Kevin H Knuth

List of Publications by Year
in descending order

89 papers	2,999 citations	393982 19 h-index	189595 50 g-index
95 all docs	95 docs citations	95 times ranked	3285 citing authors

#	Article	IF	Citations
1	An Oscillatory Hierarchy Controlling Neuronal Excitability and Stimulus Processing in the Auditory Cortex. Journal of Neurophysiology, 2005, 94, 1904-1911.	0.9	1,086
2	Neural Dynamics and the Fundamental Mechanisms of Event-related Brain Potentials. Cerebral Cortex, 2004, 14, 476-483.	1.6	234
3	Trial-to-trial variability of cortical evoked responses: implications for the analysis of functional connectivity. Clinical Neurophysiology, 2002, 113, 206-226.	0.7	199
4	Hippocampal structural asymmetry in unsuccessful psychopaths. Biological Psychiatry, 2004, 55, 185-191.	0.7	185
5	Neuropsychological Correlates of Hippocampal Volumes in Patients Experiencing a First Episode of Schizophrenia. American Journal of Psychiatry, 2002, 159, 217-226.	4.0	106
6	Estimation of single-trial multicomponent ERPs: Differentially variable component analysis (dVCA). Biological Cybernetics, 2003, 89, 426-438.	0.6	70
7	Gesture-based control and EMG decomposition. IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews, 2006, 36, 503-514.	3.3	67
8	Common Data Model for Neuroscience Data and Data Model Exchange. Journal of the American Medical Informatics Association: JAMIA, 2001, 8, 17-33.	2.2	65
9	Bayesian evidence and model selection. , 2015, 47, 50-67.		63
10	<title>Bayesian source separation and localization</title>. , 1998, , .		60
11	EEG-Based Estimation of Mental Fatigue: Convergent Evidence for a Three-State Model. Lecture Notes in Computer Science, 2007, , 201-211.	1.0	55
12	Origin of complex quantum amplitudes and Feynman's rules. Physical Review A, 2010, 81, .	1.0	54
13	Lattice duality: The origin of probability and entropy. Neurocomputing, 2005, 67, 245-274.	3.5	50
14	EXONEST: BAYESIAN MODEL SELECTION APPLIED TO THE DETECTION AND CHARACTERIZATION OF EXOPLANETS VIA PHOTOMETRIC VARIATIONS. Astrophysical Journal, 2014, 795, 112.	1.6	48
15	A Recipe for the Estimation of Information Flow in a Dynamical System. Entropy, 2015, 17, 438-470.	1.1	48
16	Differentially Variable Component Analysis: Identifying Multiple Evoked Components Using Trial-to-Trial Variability. Journal of Neurophysiology, 2006, 95, 3257-3276.	0.9	44
17	Foundations of Inference. Axioms, 2012, 1, 38-73.	0.9	44
18	CHARACTERIZATION OF KEPLER-91B AND THE INVESTIGATION OF A POTENTIAL TROJAN COMPANION USING EXONEST. Astrophysical Journal, 2015, 814, 147.	1.6	39

