

# Kevin H Knuth

## List of Publications by Year in descending order

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Version: 2024-02-01

89  
papers

2,999  
citations

394421

19  
h-index

189892

50  
g-index

95  
all docs

95  
docs citations

95  
times ranked

3285  
citing authors

#	ARTICLE	IF	CITATIONS
1	The ABC of Physics. , 2021, 3, .		0
2	Modeling transit and reflected light curves for non-spherical exoplanets. Astronomy and Computing, 2020, 32, 100406.	1.7	2
3	Debates: Does Information Theory Provide a New Paradigm for Earth Science? Emerging Concepts and Pathways of Information Physics. Water Resources Research, 2020, 56, e2019WR025270.	4.2	10
4	Lattices and Their Consistent Quantification. Annalen Der Physik, 2019, 531, 1700370.	2.4	2
5	The Symmetrical Foundation of Measure, Probability, and Quantum Theories. Annalen Der Physik, 2019, 531, 1800057.	2.4	4
6	Optimal data-based binning for histograms and histogram-based probability density models. , 2019, 95, 102581.		29
7	Estimating Flight Characteristics of Anomalous Unidentified Aerial Vehicles. Entropy, 2019, 21, 939.	2.2	10
8	Estimating Flight Characteristics of Anomalous Unidentified Aerial Vehicles in the 2004 Nimitz Encounter. Proceedings (mdpi), 2019, 33, .	0.2	1
9	An Introduction to Influence Theory: Kinematics and Dynamics. Annalen Der Physik, 2019, 531, 1800091.	2.4	4
10	Bayesian Model Testing of Ellipsoidal Variations on Stars due to Hot Jupiters. Astrophysical Journal, 2018, 853, 49.	4.5	5
11	Analyzing Exoplanet Phase Curve Information Content: Toward Optimized Observing Strategies. Astronomical Journal, 2017, 154, 154.	4.7	27
12	A classification of event sequences in the influence network. AIP Conference Proceedings, 2017, , .	0.4	0
13	Enhanced optical alignment of a digital micro mirror device through Bayesian adaptive exploration. AIP Advances, 2017, 7, 125207.	1.3	2
14	EXONEST: The Bayesian Exoplanetary Explorer. Entropy, 2017, 19, 559.	2.2	11
15	Preface: The Thirty-Fifth International Workshop on Bayesian Inference and Maximum Entropy Methods in Science and Engineering (Maxent 2015). AIP Conference Proceedings, 2016, , .	0.4	0
16	Why square roots of probabilities?. AIP Conference Proceedings, 2016, , .	0.4	1
17	An information physics derivation of equations of geodesic form from the influence network. AIP Conference Proceedings, 2016, , .	0.4	2
18	The detection and characterization of exoplanets with EXONEST. AIP Conference Proceedings, 2016, , .	0.4	0

#	ARTICLE	IF	CITATIONS
19	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.	3.1	33
20	The Deeper Roles of Mathematics in Physical Laws. The Frontiers Collection, 2016, , 77-90.	0.2	6
21	The problem of motion: The statistical mechanics of Zitterbewegung. , 2015, , .		4
22	A Bayesian analysis of HAT-P-7b using the EXONEST algorithm. AIP Conference Proceedings, 2015, , .	0.4	5
23	Information-based physics, influence, and forces. , 2015, , .		0
24	CHARACTERIZATION OF KEPLER-91B AND THE INVESTIGATION OF A POTENTIAL TROJAN COMPANION USING EXONEST. Astrophysical Journal, 2015, 814, 147.	4.5	39
25	Entropy Best Paper Award 2015. Entropy, 2015, 17, 882-884.	2.2	0
26	A Recipe for the Estimation of Information Flow in a Dynamical System. Entropy, 2015, 17, 438-470.	2.2	48
27	Bayesian evidence and model selection. , 2015, 47, 50-67.		63
28	Information-Based Physics and the Influence Network. The Frontiers Collection, 2015, , 65-78.	0.2	4
29	Entropy Best Paper Award 2014. Entropy, 2014, 16, 726-728.	2.2	0
30	A potential foundation for emergent space-time. Journal of Mathematical Physics, 2014, 55, 112501.	1.1	22
31	EXONEST: BAYESIAN MODEL SELECTION APPLIED TO THE DETECTION AND CHARACTERIZATION OF EXOPLANETS VIA PHOTOMETRIC VARIATIONS. Astrophysical Journal, 2014, 795, 112.	4.5	48
32	Information-based physics: an observer-centric foundation. Contemporary Physics, 2014, 55, 12-32.	1.8	14
33	Detecting non-transiting exoplanets. , 2013, , .		0
34	Inferences about interactions: Fermions and the Dirac equation. , 2013, , .		0
35	Entropy Best Paper Award 2013. Entropy, 2013, 15, 698-699.	2.2	1
36	Modeling a Sensor to Improve Its Efficacy. Journal of Sensors, 2013, 2013, 1-11.	1.1	5

