes. Journal of Computational Biology, 2004, 11, 734-752.	1.6	46
41	Localized error bursts in estimating the state of spatiotemporal chaos. Chaos, 2004, 14, 1042-1049.	2.5	5
42	Spatial patterns of desynchronization bursts in networks. Physical Review E, 2004, 69, 066215.	2.1	41
43	A local ensemble Kalman filter for atmospheric data assimilation. Tellus, Series A: Dynamic Meteorology and Oceanography, 2004, 56, 415-428.	1.7	366
44	Power-law decay and self-similar distributions in stadium-type billiards. Physica D: Nonlinear Phenomena, 2004, 193, 96-127.	2.8	27
45	Bifurcation scenarios for bubbling transition. Physical Review E, 2003, 67, 016204.	2.1	13
46	Anomalous diffusion in infinite horizon billiards. Physical Review E, 2003, 67, 021110.	2.1	34
47	Extracting Envelopes of Rossby Wave Packets. Monthly Weather Review, 2003, 131, 1011-1017.	1.4	68
48	Long Time Algebraic Relaxation in Chaotic Billiards. Physical Review Letters, 2002, 89, 284101.	7.8	6
49	Local Low Dimensionality of Atmospheric Dynamics. Physical Review Letters, 2001, 86, 5878-5881.	7.8	155
50	Fractal Properties of Robust Strange Nonchaotic Attractors. Physical Review Letters, 2001, 87, 254101.	7.8	55
51	Optimal periodic orbits of continuous time chaotic systems. Physical Review E, 2000, 62, 1950-1959.	2.1	12
52	Regularity of embeddings of infinite-dimensional fractal sets into finite-dimensional spaces. Nonlinearity, 1999, 12, 1263-1275.	1.4	107
53	Box-counting dimension without boxes: ComputingD0from average expansion rates. Physical Review E, 1999, 60, 378-385.	2.1	11
54	Optimal orbits of hyperbolic systems. Nonlinearity, 1999, 12, 1207-1224.	1.4	46

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55	Calculating topological entropy for transient chaos with an application to communicating with chaos. Physical Review E, 1998, 57, 6577-6588.	2.1	16
56	Hunt and Ott Reply:. Physical Review Letters, 1998, 80, 1791-1791.	7.8	7
57	How projections affect the dimension spectrum of fractal measures. Nonlinearity, 1997, 10, 1031-1046.	1.4	84
58	Differentiable generalized synchronization of chaos. Physical Review E, 1997, 55, 4029-4034.	2.1	172
59	Scaling of the durations of chaotic transients in windows of attracting periodicity. Physical Review E, 1997, 56, 6508-6515.	2.1	6
60	Structure in the parameter dependence of order and chaos for the quadratic map. Journal of Physics A, 1997, 30, 7067-7076.	1.6	13
61	Bubbling transition. Physical Review E, 1996, 54, 1346-1360.	2.1	119
62	Optimal Periodic Orbits of Chaotic Systems. Physical Review Letters, 1996, 76, 2254-2257.	7.8	108
63	Intermingled basins for the triangle map. Ergodic Theory and Dynamical Systems, 1996, 16, 651-662.	0.6	23
64	Fractal dimensions of chaotic saddles of dynamical systems. Physical Review E, 1996, 54, 4819-4823.	2.1	38
65	Transitions to Bubbling of Chaotic Systems. Physical Review Letters, 1996, 77, 5361-5364.	7.8	122
66	Optimal periodic orbits of chaotic systems occur at low period. Physical Review E, 1996, 54, 328-337.	2.1	58
67	Maximum local Lyapunov dimension bounds the box dimension of chaotic attractors. Nonlinearity, 1996, 9, 845-852.	1.4	46
68	The prevalence of continuous nowhere differentiable functions. Proceedings of the American Mathematical Society, 1994, 122, 711-717.	0.8	50
69	Prevalence. An addendum to: â€œPrevalence: a translation-invariant â€˜almost everyâ€™ on infinite-dimensional spacesâ€•[Bull. Amer. Math. Soc. (N.S.) 27 (1992), no. 2, 217â€“238; MR1161274 (93k:28018)]. Bulletin of the American Mathematical Society, 1993, 28, 306-307.	1.5	41
70	Prevalence: a translation-invariant â€œalmost everyâ€•on infinite-dimensional spaces. Bulletin of the American Mathematical Society, 1992, 27, 217-238.	1.5	285
71	Smooth dynamics on Weierstrass nowhere differentiable curves. Transactions of the American Mathematical Society, 1991, 325, 141-154.	0.9	3