#	Article	IF	Citations
19	Initial Results from the USNO Dispersed Fourier Transform Spectrograph. Astrophysical Journal, 2007, 661, 616-633.	1.6	36
20	Stochastic modeling of neurobiological time series: Power, coherence, Granger causality, and separation of evoked responses from ongoing activity. Chaos, 2006, 16, 026113.	1.0	33
21	Combining Photometry from <i>Kepler</i> and <i>TESS</i> to Improve Short-period Exoplanet Characterization. Publications of the Astronomical Society of the Pacific, 2016, 128, 074503.	1.0	33
22	Optimal data-based binning for histograms and histogram-based probability density models. , 2019, 95, 102581.		29
23	Analyzing Exoplanet Phase Curve Information Content: Toward Optimized Observing Strategies. Astronomical Journal, 2017, 154, 154.	1.9	27
24	Quantum Theory and Probability Theory: Their Relationship and Origin in Symmetry. Symmetry, 2011, 3, 171-206.	1.1	24
25	A potential foundation for emergent space-time. Journal of Mathematical Physics, 2014, 55, 112501.	0.5	22
26	An Atlas of [N ii] and [O iii] Images and Spectra of Planetary Nebulae. Astrophysical Journal, Supplement Series, 2007, 169, 289-327.	3.0	20
27	Dynamic publication model for neurophysiology databases. Philosophical Transactions of the Royal Society B: Biological Sciences, 2001, 356, 1229-1247.	1.8	17
28	Trial-by-trial estimation of amplitude and latency variability in neuronal spike trains. Journal of Neuroscience Methods, 2007, 160, 163-170.	1.3	16
29	Intelligent machines in the twenty-first century: foundations of inference and inquiry. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2003, 361, 2859-2873.	1.6	14
30	Information-based physics: an observer-centric foundation. Contemporary Physics, 2014, 55, 12-32.	0.8	14
31	Information Physics: The New Frontier. AIP Conference Proceedings, 2011, , .	0.3	12
32	Deriving Laws from Ordering Relations. AIP Conference Proceedings, 2004, , .	0.3	11
33	Measuring on Lattices. AIP Conference Proceedings, 2009, , .	0.3	11
34	EXONEST: The Bayesian Exoplanetary Explorer. Entropy, 2017, 19, 559.	1.1	11
35	Valuations on Lattices and their Application to Information Theory. , 2006, , .		10
36	Estimating Flight Characteristics of Anomalous Unidentified Aerial Vehicles. Entropy, 2019, 21, 939.	1.1	10

#	Article	IF	Citations
37	Debates: Does Information Theory Provide a New Paradigm for Earth Science? Emerging Concepts and Pathways of Information Physics. Water Resources Research, 2020, 56, e2019WR025270.	1.7	10
38	Motion correction in MRI using an apparatus for dynamic angular position tracking (ADAPT). Magnetic Resonance in Medicine, 2003, 49, 138-143.	1.9	8
39	Designing Intelligent Instruments. AIP Conference Proceedings, 2007, , .	0.3	6
40	The Origin of Probability and Entropy. , 2008, , .		6
41	The Deeper Roles of Mathematics in Physical Laws. The Frontiers Collection, 2016, , 77-90.	0.1	6
42	Source separation as an exercise in logical induction. AIP Conference Proceedings, 2001, , .	0.3	5
43	Lattice Theory, Measures and Probability. AIP Conference Proceedings, 2007, , .	0.3	5
44	The Origin of Complex Quantum Amplitudes. , 2009, , .		5
45	Bayesian approaches. , 2010, , 467-513.		5
46	Modeling a Sensor to Improve Its Efficacy. Journal of Sensors, 2013, 2013, 1-11.	0.6	5
47	A Bayesian analysis of HAT-P-7b using the EXONEST algorithm. AIP Conference Proceedings, 2015, , .	0.3	5
48	Bayesian Model Testing of Ellipsoidal Variations on Stars due to Hot Jupiters. Astrophysical Journal, 2018, 853, 49.	1.6	5
49	The problem of motion: The statistical mechanics of Zitterbewegung. , 2015, , .		4
50	The Symmetrical Foundation of Measure, Probability, and Quantum Theories. Annalen Der Physik, 2019, 531, 1800057.	0.9	4
51	An Introduction to Influence Theory: Kinematics and Dynamics. Annalen Der Physik, 2019, 531, 1800091.	0.9	4
52	Information-Based Physics and the Influence Network. The Frontiers Collection, 2015, , 65-78.	0.1	4
53	Autonomous sensor placement. , 2008, , .		3
54	Autonomous science platforms and question-asking machines. , 2010, , .		3