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37	Foundations of Inference. Axioms, 2012, 1, 38-73.	1.9	44
38	Preface: Bayesian Inference and Maximum Entropy Methods in Science and Engineering. , 2012, , .		0
39	Maximum joint entropy and information-based collaboration of automated learning machines. AIP Conference Proceedings, 2012, , .	0.4	3
40	Maximum entropy production in daisyworld. , 2012, , .		0
41	Detection and characterization of non-transiting extra-solar planets in Kepler Data using reflected light variations. , 2012, , .		1
42	Quantum Theory and Probability Theory: Their Relationship and Origin in Symmetry. Symmetry, 2011, 3, 171-206.	2.2	24
43	The Order-Theoretic Origin of Special Relativity. , 2011, , .		0
44	Entropy-Based Search Algorithm for Experimental Design. , 2011, , .		2
45	Information Physics: The New Frontier. AIP Conference Proceedings, 2011, , .	0.4	12
46	Bayesian Visual Odometry. , 2011, , .		3
47	Bayesian approaches. , 2010, , 467-513.		5
48	Reconstructing MR images from under- or unevenly-sampled k-space. Proceedings of SPIE, 2010, , .	0.8	0
49	Origin of complex quantum amplitudes and Feynman's rules. Physical Review A, 2010, 81, .	2.5	54
50	Autonomous science platforms and question-asking machines. , 2010, , .		3
51	The Spatial Sensitivity Function of a Light Sensor. , 2009, , .		2
52	The Origin of Complex Quantum Amplitudes. , 2009, , .		5
53	Measuring on Lattices. AIP Conference Proceedings, 2009, , .	0.4	11
54	Autonomous sensor placement. , 2008, , .		3