#	Article	IF	Citations
55	Bayesian Visual Odometry. , 2011, , .		3
56	Maximum joint entropy and information-based collaboration of automated learning machines. AIP Conference Proceedings, 2012, , .	0.3	3
57	Valuations on Lattices: Fuzzification and its Implications. , 2007, , 309-324.		3
58	Hierarchies of Models: Toward Understanding Planetary Nebulae. AIP Conference Proceedings, 2003, , .	0.3	2
59	Applying Differentially Variable Component Analysis (dVCA) to Event-related Potentials. AIP Conference Proceedings, 2004, , .	0.3	2
60	Measuring Questions: Relevance and its Relation to Entropy. AIP Conference Proceedings, 2004, , .	0.3	2
61	Bayesian Source Separation Applied to Identifying Complex Organic Molecules in Space. , 2007, , .		2
62	The Spatial Sensitivity Function of a Light Sensor. , 2009, , .		2
63	Entropy-Based Search Algorithm for Experimental Design. , 2011, , .		2
64	An information physics derivation of equations of geodesic form from the influence network. AIP Conference Proceedings, 2016, , .	0.3	2
65	Enhanced optical alignment of a digital micro mirror device through Bayesian adaptive exploration. AIP Advances, 2017, 7, 125207.	0.6	2
66	Lattices and Their Consistent Quantification. Annalen Der Physik, 2019, 531, 1700370.	0.9	2
67	Modeling transit and reflected light curves for non-spherical exoplanets. Astronomy and Computing, 2020, 32, 100406.	0.8	2
68	Analysis of Intrusion Detection and Attack Proliferation in Computer Networks. AIP Conference Proceedings, 2007, , .	0.3	1
69	Characterization of Interstellar Organic Molecules. , 2008, , .		1
70	Detection and characterization of non-transiting extra-solar planets in Kepler Data using reflected light variations. , 2012, , .		1
71	Entropy Best Paper Award 2013. Entropy, 2013, 15, 698-699.	1.1	1
72	Why square roots of probabilities?. AIP Conference Proceedings, 2016, , .	0.3	1

#	Article	IF	Citations
73	Estimating Flight Characteristics of Anomalous Unidentified Aerial Vehicles in the 2004 Nimitz Encounter. Proceedings (mdpi), 2019, 33, .	0.2	1
74	Inductive logic: from data analysis to experimental design. AIP Conference Proceedings, 2002, , .	0.3	0
75	Coping with trial-to-trial variability of event-related neuronal spike trains: A Bayesian perspective. AIP Conference Proceedings, 2005, , .	0.3	0
76	Estimating Background Spectra. AIP Conference Proceedings, 2007, , .	0.3	0
77	Reconstructing MR images from under- or unevenly-sampled k-space. Proceedings of SPIE, 2010, , .	0.8	0
78	The Order-Theoretic Origin of Special Relativity. , 2011, , .		0
79	Preface: Bayesian Inference and Maximum Entropy Methods in Science and Engineering. , 2012, , .		0
80	Maximum entropy production in daisyworld. , 2012, , .		0
81	Detecting non-transiting exoplanets. , 2013, , .		0
82	Inferences about interactions: Fermions and the Dirac equation. , 2013, , .		0
83	Entropy Best Paper Award 2014. Entropy, 2014, 16, 726-728.	1.1	0
84	Information-based physics, influence, and forces. , 2015, , .		0
85	Entropy Best Paper Award 2015. Entropy, 2015, 17, 882-884.	1.1	0
86	Preface: The Thirty-Fifth International Workshop on Bayesian Inference and Maximum Entropy Methods in Science and Engineering (Maxent 2015). AIP Conference Proceedings, 2016, , .	0.3	0
87	The detection and characterization of exoplanets with EXONEST. AIP Conference Proceedings, 2016, , .	0.3	0
88	A classification of event sequences in the influence network. AIP Conference Proceedings, 2017, , .	0.3	0
89	The ABC of Physics. , 2021, 3, .		0