#	ARTICLE	IF	CITATIONS
55	Characterization of Interstellar Organic Molecules. , 2008, , .		1
56	The Origin of Probability and Entropy. , 2008, , .		6
57	Designing Intelligent Instruments. AIP Conference Proceedings, 2007, , .	0.4	6
58	Lattice Theory, Measures and Probability. AIP Conference Proceedings, 2007, , .	0.4	5
59	Estimating Background Spectra. AIP Conference Proceedings, 2007, , .	0.4	0
60	Analysis of Intrusion Detection and Attack Proliferation in Computer Networks. AIP Conference Proceedings, 2007, , .	0.4	1
61	An Atlas of [N ii ] and [O iii ] Images and Spectra of Planetary Nebulae. Astrophysical Journal, Supplement Series, 2007, 169, 289-327.	7.7	20
62	Initial Results from the USNO Dispersed Fourier Transform Spectrograph. Astrophysical Journal, 2007, 661, 616-633.	4.5	36
63	EEG-Based Estimation of Mental Fatigue: Convergent Evidence for a Three-State Model. Lecture Notes in Computer Science, 2007, , 201-211.	1.3	55
64	Bayesian Source Separation Applied to Identifying Complex Organic Molecules in Space. , 2007, , .		2
65	Trial-by-trial estimation of amplitude and latency variability in neuronal spike trains. Journal of Neuroscience Methods, 2007, 160, 163-170.	2.5	16
66	Valuations on Lattices: Fuzzification and its Implications. , 2007, , 309-324.		3
67	Gesture-based control and EMG decomposition. IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews, 2006, 36, 503-514.	2.9	67
68	Valuations on Lattices and their Application to Information Theory. , 2006, , .		10
69	Stochastic modeling of neurobiological time series: Power, coherence, Granger causality, and separation of evoked responses from ongoing activity. Chaos, 2006, 16, 026113.	2.5	33
70	Differentially Variable Component Analysis: Identifying Multiple Evoked Components Using Trial-to-Trial Variability. Journal of Neurophysiology, 2006, 95, 3257-3276.	1.8	44
71	Lattice duality: The origin of probability and entropy. Neurocomputing, 2005, 67, 245-274.	5.9	50
72	Coping with trial-to-trial variability of event-related neuronal spike trains: A Bayesian perspective. AIP Conference Proceedings, 2005, , .	0.4	0

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73	An Oscillatory Hierarchy Controlling Neuronal Excitability and Stimulus Processing in the Auditory Cortex. <i>Journal of Neurophysiology</i> , 2005, 94, 1904-1911.	1.8	1,086
74	Applying Differentially Variable Component Analysis (dVCA) to Event-related Potentials. <i>AIP Conference Proceedings</i> , 2004, , .	0.4	2
75	Deriving Laws from Ordering Relations. <i>AIP Conference Proceedings</i> , 2004, , .	0.4	11
76	Neural Dynamics and the Fundamental Mechanisms of Event-related Brain Potentials. <i>Cerebral Cortex</i> , 2004, 14, 476-483.	2.9	234
77	Measuring Questions: Relevance and its Relation to Entropy. <i>AIP Conference Proceedings</i> , 2004, , .	0.4	2
78	Hippocampal structural asymmetry in unsuccessful psychopaths. <i>Biological Psychiatry</i> , 2004, 55, 185-191.	1.3	185
79	Estimation of single-trial multicomponent ERPs: Differentially variable component analysis (dVCA). <i>Biological Cybernetics</i> , 2003, 89, 426-438.	1.3	70
80	Motion correction in MRI using an apparatus for dynamic angular position tracking (ADAPT). <i>Magnetic Resonance in Medicine</i> , 2003, 49, 138-143.	3.0	8
81	Intelligent machines in the twenty-first century: foundations of inference and inquiry. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2003, 361, 2859-2873.	3.4	14
82	Hierarchies of Models: Toward Understanding Planetary Nebulae. <i>AIP Conference Proceedings</i> , 2003, , .	0.4	2
83	Inductive logic: from data analysis to experimental design. <i>AIP Conference Proceedings</i> , 2002, , .	0.4	0
84	Neuropsychological Correlates of Hippocampal Volumes in Patients Experiencing a First Episode of Schizophrenia. <i>American Journal of Psychiatry</i> , 2002, 159, 217-226.	7.2	106
85	Trial-to-trial variability of cortical evoked responses: implications for the analysis of functional connectivity. <i>Clinical Neurophysiology</i> , 2002, 113, 206-226.	1.5	199
86	Source separation as an exercise in logical induction. <i>AIP Conference Proceedings</i> , 2001, , .	0.4	5
87	Common Data Model for Neuroscience Data and Data Model Exchange. <i>Journal of the American Medical Informatics Association: JAMIA</i> , 2001, 8, 17-33.	4.4	65
88	Dynamic publication model for neurophysiology databases. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2001, 356, 1229-1247.	4.0	17
89	<title>Bayesian source separation and localization</title> . , 1998, , .		60